LA CENTRAL

Draft Environmental Impact Statement (DEIS)

CEQR No. 15HPD041X

Lead Agency:

New York City Department of Housing Preservation and Development
Aaron Werner, AICP

April 8, 2016

La Central

Draft Environmental Impact Statement (DEIS)

Project Location:	Community District 1 Borough of the Bronx
CEQR No:	15HPD041X
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Lead Agency:	New York City Department of Housing Preservation and Development
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The DEIS is available for review on the website of the New York City Department of Housing Preservation and Development:
https://www1.nyc.gov/site/hpd/developers/environmental-review.page.

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Executive Summary

A. INTRODUCTION

The New York City Department of Housing Preservation and Development (HPD), on behalf of the project sponsor La Central Manager, LLC, is seeking approval for several discretionary actions (collectively, the "Proposed Actions") to facilitate the development of an underutilized 4.3-acre site in the Melrose neighborhood of Bronx Community District 1. The Proposed Actions include:

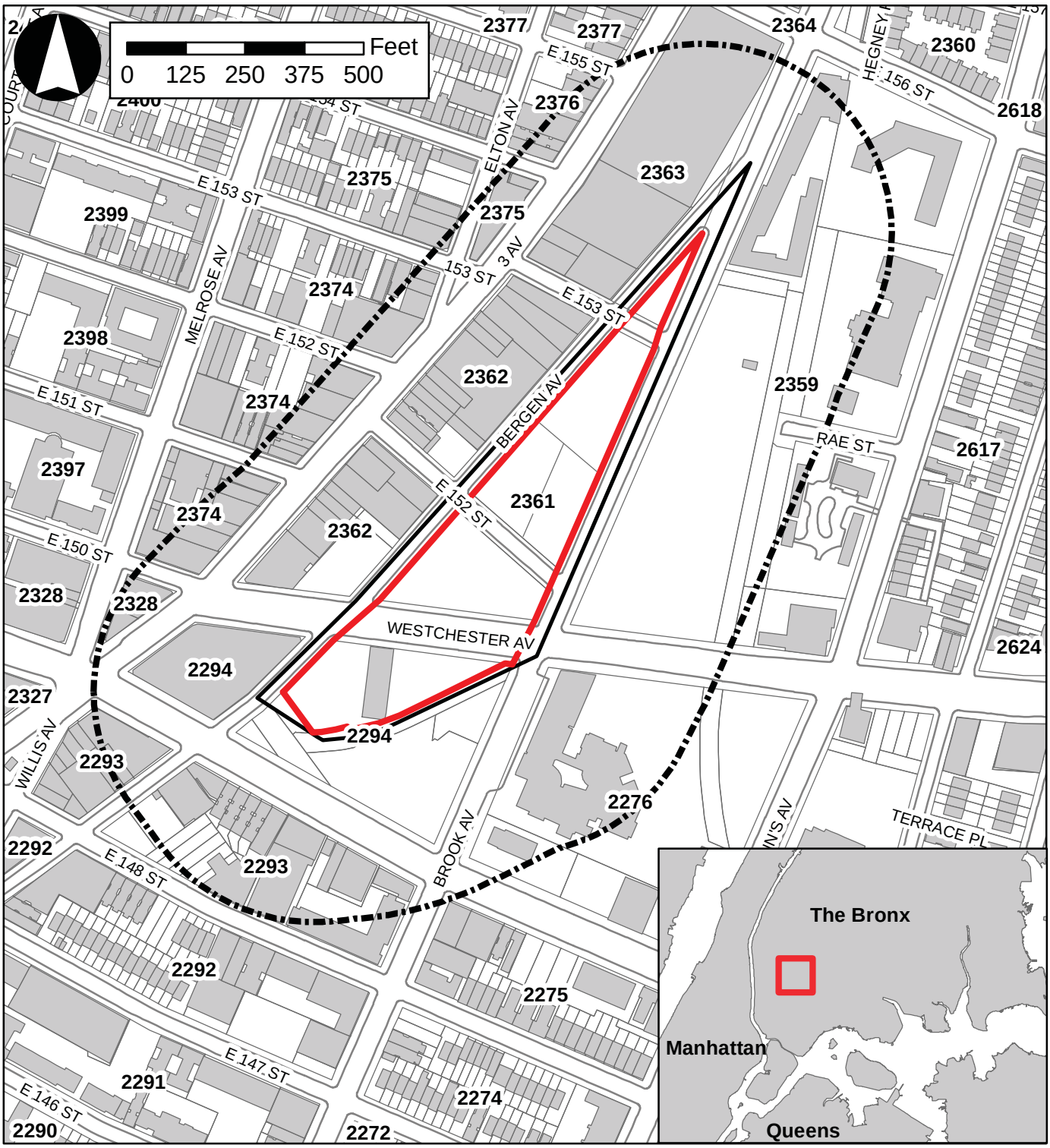
- Disposition of City-owned property as well as designation and approval of the project as an Urban Development Action Area Project (UDAAP)
- Zoning map amendment to change M1-1 and C4-4 districts to C6-2
- A zoning text amendment to ZR 23-90 (Appendix F) to map a Mandatory Inclusionary Housing (MIH) area throughout the Project Area
- Special permits to allow bulk and use modifications for a Large-Scale General Development (LSGD)
- Approval for construction financing

The Proposed Actions would facilitate the development of new affordable and supportive housing, local retail and other commercial uses, community facility uses, and public open space. The triangular-shaped Project Area (Block 2363, Lot 1; Block 2361, Lots 1, 25, 26, 50; Block 2294, Lot 32) is generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and the elevated IRT #2 and #5 subway tracks to the south (see Figures ES-1 and ES-2). The Proposed Actions would complement the ongoing residential and commercial redevelopment of this area of the South Bronx and enliven a number of large underutilized City-owned sites in close proximity to public transportation.

The Proposed Actions would facilitate an approximately 1.1 million gross square foot (gsf), five building mixed-use development (the "Proposed Project") consisting of approximately 832 affordable dwelling units (DUs) (909,300 gsf), approximately 160 supportive housing units (77,500 gsf), approximately 46,800 gsf of local retail and commercial uses, an approximately 50,500 gsf YMCA, and approximately 32,700 gsf of other community facility uses. The Proposed Project would also include up to approximately 209 accessory below-grade parking spaces, 426 enclosed bicycle spaces, a total of approximately 1.26 acres (55,151 sf) of public open space, and a total of approximately 1.19 acres (51,906 sf) of private open space for building tenants. Construction of the Proposed Project is expected to begin in the second half of 2016 with all components complete and fully operational by 2020.

This chapter provides a detailed description of the Proposed Actions, including project background, project purpose and need, site description, project description, and the governmental approvals required. The supplemental analyses following this chapter examine the potential for the Proposed Actions to result in significant adverse environmental impacts in any technical area of the 2014 *City Environmental Quality Review (CEQR) Technical Manual*.

Figure ES-1
Project Location



Legend

Project Area
Proposed Rezoning Area
400-Foot Radius
2361 Tax Blocks

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Figure ES-2
Aerial View

B. BACKGROUND

The Project Area was formerly within the Bronxchester URA, which was established by the Bronxchester Urban Renewal Plan ("BURP") in 1989 (and revised in 1995) in order to redevelop the vacant, substandard, and deteriorated buildings and vacant lots in the Bronxchester URA. Specifically, the objectives of the BURP, among others, were to provide new low and/or moderate income housing exhibiting good design in terms of privacy, light, air and open space; provide convenient community facilities, recreational uses and retail shopping; and redevelop the area in a comprehensive manner, compatible with or beneficial to the surrounding area. The URA was generally bounded by East 156th Street to the north, St. Ann's Avenue to the east, East 149th Street to the south and Third and Bergen Avenues to the west. The Bronxchester URA was created through a "spin-off" of the South Bronx Neighborhood Development (Urban Renewal) Project and was adopted August 17, 1989.

The land use provisions and building requirements of the URP for the northern portion of the Project Area (URA Sites 4, 5 and 6) expired on December 31, 2008. The URP restrictions for Site 7A, which comprises the portion of the Project Area south of Westchester Avenue, expired on March 31, 2015.

A portion of the tax lots comprising the Project Area were mapped as part of East 153rd Street, but never improved as a street. In 1974, a portion of East 153rd Street between Bergen Avenue and Brook Avenue was widened from 50 feet to 80 feet wide and, concomitantly, portions of Block 2361, Lot 26 and Block 2363, Lot 1 were mapped as part of Grove Street, pursuant to CP Report No. 22838, dated November 27, 1974, in conjunction with the South Bronx Model Cities Area. However, East 153rd Street was never widened to the mapped width of 80 feet, and remains built at 50 feet wide. The proposed La Central project will maintain the current width of East 153rd Street at 50 feet.

A demapped portion of East 152nd Street, which is still open to traffic, runs east-west through the central portion of the development site. It is encumbered by a sewer easement mapped by the City of New York in 1974 in conjunction with the Bronxchester URP. The sewer easement is noted on Section 6 of the City Map dated May 1, 1974, which was approved by the New York City Planning Commission pursuant to CP Report No. 22713 on July 10, 1974, and by the New York City Board of Estimate on February 2, 1975 under Plan No. 11919, Calendar No. 10.

C. EXISTING CONDITIONS

Surrounding Area

"The Hub" area of the South Bronx, defined as the point where Third Avenue, Melrose Avenue, Willis Avenue, and East 149th Street intersect, is recognized as the borough's "downtown" regional shopping and office district. The area is comprised of many 2- to 4-story commercial buildings that offer a diverse range of retail, dining, and service options. Residential areas are located immediately adjacent to the main commercial thoroughfares, including to the west of Third Avenue and to the south of East 149th Street.

The scale and density of the neighborhood tends to reflect underlying zoning districts. Third Avenue is zoned C4-4 for medium-density commercial uses. Other zoning districts within the surrounding area include C6-2 along Brook Avenue to the north, as well as a number of residential districts (R6, R7-1, R7-2, R8). C1 and C2 commercial overlays, which allow local retail and local service establishments, are mapped along major thoroughfares including portions of Westchester Avenue, East 149th Street, Melrose Avenue,

and Cortlandt Avenue. The area is also well-served by public transportation, including the IRT #2 and #5 subway lines and several New York City Transit (NYCT) bus routes, including the Bx41 Select Bus Service (SBS).

There are two recently constructed developments located just north of the Project Area. To the northwest, on a site bounded by Third Avenue, East 156th Street, and Brook Avenue (Block 2363, Lot 4), is the two-story Hub Retail and Office Center constructed in 2006. This building contains ground-floor retail and second-floor offices for the New York City Department of Finance Bronx Business Center, as well as an adjoining multi-level parking garage. To the northeast of the Project Area on Brook Avenue (Block 2359, Lot 1001) is Via Verde, a subsidized housing development completed in 2012. Via Verde accommodates a stepped, 20-story apartment tower with 150 low-income rental units, 70 affordable cooperative units, community facility space, and ground-floor retail. Adjacent to Via Verde, to the northeast of the Project Area on East 156th Street and St. Ann's Avenue (Block 2359, Lot 210), is the 18-story New York City Housing Authority (NYCHA) Bronxchester Houses.

There are a number of public facilities and institutions located in the surrounding area including the Mott Haven Village Preparatory High School, University Heights High School, Crotona Academy High School, the United States Hub Station Post Office, all of which are located on St. Ann's Avenue to the east of the Project Area. To the south of these institutions is the Horizon Juvenile Center on Brook Avenue, a self-contained juvenile detention facility with approximately 124 beds. Open spaces in the surrounding area include the Merrill Lynch Field of Dreams, St. Ann's Block Association Garden, and St. Mary's Park.

Project Area

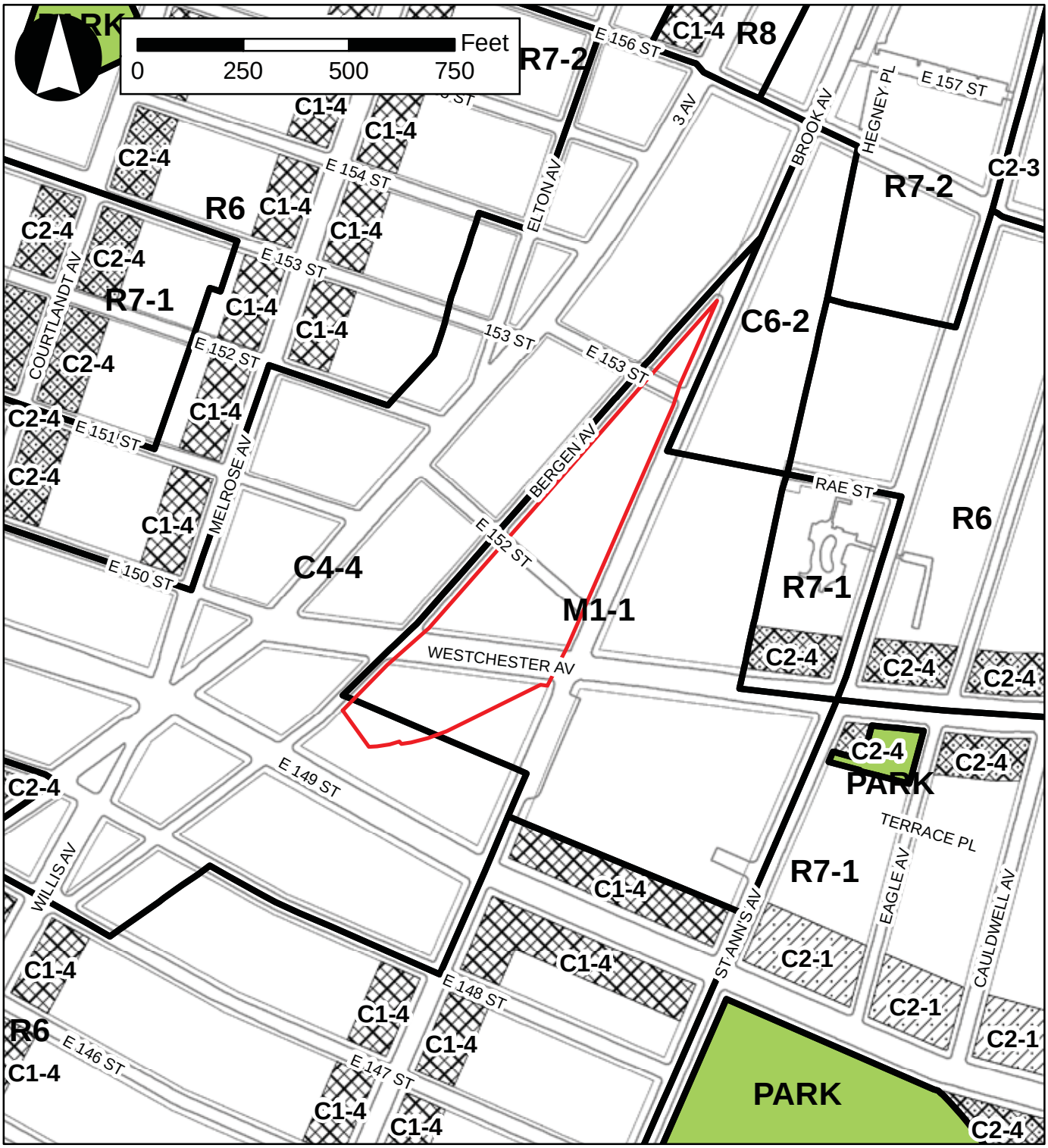
The Project Area is comprised of an assemblage of three zoning lots (Parcels A, B, C) containing six City-owned tax lots (Block 2363, Lot 1; Block 2361, Lots 1, 25, 26, 50; Block 2294, Lot 32). The Project Area is generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and elevated IRT #2 and #5 subway tracks to the south. The area is primarily zoned M1-1 except for the southern portion of Block 2294, which is zoned C4-4 on East 149th Street (see Figure ES-3). The Project Area measures approximately 186,493 sf in area and has an existing built FAR of approximately 0.06.

Parcel A (Block 2361, Lots 1, 25, 26, 50) has frontage on East 152nd Street (demapped in 1975 but currently open to traffic), East 153rd Street, Bergen Avenue, Brook Avenue, and Westchester Avenue (see Figure ES-4). The parcel has a total area of approximately 128,808 sf (including the approximately 1,003 sf portion of the East 153rd Street widening easement) and is currently vacant with the exception of the demapped East 152nd Street which extends between Bergen and Brook Avenues as a functioning one-way westbound street with parking on both the north and south sides. A New York City Department of Environmental Protection (DEP) sewer easement is mapped within the demapped portion of East 152nd Street.

Parcel B (Block 2294, Lot 32) is located across Westchester Avenue to the south of Parcel A (see Figure ES-4). The parcel has an area of approximately 50,551 sf with frontage on Bergen and Westchester Avenues. The parcel is currently occupied by two at-grade public parking lots and a vacant two-story building at 438 Westchester Avenue.

Parcel C (Block 2363, Lot 1) measures approximately 7,134 sf in area and has frontage on East 153rd Street, Bergen Avenue, and Brook Avenue (see Figure ES-4). The parcel is enclosed by chain link fencing and is currently vacant. Adjacent to Parcel C between Bergen and Brook Avenues is a mapped but unimproved 1,152 sf portion of the East 153rd Street widening easement.

Figure ES-3
Existing Zoning Map



Legend

- Project Area
- Zoning District
- Park
- C1-4 Commercial Overlay
- C2-1
- C2-4 Commercial Overlay

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Figure ES-4

East 153rd Street Widening Easement Boundaries

D. DESCRIPTION OF THE PROPOSED ACTIONS

The Proposed Actions include the disposition of City-owned property, designation and approval of the project as an Urban Development Action Area Project (UDAAP), zoning map amendment, zoning text amendment, and special permits for a Large-Scale General Development (LSGD). In addition, the project sponsor may also seek approval for construction financing. These actions are detailed below.

Disposition of City-Owned Land & Urban Development Action Area Project

The applicant, on behalf of the project sponsor, is seeking disposition authority for a number of City-owned properties (Block 2363, Lot 1; Block 2361, Lots 1, 25, 26, 50; Block 2294, Lot 32) to facilitate construction of the proposed development. In conjunction with the disposition, the applicant is also seeking designation of the project as an UDAAP pursuant to Article 16 of the General Municipal Law. Designation of an UDAAP must be authorized by City Council.

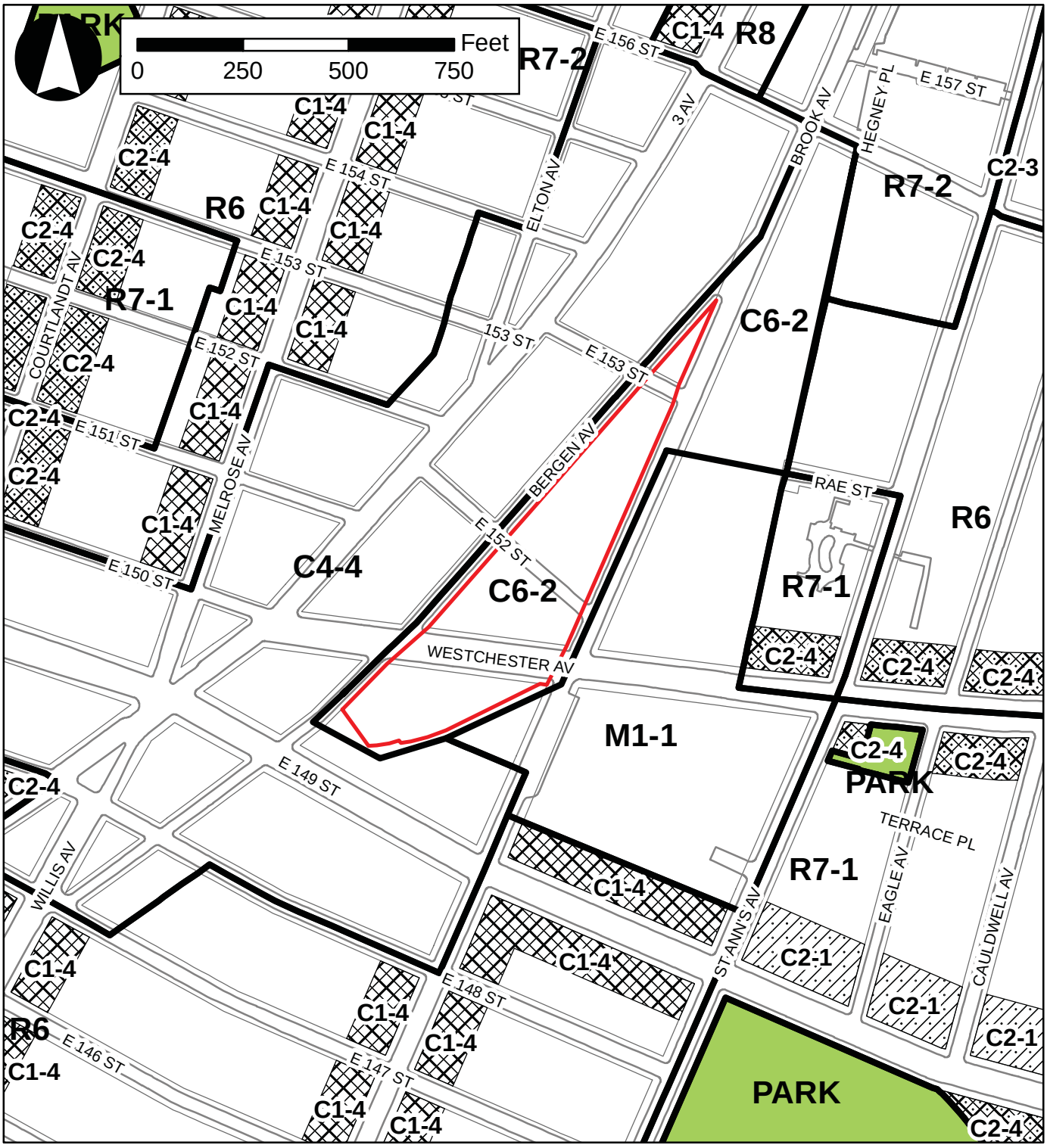
Zoning Map Amendment

The Project Area is currently located in two zoning districts: M1-1 and C4-4 (refer to Figure ES-3). The proposed zoning map amendment would extend a C6-2 zoning district southward from the east side of Brook Avenue to the Project Area. As shown in Figure ES-5, the southernmost boundary of the proposed C6-2 district would be located 90 feet north of East 149th Street. C6 districts are typically located outside of central business districts and permit a wide range of high bulk commercial uses requiring a central location that is well-served by mass transit. C6-2 districts permit commercial uses up to 6.0 FAR, residential uses up to 6.02 FAR, and community facility uses up to 6.5 FAR. There are no maximum building heights and off-street parking is typically not required.

C6-2 districts have a residential district equivalent of R8 and the proposed development would be constructed under height factor regulations. In R8 districts, height factor regulations permit an FAR ranging from 0.94 to 6.02 and an open space ratio (OSR) ranging from 5.9 to 11.9. When utilizing height factor regulations, a taller building may be obtained by providing more open space and there are no absolute height limits. However, buildings cannot penetrate the sky exposure plane, which begins 85' above curb level.

The boundary of the proposed zoning map amendment (the "Rezoning Area") is roughly triangular and comprised of Block 2361 (Lots 1, 25, 26, and 50), a portion of Block 2363 (Lot 1), and a portion of Block 2294 (Lot 32, and portions of Lots 30, 55, and 1001-1005). The Rezoning Area is generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and a line approximately 90 feet north of East 149th Street to the south. In order to ensure an efficient future zoning map, the Rezoning Area is slightly larger than the Project Area because and includes small portions of Lots 30, 55 and 1001-1005 (former Lot 60) within southernmost Block 2294. Lot 1001-1005 (former Lot 60), is privately owned and the site of the recently developed Triangle Plaza Hub (completed in August 2015), an 86,645 square foot mixed use retail and office facility. Lot 55, which is owned by the City of New York, contains the elevated IRT #2 and #5 subway tracks and is not developable. Lot 30, which is privately owned, is currently vacant but is planned to contain an approximately 3,000-square-foot commercial building. Future development of Lot 30 would be governed by a Restrictive Declaration limiting the amount of floor area to be developed. For these reasons, the additional property on Block 2294 included in the Rezoning Area are not considered "soft sites" and are not anticipated to undergo redevelopment by 2020 as a result of the Proposed Actions.

Figure ES-5
Proposed Zoning Map



Zoning Text Amendment

The applicant is seeking a zoning text amendment to Section 23-90 (Appendix F) of the *Zoning Resolution of the City of New York* (ZR) in order to establish the entirety of the Rezoning Area as a Mandatory Inclusionary Housing (MIH) area. As the Proposed Project would create opportunities for significant new housing development, the mapping of an MIH area is required as a condition of approval for the proposed LSGD special permits.

Special Permits for a Large-Scale General Development

The applicant is seeking three special permits for a LSGD in order to:

1. Permit distribution of total allowable floor area and required open space within the LSGD without regard to zoning lot lines pursuant to ZR § 74-743(a)(1). This waiver is intended to allow the distribution of floor area and open space without regard for zoning lot lines, waive height and setback requirements for each building, and will waive rear yard requirements for Building A. These modifications will facilitate the creation of a site plan that is uniquely suited to the irregularly shaped Project Area, while providing ample open space and keeping buildings close to the street to maintain pedestrian scale;

2. Permit location of buildings without regard to applicable yard, court, distance between buildings, and height and setback regulations pursuant to ZR § 74-743(a)(2). This waiver is intended to permit: exceedances of the maximum front wall height, encroachment of required setback distances, and violation of the sky exposure planes at Buildings A, B, C, and D; obstruction in the required rear yard of Building A; and violation of the sky exposure plane at Building E; and

3. Permit residential and non-residential uses to be arranged without regard for location regulations of ZR § 32-42 pursuant to ZR § 74-744(b). This waiver is intended to permit the placement of a Use Group 10 television studio on the first and second floors of Building B adjacent to residential uses.

The proposed special permits would allow greater design flexibility for the purpose of better site planning and urban design. LSGDs are typically located in medium- or high-density commercial or manufacturing districts and uses in an LSGD must adhere to the underlying zoning district. The height, bulk, and setback waivers granted under the LSGD special permits would allow for the creation of more affordable and supportive DUs within the Project Area. Upon approval, the project sponsor would enter into a Restrictive Declaration (RD), a legally binding mechanism tied to the Project Area that governs the provisions of the LSGD.

Public Financing

In addition, the project sponsor may seek construction financing for one or more parcels from city, state, and/or federal sources. At the city level, funding may be requested from HPD and the New York City Housing Development Corporation (HDC) at a future date. At the state level, funding may be requested from the New York State Housing Finance Agency (NYSHFA) in the form of tax exempt bonds, an as-of-right four percent low-income housing tax credit (LIHTC) and capital funding, from the New York State Homeless Housing Assistance Program (HHAP) in the form of a subsidy loan, and from the New York State

Homes and Community Renewal (HCR) through the Medicaid Redesign Team (MRT) Housing Capital Program. Federal sources of funding may include the United States Department of Housing and Urban Development (HUD) financing programs, allocated by HPD.

E. PURPOSE AND NEED FOR THE PROPOSED ACTIONS

The requested disposition of City-owned property, UDAAP designation, zoning map amendment, special permits for a LSGD, and public financing approval are intended to provide the flexibility needed to develop a substantial amount of much needed affordable and supportive housing (832 affordable units and 160 supportive units), local retail and other commercial uses, community facility uses, and open space compared to what would be allowed under existing conditions. The Proposed Actions would therefore support the City's goals of promoting affordable housing development by maximizing the use of vacant City-owned land and encouraging the continued economic development of this area of the South Bronx. The Proposed Project is also intended to create new jobs (approximately 387 permanent on-site workers[1], excluding construction workers).

The Proposed Actions would help address specific needs of the local community including the provision of affordable housing units, retail, community facility, and open space uses, and would enliven the underutilized Project Area. The Proposed Project would provide 832 affordable DUs, approximately 53 percent of which are expected to contain two to four bedrooms for larger families, reflecting the demographic trends and needs of the area.[2] Furthermore, the proposed mixed-use project would activate long-vacant City-owned sites located along major thoroughfares in close proximity to public transportation and Third Avenue, extending the commercial corridor and pedestrian activity of the Hub eastward.

F. DESCRIPTION OF PROPOSED DEVELOPMENT

The Proposed Actions are intended to facilitate an approximately 1.1 million gsf, five building mixed-use development (referred to as Buildings A through E) consisting of approximately 832 affordable DUs (909,300 gsf), approximately 160 supportive housing units (77,500 gsf), approximately 46,800 gsf of local retail and commercial uses, an approximately 50,500 gsf YMCA, and approximately 32,700 gsf of other community facility uses. The Proposed Project is also expected to include up to approximately 209 accessory parking spaces, 426 enclosed bicycle spaces, an approximately 41,002 sf courtyard open space (32,481 sf public, 8,521 sf private), an approximately 7,134 sf public skate park (operated and maintained by the project sponsor), an approximately 7,625 sf public rooftop farm, approximately 7,911 sf of additional public open space, and approximately 43,385 sf of private rooftop and terrace open space. In total, approximately 1.26 acres (55,151 sf) of public open space and 1.19 acres (51,906 sf) of private open space would be provided on-site. These uses are discussed in greater detail below.

The proposed 832 DUs of affordable housing are anticipated to be marketed to households earning between 40 percent and 130 percent of Area Median Income (AMI). Approximately 53 percent of theses DUs would have two to four bedrooms (865 sf to 1,465 sf units) in order to accommodate families. The 160 supportive housing units are anticipated to be studio apartments for seniors living with HIV/AIDS,

[1] Refer to Table 2 in the EAS Form for employee generation details.
[2] The average household size for Bronx Community District 1 is 3.0 persons per household (based on 2010 U.S. Census data).

single veterans, and individuals earning less than 60 percent of AMI. One of the affordable housing units would be reserved for the supportive housing superintendent. The supportive housing units would be managed by non-profit service providers Common Ground and Comunilife.

At this time, community facility uses at the project site are expected to include supportive housing units (treated as community facility with sleeping accommodations per the NYC Zoning Resolution) and approximately 83,200 gsf of other uses, that as currently anticipated will include: approximately 7,300 gsf of office space for Common Ground (Building D); an approximately 50,500 gsf YMCA (Building A); approximately 2,400 gsf associated with a public rooftop farm (Building A); an approximately 8,300 gsf day care facility (Building E); an approximately 8,600 gsf recording studio (Building C); and approximately 6,100 gsf of other community facility uses (Buildings D and E). With the exception of an anticipated approximately 12,700 gsf television studio, commercial space throughout the Project Area is anticipated to include predominantly ground-floor local retail.

Open space at the project site is expected to include an approximately 41,002 sf courtyard (32,481 sf public, 8,521 sf private) on Parcel A with grass, trees, plantings, cobblestone pathways, sitting areas, and a playground, as well as an approximately 7,134 sf public skate park on Parcel C, an approximately 7,625 sf public rooftop farm on Parcel B, 7,911 sf of other public open spaces, and a total of approximately 43,385 sf of private rooftop and terrace open space (all five buildings) for building tenants.

Building-by-Building Description

Building A would be located on Parcel B along Bergen and Westchester Avenues (see Figure ES-6). The building would rise 12 stories (approximately 125 feet) and would be comprised of approximately 215 DUs (232,700 gsf), 15,400 gsf of local retail and commercial space, and 52,900 gsf of community facility space (see Table ES-1). At this time, the building's community facility space is anticipated to be occupied by an approximately 50,500 gsf YMCA and 2,400 gsf associated with a public rooftop farm. The main residential entrance to Building A would be located on Bergen Avenue, while the commercial, retail, and community facility uses would be accessible from Bergen and Westchester Avenues. Figure ES-7 provides an illustrative rendering of Building A.

Buildings B, C, D, and E would be located on Parcel A bounded by Bergen Avenue, Brook Avenue, Westchester Avenue, and East 153rd Street (see Figure ES-6). Each building would be located towards the edge of the Project Area in order to allow for an approximately 41,002 sf landscaped courtyard in the center of the parcel. The majority of the courtyard would be publicly accessible and each building would have entrances facing the courtyard. A portion of the courtyard would be located along the demapped portion of East 152nd Street between Bergen and Brook Avenues, in order to maintain the below-grade sewer easement. Figure ES-7 provides illustrative renderings of these buildings.

Building B would rise to a height of 13 stories (approximately 125 feet) and would have frontage along Bergen, Brook, and Westchester Avenues (see Figure ES-6). The building would be comprised of approximately 281 DUs (309,600 gsf) and approximately 29,100 gsf of local retail and commercial space (see Table ES-1). At this time, commercial space in Building B is anticipated to be occupied by a television studio, while ground-floor retail space is anticipated to be occupied by local retailers. An underground parking garage with up to approximately 209 accessory parking spaces would be located beneath Building B. The garage would be accessible from Bergen Avenue and would provide the only off-street parking option at the project site. Residential entrances to Building B would be located on Brook Avenue and within the courtyard, while local retail and commercial uses would be accessible from Bergen and

Courtesy of FXFowle Architects

For Illustrative Purposes Only

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Figure ES-7a

Illustrative Rendering - View Looking Northwest

Courtesy of FXFowle Architects

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Figure ES-7b

Illustrative Rendering - View Looking Southwest from across Brook Avenue

Westchester Avenues.

Building C would rise to a height of 13 stories (approximately 125 feet) and would have frontage along Brook Avenue (see Figure ES-6). The building would be comprised of approximately 137 DUs (153,900 gsf) and approximately 8,600 gsf of community facility space, totaling approximately 162,500 gsf (see Table ES-1). At this time, the community facility space is anticipated to be occupied by a recording studio. Residential entrances to Building C would be located along Brook Avenue and within the courtyard, while community facility uses would be accessible from Brook Avenue.

Building D would rise to a height of 9 stories (approximately 93 feet) and would have frontage along Bergen Avenue (see Figure ES-6). The building would be primarily comprised of approximately 160 supportive housing units and one superintendent's unit (77,500 gsf total) anticipated to be operated by non-profit social service providers Common Ground and Comunilife. Building D would also include approximately 4,400 gsf of other community facility uses on the first floor and approximately 7,300 gsf of office space assumed for Common Ground on the second floor (see Table ES-1). Entrances to supportive housing would be located along Bergen Avenue and within the courtyard, while the ground floor community facility space and office spaces would be accessible from Bergen Avenue.

Building E would have frontage along Bergen Avenue, Brook Avenue, and East 153rd Street (see Figure ES-6). At a height of 25 stories (approximately 249 feet) it would be the tallest of the five proposed buildings. Building E would be comprised of approximately 198 DUs (213,100 gsf), approximately 2,300 gsf of local retail and commercial space, and approximately 10,000 gsf of community facility space (see Table ES-1). At this time, ground-floor retail space is anticipated to be occupied by local retailers and the community facility space is anticipated to be occupied by a day care facility and other community facility uses. Residential entrances would be located on Brook Avenue and the south side of the building facing the courtyard, while the retail and community facility uses would be accessible from East 153rd Street and Bergen/Brook Avenues, respectively.

Each building would possess private landscaped green roofs as well as bicycle parking for building residents. These private open spaces would include trees, plantings, benches, tables, and chairs. At this time it is anticipated that solar panels would be located on some rooftops of the proposed development to help offset energy demands (see Figure ES-7). A total of 426 enclosed bicycle parking spaces would be provided. The bicycle spaces would be located in either the cellar or ground floor of each building, with approximately 108 spaces located in Building A, 141 spaces in Building B, 69 spaces in Building C, 9 spaces in Building D, and 99 spaces in Building E.

TABLE ES-1
Proposed Development Program[1]

Building	GSF Above Grade	GSF Below Grade[2]	Total GSF	Community Facility GSF	Commercial GSF	Residential GSF	DUs[3]	Accessory Parking Spaces	Accessory Parking & Loading GSF	Building Height (ft)
A	265,240	35,760	301,000	52,900	15,400[4]	232,700	215	0	0	125
B	338,700	0	338,700	0	29,100	309,600	281	209	37,580	125
C	162,500	0	162,500	8,600	0	153,900	137	0	0	125
D	89,200	0	89,200	89,200[5]	0	0	1	0	0	93
E	225,400	0	225,400	10,000	2,300	213,100	198	0	0	249
Total	**1,081,040**	**35,760**	**1,116,800**	**160,700[5]**	**46,800**	**909,300**	**832[3]**	**209**	**37,580**	

[1] Table ES-1 does not include a breakdown of open space, which includes 1.26 acres (55,151 sf) of public open space.
[2] Includes YMCA. Does not include accessory parking or storage and building support space.
[3] Does not include supportive housing units (Use Group 3 non-profit institution with sleeping accommodations), but does include superintendent's unit in Building D.
[4] Includes 600 sf of permitted loading.
[5] Community facility floor area includes 160 supportive housing units and one superintendents unit.

Project-Related Environmental Measures

Measures to ensure that no significant adverse impacts related to hazardous materials, air quality, and noise would occur as a result of the Proposed Actions would be incorporated into the Proposed Project. These measures would be incorporated into the design, construction, and/or operation of the Proposed Project and since the Project Area is currently City-owned, HPD would require the project sponsor implement these measures to the satisfaction of the City through the Land Disposition Agreement (LDA) between HPD and the project sponsor as well as the RD to be tied to the LSGD.

As detailed in Attachment B of the EAS (see Appendix A), due to the potential presence of hazardous materials in the Project Area, the LDA between HPD and the project sponsor would require that Phase II testing be performed for all parcels of the Project Area, including DEP review and approval of a workplan/Health and Safety Plan (HASP) prior to such testing. In addition, if remediation is warranted for one or more parcels/phases, a Remedial Action Plan (RAP) and associated Construction Health and Safety Plan (CHASP) would be prepared subject to review and approval by HPD and DEP. Finally, at the conclusion of construction and prior to occupancy of the new buildings, a Professional Engineer (P.E.)-certified Closure Report must be reviewed and approved by HPD and DEP to ensure the required remedial measures were implemented and the new buildings are suitable for occupancy. The project sponsor may elect to explore performing all required testing and remediation plan development through the Mayor's Office of Environmental Remediation's (OER) Voluntary Cleanup Program. Should this be the selected course of action, the LDA between HPD and the project sponsor, as well as the RD to be tied to the LSGD, would require that all construction and remediation activities be conducted in accordance with OER approvals, including submission of a Closure Report at the completion of such activities.

The proposed new buildings are expected to include natural gas-burning heating, ventilation, and air conditioning (HVAC) systems, as well as small cogeneration units for certain proposed buildings. To avoid the potential for significant adverse impacts related to stationary source PM2.5 air quality impacts, the LDA between HPD and the project sponsor would require certain fuel and height restrictions for Buildings A, B, C, and D of the proposed development, which are described in detail in Attachment J of the EAS (see Appendix A). These measures would be required through the LDA between HPD and the project sponsor, as well as the RD to be tied to the LSGD, and would ensure no significant adverse stationary source air quality impacts would occur as a result of the Proposed Actions.

The *CEQR Technical Manual* has set noise attenuation standards for buildings that are based on exterior noise levels. These values are designed to maintain interior noise levels of 45 dBA or lower for residential or community facility uses, and 50 dBA or lower for commercial uses. The U.S. Department of Housing and Urban Development (HUD) also sets exterior noise standards for housing construction based on exterior noise standards. To ensure that acceptable interior noise levels are provided at the proposed mixed-use buildings on the Project Area, the proposed designs of Buildings A, B, C and E will be required to provide window-wall attenuation ranging from 23 to 37 dBA in order to meet CEQR and HUD requirements, which are detailed in Attachment K of the EAS (see Appendix A). These measures would be required through the LDA between HPD and the project sponsor, as well as the RD to be tied to the LSGD, and would ensure no significant adverse noise impacts as a result of the Proposed Actions.

G. EIS ANALYSIS FRAMEWORK

The Proposed Actions would change the regulatory controls governing land use and development within

the Project Area. The *CEQR Technical Manual* will serve as the general guide on the methodologies and impact criteria for evaluating the Proposed Actions' potential effects on the various environmental areas of analysis. The EIS assesses the reasonable worst-case impacts that may occur as a result of the Proposed Actions. In disclosing impacts, the EIS considers the Proposed Actions' potential adverse impacts on the environmental setting.

Analysis Year

Development of the Proposed Project would occur in two overlapping phases and commence as soon as all necessary public approvals are granted. Construction of the Proposed Project would occur over an approximately three-year period with an anticipated start date in the second half of 2016 with all components complete and fully operational by 2020. Accordingly, the Proposed Project will use a 2020 Build Year for analysis purposes. As the Proposed Project would be operational in 2020, its environmental setting is not the current environment, but the future environment. Therefore, the technical analyses and consideration of alternative assess current conditions and forecast these conditions to the expected 2020 Build Year for the purposes of determining potential impacts. Each chapter of the EIS will provide a description of the "Existing Condition" and assessment of future conditions without the Proposed Project ("Future without the Proposed Actions") and with the Proposed Project ("Future with the Proposed Actions").

Reasonable Worst-Case Development Scenario (RWCDS)

In order to assess the possible effects of the Proposed Actions, a reasonable worst-case development scenario (RWCDS) for the Project Area was established for both Future No-Action and Future With-Action conditions. The incremental difference between the Future No-Action and Future With-Action conditions will serve as the basis of the impact category analyses in the EIS. For conservative analysis purposes, the Proposed Project is assumed to be the RWCDS for the Project Area and is therefore evaluated in this analysis.

Development Site Criteria

Pursuant to the *CEQR Technical Manual*, several factors were considered in projecting the amount and timing of new development within the Rezoning Area. These include known development proposals, past and current development trends, and the development site criteria described below. The first step in establishing the development scenario was to identify those sites where new development could be reasonably expected to occur.

Development sites were initially identified based on the following criteria:

- Lots located in areas where a substantial increase in permitted FAR is proposed;
- Lots with a total size of 5,000 square feet (sf) or larger (may include potential assemblages totaling 5,000 sf, respectively, if assemblage seems probable);
- Underutilized lots (defined as vacant or lots constructed to less than or equal to half of the proposed FAR under the proposed zoning); and
- Lots located in areas where changes in use would be permitted.

The development scenario's universe of sites was further refined by eliminating sites with the following conditions:

- Lots where construction activity is actively occurring or has recently been completed;
- Sites of schools (public and private), municipal libraries, government offices, large medical centers, and houses of worship. These facilities may meet the development site criteria, because they are built to less than half of the permitted floor area under current zoning and are on larger lots. However, these facilities have not been redeveloped or expanded despite the ability to do so, and it is extremely unlikely that the increment of additional FAR permitted under the proposed zoning would induce redevelopment or expansion of these structures. Additionally, for government-owned properties, development and/or sale of these lots may require discretionary actions from the pertinent government agency;
- Multi-unit buildings (existing individual buildings with six or more residential units are unlikely to be redeveloped because of the required relocation of tenants in rent-stabilized units);
- Certain large commercial structures such as multi-story office buildings and hotels. Although these sites may meet the criteria for being built to less than half of the proposed permitted floor area, some of them are unlikely to be redeveloped due to their current or potential profitability, the cost of demolition and redevelopment, and their location.
- Lots whose location or highly irregular shape would preclude or greatly limit future as-of-right development. Generally, development on highly irregular lots does not produce marketable floor space.
- Lots utilized for public transportation and/or public utilities.

Definition of Projected and Potential Development Sites

Projected development sites are considered more likely to be developed by the build year of 2020 because of known development plans for such sites, their relatively low FAR and current utilization, and relatively large size. Potential sites are considered less likely to be developed over the same period because of their relatively higher FARs, existing utilization, and generally more cumbersome means of development.

Using the definitions and the criteria outlined above, no projected or potential development sites have been identified within the Rezoning Area. The three sites that would be rezoned as part of the Proposed Actions but fall outside of the Project Area (Block 2294, Lots 30, 55, and 1001-1005) were eliminated for the following reasons: Lot 1001-1005 (former Lot 60) is privately owned and the site of the recently developed Triangle Plaza Hub (completed in August 2015), an 86,645 sf mixed use retail and office facility; Lot 55, which is owned by the City of New York, contains the elevated IRT #2 and #5 subway tracks and is not developable; Lot 30, which is privately owned, is planned to contain an approximately 3,000 sf commercial building and is governed by a Restrictive Declaration limiting the amount of floor area to be developed. Therefore, these three lots are not considered “soft sites” and have not been identified as projected or potential developments.

The Future Without the Proposed Actions (No-Action)

In the 2020 future without the Proposed Actions, it is expected that no changes to zoning or land use would occur within the Project Area or the larger Rezoning Area. The Project Area would remain under the jurisdiction of HPD and would remain underutilized and mostly vacant with the exception of Parcel B, which would continue to operate with two at-grade public parking facilities and a vacant 11,000 gsf building. Redevelopment of the Project Area would not be able to occur without the disposition of City-owned property and other discretionary approvals through the City Planning Commission (CPC).

The Future With the Proposed Actions (With-Action)

The Proposed Actions would allow for the development of higher density residential, community facility, and commercial uses within the Project Area. Given the site's dimensions and applicable zoning setbacks and regulations under future conditions, the proposed development would represent the upper bounds of development (maximum 7.2 FAR under C6-2 zoning). This ensures that the impact of the Proposed Actions would be no worse than those considered in this EIS.

In the 2020 future with the Proposed Actions, the Project Area would accommodate approximately 1.1 million gsf of total development including 832 affordable DUs (909,300 gsf), approximately 160 supportive housing units (77,500 gsf), approximately 46,800 gsf of local retail and commercial uses, approximately 83,200 gsf of community facility space (excluding supportive housing), and approximately 1.26 acres (55,151 sf) of publicly accessible open space. Up to approximately 209 accessory parking spaces would be provided below-grade on the south side of Parcel A. The parking garage would be entered through a new curb cut on Bergen Avenue adjacent to Building B.

As none of the remaining lots within the Rezoning Area meet the criteria for potential or projected development sites, it is considered highly unlikely that any new development would occur on these lots in the future with the Proposed Actions. Therefore, in the With-Action conditions, it is anticipated that existing uses on Lots 30, 50, and 1001-1005 of Block 2294 would remain unchanged.

Possible Effects of the Proposed Actions

Table ES-2 below provides a comparison of the No-Action and With-Action scenarios identified for analysis purposes of the Proposed Actions.

TABLE ES-2
Comparison of No-Action and With-Action Development Scenarios

Use		No-Action Scenario	With-Action Scenario	Increment
Residential – Affordable Housing		--	832 DUs[1] (909,300 gsf)	**832 DUs (909,300 gsf)**
Community Facility	Supportive Housing	--	160 units[2] (77,500 gsf)	**160 units (77,500 gsf)**
	YMCA	--	50,500 gsf	**50,500 gsf**
	Other Uses	--	32,700 gsf	**32,700 gsf**
Commercial	Local Retail and Other Commercial Uses	--	46,800 gsf	**46,800 gsf**
	Vacant	11,000 gsf	--	***-11,000 gsf***
Parking and Loading	Public	74 spaces	--	***-74 spaces***
	Accessory	--	209 spaces (37,580 gsf)	**209 spaces (37,580 gsf)**
Publicly Accessible Open Space		--	1.26 acres (55,151 sf)	**1.26 acres (55,151 sf)**
Population/Employment[3]		**No-Action Scenario**	**With-Action Scenario**	**Increment**
Residents		--	2,656 residents	**2,656 residents**
Workers		2 workers	389 workers	**387 workers**

Notes:
[1] Does not include supportive housing units (Use Group 3 non-profit institution with sleeping accommodations), but does include one superintendent's unit.
[2] Floor area includes 160 supportive housing units and one superintendent's unit.
[3] Assumes 3.0 persons per affordable DU (based on 2010 U.S. Census data for Bronx Community District 1), 1 person per supportive DU (data provided by Common Ground & Communilife), 1 worker per 25 affordable DUs, 25 workers per 160 supportive units (data provided by Common Ground & Communilife), 1 worker per 450 sf community facility space, 3 workers per 1,000 sf commercial space, and 1 worker per 50 parking spaces.

As shown, the incremental (net) change that would result from the Proposed Actions is the addition of 832 affordable DUs (909,300 gsf), 160 supportive housing units (77,500 gsf), 83,200 gsf of community facility uses (excluding supportive housing), 46,800 gsf of local retail and other commercial uses, up to 209 accessory parking spaces (an increase of 188 total parking spaces), and 1.26 acres (55,151 sf) of public open space. Based on 2010 census data, Bronx Community District 1 has an average of 3.0 persons per household. Using this ratio, and other standard ratios for estimating employment, Table ES-3 provides an estimate of the number of residents and workers generated by the Proposed Actions.

H. PUBLIC REVIEW PROCESS

The Proposed Project described above is subject to public review under the Uniform Land Use Review Procedure (ULURP), Section 200 of the City Charter, as well as City Environmental Quality Review (CEQR) procedures. The ULURP and CEQR review processes are described below.

Uniform Land Use Review Procedure (ULURP)

The City's ULURP, mandated by Sections 197-c and 197-d of the City Charter, is a process especially designed to allow public review of proposed actions at four levels: the affected Community Board, the Borough President and (if applicable) the Borough Board, the CPC, and the City Council. The procedure sets time limits for review at each stage to ensure a maximum total review period of approximately seven months.

The ULURP process begins with a certification by the CPC that the ULURP application is complete, which includes satisfying CEQR requirements (see the discussion below). The application is then forwarded to the affected community board (in this case, Bronx Community Board 1), which has 60 days in which to review and discuss the application, hold public hearings, and adopt recommendations regarding the application. Once this step is complete, the Borough President reviews the application for up to 30 days and makes recommendations on the application. The CPC then has 60 days to review the application, during which time a ULURP public hearing is held. Comments made at the Draft EIS public hearing, which may be held concurrently with the ULURP public hearing, and during the subsequent comment period (that remains open for ten days after the hearing to receive written comments) are incorporated into a Final EIS. The Final EIS must be completed at least ten days before CPC makes its decision on the application. CPC may approve, approve with modifications, or deny the application. If the ULURP application is approved, or approved with modifications, it moves forward to the City Council for review. The City Council has 50 days to review the application and during this time will hold a public hearing on the Proposed Action, through its Land Use Committee. The Council may approve, approve with modifications, or deny the application. If the Council proposes a modification to the Proposed Action, the ULURP review process stops for 15 days, providing time for a CPC determination on whether the proposed modification is within the scope of the environmental review and ULURP review. If it is, then the Council may proceed with the modification; if not, then the Council may only vote on the actions as approved by the CPC. Following the Council's vote, the Mayor has five days in which to veto the Council's actions. The City Council may override the mayoral veto within 10 days.

Environmental Review (CEQR)

Pursuant to the State Environmental Quality Review Act (Article 8 of the Environmental Conservation Law; SEQRA) and its implementing regulations found at 6 NYCRR Part 617, New York City has established rules

for its own environmental quality review in Executive Order 91 of 1977, as amended, and 62 RCNY Chapter 5, the Rules of Procedure for CEQR. The environmental review process provides a means for decision-makers to systematically consider environmental effects along with other aspects of project planning and design, to propose reasonable alternatives, and to identify, and when practicable, mitigate, significant adverse environmental effects. CEQR rules guide environmental review, as follows.

Establishing a Lead Agency: Under CEQR, a "lead agency" is the public entity responsible for conducting environmental review. Usually, the lead agency is also the entity principally responsible for carrying out, funding, or approving the proposed action(s). In accordance with CEQR rules (62 RCNY §5-03), the Department of Housing Preservation & Development (HPD) assumed lead agency status for the Proposed Project.

Determination of Significance: The lead agency's first charge is to determine whether the proposed action(s) may have a significant adverse impact on the environment. To do so, HPD, in this case, evaluated an Environmental Assessment Statement (EAS) dated October 5, 2015 for the proposed La Central project. Based on the information contained in the EAS, HPD determined that the Proposed Actions may have a significant adverse impact on the environment and issued a Positive Declaration on October 5, 2015.

Scoping: Along with its issuance of a Positive Declaration, HPD issued a Draft Scope of Work for the EIS on October 5, 2015, marking the beginning of the comment period on the Draft Scope. "Scoping," or creating the scope of work, is the process of identifying the environmental impact analysis areas, the methodologies to be used, the key issues to be studied, and creating an opportunity for others to comment on the intended effort. CEQR requires a public scoping meeting as part of the process. A public scoping meeting was held on November 4, 2015. The public review period for agencies and the public to review and comment on the Draft Scope of Work was open through November 16, 2015. Modifications to the Draft Scope of Work for the project's EIS were made as a result of public and interested agency input during the scoping process. A Final Scope of Work document for the Proposed Project was issued on April 6, 2016.

Draft Environmental Impact Statement (DEIS): This DEIS was prepared in accordance with the Final Scope of Work, and followed the methodologies and criteria for determining significant adverse impacts in the *CEQR Technical Manual*. The lead agency reviewed all aspects of the document, calling on other City and state agencies to participate where the agency's expertise is relevant. Once the lead agency is satisfied that the DEIS is complete, it issues a Notice of Completion and circulates the DEIS for public review. When a DEIS is required, it must be accepted by the lead agency as complete before the ULURP application may also be found complete. The DEIS was deemed complete and the Notice of Completion was issued on April 8, 2016.

Public Review: Publication of the DEIS and issuance of the Notice of Completion signal the start of the public review period. During this time, which must extend for a minimum of 30 days, the public has the opportunity to review and comment on the DEIS either in writing or at a public hearing convened for the purpose of receiving such comments. As noted above, when the CEQR process is coordinated with another City process that requires a public hearing, such as ULURP, the hearings may be held jointly. The lead agency must publish a notice of the hearing at least fourteen (14) days before it takes place, and must accept written comments for at least ten (10) days following the close of the hearing. All substantive comments received at the hearing become part of the CEQR record and must be summarized and responded to in the Final EIS.

Final Environmental Impact Statement (FEIS): After the close of the public comment period for the Draft EIS, the FEIS is prepared. The FEIS must incorporate relevant comments on the DEIS, either in a separate chapter or in changes to the body of the text, graphics and tables. Once the lead agency determines the FEIS is complete, it issues a Notice of Completion and circulates the FEIS.

Findings: To document that the responsible public decision-makers have taken a hard look at the environmental consequences of a proposed action, any agency taking a discretionary action regarding a project must adopt a formal set of written findings, reflecting its conclusions about the significant adverse environmental impacts of the project, potential alternatives, and potential mitigation measures. The findings may not be adopted until 10 days after the Notice of Completion has been issued for the FEIS. Once findings are adopted, the lead and involved agencies may take their actions (or take "no action"). This means that in the ULURP process, CPC must wait at least 10 days after the FEIS is complete to take action on a given application.

I. THE FUTURE WITH THE PROPOSED PROJECT

Community Facilities and Services

Pursuant to *CEQR Technical Manual* guidelines, detailed analyses of potential indirect impacts on public elementary, intermediate, and high schools, public libraries, and publicly funded child care centers were conducted for the Proposed Actions. Based on the *CEQR Technical Manual* screening methodology, detailed analyses of outpatient health care facilities and police and fire protection services are not warranted, although they are discussed qualitatively. As summarized below, the Proposed Actions would result in significant adverse impacts on public elementary schools and intermediate schools. No significant adverse high school impacts, library impacts, or child care center impacts would result.

Public Schools

The Project Area is located within New York City Community School District (CSD) 7, Sub-district 3. The Proposed Actions would introduce a net increment of 615 total students, including approximately 324 elementary school students, 133 intermediate school students, and 158 high school students.

In the 2020 future with the Proposed Actions, CSD 7 Sub-district 3 would experience significant adverse public elementary school and intermediate school impacts. Elementary schools would increase from a No-Action utilization rate of 119.7 percent to 126.0 percent in the With-Action condition (a 6.3 percentage point increase), with a deficit of 1,335 elementary school seats. Intermediate schools would increase from a No-Action utilization rate of 105.3 percent to 110.8 percent in the With-Action condition (a 5.4 percentage point increase), with a deficit of 263 intermediate school seats. As public elementary and intermediate schools within CSD 7, Sub-district 3 would operate over capacity in the With-Action condition, with an increase of five percentage points or more in the collective utilization rate between the No-Action and With-Action conditions (the CEQR impact threshold), significant adverse elementary and intermediate school impacts would result in CSD 7, Sub-district 3.

According to the *CEQR Technical Manual*, the determination of impact significance for high schools is conducted at the borough level. In the future With-Action condition, the Bronx high school utilization rate is expected to increase by 0.2 percentage points over the No-Action condition, for a With-Action utilization rate of 98.2 percent and a surplus of 1,206 seats. As the increase in the collective high school utilization

rate would be less than the five percentage point impact threshold, no significant adverse impacts to Bronx public high schools are anticipated as a result of the Proposed Actions.

Libraries

The Proposed Actions would not result in significant adverse impacts to libraries. Three NYPL branches are located within a ¾-mile radius of the Project Area: the Woodstock, Mott Haven, and Melrose Branches. The Proposed Actions would introduce an estimated 2,656 additional residents to the libraries' combined catchment area (compared to No-Action conditions). For all branches, the catchment area population increases resulting from the Proposed Actions would be less than five percent, which would not result in a noticeable change in the delivery of library services. Additionally, residents in the study area would have access to the entire NYPL system through the inter-library loan system and could have volumes delivered directly to their nearest library branch. Residents would also have access to libraries near their place of work. Therefore, the population introduced by the Proposed Actions is not expected to result in a significant adverse impact on public libraries.

Child Care Services

The Proposed Actions would not result in significant adverse impacts on publicly funded child care facilities. The Proposed Actions are expected to introduce approximately 832 low- to moderate-income units by 2020. Based on the most recent child care multipliers in the *CEQR Technical Manual*, this development would generate approximately 116 children under the age of six who could be eligible for publicly funded child care programs. With the addition of these children, there would continue to be a surplus of child care slots in the study area by 2020 (a 99.5 percent utilization), and the Proposed Actions would result in an increase in the utilization rate of approximately 1.7 percentage points over the No-Action condition.

According to the *CEQR Technical Manual*, a significant adverse child care impact may result, warranting consideration of mitigation, if an action would increase the study area's utilization rate by at least five percentage points and the resulting utilization rate would be 100 percent or more. As the Proposed Actions would result in a 1.7 percentage point increase in the study area child care facility utilization rate in the future With-Action condition, and the resulting utilization rate would be less than 100 percent, the Proposed Actions would not result in a significant adverse impact to publicly funded child care centers.

Police, Fire, and Health Care Services

The *CEQR Technical Manual* recommends a detailed analysis of indirect impacts on police, fire, and health care services in cases where a proposed action would create a sizeable new neighborhood where none existed before. The Project Area is located within an existing and well-established community that is served by existing police, fire, and health care services. Therefore, the Proposed Actions would not create a neighborhood where none existed before, and a detailed analysis of indirect effects on these community facilities is not warranted.

Transportation

Traffic

Weekday AM, midday, and PM, and Saturday midday peak hour traffic conditions were evaluated at a

total of five intersections generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and Westchester Avenue to the south. These five intersections are where traffic generated by the Proposed Project is expected to be most concentrated.

As shown in Table ES-3, the traffic impact analysis indicates that there would be the potential for significant adverse impacts at one analyzed intersection, Brook Avenue at Westchester Avenue, during the weekday AM and PM peak hours. Chapter 5, "Mitigation," discusses measures to mitigate these significant adverse traffic impacts.

TABLE ES-3
Analyzed Intersections with Potential Traffic Impacts

Intersection	Peak Hour			
	Weekday AM	Weekday Midday	Weekday PM	Saturday Midday
Brook Avenue at Westchester Avenue	X		X	

Notes:
X – Denotes potential for significant adverse traffic impact

Transit

Subway

The Proposed Project would generate a net increment of approximately 468 and 550 new subway trips during the weekday AM and PM commuter peak hours, respectively. The analysis of subway station conditions focuses on New York City Transit's (NYCT) 3rd Avenue-149th Street (2, 5) station where incremental demand from the Proposed Project would exceed the 200-trip *CEQR Technical Manual* analysis threshold in one or both peak periods.

In the future with the Proposed Project, there would be no potential for significant adverse impacts at any analyzed street stairs or fare arrays at the 3rd Avenue-149th Street station in either the AM or PM peak hours. Additionally, incremental increases in subway line haul demand would amount to less than five additional riders per car per direction on any one route in both the AM and PM peak hours. Therefore, the Proposed Project would not result in significant adverse subway station or subway line haul impacts based on *CEQR Technical Manual* criteria.

Bus

The Project Area is served by a total of seven MTA local bus routes including the Bx2, Bx4, Bx4a, Bx15, Bx19, Bx21, and Bx41 Select Bus Service (SBS). The Proposed Project would generate a total of approximately 136 and 181 bus trips (including some bus-subway transfer trips) in the weekday AM and PM peak periods, respectively. As these trips would be distributed among seven bus routes, project-generated bus trips are not expected to exceed 50 or more passengers per hour in the peak direction on any one route. Therefore, the Proposed Project would not result in significant adverse impacts to local bus service based on *CEQR Technical Manual* criteria.

Pedestrians

The Proposed Project would generate a net increment of approximately 440, 1,276, 852, and 900 walk-only trips during the weekday AM, midday, and PM, and Saturday midday peak hours, respectively. Persons en route to and from subway station entrances and bus stops would add approximately 604, 469,

731, and 629 additional pedestrian trips during these same peak periods, respectively. Peak period pedestrian conditions were evaluated at a total of 41 pedestrian elements where the Proposed Project would potentially generate 200 or more new trips in one or more peak hours. These elements—9 sidewalks, 16 corner areas, and 16 crosswalks—are primarily located along Westchester and Bergen Avenues in the vicinity of the 3rd Avenue-149th Street subway station and a number of MTA bus stops. As shown in Table ES-4, based on *CEQR Technical Manual* criteria, a total of three pedestrian elements would be significantly adversely impacted as a result of the Proposed Project, including two corner areas during the Saturday midday peak hour and one crosswalk during the weekday PM and Saturday midday peak hours. As discussed in Chapter 5, "Mitigation," these significant adverse pedestrian impacts could be fully mitigated with curb extensions, widening crosswalks and/or removal of street furniture.

TABLE ES-4
Analyzed Pedestrian Elements with Potential Impacts

Intersection	Impacted Element	Peak Hour			
		Weekday AM	Weekday Midday	Weekday PM	Saturday Midday
Third Avenue/E. 150th St.-Westchester Av.	West Crosswalk			X	X
Third Avenue/E. 150th St.-Westchester Av.	Northwest Corner				X
Third Avenue/E. 150th St.-Westchester Av.	Southwest Corner				X

Vehicular and Pedestrian Safety

Crash data for the traffic and pedestrian study area intersections were obtained from NYCDOT for the 3-year reporting period between January 1, 2011, and December 31, 2013. During this period, no intersections were found to have experienced a total of 48 or more crashes in any one year nor were any intersections found to have experienced five or more pedestrian/bicyclist injury crashes in one year. Therefore, no study area intersections are considered high accident locations.

It should also be noted that the Project Area is located within the NYCDOT-designated Mott Haven Senior Pedestrian Focus Area (SPFA), which was identified based on the density of senior pedestrian (age 65+) crashes resulting in fatalities or severe injuries in a five-year period, as well as variables such as senior trip generators, concentrations of senior centers, and senior housing locations. In addition, the *Vision Zero Bronx Pedestrian Safety Action Plan*, released in early 2015, identifies Third Avenue between East 183rd Street and East 138th Street (one block to the west of the Project Area) as a "Priority Corridor," and the intersection of Third Avenue and East 149th Street (two blocks to the southwest of the Project Area) as a "Priority Intersection."

Parking

The parking analysis documents changes in the parking supply and utilization within a ¼-mile radius of the Project Area under both No-Action and With-Action conditions. There are a total of 11 public parking facilities within a ¼-mile radius of the Project Area. After accounting for new project-generated parking demand, it is estimated that compared to the No-Action condition, incremental parking demand would total approximately 135 spaces at off-street public parking facilities and on-street in the weekday midday period, 173 spaces during the weekday overnight period, and 125 spaces during the Saturday midday period. In addition, a total of 74 existing parking spaces in an off-street public parking facility currently located on Parcel B within the Project Area would be displaced.

All project-generated parking demand could be accommodated at existing off-street public parking

facilities in the surrounding area. Further, the Proposed Project is expected to provide up to 209 additional accessory parking spaces on-site. In addition, on-street parking spaces would also be available in the surrounding area to accommodate project demand. Therefore, no significant adverse parking impacts are anticipated.

Neighborhood Character

The Project Area and surrounding area are located in the Melrose neighborhood of the South Bronx in close proximity to "the Hub," which is the point where East 149th Street intersects with Third, Melrose, Willis, and Westchester Avenues. The study area is characterized by retail establishments, particularly along Third Avenue and its side streets, pockets of light manufacturing and medium-density residential uses are also common. The Hub is also characterized by its transit accessibility, with multiple subway lines and MTA bus routes converging in the area. As described elsewhere in this EIS, the Proposed Actions would not result in significant adverse impacts in the areas of land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; or urban design and visual resources. The significant adverse transportation (traffic and pedestrian) impacts would not affect any defining feature of neighborhood character, nor would a combination of moderately adverse effects affect such a defining feature.

The Proposed Actions would facilitate the development of a mix of residential, commercial, and community facility uses that would be consistent with the mixed-use character of the surrounding area. With the Proposed Actions, new mixed-use development would active long-vacant City-owned sites located along major thoroughfares in close proximity to public transportation and Third Avenue, extending the commercial corridor and pedestrian activity of the Hub eastward. The Proposed Project would complement the existing built character of the surrounding area under the proposed C6-2 zoning district. In addition, the affordable housing units would help to ensure that a considerable portion of the new households would have incomes that would more closely reflect existing incomes in the study area and help ensure that the neighborhoods continue to serve diverse housing needs.

While the Proposed Actions would result in increased transportation activities and significant adverse transportation (traffic and pedestrians) impacts, the resulting conditions would be similar to those seen in the study area and would not result in density of activity or service conditions that would be out of character with the surrounding area.

J. MITIGATION

Community Facilities

Public Schools

Under the reasonable worst-case development scenario (RWCDS), a net increment of 832 affordable units (compared to No-Action conditions)[3] would be developed within CSD 7, Sub-district 3. The incremental increase would result in significant adverse impacts to elementary and intermediate schools within the sub-district. To avoid the significant adverse elementary school impact, the number of incremental

[3] The 160 supportive housing units would be single-room units for seniors living with HIV/AIDS, single veterans, and individuals earning less than 60 percent AMI. Therefore, it is anticipated that these 160 units would not introduce any children to the study area. As such, these units are excluded from the analysis of public schools.

dwelling units that could be developed in the sub-district would have to be reduced to 657, generating 256 elementary school students, as compared to No-Action conditions. This would represent a decrease of 175 DUs (21 percent) in CSD 7, Sub-district 3. To avoid the identified significant adverse intermediate school impacts in Sub-district 3 of CSD 7, the number of incremental dwelling units that could be developed in the sub-district would have to be reduced to 763, generating 122 intermediate school students, as compared to No-Action conditions. This would represent a decrease of 69 DUs (8 percent) in CSD 7, Sub-district 3. Alternately, based on the RWCDS for the Proposed Actions, an additional 55 elementary school seats and 10 intermediate school seats would be needed in order to reduce the incremental increase in utilization rates to less than the *CEQR Technical Manual* impact threshold of five percent. To eliminate these impacts in CSD 7, Sub-district 3 (projected to occur in year 2020), the following mitigation measures could be applied in conjunction with the City's monitoring of capacity: a) restructure or reprogram existing school space under DOE's control in order to make available more capacity in existing school buildings located within CSD 7, Sub-district 3; b) relocate administrative functions at existing schools to another site, thereby freeing up space for classrooms; and/or c) create additional capacity in the area by constructing a new school(s), building additional capacity at existing schools, or leasing additional school space constructed as part of the Proposed Project. These preliminary mitigation options will continue to be explored between the DEIS and FEIS. Absent the identification and implementation of feasible and practicable measures, these significant adverse impacts would remain unmitigated.

Transportation

Traffic

As described in Chapter 3, "Transportation," the Proposed Project would result in significant adverse traffic impacts at one study area intersection during one or more peak periods; specifically the southbound approach at the intersection of Brook and Westchester Avenues during the weekday AM and PM peak hours. Implementation of traffic engineering improvements such as signal timing changes or traffic modifications to curbside parking regulations would provide mitigation for the anticipated traffic impacts. Specific details related to the implementation of the recommended traffic engineering improvements is subject to review and approval by the New York City Department of Transportation (NYCDOT) and will be further refined between the DEIS and FEIS. If, prior to implementation, NYCDOT determines that an identified mitigation measure is infeasible, an alternative and equivalent mitigation measure will be identified. No unmitigated significant adverse traffic impacts would remain with implementation of the recommended mitigation measures.

Pedestrians

Incremental demand from the Proposed Project would significantly adversely impact a total of two corner areas and one crosswalk in one or more peak hours. Recommended mitigation measures to address these impacts are discussed below. Specific details related to the implementation of these measures will be further refined between the DEIS and FEIS through coordination with NYCDOT. If, prior to implementation, NYCDOT determines that an identified mitigation measure is infeasible, an alternative and equivalent mitigation measure will be identified.

Corner Areas

Two of the 16 analyzed corner areas would be significantly adversely impacted by the Proposed Project—

the northwest and southwest corners at the intersection of Third Avenue and E. 150th Street-Westchester Avenue during the Saturday midday peak hour. To address this impact, the construction of new 5' curb extensions on the northwest and southwest corners would be coordinated between the project sponsor, HPD and NYCDOT. HPD would require the project sponsor implement these measures to the satisfaction of the City through the Land Disposition Agreement (LDA) between HPD and the project sponsor. No unmitigated significant adverse corner impacts would remain with implementation of the recommended mitigation measures.

Crosswalks

One of the 16 analyzed crosswalks would be significantly adversely impacted by the Proposed Project—the west crosswalk at the intersection of Third Avenue and E. 150th Street-Westchester Avenue during the weekday PM and Saturday midday peak hour. This impact would be fully mitigated by widening the crosswalk by 2'. No unmitigated significant adverse crosswalk impacts would remain with implementation of the recommended mitigation measures.

K. ALTERNATIVES

No-Action Alternative

The No-Action Alternative examines future conditions within the Project Area, but assumes the absence of the Proposed Actions (i.e., none of the discretionary approvals proposed as part of the Proposed Actions would be adopted). Under the No-Action Alternative by 2020, existing zoning and land uses within the Project Area would remain unchanged. It is anticipated that the Project Area would remain mostly vacant with the exception of Parcel B, which would continue to operate with two at-grade public parking facilities and a vacant 11,000 gsf building. Redevelopment of the Project Area would not be possible without the disposition of City-owned property and other discretionary approvals through the CPC. The technical chapters of this EIS have described the No-Action Alternative as "the Future Without the Proposed Actions."

The significant adverse impacts anticipated for the Proposed Actions would not occur under the No-Action Alternative. However, the No-Action Alternative would not meet the goals of the Proposed Actions. The benefits expected to result from the Proposed Actions – including promoting affordable housing development by maximizing the use of vacant City-owned land, encouraging the continued economic development of the South Bronx, and introducing new community resources – would not be realized under this alternative, and the No-Action Alternative would fall short of the objectives of the Proposed Actions.

No Impact Alternative

The No Impact Alternative examines a scenario in which the density and other components of the Proposed Actions are changed specifically to avoid the significant adverse impacts associated with the Proposed Actions. The Proposed Actions would result in significant adverse impacts related to community facilities (elementary and intermediate public schools) and transportation (traffic and pedestrians).

In order to result in no significant adverse impacts, development within the Project Area would have to

be reduced by up to approximately 66 percent, including a 60 percent reduction in the total number of affordable and supportive housing units (to 393 DU) and no community facility or commercial uses within the Project Area. As such, the benefits expected to result from the Proposed Actions – including promoting affordable housing development by maximizing the use of vacant City-owned land, encouraging the continued economic development of the South Bronx, and introducing new community resources – would not be realized under this alternative, and the No Impact Alternative would fall short of the objectives of the Proposed Actions.

L. UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

Community Facilities

Public Schools

As described in Chapter 2, "Community Facilities and Services," the Proposed Actions are expected to result in significant adverse impacts to public schools at the elementary and intermediate levels. The Proposed Actions are anticipated to introduce approximately 832 affordable dwelling units (compared to No-Action conditions)[4], generating an estimated 324 elementary school students and 133 intermediate school students. With the addition of these students, elementary schools in the study area would operate at 126.0 percent of capacity, which represents an increase of 6.3 percentage points over the future No-Action condition. Intermediate schools in the study area would operate at 110.8 percent of capacity, 5.4 percentage points over the future No-Action condition. These increases exceed the five percent threshold in the *CEQR Technical Manual* for a significant adverse impact.

Measures to mitigate the identified significant adverse impact on public schools will be considered between the DEIS and FEIS in coordination with the lead agency, the New York City Department of Housing Preservation and Development (HPD), and the New York City School Construction Authority (SCA). Absent the identification and implementation of feasible and practicable measures, these significant adverse impacts would remain unmitigated.

Transportation

Traffic

As discussed in Chapter 3, "Transportation," the Proposed Actions would result in significant adverse traffic impacts at one study area intersection, Westchester/Brook Avenues, during the weekday AM and PM peak hours. Implementation of traffic engineering improvements, such as signal timing changes and modifications to curbside parking regulations would provide mitigation for the anticipated traffic impacts. Specific details related to the implementation of the recommended traffic engineering improvements is subject to review and approval by NYCDOT and will be further refined between the DEIS and FEIS. If, prior to implementation, NYCDOT determines that an identified mitigation measure is infeasible, an alternative and equivalent mitigation measure may be identified. In the absence of the application of mitigation measures, the impacts would remain unmitigated.

[4] The 160 supportive housing units would be single-room units for seniors living with HIV/AIDS, single veterans, and individuals earning less than 60 percent AMI. Therefore, it is anticipated that these 160 units would not introduce any children to the study area. As such, these units are excluded from the analysis of public schools.

Pedestrians

Incremental demand from the Proposed Actions would significantly adversely impact a total of two corner areas and one crosswalk in one or more peak hours. As outlined in Chapter 5, "Mitigation," the identified pedestrian impacts would be fully mitigated through sidewalk and crosswalk widenings. Specific details related to the implementation of these measures will be further refined between the DEIS and FEIS through coordination with NYCDOT. If, prior to implementation, NYCDOT determines that an identified mitigation measure is infeasible, an alternative and equivalent mitigation measure may be identified. In the absence of the application of mitigation measures, the impacts would remain unmitigated.

M. GROWTH-INDUCING ASPECTS OF THE PROPOSED ACTION

The term "growth-inducing aspects" generally refers to the potential for a proposed project to trigger additional development in areas outside the Project Area that would otherwise not have such development in the absence of a proposed project. The 2014 *City Environmental Quality Review (CEQR) Technical Manual* indicates that an analysis of the growth-inducing aspects of a proposed project is appropriate when the project: (1) adds substantial new land use, residents, or new employment that could induce additional development of a similar kind or of support uses, such as retail establishments to serve new residential uses; and/or (2) introduces or greatly expands infrastructure capacity (e.g., sewers, central water supply).

As detailed in Chapter 1, "Project Description," the applicant is seeking several discretionary approvals to facilitate the development of an underutilized 4.3-acre site in the Melrose neighborhood of Bronx Community District 1. The Proposed Actions would facilitate the development of an approximately 1.1 million gross square foot (gsf), five building mixed-use development consisting of approximately 832 affordable dwelling units (DUs), approximately 160 supportive housing units, approximately 46,800 gsf of local retail and commercial uses, an approximately 50,500 gsf YMCA, and approximately 32,700 gsf of other community facility uses. The environmental consequences of this growth are the subject of Chapters 2 through 4 of this EIS. The projected increase in residential and worker populations is likely to increase the demand for neighborhood services in the surrounding area, ranging from religious establishments to banks and local retail. The Proposed Project would also contribute to growth in the local Bronx, City, and State economies, primarily due to employment and fiscal effects during construction of the development and operation after its completion. However, the Proposed Project is not anticipated to create a critical mass of populations or uses that would induce additional development.

It is anticipated that the consumer needs of the new residential and worker population would largely be satisfied by a combination of the new local retail that would be developed within the Project Area and the existing and planned future retail stores in the surrounding area and the Bronx as a whole. Moreover, the Proposed Project does not include the introduction of new infrastructure or an expansion of infrastructure capacity that would result in indirect development. Therefore, the Proposed Project is not expected to induce significant new growth in the surrounding area.

N. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

There are a number of resources, both natural and built, that would be expended in the construction and operation of the proposed La Central project. These resources would include the materials used in

construction of the proposed buildings; energy in the form of gas and electricity consumed during construction and operation of the Proposed Project; and the human effort (i.e., time and labor) required to develop, construct, and operate various components of the Proposed Project. These resources are considered irretrievably committed because their reuse for some purpose other than the Proposed Project would be highly unlikely. Although the Proposed Project would result in an increase in publicly accessible open space and new commercial and residential land uses on the project site, the Proposed Project would constitute an irreversible and irretrievable commitment of the project site as a land resource, thereby rendering land use for other purposes infeasible, at least in the near term. Furthermore, funds committed to the design, construction, and operation of the Proposed Project would not be available for other projects.

These commitments of materials and land resources are weighed against the benefits of the Proposed Actions, which, as noted in Chapter 1, "Project Description," would transform a large vacant and underutilized site in close proximity to public transportation into a mixed-use development with new affordable and supportive housing, local retail and commercial uses, community facility uses, and publicly accessible open space.

La Central
Chapter 1: Project Description

A. INTRODUCTION

The New York City Department of Housing Preservation and Development (HPD), on behalf of the project sponsor La Central Manager, LLC, is seeking approval for several discretionary actions (collectively, the "Proposed Actions") to facilitate the development of an underutilized 4.3-acre site in the Melrose neighborhood of Bronx Community District 1. The Proposed Actions include:

- Disposition of City-owned property as well as designation and approval of the project as an Urban Development Action Area Project (UDAAP)
- Zoning map amendment to change M1-1 and C4-4 districts to C6-2
- A zoning text amendment to ZR 23-90 (Appendix F) to map a Mandatory Inclusionary Housing (MIH) area throughout the Project Area
- Special permits to allow bulk and use modifications for a Large-Scale General Development (LSGD)
- Approval for construction financing

The Proposed Actions would facilitate the development of new affordable and supportive housing, local retail and other commercial uses, community facility uses, and public open space. The triangular-shaped Project Area (Block 2363, Lot 1; Block 2361, Lots 1, 25, 26, 50; Block 2294, Lot 32) is generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and the elevated IRT #2 and #5 subway tracks to the south (see Figures 1-1 and 1-2). The Proposed Actions would complement the ongoing residential and commercial redevelopment of this area of the South Bronx and enliven a number of large underutilized City-owned sites in close proximity to public transportation.

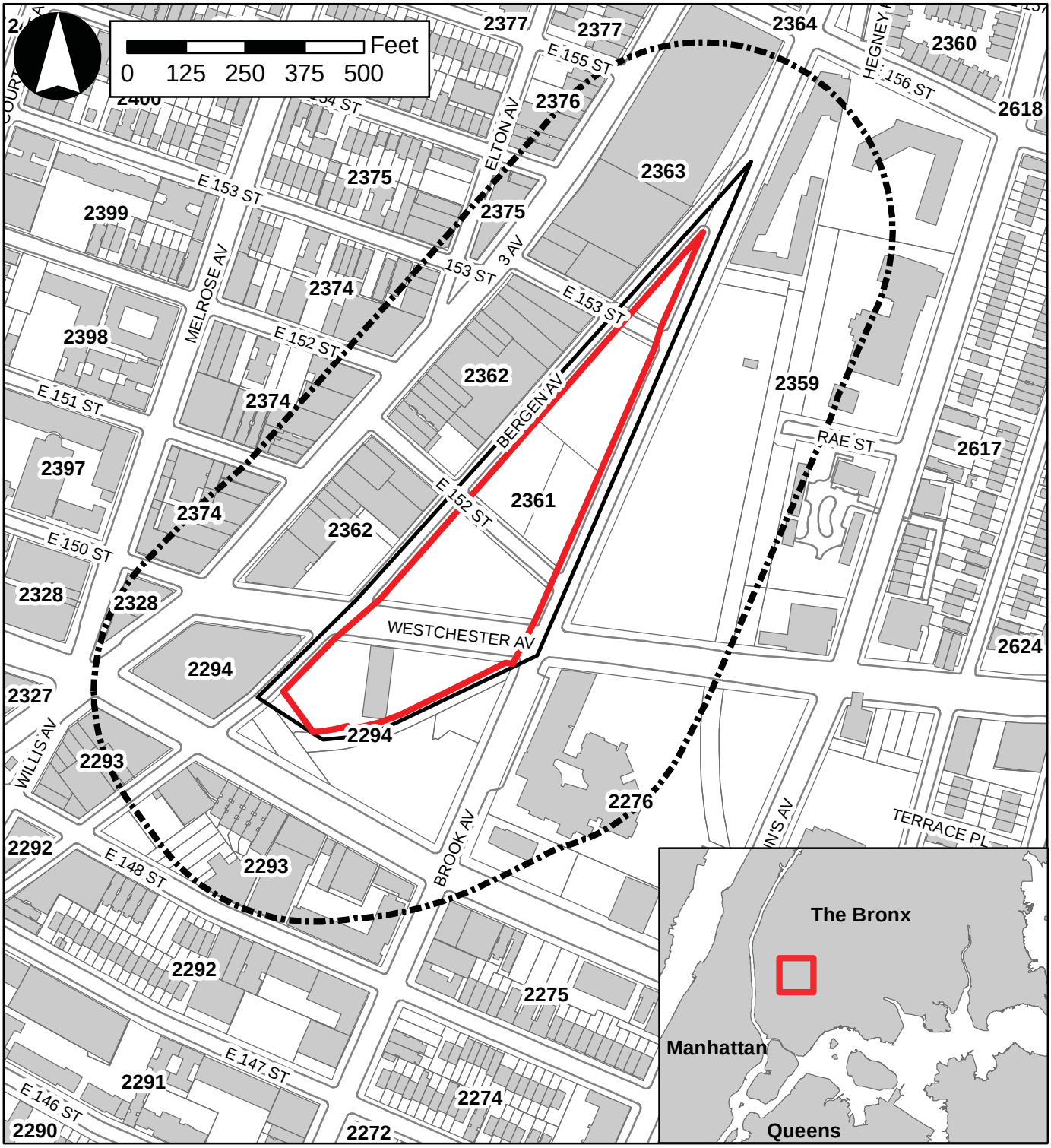
The Proposed Actions would facilitate an approximately 1.1 million gross square foot (gsf), five building mixed-use development (the "Proposed Project") consisting of approximately 832 affordable dwelling units (DUs) (909,300 gsf), approximately 160 supportive housing units (77,500 gsf), approximately 46,800 gsf of local retail and commercial uses, an approximately 50,500 gsf YMCA, and approximately 32,700 gsf of other community facility uses. The Proposed Project would also include up to approximately 209 accessory below-grade parking spaces, 426 enclosed bicycle spaces, a total of approximately 1.26 acres (55,151 sf) of public open space, and a total of approximately 1.19 acres (51,906 sf) of private open space for building tenants. Construction of the Proposed Project is expected to begin in the second half of 2016 with all components complete and fully operational by 2020.

This chapter provides a detailed description of the Proposed Actions, including project background, project purpose and need, site description, project description, and the governmental approvals required. The supplemental analyses following this chapter examine the potential for the Proposed Actions to result in significant adverse environmental impacts in any technical area of the 2014 *City Environmental Quality Review (CEQR) Technical Manual*.

B. BACKGROUND

The Project Area was formerly within the Bronxchester URA, which was established by the Bronxchester

Figure 1-1
Project Location



Legend

- Project Area
- Proposed Rezoning Area
- 400-Foot Radius
- **2361** Tax Blocks

La Central

Figure 1-2

Aerial View

Urban Renewal Plan ("BURP") in 1989 (and revised in 1995) in order to redevelop the vacant, substandard, and deteriorated buildings and vacant lots in the Bronxchester URA. Specifically, the objectives of the BURP, among others, were to provide new low and/or moderate income housing exhibiting good design in terms of privacy, light, air and open space; provide convenient community facilities, recreational uses and retail shopping; and redevelop the area in a comprehensive manner, compatible with or beneficial to the surrounding area. The URA was generally bounded by East 156th Street to the north, St. Ann's Avenue to the east, East 149th Street to the south and Third and Bergen Avenues to the west. The Bronxchester URA was created through a "spin-off" of the South Bronx Neighborhood Development (Urban Renewal) Project and was adopted August 17, 1989.

The land use provisions and building requirements of the URP for the northern portion of the Project Area (URA Sites 4, 5 and 6) expired on December 31, 2008. The URP restrictions for Site 7A, which comprises the portion of the Project Area south of Westchester Avenue, expired on March 31, 2015.

A portion of the tax lots comprising the Project Area were mapped as part of East 153rd Street, but never improved as a street. In 1974, a portion of East 153rd Street between Bergen Avenue and Brook Avenue was widened from 50 feet to 80 feet wide and, concomitantly, portions of Block 2361, Lot 26 and Block 2363, Lot 1 were mapped as part of Grove Street, pursuant to CP Report No. 22838, dated November 27, 1974, in conjunction with the South Bronx Model Cities Area. However, East 153rd Street was never widened to the mapped width of 80 feet, and remains built at 50 feet wide. The proposed La Central project will maintain the current width of East 153rd Street at 50 feet.

A demapped portion of East 152nd Street, which is still open to traffic, runs east-west through the central portion of the development site. It is encumbered by a sewer easement mapped by the City of New York in 1974 in conjunction with the Bronxchester URP. The sewer easement is noted on Section 6 of the City Map dated May 1, 1974, which was approved by the New York City Planning Commission pursuant to CP Report No. 22713 on July 10, 1974, and by the New York City Board of Estimate on February 2, 1975 under Plan No. 11919, Calendar No. 10.

C. EXISTING CONDITIONS

Surrounding Area

"The Hub" area of the South Bronx, defined as the point where Third Avenue, Melrose Avenue, Willis Avenue, and East 149th Street intersect, is recognized as the borough's "downtown" regional shopping and office district. The area is comprised of many 2- to 4-story commercial buildings that offer a diverse range of retail, dining, and service options. Residential areas are located immediately adjacent to the main commercial thoroughfares, including to the west of Third Avenue and to the south of East 149th Street.

The scale and density of the neighborhood tends to reflect underlying zoning districts. Third Avenue is zoned C4-4 for medium-density commercial uses. Other zoning districts within the surrounding area include C6-2 along Brook Avenue to the north, as well as a number of residential districts (R6, R7-1, R7-2, R8). C1 and C2 commercial overlays, which allow local retail and local service establishments, are mapped along major thoroughfares including portions of Westchester Avenue, East 149th Street, Melrose Avenue, and Cortlandt Avenue. The area is also well-served by public transportation, including the IRT #2 and #5 subway lines and several New York City Transit (NYCT) bus routes, including the Bx41 Select Bus Service (SBS).

There are two recently constructed developments located just north of the Project Area. To the northwest, on a site bounded by Third Avenue, East 156th Street, and Brook Avenue (Block 2363, Lot 4), is the two-story Hub Retail and Office Center constructed in 2006. This building contains ground-floor retail and second-floor offices for the New York City Department of Finance Bronx Business Center, as well as an adjoining multi-level parking garage. To the northeast of the Project Area on Brook Avenue (Block 2359, Lot 1001) is Via Verde, a subsidized housing development completed in 2012. Via Verde accommodates a stepped, 20-story apartment tower with 150 low-income rental units, 70 affordable cooperative units, community facility space, and ground-floor retail. Adjacent to Via Verde, to the northeast of the Project Area on East 156th Street and St. Ann's Avenue (Block 2359, Lot 210), is the 18-story New York City Housing Authority (NYCHA) Bronxchester Houses.

There are a number of public facilities and institutions located in the surrounding area including the Mott Haven Village Preparatory High School, University Heights High School, Crotona Academy High School, the United States Hub Station Post Office, all of which are located on St. Ann's Avenue to the east of the Project Area. To the south of these institutions is the Horizon Juvenile Center on Brook Avenue, a self-contained juvenile detention facility with approximately 124 beds. Open spaces in the surrounding area include the Merrill Lynch Field of Dreams, St. Ann's Block Association Garden, and St. Mary's Park.

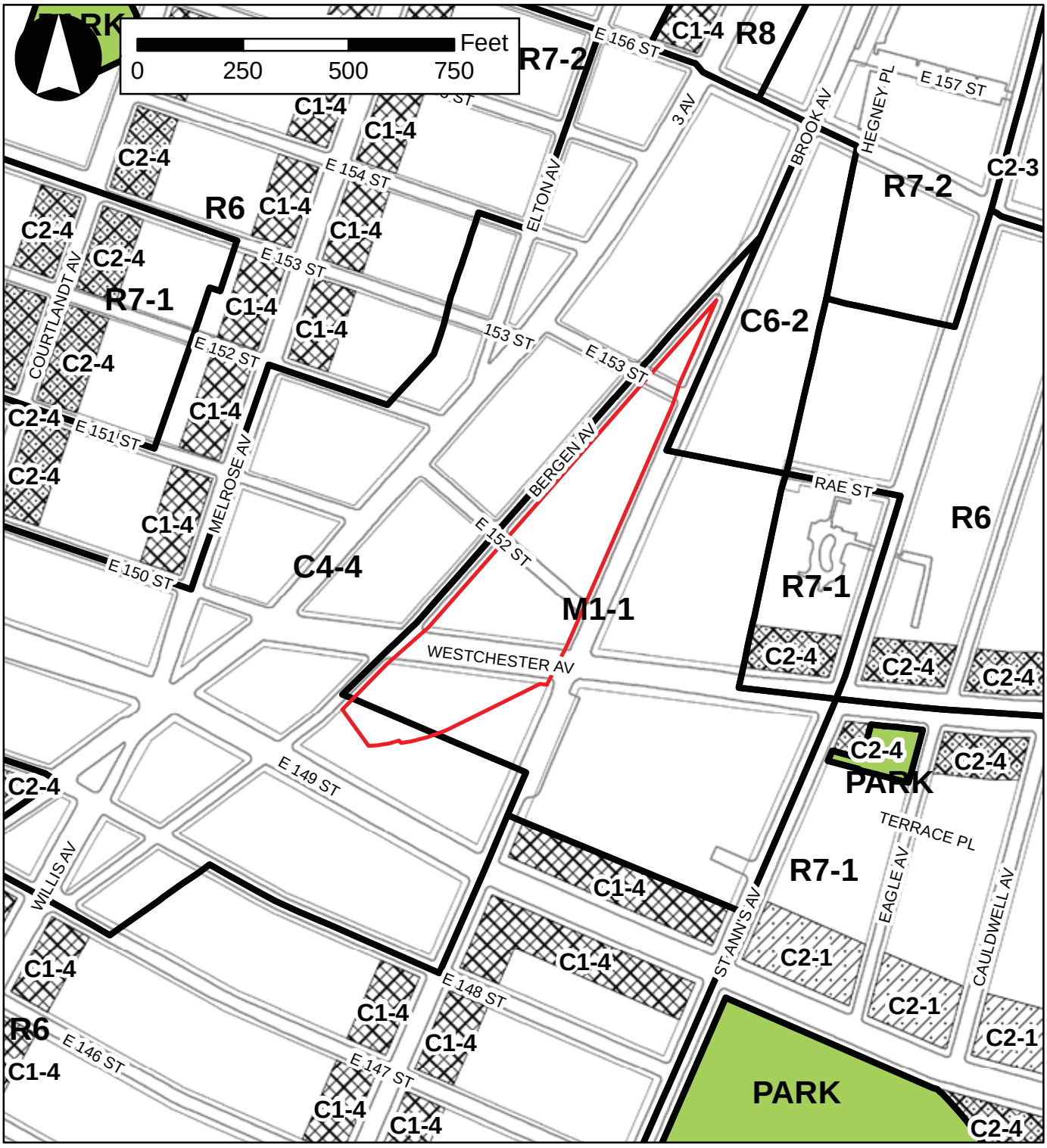
Project Area

The Project Area is comprised of an assemblage of three zoning lots (Parcels A, B, C) containing six City-owned tax lots (Block 2363, Lot 1; Block 2361, Lots 1, 25, 26, 50; Block 2294, Lot 32). The Project Area is generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and elevated IRT #2 and #5 subway tracks to the south. The area is primarily zoned M1-1 except for the southern portion of Block 2294, which is zoned C4-4 on East 149th Street (see Figure 1-3). The Project Area measures approximately 186,493 sf in area and has an existing built FAR of approximately 0.06.

Parcel A (Block 2361, Lots 1, 25, 26, 50) has frontage on East 152nd Street (demapped in 1975 but currently open to traffic), East 153rd Street, Bergen Avenue, Brook Avenue, and Westchester Avenue (see Figure 1-4). The parcel has a total area of approximately 128,808 sf (including the approximately 1,003 sf portion of the East 153rd Street widening easement) and is currently vacant with the exception of the demapped East 152nd Street which extends between Bergen and Brook Avenues as a functioning one-way westbound street with parking on both the north and south sides. A New York City Department of Environmental Protection (DEP) sewer easement is mapped within the demapped portion of East 152nd Street.

Parcel B (Block 2294, Lot 32) is located across Westchester Avenue to the south of Parcel A (see Figure 1-4). The parcel has an area of approximately 50,551 sf with frontage on Bergen and Westchester Avenues. The parcel is currently occupied by two at-grade public parking lots and a vacant two-story building at 438 Westchester Avenue.

Parcel C (Block 2363, Lot 1) measures approximately 7,134 sf in area and has frontage on East 153rd Street, Bergen Avenue, and Brook Avenue (see Figure 1-4). The parcel is enclosed by chain link fencing and is currently vacant. Adjacent to Parcel C between Bergen and Brook Avenues is a mapped but unimproved 1,152 sf portion of the East 153rd Street widening easement.



Legend

- Project Area
- Zoning District
- Park
- C1-4 Commercial Overlay
- C2-1
- C2-4 Commercial Overlay

La Central

Figure 1-4

East 153rd Street Widening Easement Boundaries

D. DESCRIPTION OF THE PROPOSED ACTIONS

The Proposed Actions include the disposition of City-owned property, designation and approval of the project as an Urban Development Action Area Project (UDAAP), zoning map amendment, zoning text amendment, and special permits for a Large-Scale General Development (LSGD). In addition, the project sponsor may also seek approval for construction financing. These actions are detailed below.

Disposition of City-Owned Land & Urban Development Action Area Project

The applicant, on behalf of the project sponsor, is seeking disposition authority for a number of City-owned properties (Block 2363, Lot 1; Block 2361, Lots 1, 25, 26, 50; Block 2294, Lot 32) to facilitate construction of the Proposed Project. In conjunction with the disposition, the applicant is also seeking designation of the project as an UDAAP pursuant to Article 16 of the General Municipal Law. Designation of an UDAAP must be authorized by City Council.

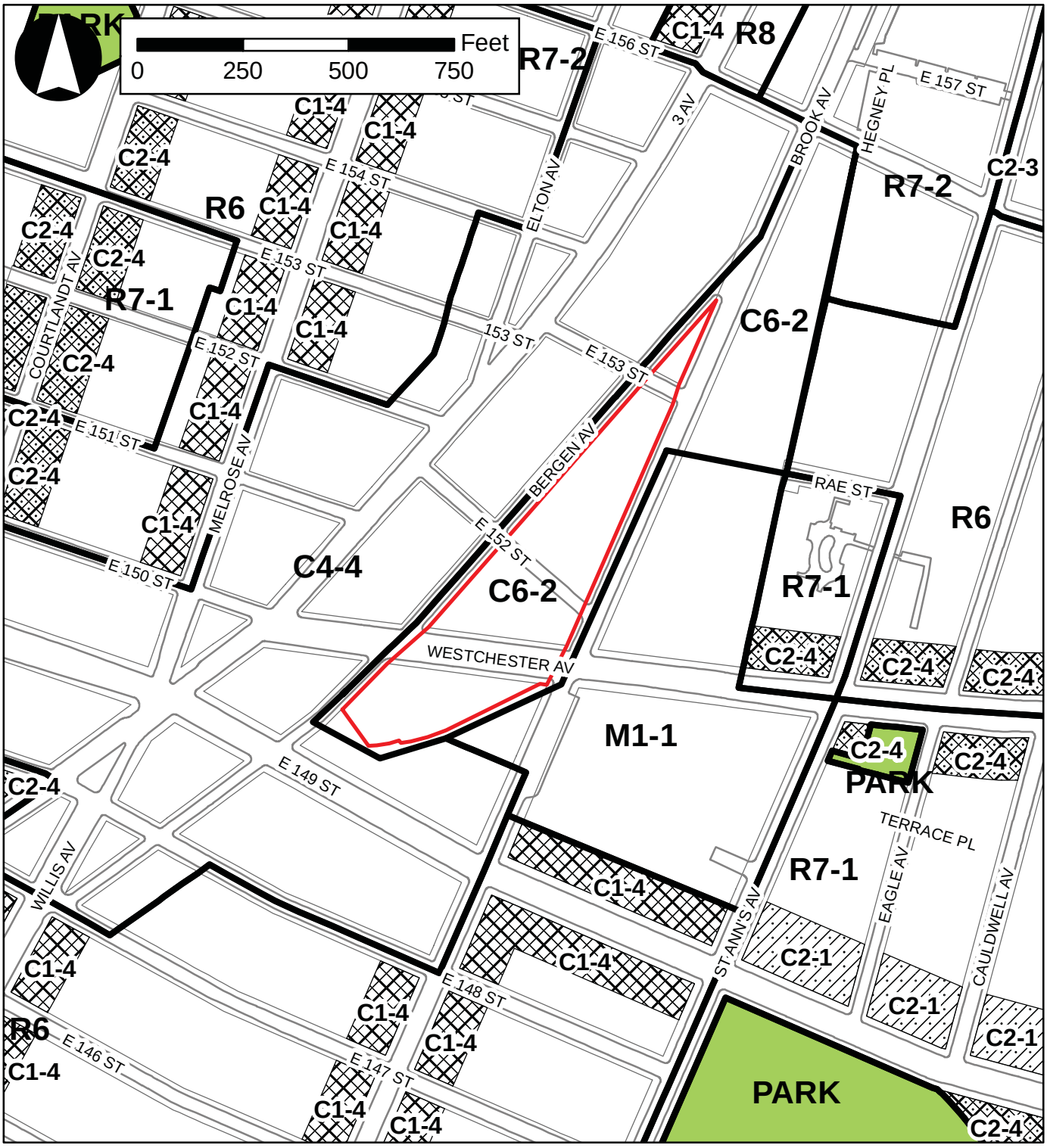
Zoning Map Amendment

The Project Area is currently located in two zoning districts: M1-1 and C4-4 (refer to Figure 1-3). The proposed zoning map amendment would extend a C6-2 zoning district southward from the east side of Brook Avenue to the Project Area. As shown in Figure 1-5, the southernmost boundary of the proposed C6-2 district would be located 90 feet north of East 149th Street. C6 districts are typically located outside of central business districts and permit a wide range of high bulk commercial uses requiring a central location that is well-served by mass transit. C6-2 districts permit commercial uses up to 6.0 FAR, residential uses up to 6.02 FAR, and community facility uses up to 6.5 FAR. There are no maximum building heights and off-street parking is typically not required.

C6-2 districts have a residential district equivalent of R8 and the proposed development would be constructed under height factor regulations. In R8 districts, height factor regulations permit an FAR ranging from 0.94 to 6.02 and an open space ratio (OSR) ranging from 5.9 to 11.9. When utilizing height factor regulations, a taller building may be obtained by providing more open space and there are no absolute height limits. However, buildings cannot penetrate the sky exposure plane, which begins 85' above curb level.

The boundary of the proposed zoning map amendment (the "Rezoning Area") is roughly triangular and comprised of Block 2361 (Lots 1, 25, 26, and 50), a portion of Block 2363 (Lot 1), and a portion of Block 2294 (Lot 32, and portions of Lots 30, 55, and 1001-1005). The Rezoning Area is generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and a line approximately 90 feet north of East 149th Street to the south. In order to ensure an efficient future zoning map, the Rezoning Area is slightly larger than the Project Area because and includes small portions of Lots 30, 55 and 1001-1005 (former Lot 60) within southernmost Block 2294. Lot 1001-1005 (former Lot 60), is privately owned and the site of the recently developed Triangle Plaza Hub (completed in August 2015), an 86,645 square foot mixed use retail and office facility. Lot 55, which is owned by the City of New York, contains the elevated IRT #2 and #5 subway tracks and is not developable. Lot 30, which is privately owned, is currently vacant but is planned to contain an approximately 3,000-square-foot commercial building. Future development of Lot 30 would be governed by a Restrictive Declaration limiting the amount of floor area to be developed. For these reasons, the additional property on Block 2294 included in the Rezoning Area are not considered "soft sites" and are not anticipated to undergo redevelopment by 2020 as a result of the Proposed Actions.

Figure 1-5
Proposed Zoning Map



Zoning Text Amendment

The applicant is seeking a zoning text amendment to Section 23-90 (Appendix F) of the *Zoning Resolution of the City of New York* (ZR) in order to establish the entirety of the Rezoning Area as a Mandatory Inclusionary Housing (MIH) area. As the Proposed Project would create opportunities for significant new housing development, the mapping of an MIH area is required as a condition of approval for the proposed LSGD special permits.

Special Permits for a Large-Scale General Development

The applicant is seeking three special permits for a LSGD in order to:

1. Permit distribution of total allowable floor area and required open space within the LSGD without regard to zoning lot lines pursuant to ZR § 74-743(a)(1). This waiver is intended to allow the distribution of floor area and open space without regard for zoning lot lines, waive height and setback requirements for each building, and will waive rear yard requirements for Building A. These modifications will facilitate the creation of a site plan that is uniquely suited to the irregularly shaped Project Area, while providing ample open space and keeping buildings close to the street to maintain pedestrian scale;

2. Permit location of buildings without regard to applicable yard, court, distance between buildings, and height and setback regulations pursuant to ZR § 74-743(a)(2). This waiver is intended to permit: exceedances of the maximum front wall height, encroachment of required setback distances, and violation of the sky exposure planes at Buildings A, B, C, and D; obstruction in the required rear yard of Building A; and violation of the sky exposure plane at Building E; and

3. Permit residential and non-residential uses to be arranged without regard for location regulations of ZR § 32-42 pursuant to ZR § 74-744(b). This waiver is intended to permit the placement of a Use Group 10 television studio on the first and second floors of Building B adjacent to residential uses.

The proposed special permits would allow greater design flexibility for the purpose of better site planning and urban design. LSGDs are typically located in medium- or high-density commercial or manufacturing districts and uses in an LSGD must adhere to the underlying zoning district. The height, bulk, and setback waivers granted under the LSGD special permit would allow for the creation of more affordable and supportive DUs within the Project Area. Upon approval, the project sponsor would enter into a Restrictive Declaration (RD), a legally binding mechanism tied to the Project Area that governs the provisions of the LSGD.

Public Financing

In addition, the project sponsor may seek construction financing for one or more parcels from city, state, and/or federal sources. At the city level, funding may be requested from HPD the New York City Housing Development Corporation (HDC) at a future date. At the state level, funding may be requested from the New York State Housing Finance Agency (NYSHFA) in the form of tax exempt bonds, an as-of-right four percent low-income housing tax credit (LIHTC) and capital funding, and from the New York State Homeless Housing Assistance Program (HHAP) in the form of a subsidy loan, and from the New York State Homes

and Community Renewal (HCR) through the Medicaid Redesign Team (MRT) Housing Capital Program. Federal sources of funding may include the United States Department of Housing and Urban Development (HUD) financing programs, allocated by HPD.

E. PURPOSE AND NEED FOR THE PROPOSED ACTIONS

The requested disposition of City-owned property, UDAAP designation, zoning map amendment, special permits for a LSGD, and public financing approval are intended to provide the flexibility needed to develop a substantial amount of much needed affordable and supportive housing (832 affordable units and 160 supportive units), local retail and other commercial uses, community facility uses, and open space compared to what would be allowed under existing conditions. The Proposed Actions would therefore support the City's goals of promoting affordable housing development by maximizing the use of vacant City-owned land and encouraging the continued economic development of this area of the South Bronx. The Proposed Project is also intended to create new jobs (approximately 387 permanent on-site workers[1], excluding construction workers).

The Proposed Actions would help address specific needs of the local community including the provision of affordable housing units, retail, community facility, and open space uses, and would enliven the underutilized Project Area. The Proposed Project would provide 832 affordable DUs, approximately 53 percent of which are expected to contain two to four bedrooms for larger families, reflecting the demographic trends and needs of the area.[2] Furthermore, the proposed mixed-use project would activate long-vacant City-owned sites located along major thoroughfares in close proximity to public transportation and Third Avenue, extending the commercial corridor and pedestrian activity of the Hub eastward.

F. DESCRIPTION OF PROPOSED DEVELOPMENT

The Proposed Actions are intended to facilitate an approximately 1.1 million gsf, five building mixed-use development (referred to as Buildings A through E) consisting of approximately 832 affordable DUs (909,300 gsf), approximately 160 supportive housing units (77,500 gsf), approximately 46,800 gsf of local retail and commercial uses, an approximately 50,500 gsf YMCA, and approximately 32,700 gsf of other community facility uses. The Proposed Project is also expected to include up to approximately 209 accessory parking spaces, 426 enclosed bicycle spaces, an approximately 41,002 sf courtyard open space (32,481 sf public, 8,521 sf private), an approximately 7,134 sf public skate park (operated and maintained by the project sponsor), an approximately 7,625 sf public rooftop farm, approximately 7,911 sf of additional public open space, and approximately 43,385 sf of private rooftop and terrace open space. In total, approximately 1.26 acres (55,151 sf) of public open space and 1.19 acres (51,906 sf) of private open space would be provided on-site. These uses are discussed in greater detail below.

The proposed 832 DUs of affordable housing are anticipated to be marketed to households earning between 40 percent and 130 percent of Area Median Income (AMI). Approximately 53 percent of theses DUs would have two to four bedrooms (865 sf to 1,465 sf units) in order to accommodate families. The 160 supportive housing units are anticipated to be studio apartments for seniors living with HIV/AIDS,

[1] Refer to Table 2 in the EAS Form for employee generation details.
[2] The average household size for Bronx Community District 1 is 3.0 persons per household (based on 2010 U.S. Census data).

single veterans, and individuals earning less than 60 percent of AMI. One of the affordable housing units would be reserved for the supportive housing superintendent. The supportive housing units would be managed by non-profit service providers Common Ground and Comunilife.

At this time, community facility uses at the project site are expected to include supportive housing units (treated as community facility with sleeping accommodations per the NYC Zoning Resolution) and approximately 83,200 gsf of other uses, that as currently anticipated will include: approximately 7,300 gsf of office space for Common Ground (Building D); an approximately 50,500 gsf YMCA (Building A); approximately 2,400 gsf associated with a public rooftop farm (Building A); an approximately 8,300 gsf day care facility (Building E); an approximately 8,600 gsf recording studio (Building C); and approximately 6,100 gsf of other community facility uses (Buildings D and E). With the exception of an anticipated approximately 12,700 gsf television studio, commercial space throughout the Project Area is anticipated to include predominantly ground-floor local retail.

Open space at the project site is expected to include an approximately 41,002 sf courtyard (32,481 sf public, 8,521 sf private) on Parcel A with grass, trees, plantings, cobblestone pathways, sitting areas, and a playground, as well as an approximately 7,134 sf public skate park on Parcel C, an approximately 7,625 sf public rooftop farm on Parcel B, 7,911 sf of other public open spaces, and a total of approximately 43,385 sf of private rooftop and terrace open space (all five buildings) for building tenants.

Building-by-Building Description

Building A would be located on Parcel B along Bergen and Westchester Avenues (see Figure 1-6). The building would rise 12 stories (approximately 125 feet) and would be comprised of approximately 215 DUs (232,700 gsf), 15,400 gsf of local retail and commercial space, and 52,900 gsf of community facility space (see Table 1-1). At this time, the building's community facility space is anticipated to be occupied by an approximately 50,500 gsf YMCA and 2,400 gsf associated with a public rooftop farm. The main residential entrance to Building A would be located on Bergen Avenue, while the commercial, retail, and community facility uses would be accessible from Bergen and Westchester Avenues. Figure 1-7 provides an illustrative rendering of Building A.

Buildings B, C, D, and E would be located on Parcel A bounded by Bergen Avenue, Brook Avenue, Westchester Avenue, and East 153rd Street (see Figure 1-6). Each building would be located towards the edge of the Project Area in order to allow for an approximately 41,002 sf landscaped courtyard in the center of the parcel. The majority of the courtyard would be publicly accessible and each building would have entrances facing the courtyard. A portion of the courtyard would be located along the demapped portion of East 152nd Street between Bergen and Brook Avenues, in order to maintain the below-grade sewer easement. Figure 1-7 provides illustrative renderings of these buildings.

Building B would rise to a height of 13 stories (approximately 125 feet) and would have frontage along Bergen, Brook, and Westchester Avenues (see Figure 1-6). The building would be comprised of approximately 281 DUs (309,600 gsf) and approximately 29,100 gsf of local retail and commercial space (see Table 1-1). At this time, commercial space in Building B is anticipated to be occupied by a television studio, while ground-floor retail space is anticipated to be occupied by local retailers. An underground parking garage with up to approximately 209 accessory parking spaces would be located beneath Building B. The garage would be accessible from Bergen Avenue and would provide the only off-street parking option at the project site. Residential entrances to Building B would be located on Brook Avenue and within the courtyard, while local retail and commercial uses would be accessible from Bergen and

Courtesy of FXFowle Architects

For Illustrative Purposes Only

Courtesy of FXFowle Architects

For Illustrative Purposes Only

La Central

Figure 1-7a

Illustrative Rendering - View Looking Northwest

Courtesy of FXFowle Architects

For Illustrative Purposes Only

La Central

Figure 1-7b

Illustrative Rendering - View Looking Southwest from across Brook Avenue

Westchester Avenues.

Building C would rise to a height of 13 stories (approximately 125 feet) and would have frontage along Brook Avenue (see Figure 1-6). The building would be comprised of approximately 137 DUs (153,900 gsf) and approximately 8,600 gsf of community facility space, totaling approximately 162,500 gsf (see Table 1-1). At this time, the community facility space is anticipated to be occupied by a recording studio. Residential entrances to Building C would be located along Brook Avenue and within the courtyard, while community facility uses would be accessible from Brook Avenue.

Building D would rise to a height of 9 stories (approximately 93 feet) and would have frontage along Bergen Avenue (see Figure 1-6). The building would be primarily comprised of approximately 160 supportive housing units and one superintendent's unit (77,500 gsf total) anticipated to be operated by non-profit social service providers Common Ground and Comunilife. Building D would also include approximately 4,400 gsf of other community facility uses on the first floor and approximately 7,300 gsf of office space assumed for Common Ground on the second floor (see Table 1-1). Entrances to supportive housing would be located along Bergen Avenue and within the courtyard, while the ground floor community facility space and office spaces would be accessible from Bergen Avenue.

Building E would have frontage along Bergen Avenue, Brook Avenue, and East 153rd Street (see Figure 1-6). At a height of 25 stories (approximately 249 feet) it would be the tallest of the five proposed buildings. Building E would be comprised of approximately 198 DUs (213,100 gsf), approximately 2,300 gsf of local retail and commercial space, and approximately 10,000 gsf of community facility space (see Table 1-1). At this time, ground-floor retail space is anticipated to be occupied by local retailers and the community facility space is anticipated to be occupied by a day care facility and other community facility uses. Residential entrances would be located on Brook Avenue and the south side of the building facing the courtyard, while the retail and community facility uses would be accessible from East 153rd Street and Bergen/Brook Avenues, respectively.

Each building would possess private landscaped green roofs as well as bicycle parking for building residents. These private open spaces would include trees, plantings, benches, tables, and chairs. At this time it is anticipated that solar panels would be located on some rooftops of the proposed development to help offset energy demands (see Figure 1-7). A total of 426 enclosed bicycle parking spaces would be provided. The bicycle spaces would be located in either the cellar or ground floor of each building, with approximately 108 spaces located in Building A, 141 spaces in Building B, 69 spaces in Building C, 9 spaces in Building D, and 99 spaces in Building E.

TABLE 1-1
Proposed Development Program[1]

Building	GSF Above Grade	GSF Below Grade[2]	Total GSF	Community Facility GSF	Commercial GSF	Residential GSF	DUs[3]	Accessory Parking Spaces	Accessory Parking & Loading GSF	Building Height (ft)
A	265,240	35,760	301,000	52,900	15,400[4]	232,700	215	0	0	125
B	338,700	0	338,700	0	29,100	309,600	281	209	37,580	125
C	162,500	0	162,500	8,600	0	153,900	137	0	0	125
D	89,200	0	89,200	89,200[5]	0	0	1	0	0	93
E	225,400	0	225,400	10,000	2,300	213,100	198	0	0	249
Total	**1,081,040**	**35,760**	**1,116,800**	**160,700[5]**	**46,800**	**909,300**	**832[3]**	**209**	**37,580**	

[1] Table 1-1 does not include a breakdown of open space, which includes 1.26 acres (55,151 sf) of public open space.
[2] Includes YMCA. Does not include accessory parking or storage and building support space.
[3] Does not include supportive housing units (Use Group 3 non-profit institution with sleeping accommodations), but does include superintendent's unit in Building D.
[4] Includes 600 sf of permitted loading.
[5] Community facility floor area includes 160 supportive housing units and one superintendents unit.

Project-Related Environmental Measures

Measures to ensure that no significant adverse impacts related to hazardous materials, air quality, and noise would occur as a result of the Proposed Actions would be incorporated into the Proposed Project. These measures would be incorporated into the design, construction, and/or operation of the Proposed Project and since the Project Area is currently City-owned, HPD would require the project sponsor implement these measures to the satisfaction of the City through the Land Disposition Agreement (LDA) between HPD and the project sponsor as well as the RD to be tied to the LSGD.

As detailed in Attachment B of the EAS (see Appendix A), due to the potential presence of hazardous materials in the Project Area, the LDA between HPD and the project sponsor would require that Phase II testing be performed for all parcels of the Project Area, including DEP review and approval of a workplan/Health and Safety Plan (HASP) prior to such testing. In addition, if remediation is warranted for one or more parcels/phases, a Remedial Action Plan (RAP) and associated Construction Health and Safety Plan (CHASP) would be prepared subject to review and approval by HPD and DEP. Finally, at the conclusion of construction and prior to occupancy of the new buildings, a Professional Engineer (P.E.)-certified Closure Report must be reviewed and approved by HPD and DEP to ensure the required remedial measures were implemented and the new buildings are suitable for occupancy. The project sponsor may elect to explore performing all required testing and remediation plan development through the Mayor's Office of Environmental Remediation's (OER) Voluntary Cleanup Program. Should this be the selected course of action, the LDA between HPD and the project sponsor, as well as the RD to be tied to the LSGD, would require that all construction and remediation activities be conducted in accordance with OER approvals, including submission of a Closure Report at the completion of such activities.

The proposed new buildings are expected to include natural gas-burning heating, ventilation, and air conditioning (HVAC) systems, as well as small cogeneration units for certain proposed buildings. To avoid the potential for significant adverse impacts related to stationary source PM2.5 air quality impacts, the LDA between HPD and the project sponsor would require certain fuel and height restrictions for Buildings A, B, C, and D of the proposed development, which are described in detail in Attachment J of the EAS (see Appendix A). These measures would be required through the LDA between HPD and the project sponsor, as well as the RD to be tied to the LSGD, and would ensure no significant adverse stationary source air quality impacts would occur as a result of the Proposed Actions.

The *CEQR Technical Manual* has set noise attenuation standards for buildings that are based on exterior noise levels. These values are designed to maintain interior noise levels of 45 dBA or lower for residential or community facility uses, and 50 dBA or lower for commercial uses. The U.S. Department of Housing and Urban Development (HUD) also sets exterior noise standards for housing construction based on exterior noise standards. To ensure that acceptable interior noise levels are provided at the proposed mixed-use buildings on the Project Area, the proposed designs of Buildings A, B, C and E will be required to provide window-wall attenuation ranging from 23 to 37 dBA in order to meet CEQR and HUD requirements, which are detailed in Attachment K of the EAS (see Appendix A). These measures would be required through the LDA between HPD and the project sponsor, as well as the RD to be tied to the LSGD, and would ensure no significant adverse noise impacts as a result of the Proposed Actions.

G. EIS ANALYSIS FRAMEWORK

The Proposed Actions would change the regulatory controls governing land use and development within

the Project Area. The *CEQR Technical Manual* will serve as the general guide on the methodologies and impact criteria for evaluating the Proposed Actions' potential effects on the various environmental areas of analysis. The EIS assesses the reasonable worst-case impacts that may occur as a result of the Proposed Actions. In disclosing impacts, the EIS considers the Proposed Actions' potential adverse impacts on the environmental setting.

Analysis Year

Development of the Proposed Project would occur in two overlapping phases and commence as soon as all necessary public approvals are granted. Construction of the Proposed Project would occur over an approximately three-year period with an anticipated start date in the second half of 2016 with all components complete and fully operational by 2020. Accordingly, the Proposed Project will use a 2020 Build Year for analysis purposes. As the Proposed Project would be operational in 2020, its environmental setting is not the current environment, but the future environment. Therefore, the technical analyses and consideration of alternatives assess current conditions and forecast these conditions to the expected 2020 Build Year for the purposes of determining potential impacts. Each chapter of the EIS will provide a description of the "Existing Condition" and assessment of future conditions without the Proposed Project ("Future without the Proposed Actions") and with the Proposed Project ("Future with the Proposed Actions").

Reasonable Worst-Case Development Scenario (RWCDS)

In order to assess the possible effects of the Proposed Actions, a reasonable worst-case development scenario (RWCDS) for the Project Area was established for both Future No-Action and Future With-Action conditions. The incremental difference between the Future No-Action and Future With-Action conditions will serve as the basis of the impact category analyses in the EIS. For conservative analysis purposes, the Proposed Project is assumed to be the RWCDS for the Project Area and is therefore evaluated in this analysis.

Development Site Criteria

Pursuant to the *CEQR Technical Manual*, several factors were considered in projecting the amount and timing of new development within the Rezoning Area. These include known development proposals, past and current development trends, and the development site criteria described below. The first step in establishing the development scenario was to identify those sites where new development could be reasonably expected to occur.

Development sites were initially identified based on the following criteria:

- Lots located in areas where a substantial increase in permitted FAR is proposed;
- Lots with a total size of 5,000 square feet (sf) or larger (may include potential assemblages totaling 5,000 sf, respectively, if assemblage seems probable);
- Underutilized lots (defined as vacant or lots constructed to less than or equal to half of the proposed FAR under the proposed zoning); and
- Lots located in areas where changes in use would be permitted.

The development scenario's universe of sites was further refined by eliminating sites with the following conditions:

- Lots where construction activity is actively occurring or has recently been completed;
- Sites of schools (public and private), municipal libraries, government offices, large medical centers, and houses of worship. These facilities may meet the development site criteria, because they are built to less than half of the permitted floor area under current zoning and are on larger lots. However, these facilities have not been redeveloped or expanded despite the ability to do so, and it is extremely unlikely that the increment of additional FAR permitted under the proposed zoning would induce redevelopment or expansion of these structures. Additionally, for government-owned properties, development and/or sale of these lots may require discretionary actions from the pertinent government agency;
- Multi-unit buildings (existing individual buildings with six or more residential units are unlikely to be redeveloped because of the required relocation of tenants in rent-stabilized units);
- Certain large commercial structures such as multi-story office buildings and hotels. Although these sites may meet the criteria for being built to less than half of the proposed permitted floor area, some of them are unlikely to be redeveloped due to their current or potential profitability, the cost of demolition and redevelopment, and their location.
- Lots whose location or highly irregular shape would preclude or greatly limit future as-of-right development. Generally, development on highly irregular lots does not produce marketable floor space.
- Lots utilized for public transportation and/or public utilities.

Definition of Projected and Potential Development Sites

Projected development sites are considered more likely to be developed by the build year of 2020 because of known development plans for such sites, their relatively low FAR and current utilization, and relatively large size. Potential sites are considered less likely to be developed over the same period because of their relatively higher FARs, existing utilization, and generally more cumbersome means of development.

Using the definitions and the criteria outlined above, no projected or potential development sites have been identified within the Rezoning Area. The three sites that would be rezoned as part of the Proposed Actions but fall outside of the Project Area (Block 2294, Lots 30, 55, and 1001-1005) were eliminated for the following reasons: Lot 1001-1005 (former Lot 60) is privately owned and the site of the recently developed Triangle Plaza Hub (completed in August 2015), an 86,645 sf mixed use retail and office facility; Lot 55, which is owned by the City of New York, contains the elevated IRT #2 and #5 subway tracks and is not developable; Lot 30, which is privately owned, is planned to contain an approximately 3,000 sf commercial building and is governed by a Restrictive Declaration limiting the amount of floor area to be developed. Therefore, these three lots are not considered “soft sites” and have not been identified as projected or potential developments.

The Future Without the Proposed Actions (No-Action)

In the 2020 future without the Proposed Actions, it is expected that no changes to zoning or land use would occur within the Project Area or the larger Rezoning Area. The Project Area would remain under the jurisdiction of HPD and would remain underutilized and mostly vacant with the exception of Parcel B, which would continue to operate with two at-grade public parking facilities and a vacant 11,000 gsf building. Redevelopment of the Project Area would not be able to occur without the disposition of City-owned property and other discretionary approvals through the CPC.

The Future With the Proposed Actions (With-Action)

The Proposed Actions would allow for the development of higher density residential, community facility, and commercial uses within the Project Area. Given the site's dimensions and applicable zoning setbacks and regulations under future conditions, the proposed development would represent the upper bounds of development (maximum 7.2 FAR under C6-2 zoning). This ensures that the impact of the Proposed Actions would be no worse than those considered in this EIS.

In the 2020 future with the Proposed Actions, the Project Area would accommodate approximately 1.1 million gsf of total development including 832 affordable DUs (909,300 gsf), approximately 160 supportive housing units (77,500 gsf), approximately 46,800 gsf of local retail and commercial uses, approximately 83,200 gsf of community facility space (excluding supportive housing), and approximately 1.26 acres (55,151 sf) of publicly accessible open space. Up to approximately 209 accessory parking spaces would be provided below-grade on the south side of Parcel A. The parking garage would be entered through a new curb cut on Bergen Avenue adjacent to Building B.

As none of the remaining lots within the Rezoning Area meet the criteria for potential or projected development sites, it is considered highly unlikely that any new development would occur on these lots in the future with the Proposed Actions. Therefore, in the With-Action conditions, it is anticipated that existing uses on Lots 30, 50, and 1001-1005 of Block 2294 would remain unchanged.

Possible Effects of the Proposed Actions

Table 1-2 below provides a comparison of the No-Action and With-Action scenarios identified for analysis purposes of the Proposed Actions.

TABLE 1-2
Comparison of No-Action and With-Action Development Scenarios

Use		**No-Action Scenario**	**With-Action Scenario**	**Increment**
Residential – Affordable Housing		--	832 DUs[1] (909,300 gsf)	**832 DUs (909,300 gsf)**
Community Facility	Supportive Housing	--	160 units[2] (77,500 gsf)	**160 units (77,500 gsf)**
	YMCA	--	50,500 gsf	**50,500 gsf**
	Other Uses	--	32,700 gsf	**32,700 gsf**
Commercial	Local Retail and Other Commercial Uses	--	46,800 gsf	**46,800 gsf**
	Vacant	11,000 gsf	--	***-11,000 gsf***
Parking and Loading	Public	74 spaces	--	***-74 spaces***
	Accessory	--	209 spaces (37,580 gsf)	**209 spaces (37,580 gsf)**
Publicly Accessible Open Space		--	1.26 acres (55,151 sf)	**1.26 acres (55,151 sf)**
Population/Employment[3]		**No-Action Scenario**	**With-Action Scenario**	**Increment**
Residents		--	2,656 residents	**2,656 residents**
Workers		2 workers	389 workers	**387 workers**

Notes:
[1] Does not include supportive housing units (Use Group 3 non-profit institution with sleeping accommodations), but does include one superintendent's unit.
[2] Floor area includes 160 supportive housing units and one superintendent's unit.
[3] Assumes 3.0 persons per affordable DU (based on 2010 U.S. Census data for Bronx Community District 1), 1 person per supportive DU (data provided by Common Ground & Communilife), 1 worker per 25 affordable DUs, 25 workers per 160 supportive units (data provided by Common Ground & Communilife), 1 worker per 450 sf community facility space, 3 workers per 1,000 sf commercial space, and 1 worker per 50 parking spaces.

As shown, the incremental (net) change that would result from the Proposed Actions is the addition of 832 affordable DUs (909,300 gsf), 160 supportive housing units (77,500 gsf), 83,200 gsf of community facility uses (excluding supportive housing), 46,800 gsf of local retail and other commercial uses, up to 209 accessory parking spaces (an increase of 188 total parking spaces), and 1.26 acres (55,151 sf) of public open space. Based on 2010 census data, Bronx Community District 1 has an average of 3.0 persons per household. Using this ratio, and other standard ratios for estimating employment, Table 1-3 provides an estimate of the number of residents and workers generated by the Proposed Actions.

H. PUBLIC REVIEW PROCESS

The Proposed Project described above is subject to public review under the Uniform Land Use Review Procedure (ULURP), Section 200 of the City Charter, as well as City Environmental Quality Review (CEQR) procedures. The ULURP and CEQR review processes are described below.

Uniform Land Use Review Procedure (ULURP)

The City's ULURP, mandated by Sections 197-c and 197-d of the City Charter, is a process especially designed to allow public review of proposed actions at four levels: the affected Community Board, the Borough President and (if applicable) the Borough Board, the City Planning Commission (CPC), and the City Council. The procedure sets time limits for review at each stage to ensure a maximum total review period of approximately seven months.

The ULURP process begins with a certification by the CPC that the ULURP application is complete, which includes satisfying CEQR requirements (see the discussion below). The application is then forwarded to the affected community board (in this case, Bronx Community Board 1), which has 60 days in which to review and discuss the application, hold public hearings, and adopt recommendations regarding the application. Once this step is complete, the Borough President reviews the application for up to 30 days and makes recommendations on the application. The CPC then has 60 days to review the application, during which time a ULURP public hearing is held. Comments made at the Draft EIS public hearing, which may be held concurrently with the ULURP public hearing, and during the subsequent comment period (that remains open for ten days after the hearing to receive written comments) are incorporated into a Final EIS. The Final EIS must be completed at least ten days before CPC makes its decision on the application. CPC may approve, approve with modifications, or deny the application. If the ULURP application is approved, or approved with modifications, it moves forward to the City Council for review. The City Council has 50 days to review the application and during this time will hold a public hearing on the Proposed Action, through its Land Use Committee. The Council may approve, approve with modifications, or deny the application. If the Council proposes a modification to the Proposed Action, the ULURP review process stops for 15 days, providing time for a CPC determination on whether the proposed modification is within the scope of the environmental review and ULURP review. If it is, then the Council may proceed with the modification; if not, then the Council may only vote on the actions as approved by the CPC. Following the Council's vote, the Mayor has five days in which to veto the Council's actions. The City Council may override the mayoral veto within 10 days.

Environmental Review (CEQR)

Pursuant to the State Environmental Quality Review Act (Article 8 of the Environmental Conservation Law; SEQRA) and its implementing regulations found at 6 NYCRR Part 617, New York City has established rules

for its own environmental quality review in Executive Order 91 of 1977, as amended, and 62 RCNY Chapter 5, the Rules of Procedure for CEQR. The environmental review process provides a means for decision-makers to systematically consider environmental effects along with other aspects of project planning and design, to propose reasonable alternatives, and to identify, and when practicable, mitigate, significant adverse environmental effects. CEQR rules guide environmental review, as follows.

Establishing a Lead Agency: Under CEQR, a "lead agency" is the public entity responsible for conducting environmental review. Usually, the lead agency is also the entity principally responsible for carrying out, funding, or approving the proposed action(s). In accordance with CEQR rules (62 RCNY §5-03), the Department of Housing Preservation & Development (HPD) assumed lead agency status for the Proposed Project.

Determination of Significance: The lead agency's first charge is to determine whether the proposed action(s) may have a significant adverse impact on the environment. To do so, HPD, in this case, evaluated an Environmental Assessment Statement (EAS) dated October 5, 2015 for the proposed La Central project. Based on the information contained in the EAS, HPD determined that the Proposed Actions may have a significant adverse impact on the environment and issued a Positive Declaration on October 5, 2015.

Scoping: Along with its issuance of a Positive Declaration, HPD issued a Draft Scope of Work for the EIS on October 5, 2015, marking the beginning of the comment period on the Draft Scope. "Scoping," or creating the scope of work, is the process of identifying the environmental impact analysis areas, the methodologies to be used, the key issues to be studied, and creating an opportunity for others to comment on the intended effort. CEQR requires a public scoping meeting as part of the process. A public scoping meeting was held on November 4, 2015. The public review period for agencies and the public to review and comment on the Draft Scope of Work was open through November 16, 2015. Modifications to the Draft Scope of Work for the project's EIS were made as a result of public and interested agency input during the scoping process. A Final Scope of Work document for the Proposed Project was issued on April 6, 2016.

Draft Environmental Impact Statement (DEIS): This DEIS was prepared in accordance with the Final Scope of Work, and followed the methodologies and criteria for determining significant adverse impacts in the *CEQR Technical Manual*. The lead agency reviewed all aspects of the document, calling on other City and state agencies to participate where the agency's expertise is relevant. Once the lead agency is satisfied that the DEIS is complete, it issues a Notice of Completion and circulates the DEIS for public review. When a DEIS is required, it must be accepted by the lead agency as complete before the ULURP application may also be found complete. The DEIS was deemed complete and the Notice of Completion was issued on April 8, 2016.

Public Review: Publication of the DEIS and issuance of the Notice of Completion signal the start of the public review period. During this time, which must extend for a minimum of 30 days, the public has the opportunity to review and comment on the DEIS either in writing or at a public hearing convened for the purpose of receiving such comments. As noted above, when the CEQR process is coordinated with another City process that requires a public hearing, such as ULURP, the hearings may be held jointly. The lead agency must publish a notice of the hearing at least fourteen (14) days before it takes place, and must accept written comments for at least ten (10) days following the close of the hearing. All substantive comments received at the hearing become part of the CEQR record and must be summarized and responded to in the Final EIS.

Final Environmental Impact Statement (FEIS): After the close of the public comment period for the Draft EIS, the FEIS is prepared. The FEIS must incorporate relevant comments on the DEIS, either in a separate chapter or in changes to the body of the text, graphics and tables. Once the lead agency determines the FEIS is complete, it issues a Notice of Completion and circulates the FEIS.

Findings: To document that the responsible public decision-makers have taken a hard look at the environmental consequences of a proposed action, any agency taking a discretionary action regarding a project must adopt a formal set of written findings, reflecting its conclusions about the significant adverse environmental impacts of the project, potential alternatives, and potential mitigation measures. The findings may not be adopted until 10 days after the Notice of Completion has been issued for the FEIS. Once findings are adopted, the lead and involved agencies may take their actions (or take "no action"). This means that in the ULURP process, CPC must wait at least 10 days after the FEIS is complete to take action on a given application.

A. INTRODUCTION

This chapter examines the potential effects of the Proposed Actions on community facilities serving the Project Area. The 2014 *CEQR Technical Manual* defines community facilities as public or publicly funded facilities including schools, libraries, child care centers, health care facilities, and fire and police protection services. CEQR methodology focuses on direct impacts on community facilities and services and on increased demand for community facilities and services generated by increases in population.

As described in Chapter 1, "Project Description," the Proposed Actions would facilitate the development (compared to No-Action conditions) of 832 affordable dwelling units (DUs), 160 supportive housing units, 46,800 gross square feet (gsf) of local retail and commercial uses, an approximately 50,500 gsf YMCA, approximately 32,700 gsf of other community facility uses, up to approximately 209 accessory below-grade parking spaces, 426 enclosed bicycle spaces, and approximately 1.26 acres of public open space.

The analysis of community facilities and services has been conducted in accordance with the guidelines established in the *CEQR Technical Manual* and the latest data and guidance from agencies such as the New York City Department of Education (DOE), the New York City Administration for Children's Services (ACS), the New York Public Library (NYPL), the New York City School Construction Authority (SCA), and the New York City Department of City Planning (DCP).

B. PRINCIPAL CONCLUSIONS

Pursuant to *CEQR Technical Manual* guidelines, detailed analyses of potential indirect impacts on public elementary, intermediate, and high schools, public libraries, and publicly funded child care centers were conducted for the Proposed Actions. Based on the *CEQR Technical Manual* screening methodology, detailed analyses of outpatient health care facilities and police and fire protection services are not warranted, although they are discussed qualitatively. As described in the following analysis and summarized below, the Proposed Actions would result in significant adverse impacts on public elementary schools and intermediate schools. No significant adverse high school impacts, library impacts, or child care center impacts would result.

Public Schools

The Project Area is located within New York City Community School District (CSD) 7, Sub-district 3. The Proposed Actions would introduce a net increment of 615 total students, including approximately 324 elementary school students, 133 intermediate school students, and 158 high school students.

In the 2020 future with the Proposed Actions, CSD 7 Sub-district 3 would experience significant adverse public elementary school and intermediate school impacts. Elementary schools would increase from a No-Action utilization rate of 119.7 percent to 126.0 percent in the With-Action condition (a 6.3 percentage point increase), with a deficit of 1,335 elementary school seats. Intermediate schools would

increase from a No-Action utilization rate of 105.3 percent to 110.8 percent in the With-Action condition (a 5.4 percentage point increase), with a deficit of 263 intermediate school seats. As public elementary and intermediate schools within CSD 7, Sub-district 3 would operate over capacity in the With-Action condition, with an increase of five percentage points or more in the collective utilization rate between the No-Action and With-Action conditions (the CEQR impact threshold), significant adverse elementary and intermediate school impacts would result in CSD 7, Sub-district 3.

According to the *CEQR Technical Manual*, the determination of impact significance for high schools is conducted at the borough level. In the future With-Action condition, the Bronx high school utilization rate is expected to increase by 0.2 percentage points over the No-Action condition, for a With-Action utilization rate of 98.2 percent and a surplus of 1,206 seats. As the increase in the collective high school utilization rate would be less than the five percentage point impact threshold, no significant adverse impacts to Bronx public high schools are anticipated as a result of the Proposed Actions.

Libraries

The Proposed Actions would not result in significant adverse impacts to libraries. Three NYPL branches are located within a ¾-mile radius of the Project Area: the Woodstock, Mott Haven, and Melrose Branches. The Proposed Actions would introduce an estimated 2,656 additional residents to the libraries' combined catchment area (compared to No-Action conditions). For all branches, the catchment area population increases resulting from the Proposed Actions would be less than five percent, which would not result in a noticeable change in the delivery of library services. Additionally, residents in the study area would have access to the entire NYPL system through the inter-library loan system and could have volumes delivered directly to their nearest library branch. Residents would also have access to libraries near their place of work. Therefore, the population introduced by the Proposed Actions is not expected to result in a significant adverse impact on public libraries.

Child Care Services

The Proposed Actions would not result in significant adverse impacts on publicly funded child care facilities. The Proposed Actions are expected to introduce approximately 832 low- to moderate-income units by 2020. Based on the most recent child care multipliers in the *CEQR Technical Manual*, this development would generate approximately 116 children under the age of six who could be eligible for publicly funded child care programs. With the addition of these children, there would continue to be a surplus of child care slots in the study area by 2020 (a 99.5 percent utilization), and the Proposed Actions would result in an increase in the utilization rate of approximately 1.7 percentage points over the No-Action condition.

According to the *CEQR Technical Manual*, a significant adverse child care impact may result, warranting consideration of mitigation, if an action would increase the study area's utilization rate by at least five percentage points and the resulting utilization rate would be 100 percent or more. As the Proposed Actions would result in a 1.7 percentage point increase in the study area child care facility utilization rate in the future With-Action condition, and the resulting utilization rate would be less than 100 percent, the Proposed Actions would not result in a significant adverse impact to publicly funded child care centers.

Police, Fire, and Health Care Services

The *CEQR Technical Manual* recommends a detailed analysis of indirect impacts on police, fire, and health care services in cases where a proposed action would create a sizeable new neighborhood where none existed before. The Project Area is located within an existing and well-established community that is served by existing police, fire, and health care services. Therefore, the Proposed Actions would not create a neighborhood where none existed before, and a detailed analysis of indirect effects on these community facilities is not warranted.

C. PRELIMINARY SCREENING

The purpose of the preliminary screening is to determine where a community facilities assessment is required. As recommended by the *CEQR Technical Manual*, a community facilities assessment is warranted if a project has the potential to result in either direct or indirect effects on community facilities. If a project would physically alter a community facility, whether by displacement of the facility or other physical change, this "direct" effect triggers the need to assess the service delivery of the facility and the potential effect that the physical change may have on that service delivery. New population added to an area as a result of an action would use existing services, which may result in potential "indirect" effects on service delivery. Depending on the size, income characteristics, and age distribution of the new population, there may be effects on public schools, libraries, or child care centers.

Direct Effects

The Project Area is currently vacant with the exception of two at-grade public parking facilities and a vacant 11,000 gsf building. Therefore, no direct effects on community facilities would occur as a result of the Proposed Actions.

Indirect Effects

The *CEQR Technical Manual* includes thresholds that provide guidance in making an initial determination of whether a detailed analysis is necessary to determine potential impacts. Table 2-1 lists those *CEQR Technical Manual* thresholds for each community facility analysis area. If an action exceeds the threshold for a specific facility, a more detailed analysis is warranted. A preliminary screening analysis was conducted to determine if the Proposed Actions would exceed established *CEQR Technical Manual* thresholds warranting further analysis. Based on that screening, the Proposed Actions trigger a detailed analysis for public elementary, intermediate, and high schools, publicly funded child care centers, and public libraries.

TABLE 2-1
Preliminary Screening Analysis Criteria

Community Facility	Threshold for Detailed Analysis
Public Schools	50 or more elementary/intermediate school students or 150 or more high school students
Libraries	More than five percent increase in ratio of residential units to libraries in a borough
Health Care Facilities (Outpatient)	Introduction of a sizeable new neighborhood
Child Care Centers (Publicly Funded)	More than 20 eligible children under age six based on the number of low- to moderate-income units
Fire Protection	Introduction of a sizeable new neighborhood
Police Protection	Introduction of a sizeable ne neighborhood

Source: 2014 *CEQR Technical Manual.*

Public Schools

The *CEQR Technical Manual* recommends conducting a detailed analysis of public schools if a proposed action would generate 50 or more elementary/intermediate school students and/or 150 or more high school students. Based on the Proposed Actions' net increment of 832 residential units (compared to No-Action conditions)[1] and the CEQR student generation rates for the Bronx (0.39 elementary school students per unit, 0.16 intermediate school students per unit, and 0.19 high school students per unit), the Proposed Actions would generate approximately 615 total students, including approximately 324 elementary school students, 133 intermediate school students, and 158 high school students. This number of students warrants a detailed analysis of the Proposed Actions' effects on public elementary, intermediate, and high schools.

Libraries

Potential impacts on libraries can result from an increased user population. According to the *CEQR Technical Manual*, a proposed action that generates a five percent increase in the average number of residential units served per branch (equivalent to a 682 unit increase in the Bronx) may cause significant adverse impacts on library services and require further analysis. The Proposed Actions would facilitate the construction of 832 DUs and 160 supportive housing units compared to No-Action conditions. Therefore, the Proposed Actions would exceed this threshold, and a detailed analysis of libraries is warranted.

Child Care Services

According to the *CEQR Technical Manual*, if a proposed action would add 20 or more children under age six eligible for child care, a detailed analysis of its impact on publicly funded child care facilities is warranted. This threshold is based on the number of low-income and low- to moderate-income units generated by a proposed action (141 units in the Bronx). As described previously, the Proposed Actions would facilitate the construction of 832 affordable DUs compared to No-Action conditions.[2] Therefore, the Proposed Actions would yield more than 20 children under age six eligible for publicly funded child care, exceeding the CEQR thresholds requiring a detailed analysis of child care facilities.

[1] The 160 supportive housing units would be single-room units for seniors living with HIV/AIDS, single veterans, and individuals earning less than 60 percent AMI. Therefore, it is anticipated that these 160 units would not introduce any children to the study area. As such, these units are excluded from the analysis for public schools and child care services.
[2] Ibid.

Police, Fire, and Healthcare Services

The *CEQR Technical Manual* recommends a detailed analysis of indirect impacts on police, fire, and health care services in cases where a proposed action would create a sizeable new neighborhood where none existed before. The Project Area is located within an existing and well-established community that is served by existing police, fire, and health care services. Therefore, the Proposed Actions would not create a neighborhood where none existed before and a detailed analysis of indirect effects on these community facilities is not warranted. For informational purposes, a description of existing police, fire, and health care facilities serving the Project Area is provided below.

The Project Area is served by the 40th Police Precinct at 257 Alexander Avenue. The precinct is located approximately 0.7 miles to the southwest of the Project Area. As stated in the *CEQR Technical Manual*, the NYPD independently reviews staffing levels against a precinct's population, area coverage, crime levels, and other local factors, and makes service and resource adjustments as necessary.

The Project Area is served by Battalions 14 and 26 of the Fire Department of New York's (FDNY's) Division 6. There are three fire houses within an approximate half-mile radius of the Project Area. These include Engine Company 71 Ladder 55 at 720 Melrose Avenue, Engine Company 50 Ladder 10 at 1155 Washington Avenue, and Squad Company 41 at 330 East 150th Street. FDNY continually evaluates the need for changes in personnel, equipment, or locations of fire stations and makes any necessary adjustments.

There are two types of ambulances in the City—911 providers and those providing inter-facility transport. Municipal FDNY and hospital-based ambulances are the sole providers of 911 services, and they operate that system under contract with Emergency Medical Services (EMS). Two EMS stations are located within a half-mile of the Project Area, including EMS Station 14 at 234 East 149th Street and EMS Station 55 at 3134 Park Avenue.

Under *CEQR Technical Manual* guidelines, health care facilities include public, proprietary, and nonprofit facilities that accept government funds (usually in the form of Medicare and Medicaid reimbursements) and that are available to any member of the community. Examples of these types of facilities include hospitals or public health clinics. The Lincoln Medical and Mental Health Center and Segundo Ruiz Belvis Diagnostic and Treatment Center are both located within a half-mile of the Project Area and are likely to be used by the residents and workers of the Project Area.

D. INDIRECT EFFECTS ON PUBLIC SCHOOLS

Methodology

This analysis assesses the potential effects of the Proposed Actions on public elementary, intermediate, and high schools serving the Project Area. According to the guidelines presented in the *CEQR Technical Manual*, a schools analysis focuses only on potential impacts on public schools operated by the New York City Department of Education (DOE). Therefore, private and parochial education facilities are excluded from the analysis of schools. Charter schools are also excluded from the analysis presented in this chapter.

The demand for community facilities and services is directly related to the type and size of the new

population generated by development resulting from the Proposed Actions. As outlined in Chapter 1, "Project Description," the Proposed Actions would facilitate the construction of approximately 832 affordable DUs and 160 supportive housing units[3] within the Project Area compared to the No-Action condition. According to Table 6-1a of the *CEQR Technical Manual*, a residential development in the Bronx would introduce new students at a rate of 0.39 elementary students per DU, 0.16 intermediate school students per DU, and 0.19 high school students per DU. Based on these rates, the Proposed Actions would result in the introduction of approximately 457 new elementary and intermediate school students (324 elementary and 133 intermediate school students) and 158 new high school students compared to No-Action conditions. According to *CEQR Technical Manual* guidelines, this level of development would trigger a detailed analysis of elementary and intermediate level schools, as well as high schools.

Following the methodologies in the *CEQR Technical Manual*, the study area for the analysis of elementary and intermediate schools is the community school district's "sub-district" ("region" or "school planning zone") in which the Project Area is located. The Project Area is located within the boundary of Sub-district 3 of Bronx CSD 7 (refer to Figure 2-1). Impacts are identified if the proposed development would result in: (1) a collective utilization rate of elementary schools or intermediate schools in the sub-district study area equal to or greater than 100 percent in the With-Action condition; and (2) an increase of five percent or more in the collective utilization rate between the future No-Action and With-Action conditions.

It should be noted that Bronx CSD 7 is an elementary and intermediate school "Choice District," which means that there are no zoned elementary or intermediate schools in the district, an unusual circumstance in New York City. In a "Choice District," kindergarten students and elementary and intermediate school students new to the area can apply to all schools in the district. As such, supplemental elementary and intermediate school analyses are provided below for the entire CSD 7 "Choice District" in addition to the CEQR sub-district analyses, per guidance from the SCA and DCP.

High school students may attend any high school in the City if they meet the admissions criteria, and high schools compete to attract students on the basis of specialized programs and overall reputation. Following CEQR guidelines, the study area for school capacity assessments for high schools are performed for the entire borough in which the project is located. Therefore, the Bronx (which includes CSDs 7 through 12) has been selected as the applicable study area for a high schools analysis for the Proposed Actions.

A schools analysis presents the most recent capacity, enrollment, and utilization rates for elementary, intermediate, and high schools in the respective study areas. Future conditions for the No-Action are then predicted based on enrollment projections and proposed development projects[4]; the future utilization rate for school facilities is calculated by adding the estimated enrollment from proposed residential developments in the schools study area to DOE's projected enrollment and then comparing that number with projected school capacity. DOE's most recent enrollment projections (Actual 2011, Projected 2012-2021) are posted on the SCA's website.[5] In addition, any new school projects identified in the DOE Five-Year Capital Plan (and/or subsequent amendments) are included if construction has

[3] The 160 supportive housing units would be single-room units for seniors living with HIV/AIDS, single veterans, and individuals earning less than 60 percent AMI. Therefore, it is anticipated that these 160 units would not introduce any children to the study area. As such, these units are excluded from the analysis for public schools.

[4] School Construction Authority, Projected New Housing Starts.

[5] Enrollment projections by the Grier Partnership were used: http://www.nycsca.org.

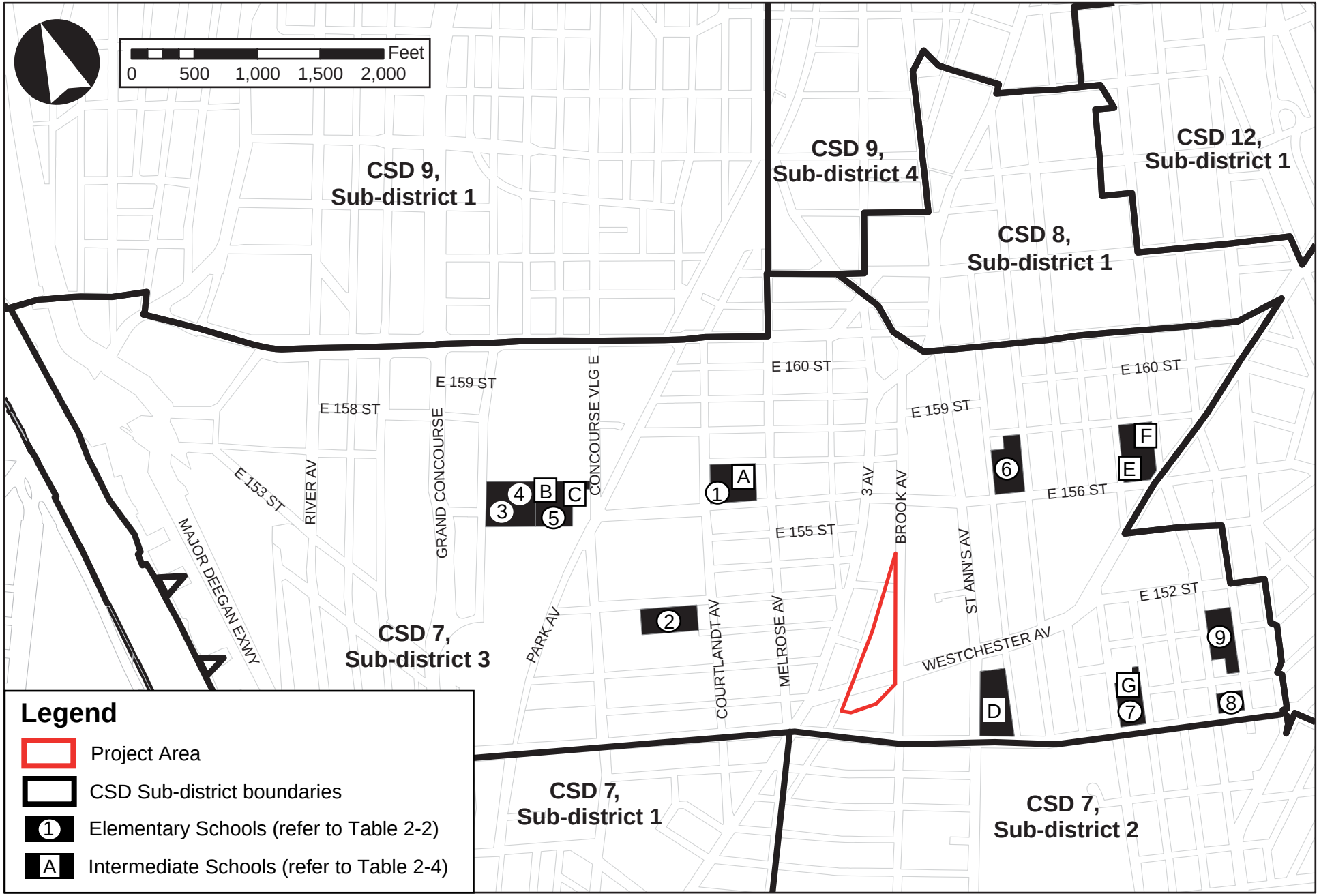


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Figure 2-1

Elementary and Intermediate Schools within CSD 7, Sub-district 3

begun. According to the *CEQR Technical Manual*, some schools may be included in the analysis if they are in the DOE Five-Year Capital Plan but are not yet under construction if the lead agency, in consultation with the SCA, concurs that it is appropriate.

Existing Condition

Elementary Schools – CSD 7, Sub-district 3

As described above, elementary schools in New York City are located in geographically defined school districts. As shown in Figure 2-1, the Project Area is located within the boundaries of CSD 7, Sub-district 3. Analyzed schools located in CSD 7, Sub-district 3 serving elementary students can generally be defined by one of two categories: elementary or K-8 schools. Elementary schools (PS) serve pre-kindergarten or kindergarten through 5th grades and K-8 schools serve pre-kindergarten or kindergarten through 8th grades. For analysis purposes, the elementary and the PS component of K-8 schools have been combined.

It should be noted that one school building within the study area houses more than one school organization: the Performance School and the Concourse Village Elementary School are both located at 750 Concourse Village West. Additionally, several schools listed in Table 2-2 serve grades K-8: PS/MS 29 Melrose School, PS/MS 31 William Lloyd Garrison, and PS 5 Port Morris. In such instances, the school's elementary school seat breakdown was provided by the SCA. Capacity and enrollment information for all public schools serving elementary students in CSD 7, Sub-district 3 is provided in Table 2-2.

TABLE 2-2
Existing Public Elementary School Enrollment, Capacity, and Utilization in CSD 7, Sub-district 3

Map No.[1]	Name	Address	Grades Served	Enrollment	Target Capacity	Avail. Seats	Utilization (%)
1	PS/MS 29 Melrose School	758 Courtlandt Avenue	PK-8[2]	478	520	42	91.9%
2	PS 1 Courtlandt School	335 East 152nd Street	PK-5	707	915	208	77.3%
3	Performance School	750 Concourse Village West	PK-5	143	103	-40	138.8%
4	Concourse Village Elementary School	750 Concourse Village West	PK-5	275	254	-21	108.3%
5	PS/MS 31 The William Lloyd Garrison	250 East 156th Street	PK-8[3]	460	498	38	92.4%
6	PS 157 Grove Hill	757 Cauldwell Avenue	PK-5	655	692	37	94.7%
7	PS 5 Port Morris	564 Jackson Avenue	PK-8[4]	512	429	-83	119.3%
8	PS 25 The Bilingual School	811 East 149th Street	PK-5	490	442	-48	110.9%
9	PS 161 Ponce de Leon	628 Tinton Avenue	PK-5	529	643	114	82.3%
			Totals:	**4,249**	**4,496**	**247**	**94.5%**

Source: DOE "Enrollment, Capacity, and Utilization Report" (2014-2015).
Notes:
[1] Map numbers correspond to Figure 2-1.
[2] 63.73 percent PS; 36.27 percent IS (SCA).
[3] 63.10 percent PS; 36.90 percent IS (SCA).
[4] 64.08 percent PS; 35.92 percent IS (SCA).

As shown in Figure 2-1, there are nine public schools located within Sub-district 3 of CSD 7 that serve elementary students. The nearest schools to the Project Area that serve elementary students in CSD 7, Sub-district 3 are PS 157 Grove Hill, located approximately 0.23 miles to the northeast; PS 1 Courtlandt School, located approximately 0.28 miles to the west; and PS/MS 29 Melrose School, located approximately 0.29 miles to the northwest (see Figure 2-1).

Table 2-2 provides the existing capacity, enrollment, and utilization figures for elementary schools

within CSD 7, Sub-district 3 during the 2014-2015 academic year. As shown in Table 2-2, the nine elementary schools had a target capacity of 4,496 seats and enrollment of 4,249 students, for a utilization of approximately 94.5 percent and a surplus of 247 seats during the 2014-2015 school year.

Elementary Schools – CSD 7, "Choice District"

As described above, CSD 7 is an elementary school "Choice District," which means that there are no zoned elementary schools, and new students can apply to all schools in the district. As shown in Figure 2-2 and Table 2-3, CSD 7 is comprised of two areas: northern and southern. Families living in the northern area have priority for schools in the northern area, while families living in the southern area have priority for schools in the southern area. The Project Area is located in the northern area of CSD 7.

TABLE 2-3
Existing Public Elementary School Enrollment, Capacity, and Utilization in CSD 7

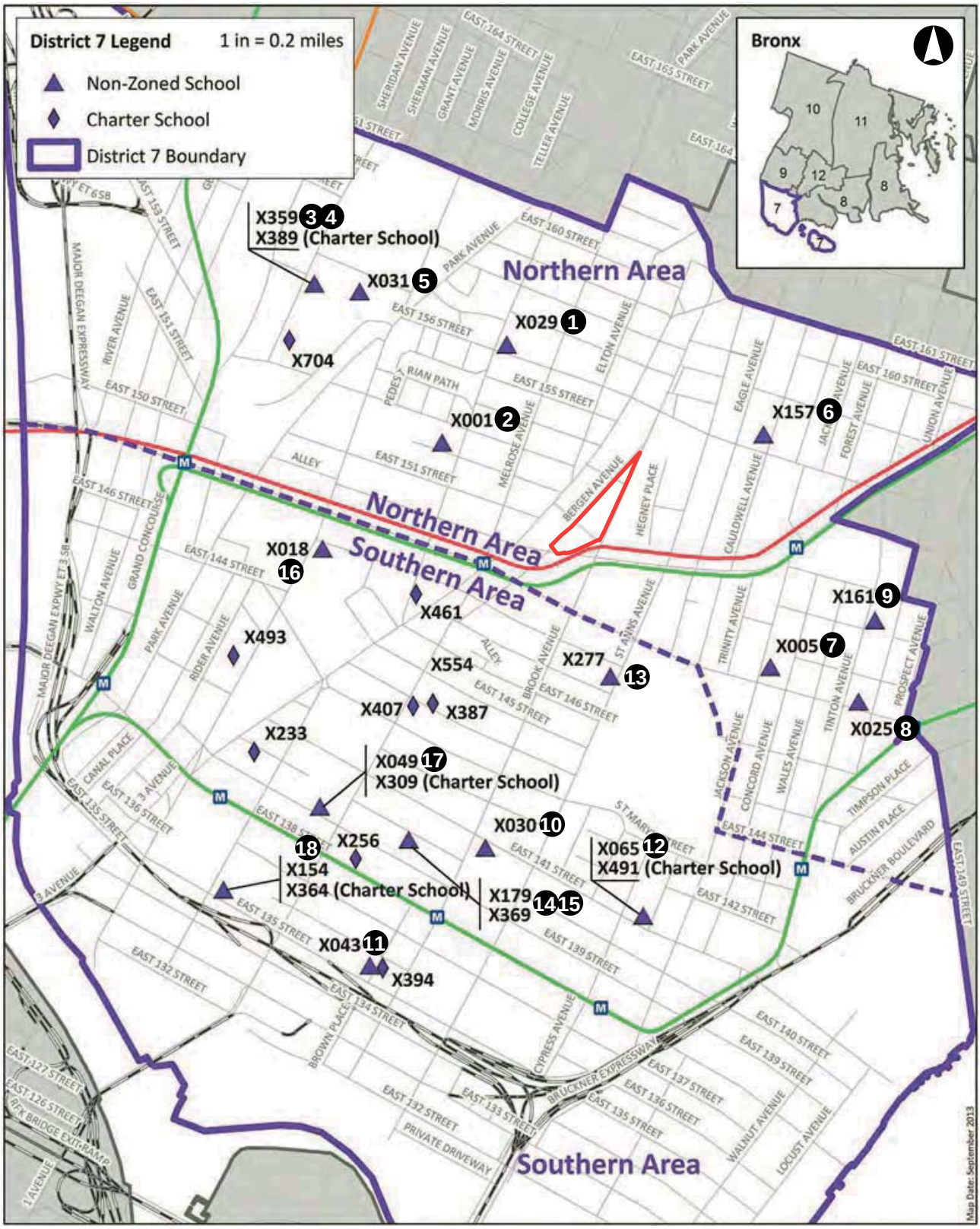
Map No.[1]	Name	Address	Grades Served	Enrollment	Target Capacity	Avail. Seats	Utilization (%)
1	PS/MS 29 Melrose School	758 Courtlandt Avenue	PK-8[2]	478	520	42	91.9%
2	PS 1 Courtlandt School	335 East 152nd Street	PK-5	707	915	208	77.3%
3	Performance School	750 Concourse Village West	PK-5	143	103	-40	138.8%
4	Concourse Village Elementary School	750 Concourse Village West	PK-5	275	254	-21	108.3%
5	PS/MS 31 William Lloyd Garrison	250 East 156th Street	PK-8[3]	460	498	38	92.4%
6	PS 157 Grove Hill	757 Cauldwell Avenue	PK-5	655	692	37	94.7%
7	PS 5 Port Morris	564 Jackson Avenue	PK-8[4]	512	429	-83	119.3%
8	PS 25 The Bilingual School	811 East 149th Street	PK-5	490	442	-48	110.9%
9	PS 161 Ponce de Leon	628 Tinton Avenue	PK-5	529	643	114	82.3%
		Northern Area Subtotal:		**4,249**	**4,496**	**247**	**94.7%**
10	PS 30 Wilton	510 East 141st Street	PK-5	624	538	-86	116.0%
11	PS 43 Jonas Bronck	165 Brown Place	PK-5	525	531	6	98.9%
12	PS 65 Mother Hale Academy	677 East 141st Street	PK-5	423	402	-21	105.2%
13	PS 277	519 Saint Ann's Avenue	PK-5	468	756	288	61.9%
14	PS 179	468 East 140th Street	PK-5	397	433	36	91.7%
15	Young Leaders Elementary School	468 East 140th Street	PK-5	270	283	13	95.4%
16	PS 18 John Peter Zenger	502 Morris Avenue	PK-5	576	563	-13	102.3%
17	PS 49 Willis Avenue	383 East 139th Street	PK-5	713	933	220	76.4%
18	PS 154 Jonathan D. Hyatt	333 East 135th Street	PK-5	405	442	37	91.6%
		Southern Area Subtotal:		**4,401**	**4,881**	**480**	**90.2%**
		CSD 7 TOTAL:		**8,650**	**9,377**	**727**	**92.2%**

Source: DOE "Enrollment, Capacity, and Utilization Report" (2014-2015).
Notes:
[1] Map numbers correspond to Figure 2-2.
[2] 63.73 percent PS; 36.27 percent IS (SCA).
[3] 63.10 percent PS; 36.90 percent IS (SCA).
[4] 64.08 percent PS; 35.92 percent IS (SCA).

It should be noted that several school buildings within CSD 7 house more than one school organization: the Performance School and the Concourse Village Elementary School are both located at 750 Concourse Village West, and P.S. 179 and the Young Leaders Elementary School are both located at 468 East 140th Street. Additionally, several schools listed in Table 2-3 serve grades K-8: PS/MS 29 Melrose School, PS/MS 31 William Lloyd Garrison, and PS 5 Port Morris. In such instances, the school's elementary school seat breakdown was provided by the SCA. Capacity and enrollment information for all public schools serving elementary students in CSD 7 is provided in Table 2-3.

Figure 2-2

CSD 7 "Choice District" Elementary Schools



Courtesy of the NYC Department of Education

Project Area

1 Non-Zoned Elementary School (refer to Table 2-3)

As shown in Figure 2-2, there are 18 public schools located within CSD 7 that serve elementary students; nine are located in the northern portion of CSD 7 and nine are located in the southern portion of the district. The nearest schools to the Project Area that serve elementary students are PS 157 Grove Hill, located approximately 0.23 miles to the northeast; PS 1 Courtlandt School, located approximately 0.28 miles to the west; PS/MS 29 Melrose School, located approximately 0.29 miles to the northwest; and P.S. 277 located approximately 0.17 miles to the southeast (see Figure 2-2).

Table 2-3 provides the existing capacity, enrollment, and utilization figures for elementary schools within CSD 7 during the 2014-2015 academic year. As shown in Table 2-3, the 18 elementary schools had a target capacity of 9,377 seats and enrollment of 8,650 students, for a utilization of approximately 92.2 percent and an excess of 727 seats during the 2014-2015 school year.

Intermediate Schools – CSD 7, Sub-district 3

As shown in Figure 2-1, the Project Area is located within the boundaries of CSD 7, Sub-district 3. Analyzed schools located in CSD 7, Sub-district 3 serving intermediate students can generally be defined by one of three categories: intermediate, secondary, and K-8 schools. Intermediate schools (IS) serve 6th through 8th grades; secondary schools serve 6th through 12th grades; and K-8 schools serve pre-kindergarten or kindergarten through 8th grades. For analysis purposes, the intermediate and IS components of K-8 schools and secondary schools have been combined.

TABLE 2-4
Existing Public Intermediate School Enrollment, Capacity, and Utilization in CSD 7, Sub-district 3

Map No.[1]	Name	Address	Grades Served	Enrollment	Target Capacity	Avail. Seats	Utilization (%)
A	PS/MS 29 Melrose School	758 Courtlandt Avenue	PK-8[2]	272	296	24	91.9%
B	PS/MS 31 The William Lloyd Garrison	250 East 156th Street	PK-8[3]	269	291	22	92.4%
C	JHS 151 Lou Gehrig	250 East 156th Street	6-8	253	393	140	64.4%
D	JHS 162 Lola Rodriguez De Tio	600 Saint Ann's Avenue	6-8	375	378	3	99.2%
E	IS 298 Academy of Public Relations	778 Forest Avenue	6-8	352	355	3	99.2%
F	IS 296 South Bronx Academy for Applied Media	778 Forest Avenue	6-8	349	491	142	71.1%
G	PS 5 Port Morris	564 Jackson Avenue	PK-8[4]	287	241	-46	119.1%
			Totals:	**2,157**	**2,445**	**288**	**88.2%**

Source: DOE "Enrollment, Capacity, and Utilization Report" (2014-2015).
Notes:
[1] Map numbers correspond to Figure 2-1.
[2] 63.73 percent PS; 36.27 percent IS (SCA).
[3] 63.10 percent PS; 36.90 percent IS (SCA).
[4] 64.08 percent PS; 35.92 percent IS (SCA).

It should be noted that several school buildings within the study area house more than one school organization: IS 298 Academy of Public Relations and IS 296 South Bronx Academy for Applied Media are both located at 778 Forest Avenue and PS/MS 31 William Lloyd Garrison and JHS 151 Lou Gehrig are located at 250 East 156th Street. Additionally, several schools listed in Table 2-4 serve grades K-8. In such instances, the school's intermediate school seat breakdown was provided by the SCA. Capacity and enrollment information for all public schools serving intermediate schools in CSD 7, Sub-district 3 is provided in Table 2-4.

As shown in Figure 2-1, there are seven public schools within the study area that serve intermediate students, including four intermediate schools (JHS 151, JHS 162, IS 298 and IS 296) and three K-8 schools

(PS/MS 29, PS/MS 31, and PS 5). The nearest schools to the Project Area serving intermediate students are JHS 162 Lola Rodriguez De Tio, located two blocks (approximately 0.14 miles) to the southeast, and PS/MS 29 Melrose School, located approximately 0.29 miles to the northwest (see Figure 2-2).

As shown in Table 2-4, CSD 7, Sub-district 3 had a target capacity of 2,445 intermediate school seats in the 2014-2015 academic year and enrollment of 2,157 students, for a utilization of approximately 88.2 percent and 288 available seats.

Intermediate Schools – CSD 7, "Choice District"

As described above, CSD 7 is an intermediate school "Choice District," which means that there are no zoned intermediate schools, and new students can apply to all schools in the district. It should be noted that several school buildings within CSD 7 house more than one school organization: IS 298 Academy of Public Relations and IS 296 South Bronx Academy for Applied Media are both located at 778 Forest Avenue; PS/MS 31 William Lloyd Garrison and JHS 151 Lou Gehrig are located at 250 East 156th Street; IS 221 South Bronx Preparatory and MS 223 The Laboratory School of Finance and Technology are both located at 360 East 145th Street; and IS 224 Science School for Exploration and Discovery and IS 343 Academy of Applied Mathematics and Technology are both located at 345 Brook Avenue. Additionally, several schools listed in Table 2-5 serve grades K-8 or grades 6-12. In such instances, the school's intermediate school seat breakdown was provided by the SCA. Capacity and enrollment information for all public schools serving intermediate schools in CSD 7, Sub-district 3 is provided in Table 2-5.

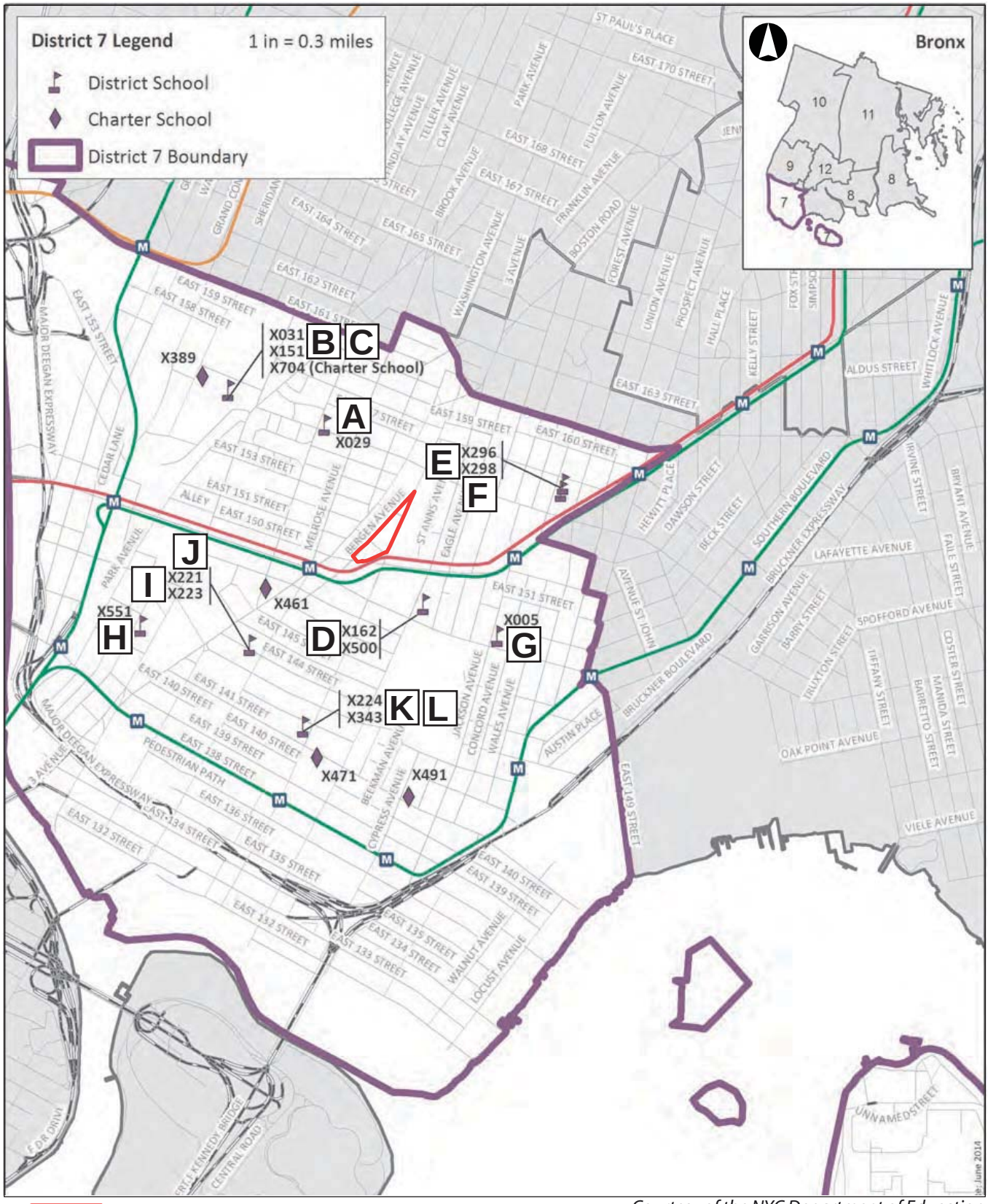
TABLE 2-5
Existing Public Intermediate School Enrollment, Capacity, and Utilization in CSD 7

Map No.[1]	Name	Address	Grades Served	Enrollment	Target Capacity	Avail. Seats	Utilization (%)
A	PS/MS 29 Melrose School	758 Courtlandt Avenue	PK-8[2]	272	296	24	91.9%
B	PS/MS 31 William Lloyd Garrison	250 East 156th Street	PK-8[3]	269	291	22	92.4%
C	JHS 151 Lou Gehrig	250 East 156th Street	6-8	253	393	140	64.4%
D	JHS 162 Lola Rodriguez De Tio	600 Saint Ann's Avenue	6-8	375	378	3	99.2%
E	IS 298 Academy of Public Relations	778 Forest Avenue	6-8	352	355	3	99.2%
F	IS 296 South Bronx Academy for Applied Media	778 Forest Avenue	6-8	349	491	142	71.1%
G	PS 5 Port Morris	564 Jackson Avenue	PK-8[4]	287	241	-46	119.1%
H	Bronx Academy of Letters	339 Morris Avenue	6-12 [5]	259	287	28	90.2%
I	IS 221 South Bronx Preparatory	360 East 145th Street	6-12 [6]	301	359	58	83.8%
J	MS 223 The Laboratory School of Finance & Technology	360 East 145th Street	6-12 [7]	288	295	7	97.6%
K	IS 224 Science School for Exploration & Discovery	345 Brook Avenue	6-8	362	426	64	85.0%
L	IS 343 Academy of Applied Mathematics & Technology	345 Brook Avenue	6-8	306	524	218	58.4%
			CSD 7 TOTAL:	**3,673**	**4,336**	**663**	**84.7%**

Source: DOE "Enrollment, Capacity, and Utilization Report" (2014-2015).
Notes:
[1] Map numbers correspond to Figure 2-3.
[2] 63.73 percent PS; 36.27 percent IS (SCA).
[3] 63.10 percent PS; 36.90 percent IS (SCA).
[4] 64.08 percent PS; 35.92 percent IS (SCA).
[5] 43.82 percent IS; 56.18 percent HS (SCA).
[6] 46.02 percent IS; 53.98 percent HS (SCA).
[7] 57.37 percent IS; 42.63 percent HS (SCA).

Figure 2-3

CSD 7 "Choice District" Intermediate Schools



Courtesy of the NYC Department of Education

Project Area

A Non-Zoned Intermediate School (refer to Table 2-5)

As shown in Figure 2-3, there are 12 public schools located within CSD 7 that serve intermediate students. The nearest schools to the Project Area serving intermediate students are JHS 162 Lola Rodriguez De Tio, located two blocks (approximately 0.14 miles) to the southeast, and PS/MS 29 Melrose School, located approximately 0.29 miles to the northwest (see Figure 2-3).

Table 2-5 provides the existing capacity, enrollment, and utilization figures for intermediate schools within CSD 7 during the 2014-2015 academic year. As shown in Table 2-5, the 12 intermediate schools had a target capacity of 4,336 seats and enrollment of 3,673 students, for a utilization of approximately 84.7 percent and an excess of 663 seats during the 2014-2015 school year.

High Schools

Table 2-6 provides summary capacity, enrollment, and utilization figures for all high schools in the Bronx. As shown in Table 2-6, the borough's high schools had a capacity of 65,516 and an enrollment of 56,132, resulting in a utilization of approximately 85.7 percent with an availability of 9,384 seats during the 2014-2015 academic year.

TABLE 2-6
Existing High School Enrollment, Capacity, and Utilization in the Bronx

Area	Enrollment	Capacity	Available Seats	Utilization (%)
Bronx Total[1]	56,132	65,516	9,384	85.7

Source: DOE "Enrollment, Capacity, and Utilization Report" (2014-2015).
Note:
[1] HS component of IS/HS schools based on information provided by DCP.

Although a ½-mile radius is not used for assessment purposes, Figure 2-4 shows the locations of all high schools within an approximate ½-mile radius of the Project Area. As shown in Figure 2-4, there are six high schools within a ½-mile of the Project Area (see Table 2-7). The closest high schools to the Project Area are the Mott Haven Village Preparatory High School (701 St. Ann's Avenue); the University Heights High School (701 St. Ann's Avenue); and Crotona Academy High School (639 St. Ann's Avenue), to the east of the Project Area. The Alfred E. Smith Career and Technical Education High School, Bronx Haven High School, and Bronx Design and Construction Academy are located at 333 East 151st Street to the west of the Project Area. All of these high schools are located within the boundaries of CSD 7.

TABLE 2-7
High Schools within ½-Mile Radius of the Project Area

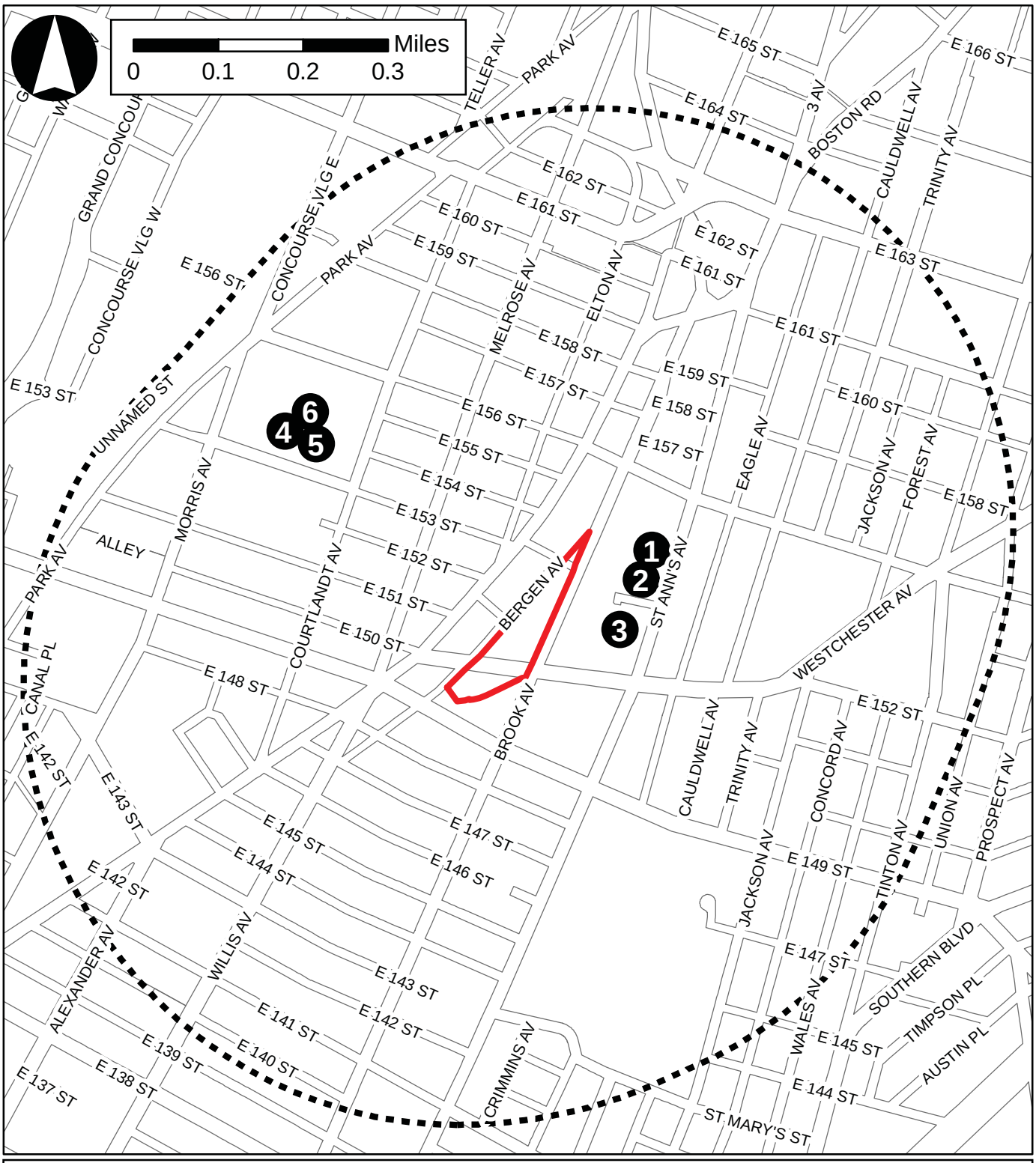
Map No.[1]	School Name	Address	Grades Served
1	Mott Haven Village Preparatory High School	701 St. Ann's Avenue	9-12
2	University Heights High School		9-12
3	Crotona Academy High School	639 St. Ann's Avenue	9-12
4	Alfred E. Smith High School	333 East 151st Street	9-12
5	Bronx Haven High School		9-12
6	Bronx Design and Construction Academy		9-12

Note:
[1] See Figure 2-4.

Charter Schools

Pursuant to *CEQR Technical Manual* guidelines, charter schools, including charter schools housed in DOE buildings, are not included in the impact analyses. Charter school enrollments are based on lotteries, with preferences made for students living within the school districts in which they are located and not to

Figure 2-4
High Schools



Legend

Project Area

Half-Mile Radius

1 High School (refer to Table 2-7)

smaller geographic areas such as sub-districts. These charter schools are discussed for informational purposes only, and their school capacities and enrollments are not included in the quantitative analyses.

In 2014-2015, there were 13 charter schools serving elementary and intermediate school students in CSD 7: the Family Life Academy Charter School II, the Heketi Community Charter School; the South Bronx Charter School for International Cultures and the Arts; the South Bronx Classical Charter School II; the Brilla College Prep Charter School; the Bronx Global Learning Institute for Girls Charter School; the Mott Haven Academy Charter School; the Bronx Charter School for Children; the Metropolitan Lighthouse Charter School; the Academic Leadership Charter School; the Success Academy Charter School – Bronx 1; the New York City Montessori Charter School; and the KIPP Academy Charter School.

Similarly, elementary and intermediate schools that draw students from a large area (i.e. borough) are also excluded from the analysis. As such, the Hostos-Lincoln Academy of Science, which shares a building with JHS 162 Lola Rodriguez de Tio in the study area and is open to all New York City residents, is not included in the analysis.

In 2014-2015, there were eight charter schools serving high school students in the Bronx: New Visions Charter School for the Humanities; New Visions Charter High School for the Humanities II; Greendot New York Charter School; New Visions Charter High School for Advanced Math and Science; New Visions Charter High School for Advanced Math and Science II; The Equality Charter School; Roads Charter School II; and Dr. Izquierdo Health Charter School.

The Future Without the Proposed Actions (No-Action Condition)

In absence of the Proposed Actions, future utilization of public elementary, intermediate, and high schools serving the Project Area and surrounding study areas would be affected by changes in enrollment mainly due to: (1) aging of the existing student body and new arrivals born in the area or moving to it; and (2) changes in capacity, or number of available seats, in the schools as a result of planned construction of new schools or building additions.

Projected Capacity Changes

As outlined in the *CEQR Technical Manual*, No-Action school capacity changes considered in a community facilities analysis include information on proposed and adopted "Significant Changes in School Utilization" and the DOE's Five Year Capital Plan.

Elementary Schools

On March 11, 2013, the Panel for Educational Policy approved the phase-out and replacement of Performance School (07X385), which is located at 750 Concourse Village West with an existing target capacity of 730 elementary seats. Performance School will be phased out gradually over the next several years, closing completely in June 2016. In conjunction with the phase-out, it is anticipated that the existing capacity of Concourse Village Elementary School, the Bronx Global Learning Institute for Girls, and the District 75 School, which are co-located with the performance school, will increase. Per DOE's January 2013 *Educational Impact Statement: The Proposed Phase-Out of Performance School (07X385) Beginning in 2013-2014*, the Concourse Village Elementary School's capacity is expected to increase to 541 by the 2016-2017 academic year, 287 seats over the school's existing target capacity (see Table 2-2). Combined with the phase out of the Performance School, these anticipated capacity changes will result

in a net increase of 184 elementary school seats. While the capacity of the building's District 75 School and Bronx Global Learning Institute for Girls are also expected to increase, these schools are not included in the quantitative analysis, pursuant to *CEQR Technical Manual* methodology.

DOE's *Proposed FY 2015-2019 Five Year Capital Plan* released in March 2016 proposes a new 456-seat elementary school for CSD 7 (Project #1, DSF0000798173), which is expected to be completed by September 2020. Therefore, the analysis also includes an increase of 456 elementary seats for Bronx CSD 7, Sub-district 3 in the future 2020 analysis year.

Intermediate Schools

No intermediate school capacity changes are anticipated within CSD 7 by 2020 in the future without the Proposed Actions.

High Schools

There are no projected capacity changes for high schools in the Bronx by the 2020 analysis year.

Charter Schools

The Bronx Global Learning Institute for Girls, a charter elementary school which is currently co-located with the Performance School, would expand to also serve intermediate grades. DOE estimates that by the 2019-2020 school year, the Bronx Global Learning Institute for Girls (07X389) enrollment will increase to approximately 495 students, 72 percent greater than its 2013-2014 enrollment. However, as previously noted, charter schools are not included in the quantitative schools analysis pursuant to *CEQR Technical Manual* methodology.

Enrollment Projections

Elementary Schools – CSD 7, Sub-district 3

Estimates of future enrollments are derived from the latest available DOE enrollment projection data for CSD 7, Sub-district 3 (Actual 2011, Projected 2012-2021), including pre-kindergarten and special education enrollment. In the 2020 future without the Proposed Actions, DOE projections show that demand for public elementary schools in CSD 7, Sub-district is expected to increase to 5,252. The enrollment projections focus on natural growth of the City's student population and other population increases and do not account for new residential developments planned for the area (i.e., No-Action developments).

New residential development is planned in the study area by the analysis year of 2020. Using numbers derived from the SCA's Projected New Housing Starts for Sub-district 3 of CSD 7, approximately 895 new elementary school students are expected to be added to the study area by the 2020 build year.[6] As such, 2020 projected elementary school enrollment in the future without the Proposed Actions would increase to 6,147, while capacity would increase by an estimated 640 seats (to 5,136 seats). Based on these changes, elementary schools in CSD 7, Sub-district 3 are expected to be operating over capacity

[6] The number of students added in the future without the Proposed Actions for the study area were obtained from DCP. These numbers are derived from the SCA's Projected New Housing Starts for the 2010-2014 Five Year Capital Plan.

(approximately 119.7 percent utilization), with a shortage of 1,011 seats in 2020 (see Table 2-8).

TABLE 2-8
No-Action Public Elementary School Enrollment, Capacity, and Utilization

	2020 Projected Enrollment[1]	Students Generated from Development in No-Action	Total Projected Enrollment in No-Action	Projected Capacity[2]	Seats Available	Utilization
CSD 7, Sub-district 3 Schools	5,252	895	6,147	5,136	-1,011	119.7%
CSD 7 "Choice District" Schools	10,252	957	11,209	10,017	-1,192	111.9%

Notes:
[1] DOE Enrollment Projections (Actual 2011, Projected 2012-2021).
[2] As stated above, projected elementary capacity in 2020 will increase by approximately 640 seats.

Elementary Schools – CSD 7, "Choice District"

In the 2020 future without the Proposed Actions, DOE projections show that demand for public elementary schools in CSD 7 is expected to increase to 10,252. The enrollment projections focus on natural growth of the City's student population and other population increases and do not account for new residential developments planned for the area (i.e., No-Action developments).

New residential development is planned in CSD 7 by the analysis year of 2020. Using numbers derived from the SCA's Projected New Housing Starts for CSD 7, approximately 957 new elementary school students are expected to be added to CSD 7 by the 2020 build year. As such, 2020 projected elementary school enrollment in the future without the Proposed Actions would increase to 11,209, while capacity would increase by an estimated 640 seats (to 10,017 seats). Based on these changes, elementary schools in CSD 7 are expected to be operating over capacity (approximately 111.9 percent utilization), with a shortage of 1,192 seats in 2020 (see Table 2-8).

Intermediate Schools – CSD 7, Sub-district 3

DOE projections show that demand for public intermediate schools in CSD 7, Sub-district 3 by 2020 is expected to increase to 2,247. The enrollment projections focus on natural growth of the City's student population and other population increases and do not account for new residential developments planned for the area (i.e., No-Action developments).

New residential development is planned in the study area by the analysis year of 2020. Using numbers derived from the SCA's Projected New Housing Starts for Sub-district 3 of CSD 7, approximately 328 new intermediate school students are expected to be added to the study area by the 2020 build year. As such, 2020 projected intermediate school enrollment in the future without the Proposed Actions would increase to 2,575.

As detailed above, no changes to intermediate school capacity are expected by the 2020 analysis year. Therefore, CSD 7, Sub-district 3 intermediate schools would continue to have a capacity of 2,445 seats in the 2020 future without the Proposed Actions, and intermediate school enrollment is expected to increase to 2,575. As a result, intermediate schools in Sub-district 3 of CSD 7 are expected to be operating over capacity (approximately 105.3 percent utilization), with a shortage of 130 seats in 2020 (see Table 2-9).

TABLE 2-9
No-Action Public Intermediate School Enrollment, Capacity, and Utilization

	2020 Projected Enrollment[1]	Students Generated from Development in No-Action	Total Projected Enrollment in No-Action	Projected Capacity[2]	Seats Available	Utilization
CSD 7, Sub-district 3 Schools	2,247	328	2,575	2,445	-130	105.3%
CSD 7 "Choice District" Schools	4,916	393	5,309	4,336	-973	122.4%

Notes:
[1] DOE Enrollment Projections (Actual 2011, Projected 2012-2021).
[2] As stated above, no intermediate school capacity changes are anticipated in the No-Action condition.

Intermediate Schools – CSD 7, "Choice District"

DOE projections show that demand for public intermediate schools in CSD 7 by 2020 is expected to increase to 4,916. The enrollment projections focus on natural growth of the City's student population and other population increases and do not account for new residential developments planned for the area (i.e., No-Action developments).

New residential development is planned in CSD 7 by the analysis year of 2020. Using numbers derived from the SCA's Projected New Housing Starts for CSD 7, approximately 393 new intermediate school students are expected to be added to CSD 7 by the 2020 build year. As such, 2020 projected intermediate school enrollment in the future without the Proposed Actions would increase to 5,309.

As detailed above, no intermediate school capacity changes are anticipated by the 2020 analysis year. Therefore, CSD 7 intermediate schools would continue to have a capacity of 4,336 seats in the 2020 future without the Proposed Actions, and intermediate school enrollment is expected to increase to 5,309. As a result, intermediate schools in CSD 7 are expected to be operating over capacity (approximately 122.4 percent utilization), with a deficit of 973 seats in 2020 (see Table 2-9).

High Schools

Bronx high school enrollment in the future without the Proposed Actions was calculated using the ten-year enrollment projections produced for the SCA by the Grier Partnership and the SCA's *Projected New Housing Starts as Used in 2012-2021 Enrollment Projections*. A multiplier of 0.19, per *CEQR Technical Manual* Table 6-1a, was applied to the number of anticipated new housing units (14,391) in the borough by 2020, and the resulting number of students was added to the Grier Partnership forecast. As detailed above, there are no projected capacity changes for Bronx high schools by 2020. Therefore, as shown in Table 2-10, capacity would remain at 65,516 seats, while future No-Action public high school enrollment is expected to be 64,152, resulting in a borough-wide utilization rate of 97.9 percent and a surplus of 1,364 seats.

TABLE 2-10
No-Action Public High School Enrollment, Capacity, and Utilization in the Bronx

SCA Enrollment Projection[1]	Students Generated by Anticipated New Development[2]	Enrollment	Target Capacity	Available Seats	Utilization
61,418	2,734	64,152	65,516	1,364	97.9%

Notes:
[1] Grier Partnership, DOE Enrollment Projections (Actual 2011, Projected 2012 to 2021).
[2] SCA, *Projected New Housing Starts as Used in 2012-2021 Enrollment Projections* (for CSD 7-12).

The Future With the Proposed Actions (With-Action Condition)

As described in Chapter 1, "Project Description," the Proposed Actions would facilitate the construction of 832 affordable DUs and 160 supportive housing units by 2020. However, as the supportive housing units would be single-room units for seniors living with HIV/AIDS, single veterans, and individuals earning less than 60 percent AMI, these units would not introduce any children to the area, and are therefore not included in the public schools analysis.

As shown in Table 2-11, based on CEQR student generation rates, the estimated 2020 school age population generated by the 832 affordable DUs would include 324 elementary school students, 133 intermediate school students, and 158 high school students.

TABLE 2-11
With-Action Public School Pupils Generated by the Proposed Development

DUs	Pupil Generation Ratios Per Unit in the Bronx[1]			Number of Students Generated By the Proposed Actions		
	Elementary	Intermediate	High	Elementary	Intermediate	High
832	0.39	0.16	0.19	324	133	158

Notes:
[1] Per Table 6-1a of the 2014 *CEQR Technical Manual*.

Elementary Schools – CSD 7, Sub-district 3

In the future with the Proposed Actions, there would continue to be a shortage of elementary school seats in CSD 7, Sub-district 3. As shown in Table 2-12, the addition of 324 elementary school students generated by the Proposed Actions would increase the utilization from approximately 119.7 percent to 126.0 percent from No-Action to With-Action conditions. CSD 7, Sub-district 3 elementary schools would experience a shortage of 1,335 elementary school seats in the 2020 With-Action condition. The Proposed Actions would result in an increase in elementary school utilization of 6.3 percent over the No-Action condition.

As noted above, a significant adverse impact may occur if an action would result in both of the following conditions: (1) a utilization rate of the elementary schools in the sub-district study area that is equal to or greater than 100 percent in the future With-Action condition; and (2) an increase of five percentage points or more in the collective utilization rate between the No-Action and With-Action conditions. As CSD 7, Sub-district 3 elementary schools would experience both of these conditions in the future with the Proposed Actions, a significant adverse impact would result. Potential measures to mitigate the CSD 7, Sub-district 3 elementary school impact are described in Chapter 5, "Mitigation."

Elementary Schools – CSD 7, "Choice District"

In the future with the Proposed Actions, there would continue to be a shortage of elementary school seats in CSD 7. As shown in Table 2-12, the addition of 324 elementary school students generated by the Proposed Actions would increase the utilization from approximately 111.9 percent to 115.1 percent from No-Action to With-Action conditions. CSD 7 elementary schools would experience a shortage of 1,516 elementary school seats in the 2020 With-Action condition and the Proposed Actions would result in an increase 3.2 percent over the No-Action condition.

TABLE 2-12
With-Action Public Elementary School Enrollment, Capacity, and Utilization

	2020 No-Action Total Projected Enrollment	New Students Generated by Proposed Actions	Total Future With-Action Projected Enrollment	Projected Capacity	Seats Available	Utilization	Increase in Utilization (%) from No-Action Condition
CSD 7, Sub-district 3 Schools	6,147	324	6,471	5,136	-1,335	126.0%	6.3
CSD 7 "Choice District" Schools	11,209	324	11,533	10,017	-1,516	115.1%	3.2

Intermediate Schools – CSD 7, Sub-district 3

In the future with the Proposed Actions, there would continue to be a shortage of intermediate school seats in CSD 7, Sub-district 3. As shown in Table 2-13, the addition of 133 intermediate school students generated by the Proposed Actions would increase the utilization from approximately 105.3 percent to 110.8 percent from No-Action to With-Action conditions. CSD 7, Sub-district 3 intermediate schools would experience a shortage of 263 intermediate school seats in the 2020 With-Action conditions. The Proposed Actions would result in an increase in intermediate school utilization of 5.4 percent over the No-Action condition.

As noted above, a significant adverse impact may occur if an action would result in both of the following conditions: (1) a utilization rate of the intermediate schools in the sub-district study area that is equal to or greater than 100 percent in the future With-Action condition; and (2) an increase of five percentage points or more in the collective utilization rate between the No-Action and With-Action conditions. As CSD 7, Sub-district 3 intermediate schools would experience both of these conditions in the future with the Proposed Actions, a significant adverse impact would result. Potential measures to mitigate the CSD 7, Sub-district 3 intermediate school impact are described in Chapter 5, "Mitigation."

TABLE 2-13
With-Action Public Intermediate School Enrollment, Capacity, and Utilization

	2020 No-Action Total Projected Enrollment	New Students Generated by Proposed Actions	Total Future With-Action Projected Enrollment	Projected Capacity	Seats Available	Utilization	Increase in Utilization (%) from No-Action Condition
CSD 7, Sub-district 3 Schools	2,575	133	2,708	2,445	-263	110.8%	5.4
CSD 7 "Choice District" Schools	5,309	133	5,442	4,336	-1,106	125.5%	3.1

Intermediate Schools – CSD 7, "Choice District"

As shown in Table 2-13, the addition of 133 intermediate school students to CSD 7 would increase intermediate school enrollment to 5,442 in the With-Action condition. As a result, CSD 7 schools would continue to operate over capacity (at approximately 125.5 percent capacity) with an estimated deficit of 1,106 seats and the Proposed Actions would result in an increase of 3.1 percent over the No-Action condition.

High Schools

As indicated in Table 2-14, in the future With-Action condition, Bronx high schools are expected to continue to operate under capacity. The addition of 158 action-generated students would decrease the surplus of seats in Bronx high schools from 1,364 under future No-Action conditions to 1,206 and would raise the collective utilization rate from 97.9 percent to 98.2 percent (see Table 2-14). As the increase in the collective utilization rate would be less than the five percentage point CEQR impact threshold, the Proposed Actions would not result in a significant adverse high schools impact.

TABLE 2-14
With-Action High School Enrollment, Capacity, and Utilization in the Bronx

Projected No-Action Enrollment	Students from Proposed Action	Total Future Enrollment	Target Capacity	Available Seats	Utilization
64,152	158	64,310	65,516	1,206	98.2%

E. INDIRECT EFFECTS ON PUBLIC LIBRARIES

Methodology

According to the *CEQR Technical Manual*, service areas for neighborhood branch libraries are based on the distance that residents would travel to use library services, typically not more than three-quarters of a mile; this is referred to as the library's "catchment area." This libraries analysis compares the population generated by the Proposed Actions with the catchment area population of libraries available within an approximately ¾-mile area of the Project Area and employs a 2020 build year. As presented in Figure 2-5, there are three New York Public Library (NYPL) neighborhood branches within a ¾-mile radius of the Project Area.

To determine the existing population of the library's catchment area, 2010 U.S. Census data were assembled for all Census Tracts that fall primarily within ¾-miles of the Project Area. The catchment area population in the future without the Proposed Actions and the future with the Proposed Actions was estimated by multiplying the number of new housing units by an average household size of 3.00 persons.[7] New population in the futures without and with the Proposed Actions was added to the existing catchment area population.

The number of library holdings, including books, CDs, DVDs, videotapes, etc., available in study area libraries is also identified and used to calculate a holdings-per-resident ratio. This ratio is compared with the system-wide ratio for the New York Public Library (NYPL) system. The analysis also considers the percentage increase in the study area population and compares it to the impact threshold identified in the *CEQR Technical Manual*. According to the *CEQR Technical Manual*, if an action would increase the libraries' catchment area population by five percent or more over the No-Action condition, and if this increase would impair the delivery of library services in the study area, a significant impact could occur.

[7] The average household size of 3.00 within Bronx CD 1 (2010 Census).

Existing Condition

Libraries provide books, information services, written documents, audio/visual references, and educational services to their surrounding communities. The Project Area is served by the NYPL, which has 35 neighborhood branches in the Bronx. Libraries within the NYPL system provide free and open access to books, periodicals, electronic resources, and non-print materials. Reference, career services, Internet access, and educational, cultural and recreational programming for adults, young adults, and children are also provided. It should be noted that residents can go to any NYPL branch and order books from any of the other branches in the NYPL system.

Library Facilities

There are no libraries located within the Project Area. As shown in Figure 2-5, there are three public libraries within the approximately ¾-mile library analysis study area. The two libraries closest to the Project Area are the Woodstock Library to the northeast at 761 East 160th Street (between Forest Avenue and Tinton Avenue), and the Mott Haven Library to the southwest at 321 East 140th Street (at Alexander Avenue). Both of these libraries are located approximately a ½-mile away from the Project Area. A third public library, the Melrose Library at 910 Morris Avenue is approximately 0.6 miles to the north of the Project Area.

Population Served

The Project Area is located within the northern portion of Bronx Community District (CD) 1. To determine the population of the library service area, 2010 U.S. Census data were assembled for all Census Tracts that fall primarily within the ¾-mile library study area. Based on Census data for those Census Tracts falling entirely or mostly within the ¾-mile study area, the study area's existing residential population is estimated at 135,521.

Holdings Per Resident

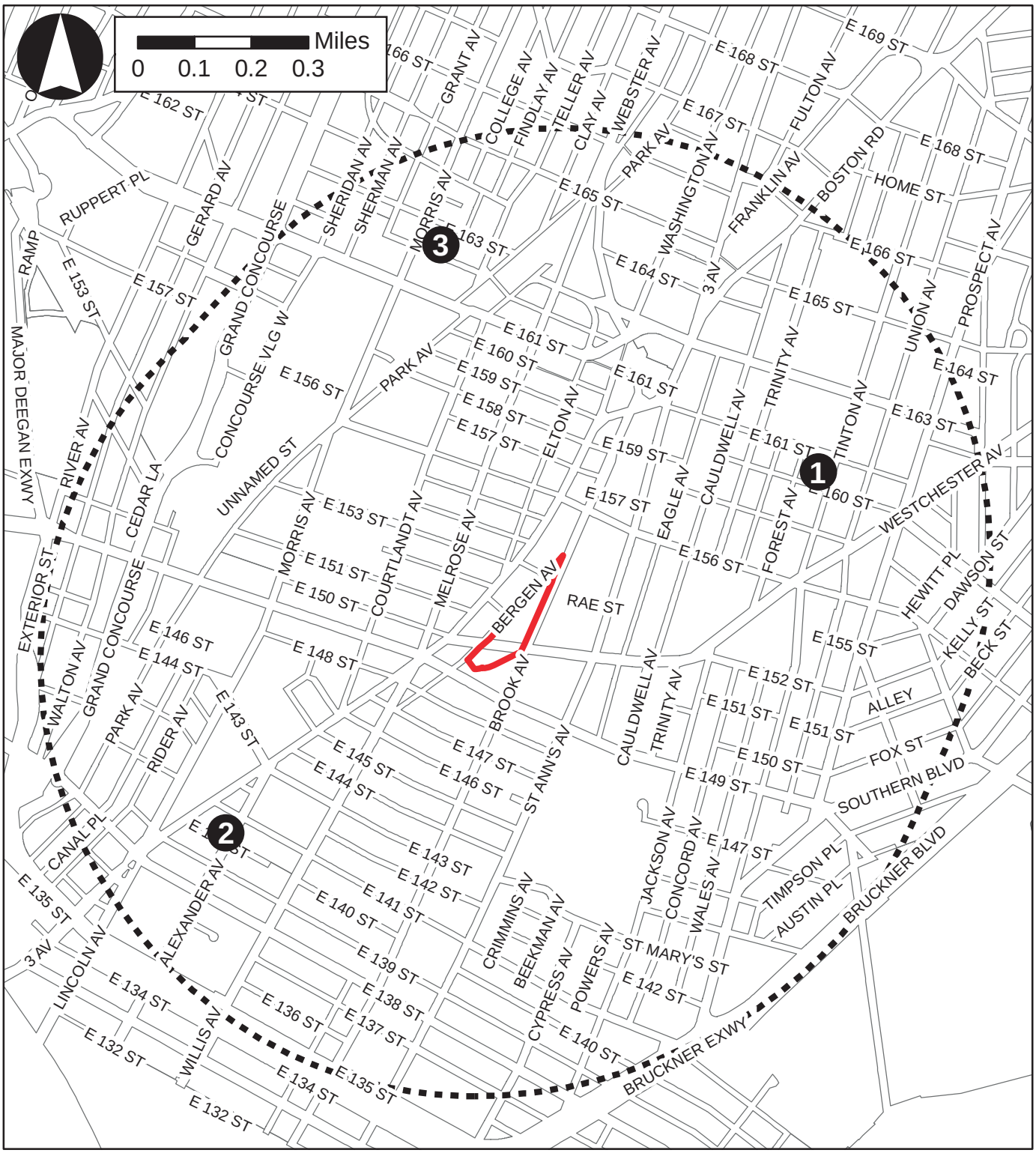
As shown in Table 2-15, the three libraries have combined holdings of 160,464 items. With an existing population of 135,521 residents, the study area has approximately 1.18 holdings per resident.

TABLE 2-15
Existing Public Libraries within ¾-Mile Study Area

Map No.[1]	Library Name	Address	Holdings[2]	Circulation
1	Woodstock Library	761 East 160th Street	38,062	77,248
2	Mott Haven Library	321 East 140th Street	68,317	119,590
3	Melrose Library	910 Morris Avenue	54,085	139,620
		Totals:	**160,464**	**336,458**

Notes:
[1] See Figure 2-5.
[2] January 2014 Branch Holdings data provided by NYPL; this data represents a "snapshot" of the holdings for these branches as of the first day of the month (January 2014). Since 2010, NYPL operates a continuously circulating collection for its branch libraries.

Figure 2-5
Public Libraries



Legend

Project Area

3/4-Mile Radius

1 Library (refer to Table 2 -15)

The Future Without the Proposed Actions (No-Action Condition)

As previously noted, there are a number of new residential developments expected to occur by 2020 that would change the population within the library study area. This would include approximately 1,419 DUs. As a result of these No-Action developments, the residential population in the study area is expected to increase by approximately 4,257 new residents assuming an average household size of 3.0 persons. The 4,257 new residents would represent an increase in population of approximately 3.1 percent over the existing population of 135,521 in the library study area, raising the study area population to 139,778 under 2020 No-Action conditions.

Holdings Per Resident

For analysis purposes, the number of holdings in the study area branches is assumed to remain the same in 2020, with a combined 160,464 holdings. With a 2020 No-Action population of 139,778 residents, the study area holdings-per-resident ratio is expected to decrease from 1.18 holdings per resident to 1.15 holdings per resident.

The Future With the Proposed Actions (With-Action Condition)

According to the *CEQR Technical Manual*, if an action increases the study area population by five percent or more as compared to the No-Action condition, this increase may impair the delivery of library services in the study area, and a significant impact could occur.

As previously noted, the Proposed Actions would result in a net increase of 832 affordable DUs and 160 supportive housing units to the study area. These units are expected to introduce an estimated 2,656 new residents within the study area by 2020 as a result of the Proposed Actions. This estimate of new residents is based on assumptions of 3.0 persons per household in Bronx CD 1 (per the 2010 Census) for the 832 affordable DUs, and one person per supportive housing unit. The approximately 2,656 new residents expected to be generated by the Proposed Actions would represent an increase of approximately 1.9 percent to the study area population by 2020 over the No-Action condition. Therefore, in the future with the Proposed Actions, there would be a ratio of approximately 1.13 holdings per resident, which is a decrease of 0.02 from No-Action conditions.

Although the study area population would increase by approximately 1.9 percent in the future with the Proposed Actions, the increase would not be expected to impair the delivery of library services. Residents of the study area have easy access to all three library branches. Additionally, residents would have access to the entire NYPL system through the interlibrary loan system and could have volumes delivered directly to their nearest library branch. Therefore, as noted above, there are more library resources available to study area residents than are reflected in this quantitative analysis. Residents would also have access to libraries near their places of work. In addition, the trend toward increased electronic research and inter-library loans are expected to free up stack space, providing for increased capacity and programs to serve the future population. For these reasons, the Proposed Actions would not result in a significant adverse impact on library services.

F. INDIRECT EFFECTS ON PUBLICLY FUNDED CHILD CARE CENTERS

Methodology

The New York City Administration for Children's Services (ACS) provides subsidized child care in center-based group child care, family-based child care, informal child care, and Head Start programs. Publicly financed child care services are available for income-eligible children up through the age of 12. Consistent with the methodologies of the *CEQR Technical Manual*, this analysis of child care centers focuses on services for children under age six, as older eligible children are expected to be in school most of the day.

Publicly financed child care centers, under the auspices of the Early Care and Education (ECE) Division within ACS, provide care for the children of income-eligible households. A space for one child in such child care centers is termed a "slot." These slots may be in group child care or Head Start centers, or they may be in the form of family-based care in which up to 16 children are placed under the care of a licensed provider and an assistant in a home setting.

Since there are no locational requirements for enrollment in child care centers, and some parents or guardians choose a child care center close to their employment rather than their residence, the service areas of these facilities can be quite large and are not subject to strict delineation in order to identify a study area. However, for the purpose of this child care analysis, publicly funded group child care centers within approximately 1.5 miles of the Project Area were identified, reflecting the fact that the centers closest to a given site are more likely to be subject to increased demand. June 2015 enrollment data for the child care centers closest to the Project Area were obtained from ACS.

The child care enrollment in the future without the Proposed Actions was estimated by multiplying the number of new low-income and low/moderate-income housing units expected in the 1.5-mile study area by the *CEQR Technical Manual* multipliers for estimating the number of children under age six eligible for publicly funded child care services (*CEQR Technical Manual* Table 6-1b). For the Bronx, the multiplier estimates 0.139 publicly funded child care-eligible children under age six per each low-and low/moderate-income household.[8] The estimate of new publicly funded child care-eligible children was added to the existing child care enrollment to estimate enrollment in the future without the proposed action.

The child care-eligible population introduced by the Proposed Actions was also estimated using the *CEQR Technical Manual* child care multipliers. The population of publicly funded child care-eligible children under age six was then added to the child care enrollment calculated in the future without the Proposed Actions. According to the *CEQR Technical Manual*, if a project would result in demand for slots greater than the remaining capacity of child care centers, and if that demand constitutes an increase of five percentage points or more of the collective capacity of the child care centers serving the area of the Proposed Actions, a significant adverse impact may result.

[8] Low-income and low/moderate-income are the affordability levels used in the *CEQR Technical Manual*. They are intended to approximate the financial eligibility criteria established by ACS, which generally corresponds to 200 percent FPL or 80 percent Area Median Income (AMI).

Existing Conditions

Publicly funded child care for the children of income-eligible households in New York City is sponsored and financially supported by the Division of Child Care and Head Start within ACS, as well as federally funded early childhood education and family support programs. ACS contracts with hundreds of private, non-profit organizations to provide Child Care and Head Start programs in communities across the City that are licensed by the New York City Department of Health (DOH). ACS also issues vouchers to eligible families to provide financial assistance in accessing care from formal and informal providers in the City.

To receive subsidized child care services, a family must meet specific financial and social eligibility criteria established by ACS. In general, children in families that have incomes at or below 200 percent of the Federal Poverty Level (FPL), depending on family size, are financially eligible, although in some cases eligibility can go up to 275 percent FPL. The family must also have an approved "reason for care," such as involvement in a child welfare case or participation in a "welfare-to-work" program. The City's affordable housing market is pegged to the Area Median Income (AMI) rather than the FPL. Lower-income units must be affordable to households at or below 80 percent AMI. Since family incomes at or below 200 percent FPL fall under 80 percent AMI, for the purposes of CEQR analysis, the number of housing units expected to be subsidized and targeted for incomes of 80 percent AMI or below is used as a proxy for eligibility. This provides a conservative assessment of demand since eligibility for subsidized day care is not defined strictly by income (generally below 200 percent of poverty level), but also takes into account family size and other reasons for care (i.e. low-income parent(s) in school; low-income parent(s) training for work; or low-income parents who are ill or disabled).

ACS supports subsidized child care in several types of facilities including center-based group child care, Head Start, family and group family child care, and informal child care. As data on the exact location of Family Child Care Network and Voucher slots are not available, and they are therefore not suitable for a study area analysis, for CEQR analysis purposes, only publicly funded group child care facilities (including Head Start programs) are included.

Figure 2-6 shows publicly funded child care centers within an approximate 1.5 mile radius of the Project Area and Table 2-16 indicates the capacity and enrollment for each facility.[9] As shown in Figure 2-6 and Table 2-16, there are presently 40 publicly funded or partially publicly funded group child care facilities within an approximate 1.5 mile radius of the Project Area. The 40 publicly funded group child care centers within the study area have a combined total capacity of approximately 2,840 slots. Based on the most recent enrollment data provided by ACS, the 40 publicly funded group child care centers have an existing enrollment of 2,583 children with a utilization rate of 91.0 percent and 257 available slots.

[9] Although the 1.5 mile-radius includes a portion of Manhattan, only publicly funded group child care facilities within the borough of the Bronx were considered in the analysis.

Figure 2-6

Publicly Funded Child Care Centers

TABLE 2-16
Existing Publicly-Funded Group Day Care Facilities within 1.5-Mile Study Area

Map No.[1]	Center Name[2]	Site Address	Capacity	Enrollment	Utilization (%)
1	East Side House Settlement – Winifred Wheeler	200 Alexander Avenue	55	54	98.2%
2	East Side House Settlement – Mill Brook	201 St. Ann's Avenue	25	25	100.0%
3	East Side House Settlement – Mott Haven	375 East 143rd Street	74	74	100.0%
4	South Bronx Head Start I	490 East 143rd Street	53	53	100.0%
5	WHEDCo Childhood Discovery Center	50 East 168th Street	111	106	95.5%
6	Episcopal Social Services Head Start (Paul's House)	500 Bergen Avenue	25	24	96.0%
7	Betances Early Childhood Center	528 East 146th Street	62	59	95.2%
8	Prospect Early Childhood Center	730 Kelly Street	20	19	95.0%
10	Anna Lefkowitz DCC	590 Westchester Avenue	55	53	96.4%
11	Trabajamos Community Head Start, Inc.	940 East 156th Street	26	25	96.2%
12	La Peninsula Community Organization, Inc. – Manida (Center #1)	711 Manida Street	123	123	100.0%
13	Brightside Academy – Southern	1093 Southern Blvd	43	36	83.7%
14	Brightside Academy – Louis Nine	1334 Louis Nine Blvd	66	64	97.0%
15	Brightside Academy – Intervale	960 Intervale Road	30	28	93.3%
16	Mid Bronx CCRP ECC 1	1125 Grand Concourse	247	239	96.8%
17	Intervale (Center #2)	1054 Intervale Avenue	106	98	92.5%
18	Lutheran Social Services of NY - Early LIFE Children's Center 2	888 Westchester Avenue	137	129	94.2%
19	Iola Jordan Day Care	421 East 161st Street	154	148	96.1%
20	Brightside Academy – East 150th	331 East 150th Street	20	17	85.0%
21	East Side House Settlement - Children's Pride	414 Morris Avenue	55	55	100.0%
22	Richard H. Magnum Early Learning Center	383 East 162nd Street	70	64	91.4%
23	Highbridge Advisory Council Marshall England Early Learning Center	800 Concourse Village East	84	82	97.6%
24	Mid Bronx CCRP ECC 4	1020-1022 Summit Avenue	56	39	69.6%
25	Philip H. Michaels CDC	629 Courtlandt Avenue	210	210	100.0%
26	The Salvation Army – Bronx Citadel	425 East 159th Street	39	33	84.6%
27	Brightside Academy – Webster	1455 Webster Avenue	26	25	96.2%
28	Brightside Academy – St. Ann	800 Saint Ann's Avenue	28	28	100.0%
29	BronxWorks ECLC	1130 Grand Concourse	55	55	100.0%
30	Louis A. Fickling Child Development Center	1240 Webster Avenue	50	47	94.0%
31	Aleene Logan Preschool Center	1450 Webster Avenue	52	50	96.2%
33	Sharon Baptist – Center I	507-509 East 165th Street	119	116	97.5%
34	Five Star DCC	3261 Third Avenue	91	86	94.5%
35	Gwendolyn Bland DCC	749 East 163rd Street	90	88	97.8%
36	Blondell Joyner DCC	901 Tinton Avenue	54	53	98.1%
37	HELP II	285 East 171st Street	53	48	90.6%
38	Highbridge Advisory Council DCC – Nelson Ave	1181 Nelson Avenue	57	54	94.7%
39	Highbridge Advisory Council Head Start	880 River Avenue - 2nd Fl.	80	76	95.0%
40	Episcopal Social Services	565 Morris Avenue	139	0	0.0%
		Totals	**2,840**	**2,583**	**91.0%**

Source: ACS enrollment data as of June, 2015.
Notes: [1] See Figure 2-6
[2] DCC = Day Care Center; ECC = Early Childhood Center

As noted above, in addition to attending group child care centers, eligible children may also be cared for in the homes of family child care providers, also registered with the DOH. A family child care provider is a professional who provides care for three to seven children in his or her residence. A group family child care provider is a professional who cares for seven to 12 children with the help of an assistant, in his or her home. The majority of family and group family child care providers in New York City are registered with a child care network, which provides access to training and support services. According to ACS, these home-based facilities tend to absorb unmet demand at child care centers, and host households are added to the system as demand increases. However, pursuant to *CEQR Technical Manual* methodology, these facilities are not included in the quantitative analysis, as information on their exact location is not available.

The Future Without the Proposed Actions (No-Action Condition)

In the future without the Proposed Actions, a few large residential developments are anticipated to be constructed within the 1.5-mile study area. Most of these new development projects are anticipated to include low- to moderate-income housing units. As shown in Table 2-17, approximately 1,401 DUs are expected to be developed within an approximate ½-mile of the Project Area. For conservative analysis purposes, it is assumed that all 1,401 units would be affordable low- to moderate-income units.

TABLE 2-17
No-Action Number of Public Child Care Pupils Generated by New Development

Affordable Units[1]	Generation Ratio Per Unit[2] (Children ≤ Age 6)	Number of Children ≤ Age 6 Generated
1,401	0.139	195

Notes:
[1] Based on 2014 *CEQR Technical Manual* guidelines.

Based on Table 6-1b of the 2014 *CEQR Technical Manual*, these affordable units would generate approximately 195 children under the age of six eligible for publicly funded child care services. As shown in Table 2-18, demand for publicly funded child care facilities in the study area would increase as result of the 195 children eligible for publicly funded child care services introduced by the developments in the future without the Proposed Actions. This will increase the projected enrollment to 2,778, resulting in a collective utilization rate of 97.8 percent with a surplus of 62 day care slots (see Table 2-18).

TABLE 2-18
No-Action Public Child Care Enrollment and Capacity Changes

Capacity[1]	Projected Enrollment[2]	Available Slots	Utilization (%)
2,840	2,778	62	97.8%

Notes:
[1] No child care center capacity changes are anticipated under No-Action conditions.
[2] Projected Enrollment is calculated by adding the projected new public child care-eligible children (Table 2-17) to the existing publicly funded group child care enrollment in the study area (Table 2-16).

The Future With the Proposed Actions (With-Action Condition)

As described in Chapter 1, "Project Description," the Proposed Actions would facilitate the construction of 832 affordable DUs and 160 supportive housing units by 2020. However, as the supportive housing units would be single-room units for seniors living with HIV/AIDS, single veterans, and individuals earning less than 60 percent AMI, these units would not introduce any children to the area and have not been included in the impact assessment of publicly funded child care centers. Therefore, based on CEQR

generation rates, the proposed development is expected to introduce approximately 116 publicly funded child care-eligible children by 2020 (see Table 2-19).

Additionally, the Proposed Actions would facilitate the construction of an approximately 8,300 sf day care facility in Building E. It is anticipated that the proposed child care center would have a capacity of 68 slots.[10] This would therefore increase the child care capacity in the study area, as shown in Table 2-19.

TABLE 2-19
With-Action Public Child Care Enrollment and Capacity Changes

Capacity[1]	Projected Enrollment[2]	Available Seats	Utilization (%)
2,908	2,894	14	99.5%

Notes:
[1] The Proposed Action would introduce approximately 68 publicly funded child care seats to the Project Area under With-Action conditions.
[2] Projected Enrollment is calculated by adding the project-generated public child care-eligible children (116) to the No-Action publicly funded group child care enrollment in the study area (Table 2-18).

As described above, under No-Action conditions, the publicly-funded study area child care center utilization rate is expected to be 97.8 percent. In the 2020 With-Action condition, the estimated 116 children eligible for publicly funded child care and the 68 new child care slots that would be introduced by the Proposed Actions would increase the projected enrollment in the study area to 2,894 and projected capacity to 2,908 slots, resulting in a collective utilization rate of 99.5 percent and a surplus of 14 child care slots.

Assessment

This analysis, which is based on an assumption that all of the currently planned developments in the study area would be completed by 2020, shows that publicly funded group child care enrollment would increase by 1.7 percent from the No-Action and With-Action conditions, below the CEQR impact threshold of five percentage points. As such, the Proposed Actions would not result in a significant adverse impact on publicly funded group child care facilities. Additionally, it is expected that the ACS will continue to monitor enrollment trends within the study area, as new housing units are developed and will plan for new capacity or administrative actions to accommodate additional children accordingly.

[10] Based on the *Sugar Hill Rezoning EAS* (2010).

A. INTRODUCTION

This transportation chapter examines the potential for the Proposed Project to result in significant adverse impacts on study area transportation systems through a comparison of traffic, transit, pedestrian, and parking conditions under future 2020 conditions with the Proposed Actions (the With-Action condition) and without the Proposed Actions (the No-Action condition).

As described in Chapter 1, "Project Description," the Proposed Actions would facilitate an approximately 1.1 million gsf, five building mixed-use development consisting of approximately 832 affordable dwelling units (909,300 sf), 160 supportive housing units (77,500 gsf), approximately 46,800 gsf of local retail and commercial uses, an approximately 50,500 gsf YMCA, and approximately 32,700 gsf of other community facility uses. The Proposed Project would also include up to approximately 209 accessory below-grade parking spaces, 426 enclosed bicycle spaces, a total of approximately 1.26 acres (55,151 sf) of public open space, and a total of approximately 1.19 acres (51,906 sf) of private open space for building tenants. Construction of the Proposed Project is expected to be complete and fully operational by 2020.

The assessment of the Proposed Project's potential transportation impacts is based on the methodologies set forth in the 2014 *CEQR Technical Manual.*

B. PRINCIPAL CONCLUSIONS

Traffic

Weekday AM, midday, and PM, and Saturday midday peak hour traffic conditions were evaluated at a total of five intersections generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and Westchester Avenue to the south. These five intersections are where traffic generated by the Proposed Project is expected to be most concentrated.

As shown in Table 3-1, the traffic impact analysis indicates that there would be the potential for significant adverse impacts at one analyzed intersection, Brook Avenue at Westchester Avenue, during the weekday AM and PM peak hours. Chapter 5, "Mitigation," discusses measures to mitigate these significant adverse traffic impacts.

TABLE 3-1
Analyzed Intersections with Potential Traffic Impacts

Intersection	Peak Hour			
	Weekday AM	Weekday Midday	Weekday PM	Saturday Midday
Brook Avenue at Westchester Avenue	X		X	

Notes:
X – Denotes potential for significant adverse traffic impact

Transit

Subway

The Proposed Project would generate a net increment of approximately 468 and 550 new subway trips during the weekday AM and PM commuter peak hours, respectively. The analysis of subway station conditions focuses on New York City Transit's 3rd Avenue-149th Street station (served by No. 2 and No. 5 trains) where incremental demand from the Proposed Project would exceed the 200-trip *CEQR Technical Manual* analysis threshold in one or both peak periods.

In the future with the Proposed Project, there would be no potential for significant adverse impacts at any analyzed street stairs or fare arrays at the 3rd Avenue-149th Street subway station in either the AM or PM peak hours. Additionally, incremental increases in subway line haul demand would amount to less than five additional riders per car per direction on any one route in both the AM and PM peak hours. Therefore, the Proposed Project would not result in significant adverse subway station or subway line haul impacts based on *CEQR Technical Manual* criteria.

Bus

The Project Area is served by a total of seven MTA local bus routes including the Bx2, Bx4, Bx4a, Bx15, Bx19, Bx21, and Bx41 Select Bus Service (SBS). The Proposed Project would generate a total of approximately 136 and 181 bus trips (including some bus-subway transfer trips) in the weekday AM and PM peak periods, respectively. As these trips would be distributed among seven bus routes, project-generated bus trips are not expected to exceed 50 or more passengers per hour in the peak direction on any one route. Therefore, the Proposed Project would not result in significant adverse impacts to local bus service based on *CEQR Technical Manual* criteria.

Pedestrians

The Proposed Project would generate a net increment of approximately 440, 1,276, 852, and 900 walk-only trips during the weekday AM, midday, and PM, and Saturday midday peak hours, respectively. Persons en route to and from subway station entrances and bus stops would add approximately 604, 469, 731, and 629 additional pedestrian trips during these same peak periods, respectively. Peak period pedestrian conditions were evaluated at a total of 41 pedestrian elements where the Proposed Project would potentially generate 200 or more new trips in one or more peak hours. These elements—9 sidewalks, 16 corner areas, and 16 crosswalks—are primarily located along Westchester and Bergen Avenues in the vicinity of the 3rd Avenue-149th Street subway station and a number of MTA bus stops. As shown in Table 3-2, based on *CEQR Technical Manual* criteria, a total of three pedestrian elements would be significantly adversely impacted as a result of the Proposed Project, including two corner areas during the Saturday midday peak hour and one crosswalk during the weekday PM and Saturday midday peak hours. As discussed in Chapter 5, "Mitigation," these significant adverse pedestrian impacts could be fully mitigated with curb extensions, widening crosswalks and/or removal of street furniture.

TABLE 3-2
Analyzed Pedestrian Elements with Potential Impacts

Intersection	Impacted Element	Peak Hour			
		Weekday AM	Weekday Midday	Weekday PM	Saturday Midday
Third Avenue/E. 150th St.-Westchester Av.	West Crosswalk			X	X
Third Avenue/E. 150th St.-Westchester Av.	Northwest Corner				X
Third Avenue/E. 150th St.-Westchester Av.	Southwest Corner				X

Vehicular and Pedestrian Safety

Crash data for the traffic and pedestrian study area intersections were obtained from NYCDOT for the 3-year reporting period between January 1, 2011, and December 31, 2013. During this period, no intersections were found to have experienced a total of 48 or more crashes in any one year nor were any intersections found to have experienced five or more pedestrian/bicyclist injury crashes in one year. Therefore, no study area intersections are considered high accident locations.

It should also be noted that the Project Area is located within the NYCDOT-designated Mott Haven Senior Pedestrian Focus Area (SPFA), which was identified based on the density of senior pedestrian (age 65+) crashes resulting in fatalities or severe injuries in a five-year period, as well as variables such as senior trip generators, concentrations of senior centers, and senior housing locations. In addition, the *Vision Zero Bronx Pedestrian Safety Action Plan*, released in early 2015, identifies Third Avenue between East 183rd Street and East 138th Street (one block to the west of the Project Area) as a "Priority Corridor," and the intersection of Third Avenue and East 149th Street (two blocks to the southwest of the Project Area) as a "Priority Intersection."

Parking

The parking analysis documents changes in the parking supply and utilization within a ¼-mile radius of the Project Area under both No-Action and With-Action conditions. There are a total of 11 public parking facilities within a ¼-mile radius of the Project Area. After accounting for new project-generated parking demand, it is estimated that compared to the No-Action condition, incremental parking demand would total approximately 135 spaces at off-street public parking facilities and on-street in the weekday midday period, 173 spaces during the weekday overnight period, and 125 spaces during the Saturday midday period. In addition, a total of 74 existing parking spaces in an off-street public parking facility currently located on Parcel B within the Project Area would be displaced.

All project-generated parking demand could be accommodated at existing off-street public parking facilities in the surrounding area. Further, the Proposed Project is expected to provide up to 209 additional accessory parking spaces on-site. In addition, on-street parking spaces would also be available in the surrounding area to accommodate project demand. Therefore, no significant adverse parking impacts are anticipated.

C. PRELIMINARY ANALYSIS METHODOLOGY

The *CEQR Technical Manual* describes a two-level screening procedure for the preparation of a preliminary assessment to determine if quantified analyses of transportation conditions are warranted. As discussed in the following sections, the preliminary assessment begins with a trip generation (Level 1)

analysis to estimate the amount of person and vehicle trips expected to be generated by the Proposed Project. Under *CEQR Technical Manual* guidelines, if the Proposed Project is expected to result in fewer than 50 peak-hour vehicle trips and fewer than 200 peak-hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (Level 2) are to be performed to estimate the incremental trips that could be incurred at specific transportation elements and to identify potential locations for further analysis. If the trip assignments show that the Proposed Project would generate 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a sidewalk, corner area, or crosswalk, further quantified operational analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrian, parking, and vehicular and pedestrian safety. The results of the two-level screening assessments are described below.

D. LEVEL 1 SCREENING ASSESSMENT

A Level 1 screening assessment was conducted to estimate the volume of person and vehicle trips by mode expected to be generated by the Proposed Project during the weekday AM, midday and PM, and Saturday midday peak hours. These estimates were then compared to the *CEQR Technical Manual* analysis thresholds of 50 peak hour vehicle trips, 200 peak hour subway/rail or bus riders, and 200 peak hour pedestrian trips to determine if a Level 2 screening and/or quantified operational analyses may be warranted. The travel demand assumptions used for the assessment are discussed below and a detailed travel demand forecast is provided.

Transportation Planning Factors

Table 3-3 shows the transportation planning factors used to forecast the travel demand generated by the proposed uses in the weekday and Saturday peak hours. The factors take into account the Project Area's location in the transit-accessible Hub area of the Bronx, and separate factors are shown for each of the community facility uses. Included are trip generation rates, temporal and directional distributions, mode choice factors, vehicle occupancies and truck trip factors. The factors in Table 3-3 were based on data cited in the *CEQR Technical Manual*, 2008-2012 American Community Survey (ACS) tenure data for Census Tract 71, data provided by the Chinatown YMCA in 2014, NYCDOT data, the 2006-2010 AASHTO reverse journey to work data for Census Tract 71, and data from previous environmental studies including the 2012 *West Harlem Rezoning FEIS*, the 2012 *Triangle Plaza Hub EAS*, the 2007 *Jamaica Plan Rezoning FEIS*, the *2004 No.7 Subway Extension – Hudson Yards Rezoning and Development Program FGEIS*, and the 2014 *Melrose Commons North EAS*. Additional details on the transportation planning factors used for the travel demand forecast are presented in the *Transportation Planning Factors and Travel Demand Forecast Technical Memorandum* provided in Appendix 4 of the EAS (see Appendix A).

Travel Demand Forecast

A travel demand forecast was prepared for the Proposed Project based on the factors shown in Table 3-3 and discussed above. Table 3-4 summarizes the results of the travel demand forecast for the Proposed Project. The data in Table 3-4 show the number of peak hour person and vehicle trips that would be generated by each of the proposed uses in 2020 with construction of the Proposed Project.

TABLE 3-3
Transportation Planning Factors

Land Use:	Residential	Local Retail	Health Club (YMCA)	Office (Common Ground)	Day Care	Community Facility (Recreation) (Rooftop Garden/Other)	TV Studio	Music Studio Rehearsal
Size/Units:	992 DU	34,100 gsf	50,500 gsf	7,300 gsf	8,300 gsf	6,800 gsf	12,700 gsf	8,600 gsf 102 seats
Trip Generation:	(1)	(1)	(1)	(1)	(9)	(3)	(1,10)	(11)
Weekday	8.075	205	44.7	18	33	44.7	10	27 per 1,000 sf
Saturday	9.6	240	26.1	3.9	2	26.6	10	2.68 per seat
	per DU	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	
Temporal Distribution:	(1)	(1)	(1)	(1)	(9)	(3)	(1,10)	(11)
AM	10.0%	3.0%	4.0%	12.0%	16.0%	5.8%	12.0%	1.0%
MD	5.0%	19.0%	9.0%	15.0%	5.0%	7.4%	15.0%	16.0%
PM	11.0%	10.0%	5.0%	14.0%	19.0%	7.6%	11.0%	13.0%
Sat MD	8.0%	10.0%	9.0%	17.0%	12.0%	10.0%	15.0%	10.0%
	(2)	(4)	(4)	(8,4)	(2)	(3)	(8,4)	(11)
Modal Splits:	ALL PERIODS	ALL PERIODS	ALL PERIODS	AM/PM/SAT MD	ALL PERIODS	ALL PERIODS	AM/PM/SAT MD	ALL PERIODS
Auto	6.8%	2.0%	4.0%	35.9% 10.0%	6.8%	4.0%	35.9% 10.0%	19.5%
Taxi	3.8%	3.0%	9.0%	0.0% 2.0%	3.8%	9.0%	0.0% 2.0%	10.0%
Subway	51.9%	6.0%	12.0%	22.1% 5.0%	51.9%	12.0%	22.1% 5.0%	20.0%
Bus	13.3%	6.0%	5.0%	20.3% 5.0%	13.3%	5.0%	20.3% 5.0%	20.0%
Walk	24.2%	83.0%	70.0%	21.7% 78.0%	24.2%	70.0%	21.7% 78.0%	30.5%
	100.0%	100.0%	100.0%	100.0% 100.0%	100.0%	100.0%	100.0% 100.0%	100.0%
	(3)	(4)	(5)	(4)	(9)	(3)	(4)	(11)
In/Out Splits:	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out
AM	15% 85%	50% 50%	60% 40%	94% 6%	53% 47%	66% 34%	94% 6%	61% 39%
MD	50% 50%	50% 50%	53% 47%	50% 50%	50% 50%	58% 42%	50% 50%	55% 45%
PM	70% 30%	50% 50%	50% 50%	5% 95%	47% 53%	34% 66%	5% 95%	29% 71%
Sat MD	53% 47%	50% 50%	34% 66%	60% 40%	47% 53%	58% 42%	60% 40%	0% 100%
								(11)
Vehicle Occupancy:	(2,3)	(3)	(4)	(8)	(9)	(3)	(8)	Weekday Weekend
Auto	1.05	2.00	1.40	1.05	1.65	1.40	1.05	1.60 2.90
Taxi	1.40	2.00	1.40	1.05	1.40	1.40	1.05	1.20 2.30
Truck Trip Generation:	(1)	(1)	(4)	(1)	(9)	(3)	(1)	(11)
Weekday	0.06	0.35	0.04	0.32	0.07	0.04	0.32	0.14
Saturday	0.02	0.04	0.04	0.01	0.00	0.01	0.01	0.01
	per DU	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf
	(1)	(1)	(4)	(1)	(9)	(3)	(1)	(11)
AM	12.0%	8.0%	8.0%	10.0%	9.6%	7.7%	10.0%	10.0%
MD	9.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%
PM	2.0%	2.0%	1.0%	2.0%	1.0%	2.0%	2.0%	2.0%
Sat MD	9.0%	11.0%	0.0%	11.0%	0.0%	11.0%	11.0%	11.0%
	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out
All Peak Hours	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%

Notes:

(1) 2014 CEQR Technical Manual.
(2) Based on 2008-2012 American Community Survey (ACS) Tenure Data for Bronx Census Tract 71.
(3) West Harlem Rezoning FEIS, August 2012.
(4) Triangle Plaza Hub EAS, January 2012.
(5) Based on March 2014 data provided by Chinatown YMCA facility.
(6) Based on data provided by NYCDOT.
(7) Jamaica Plan Rezoning FEIS, June 2007.
(8) 2006-2010 AASHTO Reverse Journey to Work Data for Bronx Census Tract 71.
(9) No. 7 Subway Extension - Hudson Yards Rezoning and Development Program FGEIS, 2004.
(10) Saturday daily trip rate and temporal distribution assumed to be the same as weekday.
(11) Melrose Commons North EAS, 2014.

As shown in Table 3-4, the Proposed Project would generate an incremental increase of 1,166, 1,891, 1,749, and 1,677 person trips during the weekday AM, midday and PM, and Saturday midday peak hours, respectively. Compared to No-Action conditions, there would be an increase of 148, 157, 181, and 157 vehicle trips (auto, taxi, and truck combined) during the weekday AM, midday and PM, and Saturday midday peak hours, respectively. During the weekday AM and PM peak hours, the Proposed Project would generate 468 subway trips and 136 bus trips, and 550 subway trips and 181 bus trips, respectively. The Proposed Project would also generate 440, 1,276, 852, and 900 walk-only trips during the weekday AM, midday and PM, and Saturday midday peak hours, respectively.

TABLE 3-4
Travel Demand Forecast Summary

Land Use:		Residential		Local Retail		Health Club (YMCA)		Office (Common Ground)		Day Care		Community Facility (Recreation) (Rooftop Garden/Other)		TV Studio		Music Studio Rehearsal		Total		
Size/Units:		992 DU		34,100 gsf		50,500 gsf		7,300 gsf		8,300 gsf		6,800 gsf		12,700 gsf		8,600 gsf				
Peak Hour Person Trips:																				
	AM	801		189		81		16		44		18		15		2		1,166		
	MD	401		1,195		183		20		14		22		19		37		1,891		
	PM	881		629		102		18		52		23		14		30		1,749		
	Sat MD	762		737		107		5		2		18		19		27		1,677		
Person Trips:																				
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
AM	Auto	8	46	2	2	2	1	5	0	2	1	0	0	5	0	0	0	24	50	74
	Taxi	5	26	3	3	4	3	0	0	1	1	1	1	0	0	0	0	14	34	48
	Subway	62	353	6	6	6	4	3	0	12	11	1	1	3	0	0	0	93	375	468
	Bus	16	91	6	6	2	2	3	0	3	3	1	0	3	0	0	0	34	102	136
	Walk	29	165	78	77	34	23	4	1	5	5	9	4	3	1	1	1	163	277	440
	Total	120	681	95	94	48	33	15	1	23	21	12	6	14	1	1	1	328	838	1,166
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
MD	Auto	14	14	12	12	4	3	1	1	0	0	1	0	1	1	4	3	37	34	71
	Taxi	8	8	18	18	9	8	0	0	0	0	1	1	0	0	2	2	38	37	75
	Subway	104	104	36	36	12	10	1	1	4	4	2	1	0	0	4	3	163	159	322
	Bus	27	27	36	36	5	4	1	1	1	1	1	0	0	0	4	3	75	72	147
	Walk	48	47	496	495	68	60	7	7	2	2	9	6	9	8	6	6	645	631	1,276
	Total	201	200	598	597	98	85	10	10	7	7	14	8	10	9	20	17	958	933	1,891
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
PM	Auto	42	18	6	6	2	2	0	6	2	2	0	1	0	5	2	4	54	44	98
	Taxi	23	10	9	9	5	5	0	0	1	1	1	1	0	0	1	2	40	28	68
	Subway	320	137	19	19	6	6	0	4	13	14	1	2	0	3	2	4	361	189	550
	Bus	82	35	19	19	3	3	0	3	3	4	0	1	0	3	2	4	109	72	181
	Walk	150	64	261	262	35	35	1	4	5	7	5	11	0	3	3	6	460	392	852
	Total	617	264	314	315	51	51	1	17	24	28	7	16	0	14	10	20	1,024	725	1,749
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
Sat MD	Auto	27	24	7	7	1	3	1	1	0	0	0	0	4	3	0	5	40	43	83
	Taxi	15	14	11	11	3	6	0	0	0	0	1	1	0	0	0	3	30	35	65
	Subway	210	186	22	22	4	8	1	0	0	1	1	1	3	2	0	5	241	225	466
	Bus	54	48	22	22	2	4	1	0	0	0	1	0	2	2	0	5	82	81	163
	Walk	98	86	307	306	26	50	1	0	1	0	8	5	2	1	0	9	443	457	900
	Total	404	358	369	368	36	71	4	1	1	1	11	7	11	8	0	27	836	841	1,677
Vehicle Trips :																				
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
AM	Auto	8	44	1	1	1	1	5	0	1	1	0	0	5	0	0	0	21	47	68
	Taxi	4	19	2	2	3	2	0	0	1	1	1	1	0	0	0	0	11	25	36
	Taxi Balanced	23	23	4	4	5	5	0	0	2	2	2	2	0	0	0	0	36	36	72
	Truck	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	8
	Total	35	71	5	5	6	6	5	0	3	3	2	2	5	0	0	0	61	87	148
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
MD	Auto	13	13	6	6	3	2	1	1	0	0	1	0	1	1	3	2	28	25	53
	Taxi	6	6	9	9	6	6	0	0	0	0	1	1	0	0	2	2	24	24	48
	Taxi Balanced	12	12	18	18	12	12	0	0	0	0	2	2	0	0	4	4	48	48	96
	Truck	3	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	4	4	8
	Total	28	28	25	25	15	14	1	1	0	0	3	2	1	1	7	6	80	77	157
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
PM	Auto	40	17	3	3	1	1	0	6	1	1	0	1	0	5	1	3	46	37	83
	Taxi	16	7	5	5	4	4	0	0	1	1	1	1	0	0	1	2	28	20	48
	Taxi Balanced	23	23	10	10	8	8	0	0	2	2	2	2	0	0	3	3	48	48	96
	Truck	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
	Total	64	41	13	13	9	9	0	6	3	3	2	3	0	5	4	6	95	86	181
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
Sat MD	Auto	26	23	4	4	1	2	1	1	0	0	0	0	4	3	0	2	36	35	71
	Taxi	11	10	6	6	2	4	0	0	0	0	1	1	0	0	0	1	20	22	42
	Taxi Balanced	21	21	12	12	6	6	0	0	0	0	2	2	0	0	1	1	42	42	84
	Truck	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
	Total	48	45	16	16	7	8	1	1	0	0	2	2	4	3	1	3	79	78	157

	Total Vehicle Trips			Existing Parking Credit			
	In	Out	Total	In	Out	Total	Total
AM	61	87	148	-44	-4	-48	101
MD	80	77	157	-3	-6	-9	148
PM	95	86	181	-3	-48	-51	130
Sat MD	79	78	157	-10	-3	-13	144

Notes:
10% linked-trip credit applied to local retail and health club uses.

As the number of peak hour trips resulting from the Proposed Project would exceed the *CEQR Technical Manual* analysis thresholds for vehicular traffic, transit trips, and pedestrian trips during one or more peak hours, a Level 2 screening assessment was undertaken to identify specific transportation elements where additional detailed analyses may be warranted.

E. LEVEL 2 SCREENING ASSESSMENT

A Level 2 screening assessment involves the assignment and distribution of project-generated trips to the study area street network, transit facilities, and pedestrian elements, and the identification of specific locations where the incremental increase in demand may potentially exceed *CEQR Technical Manual* analysis thresholds and therefore require a quantitative analysis. These assignments are discussed below for each mode.

Traffic

The origins and destinations of project increment auto and taxi trips were estimated based on 2006-2010 AASHTO reverse journey to work data for Bronx Census Tract 71 where the project site is located. Autos and taxis were assigned to the most likely routes between the Project Area and these origins/destinations. Auto trips were then assigned to/from the project's parking garage entrance on Bergen Avenue just north of Westchester Avenue, while taxi trips were assigned to the project's frontages. Figure 3-1 shows the resulting assignment of vehicle trips (including auto, taxi, and truck trips) generated as a result of the Proposed Project during the weekday AM, midday and PM, and Saturday midday peak hours. In addition, the Proposed Project would displace a total of 74 parking spaces from two existing at-grade public parking lots located to the south of Westchester Avenue. Drivers currently using these displaced parking spaces are instead expected to utilize other off-street public facilities or on-street parking in the surrounding area. The vehicle trip assignment shown in Figure 3-1 also reflects the reassignment of trips from these displaced parking lots.

As shown in Figure 3-1, net project increment traffic would exceed the 50-trip *CEQR Technical Manual* analysis threshold at a total of five intersections (two signalized and three unsignalized). These intersections, listed below, are therefore included as analyzed locations in the traffic analysis study area.

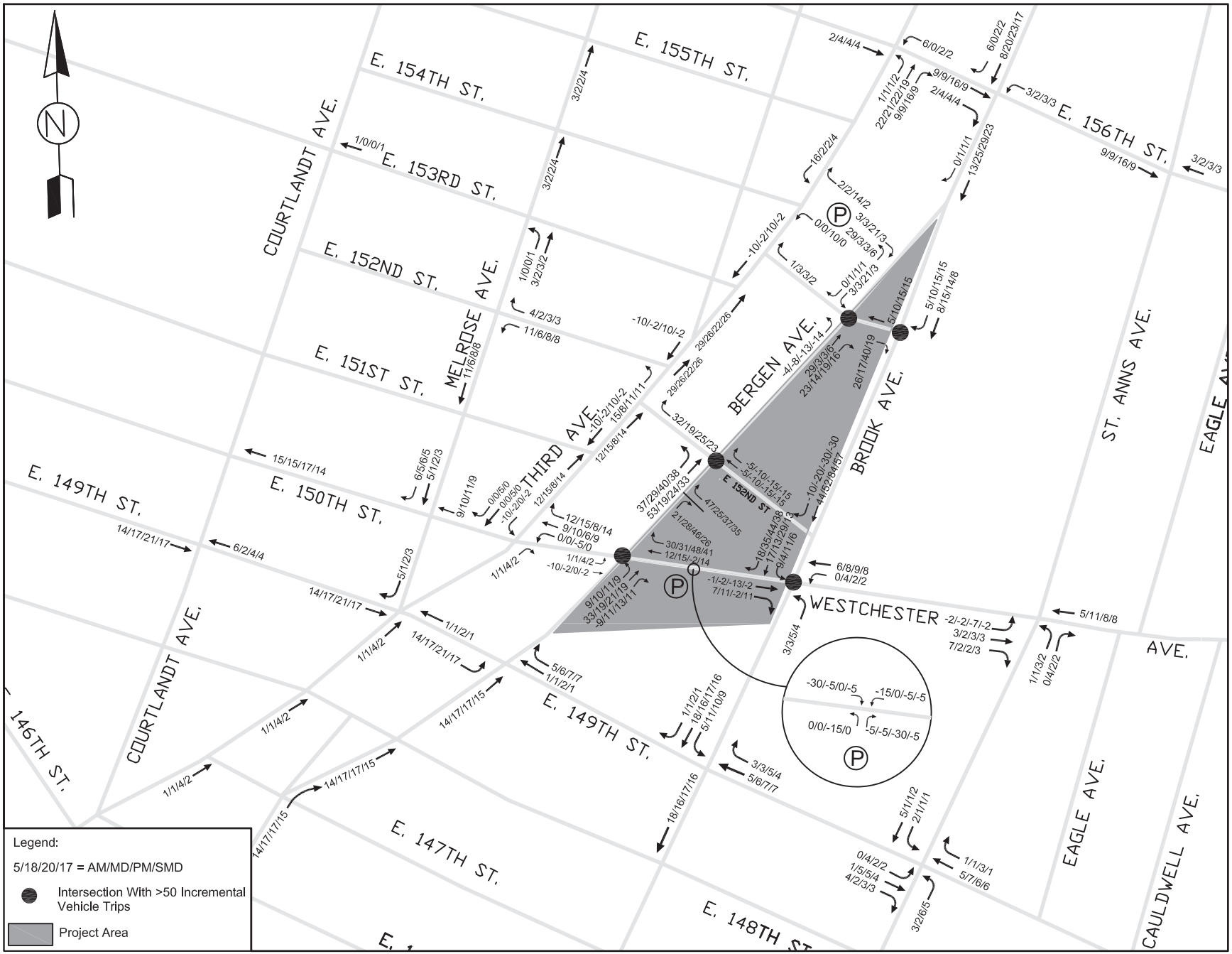
1. Bergen Avenue at Westchester Avenue (signalized)
2. Bergen Avenue at E. 152nd Street (unsignalized)
3. Bergen Avenue at E. 153rd Street (unsignalized)
4. Brook Avenue at E.153rd Street (unsignalized)
5. Brook Avenue at Westchester Avenue (signalized)

Transit

Subway

Subway Stations

It is anticipated that all project-generated subway trips would utilize the 3rd Avenue-149th Street (2, 5) subway station located approximately one block to the southwest of the site along East 149th Street. As shown in Table 3-4, the Proposed Project is expected to generate a net total of 468 and 550 subway trips



La Central

Figure 3-1

Project Traffic Increment

(in and out combined) in the weekday AM and PM peak hours, respectively. Given the location of the 3rd Avenue-149th Street (2, 5) subway station to the west of the Project Area, it is anticipated that most, if not all of these trips would use the easternmost street stairs at this station (S9 and S6), and that the numbers of project-generated trips would exceed the 200-trip *CEQR Technical Manual* analysis threshold at each of these stairs in one or both peak hours. A detailed analysis of conditions at both of these stairs and the adjoining fare array is therefore warranted to assess the potential for significant adverse impacts during the weekday AM and PM commuter peak hours.

Subway Line Haul

As discussed above, the Project Area is served by a total of two NYCT subway routes, including the No. 2 and No. 5 trains. As the Proposed Project would generate a net total of 468 and 550 subway trips (in and out combined) in the weekday AM and PM peak hours, respectively, it would have the potential to generate 200 or more new subway trips in one direction on one or more of these routes. Therefore, this EIS includes a detailed analysis of subway line haul conditions to assess existing, future No-Action, and future With-Action conditions at the maximum load points of the respective subway routes during the weekday AM and PM peak hours.

Bus

As also shown in the travel demand forecast presented in Table 3-4, it is estimated that the Proposed Project would generate a net total of 136 and 181 bus trips (including some bus-subway transfer trips) in the weekday AM and PM peak hours, respectively. As these bus trips are expected to be distributed among seven MTA local bus routes, including the Bx2, Bx4, Bx4a, Bx15, Bx19, Bx21, and Bx41 Select Bus Service (SBS), project-generated bus trips are not expected to exceed 50 or more peak direction passengers per hour on any one route. Therefore, the Proposed Project is not expected to result in significant adverse impacts to any bus route, and a further detailed bus analysis is not warranted.

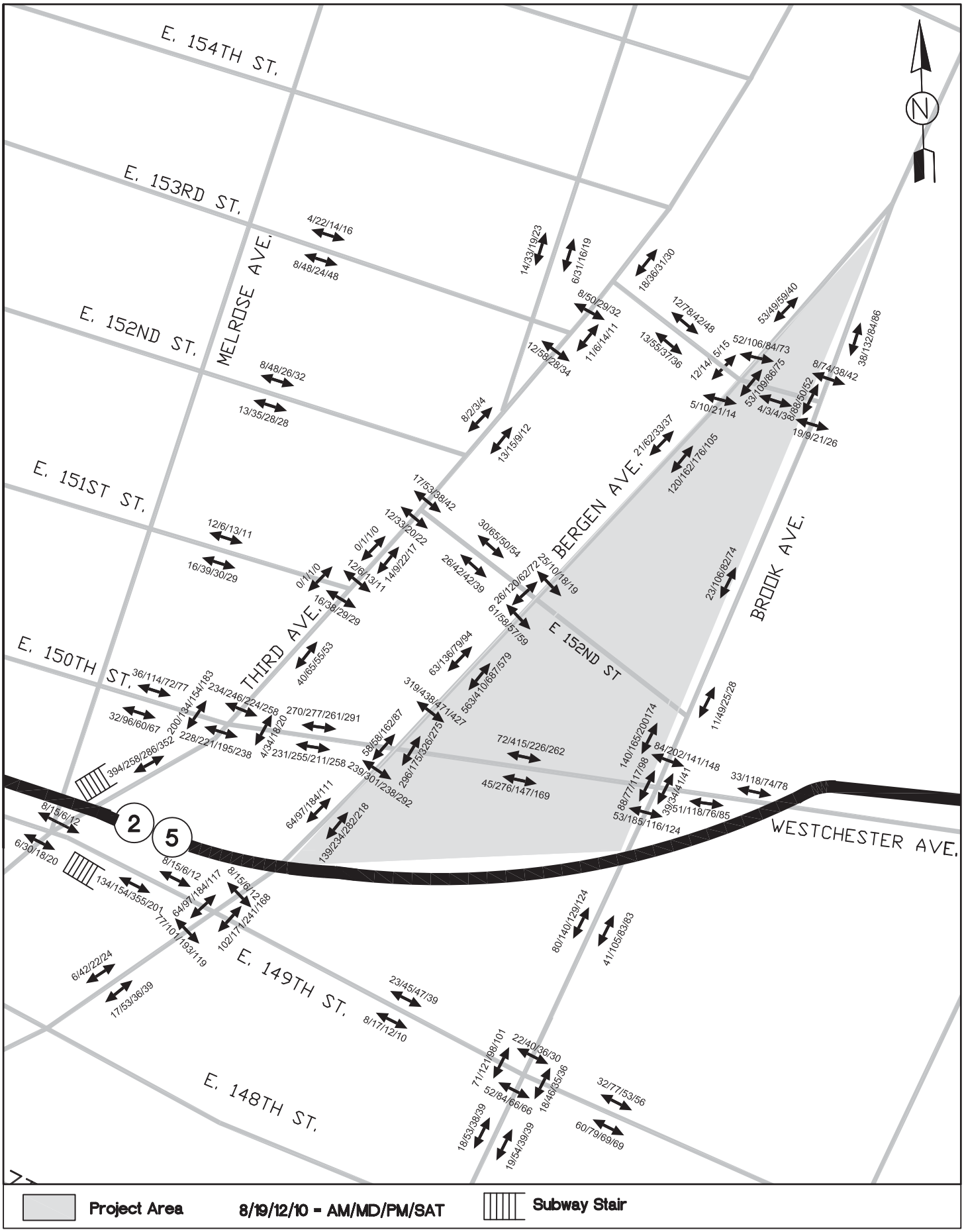
Pedestrians

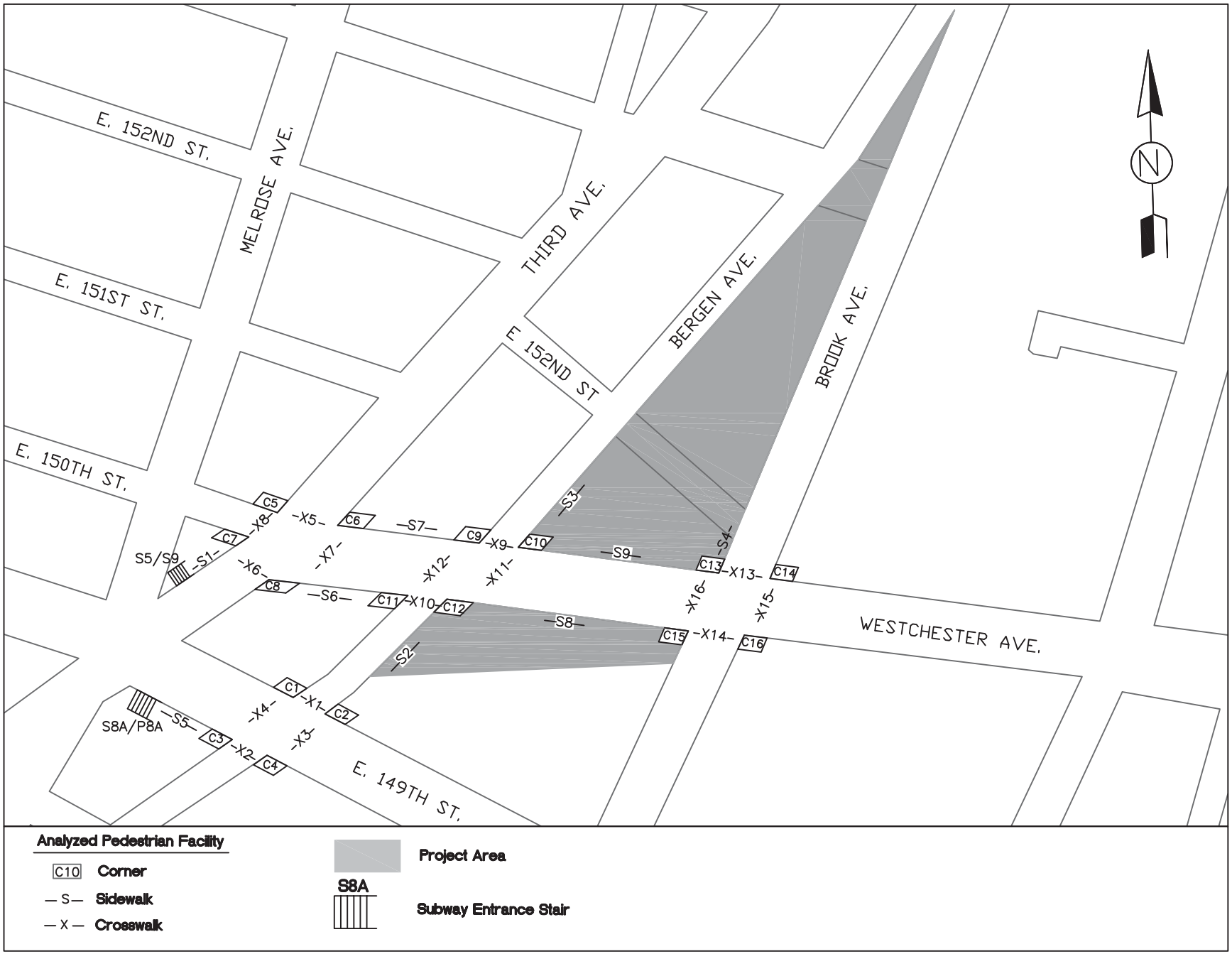
Pedestrian Level of Service Analysis

Many project-generated trips would include a walk component using local sidewalks, street corners, and crosswalks, to access the project site. As shown in Table 3-4, the Proposed Project would generate a net total of 1,044, 1,745, 1,583, and 1,529 pedestrian trips (including walk-only trips and pedestrians en route to and from the subway and bus stops) during the weekday AM, midday and PM, and Saturday midday peak hours, respectively. As the number of project generated pedestrian trips would exceed the 200-trip *CEQR Technical Manual* analysis threshold during each of the identified peak hours, a Level 2 screening assessment is required.

Figure 3-2A shows the assignment of project generated pedestrian trips (walk-only, subway, and bus trips) to pedestrian elements (sidewalks, corner areas and crosswalks) in the vicinity of the project site. Subway and bus walk trips were assigned to the most direct paths between the project site and the 3rd Avenue-149th Street (2, 5) subway station or nearby bus stops. Based on these assignments, Figure 3-2B shows the pedestrian elements in the vicinity of the project site where project-generated trips would exceed the 200-trip *CEQR Technical Manual* analysis threshold and therefore require a detailed analysis for the weekday AM, midday and PM, and Saturday midday peak hours. The pedestrian elements to be analyzed during these peak hours include:

Project Increment Pedestrian Volumes





La Central

Figure 3-2B

Pedestrian Analysis Locations

1. East 149th Street between Third and Bergen Avenues (south sidewalk)
2. Third Avenue between East 150th and East 149th Streets (west sidewalk)
3. Third Avenue at East 150th Street-Westchester Avenue (4 corners; 4 crosswalks)
4. Westchester Avenue between Third and Bergen Avenues (north and south sidewalks)
5. Westchester Avenue between Bergen and Brook Avenues (north and south sidewalks)
6. Bergen Avenue between East 149th Street and Westchester Avenue (east sidewalk)
7. Bergen Avenue at East 149th Street (4 corners; 4 crosswalks)
8. Bergen Avenue between Westchester Avenue and East 152nd Street (east sidewalk)
9. Bergen Avenue at Westchester Avenue (4 corners; 4 crosswalks)
10. Brook Avenue at Westchester Avenue (4 corners; 4 crosswalks)
11. Brook Avenue between Westchester Avenue and East 152nd Street (west sidewalk)

Parking

Parking demand from retail and commercial uses typically peaks in the weekday midday period and declines during the afternoon and evening. By contrast, residential demand typically peaks during the overnight period.

It is anticipated that up to 209 new accessory parking spaces would be provided on-site in the future with the Proposed Project. However, as the number of parking spaces to be provided has not been finalized, detailed existing off-street and on-street parking inventories for the weekday midday and overnight periods and Saturday midday period are provided to document the existing supply and demand during each period. The parking analyses document changes in the parking supply and utilization within a ¼-mile radius of the Project Area under both No-Action and With-Action conditions.

F. TRANSPORTATION ANALYSES METHODOLOGIES

Traffic

Analysis Methodology

To establish the existing conditions traffic network for the study area, manual turning movement, vehicle classification, and automatic traffic recorder (ATR) counts were conducted during the weekday AM, midday and PM, and Saturday midday peak periods in late March and early April 2014. Field surveys of parking regulations, lane configurations, and other physical and operational characteristics of the street network were also undertaken in March/April 2014. Current signal timing plans for signalized intersections within the study area were obtained from NYCDOT.

The traffic analysis examines conditions in the weekday AM, midday and PM, and Saturday midday peak hours when demand is expected to be greatest. Based on existing peak traffic volumes along major corridors in the study area, the peak hours selected for the weekday analyses are 7:30-8:30 AM, 1-2 PM, and 4:45-5:45 PM. For the Saturday analysis, the midday peak hour has been identified as 1:45-2:45 PM.

The capacity analyses at study area intersections are based on the methodology presented in the *Highway Capacity Manual (HCM) 2000*, and *HCS+ Version 5.5* software is used for the analyses. Traffic data required for these analyses include the hourly volumes on each approach and various other physical and

operational characteristics. Field inventories were conducted to document the physical layout, lane markings, curbside parking regulations, and other relevant characteristics needed for the analyses.

The HCM methodology provides a volume-to-capacity (v/c) ratio for each signalized intersection approach. The v/c ratio represents the ratio of traffic volumes on an approach to the approach's carrying capacity. A ratio of less than 0.90 is generally considered indicative of non-congested conditions in dense urban areas; when higher than this value, the ratio reflects increasing congestion. At a v/c ratio of between 0.95 and 1.0, near-capacity conditions are reached and delays can become substantial. Ratios of greater than 1.0 indicate saturated conditions with queuing. The HCM methodology also expresses quality of flow in terms of level of service (LOS), which is based on the amount of delay that a driver typically experiences at an intersection. Levels of service range from A, with minimal delay (10 seconds or less per vehicle), to F, which represents long delays (greater than 80 seconds per vehicle).

For unsignalized intersections, the HCM methodology generally assumes that major street traffic is not affected by minor street flows. Left turns from the major street are assumed to be affected by the opposing (or oncoming) traffic flow on that major street. Minor street traffic is obviously affected by all conflicting movements. Similar to signalized intersections, the HCM methodology expresses the quality of flow at un-signalized intersections in terms of LOS based on the amount of delay that a driver experiences. This relationship differs somewhat from the criteria used for signalized intersections, primarily because drivers expect different levels of performance from the two different kinds of transportation facilities. For unsignalized intersections, level of service range from A, with minimal delay (10 seconds or less per vehicle), to F, which represents long delays (over 50 seconds per vehicle).

Table 3-5 shows the LOS/delay relationship for signalized and unsignalized intersections using the HCM methodology. LOS A, B, and C generally represent highly favorable to fair levels of traffic flow. At LOS D, the influence of congestion becomes noticeable. LOS E is considered to be the limit of acceptable delay, and LOS F is considered to be unacceptable to most drivers. In this study, a signalized lane grouping operating at LOS E or F or at a v/c ratio of 0.90 or above is identified as congested.

TABLE 3-5
Intersection LOS Criteria

LOS	Average Delay per Vehicle (seconds)	
	Signalized Intersections	**Unsignalized Intersections**
A	0 - 10	0 - 10
B	> 10 - 20	> 10 - 15
C	> 20 - 35	> 15 - 25
D	> 35 - 55	> 25 - 35
E	> 55 - 80	> 35 - 50
F	> 80	> 50

Source: 2000 *Highway Capacity Manual.*

Significant Impact Criteria

The identification of significant adverse traffic impacts at analyzed intersections is based on criteria presented in the *CEQR Technical Manual*. According to *CEQR Technical Manual* guidelines, if a lane group under the With-Action condition is within LOS A, B, C, or marginally acceptable LOS D (average control delay less than or equal to 45 seconds/vehicle for signalized intersections or less than or equal to 30.0 seconds/vehicle for un-signalized intersections), the impact is not considered significant. If the lane group

LOS deteriorates from LOS A, B, or C in the No-Action condition to worse than mid-LOS D (i.e., delay greater than 45 seconds/vehicle at signalized intersections or 30.0 seconds/vehicle for un-signalized intersections) or to LOS E or F under the With-Action condition, then a significant traffic impact has occurred. For a lane group operating at LOS D under the No-Action condition, an increase of five or more seconds is considered significant if the With-Action delay exceeds mid-LOS D. For a lane group operating at LOS E under the No-Action condition, an increase in projected delay of 4 or more seconds is considered significant, and for a lane group operating at LOS F under the No-Action condition, an increase in projected delay of 3 or more seconds is considered significant. For unsignalized intersections, the same criteria used for signalized intersections would apply. Pursuant to *CEQR Technical Manual* guidelines, for a minor street to trigger a significant impact, 90 Passenger Car Equivalents (PCEs) in any peak hour must be identified in the future With-Action condition.

Transit

Subway Stations

Analysis Methodology

To determine existing conditions at analyzed subway station elements, subway ridership data were collected at the 3rd Avenue-149th Street (2, 5) subway station in November 2015. The *CEQR Technical Manual* methodology for assessing subway station pedestrian circulation elements (stairs and passageways) and fare control elements (regular turnstiles, high entry/exit turnstiles [HEETs], and high exit turnstiles) compares existing and projected pedestrian volumes with the element's design capacity to yield a v/c ratio. All analyses reflect pedestrian flow volumes over a 15-minute interval during each peak hour. Based on existing pedestrian volumes at area subway stations, the peak hours selected for the analysis of subway station conditions are 7:45-8:45 AM and 4:45-5:45 PM. (As noted previously, transit analyses typically focus on the weekday AM and PM commuter peak hours as it is during these periods that overall demand on the subway and bus systems is usually highest.)

Under *CEQR Technical Manual* guidelines, the capacity of a stairway or passageway is determined based on four factors: the NYCT guideline capacity, the effective width, and surging and counter-flow factors, if applicable. NYCT guideline capacity is 10 passengers per foot per minute (pfm) for stairs and 15 pfm for passageways. The effective width of a stair or passageway is the actual width adjusted to reflect pedestrian avoidance of sidewalls and center handrails, if present. A surging factor is applied to existing pedestrian volumes to reflect conditions where pedestrian flows tend to be concentrated (or surged) during shorter periods within the 15-minute analysis interval. This factor, which is based on the size of the station and the proximity of the pedestrian element to the station platforms, can reduce the calculated capacity by up to 25 percent. Lastly, a friction (or counter-flow) factor reducing calculated capacity by 10 percent is applied where opposing pedestrian flows use the same stair or passageway. No friction factor is applied if the flow is all or predominantly in one direction.

By contrast with stairways and passageways, under *CEQR Technical Manual* guidelines the capacity of a two-way turnstile is determined based on only two factors: the NYCT guideline capacity for a 15-minute interval and a surging factor of up to 25 percent.

The estimated v/c ratio is compared to NYCT criteria to determine an LOS for the operation of an element. Table 3-6 shows the LOS and corresponding v/c ratios for all subway station elements. Six levels of service

are defined with letters A through F. LOS A is representative of free flow conditions without pedestrian conflicts and LOS F depicts severe congestion and queuing.

TABLE 3-6
LOS Criteria for Subway Station Elements

LOS	Description	V/C Ratio
A	Free Flow	0.00 to 0.45
B	Fluid Flow	0.45 to 0.70
C	Fluid, somewhat restricted	0.70 to 1.00
D	Crowded, walking speed restricted	1.00 to 1.33
E	Congested, some shuffling and queuing	1.33 to 1.67
F	Severely congested, queued	> 1.67

Source: 2014 *CEQR Technical Manual*

Significant Impact Criteria

The *CEQR Technical Manual* identifies a significant impact for stairways in terms of the minimum width increment threshold (WIT) based on the minimum amount of additional capacity that would be required to restore conditions to either their No-Action v/c ratio or to a v/c ratio of 1.00 (LOS C/D), whichever is greater. Stairways that are substantially degraded in level of service or that experience the formation of extensive queues are classified as significantly impacted. Significant adverse stairway or passageway impacts are typically considered to have occurred once the thresholds shown in Table 3-7 are reached or exceeded.

For turnstiles and high-wheel exit gates, the *CEQR Technical Manual* defines a significant impact as an increase from a No-Action v/c ratio of below 1.00 to a v/c ratio of 1.00 or greater. Where a facility is already at a v/c ratio of 1.00 or greater, a 0.01 change in v/c ratio is also considered significant.

TABLE 3-7
Significant Impact Thresholds for Stairways and Passageways

With-Action V/C Ratio	WIT for Significant Impact (inches)	
	Stairway	Passageway
1.00-1.09	8	13
1.10-1.19	7	11.5
1.20-1.29	6	10
1.30-1.39	5	8.5
1.40-1.49	4	6
1.50-1.59	3	4.5
$\geq$1.6	2	3

Source: 2014 *CEQR Technical Manual*

Subway Line Haul

Analysis Methodology

Line haul capacity is based on the guideline capacity per subway car multiplied by the number of subway

cars crossing the maximum load point in the peak hour. (Maximum guideline capacities established by NYCT for each car class are 110 passengers/car for a 51-foot subway car, 145 passengers/car for a 60-foot car, and 175 passengers/car for a 75-foot car.) The volume-to-capacity (v/c) ratio is determined by dividing the number of peak-hour passengers traveling through the maximum load point by the line haul capacity. (Maximum load point subway service and ridership data were provided by NYCT.) The subway line haul analysis focuses on the weekday AM and PM commuter peak hours as it is during these periods that overall demand on the subway system is usually highest.

Significant Impact Criteria

For subway line haul conditions, *CEQR Technical Manual* criteria specify that any increases in load levels that remain within practical capacity limits are generally not considered significant. However, significant adverse subway line haul impacts can occur if a proposed action is expected to generate an incremental increase averaging five or more riders per subway car on lines projected to carry loads exceeding guideline capacity. This is based on the general assumption that when subways are at or above practical capacity, the addition of even five or more riders per car is perceptible.

Pedestrians

Analysis Methodology

Peak 15-minute pedestrian flow conditions are analyzed using the 2000 *Highway Capacity Manual* methodology and procedures outlined in the *CEQR Technical Manual*. Using this methodology, the congestion level of pedestrian facilities is determined by considering pedestrian volume, measuring the sidewalk or crosswalk width, determining the available pedestrian capacity and developing a ratio of volume flows to capacity conditions. The resulting ratio is then compared with LOS standards for pedestrian flow, which define a qualitative relationship at a certain pedestrian traffic concentration level. The evaluation of street crosswalks and corners is more complicated as these spaces cannot be treated as corridors due to the time incurred waiting for traffic lights. To effectively evaluate these facilities, a "time-space" analysis methodology is employed which takes into consideration the traffic light cycle at intersections.

LOS standards are based on the average area available per pedestrian during the analysis period, typically expressed as a 15-minute peak period. LOS grades from A to F are assigned, with LOS A representative of free flow conditions without pedestrian conflicts and LOS F depicting significant capacity limitations and inconvenience. Table 3-8 defines the LOS criteria for pedestrian crosswalk/corner area and sidewalk conditions, as based on the *Highway Capacity Manual* and *CEQR Technical Manual* methodologies.

The analysis of sidewalk conditions includes a "platoon" factor in the calculation of pedestrian flow to more accurately estimate the dynamics of walking. "Platooning" is the tendency of pedestrians to move in bunched groups or "platoons" once they cross a street where cross traffic required them to wait for a signal. Platooning generally results in a level of service one level poorer than that determined for average flow rates.

TABLE 3-8
Pedestrian Crosswalk/Corner Area and Sidewalk Levels of Service Descriptions

LOS	Description	Crosswalk/Corner Area and Non-Platoon Sidewalk Criteria (ft^2/ped)	Platoon Sidewalk Criteria (ft^2/ped)
A	(Unrestricted)	> 60	> 530
B	(Slightly Restricted)	>40 – 60	> 90 - 530
C	(Restricted but fluid)	> 24 – 40	> 40 - 90
D	(Restricted, necessary to continuously alter walking stride and direction)	> 15 – 24	> 23 - 40
E	(Severely restricted)	> 8 – 15	> 11 - 23
F	(Forward progress only by shuffling; no reverse movement possible)	$\leq$ 8	$\leq$ 11

Notes: Based on average conditions for 15 minutes
ft^2/ped = square feet of area per pedestrian
Sources: 2000 *Highway Capacity Manual,* 2014 *CEQR Technical Manual*

Significant Impact Criteria

Sidewalks

As the project site is located within a Central Business District (CBD), *CEQR Technical Manual* guidelines define a significant adverse sidewalk impact to have occurred under platoon conditions if the average pedestrian space under the No-Action condition is greater than 39.2 square feet per pedestrian (ft^2/ped) of effective sidewalk width, and the average pedestrian space under the With-Action condition is less than or equal to 31.5 ft^2/ped (mid-LOS D or worse). If the average pedestrian space under the With-Action condition is greater than 31.5 ft^2/ped (mid-LOS D or better), the impact should not be considered significant. If the No-Action pedestrian space is between 6.4 and 39.2 ft^2/ped, a decrease in the average pedestrian space under the With-Action condition should be considered significant based on Table 3-9, which shows a sliding-scale that identifies what decrease in pedestrian space is considered a significant impact for a given pedestrian space value in the No-Action condition. If the decrease in average pedestrian space is less than the value indicated in Table 3-9, the impact is not considered significant. If the average pedestrian space under the No-Action condition is less than 6.4 ft^2/ped, then a decrease in pedestrian space greater than or equal to 0.3 ft^2/ped under the With-Action condition should be considered significant.

Corner Areas and Crosswalks

For CBD areas, *CEQR Technical Manual* guidelines define a significant adverse corner area or crosswalk impact to have occurred if the average pedestrian space under the No-Action condition is greater than 21.5 ft^2/ped and, under the With-Action condition, the average pedestrian space decreases to 19.5 ft^2/ped or less (mid-LOS D or worse). If the pedestrian space under the With-Action condition is greater than 19.5 ft^2/ped (mid-LOS D or better), the impact should not be considered significant. If the average pedestrian space under the No-Action condition is between 5.1 and 21.5 ft^2/ped, a decrease in pedestrian space under the With-Action condition should be considered significant based on Table 3-10 which shows a sliding-scale that identifies what decrease in pedestrian space is considered a significant impact for a given amount of pedestrian space in the No-Action condition. If the decrease in pedestrian space is less than the value in Table 3-10, the impact is not considered significant. If the average pedestrian space under the

No-Action condition is less than 5.1 ft^2/ped, then a decrease in pedestrian space greater than or equal to 0.2 ft^2/ped should be considered significant.

TABLE 3-9
Significant Impact Criteria for Sidewalks with Platooned Flow in a CBD Location

No-Action Condition Pedestrian Space (ft^2/ped)	With-Action Conditions Pedestrian Space Reduction to be Considered a Significant Impact (ft^2/ped)
> 39.2	With Action Condition < 31.5
38.7 to 39.2	Reduction ≥ 3.8
37.8 to 38.6	Reduction ≥ 3.7
36.8 to 37.7	Reduction ≥ 3.6
35.9 to 36.7	Reduction ≥ 3.5
34.9 to 35.8	Reduction ≥ 3.4
34.0 to 34.8	Reduction ≥ 3.3
33.0 to 33.9	Reduction ≥ 3.2
32.1 to 32.9	Reduction ≥ 3.1
31.1 to 32.0	Reduction ≥ 3.0
30.2 to 31.0	Reduction ≥ 2.9
29.2 to 30.1	Reduction ≥ 2.8
28.3 to 29.1	Reduction ≥ 2.7
27.3 to 28.2	Reduction ≥ 2.6
26.4 to 27.2	Reduction ≥ 2.5
25.4 to 26.3	Reduction ≥ 2.4
24.5 to 25.3	Reduction ≥ 2.3
23.5 to 24.4	Reduction ≥ 2.2
22.6 to 23.4	Reduction ≥ 2.1
21.6 to 22.5	Reduction ≥ 2.0
20.7 to 21.5	Reduction ≥ 1.9
19.7 to 20.6	Reduction ≥ 1.8
18.8 to 19.6	Reduction ≥ 1.7
17.8 to 18.7	Reduction ≥ 1.6
16.9 to 17.7	Reduction ≥ 1.5
15.9 to 16.8	Reduction ≥ 1.4
15.0 to 15.8	Reduction ≥ 1.3
14.0 to 14.9	Reduction ≥ 1.2
13.2 to 13.9	Reduction ≥ 1.1
12.1 to 13.0	Reduction ≥ 1.0
11,2 to 12.0	Reduction ≥ 0.9
10.2 to 11.1	Reduction ≥ 0.8
9.3 to 10.1	Reduction ≥ 0.7
8.3 to 9.2	Reduction ≥ 0.6
7.4 to 8.2	Reduction ≥ 0.5
6.4 to 7.3	Reduction ≥ 0.4
< 6.4	Reduction ≥ 0.3

Source: 2014 *CEQR Technical Manual*

TABLE 3-10
Significant Impact Criteria for Corners and Crosswalks in a CBD Location

No-Action Condition Pedestrian Space (ft^2/ped)	With-Action Conditions Pedestrian Space Reduction to be Considered a Significant Impact (ft^2/ped)
> 21.5	With Action Condition < 19.5
21.3 to 22.1	Reduction ≥ 2.1
20.4 to 21.2	Reduction ≥ 2.0
19.5 to 20.3	Reduction ≥ 1.9
18.6 to 19.4	Reduction ≥ 1.8
17.7 to 18.5	Reduction ≥ 1.7
16.8 to 17.6	Reduction ≥ 1.6
15.9 to 16.7	Reduction ≥ 1.5
15.0 to 15.8	Reduction ≥ 1.4
14.1 to 14.9	Reduction ≥ 1.3
13.2 to 14.0	Reduction ≥ 1.2
12.3 to 13.1	Reduction ≥ 1.1
11.4 to 12.2	Reduction ≥ 1.0
10.5 to 11.3	Reduction ≥ 0.9
9.6 to 10.4	Reduction ≥ 0.8
8.7 to 9.5	Reduction ≥ 0.7
7.8 to 8.6	Reduction ≥ 0.6
6.9 to 7.7	Reduction ≥ 0.5
6.0 to 6.8	Reduction ≥ 0.4
5.1 to 5.9	Reduction ≥ 0.3
< 5.1	Reduction ≥ 0.2

Source: 2014 *CEQR Technical Manual*

Vehicular and Pedestrian Safety

Pursuant to *CEQR Technical Manual* guidelines, an evaluation of vehicular and pedestrian safety is needed for locations within the traffic and pedestrian study areas that have been identified as high accident locations. These are defined as locations where 48 or more total reportable and non-reportable crashes or five or more pedestrian/bicyclist injury crashes have occurred in any consecutive 12 months of the most recent three-year period for which data are available. For these locations, accident trends would be identified to determine whether projected vehicular and pedestrian traffic would further impact safety,

or whether existing unsafe conditions could adversely impact the flow of the projected new trips. The determination of potential significant safety impacts depends on the type of area where the project site is located, traffic volumes, accident types and severity, and other contributing factors. Where appropriate, measures to improve traffic and pedestrian safety should be identified and coordinated with NYCDOT.

Parking

Analysis Methodology

The parking analysis identifies the supply of on-street and off-street public parking near a proposed project and determines the extent to which the supply is utilized in existing conditions and in the future without and with a proposed action. The analysis considers anticipated changes in the study area's parking supply and demand, and compares project-generated parking demand with future parking availability to determine if a parking shortfall is likely to result. The displacement of existing parking capacity attributable to the proposed action or project is also considered. Typically, the analysis encompasses the parking facilities—public parking lots and garages and on-street curb spaces—that vehicular traffic destined to the project site or area would likely utilize. According to the *CEQR Technical Manual*, a ¼-mile radius around a project site is generally assumed as the distance that someone driving to the site would be willing to walk. The parking analyses therefore document changes in the parking supply and utilization within a ¼-mile radius of the Project Area under both No-Action and With-Action conditions.

Significant Impact Criteria

Should a proposed action generate the need for more parking than it provides, a shortfall of spaces may be considered significant. The availability of off-street and on-street parking spaces within a convenient walking distance (about ¼-mile) as well as the availability of alternative modes of transportation are considered in making this determination.

Under *CEQR Technical Manual* guidelines, different criteria for determining significance are applied based on whether or not a proposed project is located in residential or commercial areas designated as Parking Zones 1 and 2 as shown in Map 16-2 (CEQR Parking Zones) in the *CEQR Technical Manual*. As the Project Area is located within Zone 2, the inability of a proposed project or the surrounding area to accommodate a project's future parking demands is considered a parking shortfall, but is generally not considered significant due to the magnitude of available alternative modes of transportation.

G. TRAFFIC

Existing Conditions

Study Area Street Network

The existing peak hour traffic volumes on the study area street network are shown in Figure 3-3. As shown therein, the study area network is characterized by an irregular street grid and the Project Area is intersected by three east-west streets. The segment of Westchester Avenue that runs through the study area is open to two-way traffic and includes a parking lane and a travel lane in each direction. This portion of Westchester Avenue is traversed by approximately 345 vehicles per hour (vph), 310 vph, 395 vph, and 335 vph in the eastbound direction during the weekday AM, midday and PM, and Saturday midday peak

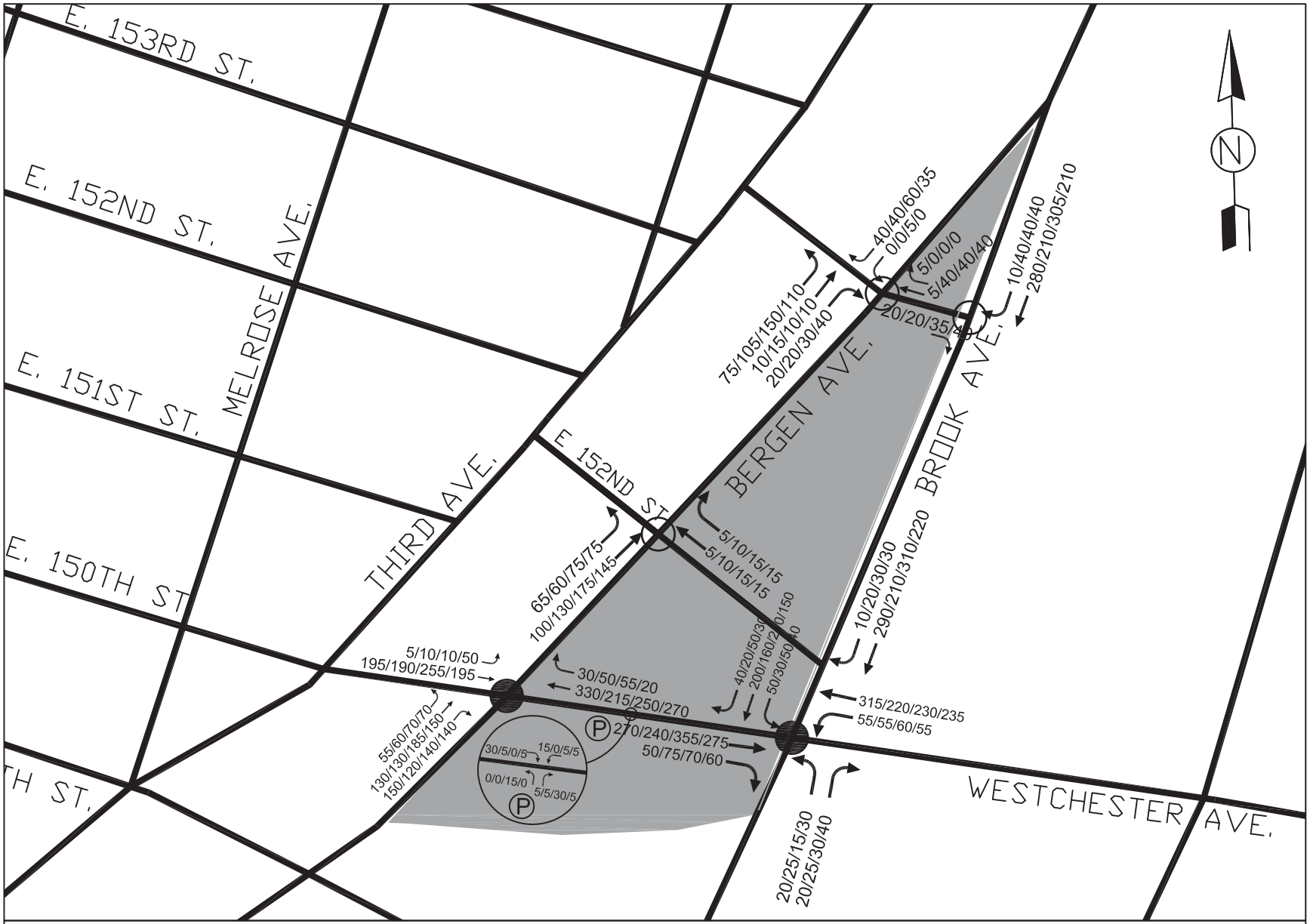


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Figure 3-3

Existing Traffic Volumes

hours, respectively. Westbound vehicular volumes are approximately 375 vph, 265 vph, 295 vph, and 295 vph during these same periods, respectively. Westchester Avenue is a local truck route and has local bus service with the Bx4 and Bx4a running daily between Third Avenue and Westchester Square.

East 152nd Street also runs through the project site and operates as a one-way westbound street between Third and Brook Avenues. Demapped in 1975, the segment of East 152nd Street between Bergen Avenue and Brook Avenue is still open to traffic and will be formally closed as part of the Proposed Project. Westbound vehicular volumes on this portion of East 152nd Street are low—totaling approximately 10 vph, 20 vph, 30 vph, and 30 vph during the weekday AM, midday and PM, and Saturday midday peak hours, respectively. Within the study area, East 152nd Street operates with one travel lane flanked by parking along both curbs.

East 153rd Street operates as a two-way local street between Brook and Bergen Avenues and one-way westbound west of Bergen Avenue. Combined two-way volumes between Brook and Bergen Avenues are approximately 30 vph, 60 vph, 75 vph, and 80 vph during the weekday AM, midday and PM, and Saturday midday peak hours, respectively. One-way westbound volumes to the west of Bergen Avenue are approximately 120 vph, 185 vph, 250 vph, and 185 vph during these same periods, respectively. Curbside parking is available along both sides of the street.

Bergen Avenue, which extends in a southerly direction from Brook Avenue to Willis Avenue, forms the western border of the project site. It operates one-way northbound to the south of East 153rd Street, and two-way between East 153rd Street and Brook Avenue. Between Westchester Avenue and East 153rd Street, Bergen Avenue is traversed by approximately 170 vph, 200 vph, 275 vph, and 135 vph during the weekday AM, midday and PM, and Saturday midday peak hours, respectively. Curbside parking is available along both curbs, and portions of the western curb are also utilized for back-of-house loading and unloading activities associated with commercial stores along Third Avenue.

Along the eastern side of the Project Area is Brook Avenue which operates with two southbound travel lanes plus parking along both curbs north of Westchester Avenue. To the south of Westchester Avenue, Brook Avenue becomes two-way with three travel lanes (two southbound and one northbound) and angled parking along the east curb. To the north of Westchester Avenue, one-way southbound volumes on Brook Avenue total approximately 300 vph, 230 vph, 340 vph, and 250 vph during the weekday AM, midday and PM, and Saturday midday peak hours, respectively. To the south of Westchester Avenue, combined two-way volumes on Brook Avenue total approximately 345 vph, 340 vph, 385 vph, and 335 vph during these same periods, respectively.

Intersection Capacity Analysis

Table 3-11 summarizes the existing traffic LOS during the weekday AM, midday and PM, and Saturday midday peak hours. With the exception of the weekday AM peak hour, all lane groups currently operate at LOS A, B, or C during all periods. During the AM peak hour, one lane group, the southbound movement at Westchester and Brook Avenues, operates at LOS D. As shown in Table 3-11, during all peak hours, no individual lane groups operate at LOS E or F.

TABLE 3-11
Summary of Lane Group Levels of Service—Existing Conditions

	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Midday Peak Hour
LOS A/B/C	14	15	15	15
LOS D	1	0	0	0
LOS E	0	0	0	0
LOS F	0	0	0	0
Lane Groups operating at v/c $\geq$ 0.90	0	0	0	0

Table 3-12 shows the detailed v/c ratios, delays, and LOS for each lane group at each of the 5 analyzed intersections in all peak hours. As shown in Tables 3-11 and 3-12, under existing conditions, no lane groups experience congestion (i.e., movements operating at LOS E or F and/or with a high v/c ratio–0.90 and above) in any analyzed peak hour.

TABLE 3-12
Traffic Levels of Service Analysis—Existing Conditions

		Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
Intersection	Lane Group	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS
1. Westchester Av. (E-W)/Brook Av. (S)	EB-T	0.33	12.3	B	0.29	11.9	B	0.43	13.6	B	0.36	12.7	B
	EB-R	0.10	10.3	B	0.16	10.8	B	0.14	10.6	B	0.12	10.4	B
	WB-LT	0.58	17.1	B	0.44	14.4	B	0.49	15.4	B	0.47	14.9	B
	NB-LR	0.19	22.4	C	0.21	22.4	C	0.18	21.9	C	0.26	23.0	C
	SB-LTR	0.74	36.3	D	0.53	27.9	C	0.71	34.4	C	0.51	27.2	C
2. Westchester Av. (E-W)/Bergen Av. (N)	EB-LT	0.31	14.0	B	0.31	12.9	B	0.41	15.4	B	0.48	16.9	B
	WB-T	0.44	15.6	B	0.28	12.3	B	0.32	13.8	B	0.36	14.3	B
	WB-R	0.06	11.3	B	0.09	10.6	B	0.11	11.8	B	0.04	11.1	B
	NB-LT	0.36	22.0	C	0.40	23.9	C	0.49	24.2	C	0.42	22.9	C
	NB-R	0.36	22.2	C	0.31	23.0	C	0.33	21.8	C	0.33	21.6	C
3. E. 152nd St (W)/Bergen Av. (N)[1]	WB-TR	0.02	10.2	B	0.04	10.7	B	0.06	11.0	B	0.05	10.8	B
	NB-LT	0.05	7.4	A	0.05	7.5	A	0.05	7.4	A	0.05	7.4	A
4. E. 153rd St (W)/Bergen Av. (N) [1]	NB-LTR	0.14	9.7	A	0.21	10.5	B	0.26	11.0	B	0.20	10.1	B
	SB-LR	0.05	8.7	A	0.05	8.9	A	0.08	9.1	A	0.04	8.9	A
5. E. 153rd St (E-W)/Brook Av. (S) [1]	EB-R	0.04	10.5	B	0.03	10.0	A	0.07	10.9	B	0.07	10.2	B

Notes:
[1] Unsignalized two-way stop
*Denotes a congested movement (LOS E or F, or V/C ratio $\geq$ 0.9)
EB – Eastbound, WB – Westbound, NB – Northbound, SB – Southbound
L – Left, T – Through, R – Right, DfL – Analysis considers a defacto left-turn lane on this approach
V/C Ratio – Volume to capacity ratio
LOS – Level of service
Analysis is based on the 2000 *Highway Capacity Manual* methodology (HCS+, Version 5.5)

The Future Without the Proposed Actions (No-Action Condition)

The 2020 No-Action scenario incorporates changes to the study area's traffic network as a result of general background growth and increased travel demand from new development. As per *CEQR Technical Manual* guidelines, an annual background growth rate of 0.25 percent was assumed for the first five years (2014-2019) and 0.125 percent was assumed for the 2019 to 2020 period.

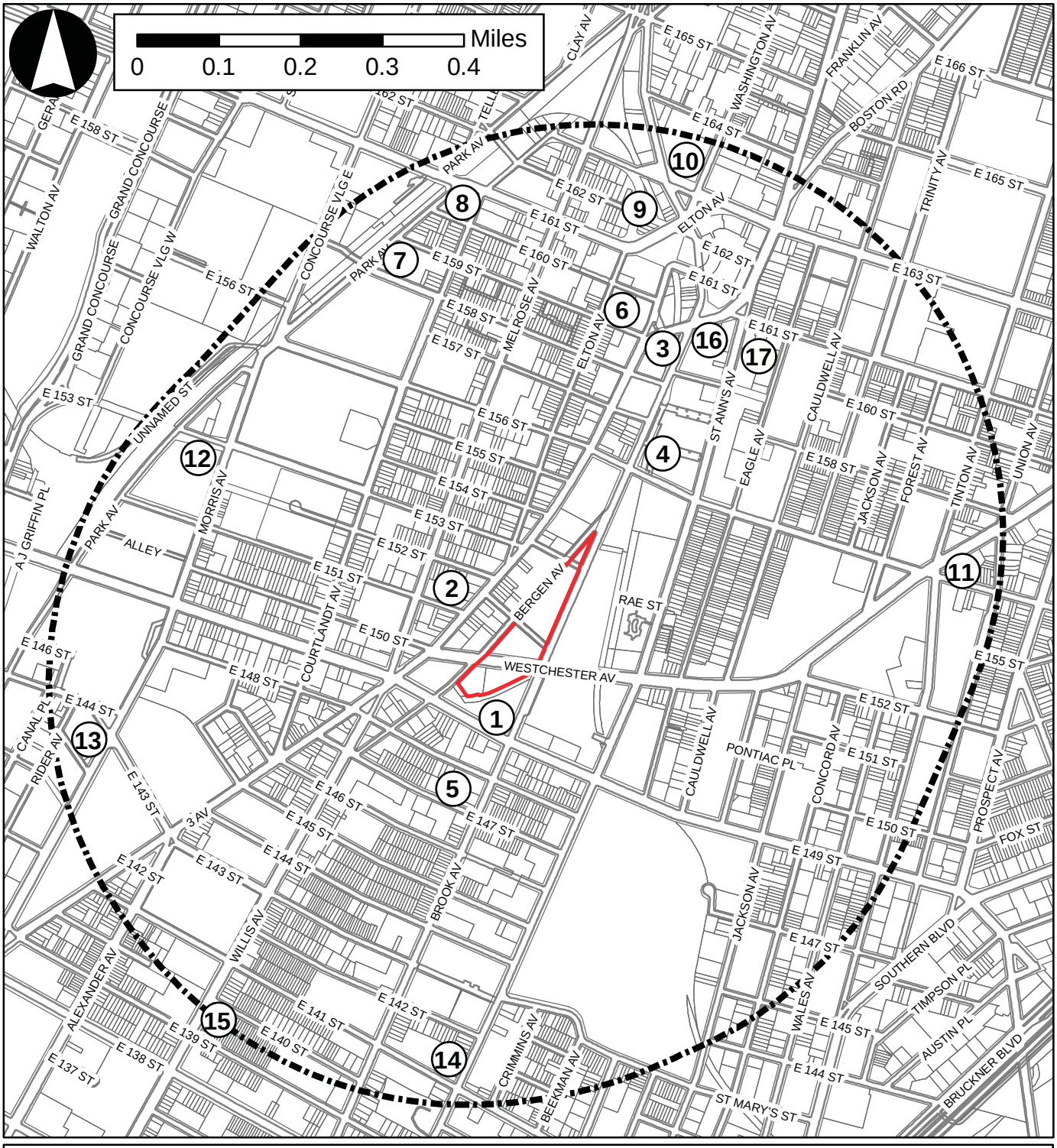
In addition, a total of 17 projects/developments are planned or proposed within or just beyond the study area (see Figure 3-4). As shown in Table 3-13, it was determined that background growth would account for the increase in travel demand from 10 of the 17 No-Action projects, as they are relatively small projects and/or located relatively distant from the Project Area and would generate little new demand at analyzed intersections. 2020 No-Action traffic volumes were determined by adding the background growth and estimated incremental traffic demand from the remaining seven No-Action projects to the existing baseline traffic network. The No-Action projects considered as discrete sites for the purposes of the traffic analysis include, but are not limited to, the Triangle Plaza Hub, Melrose Commons North (URA Sites B and C), and the 3160 Park Avenue development (see Table 3-13). It should be noted that the Project Area would remain mostly vacant and underdeveloped under No-Action conditions. Figure 3-5 shows the resulting 2020 No-Action weekday AM, midday and PM, and Saturday midday peak hour traffic volumes.

TABLE 3-13
No-Action Developments Planned for Completion by 2020 within a ½-Mile Radius

Map No.	Project Name/Address	Development Program	Transportation Assumptions	Build Year
1	Triangle Plaza Hub	83,000 gsf commercial, 86 parking spaces	Incorporated in No-Action	2015
2	411 East 151st Street	10 DUs, 2,744 gsf commercial, 2,254 gsf community facility	Incorporated in No-Action	2018
3	Cornerstone Round 3 Site B2	74 DUs, 3,656 gsf commercial, 16 parking spaces	Incorporated in No-Action	2017
4	Brook 156	42 DUs	Included in background growth	2017
5	Brook Avenue Apartments	66 DUs, 26 parking spaces	Incorporated in No-Action	2017
6	Addition to Courtlandt (Melrose Commons URA Site 31)	8 DUs	Included in background growth	2017
7	Addition to Park (Melrose Commons URA Site 23)	8 DUs	Included in background growth	2017
8	3160 Park Avenue	152 DUs, 21,400 gsf commercial, 38 parking spaces	Incorporated in No-Action	2017
9	Melrose Commons North (RFP Sites B and C)	480 DUs, 60,746 gsf community facility, 50 parking spaces	Incorporated in No-Action	2017
10	Plaza 163	81,000 gsf commercial	Not expected to generate substantial demand through analyzed locations, included in background growth	2015
11	766 Westchester Avenue	38,300 gsf commercial	Incorporated in No-Action	N/A
12	655 Morris Avenue	196 DUs, 9,466 gsf commercial, 8,633 gsf community facility, 100 parking spaces	Not expected to generate substantial demand through analyzed locations, included in background growth	2016
13	Morris Court Apartments	201 DUs	Not expected to generate substantial demand through analyzed locations, included in background growth	2014
14	St. Ann's/142nd Street	100 DUs	Not expected to generate substantial demand through analyzed locations, included in background growth	2017
15	294-296 Willis Avenue	4 DUs, 4,982 gsf commercial	Included in background growth	N/A
16	3146 Third Avenue	1,000 gsf commercial, 34,000 gsf community facility	Included in background growth	N/A
17	861 Eagle Avenue	78 DUs, 10,000 community facility	Included in background growth	N/A

Sources: HPD; DCP; DOB New Building Applications; previous environmental assessments; newspaper articles; PHA site visits
Notes: Refer to Figure 3-4
Any developments completed after data collection took place in May 2014 were included in Table 3-13.
N/A – Not available.

Figure 3-4
No-Action Development Sites



Legend

- Project Area
- Half-Mile Radius
- (1) No-Action Development Sites (keyed to Table 3-15)

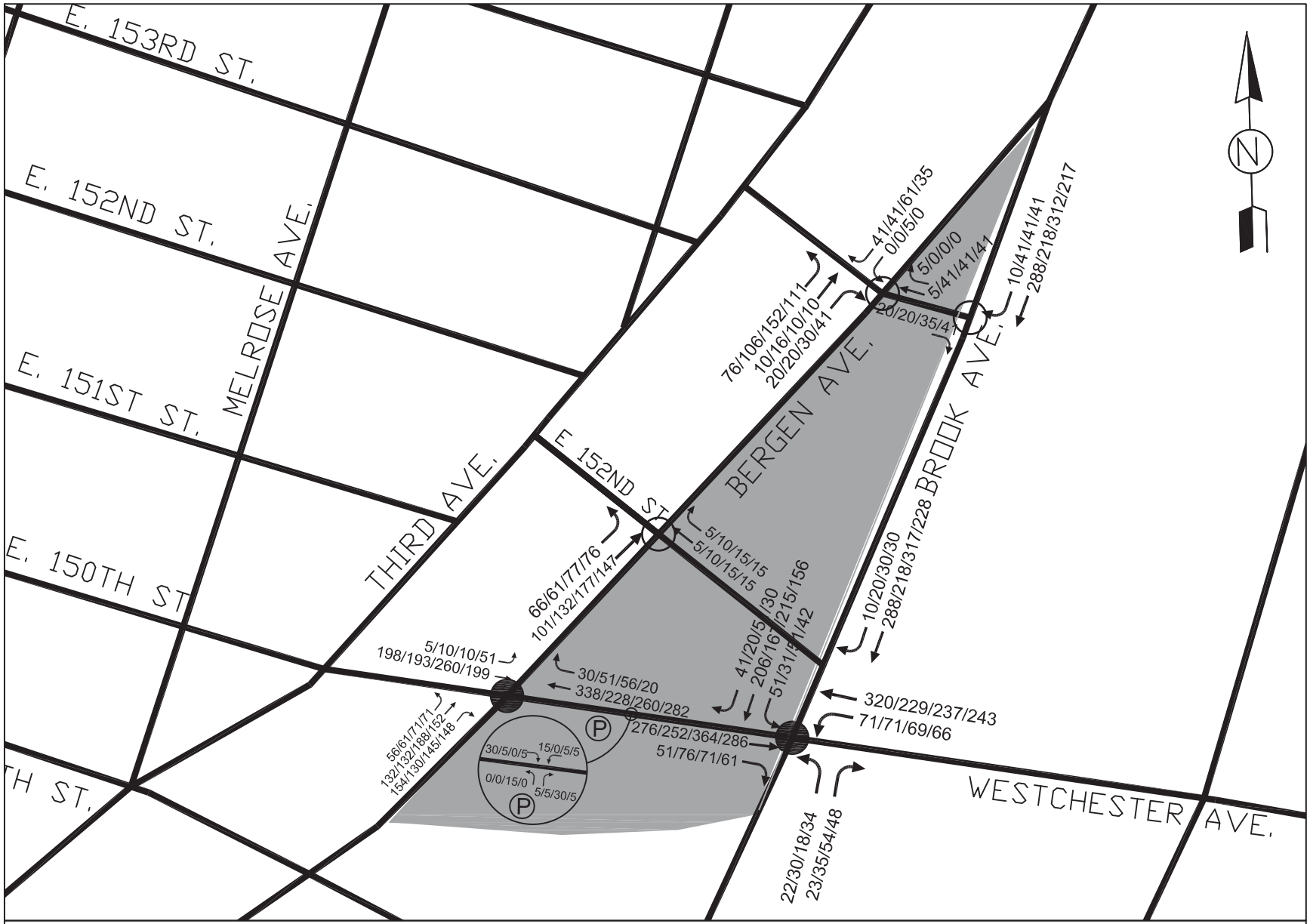


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Figure 3-5

No-Action Traffic Volumes

Intersection Capacity Analysis

Table 3-14 shows a summary comparison of the lane group levels of service under existing and future No-Action conditions. As shown in Table 3-14, under No-Action conditions all but one lane group would continue to operate at an acceptable LOS A, B, or C during all peak hours. During the AM and PM peak hours, one lane group, the southbound movement at Westchester and Brook Avenues, would operate at LOS D.

TABLE 3-14
Summary of Lane Group Levels of Service—Existing vs. No-Action Conditions

	Existing Condition				No-Action Condition			
	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Midday Peak Hour	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Midday Peak Hour
LOS A/B/C	14	15	15	15	14	15	14	15
LOS D	1	0	0	0	1	0	1	0
LOS E	0	0	0	0	0	0	0	0
LOS F	0	0	0	0	0	0	0	0
Lane Groups operating at v/c $\geq$ 0.90	0	0	0	0	0	0	0	0

Table 3-15 shows the detailed v/c ratios, delays, and LOS for each lane group at each of the five analyzed intersections in all peak hours under the No-Action condition. As shown in Tables 3-14 and 3-15, no lane groups at any analyzed intersection are projected to experience congestion (i.e., movements operating at LOS E or F and/or with a high v/c ratio–0.90 and above) in any analyzed peak hour under No-Action conditions.

The Future With the Proposed Actions (With-Action Condition)

As discussed previously, the Proposed Actions would result in the development of approximately 832 affordable DUs (968,000 gsf), 160 supportive housing units (82,500 gsf), approximately 46,800 gsf of local retail and commercial uses, an approximately 50,500 gsf YMCA, and approximately 32,700 gsf of other community facility uses. The Proposed Project would also include up to approximately 209 accessory below-grade parking spaces to accommodate project generated parking demand. It is anticipated that the proposed development would be completed by 2020.

In the future with the Proposed Project, East 152nd Street between Third and Brook Avenues (which was demapped in 1975) would be formally closed to motor vehicle traffic in order to make way for the proposed development. Compared to No-Action conditions, the closure of this portion of East 152nd Street is expected to result in a loss of approximately 23 on-street parking spaces and the diversion of an estimated 10 vph, 20, vph, 30 vph, and 30 vph during the weekday AM, midday and PM, and Saturday midday peak hours, respectively. Much of this diverted traffic is expected to travel through the intersections of Westchester Avenue/East 150th Street and Westchester/Bergen Avenues. Figure 3-6 shows the weekday AM, midday and PM, and Saturday midday peak hour study area traffic volumes under 2020 future conditions. The volumes shown are the sum of the net incremental traffic due to the Proposed Project and No-Action traffic volumes.

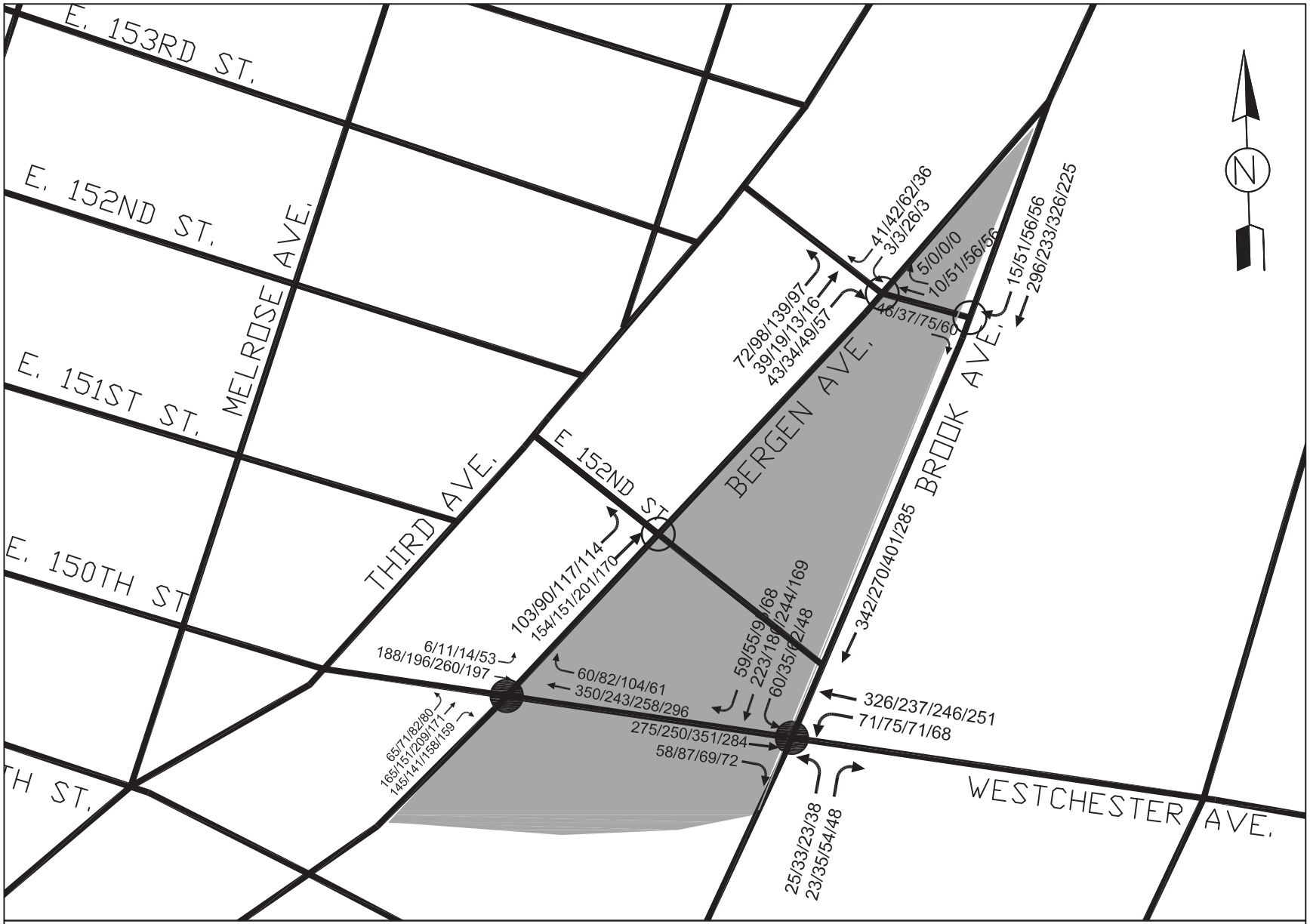

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Figure 3-6

With-Action Traffic Volumes

TABLE 3-15

Traffic Levels of Service Analysis—No-Action Conditions

Intersection	Lane Group	Weekday AM Peak Hour						Weekday Midday Peak Hour						Weekday PM Peak Hour						Saturday Midday Peak Hour					
		Existing			No-Action			Existing			No-Action			Existing			No-Action			Existing			No-Action		
		V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS
1. Westchester Av. (E-W)/Brook Av. (S)	EB-T	0.33	12.3	B	0.33	12.4	B	0.29	11.9	B	0.30	12.0	B	0.43	13.6	B	0.44	13.7	B	0.36	12.7	B	0.36	12.9	B
	EB-R	0.10	10.3	B	0.11	10.3	B	0.16	10.8	B	0.16	10.9	B	0.14	10.6	B	0.14	10.6	B	0.12	10.4	B	0.12	10.4	B
	WB-LT	0.58	17.1	B	0.64	18.8	B	0.44	14.4	B	0.51	15.7	B	0.49	15.4	B	0.55	16.6	B	0.47	14.9	B	0.47	15.9	B
	NB-LR	0.19	22.4	C	0.22	22.8	C	0.21	22.4	C	0.27	23.5	C	0.18	21.9	C	0.27	23.3	C	0.26	23.0	C	0.26	23.9	C
	SB-LTR	0.74	36.3	D	0.76	37.5	D	0.53	27.9	C	0.55	28.5	C	0.71	34.4	C	0.73	35.4	D	0.51	27.2	C	0.51	27.6	C
2. Westchester Av. (E-W)/Bergen Av. (N)	EB-LT	0.31	14.0	B	0.32	14.0	B	0.31	12.9	B	0.32	12.9	B	0.41	15.4	B	0.42	15.5	B	0.48	16.9	B	0.48	17.2	B
	WB-T	0.44	15.6	B	0.45	15.7	B	0.28	12.3	B	0.29	12.5	B	0.32	13.8	B	0.33	14.0	B	0.36	14.3	B	0.36	14.6	B
	WB-R	0.06	11.3	B	0.06	11.4	B	0.09	10.6	B	0.09	10.6	B	0.11	11.8	B	0.11	11.8	B	0.04	11.1	B	0.04	11.1	B
	NB-LT	0.36	22.0	C	0.37	22.1	C	0.40	23.9	C	0.41	24.1	C	0.49	24.2	C	0.50	24.4	C	0.42	22.9	C	0.42	23.1	C
	NB-R	0.36	22.2	C	0.37	22.4	C	0.31	23.0	C	0.34	23.3	C	0.33	21.8	C	0.35	22.1	C	0.33	21.6	C	0.33	22.0	C
3. E. 152nd St (W)/Bergen Av. (N)[1]	WB-TR	0.02	10.2	B	0.02	10.2	B	0.04	10.7	B	0.04	10.8	B	0.06	11.0	B	0.06	11.1	B	0.05	10.8	B	0.05	10.8	B
	NB-LT	0.05	7.4	A	0.05	7.4	A	0.05	7.5	A	0.05	7.5	A	0.05	7.4	A	0.05	7.4	A	0.05	7.4	A	0.05	7.4	A
4. E. 153rd St (W)/Bergen Av. (N) [1]	NB-LTR	0.14	9.7	A	0.14	9.8	A	0.21	10.5	B	0.21	10.7	B	0.26	11.0	B	0.26	11.2	B	0.20	10.1	B	0.20	10.2	B
	SB-LR	0.05	8.7	A	0.05	8.7	A	0.05	8.9	A	0.05	9.0	A	0.08	9.1	A	0.09	9.2	A	0.04	8.9	A	0.04	8.9	A
5. E. 153rd St (E-W)/Brook Av. (S) [1]	EB-R	0.04	10.5	B	0.04	10.6	B	0.03	10.0	A	0.03	10.1	B	0.07	10.9	B	0.07	11.0	B	0.07	10.2	B	0.07	10.3	B

Notes:

[1] Unsignalized two-way stop

*Denotes a congested movement (LOS E or F, or V/C ratio $\geq$ 0.9)

EB – Eastbound, WB – Westbound, NB – Northbound, SB – Southbound

L – Left, T – Through, R – Right, DfL – Analysis considers a defacto left-turn lane on this approach

V/C Ratio – Volume to capacity ratio

LOS – Level of service

Analysis is based on the 2000 *Highway Capacity Manual* methodology (HCS+, Version 5.5)

Intersection Capacity Analysis

Table 3-16 shows a summary comparison of the lane group LOS for future No-Action and With-Action conditions. As shown in Table 3-16 in the future with the Proposed Project one lane group would operate at LOS E in the PM peak hour and none at LOS F in any peak hour. This compares to no lane groups operating at LOS E or F in any peak hour in the No-Action condition. There would be one lane group operating at a v/c ratio of 0.90 in each of the AM and PM peak hours compared to none in any peak hour in the No-Action condition. Lastly, as shown in Table 3-16, there would be one significantly impacted lane group in each of the weekday AM and PM peak hours.

TABLE 3-16

Summary of Lane Group Levels of Service—No-Action vs. With-Action Conditions

	No-Action Condition				With-Action Condition			
	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Midday Peak Hour	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Midday Peak Hour
LOS A/B/C	14	15	14	15	13	14	12	14
LOS D	1	0	1	0	1	0	1	0
LOS E	0	0	0	0	0	0	1	0
LOS F	0	0	0	0	0	0	0	0
Lane Groups operating at v/c $\geq$ 0.90	0	0	0	0	1	0	1	0
Number of lane groups with significant impacts	0	0	0	0	1	0	1	0

The With-Action volume-to-capacity ratios, delays and levels of service for individual lane groups at each analyzed intersection are shown in Table 3-17. Lane groups with significant adverse impacts are identified. As shown in Table 3-17, the southbound Brook Avenue approach at Westchester Avenue would be significantly adversely impacted in the weekday AM and PM peak hours in the future with the Proposed Project. No other lane groups at any analyzed intersection would be considered significantly adversely impacted in any peak hour under *CEQR Technical Manual* criteria. Potential measures to mitigate the significant adverse traffic impacts identified in Table 3-17 are discussed in Chapter 5, "Mitigation."

TABLE 3-17

Traffic LOS Summary at Analyzed Intersections – No-Action vs. With-Action Condition

Intersection	Lane Group	Weekday AM Peak Hour						Weekday Midday Peak Hour						Weekday PM Peak Hour						Saturday Midday Peak Hour					
		No-Action			With-Action			No-Action			With-Action			No-Action			With-Action			No-Action			With-Action		
		V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS
1. Westchester Av. (E-W)/Brook Av. (S)	EB-T	0.33	12.4	B	0.33	12.4	B	0.30	12.0	B	0.30	12.0	B	0.44	13.7	B	0.42	13.5	B	0.36	12.9	B	0.38	12.9	B
	EB-R	0.11	10.3	B	0.13	10.6	B	0.16	10.9	B	0.24	12.0	B	0.14	10.6	B	0.16	10.9	B	0.12	10.4	B	0.17	11.0	B
	WB-LT	0.64	18.8	B	0.65	19.1	B	0.51	15.7	B	0.54	16.5	B	0.55	16.6	B	0.57	17.4	B	0.47	15.9	B	0.54	16.4	B
	NB-LR	0.22	22.8	C	0.27	24.3	C	0.27	23.5	C	0.33	25.3	C	0.27	23.3	C	0.36	25.9	C	0.26	23.9	C	0.38	26.0	C
	SB-LTR	0.76	37.5	D	0.91	53.0	D*	0.55	28.5	C	0.71	34.9	C	0.73	35.4	D	1.01	73.7	E*	0.51	27.6	C	0.71	34.7	C
2. Westchester Av. (E-W)/Bergen Av. (N)	EB-LT	0.32	14.0	B	0.31	13.9	B	0.32	12.9	B	0.33	13.1	B	0.42	15.5	B	0.44	15.8	B	0.48	17.2	B	0.52	17.9	B
	WB-T	0.45	15.7	B	0.47	16.0	B	0.29	12.5	B	0.31	12.7	B	0.33	14.0	B	0.33	13.9	B	0.36	14.6	B	0.39	14.8	B
	WB-R	0.06	11.4	B	0.20	13.3	B	0.09	10.6	B	0.27	13.5	B	0.11	11.8	B	0.37	16.7	B	0.04	11.1	B	0.22	13.9	B
	NB-LT	0.37	22.1	C	0.46	23.8	C	0.41	24.1	C	0.48	25.7	C	0.50	24.4	C	0.59	26.9	C	0.42	23.1	C	0.50	24.6	C
	NB-R	0.37	22.4	C	0.58	30.5	C	0.34	23.3	C	0.50	28.3	C	0.35	22.1	C	0.69	37.5	D	0.33	22.0	C	0.59	30.6	C
3. E. 152nd St (W)/Bergen Av. (N)[1]	WB-TR	0.02	10.2	B	--	--	--	0.04	10.8	B	--	--	--	0.06	11.1	B	--	--	--	0.05	10.8	B	--	--	--
	NB-LT	0.05	7.4	A	0.08	7.7	A	0.05	7.5	A	0.09	8.3	A	0.05	7.4	A	0.09	7.8	A	0.05	7.4	A	0.09	7.9	A
4. E. 153rd St (W)/Bergen Av. (N)[1]	NB-LTR	0.14	9.8	A	0.23	10.9	B	0.21	10.7	B	0.28	12.7	B	0.26	11.2	B	0.34	13.7	B	0.20	10.2	B	0.25	11.7	B
	SB-LR	0.05	8.7	A	0.06	9.5	A	0.05	9.0	A	0.08	10.9	B	0.09	9.2	A	0.18	12.2	B	0.04	8.9	A	0.06	10.2	B
5. E. 153rd St (E-W)/Brook Av. (S)[1]	EB-R	0.04	10.6	B	0.09	11.5	B	0.03	10.1	B	0.08	12.0	B	0.07	11.0	B	0.18	13.4	B	0.07	10.3	B	0.12	11.8	B

Notes:

[1] Unsignalized two-way stop

*Denotes a significant impact (LOS E or F, or V/C ratio $\geq$ 0.9)

EB – Eastbound, WB – Westbound, NB – Northbound, SB – Southbound

L – Left, T – Through, R – Right, DfL – Analysis considers a defacto left-turn lane on this approach

V/C Ratio – Volume to capacity ratio

LOS – Level of service

Analysis is based on the 2000 *Highway Capacity Manual* methodology (HCS+, Version 5.5)

H. TRANSIT

Existing Condition

Subway Station

As discussed above in Section E, "Level 2 Screening Assessment," the two easternmost street stairs (S9 and S6) and adjacent fare-arrays at the 3rd Avenue-149th Street (2, 5) station require detailed analysis as the incremental increase in subway riders at these station elements due to the Proposed Project would exceed the 200-trip *CEQR Technical Manual* analysis threshold during the weekday AM and/or PM peak hours. The location of the 3rd Avenue-149th Street (2, 5) subway station and the analyzed street stairs in relation to the Project Area is shown in Figure 3-7.

The 3rd Avenue-149th Street (2, 5) subway station on the White Plains Road Line has two side platforms served by No. 2 trains at all times and No. 5 trains during all but the late night hours. Street stair S9 provides access to fare array R-310 which in turn controls access to the southbound (Manhattan-bound) platform. This fare array is comprised of seven two-way turnstiles. Street stair S6 leads to fare array R-311 which controls access to the northbound (Bronx-bound) platform. This fare array consists of four two-way turnstiles and a single high exit turnstile.

Tables 3-18 and 3-19 show existing conditions at the analyzed stairs and fare arrays during the weekday AM and PM peak hours. As shown in Tables 3-18 and 3-19, all analyzed elements at the 3rd Avenue-149th Street subway station currently operate at an acceptable LOS C or better during both peak hours.

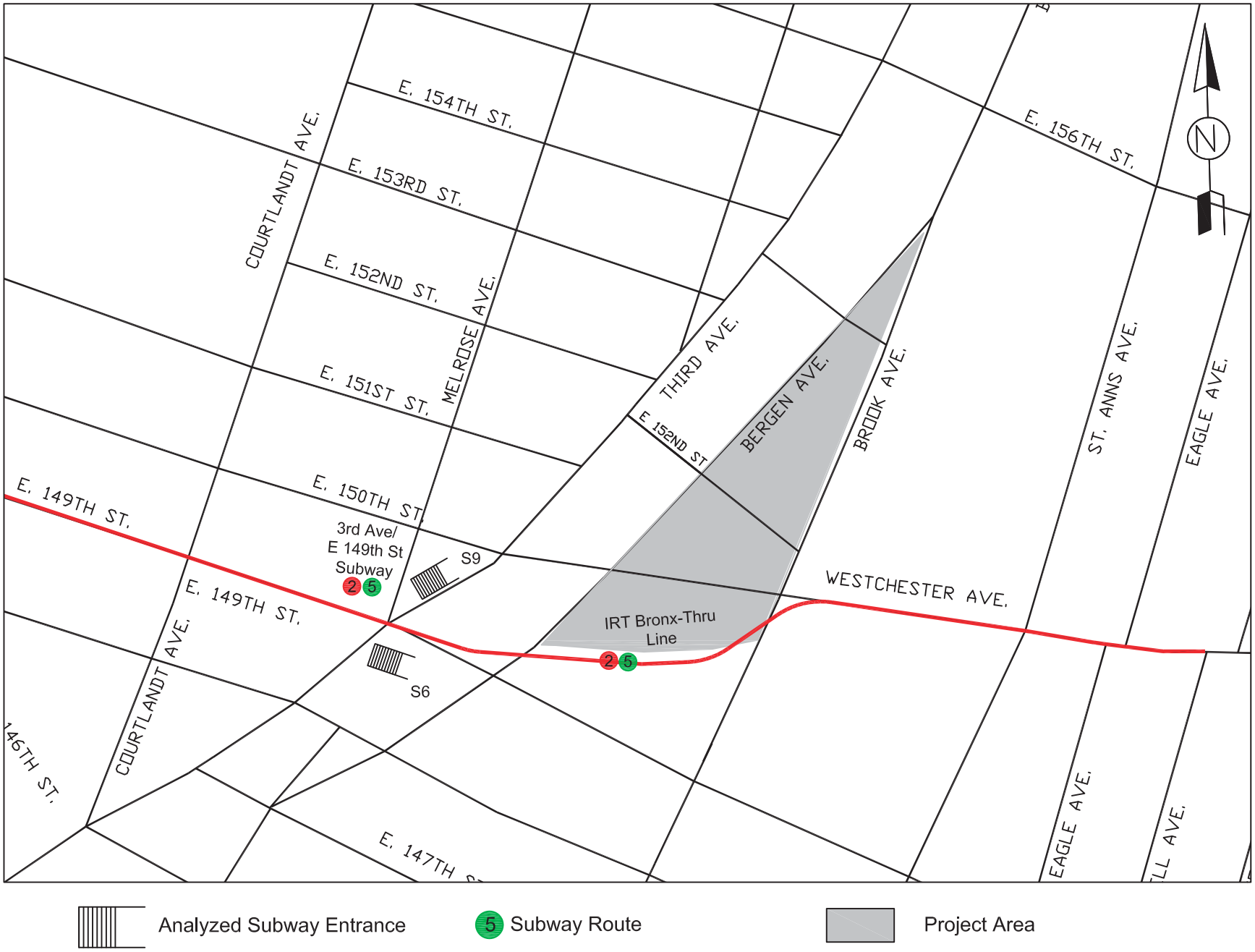
TABLE 3-18
Stair Analysis at the 3rd Av – 149th Street Subway Station – Existing Condition

Stairway	Peak Hour	Total Width (feet)	Effective Width (feet)	Peak 15-Minute Volumes		Surging Factor		Friction Factor	V/C Ratio	LOS
				Up	Down	Up	Down			
S9 (Southbound)	AM	6.33	5.33	147	469	1.00	0.75	0.90	0.92	C
	PM	6.33	5.33	108	378	1.00	0.75	0.90	0.73	C
S6 (Northbound)	AM	4.17	3.17	137	25	1.00	0.75	0.90	0.49	B
	PM	4.17	3.17	123	48	1.00	0.75	0.90	0.50	B

TABLE 3-19
Fare Array Analysis at the 3rd Av – 149th Street Subway Station – Existing Condition

Fare Array/ Direction	Control Element	Peak Hour	Peak 15-Minute Volumes		Surging Factor		Friction Factor	V/C Ratio	LOS
			In[1]	Out[2]	In[1]	Out[2]			
R-310 (Southbound)	7 Two-way Turnstiles	AM	731	467	1.00	0.75	0.90	0.43	A
		PM	483	206	1.00	0.75	0.90	0.25	A
R-311 (Northbound)	1 High Exit Turnstile 4 Two-way Turnstiles	AM	129	311	1.00	0.75	0.90	0.23	A
		PM	241	645	1.00	0.75	0.90	0.46	B

Notes:
[1] "In" refers to system entries.
[2] "Out" refers to system exits.



La Central

Figure 3-7

Area Subway Stations

Subway Line Haul

Line haul is the volume of transit riders passing a defined point on a given transit route. For subway routes in New York City to and from the Bronx, line haul is typically measured either at 60th Street (considered the northern boundary of the Manhattan Central Business District) or at the actual maximum load point on each subway route (the point where the trains carry the greatest number of passengers during the peak hour). As discussed above, the Project Area is served by a total of two NYCT subway routes — the No. 2 and No. 5 trains operating on the White Plains Road Line. The peak direction of travel on these lines is typically Manhattan-bound in the AM peak hour and Bronx bound in the PM peak hour. Maximum load point data for 2013-2014 for both analyzed subway routes were provided by NYCT and were grown by 0.25 percent to account for any increases in demand during the 2014-2015 period.

Table 3-20 shows existing line haul conditions in the peak direction at the maximum load points for each subway route during the AM and PM peak hours. As shown in Table 3-20, all routes currently operate above capacity in the peak direction in each peak hour, with the exception of the No. 5 train during the PM. Peak direction demand is roughly evenly split between the two routes in each peak hour. As there are fewer No. 2 trains scheduled in each period, this route typically experiences higher v/c ratios; i.e., 1.08 southbound in the AM peak hour and 1.01 northbound in the PM.

TABLE 3-20
Existing Subway Line Haul Analysis

Peak Hour	Route	Direction	Maximum Load Point (leaving station)	Average Trains per Hour[1]	Average Cars per Hour[1]	Average Passengers per Hour[1]	Average Passengers per Car[1]	Guideline Passengers per Car[2]	V/C Ratio[3]
AM	2	SB	72nd Street	12.7	127	15,067	119	110	1.08
	5	SB	86th Street	13.1	131	15,029	115	110	1.04
PM	2	NB	Times Square – 42nd Street	11.3	113	12,510	111	110	1.01
	5	NB	59th Street	12.6	126	12,808	102	110	0.92

Notes:
1 Based on 2013-2014 ridership and train throughput data from NYCT. Passenger volumes grown by 0.25 percent to account for growth in demand during the 2014 to 2015 period.
2 Guideline capacities are based on NYCT rush hour loading guidelines, which vary by car type, line, and location based on frequency and type of service.
3 Volume to guideline capacity ratio.

The Future Without the Proposed Actions (No-Action Condition)

Subway Station

Increased demand at the 3rd Avenue-149th Street subway station due to background growth and No-Action developments in the vicinity of the Project Area were added to existing volumes to determine volumes in the future without the Proposed Project. Potential demand from the developments listed in Table 3-13 were considered, and an annual background growth rate of 0.25 percent was assumed for the first five years (2014-2019) and 0.125 percent was assumed for the 2019 to 2020 period, consistent with *CEQR Technical Manual* guidelines. New subway trips generated by smaller No-Action sites were assumed to be accounted for as part of the background growth. Tables 3-21 and 3-22 show the resulting No-Action conditions at analyzed stairs and fare arrays. As shown in Tables 3-21 and 3-22, all analyzed elements at the 3rd Avenue-149th Street subway station are projected to operate at an acceptable LOS C or better during the weekday AM and PM peak hours in the future without the Proposed Project.

TABLE 3-21
Stair Analysis at the 3rd Av – 149th Street Subway Station – No-Action Condition

Stairway	Peak Hour	Total Width (feet)	Effective Width (feet)	Peak 15-Minute Volumes		Surging Factor		Friction Factor	V/C Ratio	LOS
				Up	Down	Up	Down			
S9 (Southbound)	AM	6.33	5.33	151	485	1.00	0.75	0.90	0.95	C
	PM	6.33	5.33	113	394	1.00	0.75	0.90	0.76	C
S6 (Northbound)	AM	4.17	3.17	146	27	1.00	0.75	0.90	0.52	B
	PM	4.17	3.17	136	54	1.00	0.75	0.90	0.55	B

TABLE 3-22
Fare Array Analysis at the 3rd Av – 149th Street Subway Station – No-Action Condition

Fare Array/ Direction	Control Element	Peak Hour	Peak 15-Minute Volumes		Surging Factor		Friction Factor	V/C Ratio	LOS
			In[1]	Out[2]	In[1]	Out[2]			
R-310 (Southbound)	7 Two-way Turnstiles	AM	750	475	1.00	0.75	0.90	0.44	A
		PM	501	212	1.00	0.75	0.90	0.26	A
R-311 (Northbound)	1 High Exit Turnstile 4 Two-way Turnstiles	AM	133	322	1.00	0.75	0.90	0.24	A
		PM	250	665	1.00	0.75	0.90	0.48	B

Notes:
[1] "In" refers to system entries.
[2] "Out" refers to system exits.

Subway Line Haul

Table 3-23 shows the anticipated line haul conditions at the maximum load points on the two subway routes serving the Project Area in the 2020 No-Action condition. The data in Table 3-23 reflect both background growth for the 2015 through 2020 period and the addition of demand from new development within the surrounding area. As shown in Table 3-23, all routes are projected to be operating above capacity in 2020 without the Proposed Project, with the exception of the No. 5 train during the PM. The highest v/c ratios will continue to occur on peak direction No. 2 trains in both peak hours.

TABLE 3-23
No-Action Subway Line Haul Analysis

Peak Hour	Route	Direction	Maximum Load Point (leaving station)	Average Trains per Hour[1]	Average Cars per Hour[1]	Average Passengers per Hour[1]	Average Passengers per Car[1]	Guideline Passengers per Car[2]	V/C Ratio[3]
AM	2	SB	72nd Street	12.7	127	15,272	120	110	1.09
	5	SB	86th Street	13.1	131	15,234	116	110	1.06
PM	2	NB	Times Square – 42nd Street	11.3	113	12,685	112	110	1.02
	5	NB	59th Street	12.6	126	12,988	103	110	0.94

Notes:
[1] Based on 2013-2014 ridership and train throughput data from NYCT. Passenger volumes grown by 0.25 percent per year for the 2015-2019 period as per *CEQR Technical Manual* guidelines.
[2] Guideline capacities are based on NYCT rush hour loading guidelines, which vary by car type, line, and location based on frequency and type of service.
[3] Volume to guideline capacity ratio.

The Future With the Proposed Actions (With-Action Condition)

Subway Station

As shown in Table 3-4, the Proposed Project is expected to generate a net total of 468 and 550 new subway trips in the weekday AM and PM peak hours, respectively. Given their proximity to the Project Area, all of these trips are expected to use the analyzed street stairs and fare arrays at the 3rd Avenue-149th Street subway. The distribution of trips to northbound and southbound subway platforms was based on the existing distribution of trips at the 3rd Avenue-149th Street station. As shown in Tables 3-24 and 3-27, stair S9 and fare array R-310 would experience approximately 106 and 66 new incremental trips in the peak 15-minutes during the weekday AM and PM peak hours, respectively. Stair S6 and fare array R-311 would experience approximately 40 and 106 new incremental peak 15-minute trips during these same periods, respectively.

As shown in Tables 3-24 and 3-25, stair S9 is projected to operate at a crowded LOS D during the weekday AM peak hour but would not exceed *CEQR Technical Manual* thresholds for a significant impact. All other analyzed stairs and fare arrays are projected to operate at an acceptable LOS C or better during the weekday AM and PM peak hours in the future with the Proposed Project.

TABLE 3-24
Stair Analysis at the 3rd Av – 149th Street Subway Station – With-Action Condition

Stairway	Peak Hour	Total Width (feet)	Effective Width (feet)	15-Minute Project Increment		Peak 15-Minute Volumes		Surging Factor		Friction Factor	V/C Ratio	LOS
				Up	Down	Up	Down	Up	Down			
S9 (Southbound)	AM	6.33	5.33	7	99	158	584	1.00	0.75	0.90	1.10	D
	PM	6.33	5.33	27	39	140	433	1.00	0.75	0.90	0.86	C
S6 (Northbound)	AM	4.17	3.17	22	18	168	45	1.00	0.75	0.90	0.63	B
	PM	4.17	3.17	86	20	222	74	1.00	0.75	0.90	0.87	C

TABLE 3-25
Fare Array Analysis at the 3rd Av – 149th Street Subway Station – With-Action Condition

Fare Array/ Direction	Control Element	Peak Hour	15-Minute Project Increment		Peak 15-Minute Volumes		Surging Factor		Friction Factor	V/C Ratio	LOS
			In[1]	Out[2]	In[1]	Out[2]	In[1]	Out[2]			
R-310 (Southbound)	7 Two-way Turnstiles	AM	99	7	849	482	1.00	0.75	0.90	0.48	B
		PM	39	27	540	239	1.00	0.75	0.90	0.28	A
R-311 (Northbound)	1 High Exit Turnstile 4 Two-way Turnstiles	AM	18	22	151	344	1.00	0.75	0.90	0.26	A
		PM	20	86	270	751	1.00	0.75	0.90	0.53	B

Note:
[1] "In" refers to system entries.
[2] "Out" refers to system exits.

Subway Line Haul

Table 3-26 shows line haul conditions on the subway routes serving the Project Area in the future with the Proposed Actions. As shown in Table 3-26, the greatest increases in incremental trips per subway car would occur on No. 2 trains, with an average of 1.25 southbound trips/car in the AM peak hour and 1.20 northbound trips/car in the PM. Incremental increases in No. 5 train ridership would average 1.21 southbound trips/car in the AM and 1.10 northbound trips in the PM. As both the No. 2 and No. 5 trains are expected to experience fewer than five incremental trips per car in the peak direction in each peak

TABLE 3-26
With-Action Subway Line Haul Analysis

Peak Hour	Route	Direction	Maximum Load Point (leaving station)	Average Trains per Hour	Average Cars per Hour	Guideline Passengers per Car[2]	2020 No-Action Condition			2020 With Action Condition			
							Average Passengers per Hour[1]	Average Passengers per Car	V/C Ratio[3]	Average Passengers per Hour	Average Passengers per Car	V/C Ratio[3]	Average Additional Passengers per Car
AM	2	SB	72nd Street	12.7	127	110	15,272	120	1.09	15,431	122	1.10	1.25
	5	SB	86th Street	13.1	131	110	15,234	116	1.06	15,393	118	1.07	1.21
PM	2	NB	Times Square – 42nd Street	11.3	113	110	12,685	112	1.02	12,821	113	1.03	1.20
	5	NB	59th Street	12.6	126	110	12,988	103	0.94	13,127	104	0.95	1.10

Notes:

[1] Based on 2013-2014 ridership and train throughput data from NYCT. Passenger volumes grown by 0.25 percent per year for the 2015-2019 period as per *CEQR Technical Manual* guidelines.

[2] Guideline capacities are based on NYCT rush hour loading guidelines, which vary by car type, line, and location based on frequency and type of service.

[3] Volume to guideline capacity ratio.

hour as a result of the Proposed Project, no significant subway line haul impacts are anticipated based on *CEQR Technical Manual* criteria.

I. PEDESTRIANS

Existing Condition

As discussed above in Section E, "Level 2 Screening Assessment," and shown in Figure 3-2B, a total of nine existing sidewalks, 16 corner areas, and 16 crosswalks have been selected for analysis as they are locations where project-generated pedestrian trips are expected to exceed the 200-trip *CEQR Technical Manual* analysis threshold in one or more peak hours. As shown in Figure 3-2B, these analyzed pedestrian elements are primarily located along Westchester and Bergen Avenues in the vicinity of the 3rd Avenue-149th Street subway station and MTA bus stops. Data on existing pedestrian conditions was collected in May 2014. Tables 3-27 through 3-29 show existing average pedestrian space (in square feet per pedestrian) and levels of service at analyzed sidewalks, corners, and crosswalks, respectively. As shown in Tables 3-27 through 3-29, all analyzed pedestrian elements currently operate at LOS C or better in all peak hours with the exception of the east crosswalk (X7) and west crosswalk (X8) on East 150th Street/Westchester Avenue at Third Avenue. These two crosswalks currently operate at LOS D during the weekday PM peak hour and at LOS D and a congested LOS E, respectively, during the Saturday midday peak hour.

TABLE 3-27
Sidewalk Analysis – Existing Condition

No.	Location/Sidewalk	Effective Width (feet)	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
			Peak Vol.	ft²/Ped	LOS	Peak Vol.	ft²/Ped	LOS	Peak Vol.	ft²/Ped	LOS	Peak Vol.	ft²/Ped	LOS
S1	Third Av. between E. 149th St. and E. 150th St. - West	7.0	130	213.7	B	178	155.1	B	200	138.2	B	316	87.1	C
S2	Bergen Av. between E. 149th St. and Westchester Av. - East	2.0	64	123.2	B	81	97.4	B	81	96.7	B	56	140.4	B
S3	Bergen Av. between Westchester Av. and E. 152nd St - East	5.0	1	10,560.0	A	2	4,525.7	A	2	4,525.7	A	6	1,760.0	A
S4	Brook Av. between Westchester Av. and E. 152nd St - West	9.0	9	4,073.0	A	2	17,820.0	A	9	3,932.7	A	12	2,955.5	A
S5	E. 149th St between Third/Bergen Avs. - South	9.0	94	377.6	B	97	366.2	B	131	272.7	B	217	163.9	B
S6	Westchester Av. between Third/ Bergen Avs. - South	7.5	28	1,016.5	A	30	963.5	A	44	654.9	A	150	192.8	B
S7	Westchester Av. between Third/ Bergen Avs. - North	1.5	24	248.6	B	30	198.1	B	31	193.7	B	60	98.3	B
S8	Westchester Av. between Bergen/Brook Avs. - South	8.0	45	707.8	A	23	1,369.9	A	48	662.5	A	52	610.0	A
S9	Westchester Av. between Bergen/Brook Avs. - North	5.5	29	749.3	A	32	690.0	A	33	663.7	A	40	542.0	A

Notes:
Peak 15-minute volumes shown.
LOS – Level of service
Ft^2/Ped – Average square feet per pedestrian

TABLE 3-28
Corner Area Analysis – Existing Condition

No.	Intersection/Corner	Weekday AM		Weekday Midday		Weekday PM		Saturday Midday	
		ft²/Ped	LOS	ft²/Ped	LOS	ft²/Ped	LOS	ft²/Ped	LOS
	E. 149th St. at Bergen Av.								
C1	Northwest	260.7	A	156.3	A	131.0	A	135.2	A
C2	Northeast	118.0	A	61.6	A	52.5	B	54.7	B
C3	Southwest	154.5	A	57.1	B	43.2	B	66.3	A
C4	Southeast	215.3	A	79.5	A	65.2	A	86.0	A
	E. 150th St.-Westchester Av. at Third Av.								
C5	Northwest	76.2	A	63.8	A	54.4	B	34.6	C
C6	Northeast	356.5	A	86.4	A	73.9	A	51.6	B
C7	Southwest	90.9	A	70.0	A	49.9	B	34.1	C
C8	Southeast	306.1	A	96.9	A	79.7	A	61.7	A
	Westchester Av. at Bergen Av.								
C9	Northwest	776.9	A	178.2	A	157.0	A	165.5	A
C10	Northeast	629.3	A	67.6	A	56.7	B	61.2	A
C11	Southwest	251.1	A	100.8	A	86.1	A	74.4	A
C12	Southeast	878.7	A	253.6	A	197.6	A	205.3	A
	Westchester Av. at Brook Av.								
C13	Northwest	374.2	A	108.3	A	113.9	A	132.6	A
C14	Northeast	871.2	A	339.1	A	395.5	A	442.7	A
C15	Southwest	613.3	A	168.6	A	175.4	A	212.2	A
C16	Southeast	1,507.5	A	609.3	A	667.6	A	826.2	A

Notes:
LOS – Level of service
Ft²/Ped – Average square feet per pedestrian

TABLE 3-29
Crosswalk Analysis – Existing Condition

No.	Location/Crosswalk	Street Width (feet)	Crosswalk Width (Feet)	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
				Peak Vol.	ft²/ Ped	LOS	Peak Vol.	ft²/ Ped	LOS	Peak Vol.	ft²/ Ped	LOS	Peak Vol.	ft²/ Ped	LOS
	E. 149th St. at Bergen Av.														
X1	North	30.5	15.0	97	117.0	A	95	115.7	A	139	77.3	A	140	76.9	A
X2	South	27.0	16.0	132	94.3	A	249	47.6	B	353	32.4	C	197	61.3	A
X3	East	72.0	13.0	40	211.0	A	52	160.5	A	63	128.2	A	68	119.8	A
X4	West	70.0	12.0	51	157.3	A	71	110.9	A	84	92.7	A	67	116.5	A
	E. 150th St.-Westchester Av. at Third Av.														
X5	North	60.0	16.0	31	194.7	A	66	101.4	A	67	97.1	A	141	44.3	B
X6	South	60.0	14.0	54	109.6	A	50	122.2	A	84	70.6	A	152	38.5	C
X7	East	90.0	15.0	76	90.5	A	222	30.5	C	299	21.4	D	351	18.3	D
X8	West	37.0	14.0	184	26.3	C	218	24.9	C	260	18.7	D	383	12.2	E
	Westchester Av. at Bergen Av.														
X9	North	36.0	13.0	29	407.0	A	28	140.5	A	43	266.3	A	49	236.2	A
X10	South	36.0	14.0	62	208.4	A	50	260.5	A	76	169.3	A	90	143.9	A
X11	East	96.0	10.0	4	830.8	A	8	365.2	A	7	418.6	A	5	628.4	A
X12	West	96.0	11.0	22	172.1	A	25	149.9	A	32	114.2	A	28	129.8	A
	Westchester Av. at Brook Av.														
X13	North	45.5	16.0	40	381.6	A	43	355.0	A	40	385.5	A	36	425.4	A
X14	South	45.5	16.0	36	450.3	A	39	408.0	A	46	345.8	A	33	486.3	A
X15	East	65.0	18.0	11	602.2	A	8	898.9	A	10	657.7	A	3	1,916.6	A
X16	West	65.0	16.0	11	612.9	A	8	907.3	A	17	387.5	A	11	608.7	A

Notes:
LOS – Level of service
Ft²/Ped – Average square feet per pedestrian

The Future Without the Proposed Actions (No-Action Condition)

Increased pedestrian demand due to background growth and No-Action developments in the vicinity of the Project Area were added to existing volumes to determine future volumes without the Proposed Project. Projected demand from the larger developments listed in Table 3-13 were considered, and an

annual background growth rate of 0.25 percent was assumed for the first five years (2014-2019) and 0.125 percent was assumed for the 2019 to 2020 period, consistent with *CEQR Technical Manual* guidelines. New pedestrian trips generated by smaller No-Action sites were assumed to be accounted for as part of the background growth.

Tables 3-30 through 3-32 show the forecasted No-Action average pedestrian space and LOS along the analyzed sidewalks, corners, and crosswalks during the weekday AM, midday and PM, and Saturday midday peak hours. As shown in Tables 3-30 through 3-32, under No-Action conditions, all analyzed pedestrian elements would continue to operate at LOS C or better, with the exception of the northwest corner (C5), the east crosswalk (X7) and the west crosswalk (X8) at the intersection of East 150th Street-Westchester Avenue with Third Avenue. As shown in Table 3-31, corner area C5 is projected to operate at LOS D in the Saturday midday peak hour. As shown in Table 3-32, crosswalk X7 is projected to operate at LOS D in the weekday PM and Saturday midday peak hours, while crosswalk X8 is projected to operate at a congested LOS E in the Saturday midday and at LOS D in all other periods.

TABLE 3-30
Sidewalk Analysis – No-Action Condition

No.	Location/Sidewalk	Effective Width (feet)	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
			Peak Vol.	ft²/Ped	LOS	Peak Vol.	ft²/Ped	LOS	Peak Vol.	ft²/Ped	LOS	Peak Vol.	ft²/Ped	LOS
S1	Third Av. between E. 149th St. and E. 150th St. - West	7.0	144	192.8	B	218	126.9	B	227	121.9	B	354	77.6	C
S2	Bergen Av. between E. 149th St. and Westchester Av. - East	2.0	71	111.2	B	99	79.5	C	92	85.7	C	63	125.7	B
S3	Bergen Av. between Westchester Av. and E. 152nd St - East	5.0	1	10,560.0	A	3	3,960.0	A	3	3,960.0	A	6	1,584.0	A
S4	Brook Av. between Westchester Av. and E. 152nd St - West	9.0	10	3,769.0	A	2	15,840.0	A	10	3,564.0	A	13	2,692.8	A
S5	E. 149th St between Third/Bergen Avs. - South	9.0	104	341.5	B	119	299.9	B	148	241.0	B	243	146.1	B
S6	Westchester Av. between Third/ Bergen Avs. - South	7.5	31	925.0	A	37	783.9	A	50	578.1	A	168	171.9	B
S7	Westchester Av. between Third/ Bergen Avs. - North	1.5	27	222.3	B	37	162.2	B	35	170.9	B	67	87.5	C
S8	Westchester Av. between Bergen/Brook Avs. - South	8.0	50	637.5	A	28	1,114.0	A	54	585.9	A	59	541.3	A
S9	Westchester Av. between Bergen/Brook Avs. - North	5.5	33	670.1	A	38	566.5	A	37	585.6	A	45	481.3	B

Notes:
Peak 15-minute volumes shown.
LOS – Level of service
Ft^2/Ped – Average square feet per pedestrian

TABLE 3-31
Corner Area Analysis – No-Action Condition

No.	Intersection/Corner	Weekday AM		Weekday Midday		Weekday PM		Saturday Midday	
		ft²/Ped	LOS	ft²/Ped	LOS	ft²/Ped	LOS	ft²/Ped	LOS
	E. 149th St. at Bergen Av.								
C1	Northwest	234.8	A	180.4	A	148.7	A	156.9	A
C2	Northeast	105.4	A	83.3	A	66.1	A	70.5	A
C3	Southwest	138.5	A	68.2	A	50.5	B	84.7	A
C4	Southeast	193.2	A	99.9	A	78.1	A	112.2	A
	E. 150th St.-Westchester Av. at Third Av.								
C5	Northwest	66.5	A	44.9	B	40.6	B	19.5	D
C6	Northeast	319.1	A	110.4	A	95.2	A	61.6	A
C7	Southwest	81.2	A	59.8	B	45.5	B	24.4	C
C8	Southeast	274.9	A	117.6	A	93.9	A	72.3	A
	Westchester Av. at Bergen Av.								
C9	Northwest	669.9	A	596.7	A	477.8	A	445.3	A
C10	Northeast	528.9	A	463.6	A	364.4	A	353.0	A
C11	Southwest	225.3	A	208.4	A	165.8	A	131.5	A
C12	Southeast	789.7	A	810.3	A	589.9	A	578.9	A
	Westchester Av. at Brook Av.								
C13	Northwest	338.3	A	320.9	A	299.3	A	358.2	A
C14	Northeast	787.8	A	709.8	A	794.8	A	963.9	A
C15	Southwest	552.1	A	503.1	A	402.8	A	564.8	A
C16	Southeast	1,361.9	A	1,298.0	A	1,137.2	A	1,761.5	A

Notes:
LOS – Level of service
Ft²/Ped – Average square feet per pedestrian

TABLE 3-32
Crosswalk Analysis – No-Action Condition

No.	Location/Crosswalk	Street Width (feet)	Crosswalk Width (Feet)	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
				Peak Vol.	ft²/ Ped	LOS	Peak Vol.	ft²/ Ped	LOS	Peak Vol.	ft²/ Ped	LOS	Peak Vol.	ft²/ Ped	LOS
	E. 149th St. at Bergen Av.														
X1	North	30.5	15.0	107	104.9	A	116	93.6	A	156	67.6	A	157	67.7	A
X2	South	27.0	16.0	146	84.7	A	304	38.3	C	400	28.2	C	220	54.1	B
X3	East	72.0	13.0	44	189.6	A	64	131.1	A	72	112.9	A	76	106.6	A
X4	West	70.0	12.0	56	141.7	A	87	90.3	A	95	81.6	A	76	103.7	A
	E. 150th St.-Westchester Av. at Third Av.														
X5	North	60.0	16.0	35	174.4	A	80	82.8	A	76	85.6	A	158	39.3	C
X6	South	60.0	14.0	60	98.7	A	62	99.6	A	95	62.1	A	171	34.1	C
X7	East	90.0	15.0	85	81.2	A	271	24.7	C	339	18.7	D	393	16.2	D
X8	West	37.0	14.0	203	23.3	D	265	19.9	D	295	16.1	D	429	10.6	E
	Westchester Av. at Bergen Av.														
X9	North	36.0	13.0	33	336.5	A	35	332.5	A	50	235.1	A	55	210.7	A
X10	South	36.0	14.0	69	187.5	A	61	212.8	A	86	148.8	A	101	127.7	A
X11	East	96.0	10.0	5	764.0	A	10	297.9	A	8	370.3	A	6	555.4	A
X12	West	96.0	11.0	24	155.5	A	30	123.0	A	37	99.7	A	32	114.9	A
	Westchester Av. at Brook Av.														
X13	North	45.5	16.0	44	345.6	A	53	289.9	A	44	341.9	A	40	382.0	A
X14	South	45.5	16.0	40	401.7	A	48	329.4	A	52	303.1	A	37	426.7	A
X15	East	65.0	18.0	13	539.6	A	8	762.2	A	12	570.2	A	4	1,739.6	A
X16	West	65.0	16.0	13	548.3	A	9	747.0	A	19	342.2	A	12	548.4	A

Notes:
LOS – Level of service
Ft²/Ped – Average square feet per pedestrian

The Future With the Proposed Actions (With-Action Condition)

As discussed above in Section E, "Level 2 Screening Assessment," the Proposed Project is expected to generate a net total of 1,044, 1,745, 1,583, and 1,529 pedestrian trips (including walk-only trips and pedestrian trips en route to the subway and local bus stops) during the weekday AM, midday and PM, and

Saturday midday peak hours, respectively. The assignment of these trips to the analyzed pedestrian elements is shown in Figure 3-2A. These pedestrian volumes were added to the projected No-Action volumes to generate the With-Action pedestrian volumes for analysis.

Tables 3-33 through 3-35 show the average pedestrian space and levels of service at analyzed sidewalks, corner areas, and crosswalks in the future with the Proposed Project, and identify those elements that would be significantly adversely impacted in one or more peak hours based on the *CEQR Technical Manual* criteria shown in Tables 3-9 and 3-10 in Section F, "Transportation Analyses Methodologies." As shown in Tables 3-33 through 3-35, based on *CEQR Technical Manual* criteria, the Proposed Project would result in significant adverse impacts at two of the 16 analyzed corners and one of the 16 analyzed crosswalks. The two impacted corner locations would include the northwest and southwest corners on Third Avenue at East 150th Street (C5 and C7, respectively), both of which would be significantly impacted during the Saturday midday peak hour. Also impacted would be the west crosswalk on East 150th Street at Third Avenue (X8) during both the weekday PM and Saturday midday peak hours. No analyzed sidewalks would be significantly adversely impacted in any peak hour in the future with the Proposed Project. Potential measures to mitigate the significant adverse corner area and crosswalk impacts are discussed in Chapter 5, "Mitigation."

TABLE 3-33
Sidewalk Analysis – With-Action Condition

No.	Location/Sidewalk	Effective Width (feet)	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
			Peak Vol.	ft^2/Ped	LOS	Peak Vol.	ft^2/Ped	LOS	Peak Vol.	ft^2/Ped	LOS	Peak Vol.	ft^2/Ped	LOS
S1	Third Av. between E. 149th St. and E. 150th St. - West	7.0	249	110.6	B	290	95.0	B	301	91.5	B	448	61.0	C
S2	Bergen Av. between E. 149th St. and Westchester Av. - East	2.5	114	85.9	C	171	57.0	C	178	54.7	C	131	74.7	C
S3	Bergen Av. between Westchester Av. and E. 152nd St - East	3.0	177	66.4	C	131	90.3	B	217	53.7	C	187	62.6	C
S4	Brook Av. between Westchester Av. and E. 152nd St - West	11.0	53	815.1	A	44	1,001.3	A	73	600.7	A	64	676.2	A
S5	E. 149th St between Third/Bergen Avs. - South	9.0	140	253.8	B	161	221.7	B	247	143.6	B	301	117.9	B
S6	Westchester Av. between Third/ Bergen Avs. - South	7.5	103	279.3	B	117	247.8	B	115	250.9	B	245	117.7	B
S7	Westchester Av. between Third/ Bergen Avs. - North	1.5	103	57.0	C	113	51.7	C	116	50.0	C	156	36.6	D
S8	Westchester Av. between Bergen/Brook Avs. - South	8.0	64	583.1	A	115	276.0	B	100	316.6	B	105	301.7	B
S9	Westchester Av. between Bergen/Brook Avs. - North	8.0	55	575.9	A	168	188.1	B	108	293.7	B	123	256.9	B

Notes:
*Denotes a significant impact
Peak 15-minute volumes shown.
LOS – Level of service
Ft^2/Ped – Average square feet per pedestrian

TABLE 3-34
Corner Area Analysis – With-Action Condition

No.	Intersection/Corner	Weekday AM		Weekday Midday		Weekday PM		Saturday Midday	
		ft²/Ped	LOS	ft²/Ped	LOS	ft²/Ped	LOS	ft²/Ped	LOS
	E. 149th St. at Bergen Av.								
C1	Northwest	208.3	A	156.3	A	122.1	A	135.2	A
C2	Northeast	84.0	A	61.7	A	49.1	B	54.8	B
C3	Southwest	113.7	A	57.1	B	37.7	C	66.4	A
C4	Southeast	150.9	A	79.6	A	59.0	B	86.2	A
	E. 150th St.-Westchester Av. at Third Av.								
C5	Northwest	37.0	C	30.7	C	27.6	C	13.5	E*
C6	Northeast	176.9	A	87.3	A	77.0	A	51.6	B
C7	Southwest	54.1	B	43.1	B	33.8	C	18.4	D*
C8	Southeast	192.0	A	97.3	A	82.3	A	61.9	A
	Westchester Av. at Bergen Av.								
C9	Northwest	243.8	A	185.1	A	143.9	A	166.1	A
C10	Northeast	73.8	A	68.5	A	57.1	B	61.7	A
C11	Southwest	123.5	A	104.0	A	83.4	A	74.8	A
C12	Southeast	261.6	A	255.8	A	215.6	A	207.0	A
	Westchester Av. at Brook Av.								
C13	Northwest	164.9	A	110.4	A	115.3	A	132.6	A
C14	Northeast	485.9	A	343.9	A	400.6	A	442.7	A
C15	Southwest	288.3	A	170.9	A	177.3	A	213.2	A
C16	Southeast	924.0	A	621.4	A	675.2	A	831.4	A

Notes:
*Denotes a significant impact
LOS – Level of service
Ft²/Ped – Average square feet per pedestrian

TABLE 3-35
Crosswalk Analysis – With-Action Condition

No.	Location/Crosswalk	Street Width (feet)	Crosswalk Width (Feet)	Weekday AM			Weekday Midday			Weekday PM			Saturday Midday		
				Peak Vol.	ft²/ Ped	LOS	Peak Vol.	ft²/ Ped	LOS	Peak Vol.	ft²/ Ped	LOS	Peak Vol.	ft²/ Ped	LOS
	E. 149th St. at Bergen Av.														
X1	North	30.5	15.0	109	100.6	A	120	87.9	A	158	64.9	A	160	64.6	A
X2	South	27.0	16.0	167	73.3	A	333	34.6	C	458	24.0	D	257	46.0	B
X3	East	72.0	13.0	76	109.1	A	116	70.4	A	141	56.4	B	129	62.3	A
X4	West	70.0	12.0	76	104.7	A	117	66.5	A	151	50.6	B	112	69.1	A
	E. 150th St.-Westchester Av. at Third Av.														
X5	North	60.0	16.0	107	51.1	B	150	43.6	B	146	43.3	B	229	26.1	C
X6	South	60.0	14.0	131	43.9	B	124	48.0	B	148	39.6	C	244	23.4	D
X7	East	90.0	15.0	86	80.4	A	279	23.9	D	343	18.3	D	399	15.9	D
X8	West	37.0	14.0	262	17.4	D	302	17.2	D	337	13.8	E*	479	9.3	E*
	Westchester Av. at Bergen Av.														
X9	North	36.0	13.0	129	86.5	A	172	62.9	A	197	53.5	B	184	57.3	B
X10	South	36.0	14.0	138	91.0	A	150	84.3	A	152	82.6	A	191	64.8	A
X11	East	96.0	10.0	97	31.1	C	66	47.1	B	110	27.0	C	91	32.8	C
X12	West	96.0	11.0	41	89.5	A	48	75.9	A	86	41.1	B	58	61.9	A
	Westchester Av. at Brook Av.														
X13	North	45.5	16.0	68	221.5	A	110	136.2	A	88	170.2	A	83	181.5	A
X14	South	45.5	16.0	55	290.2	A	102	152.4	A	85	262.7	A	73	214.6	A
X15	East	65.0	18.0	24	271.4	A	19	341.9	A	24	184.4	A	17	390.2	A
X16	West	65.0	16.0	40	163.4	A	33	195.7	A	56	111.8	A	40	157.6	A

Notes:
*Denotes a significant impact
Peak 15-minute volumes shown.
LOS – Level of service
Ft²/Ped – Average square feet per pedestrian

J. PEDESTRIAN AND VEHICULAR SAFETY EVALUATION

Study Area High Accident Locations

Under *CEQR Technical Manual* guidelines, an evaluation of pedestrian and vehicular safety is needed for locations within the traffic and pedestrian study areas that have been identified as high accident locations. These locations are defined as locations where 48 or more total reportable and non-reportable crashes or five or more pedestrian/bicyclist injury crashes have occurred in any consecutive twelve months of the most recent three-year period for which data are available. Reportable accidents are defined as those involving injuries, fatalities, and/or $1,000 or more in property damage.

Table 3-36 shows summary accident data for the three-year reporting period between January 1, 2011 and December 31, 2013 that were obtained from the NYCDOT. This is the most recent three-year period for which data are available. The table shows the total number of crashes each year and the numbers of crashes each year involving pedestrians and cyclists at intersections in proximity to the project site where the majority of new vehicular and pedestrian trips would be concentrated. As shown in Table 3-36, no intersections were found to have experienced a total of 48 or more crashes in any one year nor were any intersections found to have experienced five or more pedestrian/bicyclist injury crashes in one year. Therefore, no study area intersections are considered high accident locations.

TABLE 3-36
Summary Accident Data 2011-2013

Intersection		Pedestrian Injury Accidents			Bicycle Injury Accidents			Total Pedestrian/Bicyclist Injury Accidents			Total Accidents		
		2011	2012	2013	2011	2012	2013	2011	2012	2013	2011	2012	2013
Third Avenue at	E. 150th St.-Westchester Av.	4	2	1	0	2	2	4	4	3	9	7	5
Bergen Avenue at	Westchester Av.	0	1	0	0	0	0	0	1	0	2	1	1
	E. 152nd St.	0	0	0	0	0	0	0	0	0	1	0	0
	E. 153rd St.	0	0	0	0	0	0	0	0	0	0	0	0
Brook Avenue at	Westchester Av.	0	0	2	0	1	1	0	1	3	4	3	10
	E. 153rd St.	0	0	0	0	0	0	0	0	0	2	1	0

Source: New York State Department of Motor Vehicles (NYSDMV)/NYCDOT

It should also be noted that the Project Area is located within the NYCDOT-designated Mott Haven Senior Pedestrian Focus Area (SPFA), which was identified based on the density of senior pedestrian (age 65+) crashes resulting in fatalities or severe injuries in a five-year period, as well as variables such as senior trip generators, concentrations of senior centers, and senior housing locations. In addition, the *Vision Zero Bronx Pedestrian Safety Action Plan*, released in early 2015, identifies Third Avenue between East 183rd Street and East 138th Street (one block to the west of the Project Area) as a "Priority Corridor," and the intersection of Third Avenue and East 149th Street (two blocks to the southwest of the Project Area) as a "Priority Intersection."

The City's Vision Zero initiative seeks to eliminate all deaths from traffic crashes regardless of whether on foot, bicycle, or inside a motor vehicle. In an effort to drive these fatalities down, NYCDOT and NYPD developed a set of five plans, each of which analyzes the unique conditions of one New York City borough and recommends actions to address the borough's specific challenges to pedestrian safety. These plans pinpoint the conditions and characteristics of pedestrian fatalities and severe injuries; they also identify priority corridors, intersections and areas that disproportionately account for pedestrian fatalities and severe injuries, prioritizing them for safety interventions. The plans outline a series of recommended

actions comprised of engineering, enforcement and education measures that intend to alter the physical and behavioral conditions on city streets that lead to pedestrian fatality and injury.

The *Vision Zero Bronx Pedestrian Safety Action Plan* identifies a series of engineering/planning, enforcement, and education/awareness campaign strategies to enhance pedestrian safety along the borough's Priority Corridors and Priority Intersections. These strategies include measures such as reducing the speed limit to 25 miles per hour, expanding exclusive pedestrian crossing time, installing additional lighting around key transit stops, expanding the bicycle network, prioritizing targeted enforcement and deploying speed cameras, and targeting intensive street-level outreach.

K. PARKING

Existing Conditions

Off-Street Parking

Off-street public parking facilities were inventoried during October 2015, and a total of eleven public parking lots were identified within a ¼-mile of the Project Area. Table 3-37 provides a summary of their names, addresses, license numbers, capacities, and estimated weekday midday and overnight utilization.

Field observations and interviews with parking attendants were conducted to determine the utilization levels of each parking facility during the midday and overnight periods on a typical weekday and midday period on a typical Saturday. As shown in Table 3-37, the eleven parking lots have a combined capacity of 1,063 spaces during the weekday midday period, 863 spaces during the weekday overnight period, and 913 spaces during the Saturday midday period. During the weekday midday period, approximately 75 percent of spaces are utilized, leaving a residual supply of 264 available parking spaces. During the weeknight overnight period, approximately 32 percent of spaces are utilized, leaving a residual supply of approximately 726 parking spaces. During the Saturday midday period, approximately 50 percent of spaces are utilized, leaving a residual supply of 528 parking spaces.

On-Street Parking

An inventory of existing parking regulations within a ¼-mile radius of the Project Area was compiled from field data and on-line sources in October 2015. On-street parking is generally governed by alternate-side-of-the street regulations to facilitate street cleaning, with more restrictive regulations in place at locations where additional traffic flow capacity is needed, especially during the weekday daytime hours. Based on existing curbside parking regulations, and taking into account curb space obstructed by curb cuts, fire hydrants, and other impediments, there are a total of approximately 2,321 legal curbside parking spaces during the weekday midday period, 2,501 spaces during the weekday overnight period, and 2,540 spaces during the Saturday midday period. The higher numbers of parking spaces during the overnight period reflect the more restrictive parking regulations in effect during daytime hours.

Based on data collected during field surveys, on-street parking within the overall study area is approximately 92 percent utilized during the weekday midday period, approximately 86 percent utilized during the weekday overnight period, and approximately 81 percent utilized during the Saturday midday period. Approximately 176, 354, and 471 on-street parking spaces are currently available within the overall study area during each of these periods, respectively.

TABLE 3-37
Off-Street Public Parking Facilities in Study Area – Existing Condition

	Name	Address	License No.	Hours of Operation	Licensed Capacity	Weekday Midday		Weekday Overnight		Saturday Midday	
						Estimated Utilization	Available Capacity	Estimated Utilization	Available Capacity	Estimated Utilization	Available Capacity
1	MP HUB Parking LLC	3000 Third Av.	1258315	24 Hours	272	87%	34	30%	190	73%	72
2	AD Parking Inc.	601 Bergen Av.	1418834	24 Hours	84	94%	5	26%	62	71%	24
3	South Bronx Overall Economic Development Corporation	430 Westchester Av.	1452426	24 Hours	74	81%	14	45%	41	61%	29
4	BYM Community Parking Lot Corp.	530 Bergen Av.	1408356	24 Hours	62	81%	12	24%	47	64%	22
5	Danae Marrero	424 E. 147th St.	1313881	24 Hours	105	71%	30	29%	75	48%	55
6	U Drive Park Lot Corp.	531 Courtlandt Av.	1006566	7:30A-5:30P M-F	150	30%	105	NA	NA	NA	NA
7	DBR Lots Inc.	338 E. 150th St.	1383377	6:45A-7:30P	50	80%	10	NA	NA	30%	35
8	Courtland Parking Systems	616 Courtlandt Av.	2010698	24 Hours	42	100%	0	72%	12	24%	32
9	St. Ann's Parking Garage, LLC	800 St. Ann's Av.	143066	24 Hours	74	81%	14	68%	24	54%	34
10	A & M Parking	600 E. 156th St.	1461269	24 Hours	90	72%	25	50%	45	44%	50
11	M & N Group Parking, Inc.	407 E. 157th St.	1343233	24 Hours	60	75%	15	50%	30	58%	25
				Total:	**1,063**	**75%**	**264**	**32%**	**726**	**50%**	**528**

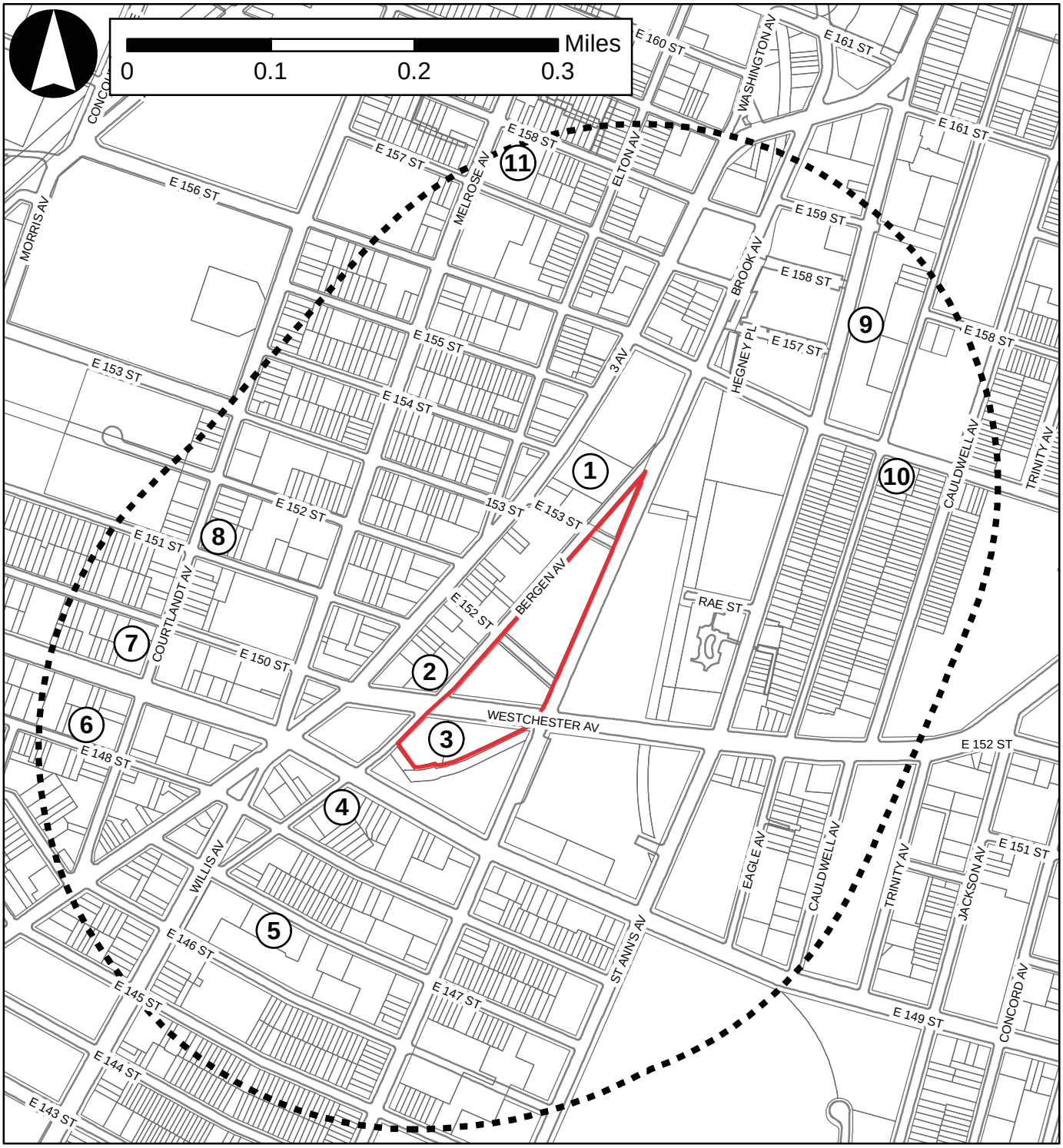
Notes:

Keyed to Figure 3-8

Based on PHA field surveys (October 2015)

NA – data not applicable or not available

Figure 3-8
Off-Street Public Parking Facilities



Legend

- Project Area
- Quarter-Mile Radius
- (1) Off-Street Public Parking Facilities (keyed to Table 3-36)

The Future Without the Proposed Actions (No-Action Condition)

Between 2015 and 2020, it is expected that parking demand in the vicinity of the Project Area will increase due to background growth as well as anticipated new developments. Parking demands from all uses were derived from the forecasts of daily auto trips from these uses.

A total of 17 new developments are anticipated in the vicinity of the Project Area in the future without the Proposed Project. As shown in Table 3-13, an estimated 316 new on-site accessory parking spaces will be developed on these sites. This on-site accessory parking capacity is expected to be sufficient to accommodate most of the demand from the new developments, with only two autos needing to be accommodated either on-street or in off-street public parking lots in any period. It should also be noted that, to be conservative, the estimates of parking demand from No-Action developments did not include any credit for parking demand from existing uses that would be eliminated in the No-Action condition.

The forecast of future No-Action parking conditions also reflects annual background growth rates of 0.25 percent per year for the first five years (2014-2019) and 0.125 percent for the 2019 to 2020 period. These background growth rates, recommended in the *CEQR Technical Manual* for projects in the Bronx, are applied to account for smaller projects and as-of-right developments included in Table 3-13 as well as general increases in parking demand in the surrounding area not attributable to specific development projects.

Off-Street Parking

As shown in Table 3-38, based on the increased demand and changes in the parking supply under the No-Action condition, weekday midday off-street public parking utilization within the overall parking study area is expected to increase to 76 percent of capacity, with 247 spaces available during this period. During the weekday overnight period, utilization is expected to increase to 40 percent of capacity, with 519 available spaces during this period. Utilization during the Saturday midday period is expected to increase to 60 percent of capacity, with 367 available spaces during this period.

On-Street Parking

On-street parking capacity within a ¼-mile of the Project Area is expected to remain generally unchanged during all peak periods in the future without the Proposed Project. After accounting for background growth and demand from new development not otherwise accommodated by accessory parking or in off-street public parking lots, the demand for on-street parking within the overall study area is expected to increase to approximately 2,172 spaces in the weekday midday period, 2,174 spaces in the weekday overnight period, and 2,095 spaces in the Saturday midday period. On-street parking within a ¼-mile of the Project Area is expected to be approximately 93 percent utilized in the weekday midday (versus 92 percent under existing conditions), 87 percent utilized in the weekday overnight period (versus 86 percent under existing conditions), and 82 percent utilized in the Saturday midday period (versus 81 percent under existing conditions). Approximately 149, 327, and 445 on-street parking spaces would remain available within the overall study area during each of these periods, respectively.

TABLE 3-38
Off-Street Public Parking Capacity, Demand, and Utilization – No-Action Condition

	Weekday Midday	Weekday Overnight	Saturday Midday
Capacity			
Existing Licensed Capacity	1,063	863	913
Total No-Action Capacity	1,063	863	913
Demand			
Existing Demand	799	337	535
Demand from Background Growth[1]	15	5	9
Projected Demand from No-Action Developments[2]	2	2	2
Total No-Action Demand	816	344	546
Utilization			
No-Action Utilization	76%	40%	60%
No-Action Off-Street Parking Surplus/(Deficit)	247	519	367

Notes:
[1] Reflects background growth rates of 0.25 percent per year for the first five years (2014-2019) and 0.125 percent for the 2019 to 2020 period.
[2] Includes demand from No-Action development sites not accommodated by on-site accessory parking (No-Action site No. 2; see Table 3-13).

The Future With the Proposed Actions (With-Action Condition)

Up to 209 new off-street public parking spaces would be provided on-site in the future with the Proposed Project. However, as the final number of spaces to be provided is not known at this time, it is conservatively assumed that all project-generated demand would park in existing off-street public parking facilities in the vicinity. Other changes in the future with the Proposed Project include the elimination of 74 parking spaces from the South Bronx Overall Economic Development Corporation parking lot, which would be replaced by Building A of the Proposed Project. As the displaced parking lot is open 24 hours, there would be a net incremental displacement of 74 parking spaces in all periods. Displaced drivers are expected to find parking at off-street facilities within the surrounding area.

As shown in Table 3-39, on weekdays parking demand generated by the various retail, commercial, and community facility uses would typically peak during the midday hours whereas residential parking demand would typically peak during the overnight period. As shown in Table 3-39, the majority of weekday parking demand is expected to be generated by residential uses. Overall, the proposed development would generate a total demand of approximately 135 parking spaces in the weekday 1-2 PM period and 169 spaces during the overnight period. Weekday parking demand would peak at approximately 173 spaces during the 8-9 PM period.

Project-generated parking demand on a Saturday is shown in Table 3-39. Weekend parking demand is expected to exhibit similar characteristics to a weekday, with retail, commercial, and community facility uses peaking during the midday hours and residential demand peaking during the overnight period. As shown in Table 13-40, the majority of Saturday parking demand is expected to be generated by residential uses. Overall, the proposed development would generate a total parking demand of approximately 125 spaces during the Saturday 2-3 PM midday period. Saturday parking demand would peak at approximately 177 spaces during the 8-9 PM period.

TABLE 3-39
Weekday Project-Generated Parking Demand

	Residential[1]			Local Retail[1]			Health Club (YMCA)[2]			Office[1] (Common Ground)			Day Care[3]			Community Facility[1] (Recreation) (Rooftop Garden & Other)			TV Studio[4]			Music Studio Rehearsal[5]			Total Accumulation		
	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.
12-1 AM	1	1	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	169
1-2	1	1	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	169
2-3	1	1	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	169
3-4	1	1	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	169
4-5	1	1	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	169
5-6	2	5	166	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5	167
6-7	5	16	155	0	0	0	2	0	3	1	0	1	0	0	0	0	0	0	2	0	2	0	0	0	10	16	161
7-8	5	16	144	1	0	1	2	2	3	4	0	5	1	1	0	0	0	0	4	0	6	0	0	0	17	19	159
8-9	8	44	108	1	1	1	1	1	3	5	0	10	1	1	0	0	0	0	5	0	11	0	0	0	21	47	133
9-10	9	14	103	2	1	2	3	3	3	6	1	15	1	1	0	1	1	0	3	1	13	1	0	1	26	22	137
10-11	9	16	96	2	2	2	2	3	2	0	0	15	0	0	0	0	0	0	2	0	15	2	1	2	17	22	132
11-12	10	13	93	3	2	3	1	2	1	0	0	15	0	0	0	0	0	0	1	0	16	2	1	3	17	18	131
12-1 PM	13	13	93	6	6	3	3	2	2	1	1	15	0	0	0	1	1	0	1	1	16	3	2	4	28	26	133
1-2	13	14	92	3	4	2	2	1	3	2	1	16	0	0	0	1	0	1	1	0	17	1	1	4	23	21	135
2-3	14	13	93	3	4	1	2	2	3	1	0	17	0	0	0	0	0	1	1	1	17	1	1	4	22	21	136
3-4	20	12	101	3	4	0	3	2	4	0	0	17	0	0	0	1	0	2	1	2	16	1	2	3	29	22	143
4-5	31	17	115	3	3	0	2	3	3	1	7	11	1	1	0	0	1	1	1	4	13	1	2	2	40	38	145
5-6	40	17	138	3	3	0	1	1	3	0	6	5	1	1	0	0	1	0	0	5	8	1	3	0	46	37	154
6-7	26	13	151	3	3	0	4	2	5	1	4	2	1	1	0	1	1	0	0	4	4	1	1	0	37	29	162
7-8	24	12	163	2	2	0	2	4	3	1	3	0	0	0	0	0	0	0	0	2	2	0	0	0	29	23	168
8-9	16	8	171	0	0	0	1	3	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	17	12	173
9-10	4	5	170	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	5	7	171
10-11	3	4	169	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5	169
11-12	3	3	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	169
24 Hr Total	260	260		35	35		33	33		23	23		6	6		5	5		22	22		14	14		398	398	

Notes:

(1) West Harlem Rezoning FEIS, August 2012.

(2) Based on data provided by Chinatown YMCA facility on March 5 and 8, 2014.

(3) No. 7 Subway Extension - Hudson Yards Rezoning and Development Program FGEIS, 2004.

(4) Parking pattern for office is used for this land-use.

(5) Melrose Common North EAS, 2014.

TABLE 3-40
Saturday Project-Generated Parking Demand

	Residential[1]			Local Retail[1]			Health Club (YMCA)[2]			Office[1] (Common Ground)			Day Care[3]			Community Facility[1] (Recreation) (Rooftop Garden & Other)			TV Studio[4]			Music Studio Rehearsal[5]			Total Accumulation		
	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.
12-1 AM	1	1	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	169
1-2	1	1	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	169
2-3	0	0	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	169
3-4	0	0	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	169
4-5	0	0	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	169
5-6	3	7	165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	7	165
6-7	3	14	154	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	4	14	155
7-8	3	23	134	1	0	1	2	1	1	1	0	1	0	0	0	0	0	0	2	0	3	0	0	0	9	24	140
8-9	10	27	117	2	1	2	3	1	3	1	0	2	0	0	0	0	0	0	5	0	8	0	0	0	21	29	132
9-10	8	23	102	3	2	3	3	1	5	1	0	3	0	0	0	1	1	0	3	1	10	0	0	0	19	28	123
10-11	14	23	93	3	2	4	2	2	5	0	0	3	0	0	0	0	0	0	1	0	11	1	0	1	21	27	117
11-12	14	21	86	3	3	4	3	3	5	0	0	3	0	0	0	0	0	0	1	0	12	3	0	4	24	27	114
12-1 PM	26	23	89	4	4	4	1	2	4	1	1	3	1	0	1	0	0	0	4	3	13	0	2	2	37	35	116
1-2	25	25	89	3	4	3	2	2	4	0	0	3	0	1	0	1	0	1	1	1	13	1	2	1	33	35	114
2-3	23	10	102	4	4	3	1	2	3	0	0	3	0	0	0	0	0	1	0	2	11	2	1	2	30	19	125
3-4	19	7	114	4	4	3	1	2	2	0	0	3	0	0	0	0	0	1	0	2	9	2	1	3	26	16	135
4-5	25	14	125	4	4	3	1	1	2	1	2	2	0	0	0	0	1	0	1	4	6	0	1	2	32	27	140
5-6	31	17	139	4	4	3	0	1	1	0	1	1	0	0	0	0	0	0	1	5	2	0	1	1	36	29	147
6-7	30	14	155	3	3	3	0	1	0	0	1	0	0	0	0	1	1	0	1	3	0	0	1	0	35	24	158
7-8	27	14	168	2	3	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	30	18	170
8-9	22	14	176	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	16	177
9-10	12	12	176	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	13	176
10-11	6	11	171	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	11	171
11-12	6	8	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	8	169
24 hr total	309	309		41	41		19	19		5	5		1	1		3	3		22	22		9	9		409	409	

Notes:

(1) West Harlem Rezoning FEIS, August 2012.

(2) Based on data provided by Chinatown YMCA facility on March 5 and 8, 2014.

(3) No. 7 Subway Extension - Hudson Yards Rezoning and Development Program FGEIS, 2004.

(4) Parking pattern for office is used for this land-use.

(5) Melrose Common North EAS, 2014.

As shown in Table 3-41, based on the increased demand and changes in the parking supply in the future with the Proposed Project, weekday midday off-street public parking utilization within the overall parking study area is expected to increase to 96 percent of capacity, with 38 available spaces during this period. During the weekday overnight period, utilization is expected to increase to 65 percent of capacity, with 272 available spaces during this period. Utilization during the Saturday midday period is expected to increase to 80 percent of capacity, with 168 available spaces during this period.

TABLE 3-41
Off-Street Public Parking Capacity, Demand, and Utilization – With-Action Condition

	Weekday Midday	Weekday Overnight	Saturday Midday
Capacity			
No-Action Capacity	1,063	863	913
Capacity Displaced by With-Action Development	74	74	74
Total With-Action Capacity[1]	989	789	839
Demand			
No-Action Demand	816	344	546
Incremental Demand from With-Action Development	135	173	125
Total With-Action Demand	951	517	671
Utilization			
With-Action Utilization	96%	65%	80%
With-Action Off-Street Parking Surplus/(Deficit)	38	272	168

Notes:
[1] To be conservative, the analysis does not reflect the potential development of up to 209 on-site accessory parking spaces in the future with the Proposed Project.

As discussed above and shown in Table 3-41, all parking demand under future With-Action conditions could be accommodated at existing off-street public parking facilities in the surrounding area. Further, the Proposed Project is expected to provide up to 209 on-site accessory parking spaces. In addition, on-street parking spaces would also be available in the surrounding area to accommodate project demand. Therefore, no significant adverse parking impacts are anticipated as a result of the Proposed Project.

A. INTRODUCTION

Neighborhood character is an amalgam of various elements that give neighborhoods their distinct "personality." These elements may include a neighborhood's land use, urban design, visual resources, historic resources, socioeconomics, traffic, and/or noise. A neighborhood character assessment under the 2014 *CEQR Technical Manual* first identifies the defining features of the neighborhood and then evaluates whether the project or action has the potential to affect these defining features, either through the potential for a significant adverse impact or a combination of moderate effects in relevant technical analysis areas. Thus, to determine the effects of a proposed action on neighborhood character, the salient features of neighborhood character are considered together.

According to the *CEQR Technical Manual*, neighborhood character impacts are rare, and it would be unusual that, in the absence of a significant adverse impact in any of the relevant technical areas, a combination of moderate effects to the neighborhood would result in an impact to neighborhood character. Moreover, a significant impact identified in one of the technical areas that contribute to a neighborhood's character is not automatically equivalent to a significant impact on neighborhood character, but rather serves as an indication that neighborhood character should be examined. For the purposes of this EIS, the only relevant technical area is transportation.

As described in Chapter 1, "Project Description," the Proposed Actions would facilitate an approximately 1.1 million gross square foot (gsf), five building mixed-use development consisting of approximately 832 affordable dwelling units (DUs), 160 supportive housing units, approximately 46,800 gsf of local retail and commercial uses, an approximately 50,500 gsf YMCA, and approximately 32,700 gsf of other community facility uses. The Proposed Actions would also include up to approximately 209 accessory below-grade parking spaces, 426 enclosed bicycle spaces, a total of approximately 1.26 acres of public open space, and a total of approximately 1.19 acres of private open space for building tenants.

This chapter includes a preliminary assessment of neighborhood character, which was prepared in conformance with the *CEQR Technical Manual.* This chapter describes the defining features of the existing neighborhood character and considers the potential effects of the Proposed Actions on these defining features. This assessment relies on the technical analyses presented in other chapters of this EIS.

B. PRINCIPAL CONCLUSIONS

The Project Area and surrounding area are located in the Melrose neighborhood of the South Bronx in close proximity to "the Hub," which is the point where East 149th Street intersects with Third, Melrose, Willis, and Westchester Avenues. The study area is characterized by retail establishments, particularly along Third Avenue and its side streets, pockets of light manufacturing and medium-density residential uses are also common. The Hub is also characterized by its transit accessibility, with multiple subway lines and MTA bus routes converging in the area. As described elsewhere in this EIS, the Proposed Actions would not result in significant adverse impacts in the areas of land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; or urban design and visual

resources. The significant adverse transportation (traffic and pedestrian) impacts would not affect any defining feature of neighborhood character, nor would a combination of moderately adverse effects affect such a defining feature.

The Proposed Actions would facilitate the development of a mix of residential, commercial, and community facility uses that would be consistent with the mixed-use character of the surrounding area. With the Proposed Actions, new mixed-use development would active long-vacant City-owned sites located along major thoroughfares in close proximity to public transportation and Third Avenue, extending the commercial corridor and pedestrian activity of the Hub eastward. The Proposed Project would complement the existing built character of the surrounding area under the proposed C6-2 zoning district. In addition, the affordable housing units would help to ensure that a considerable portion of the new households would have incomes that would more closely reflect existing incomes in the study area and help ensure that the neighborhoods continue to serve diverse housing needs.

While the Proposed Actions would result in increased transportation activities and significant adverse transportation (traffic and pedestrians) impacts, the resulting conditions would be similar to those seen in the study area and would not result in density of activity or service conditions that would be out of character with the surrounding area.

C. METHODOLOGY

The purpose of a neighborhood character preliminary assessment is to determine whether changes expected in specified technical areas may adversely affect a contributing element of neighborhood character. According to CEQR, the assessment should answer the following two questions:

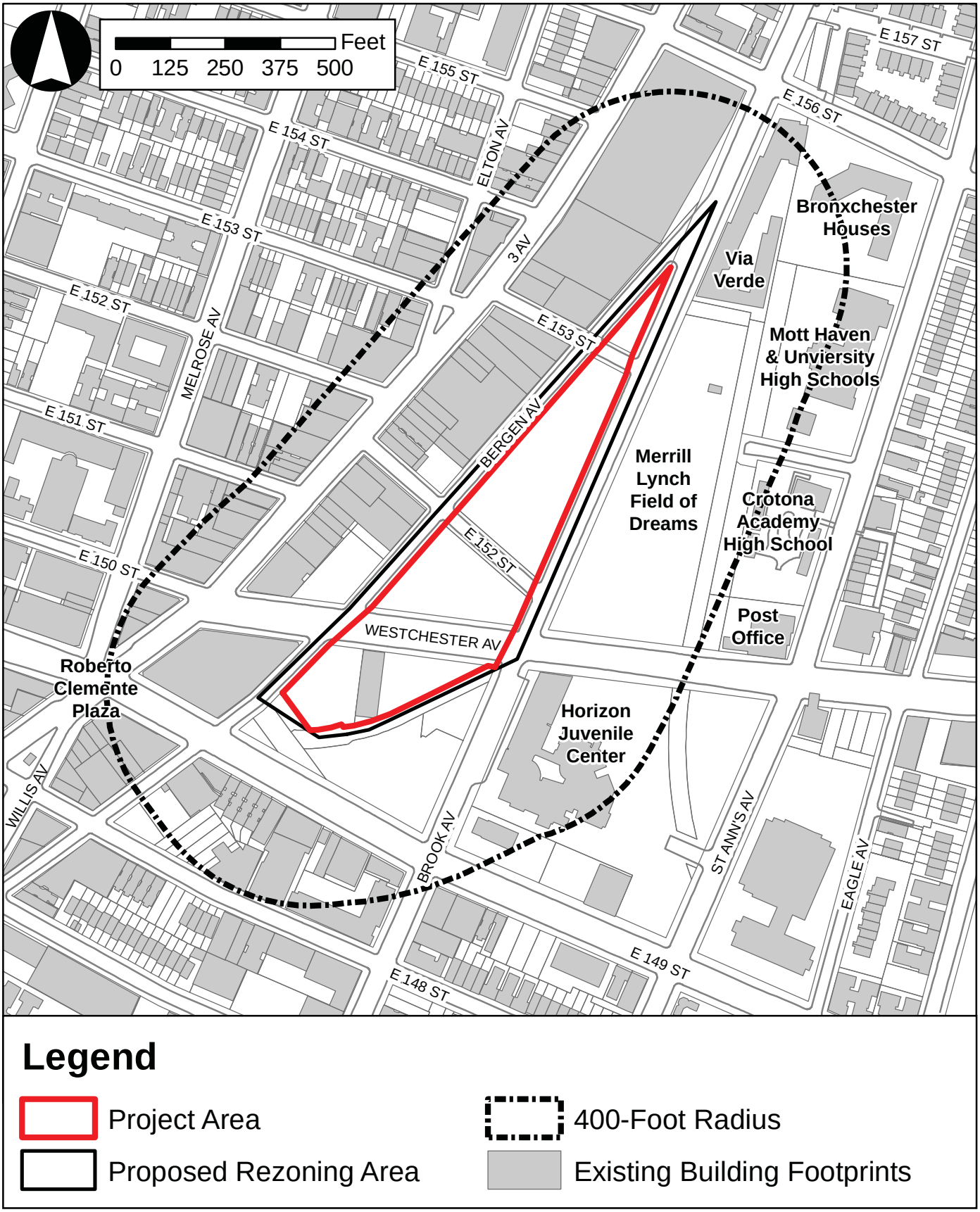
1. What are the defining features of the neighborhood(s)?
2. Does the project have the potential to affect the defining features of the neighborhood, either through the potential for a significant adverse impact or a combination of moderate effects in relevant technical areas?

The preliminary assessment therefore begins with a description of the existing conditions and defining features of the neighborhood that comprise the primary and secondary study areas, followed by an assessment of the potential for the Proposed Actions to affect the defining features of the neighborhood, either through the potential for a significant adverse impact or a combination of moderate effects in relevant technical areas. If the assessment results indicate that the anticipated impacts and effects related to those technical areas would not have the potential to adversely affect any defining feature of neighborhood character, then, according to the *CEQR Technical Manual*, a detailed analysis is not warranted.

Study Areas

The neighborhood character study area has been delineated in accordance with CEQR guidelines and is typically consistent with the study areas in the relevant technical areas assessed under CEQR that contribute to the defining elements of the neighborhood. As shown in Figure 4-1, the primary study area is coterminous with the Project Area. The secondary study area extends approximately 400-feet from the boundary of the Project Area, encompassing an area generally bounded by East 156th Street to the north, St. Ann's Avenue to the east, East 148th Street to the south, and properties on Third Avenue to the west.

Figure 4-1
Neighborhood Character Study Area



D. PRELIMINARY ASSESSMENT

Existing Neighborhood Character and Defining Features

Primary Study Area (Project Area)

The primary study area is an irregularly shaped assemblage of three zoning lots totaling approximately 4.28-acres in the Melrose neighborhood of the Bronx (see Figure 4-1). With the exception of two paved public parking lots and a vacant, two-story, commercial building along Westchester Avenue, the primary study area is overgrown with vegetation and enclosed by chain-link fencing. The primary study area is intersected by three east-west running streets flanked by sidewalks in fair condition with cracked concrete pavement and weeds. There is little to no pedestrian activity on the sidewalks adjacent to the Project Area.

Secondary Study Area

The secondary study area supports a variety of land uses, densities, and building types. As described in Chapter 3, "Transportation," the existing street network is characterized by an irregular block pattern and a mix of narrow one-way streets and wider two-way roadways. During peak travel times, streets within the surrounding area generally operate with low to moderate delays with many vehicles passing through intersections without stopping. Existing traffic conditions vary throughout the study area and are not defining features of the neighborhood.

East 149th Street, Westchester Avenue, Third Avenue, and St. Ann's Avenue are major thoroughfares in the area, and development is most concentrated around the Hub, one block to the southwest of the Project Area (see Figure 4-1). The Hub is recognized as the borough's "downtown" regional shopping and commercial district, with low-rise commercial buildings, a variety of street furniture, and substantial pedestrian activity along Third Avenue and East 149th Street. The Hub also serves as a major transportation center in the Bronx as it is well-served by mass transit, including the IRT #2 and #5 subway lines and the Bx2, Bx4, Bx15, Bx17, Bx19, Bx41, and Bx55 New York City Transit (NYCT) bus routes. The elevated subway along Westchester Avenue and vehicular traffic are the dominant noise sources in the study area.

The eastern and northern portions of the secondary study area are characterized by institutional and residential uses. Institutional uses in the study area include the Mott Haven Village Preparatory High School, University Heights High School, Crotona Academy High Schools, the U.S. Hub Station Post Office, and the Horizon Juvenile Center. Residential uses range from two-story one- and two-family buildings to high-density residential towers such as the 20-story Via Verde development and the 18-story NYCHA Bronxchester Houses (see Figure 4-1). The streets to the east of the Project Area generally lack streetscape elements such as street trees and furniture, and are lightly trafficked by pedestrians.

Historic and architectural resources are not defining features of the secondary study area's neighborhood character. There are no designated or potentially eligible historic resources within the vicinity of the study area. Publicly accessible open space is limited, and is not considered a defining feature of the area's neighborhood character. There are two open space resources located in the study area, the Merrill Lynch Field of Dreams (also known as the South Bronx High School Athletic Field) and the Bronxchester Houses Playground. There are no other publicly-accessible open space resources, nor are there any natural resources in the study area.

Overall, the western and southern portions of the secondary study area are primarily characterized by the commercial activity of the Hub, while the eastern and northern areas are characterized by institutional uses and a mix of residential building types.

Assessment of Proposed Project's Potential Effects on Neighborhood Character

Technical Area Significant Adverse Impacts and Moderate Adverse Effects

The analysis below presents the potential changes in the technical areas comprising the neighborhood character of the study area. As discussed in the Environmental Assessment Statement (EAS) in Appendix A, the Proposed Actions would not result in any significant impacts to land use, zoning, and public policy, socioeconomic conditions, open space, shadows, historic and cultural resources, urban design and visual resources, or noise. Therefore, this analysis focuses on the potential changes to neighborhood character resulting from changes in Transportation. Detailed technical analysis for this technical area are provided in Chapter 3, "Transportation." As discussed in greater detail in that chapter, environmental and social changes with respect to neighborhood character are as follows:

Transportation

Defining features of the neighborhood would not be adversely affected due to potential effects of the Proposed Actions on transportation. As described in Chapter 3, "Transportation," the Proposed Actions would result in significant adverse traffic and pedestrian impacts. The Proposed Actions would not result in significant adverse impacts on transit or parking availability. With implementation of the mitigation measures outlined in Chapter 5, "Mitigation," the identified significant adverse traffic and pedestrian impacts would be fully mitigated. While there would be increased transportation activity as a result of the Proposed Actions, the resulting conditions would be similar to those seen in the study area and would not result in density of activity or service conditions that would be out of character with the surrounding area. Thus, the changes in transportation due to the Proposed Actions would not result in significant adverse impacts on neighborhood character.

Potential to Affect a Defining Feature of the Neighborhood

According to CEQR, if an action would have the potential to affect the defining features of a neighborhood, either through the potential for a significant adverse impact or a combination of moderate effects in relevant technical areas, then a detailed assessment is required to determine whether the action may have a significant adverse neighborhood character impact. Of the relevant technical areas specified in the *CEQR Technical Manual*, the Proposed Actions would not cause significant adverse impacts regarding land use, zoning, and public policy, socioeconomic conditions, open space, shadows, historic and cultural resources, urban design and visual resources, or noise. As the Hub already experiences moderate volumes of auto and pedestrian activity due to the existing large concentration of retail uses and numerous transportation options, the Proposed Actions are not expected to affect the essential character of the study area. The potential significant adverse impacts on transportation would not affect any defining feature of neighborhood character, as all of the significant adverse impacts could be fully mitigated.

The Proposed Actions would also not result in a combination of moderate effects that would result in significant adverse impacts on neighborhood character. The Proposed Actions would be consistent with the existing character and development trends of the Melrose neighborhood. In addition, the Proposed Project would greatly enhance and enliven the streetscape experience adjacent to the Project Area. The

proposed mixed-use project would activate long-vacant City-owned sites located along major thoroughfares in close proximity to public transportation and Third Avenue, extending the commercial corridor and pedestrian activity of the Hub eastward. The Proposed Actions would therefore result in improvements to the overall character of the neighborhood. Thus, based on the results of the preliminary assessment, there is no potential for the Proposed Actions to result in significant adverse impacts to neighborhood character, and further analysis is not warranted.

A. INTRODUCTION

In accordance with the 2014 *CEQR Technical Manual*, where significant adverse impacts are identified, mitigation measures to reduce or eliminate the impacts to the fullest extent practicable are developed and evaluated. Measures to further mitigate adverse impacts may be evaluated between the DEIS and FEIS. Therefore, the FEIS will include more complete information and commitments on all practicable mitigation measures to be implemented with the Proposed Actions.

B. PRINCIPAL CONCLUSIONS

Community Facilities

Public Schools

Under the reasonable worst-case development scenario (RWCDS), a net increment of 832 affordable units (compared to No-Action conditions)[1] would be developed within CSD 7, Sub-district 3. The incremental increase would result in significant adverse impacts to elementary and intermediate schools within the sub-district. To avoid the significant adverse elementary school impact, the number of incremental dwelling units that could be developed in the sub-district would have to be reduced to 657, generating 256 elementary school students, as compared to No-Action conditions. This would represent a decrease of 175 DUs (21 percent) in CSD 7, Sub-district 3. To avoid the identified significant adverse intermediate school impacts in Sub-district 3 of CSD 7, the number of incremental dwelling units that could be developed in the sub-district would have to be reduced to 763, generating 122 intermediate school students, as compared to No-Action conditions. This would represent a decrease of 69 DUs (8 percent) in CSD 7, Sub-district 3. Alternately, based on the RWCDS for the Proposed Actions, an additional 55 elementary school seats and 10 intermediate school seats would be needed in order to reduce the incremental increase in utilization rates to less than the *CEQR Technical Manual* impact threshold of five percent. To eliminate these impacts in CSD 7, Sub-district 3 (projected to occur in year 2020), the following mitigation measures could be applied in conjunction with the City's monitoring of capacity: a) restructure or reprogram existing school space under DOE's control in order to make available more capacity in existing school buildings located within CSD 7, Sub-district 3; b) relocate administrative functions at existing schools to another site, thereby freeing up space for classrooms; and/or c) create additional capacity in the area by constructing a new school(s), building additional capacity at existing schools, or leasing additional school space constructed as part of the Proposed Project. These preliminary mitigation options will continue to be explored between the DEIS and FEIS. Absent the identification and implementation of feasible and practicable measures, these significant adverse impacts would remain unmitigated.

[1] The 160 supportive housing units would be single-room units for seniors living with HIV/AIDS, single veterans, and individuals earning less than 60 percent AMI. Therefore, it is anticipated that these 160 units would not introduce any children to the study area. As such, these units are excluded from the analysis of public schools.

Transportation

Traffic

As described in Chapter 3, "Transportation," the Proposed Project would result in significant adverse traffic impacts at one study area intersection during one or more peak periods; specifically the southbound approach at the intersection of Brook and Westchester Avenues during the weekday AM and PM peak hours. Implementation of traffic engineering improvements such as signal timing changes or traffic modifications to curbside parking regulations would provide mitigation for the anticipated traffic impacts. These measures are described further below. Specific details related to the implementation of the recommended traffic engineering improvements is subject to review and approval by the New York City Department of Transportation (NYCDOT) and will be further refined between the DEIS and FEIS. If, prior to implementation, NYCDOT determines that an identified mitigation measure is infeasible, an alternative and equivalent mitigation measure will be identified. No unmitigated significant adverse traffic impacts would remain with implementation of the recommended mitigation measures.

Pedestrians

Incremental demand from the Proposed Project would significantly adversely impact a total of two corner areas and one crosswalk in one or more peak hours. Recommended mitigation measures to address these impacts are discussed further below. Specific details related to the implementation of these measures will be further refined between the DEIS and FEIS through coordination with NYCDOT. If, prior to implementation, NYCDOT determines that an identified mitigation measure is infeasible, an alternative and equivalent mitigation measure will be identified.

Corner Areas

Two of the 16 analyzed corner areas would be significantly adversely impacted by the Proposed Project—the northwest and southwest corners at the intersection of Third Avenue and E. 150th Street-Westchester Avenue during the Saturday midday peak hour. To address this impact, the construction of new 5' curb extensions on the northwest and southwest corners of this intersection would be coordinated between the project sponsor, HPD and NYCDOT. HPD would require the project sponsor implement these measures to the satisfaction of the City through the Land Disposition Agreement (LDA) between HPD and the project sponsor. No unmitigated significant adverse corner impacts would remain with implementation of the recommended mitigation measures.

Crosswalks

One of the 16 analyzed crosswalks would be significantly adversely impacted by the Proposed Project—the west crosswalk at the intersection of Third Avenue and E. 150th Street-Westchester Avenue during the weekday PM and Saturday midday peak hour. This impact would be fully mitigated by widening the crosswalk by 2'. No unmitigated significant adverse crosswalk impacts would remain with implementation of the recommended mitigation measures.

C. COMMUNITY FACILITIES

Public Schools

As discussed in Chapter 2, "Community Facilities and Services," in the 2020 future with the Proposed Actions, the elementary and intermediate school enrollment of CSD 7 Sub-district 3 is anticipated to exceed projected capacity. Elementary schools would increase from a No-Action utilization rate of 119.7 percent to 126.0 percent in the With-Action condition (a 6.3 percentage point increase), with a deficit of 1,335 elementary school seats. Intermediate schools would increase from a No-Action utilization rate of 105.3 percent to 110.8 percent in the With-Action condition (a 5.4 percentage point increase), with a deficit of 263 intermediate school seats. As CSD 7, Sub-district 3 elementary and intermediate schools would operate over capacity in the future with the Proposed Project with an increase of five percentage points or more in their collective utilization rates between the No-Action and With-Action conditions, significant adverse impacts to this sub-district would result.

Under the reasonable worst-case development scenario (RWCDS), a net increment of 832 affordable units would be developed compared to No-Action conditions.[2] To avoid the significant adverse elementary school impact, the number of incremental dwelling units that could be developed in the sub-district would have to be reduced to 657, generating 256 elementary school students, as compared to No-Action conditions. This would represent a decrease of 175 DUs (21 percent) in CSD 7, Sub-district 3. An increase of 256 elementary school students within Sub-district 3 of CSD 7, would increase the No-Action utilization rates in the sub-district by less than five percentage points and would be below the *CEQR Technical Manual* threshold and, thus, not a significant adverse impact.

To avoid the identified significant adverse intermediate school impacts in Sub-district 3 of CSD 7, the number of incremental dwelling units that could be developed in the sub-district would have to be reduced to 763, generating 122 intermediate school students, as compared to No-Action conditions. This would represent a decrease of 69 DUs (8 percent) in CSD 7, Sub-district 3. The 122 intermediate school students within CSD 7, Sub-district 3 would increase the No-Action utilization rate in the sub-districts by less than five percentage points and would similarly be below the *CEQR Technical Manual* threshold that would be considered a significant adverse impact.

Table 5-1, below, indicates the number of incremental dwelling units within CSD 7, Sub-district 3 that would result in a significant adverse impact requiring mitigation, as well as the number of additional elementary and intermediate school seats that would need to be provided in order to mitigate the identified significant adverse impacts. In accordance with *CEQR Technical Manual* impact criteria, the number of seats needed to mitigate the significant adverse impacts would either: (1) reduce the incremental increase in the sub-district's elementary or intermediate school capacity to less than five percentage points over the No-Action condition; or (2) reduce the With-Action utilization rate to less than 100 percent.

[2] The 160 supportive housing units would be single-room units for seniors living with HIV/AIDS, single veterans, and individuals earning less than 60 percent AMI. Therefore, it is anticipated that these 160 units would not introduce any children to the study area. As such, these units are excluded from the analysis of public schools.

TABLE 5-1
CSD 7, Sub-district 3 School Impact Thresholds and Mitigation School Seats

School	Impact Threshold[1]	Seats Needed to Fully Mitigate Impact
Elementary	657 DUs (256 students)	55
Intermediate	763 DUs (122 students)	10

Notes:
[1] Represents increment over No-Action condition.

As indicated in the table, based on the RWCDS for the Proposed Actions, an additional 55 elementary school seats and 10 intermediate school seats would be needed in order to reduce the incremental utilization increase in CSD 7, Sub-district 3 elementary and intermediate school utilization rates to less than the five percentage point *CEQR Technical Manual* impact threshold.

To eliminate these impacts in CSD 7, Sub-district 3 (projected to occur in year 2020), the following mitigation measures could be applied in conjunction with the City's monitoring of capacity: a) restructure or reprogram existing school space under DOE's control in order to make available more capacity in existing school buildings located within CSD 7, Sub-district 3; b) relocate administrative functions at existing schools to another site, thereby freeing up space for classrooms; and/or c) create additional capacity in the area by constructing a new school(s), building additional capacity at existing schools, or leasing additional school space constructed as part of the Proposed Project. These preliminary mitigation options will continue to be explored between the DEIS and FEIS.

Planning for school seats is conducted by the DOE which continually monitors school utilization throughout the City and identifies the need for new or expanded schools to be funded through the its Five-Year Capital Plan. The elementary and intermediate schools impact discussed above, which is projected to occur in year 2020, will fall beyond the DOE's current Five-Year Capital Plan for Fiscal Years 2015-2019, and would be considered in the context of planning for DOE's Five-Year Capital Plan for Fiscal Years 2020-2024. The New York City School Construction Authority (SCA) assists the DOE by annually developing and analyzing data by the DOE and other government agencies to update the Five-Year Capital Plans.

D. TRANSPORTATION

Traffic

As described in Chapter 3, "Transportation," the Proposed Project would result in significant adverse traffic impacts to the southbound Brook Avenue approach at Westchester Avenue during the weekday AM and PM peak hours. As demonstrated below, both impacts could be mitigated through the implementation of the following traffic engineering improvements:

- Modification of traffic signal timing; and
- Elimination of on-street parking on the southbound Brook Avenue approach within 100 feet of Westchester Avenue to add a limited travel lane (known as "daylighting").

These improvements are readily implementable measures that conform to the guidelines of the New York City Department of Transportation's *2013 Street Design Manual*. The types of mitigation measures proposed herein are standard measures that are routinely identified by the City and considered feasible

for implementation. Table 5-2 provides more detailed information on the proposed signal timing modifications. Specific details related to the implementation of the recommended traffic engineering improvements is subject to review and approval by the New York City Department of Transportation (NYCDOT) and will be further refined between the DEIS and FEIS. If, prior to implementation, NYCDOT determines that an identified mitigation measure is infeasible, an alternative and equivalent mitigation measure will be identified. In the absence of the application of mitigation measures, the impacts would remain unmitigated.

TABLE 5-2
Proposed Signal Timing Modifications

Intersection	Signal Phase	No-Action Condition Signal Timing (Seconds)[1]		Action-with-Mitigation Condition Signal Timing (Seconds)[1]	
		Weekday AM Peak Hour	Weekday PM Peak Hour	Weekday AM Peak Hour	Weekday PM Peak Hour
Westchester Avenue (EB/WB) and Brook Avenue (NB/SB)	EB/WB	54	54	52	51
	NB/SB	36	36	38	39

[1] Signal timing indicates green plus yellow (including all red) for each phase.

Table 5-3 shows the v/c ratios, delays, and levels of service (LOS) for lane groups at each impacted intersection with implementation of these mitigation measures and compares them to No-Action and With-Action conditions during the weekday AM and PM peak hours. According to *CEQR Technical Manual* criteria, an impact is considered fully mitigated when the resulting LOS degradation under the Action-with-Mitigation condition compared to the No-Action condition is no longer deemed significant following the impact criteria described in Chapter 3, "Transportation." As shown in Table 5-3, all significant adverse impacts would be fully mitigated in all peak hours. It should be noted that pedestrian mitigation measures (discussed below) would neither alter the conclusions made for the traffic impact analyses nor result in the potential for any additional significant adverse traffic impacts.

TABLE 5-3
Traffic LOS Summary at Impacted Intersections – Action-with-Mitigation Condition

Intersection	Lane Group	Weekday AM Peak Hour									Weekday PM Peak Hour								
		No-Action			With-Action			Action-with-Mitigation			No-Action			With-Action			Action-with-Mitigation		
		V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS	V/C Ratio	Delay (Sec/veh)	LOS
1. Westchester Av. (E-W)/Brook Av. (S)	SB-LTR	0.76	37.5	D	0.91	53.0	D*	0.85	43.4	D	0.73	35.4	D	1.01	73.7	E*	0.86	42.2	D

Notes:
[1] Unsignalized two-way stop
*Denotes a significant impact (LOS E or F, or V/C ratio $\geq$ 0.9)
EB – Eastbound, WB – Westbound, NB – Northbound, SB – Southbound
L – Left, T – Through, R – Right, DfL – Analysis considers a defacto left-turn lane on this approach
V/C Ratio – Volume to capacity ratio
LOS – Level of service
Analysis is based on the 2000 *Highway Capacity Manual* methodology (HCS+, Version 5.5)

Pedestrians

As discussed in Chapter 3, "Transportation," the results of the analyses of pedestrian conditions show that demand from the Proposed Project would significantly adversely impact a total of two corners in the Saturday midday peak hour and one crosswalk in both the weekday PM and Saturday midday peak hours under the With-Action condition. A significant adverse pedestrian impact is considered mitigated if measures implemented return the anticipated conditions to an acceptable level, following the same impact criteria used in determining impacts. Standard mitigation for projected significant adverse

pedestrian impacts can include providing additional signal green time or new signal phases; widening crosswalks; relocating or removing street furniture; providing curb extensions, neck-downs or lane reductions to reduce pedestrian crossing distance; and sidewalk widening. Discussed below are recommended mitigation measures to address the Proposed Project's significant adverse pedestrian impacts. The mitigation measures consist of corner and crosswalk widening. If, prior to implementation, NYCDOT determines that an identified mitigation measure is infeasible, an alternative and equivalent mitigation measure will be identified.

Corner Areas

Two of the 16 analyzed corner areas would be significantly adversely impacted by the Proposed Project—the northwest and southwest corners at the intersection of Third Avenue and East 150th Street-Westchester Avenue during the Saturday midday peak hour. The sidewalks adjacent to these corner areas along Third Avenue are 9.5' in width to the north of East 150th Street-Westchester Avenue and 14.5' in width to the south of East 150th Street-Westchester Avenue. To address this impact, the construction of new 5' curb extensions on the northwest and southwest corners of the intersection would be coordinated between the project sponsor, HPD, and NYCDOT (see Figure 5-1). HPD would require the project sponsor implement these measures to the satisfaction of the City through the Land Disposition Agreement (LDA) between HPD and the project sponsor. As shown in Table 5-4, with implementation of these mitigation measures, the northwest and southwest corners would no longer be considered significantly adversely impacted based on the *CEQR Technical Manual* impact criteria described in Chapter 3, "Transportation." Therefore, under Action-with-Mitigation conditions, the Proposed Project's significant adverse corner area impacts would be fully mitigated.

TABLE 5-4
Pedestrian LOS Summary at Impacted Corners – Action-with-Mitigation Condition

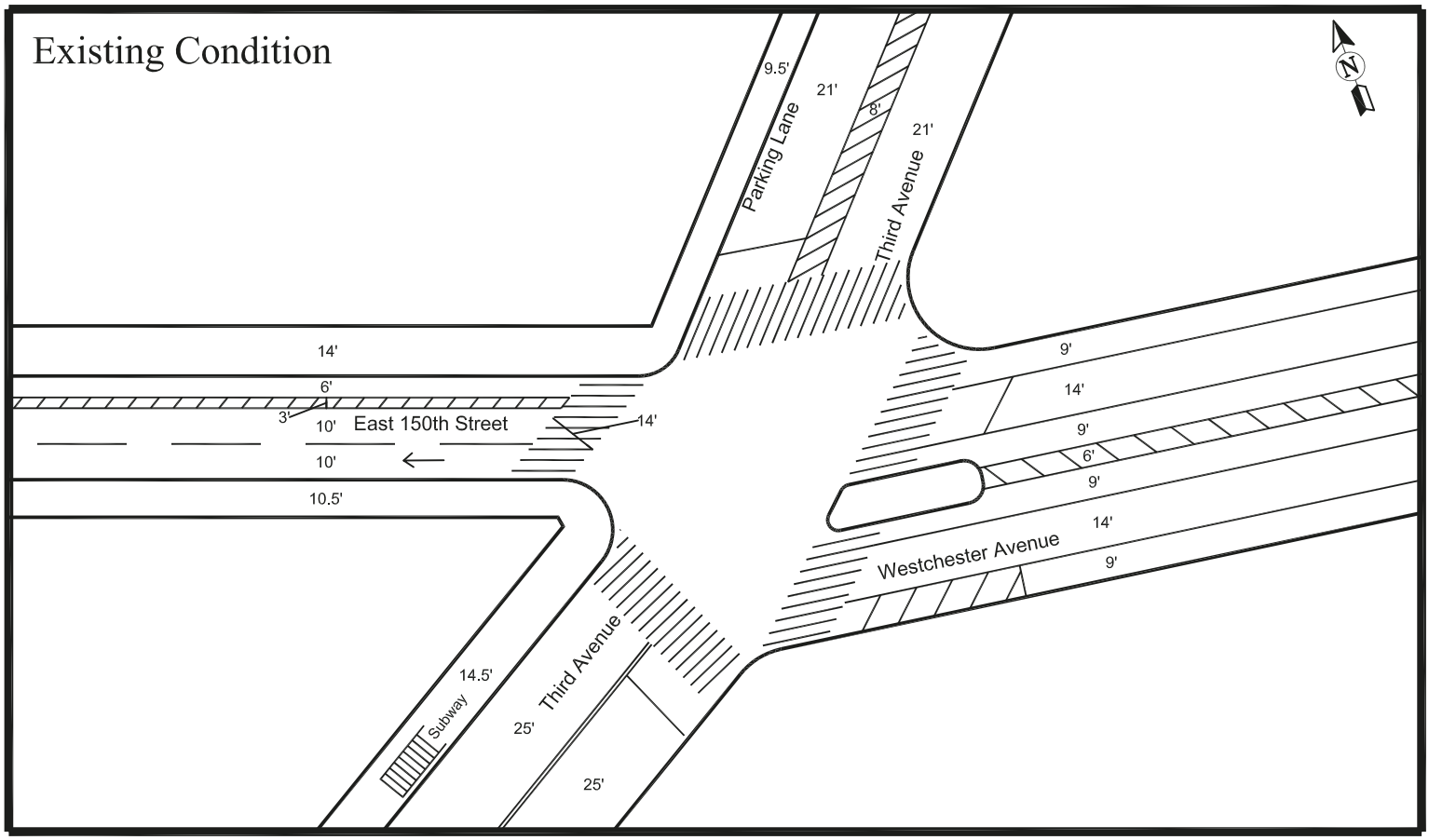
		Saturday Midday Peak Hour						
		No-Action		With-Action		Action-with-Mitigation		Mitigation Measure
No.	Intersection/Corner	ft²/Ped	LOS	ft²/Ped	LOS	ft²/Ped	LOS	
	E. 150th St.-Westchester Av. at Third Av.							
C5	Northwest	19.5	D	13.5	E*	56.5	B	Mitigated through neck-down
C7	Southwest	24.4	C	18.4	D*	55.5	B	Mitigated through neck-down

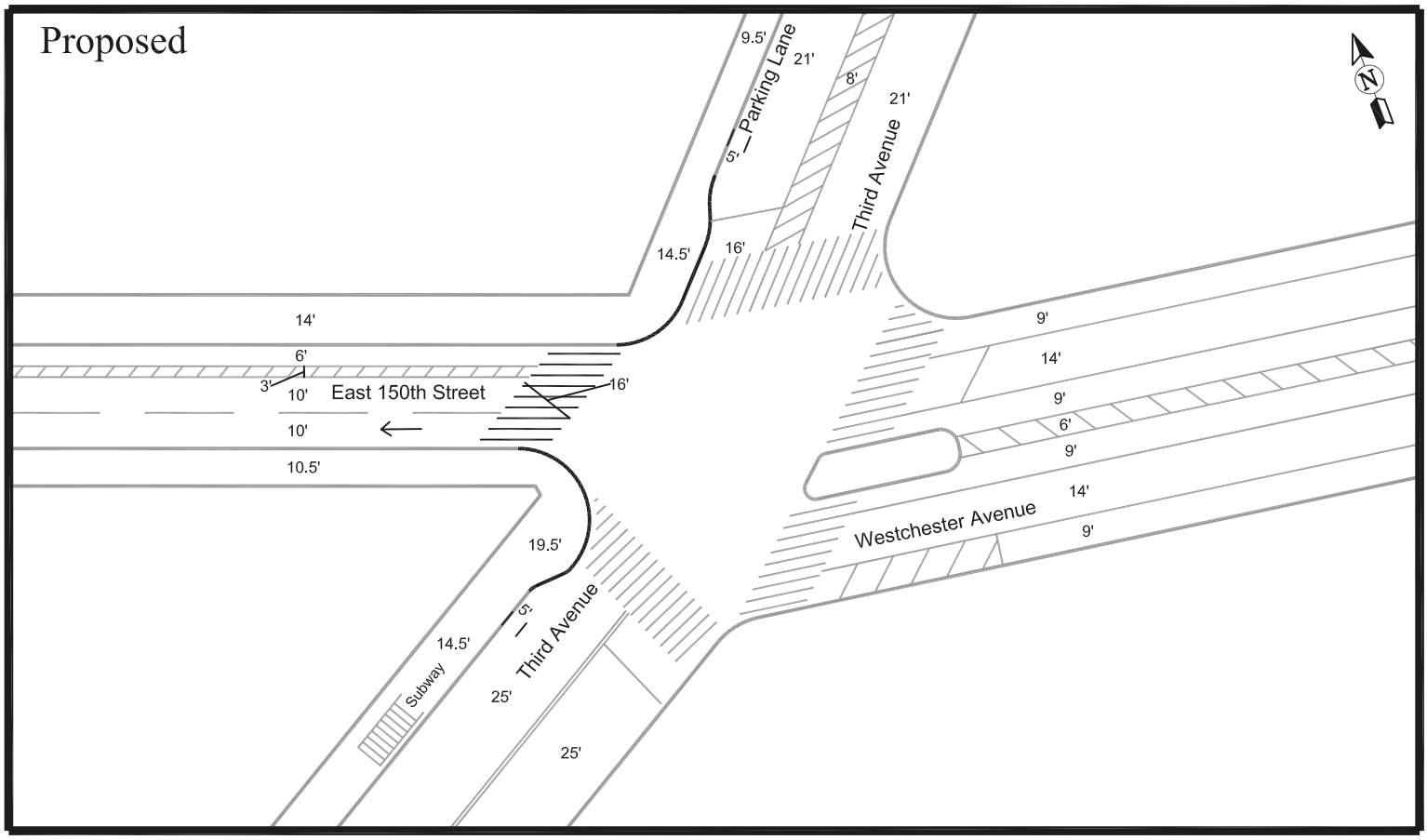
Notes:
*Denotes a significant impact
LOS – Level of service
Ft^2/Ped – Average square feet per pedestrian

Crosswalks

One of the 16 analyzed crosswalks would be significantly adversely impacted by the Proposed Project during the weekday PM and Saturday midday peak hours—the west crosswalk at the intersection of Third Avenue and East 150th Street-Westchester Avenue. Widening this crosswalk by 2', from 14' to 16', would fully mitigate this significant crosswalk impact. As shown in Tables 5-5 and 5-6, with implementation of this mitigation, the west crosswalk would no longer be considered significantly adversely impacted based on the *CEQR Technical Manual* impact criteria described in Chapter 3, "Transportation." Therefore, under Action-with-Mitigation conditions, the Proposed Project's significant adverse crosswalk impact would be fully mitigated.

Proposed Sidewalk Widening





0' 50' 100'

SCALE: 1" = 50'

TABLE 5-5
Pedestrian LOS Summary at Impacted Crosswalks – Action-with-Mitigation Condition, Weekday PM

				Weekday PM Peak Hour									
				No-Action			With-Action			Action-with-Mitigation			
No.	Location/Crosswalk	Street Width (feet)	Crosswalk Width (Feet)	Peak Vol.	ft²/ Ped	LOS	Peak Vol.	ft²/ Ped	LOS	Peak Vol.	ft²/ Ped	LOS	Mitigation Measure
	E. 150th St.-Westchester Av. at Third Av.												
X8	West	37.0	14.0	295	16.1	D	337	13.8	E*	337	16.1	D	Mitigated through crosswalk widening

Notes:
*Denotes a significant impact
LOS – Level of service
Ft^2/Ped – Average square feet per pedestrian

TABLE 5-6
Pedestrian LOS Summary at Impacted Crosswalks – Action-with-Mitigation Condition, Saturday Midday

				Weekday PM Peak Hour									
				No-Action			With-Action			Action-with-Mitigation			
No.	Location/Crosswalk	Street Width (feet)	Crosswalk Width (Feet)	Peak Vol.	ft²/ Ped	LOS	Peak Vol.	ft²/ Ped	LOS	Peak Vol.	ft²/ Ped	LOS	Mitigation Measure
	E. 150th St.-Westchester Av. at Third Av.												
X8	West	37.0	14.0	429	10.6	E	479	9.3	E*	479	10.9	E	Mitigated through crosswalk widening

Notes:
*Denotes a significant impact
LOS – Level of service
Ft^2/Ped – Average square feet per pedestrian

Effects of Traffic Mitigation on Pedestrian Elements

Also shown in Tables 5-4 through 5-6 are Action-with-Mitigation corner and crosswalk conditions at the intersection of Westchester Avenue and Brook Avenue where traffic signal timing modifications are proposed to mitigate significant traffic impacts. As shown in the tables, the proposed traffic signal timing modifications would not result in new significant adverse impacts to any corner or crosswalk at this intersection in any peak hour.

A. INTRODUCTION

As described in the 2014 *CEQR Technical Manual*, alternatives selected for consideration in an environmental impact statement are generally those that are feasible and have the potential to reduce, eliminate, or avoid adverse impacts of a proposed action while meeting some or all of the goals and objectives of this action. As described in Chapter 1, "Project Description," the Proposed Actions would facilitate the development of a 1.1 million gross square foot (gsf) mixed-use development on underutilized land in the Melrose neighborhood of Bronx Community District 1.

This chapter considers two alternatives to the Proposed Actions: the No-Action Alternative, in which no new development is anticipated to occur within the Project Area; and the No Impact Alternative, which considers whether a reduction in the size of the Proposed Project would eliminate the potential for significant adverse impacts.

B. PRINCIPAL CONCLUSIONS

No-Action Alternative

The No-Action Alternative examines future conditions within the Project Area, but assumes the absence of the Proposed Actions (i.e., none of the discretionary approvals proposed as part of the Proposed Actions would be adopted). Under the No-Action Alternative by 2020, existing zoning and land uses within the Project Area would remain unchanged. It is anticipated that the Project Area would remain mostly vacant with the exception of Parcel B, which would continue to operate with two at-grade public parking facilities and a vacant 11,000 gsf building. Redevelopment of the Project Area would not be possible without the disposition of City-owned property and other discretionary approvals through the City Planning Commission (CPC). The technical chapters of this EIS have described the No-Action Alternative as "the Future Without the Proposed Actions."

The significant adverse impacts anticipated for the Proposed Actions would not occur under the No-Action Alternative. However, the No-Action Alternative would not meet the goals of the Proposed Actions. The benefits expected to result from the Proposed Actions – including promoting affordable housing development by maximizing the use of vacant City-owned land, encouraging the continued economic development of the South Bronx, and introducing new community resources – would not be realized under this alternative, and the No-Action Alternative would fall short of the objectives of the Proposed Actions.

No Impact Alternative

The No Impact Alternative examines a scenario in which the density and other components of the Proposed Actions are changed specifically to avoid the significant adverse impacts associated with the Proposed Actions. The Proposed Actions would result in significant adverse impacts related to community facilities (elementary and intermediate public schools) and transportation (traffic and

pedestrians).

As detailed below, in order to result in no significant adverse impacts, development within the Project Area would have to be reduced by up to approximately 66 percent, including a 60 percent reduction in the total number of affordable and supportive housing units (to 393 DU) and no community facility or commercial uses within the Project Area. As such, the benefits expected to result from the Proposed Actions – including promoting affordable housing development by maximizing the use of vacant City-owned land, encouraging the continued economic development of the South Bronx, and introducing new community resources – would not be realized under this alternative, and the No Impact Alternative would fall short of the objectives of the Proposed Actions.

C. NO-ACTION ALTERNATIVE

The No-Action Alternative assumes that the Proposed Actions are not implemented. This includes no disposition approval, no approval of an Urban Development Action Area Project (UDAAP), no zoning map amendment, no zoning text amendment to map an MIH area, no special permits for a Large-Scale General Development (LSGD), and no approval for construction financing. Conditions under this alternative are similar to the "Future without the Proposed Actions" described in the preceding chapters, which are compared in the following sections to conditions under the Proposed Actions.

Under the No-Action Alternative, it is anticipated that the Project Area would remain mostly vacant with the exception of Parcel B, which would continue to operate with two at-grade public parking facilities and a vacant 11,000 gsf building. Redevelopment of the Project Area would not be possible without the disposition of City-owned property and other discretionary approvals through the CPC.

The effects of the No-Action Alternative in comparison to those of the Proposed Actions are provided below.

Community Facilities and Services

The No-Action Alternative would not introduce any residents to the Project Area and, therefore, would not result in an increase in demand on area community facilities. Neither the Proposed Actions nor the No-Action Alternative would result in direct impacts to community facilities and services or indirect impacts to high schools, library services, child care services, or police, fire, and emergency medical services. Unlike the Proposed Actions, the No-Action Alternative would also not result in significant adverse impacts to public schools (elementary and intermediate).

As under the Proposed Actions, Community School District (CSD) 7, Sub-district 3 elementary and intermediate schools would operate over capacity under the No-Action Alternative. However, as no residents would be introduced to the Project Area under the No-Action Alternative, no significant adverse impacts on public schools would occur under this alternative, unlike the Proposed Actions.

Transportation

As discussed above, the No-Action Alternative would not introduce any residents, businesses, or community services to the Project Area and, therefore, would not result in an increase in demand on the transportation network of the surrounding area. Neither the Proposed Actions nor the No-Action

Alternative would result in significant adverse impacts to transit (subway and bus) or parking. Unlike the Proposed Actions, the No-Action Alternative would not result in significant adverse traffic impacts at one intersection during the weekday AM and PM peak hours. The Proposed Actions' significant adverse pedestrian impacts to two corner areas during the Saturday midday peak hour and to one crosswalk during the weekday PM and Saturday midday peak hours would also not occur under the No-Action Alternative.

In the No-Action Alternative, traffic, parking, transit, and pedestrian demand in the study area would increase as a result of background growth, development that could occur pursuant to existing zoning (i.e., as-of-right development), and other development projects likely to occur within and in the vicinity of the Project Area.

Traffic

As shown in Table 6-1, the number of lane groups operating at LOS E or F would total zero under the No-Action Alternative, compared to one lane group operating at LOS E during the weekday PM peak hour under the Proposed Actions. There would be no intersections with significant adverse traffic impacts under the No-Action Alternative, compared to one intersection under the Proposed Actions during the weekday AM and PM peak hours.

TABLE 6-1
Lane Group LOS Summary Comparison—No-Action Alternative vs. Proposed Actions

	No-Action Alternative				Proposed Actions			
	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Midday Peak Hour	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Midday Peak Hour
Overall LOS A/B/C	14	15	14	15	13	14	12	14
Overall LOS D	1	0	1	0	1	0	1	0
Overall LOS E	0	0	0	0	0	0	1	0
Overall LOS F	0	0	0	0	0	0	0	0
Number of intersections with significant impacts	0	0	0	0	1	0	1	0

Pedestrians

Corner Areas

Under the No-Action Alternative, the number of corner areas that would operate at LOS E or F during any peak hour is zero, compared to a maximum of one corner area during any peak hour under the Proposed Actions. There would be no corner areas with significant adverse pedestrian impacts under the No-Action Alternative, compared to two corner areas under the Proposed Actions during the Saturday midday peak hour.

Crosswalks

Under the No-Action Alternative, the number of crosswalks that would operate at LOS E or F during any peak hour is zero, compared to a maximum of one crosswalk during any peak hour under the Proposed Actions. There would be no crosswalks with significant adverse pedestrian impacts under the No-Action

Alternative, compared to one crosswalk under the Proposed Actions during the weekday PM and Saturday midday peak hours.

Neighborhood Character

According to the *CEQR Technical Manual*, a proposed action could have a significant adverse neighborhood character impact if it would have the potential to affect the defining features of the neighborhood, either through the potential for a significant adverse impact in any relevant technical area, or through a combination of moderate effects in those technical areas. The Proposed Actions would not cause significant adverse impacts in the areas of land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; or noise. The significant adverse transportation (traffic and pedestrian) impacts would not affect any defining feature of neighborhood character, nor would a combination of moderately adverse effects affect such a defining feature. No new development would occur under the No-Action Alternative and the overall neighborhood character of the area would remain substantially the same as it is today under the No-Action Alternative. The study area would continue to be characterized by a mix of land uses, densities, and building types in close proximity to transit and would remain so under the No-Action Alternative. Neither the Proposed Actions nor the No-Action Alternative would result in significant adverse impacts to neighborhood character, however, the improvements to neighborhood character that would occur under the Proposed Actions would not occur under this alternative.

D. NO IMPACT ALTERNATIVE

Based on the analyses presented in other chapters of this EIS, there is the potential for the Proposed Actions to result in significant adverse impacts with respect to community facilities (elementary and intermediate public schools) and transportation (traffic and pedestrians). This alternative considers development that would not result in any significant adverse impacts. As detailed below, in order to result in no significant adverse impacts, the total development program would have to be reduced by up to approximately 66 percent, including a 60 percent reduction in the number of affordable and supportive housing units within the Project Area, with none of the proposed community facility or commercial uses.

The No Impact Alternative would result in the same actions as the future with the Proposed Actions, but considers the magnitude of development that could occur within the Project Area without resulting in any significant adverse impacts. The analysis framework is determined by focusing on an alternative that avoids the anticipated significant adverse community facility and transportation impacts associated with the Proposed Actions.

Community Facilities and Services

Public Schools

Under the RWCDS, the Proposed Actions would result in a significant adverse impact on public schools (elementary and intermediate levels). To avoid the identified significant adverse public schools impact, the number of affordable DUs that could be developed within the Project Area would have to be reduced to 657, a 21 percent (175 DU) reduction in the number of affordable units anticipated under the RWCDS. Reducing the number of affordable housing units developed within the Project Area would

be less supportive of the goals and objectives of the Proposed Actions.

Transportation

The Proposed Project would result in significant adverse impacts to traffic and pedestrian elements. Specifically, one of the five analyzed intersections and three of the 41 analyzed pedestrian elements would have significant adverse impacts in at least one peak hour. A sensitivity analysis determined that in order to avoid significant adverse transportation impacts, the development program would have to be reduced by approximately 66 percent, with a 60 percent reduction in the number of affordable and supportive housing units to approximately 393 units, and no community facility or retail within the Project Area. In total, this would represent approximately 33 percent of the 1.1 million gsf proposed. Such a substantial reduction in development within the Project Area would substantially compromise the goals of the Proposed Project. The benefits expected to result from the Proposed Actions – including promoting affordable housing development by maximizing the use of vacant City-owned land, encouraging the continued economic development of the South Bronx, and introducing new community resources – would not be realized under this alternative.

A. INTRODUCTION

This chapter summarizes unavoidable significant adverse impacts resulting from the Proposed Actions. According to the 2014 *CEQR Technical Manual*, unavoidable significant adverse impacts are those that would occur if a proposed project or action is implemented regardless of the mitigation employed, or if mitigation is infeasible.

As described in Chapter 5, "Mitigation," the Proposed Actions would result in significant adverse impacts with respect to community facilities and transportation. To the extent practicable, mitigation has been proposed for these identified significant adverse impacts. However, in some instances mitigation has been proposed, but absent a commitment to implement the mitigation, the impacts may not be eliminated.

B. COMMUNITY FACILITIES

Public Schools

As described in Chapter 2, "Community Facilities and Services," the Proposed Actions are expected to result in significant adverse impacts to public schools at the elementary and intermediate levels. The Proposed Actions are anticipated to introduce approximately 832 affordable dwelling units (compared to No-Action conditions)[1], generating an estimated 324 elementary school students and 133 intermediate school students. With the addition of these students, elementary schools in the study area would operate at 126.0 percent of capacity, which represents an increase of 6.3 percentage points over the future No-Action condition. Intermediate schools in the study area would operate at 110.8 percent of capacity, 5.4 percentage points over the future No-Action condition. These increases exceed the five percent threshold in the *CEQR Technical Manual* for a significant adverse impact.

Measures to mitigate the identified significant adverse impact on public schools will be considered between the DEIS and FEIS in coordination with the lead agency, the New York City Department of Housing Preservation and Development (HPD), and the New York City School Construction Authority (SCA). Absent the identification and implementation of feasible and practicable measures, these significant adverse impacts would remain unmitigated.

[1] The 160 supportive housing units would be single-room units for seniors living with HIV/AIDS, single veterans, and individuals earning less than 60 percent AMI. Therefore, it is anticipated that these 160 units would not introduce any children to the study area. As such, these units are excluded from the analysis of public schools.

C. TRANSPORTATION

Traffic

As discussed in Chapter 3, "Transportation," the Proposed Actions would result in significant adverse traffic impacts at one study area intersection, Westchester/Brook Avenues, during the weekday AM and PM peak hours. Implementation of traffic engineering improvements, such as signal timing changes and modifications to curbside parking regulations would provide mitigation for the anticipated traffic impacts. Implementation of the recommended traffic engineering improvements is subject to review and approval by NYCDOT. If, prior to implementation, NYCDOT determines that an identified mitigation measure is infeasible, an alternative and equivalent mitigation measure may be identified. In the absence of the application of mitigation measures, the impacts would remain unmitigated.

Pedestrians

Incremental demand from the Proposed Actions would significantly adversely impact a total of two corner areas and one crosswalk in one or more peak hours. As outlined in Chapter 5, "Mitigation," the identified pedestrian impacts would be fully mitigated through sidewalk and crosswalk widenings. Implementation of these measures would be subject to review and approval by NYCDOT. If, prior to implementation, NYCDOT determines that an identified mitigation measure is infeasible, alternative and equivalent mitigation measures may be identified. In the absence of the application of mitigation measures, the impacts would remain unmitigated.

Chapter 8: Growth Inducing Aspects of the Proposed Project

The term "growth-inducing aspects" generally refers to the potential for a proposed project to trigger additional development in areas outside the Project Area that would otherwise not have such development in the absence of a proposed project. The 2014 *CEQR Technical Manual* indicates that an analysis of the growth-inducing aspects of a proposed project is appropriate when the project: (1) adds substantial new land use, residents, or new employment that could induce additional development of a similar kind or of support uses, such as retail establishments to serve new residential uses; and/or (2) introduces or greatly expands infrastructure capacity (e.g., sewers, central water supply).

As detailed in Chapter 1, "Project Description," the applicant is seeking several discretionary approvals to facilitate the development of an underutilized 4.3-acre site in the Melrose neighborhood of Bronx Community District 1. The Proposed Actions would facilitate the development of an approximately 1.1 million gross square foot (gsf), five building mixed-use development consisting of approximately 832 affordable dwelling units (DUs), approximately 160 supportive housing units, approximately 46,800 gsf of local retail and commercial uses, an approximately 50,500 gsf YMCA, and approximately 32,700 gsf of other community facility uses. The environmental consequences of this growth are the subject of Chapters 2 through 4 of this EIS. The projected increase in residential and worker populations is likely to increase the demand for neighborhood services in the surrounding area, ranging from religious establishments to banks and local retail. The Proposed Project would also contribute to growth in the local Bronx, City, and State economies, primarily due to employment and fiscal effects during construction of the development and operation after its completion. However, the Proposed Project is not anticipated to create a critical mass of populations or uses that would induce additional development.

It is anticipated that the consumer needs of the new residential and worker population would largely be satisfied by a combination of the new local retail that would be developed within the Project Area and the existing and planned future retail stores in the surrounding area and the Bronx as a whole. Moreover, the Proposed Project does not include the introduction of new infrastructure or an expansion of infrastructure capacity that would result in indirect development. Therefore, the Proposed Project is not expected to induce significant new growth in the surrounding area.

Chapter 9: Irreversible and Irretrievable Commitments of Resources

There are a number of resources, both natural and built, that would be expended in the construction and operation of the proposed La Central project. These resources would include the materials used in construction of the proposed buildings; energy in the form of gas and electricity consumed during construction and operation of the Proposed Project; and the human effort (i.e., time and labor) required to develop, construct, and operate various components of the Proposed Project. These resources are considered irretrievably committed because their reuse for some purpose other than the Proposed Project would be highly unlikely. Although the Proposed Project would result in an increase in publicly accessible open space and new commercial and residential land uses on the project site, the Proposed Project would constitute an irreversible and irretrievable commitment of the project site as a land resource, thereby rendering land use for other purposes infeasible, at least in the near term. Furthermore, funds committed to the design, construction, and operation of the Proposed Project would not be available for other projects.

These commitments of materials and land resources are weighed against the benefits of the Proposed Actions, which, as noted in Chapter 1, “Project Description,” would transform a large vacant and underutilized site in close proximity to public transportation into a mixed-use development with new affordable and supportive housing, local retail and commercial uses, community facility uses, and publicly accessible open space.

APPENDIX A
2015 LA CENTRAL EAS

City Environmental Quality Review
ENVIRONMENTAL ASSESSMENT STATEMENT (EAS) SHORT FORM

FOR UNLISTED ACTIONS ONLY • *Please fill out and submit to the appropriate agency* (see instructions)

Part I: GENERAL INFORMATION

1. *Does the Action Exceed Any Type I Threshold in 6 NYCRR Part 617.4 or 43 RCNY §6-15(A) (Executive Order 91 of 1977, as amended)?* ☐ YES ☒ NO

If "yes," **STOP** and **complete the FULL EAS FORM**.

2. *Project Name* La Central EAS

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
15HPD041X	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY NYC Dept. of Housing Preservation and Development			NAME OF APPLICANT NYC Dept. of Housing Preservation and Development		
NAME OF LEAD AGENCY CONTACT PERSON Patrick Blanchfield, Director of Environmental Planning			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Ted Weinstein, HPD Bronx Planning		
ADDRESS 100 Gold Street, 7A-3			ADDRESS 100 Gold Street, 9th Floor		
CITY New York	STATE NY	ZIP 10038	CITY New York	STATE NY	ZIP 10038
TELEPHONE 212-863-5056	EMAIL blanchfp@hpd.nyc.gov		TELEPHONE 212-863-6279	EMAIL weinstet@hpd.nyc.gov	

5. *Project Description*

The New York City Department of Housing Preservation and Development (HPD), on behalf of the project sponsor La Central Manager, LLC, is seeking approval for several discretionary actions (collectively, the "Proposed Actions") including the disposition of City-owned property, designation and approval of the project as an Urban Development Action Area Project (UDAAP), a zoning map amendment, and a special permit for a Large-Scale General Development (LSGD). The project sponsors may also seek approval for construction financing at a future date. The Proposed Actions would facilitate the development of an underutilized 4.3-acre City-owned site in the Melrose neighborhood of Bronx Community District 1 by introducing affordable and supportive housing, local retail and commercial uses, community facility uses, parking, and public open space. As shown in Figures 2 and 4 (attached), the triangular-shaped Project Area is comprised of an assemblage of three zoning lots (Parcels A, B, C) containing six City-owned tax lots (Block 2363, Lot 1; Block 2361, Lots 1, 25, 26, 50; Block 2294, Lot 32). The Project Area is generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and the elevated IRT #2 and #5 subway tracks to the south. The Proposed Actions would complement the ongoing residential and commercial redevelopment of the South Bronx and enliven large underutilized sites near "the Hub."

The Proposed Actions would facilitate an approximately 1.1 million gsf, five building mixed-use development (the "Proposed Project") consisting of approximately 832 affordable dwelling units, approximately 160 supportive units, approximately 46,800 gsf of local retail and other commercial uses, an approximately 50,500 gsf YMCA, and approximately 32,700 gsf of other community facility uses. The proposed project would also include up to approximately 262 accessory below-grade parking spaces, an approximately 41,002 sf courtyard open space (32,481 sf public, 8,521 sf private), an approximately 7,134 sf public skate park, an approximately 7,625 sf public rooftop farm, 7,911 sf of other public open space, and approximately 43,385 sf of private rooftop open space. Construction of the proposed project is expected to begin in mid-2016 with all components complete and fully operational by early 2020.

Project Location

BOROUGH Bronx	COMMUNITY DISTRICT(S) 1	STREET ADDRESS N/A
TAX BLOCK(S) AND LOT(S) Block 2294, Lot 32; Block 2361, Lots 1, 25, 26, 50; Block 2363, Lot 1		ZIP CODE 10455

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Bounded by Bergen Avenue to the west, Brook Avenue to the east, and the IRT #2 & #5 elevated subway lines to the south (refer to Figure 1).

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-1 and C4-4

ZONING SECTIONAL MAP NUMBER 6a

6. *Required Actions or Approvals* (check all that apply)

***City Planning Commission*:** ☒ YES ☐ NO ☒ UNIFORM LAND USE REVIEW PROCEDURE (ULURP)

- ☐ CITY MAP AMENDMENT
- ☒ ZONING MAP AMENDMENT
- ☐ ZONING TEXT AMENDMENT
- ☐ SITE SELECTION—PUBLIC FACILITY
- ☐ HOUSING PLAN & PROJECT
- ☐ ZONING CERTIFICATION
- ☐ ZONING AUTHORIZATION
- ☐ ACQUISITION—REAL PROPERTY
- ☒ DISPOSITION—REAL PROPERTY
- ☐ OTHER, explain:
- ☐ CONCESSION
- ☒ UDAAP
- ☐ REVOCABLE CONSENT
- ☐ FRANCHISE

☒ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION 74-74

***Board of Standards and Appeals*:** ☐ YES ☒ NO

- ☐ VARIANCE (use)
- ☐ VARIANCE (bulk)
- ☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

***Department of Environmental Protection*:** ☐ YES ☒ NO If "yes," specify:

Other City Approvals Subject to CEQR (check all that apply)

- ☐ LEGISLATION
- ☐ RULEMAKING
- ☐ CONSTRUCTION OF PUBLIC FACILITIES
- ☐ 384(b)(4) APPROVAL
- ☐ OTHER, explain:
- ☒ FUNDING OF CONSTRUCTION, specify: See Attachment A, "Project Description"
- ☐ POLICY OR PLAN, specify:
- ☐ FUNDING OF PROGRAMS, specify:
- ☐ PERMITS, specify:

Other City Approvals Not Subject to CEQR (check all that apply)

- ☐ PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC)
- ☐ LANDMARKS PRESERVATION COMMISSION APPROVAL
- ☐ OTHER, explain:

***State or Federal Actions/Approvals/Funding*:** ☒ YES ☐ NO If "yes," specify: Construction funding from HDC, HFA, HCR, and HUD sources

7. *Site Description:* *The directly affected area consists of the project site and the area subject to any change in regulatory controls. Except where otherwise indicated, provide the following information with regard to the directly affected area.*

***Graphics*:** *The following graphics must be attached and each box must be checked off before the EAS is complete. Each map must clearly depict the boundaries of the directly affected area or areas and indicate a 400-foot radius drawn from the outer boundaries of the project site. Maps may not exceed 11 x 17 inches in size and, for paper filings, must be folded to 8.5 x 11 inches.*

- ☒ SITE LOCATION MAP
- ☒ ZONING MAP
- ☒ SANBORN OR OTHER LAND USE MAP
- ☒ TAX MAP
- ☐ FOR LARGE AREAS OR MULTIPLE SITES, A GIS SHAPE FILE THAT DEFINES THE PROJECT SITE(S)
- ☒ PHOTOGRAPHS OF THE PROJECT SITE TAKEN WITHIN 6 MONTHS OF EAS SUBMISSION AND KEYED TO THE SITE LOCATION MAP

Physical Setting (both developed and undeveloped areas)

Total directly affected area (sq. ft.): Approx. 186,493 sf

Waterbody area (sq. ft) and type: 0 sf

Roads, buildings, and other paved surfaces (sq. ft.): Approx. 62,647 sf

Other, describe (sq. ft.): Approx. 123,846 sf of vacant land

8. *Physical Dimensions and Scale of Project* (if the project affects multiple sites, provide the total development facilitated by the action)

SIZE OF PROJECT TO BE DEVELOPED (gross square feet): Approx. 1,116,800 gsf (total gsf assumed for analysis)

NUMBER OF BUILDINGS: 5

GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): See Table 1 (attached)

HEIGHT OF EACH BUILDING (ft.): See Table 1 (attached)

NUMBER OF STORIES OF EACH BUILDING: See Table 1 (attached)

Does the proposed project involve changes in zoning on one or more sites? ☒ YES ☐ NO

If "yes," specify: The total square feet owned or controlled by the applicant: Approx. 186,493 sf
The total square feet not owned or controlled by the applicant: Approx. 2,500 sf (estimate)

Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading? ☒ YES ☐ NO

If "yes," indicate the estimated area and volume dimensions of subsurface permanent and temporary disturbance (if known):

AREA OF TEMPORARY DISTURBANCE: 139,705 sq. ft. (width x length) VOLUME OF DISTURBANCE: 2,933,805 cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: 139,705 sq. ft. (width x length)

Description of Proposed Uses (please complete the following information as appropriate)

	Residential	***Commercial***	***Community Facility***	***Industrial/Manufacturing***
Size (in gross sq. ft.)	909,300 gsf	46,800 gsf	160,700 gsf	N/A
Type (*e.g.,* retail, office, school)	832 affordable units	Local retail and commercial	160 supportive housing units, YMCA, non-profits	N/A

Does the proposed project increase the population of residents and/or on-site workers? ☒ YES ☐ NO

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 2,656 NUMBER OF ADDITIONAL WORKERS: 389 (387 compared to No-Action)

Provide a brief explanation of how these numbers were determined: Assumes 3.0 persons per affordable DU (based on 2010 U.S. Census data for Bronx Community District 1), 1 person per supportive unit, 1 worker per 25 affordable DUs, 25 workers per 160 supportive DUs, 1 worker per 450 sf community facility space, 3 workers per 1,000 sf commercial space, and 1 worker per 50 parking spaces. See Table 2 (attached).

Does the proposed project create new open space? ☒ YES ☐ NO If "yes," specify size of project-created open space:
Approximately 1.26 acres (55,151 sf) of public open space including a courtyard, skate park, rooftop farm, and other public open space. Approximately 1.19 acres (51,906 sf) of private open space would also be provided. sq. ft.

Has a No-Action scenario been defined for this project that differs from the existing condition? ☐ YES ☒ NO

If "yes," see Chapter 2, "Establishing the Analysis Framework" and describe briefly:

9. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2020

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 45

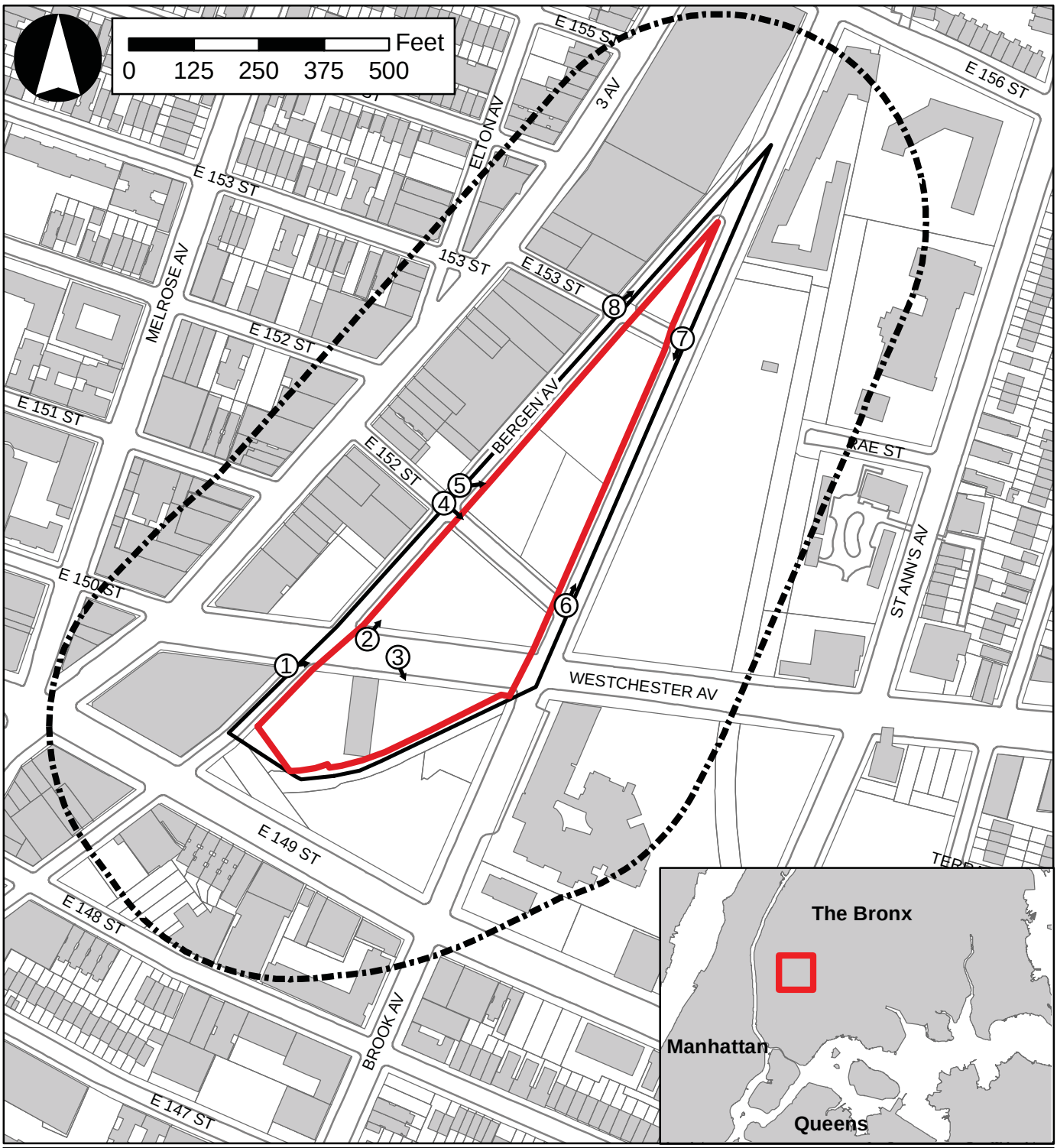
WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☐ YES ☒ NO IF MULTIPLE PHASES, HOW MANY? 2 overlapping phases

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: See Attachment L, "Construction"

10. *Predominant Land Use in the Vicinity of the Project* (check all that apply)

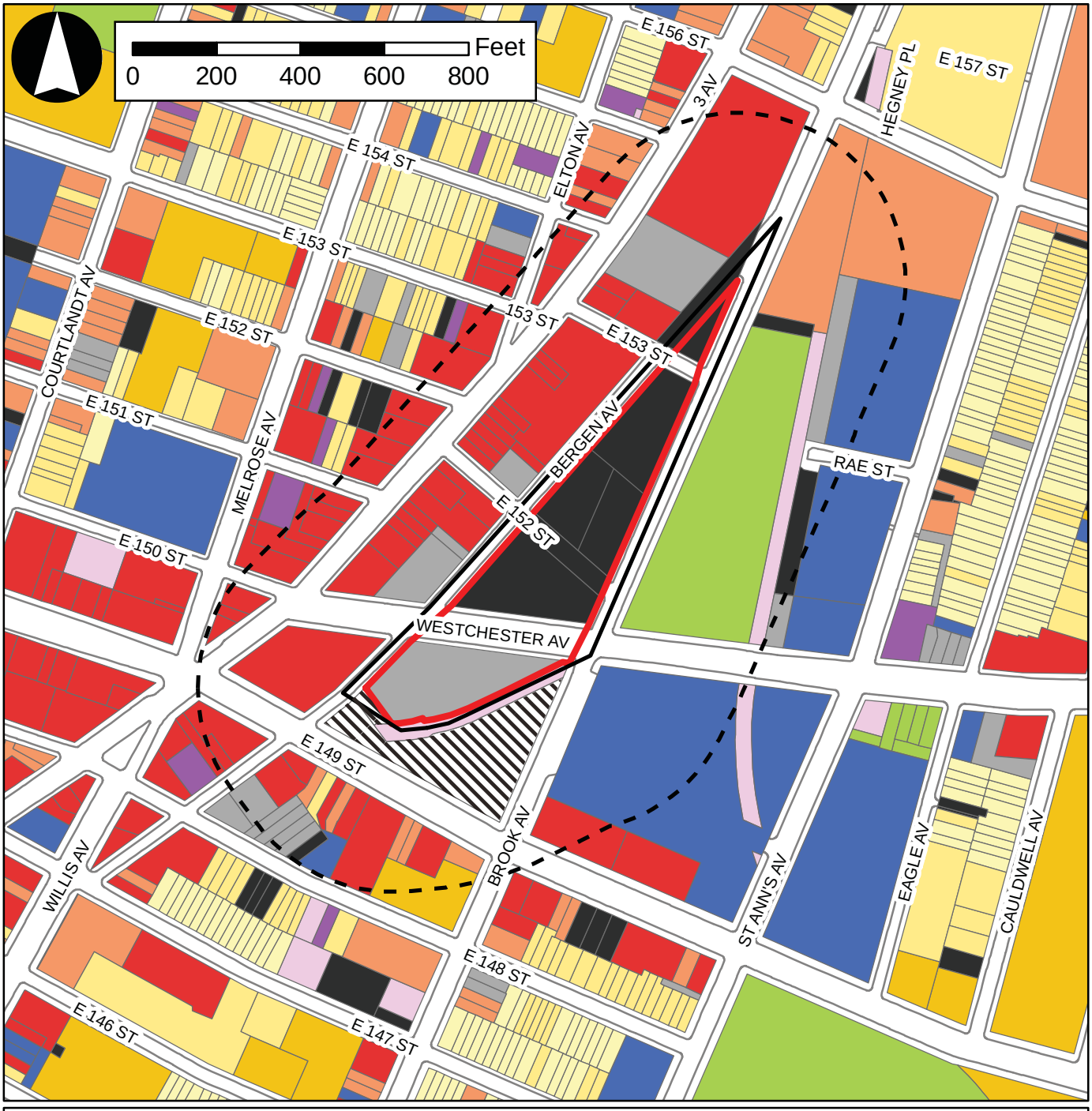
☒ RESIDENTIAL ☐ MANUFACTURING ☒ COMMERCIAL ☒ PARK/FOREST/OPEN SPACE ☒ OTHER, specify: Institutional; Parking; Vacant

Figure 1
Project Location



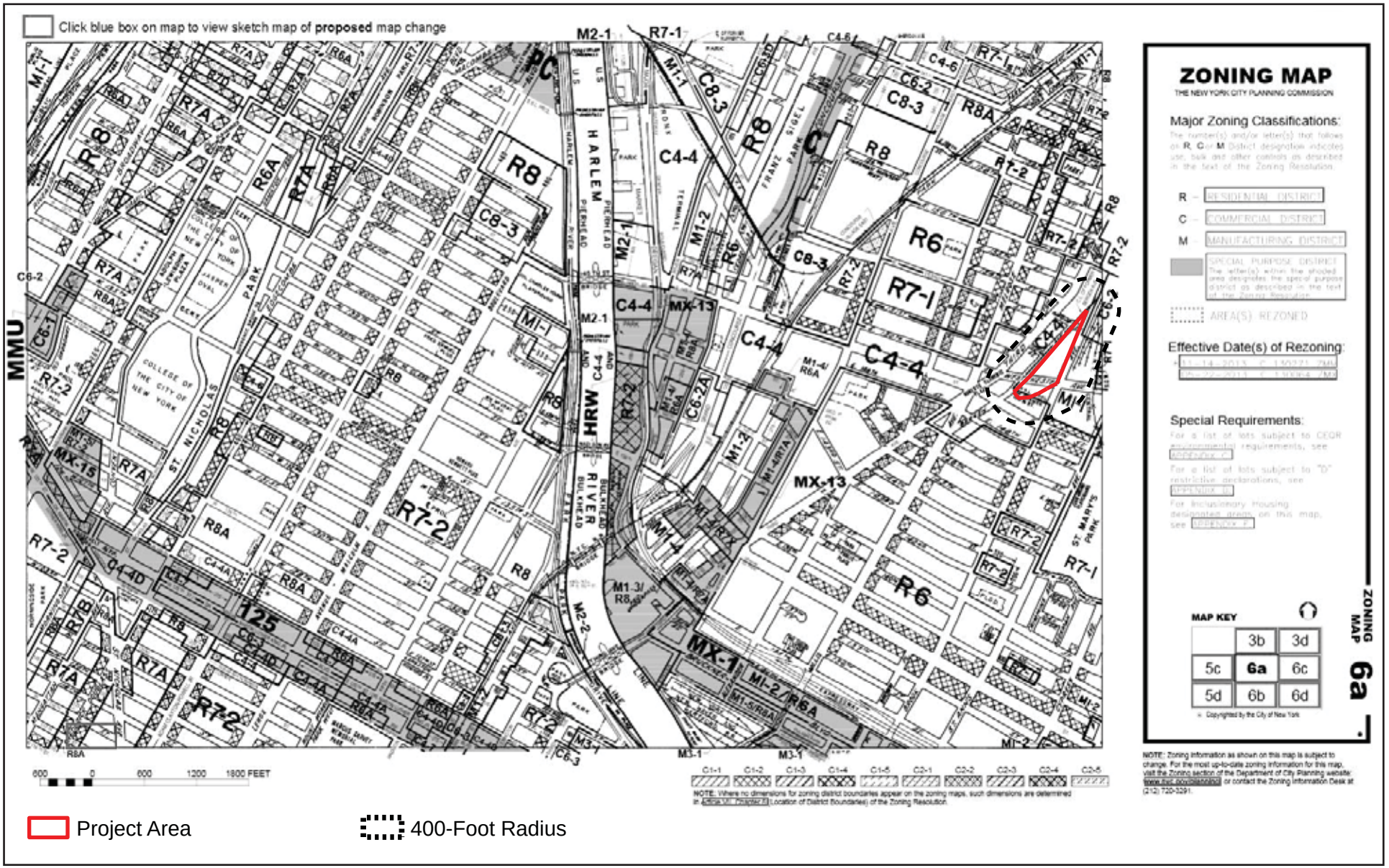
Legend

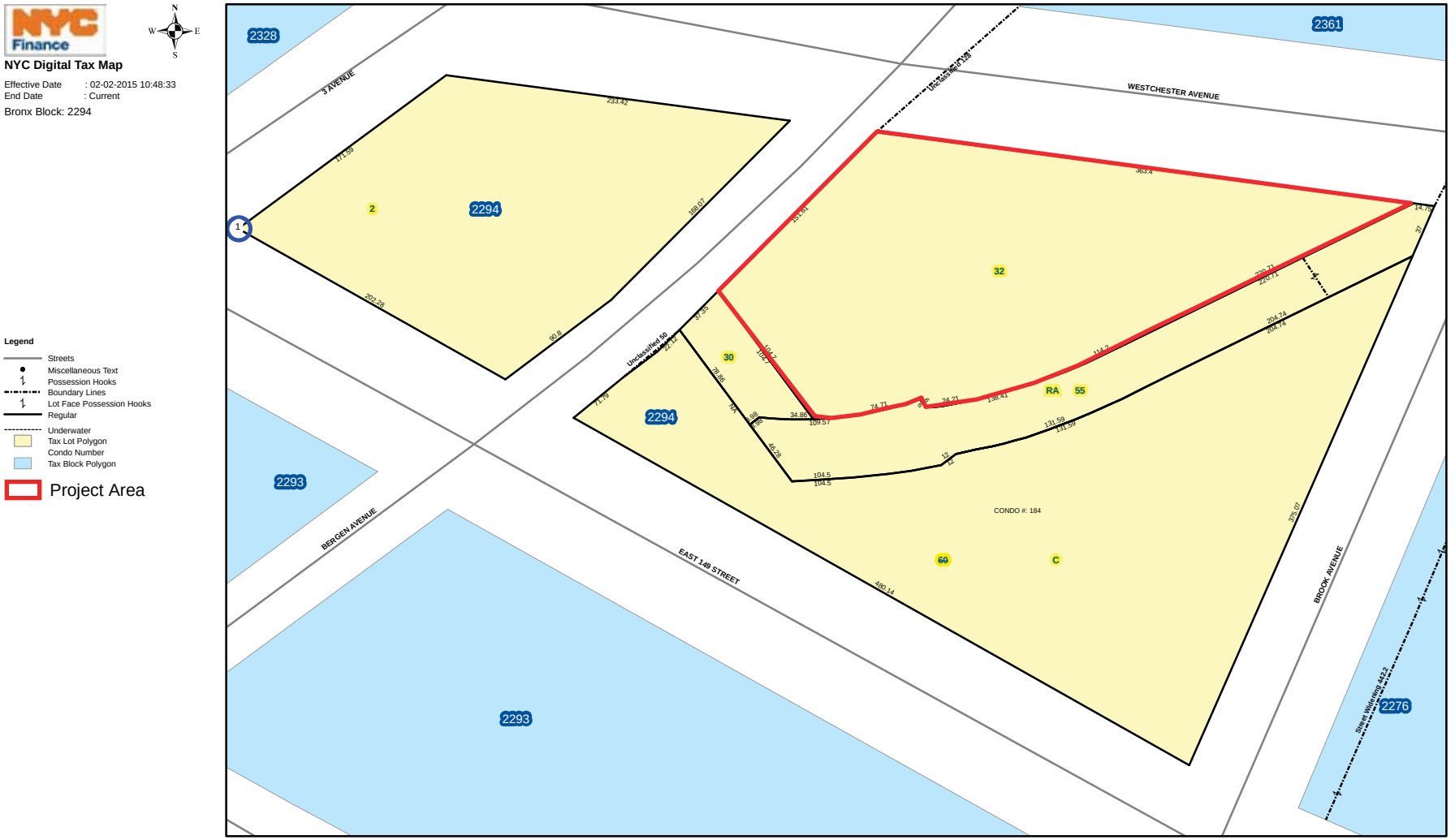
- Project Area
- Proposed Rezoning Area
- 400-Foot Radius
- ① Photo Locations (Figure 5)



Legend

- Project Area
- Proposed Rezoning Area
- 400-Foot Radius
- One & Two Family Buildings
- Multi-Family Walkup Buildings
- Multi-Family Elevator Buildings
- Mixed Commercial/Residential Buildings
- Commercial/Office Buildings
- Industrial/Manufacturing
- Transportation/Utility
- Public Facilities & Institutions
- Open Space
- Parking Facilities
- Vacant Land
- Under Construction

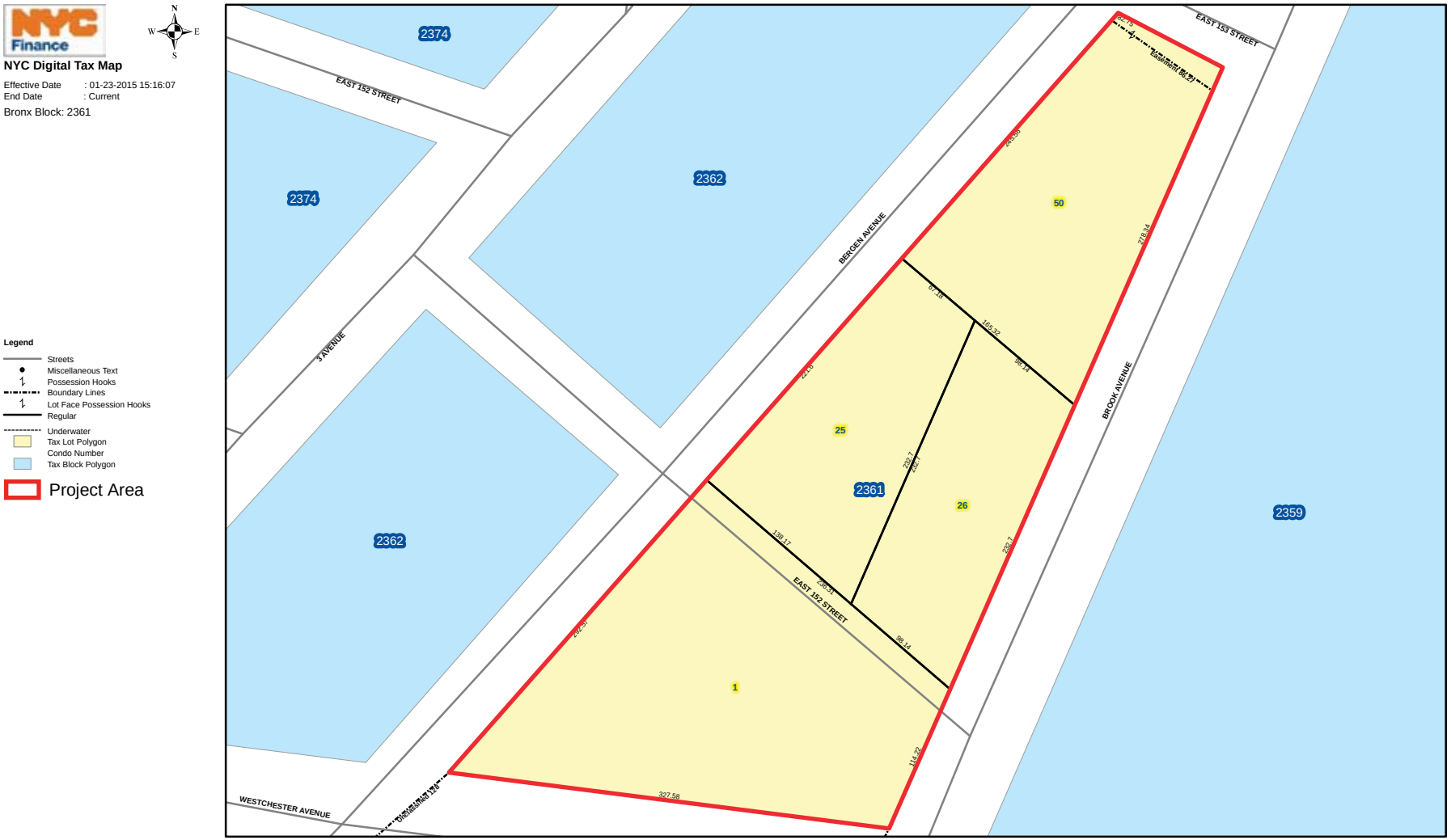

Click blue box on map to view sketch map of proposed map change
ZONING MAP
THE NEW YORK CITY PLANNING COMMISSION
Major Zoning Classifications:
R – RESIDENTIAL DISTRICT
C – COMMERCIAL DISTRICT
M – MANUFACTURING DISTRICT
SPECIAL PURPOSE DISTRICT
AREA(S) REZONED
Effective Date(s) of Rezoning:
Special Requirements:
MAP KEY
3b 3d
5c 6a 6c
5d 6b 6d
ZONING MAP 6a
NOTE: Zoning information as shown on this map is subject to change. For the most up-to-date zoning information for this map, visit the Zoning section of the Department of City Planning website (www.nyc.gov/planning) or contact the Zoning Information Desk at (212) 720-3291.
600 0 600 1200 1800 FEET
Project Area
400-Foot Radius



La Central EAS

Figure 4a

Tax Map - Block 2294


NYC Finance
NYC Digital Tax Map
Effective Date : 01-23-2015 15:16:07
End Date : Current
Bronx Block: 2361
N
W
E
S
Legend
Streets
Miscellaneous Text
Possession Hooks
Boundary Lines
Lot Face Possession Hooks
Regular
Underwater
Tax Lot Polygon
Condo Number
Tax Block Polygon
Project Area
2374
2362
2361
2359
EAST 152 STREET
EAST 153 STREET
3 AVENUE
BERGEN AVENUE
BROOK AVENUE
WESTCHESTER AVENUE
1
25
26
50
Feet
0 5 10 20 30 40

La Central EAS

Figure 4c

Tax Map - Block 2363

1. View looking east from Westchester Av./Bergen Av.

2. View looking north from Westchester Av.

3. View looking south from Westchester Av.

4. View looking east on E.152nd St. from Bergen Av.

5. View looking east from Bergen Av./E.152nd St.

6. View looking north on Brook from E.152nd St.

7. View looking south from Brook Av./E.153rd St.

8. View looking northeast from Bergen Av./E.153rd St.

Table 1: Physical Dimensions of Proposed Project

Building	Size	Height	Number of Stories
A	301,000 gsf[1]	125 feet	12
B	338,700 gsf	125 feet	13
C	162,500 gsf	125 feet	13
D	89,200 gsf	93 feet	9
E	225,400 gsf	249 feet	25
TOTAL	1,116,800 gsf	**--**	--

Notes:

[1] Includes below-grade YMCA

Table does not include parking floor area

Refer to Figure A-7 in Attachment A, "Project Description" for a conceptual site plan with proposed building locations

Table 2: Projected On-Site Residents and Workers

Proposed Use	Estimated Residents[1]	Estimated Workers[2]
832 Affordable DUs	2,496	33
160 Supportive DUs	160	25
46,800 gsf Commercial	0	141
83,200 gsf Community Facility	0	185
262 Parking Spaces	0	5
TOTAL	**2,656**	**389**

Notes:

1. Resident estimates based on the following rates:

Affordable DUs: 3 persons per household (2010 Census, Bronx CD1);

Supportive DUs: 1 person per supportive unit (Common Ground)

2. Worker estimates based on the following rates:

1 worker per 25 affordable DUs; 25 workers per 160 supportive units; 3 workers per 1,000 sf retail space; 1 worker per 450 sf community facility space; 1 worker per 50 parking spaces

Part II: TECHNICAL ANALYSIS

INSTRUCTIONS: For each of the analysis categories listed in this section, assess the proposed project's impacts based on the thresholds and criteria presented in the CEQR Technical Manual. Check each box that applies.

- If the proposed project can be demonstrated not to meet or exceed the threshold, check the "no" box.
- If the proposed project will meet or exceed the threshold, or if this cannot be determined, check the "yes" box.
- For each "yes" response, provide additional analyses (and, if needed, attach supporting information) based on guidance in the CEQR Technical Manual to determine whether the potential for significant impacts exists. Please note that a "yes" answer does not mean that an EIS must be prepared—it means that more information may be required for the lead agency to make a determination of significance.
- The lead agency, upon reviewing Part II, may require an applicant to provide additional information to support the Short EAS Form. For example, if a question is answered "no," an agency may request a short explanation for this response.

	YES	NO
1. *LAND USE, ZONING, AND PUBLIC POLICY*: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	☒	☐
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	☒	☐
(c) Is there the potential to affect an applicable public policy?	☒	☐
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach. See Attachment C.		
(e) Is the project a large, publicly sponsored project?	☒	☐
○ If "yes," complete a PlaNYC assessment and attach. See Attachment C.		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?	☐	☒
○ If "yes," complete the Consistency Assessment Form.		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
○ Generate a net increase of 200 or more residential units?	☒	☐
○ Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
○ Directly displace more than 500 residents?	☐	☒
○ Directly displace more than 100 employees?	☐	☒
○ Affect conditions in a specific industry?	☐	☒
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
○ Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, hospitals and other health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
○ **Child Care Centers:** Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☒	☐
○ **Libraries:** Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6)	☒	☐
○ **Public Schools:** Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6)	☒	☐
○ **Health Care Facilities and Fire/Police Protection:** Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the proposed project change or eliminate existing open space?	☐	☒
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
○ If "yes," would the proposed project generate more than 50 additional residents or 125 additional employees?	☐	☐
(c) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
○ If "yes," would the proposed project generate more than 350 additional residents or 750 additional employees?	☐	☐
(d) If the project in located an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	☒	☐

	YES	NO
5. *SHADOWS*: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☒	☐
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☒	☐
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☐	☒
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. See Attachment B.		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
○ If "yes," list the resources and attach supporting information on whether the proposed project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☐	☒
○ If "yes," complete the Jamaica Bay Watershed Form, and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☒	☐
(b) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☒	☐
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☒	☐
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☒	☐
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☒	☐
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: See Attachment B.	☒	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☒	☐
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than the amounts listed in Table 13-1 in Chapter 13?	☐	☒
(d) Would the proposed project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☒

	YES	NO
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week): 58,146 pounds per week		
○ Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	☐	☒
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	☐	☒
12. *ENERGY*: CEQR Technical Manual Chapter 15		
(a) Using energy modeling or Table 15-1 in Chapter 15, the project's projected energy use is estimated to be (annual BTUs): 156,008,640 BTUs		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☒	☐
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following questions:		
○ Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☒	☐
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☒	☐
○ Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	☒	☐
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway trips per station or line?	☒	☐
○ Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☒	☐
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	☒	☐
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☒	☐
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed) See Attachment J.	☒	☐
(c) Does the proposed project involve multiple buildings on the project site?	☒	☐
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	☐	☐
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☒	☐
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☒	☐
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒

	YES	NO
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☒	☐
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary. The Proposed Actions do not have the potential to result in significant adverse impacts to air quality, hazardous materials, or noise. Nor would the Proposed Actions result in a combination of moderate effects to several elements that cumulatively may affect public health. Therefore, an assessment of public health is not warranted.		
18. *NEIGHBORHOOD CHARACTER*: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	☒	☐
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary. See Attachment B, "Supplemental Screening."		
19. *CONSTRUCTION*: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
○ Construction activities lasting longer than two years?	☒	☐
○ Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	☐	☒
○ Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, *etc.*)?	☒	☐
○ Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	☒	☐
○ The operation of several pieces of diesel equipment in a single location at peak construction?	☒	☐
○ Closure of a community facility or disruption in its services?	☐	☒
○ Activities within 400 feet of a historic or cultural resource?	☐	☒
○ Disturbance of a site containing or adjacent to a site containing natural resources?	☐	☒
○ Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall?	☒	☐
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in Chapter 22, "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination. As the Proposed Actions would result in construction activity lasting longer than two years, a detailed construction assessment has been prepared and is provided as Attachment L, "Construction."		

20. *APPLICANT'S CERTIFICATION*

I swear or affirm under oath and subject to the penalties for perjury that the information provided in this Environmental Assessment Statement (EAS) is true and accurate to the best of my knowledge and belief, based upon my personal knowledge and familiarity with the information described herein and after examination of the pertinent books and records and/or after inquiry of persons who have personal knowledge of such information or who have examined pertinent books and records.

Still under oath, I further swear or affirm that I make this statement in my capacity as the applicant or representative of the entity that seeks the permits, approvals, funding, or other governmental action(s) described in this EAS.

APPLICANT/REPRESENTATIVE NAME	DATE
Philip Habib, P.E.	October 5, 2015

SIGNATURE

PLEASE NOTE THAT APPLICANTS MAY BE REQUIRED TO SUBSTANTIATE RESPONSES IN THIS FORM AT THE DISCRETION OF THE LEAD AGENCY SO THAT IT MAY SUPPORT ITS DETERMINATION OF SIGNIFICANCE.

Part III: DETERMINATION OF SIGNIFICANCE (To Be Completed by Lead Agency)

INSTRUCTIONS: In completing Part III, the lead agency should consult 6 NYCRR 617.7 and 43 RCNY § 6-06 (Executive Order 91 or 1977, as amended), which contain the State and City criteria for determining significance.

1. For each of the impact categories listed below, consider whether the project may have a significant adverse effect on the environment, taking into account its (a) location; (b) probability of occurring; (c) duration; (d) irreversibility; (e) geographic scope; and (f) magnitude.

IMPACT CATEGORY	Potentially Significant Adverse Impact YES	NO
Land Use, Zoning, and Public Policy	☐	☒
Socioeconomic Conditions	☐	☒
Community Facilities and Services	☒	☐
Open Space	☐	☒
Shadows	☐	☒
Historic and Cultural Resources	☐	☒
Urban Design/Visual Resources	☐	☒
Natural Resources	☐	☒
Hazardous Materials	☐	☒
Water and Sewer Infrastructure	☐	☒
Solid Waste and Sanitation Services	☐	☒
Energy	☐	☒
Transportation	☒	☐
Air Quality	☐	☒
Greenhouse Gas Emissions	☐	☒
Noise	☐	☒
Public Health	☐	☒
Neighborhood Character	☒	☐
Construction	☐	☒

2. Are there any aspects of the project relevant to the determination of whether the project may have a significant impact on the environment, such as combined or cumulative impacts, that were not fully covered by other responses and supporting materials? ☒ YES ☐ NO

If there are such impacts, attach an explanation stating whether, as a result of them, the project may have a significant impact on the environment.

3. Check determination to be issued by the lead agency:

☒ **Positive Declaration:** If the lead agency has determined that the project may have a significant impact on the environment, and if a Conditional Negative Declaration is not appropriate, then the lead agency issues a *Positive Declaration* and prepares a draft Scope of Work for the Environmental Impact Statement (EIS).

☐ **Conditional Negative Declaration:** A *Conditional Negative Declaration* (CND) may be appropriate if there is a private applicant for an Unlisted action AND when conditions imposed by the lead agency will modify the proposed project so that no significant adverse environmental impacts would result. The CND is prepared as a separate document and is subject to the requirements of 6 NYCRR Part 617.

☐ **Negative Declaration:** If the lead agency has determined that the project would not result in potentially significant adverse environmental impacts, then the lead agency issues a *Negative Declaration*. The *Negative Declaration* may be prepared as a separate document (see template) or using the embedded Negative Declaration on the next page.

4. ***LEAD AGENCY'S CERTIFICATION***

TITLE	LEAD AGENCY
Executive Director of Environmental Planning	City of New York - Dept. of Housing Preservation & Development (HPD)
NAME Patrick Blanchfield	DATE 10/5/15
SIGNATURE	

ATTACHMENT A
PROJECT DESCRIPTION

La Central EAS
Attachment A: Project Description

I. INTRODUCTION

The New York City Department of Housing Preservation and Development (HPD), on behalf of the project sponsor La Central Manager, LLC, is seeking approval for several discretionary actions (collectively, the "Proposed Actions") to facilitate the development of an underutilized 4.3-acre site in the Melrose neighborhood of Bronx Community District 1. The Proposed Actions include:

- Disposition of City-owned property as well as designation and approval of the project as an Urban Development Action Area Project (UDAAP)
- Zoning map amendment to change M1-1 and C4-4 districts to C6-2
- Special permit to allow bulk and use modifications for a Large-Scale General Development (LSGD)
- Approval for construction financing

The Proposed Actions would facilitate the development of new affordable and supportive housing, local retail and other commercial uses, community facility uses, and public open space. The triangular-shaped Project Area (Block 2363, Lot 1; Block 2361, Lots 1, 25, 26, 50; Block 2294, Lot 32) is generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and the elevated IRT #2 and #5 subway tracks to the south (see Figures A-1 and A-2). The Proposed Actions would complement the ongoing residential and commercial redevelopment of this area of the South Bronx and enliven a number of large underutilized City-owned sites in close proximity to public transportation.

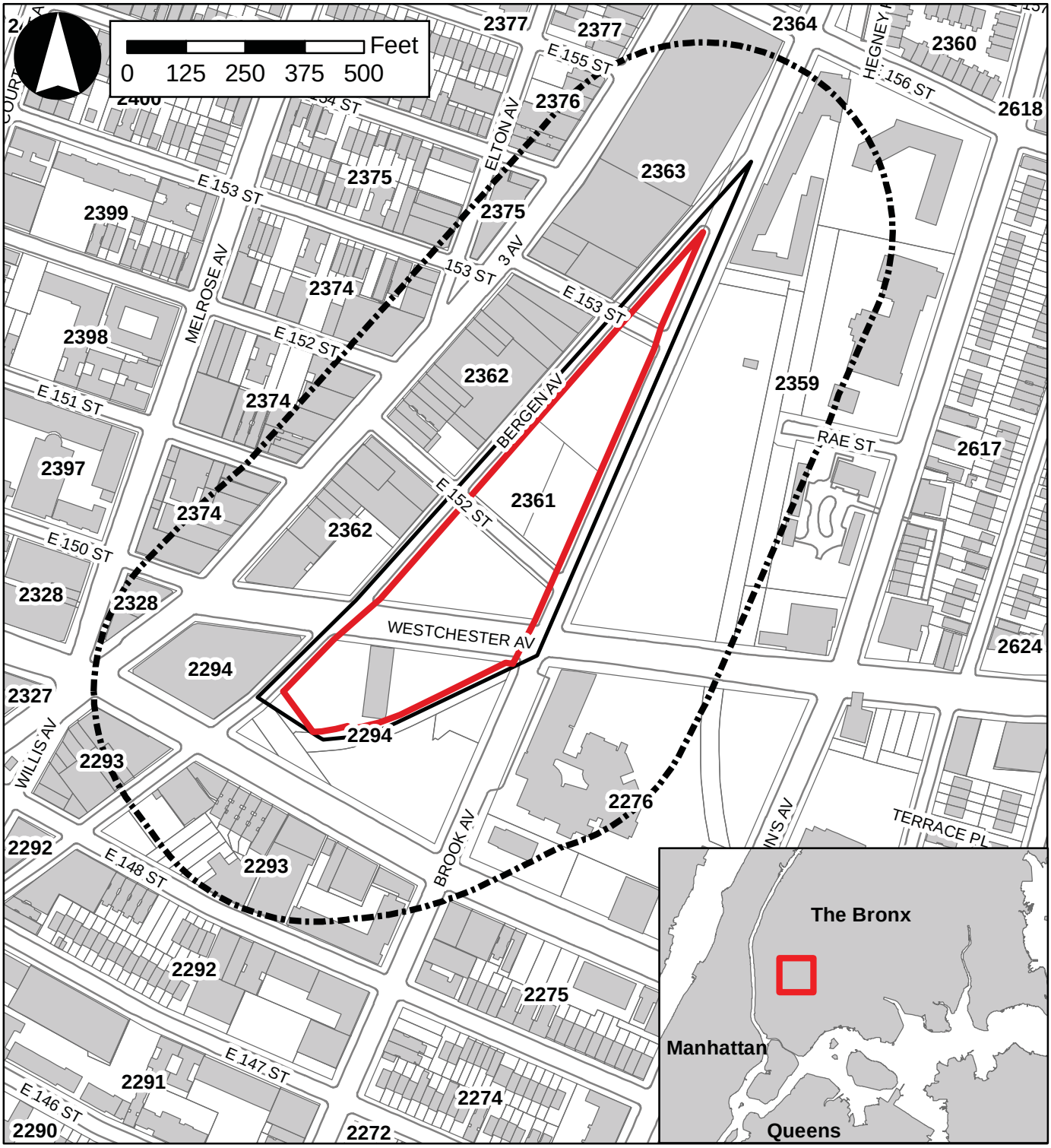
The Proposed Actions would facilitate an approximately 1.1 million gross square foot (gsf), five building mixed-use development (the "Proposed Project") consisting of approximately 832 affordable dwelling units (DUs) (909,300 gsf), approximately 160 supportive housing units (77,500 gsf), approximately 46,800 gsf of local retail and commercial uses, an approximately 50,500 gsf YMCA, and approximately 32,700 gsf of other community facility uses. The Proposed Project would also include up to approximately 262 accessory below-grade parking spaces, a total of approximately 1.26 acres (55,151 sf) of public open space, and a total of approximately 1.19 acres (51,906 sf) of private open space for building tenants. Construction of the Proposed Project is expected to begin in mid-2016 with all components complete and fully operational by early 2020.

This attachment provides a detailed description of the Proposed Actions, including project background, project purpose and need, site description, project description, and the governmental approvals required. The supplemental analyses following this attachment examine the potential for the Proposed Actions to result in significant adverse environmental impacts in any technical area of the 2014 *CEQR Technical Manual*.

II. EXISTING CONDITIONS

Surrounding Area

"The Hub" area of the South Bronx, defined as the point where Third Avenue, Melrose Avenue, Willis Avenue, and East 149th Street intersect, is recognized as the borough's "downtown" regional shopping and



Legend

- Project Area
- Proposed Rezoning Area
- 400-Foot Radius
- **2361** Tax Blocks

La Central EAS

Figure A-2
Aerial View

office district. The area is comprised of many 2- to 4-story commercial buildings that offer a diverse range of retail, dining, and service options. Residential areas are located immediately adjacent to the main commercial thoroughfares, including to the west of Third Avenue and to the south of East 149th Street.

The scale and density of the neighborhood tends to reflect underlying zoning districts. Third Avenue is zoned C4-4 for medium-density commercial uses. Other zoning districts within the surrounding area include C6-2 along Brook Avenue to the north, as well as a number of residential districts (R6, R7-1, R7-2, R8). C1 and C2 commercial overlays, which allow local retail and local service establishments, are mapped along major thoroughfares including portions of Westchester Avenue, East 149th Street, Melrose Avenue, and Cortlandt Avenue. The area is also well-served by public transportation, including the IRT #2 and #5 subway lines and several New York City Transit (NYCT) bus routes, including the Bx41 Select Bus Service (SBS).

There are a number of public facilities and institutions located in the surrounding area including the Mott Haven Village Preparatory High School, University Heights High School, Crotona Academy High School, the United States Hub Station Post Office, all of which are located on St. Ann's Avenue to the east of the Project Area. To the south of these institutions is the Horizon Juvenile Center on Brook Avenue, a self-contained juvenile detention facility with approximately 124 beds. Open spaces in the surrounding area include the Merrill Lynch Field of Dreams, St. Ann's Block Association Garden, and St. Mary's Park.

Project Area

The Project Area is comprised of an assemblage of three zoning lots (Parcels A, B, C) containing six City-owned tax lots (Block 2363, Lot 1; Block 2361, Lots 1, 25, 26, 50; Block 2294, Lot 32). The Project Area is generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and elevated IRT #2 and #5 subway tracks to the south. The area is primarily zoned M1-1 except for the southern portion of Block 2294, which is zoned C4-4 on East 149th Street (see Figure A-3). The Project Area measures approximately 186,493 sf in area and has an existing built FAR of approximately 0.06.

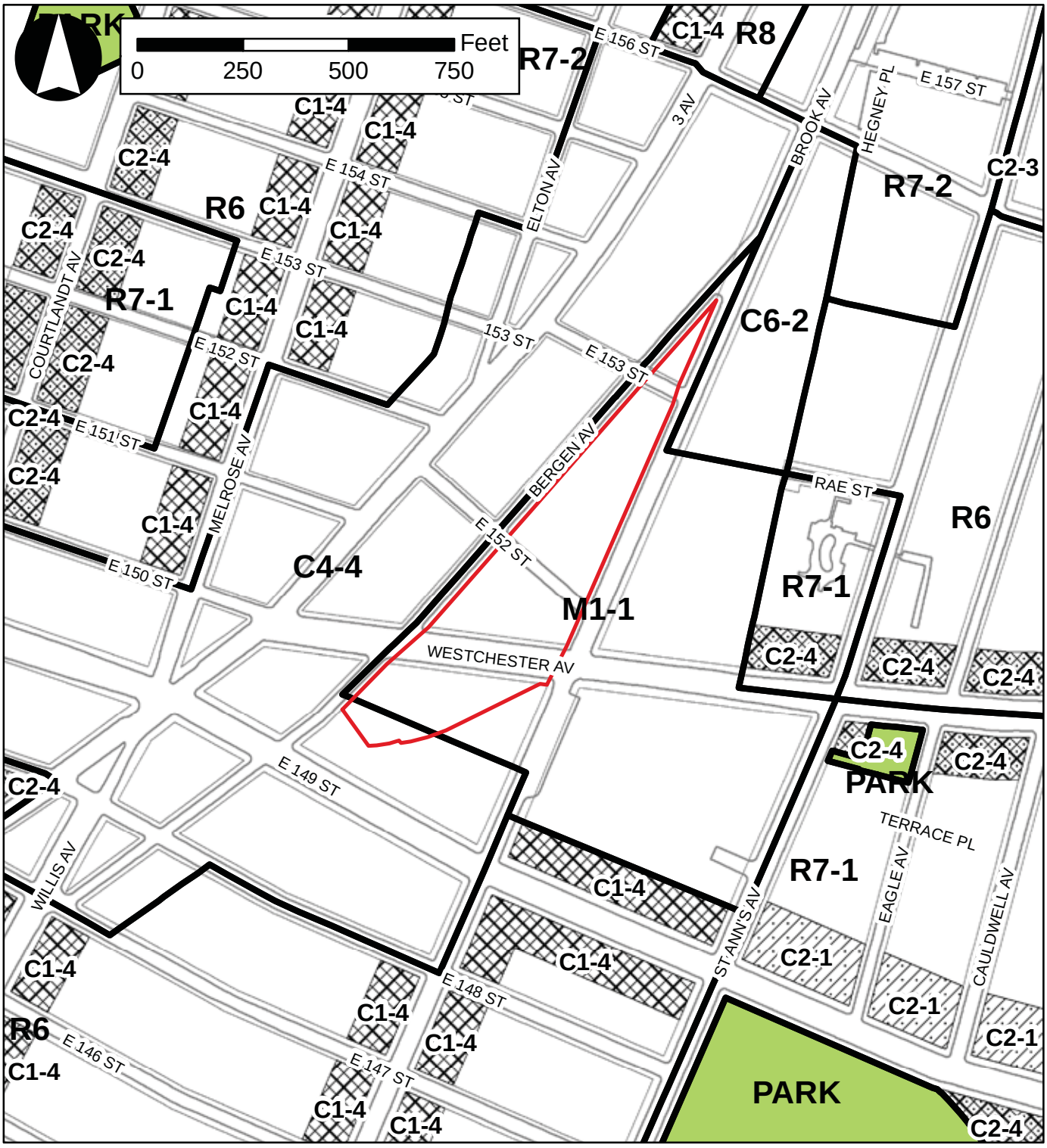
Parcel A (Block 2361, Lots 1, 25, 26, 50) has frontage on East 152nd Street (demapped in 1975 but currently open to traffic), East 153rd Street, Bergen Avenue, Brook Avenue, and Westchester Avenue (see Figure A-4). The parcel has a total area of approximately 128,808 sf (including the approximately 1,003 sf portion of the East 153rd Street widening easement) and is currently vacant with the exception of the demapped East 152nd Street which extends between Bergen and Brook Avenues as a functioning one-way westbound street with parking on both the north and south sides. A New York City Department of Environmental Protection (DEP) sewer easement is mapped within the demapped portion of East 152nd Street.

Parcel B (Block 2294, Lot 32) is located across Westchester Avenue to the south of Parcel A (see Figure A-4). The parcel has an area of approximately 50,551 sf with frontage on Bergen and Westchester Avenues. The parcel is currently occupied by two at-grade public parking lots and a vacant two-story building at 438 Westchester Avenue.

Parcel C (Block 2363, Lot 1) measures approximately 7,134 sf in area and has frontage on East 153rd Street, Bergen Avenue, and Brook Avenue (see Figure A-4). The parcel is enclosed by chain link fencing and is currently vacant. Adjacent to Parcel C between Bergen and Brook Avenues is a mapped but unimproved 1,152 sf portion of the East 153rd Street widening easement.

III. DESCRIPTION OF THE PROPOSED ACTIONS

The Proposed Actions include the disposition of City-owned property, designation and approval of the project as an Urban Development Action Area Project (UDAAP), zoning map amendment, and a special



Legend

- Project Area
- Zoning District
- Park
- C1-4 Commercial Overlay
- C2-1
- C2-4 Commercial Overlay

La Central EAS

Figure A-4

East 153rd Street Widening Easement Boundaries

permit for a Large-Scale General Development (LSGD). In addition, the project sponsor may also seek approval for construction financing. These actions are detailed below.

Disposition of City-Owned Land & Urban Development Action Area Project

The applicant, on behalf of the project sponsor, is seeking disposition authority for a number of City-owned properties (Block 2363, Lot 1; Block 2361, Lots 1, 25, 26, 50; Block 2294, Lot 32) to facilitate construction of the proposed development. In conjunction with the disposition, the applicant is also seeking designation of the project as an UDAAP pursuant to Article 16 of the General Municipal Law. Designation of an UDAAP must be authorized by City Council.

Zoning Map Amendment

The Project Area is currently located in two zoning districts: M1-1 and C4-4 (refer to Figure A-3). The proposed zoning map amendment would extend a C6-2 zoning district southward from the east side of Brook Avenue to the Project Area. As shown in Figure A-5, the southernmost boundary of the proposed C6-2 district would be located 90 feet north of East 149th Street. C6 districts are typically located outside of central business districts and permit a wide range of high bulk commercial uses requiring a central location that is well-served by mass transit. C6-2 districts permit commercial uses up to 6.0 FAR, residential uses up to 6.02 FAR, and community facility uses up to 6.5 FAR. There are no maximum building heights and off-street parking is typically not required.

C6-2 districts have a residential district equivalent of R8 and the proposed development would be constructed under height factor regulations. In R8 districts, height factor regulations permit an FAR ranging from 0.94 to 6.02 and an open space ratio (OSR) ranging from 5.9 to 11.9. When utilizing height factor regulations, a taller building may be obtained by providing more open space and there are no absolute height limits. However, buildings cannot penetrate the sky exposure plane, which begins 85' above curb level.

Special Permit for a Large-Scale General Development

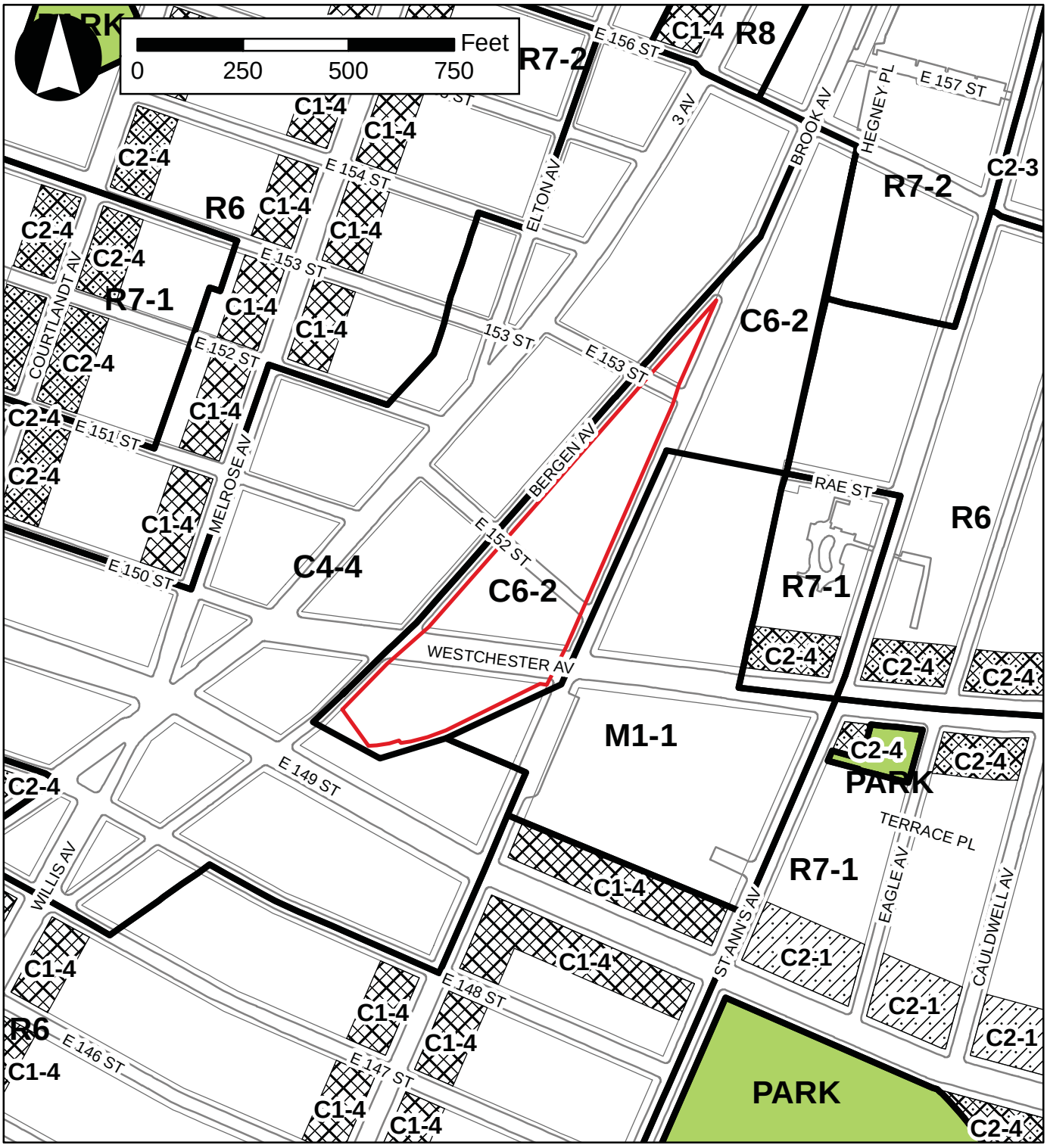
The applicant is seeking a special permit for a LSGD in order to: (1) permit distribution of total allowable floor area and required open space within the LSGD without regard to zoning lot lines pursuant to ZR § 74-743(a)(1); (2) permit location of buildings without regard to applicable yard, court, distance between buildings, and height and setback regulations pursuant to ZR § 74-743(a)(2), and; (3) permit residential and non-residential uses to be arranged without regard for location regulations of ZR § 32-42 pursuant to ZR § 74-744(b).

The proposed special permit would allow greater design flexibility for the purpose of better site planning and urban design. LSGDs are typically located in medium- or high-density commercial or manufacturing districts and uses in an LSGD must adhere to the underlying zoning district. The height, bulk, and setback waivers granted under the LSGD special permit would allow for the creation of more affordable and supportive DUs within the Project Area.

Public Financing

In addition, the project sponsor may seek construction financing for one or more parcels from city, state, and federal sources. At the city level, funding may be requested from HPD the New York City Housing Development Corporation (HDC) at a future date. At the state level, funding may be requested from the New York State Housing Finance Agency (NYSHFA) in the form of tax exempt bonds, an as-of-right four percent low-income housing tax credit (LIHTC) and capital funding, and from the New York State Homeless Housing Assistance Program (HHAP) in the form of a subsidy loan, and from the New York

Figure A-5
Proposed Zoning Map



State Homes and Community Renewal (HCR) through the Medicaid Redesign Team (MRT) Housing Capital Program. Federal sources of funding may include the United States Department of Housing and Urban Development (HUD) financing programs, allocated by HPD.

IV. PURPOSE AND NEED FOR THE PROPOSED ACTIONS

The requested disposition of City-owned property, UDAAP designation, zoning map amendment, special permit for a LSGD, and public financing approval are intended to provide the flexibility needed to develop a substantial amount of much needed affordable and supportive housing (832 affordable units and 160 supportive units), local retail and other commercial uses, community facility uses, and open space compared to what would be allowed under existing conditions. The Proposed Actions would therefore support the City's goals of creating new housing by maximizing the use of vacant City-owned land and continuing the economic redevelopment of this area of the South Bronx. The Proposed Project is also intended to create new jobs (approximately 387 permanent on-site workers[1], excluding construction workers).

The Proposed Actions would help address specific needs of the local community including the provision of affordable housing units, retail, community facility, and open space uses, and would enliven the underutilized Project Area. The Proposed Project would provide 832 affordable DUs, approximately 53 percent of which are expected to contain two to four bedrooms for larger families, reflecting the demographic trends and needs of the area.[2] Furthermore, the proposed mixed-use project would activate long-vacant City-owned sites located along major thoroughfares in close proximity to public transportation and Third Avenue, extending the commercial corridor and pedestrian activity of the Hub eastward.

V. DESCRIPTION OF PROPOSED DEVELOPMENT

The Proposed Actions are intended to facilitate an approximately 1.1 million gsf, five building mixed-use development (referred to as Buildings A through E) consisting of approximately 832 affordable DUs (909,300 gsf), approximately 160 supportive housing units (77,500 gsf), approximately 46,800 gsf of local retail and commercial uses, an approximately 50,500 gsf YMCA, and approximately 32,700 gsf of other community facility uses. The Proposed Project is also expected to include up to approximately 262 accessory parking spaces, an approximately 41,002 sf courtyard open space (32,481 sf public, 8,521 sf private), an approximately 7,134 sf public skate park (operated and maintained by the project sponsor), an approximately 7,625 sf public rooftop farm, approximately 7,911 sf of additional public open space, and approximately 43,385 sf of private rooftop and terrace open space. These uses are discussed in greater detail below.

The proposed 832 DUs of affordable housing are anticipated to be marketed to households earning between 30 percent and 100 percent of Area Median Income (AMI). Approximately 53 percent of theses DUs would have two to four bedrooms (865 sf to 1,465 sf units) in order to accommodate families. The 160 supportive housing units are anticipated to be studio apartments for seniors living with HIV/AIDS, single veterans, and individuals earning less than 60 percent of AMI. One of the affordable housing units would be reserved for the supportive housing superintendent. The supportive housing units would be managed by non-profit service providers Common Ground and Comunilife.

At this time, community facility uses at the project site are expected to include supportive housing units (treated as community facility with sleeping accommodations per the NYC Zoning Resolution) and approximately 83,200 gsf of other uses, that as currently anticipated will include: approximately 7,300 gsf

[1] Refer to Table 2 in the EAS Form for employee generation details.
[2] The average household size for Bronx Community District 1 is 3.0 persons per household (based on 2010 U.S. Census data).

of office space for Common Ground (Building D); an approximately 50,500 gsf YMCA (Building A); approximately 2,400 gsf associated with a public rooftop farm (Building A); an approximately 8,300 gsf day care facility (Building E); an approximately 8,600 gsf recording studio (Building C); and approximately 6,100 gsf of other community facility uses (Buildings D and E). With the exception of an anticipated approximately 12,700 gsf television studio, commercial space throughout the Project Area is anticipated to include predominantly ground-floor local retail.

Open space at the project site is expected to include an approximately 41,002 sf courtyard (32,481 sf public, 8,521 sf private) on Parcel A with grass, trees, plantings, cobblestone pathways, sitting areas, and a playground, as well as an approximately 7,134 sf public skate park on Parcel C, an approximately 7,625 sf public rooftop farm on Parcel A, 7,911 sf of other public open spaces, and a total of approximately 43,385 sf of private rooftop and terrace open space (all five buildings) for building tenants.

Building-by-Building Description

Building A would be located on Parcel B along Bergen and Westchester Avenues (see Figure A-6). The building would rise 12 stories (approximately 125 feet) and would be comprised of approximately 215 DUs (232,700 gsf), 15,400 gsf of local retail and commercial space, and 52,900 gsf of community facility space (see Table A-1). At this time, the building's community facility space is anticipated to be occupied by an approximately 50,500 gsf YMCA and 2,400 gsf associated with a public rooftop farm. The main residential entrance to Building A would be located on Bergen Avenue, while the commercial, retail, and community facility uses would be accessible from Bergen and Westchester Avenues. Figure A-7 provides an illustrative rendering of Building A.

Buildings B, C, D, and E would be located on Parcel A bounded by Bergen Avenue, Brook Avenue, Westchester Avenue, and East 153rd Street (see Figure A-6). Each building would be located towards the edge of the Project Area in order to allow for an approximately 41,002 sf landscaped courtyard in the center of the parcel. The majority of the courtyard would be publicly accessible and each building would have entrances facing the courtyard. A portion of the courtyard would be located along the demapped portion of East 152nd Street between Bergen and Brook Avenues, in order to maintain the below-grade sewer easement. Figure A-7 provides illustrative renderings of these buildings.

Building B would rise to a height of 13 stories (approximately 125 feet) and would have frontage along Bergen, Brook, and Westchester Avenues (see Figure A-6). The building would be comprised of approximately 281 DUs (309,600 gsf) and approximately 29,100 gsf of local retail and commercial space (see Table A-1). At this time, commercial space in Building B is anticipated to be occupied by a television studio, while ground-floor retail space is anticipated to be occupied by local retailers. An underground parking garage with up to approximately 262 accessory parking spaces would be located beneath Building B. The garage would be accessible from Bergen Avenue and would be the only off-street parking option at the project site. Residential entrances to Building B would be located on Brook Avenue and within the courtyard, while local retail and commercial uses would be accessible from Bergen and Westchester Avenues.

Building C would rise to a height of 13 stories (approximately 125 feet) and would have frontage along Brook Avenue (see Figure A-6). The building would be comprised of approximately 137 DUs (153,900 gsf) and approximately 8,600 gsf of community facility space, totaling approximately 162,500 gsf (see Table A-1). At this time, the community facility space is anticipated to be occupied by a recording studio. Residential entrances to Building C would be located along Brook Avenue and within the courtyard, while community facility uses would be accessible from Brook Avenue.

Building D would rise to a height of 9 stories (approximately 93 feet) and would have frontage along Bergen Avenue (see Figure A-6). The building would be primarily comprised of approximately 160 supportive

Courtesy of FXFowle Architects

For Illustrative Purposes Only

Courtesy of FXFowle Architects

For Illustrative Purposes Only

La Central EAS

Figure A-7a

Illustrative Rendering - View Looking Northwest

Courtesy of FXFowle Architects

For Illustrative Purposes Only

La Central EAS

Figure A-7b

Illustrative Rendering - View Looking Southwest from across Brook Avenue

housing units and one superintendent's unit (77,500 gsf total) anticipated to be operated by non-profit social service providers Common Ground and Comunilife. Building D would also include approximately 4,400 gsf of other community facility uses on the first floor and approximately 7,300 gsf of office space assumed for Common Ground on the second floor (see Table A-1). Entrances to supportive housing would be located along Bergen Avenue and within the courtyard, while the ground floor community facility space and office spaces would be accessible from Bergen Avenue.

Building E would have frontage along Bergen Avenue, Brook Avenue, and East 153rd Street (see Figure A-6). At a height of 25 stories (approximately 249 feet) it would be the tallest of the five proposed buildings. Building E would be comprised of approximately 198 DUs (213,100 gsf), approximately 2,300 gsf of local retail and commercial space, and approximately 10,000 gsf of community facility space (see Table A-1). At this time, ground-floor retail space is anticipated to be occupied by local retailers and the community facility space is anticipated to be occupied by a day care facility and other community facility uses. Residential entrances would be located on Brook Avenue and the south side of the building facing the courtyard, while the retail and community facility uses would be accessible from East 153rd Street and Bergen/Brook Avenues, respectively.

Table A-1
Proposed Development Program[1]

Building	GSF Above Grade	GSF Below Grade[2]	Total GSF	Community Facility GSF	Commercial GSF	Residential GSF	DUs[3]	Accessory Parking Spaces	Accessory Parking & Loading GSF	Building Height (ft)
A	265,240	35,760	301,000	52,900	15,400[4]	232,700	215	0	0	125
B	338,700	0	338,700	0	29,100	309,600	281	262	37,580	125
C	162,500	0	162,500	8,600	0	153,900	137	0	0	125
D	89,200	0	89,200	89,200[5]	0	0	1	0	0	93
E	225,400	0	225,400	10,000	2,300	213,100	198	0	0	249
Total	**1,081,040**	**35,760**	**1,116,800**	**160,700[5]**	**46,800**	**909,300**	**832[3]**	**262**	**37,580**	

[1] Table A-1 does not include a breakdown of open space, which includes 1.26 acres (55,151 sf) of public open space.
[2] Includes YMCA. Does not include accessory parking or storage and building support space.
[3] Does not include supportive housing units (Use Group 3 non-profit institution with sleeping accommodations), but does include superintendent's unit in Building D.
[4] Includes 600 sf of permitted loading.
[5] Community facility space includes 160 supportive housing units.

Each building would possess private landscaped green roofs for building residents. These private open spaces would include trees, plantings, benches, tables, and chairs. At this time it is anticipated that solar panels would be located on some rooftops of the proposed development to help offset energy demands (see Figure A-7).

Project-Related Environmental Measures

Measures to ensure that no significant adverse impacts related to hazardous materials, air quality, and noise would occur as a result of the Proposed Actions would be incorporated into the Proposed Project. These measures would be incorporated into the design, construction, and/or operation of the Proposed Project and since the Project Area is currently City-owned, HPD would require the project sponsor implement these measures to the satisfaction of the City through the Land Disposition Agreement (LDA) between HPD and the project sponsor.

As detailed in Attachment B, "Supplemental Screening," due to the potential presence of hazardous materials in the Project Area, the LDA between HPD and the project sponsor would require that Phase II testing be performed for all parcels of the Project Area, including DEP review and approval of a workplan/Health and Safety Plan (HASP) prior to such testing. In addition, if remediation is warranted for one or more parcels/phases, a Remedial Action Plan (RAP) and associated Construction Health and Safety Plan (CHASP), subject to review and approval by HPD and DEP. Finally, at the conclusion of construction

and prior to occupancy of the new buildings, a Professional Engineer (P.E.)-certified Closure Report must be reviewed and approved by HPD and DEP to ensure the required remedial measures were implemented and the new buildings are suitable for occupancy.

The proposed new buildings are expected to include natural gas-burning heating, ventilation, and air conditioning (HVAC) systems, as well as small cogeneration units for certain proposed buildings. To avoid the potential for significant adverse impacts related to stationary source PM2.5 air quality impacts, the LDA between HPD and the project sponsor would require certain fuel and height restrictions for Buildings A, B, C, and D of the proposed development, which are described in detail in Attachment J, "Air Quality." These measures would be required through the LDA between HPD and the project sponsor, and would ensure no significant adverse stationary source air quality impacts would occur as a result of the Proposed Actions.

The *CEQR Technical Manual* has set noise attenuation standards for buildings that are based on exterior noise levels. These values are designed to maintain interior noise levels of 45 dBA or lower for residential or community facility uses, and 50 dBA or lower for commercial uses. The U.S. Department of Housing and Urban Development (HUD) also sets exterior noise standards for housing construction based on exterior noise standards. To ensure that acceptable interior noise levels are provided at the proposed new mixed-use buildings on the Project Area, the proposed designs of Buildings A, B, C and E will be required to provide window-wall attenuation ranging from 23 to 37 dBA in order to meet CEQR and HUD requirements, which are detailed in Attachment K, "Noise." These measures would be required through the LDA between HPD and the project sponsor, and would ensure no significant adverse noise impacts as a result of the Proposed Actions.

VI. ANALYSIS FRAMEWORK

As discussed above, the project site is expected to be redeveloped as a result of the Proposed Actions in the future With-Action scenario. The incremental difference between the No-Action and With-Action scenarios are the basis of the impact category analyses of this Environmental Assessment Statement (EAS).

The Future Without the Proposed Actions (No-Action)

In the 2020 future without the Proposed Actions, it is expected that no changes to zoning or land use would occur within the Project Area. The Project Area would remain under the jurisdiction of HPD and would remain underutilized and mostly vacant with the exception of Parcel B, which would continue to operate with two at-grade public parking facilities and a vacant 11,000 gsf building. Redevelopment of the Project Area would not be able to occur without the disposition of City-owned property and other discretionary approvals through the CPC.

The Future With the Proposed Actions (With-Action)

The Proposed Actions would allow for the development of higher density residential, community facility, and commercial uses within the Project Area. Given the site's dimensions and applicable zoning setbacks and regulations under future conditions, the proposed development would represent the upper bounds of development (maximum 7.2 FAR under C6-2 zoning). This ensures that the impact of the Proposed Actions would be no worse than those considered in this EAS.

In the 2020 future with the Proposed Actions, the Project Area would accommodate approximately 1.1 million gsf of total development including 832 affordable DUs (909,300 gsf), approximately 160 supportive housing units (77,500 gsf), approximately 46,800 gsf of local retail and commercial uses, approximately 83,200 gsf of community facility space (excluding supportive housing), and approximately 1.26 acres

(55,151 sf) of publicly accessible open space. Up to approximately 262 accessory parking spaces would be provided below-grade on the south side of Parcel A. The parking garage would be entered through a new curb cut on Bergen Avenue adjacent to Building B.

Possible Effects of the Proposed Actions

Table A-2 below provides a comparison of the No-Action and With-Action scenarios identified for analysis purposes of the Proposed Actions. As shown, the incremental (net) change that would result from the Proposed Actions is the addition of 832 affordable DUs (909,300 gsf), 160 supportive housing units (77,500 gsf), 83,200 gsf of community facility uses (excluding supportive housing), 46,800 gsf of local retail and other commercial uses, up to 262 accessory parking spaces (an increase of 188 total parking spaces), and 1.26 acres (55,151 sf) of public open space.

Table A-2
Comparison of No-Action and With-Action Development Scenarios

Use		No-Action Scenario	With-Action Scenario	Increment
Residential – Affordable Housing		--	832 DUs (909,300 gsf)	**832 DUs (909,300 gsf)**
Community Facility	Supportive Housing	--	160 units (77,500 gsf)	**160 units (77,500 gsf)**
	YMCA	--	50,500 gsf	**50,500 gsf**
	Other Uses	--	32,700 gsf	**32,700 gsf**
Commercial	Local Retail and Other Commercial Uses	--	46,800 gsf	**46,800 gsf**
	Vacant	11,000 gsf	--	***-11,000 gsf***
Parking and Loading	Public	74 spaces	--	***-74 spaces***
	Accessory	--	262 spaces (37,580 gsf)	**262 spaces (37,580 gsf)**
Publicly Accessible Open Space		--	1.26 acres (55,151 sf)	**1.26 acres (55,151 sf)**
Population/Employment[2]		**No-Action Scenario**	**With-Action Scenario**	**Increment**
Residents		--	2,656 residents	**2,656 residents**
Workers		2 workers	389 workers	**387 workers**

Notes:
[1] The 160 supportive units are considered a Use Group 3 non-profit institution with sleeping accommodations.
[2] Assumes 3.0 persons per affordable DU (based on 2010 U.S. Census data for Bronx Community District 1), 1 person per supportive DU (data provided by Common Ground & Communilife), 1 worker per 25 affordable DUs, 25 workers per 160 supportive units (data provided by Common Ground & Communilife), 1 worker per 450 sf community facility space, 3 workers per 1,000 sf commercial space, and 1 worker per 50 parking spaces.

Based on 2010 census data, Bronx Community District 1 has an average of 3.0 persons per household. Using this ratio, and other standard ratios for estimating employment, Table A-3 provides an estimate of the number of residents and workers generated by the Proposed Actions.

ATTACHMENT B
SUPPLEMENTAL SCREENING

I. INTRODUCTION

This Environmental Assessment Statement (EAS) has been prepared in accordance with the guidelines and methodologies presented in the 2014 *CEQR Technical Manual*. For each technical area, thresholds are defined which if met or exceeded, require that a detailed technical analysis be undertaken. Using these guidelines, preliminary screening assessments were conducted for the Proposed Actions to determine whether detailed analysis of any technical area may be appropriate. Part II of the EAS Form identifies those technical areas that warrant additional assessment. The technical areas that warranted a "Yes" answer in Part II of the EAS form were Land Use, Zoning, and Public Policy, Socioeconomic Conditions, Community Facilities and Services, Open Space, Shadows, Historic and Cultural Resources, Urban Design and Visual Resources, Hazardous Materials, Water and Sewer Infrastructure, Transportation, Air Quality, Noise, Neighborhood Character, and Construction. As such, a supplemental screening assessment for each area is provided in this attachment. All remaining technical areas detailed in the *CEQR Technical Manual* were not deemed to require supplemental screening because they do not trigger initial CEQR thresholds and/or are unlikely to result in significant adverse impacts.

The supplemental screening assessment contained herein identified that a detailed analysis is required in a number of technical areas. Table B-1 identifies for each CEQR technical area whether (a) the potential for impacts can be screened out based on the EAS Form, Part II, Technical Analyses; (b) the potential for impacts can be screened out based on a supplemental screening per the *CEQR Technical Manual*, (c) or whether a more detailed assessment is required.

Table B-1
Summary of CEQR Technical Areas Screening

TECHNICAL AREA	SCREENED OUT PER EAS FORM	SCREENED OUT PER SUPPLEMENTAL SCREENING	DETAILED ANALYSIS IN EAS	DETAILED ANALYSIS IN EIS
Land Use, Zoning, & Public Policy			X	
Socioeconomic Conditions		X		
Community Facilities & Services				X
Open Space			X	
Shadows			X	
Historic & Cultural Resources		X		
Urban Design & Visual Resources			X	
Natural Resources	X			
Hazardous Materials		X		
Water & Sewer Infrastructure			X	
Solid Waste & Sanitation Services	X			
Energy	X			
Transportation				X
Air Quality			X	
Greenhouse Gas Emissions	X			
Noise			X	
Public Health	X			
Neighborhood Character				X
Construction			X	

As detailed in Attachment A, "Project Description," the Proposed Actions include the disposition of City-owned property, a zoning map amendment, designation and approval of the project as an Urban Development Action Area Project (UDAAP), and a special permit for a Large-Scale General Development (LSGD). The project sponsor may also seek approval for construction financing. The Proposed Actions would facilitate the development of an underutilized 4.3-acre site in the Melrose neighborhood of Bronx Community District 1 by introducing affordable and supportive housing, local retail and commercial uses, community facility uses, and public open space. The triangular-shaped Project Area is generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and the elevated IRT #2 and #5 subway tracks to the south. The Proposed Actions would help address specific needs of the local community including the provision of affordable housing units and the enlivening of underutilized and vacant land near "the Hub," the South Bronx's main commercial district.

The Proposed Actions would facilitate an approximately 1.1 million gsf, five building mixed-use development consisting of approximately 832 affordable DUs (909,300 sf), 160 supportive housing units (77,500 sf), approximately 46,800 gsf of local retail and commercial uses, an approximately 50,500 gsf YMCA, and approximately 32,700 gsf of other community facility uses. The Proposed Project would also include up to approximately 262 accessory parking spaces, approximately 1.26 acres (55,151 sf) of public open space, and approximately 1.19 acres (51,906 sf) of private open space for building tenants. Construction of the Proposed Project is expected to begin in mid-2016 with all components complete and fully operational by early 2020.

The incremental changes between the No-Action and With-Action scenarios includes the addition of 832 affordable DUs (909,300 gsf), 160 supportive housing units (77,500 gsf), 83,200 gsf of community facility uses (excluding supportive housing), 46,800 gsf of local retail and other commercial uses, up to 262 accessory parking spaces (an increase of 188 total parking spaces), and 1.26 acres (55,151 sf) of public open space. These incremental differences are presented below in Table B-2 and serve as the basis for the impact category analyses of this EAS.

Table B-2
Comparison of No-Action and With-Action Development Scenarios

Use		**No-Action Scenario**	**With-Action Scenario**	**Increment**
Residential – Affordable Housing		--	832 DUs (909,300 gsf)	**832 DUs (909,300 gsf)**
Community Facility	Supportive Housing	--	160 units (77,500 gsf)	**160 units (77,500 gsf)**
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	Vacant	11,000 gsf	--	***-11,000 gsf***
Parking and Loading	Public	74 spaces	--	***-74 spaces***
	Accessory	--	262 spaces (37,580 gsf)	**262 spaces (37,580 gsf)**
Publicly Accessible Open Space		--	1.26 acres (55,151 sf)	**1.26 acres (55,151 sf)**
Population/Employment[2]		**No-Action Scenario**	**With-Action Scenario**	**Increment**
Residents		--	2,656 residents	**2,656 residents**
Workers		2 workers	389 workers	**387 workers**

Notes:
[1] The 160 supportive units are considered a Use Group 3 non-profit institution with sleeping accommodations.
[2] Assumes 3.0 persons per affordable DU (based on 2010 U.S. Census data for Bronx Community District 1), 1 person per supportive DU (data provided by Common Ground), 1 worker per 25 affordable DUs, 25 workers per 160 supportive units (data provided by Common Ground), 1 worker per 450 sf community facility space, 3 workers per 1,000 sf commercial space, and 1 worker per 50 parking spaces.

II. SUPPLEMENTAL SCREENING

LAND USE, ZONING, AND PUBLIC POLICY

According to *CEQR Technical Manual* guidelines, a detailed analysis of land use and zoning is appropriate if a proposed action would result in a significant change in land use or would substantially affect regulations or policies governing land use. An assessment of zoning is typically performed in conjunction with a land use analysis when the action would change the zoning on the site or result in the loss of a particular use.

As the Proposed Actions include zoning map changes and a special permit for a LSGD, a detailed analysis of land use, zoning and public policy is provided in Attachment C, "Land Use, Zoning, and Public Policy." As discussed in Attachment C, the Proposed Actions would introduce zoning changes that would be in keeping with the City's land use, zoning, and public policy objectives for this area and greater South Bronx. The proposed zoning map and LSGD special permit would enliven a vacant City-owned site with a vibrant mix of housing, retail, community facility, and open space uses in close proximity to public transportation. Therefore, the Proposed Actions would not adversely affect land use, zoning, or public policies.

SOCIOECONOMIC CONDITIONS

Socioeconomic impacts may occur when an action directly or indirectly changes population, housing stock, or economic activities in an area. In some cases, these changes could be substantial, but not significantly adverse. In other cases, these changes may be beneficial to some groups and adverse to others. The purpose of a socioeconomic assessment is to disclose potentially adverse changes that would be created by an action and identify whether they rise to the level of significance. A socioeconomic assessment should be conducted if a proposed action may be reasonably expected to create socioeconomic changes within the area affected by the action that would not be expected to occur without the action. The *CEQR Technical Manual* states that a residential development of 200 new dwelling units or less or a commercial development of 200,000 square feet or less typically does not cause significant socioeconomic impacts. As the Proposed Actions would result in the construction of over 200 new DUs, a preliminary assessment is provided below.

The Proposed Actions would not result in substantial direct displacement of any residential populations, businesses, or employees (a parking lot and an estimated two parking lot attendants would be displaced), nor would they significantly change existing or future land uses beyond the Project Area or adversely affect the economic conditions of a specific industry. The Project Area is predominantly vacant and anticipated to remain vacant in the future without the Proposed Actions.

The Proposed Actions would not result in substantial new development that is markedly different from existing uses, development, and activities within the neighborhood. The Proposed Actions would introduce approximately 832 affordable DUs, 160 supportive housing units, approximately 46,800 gsf of local retail and commercial uses, an approximately 50,500 gsf YMCA, and approximately 32,700 gsf of other community facility uses, which would be consistent with and complement existing residential and commercial uses in the surrounding area. These proposed uses would result in the incremental addition of approximately 2,656 residents and 387 workers to the area. As shown above, the proposed development does not exceed the CEQR threshold of 200,000 sf of commercial space.

Although the proposed development would exceed the CEQR threshold of 200 DUs, the newly developed residential units are expected to draw households of similar socioeconomic characteristics as current residents of the surrounding area. Thus, the proposed development would not generate socioeconomic conditions that are significantly different from existing conditions in the area. As detailed in Attachment A, "Project Description," 832 DUs would be affordable and 160 would be supportive. Affordable units are expected to be rented to residents earning between approximately 30 percent and 100 percent of Area

Median Income (AMI). Median household income in Bronx Community District 1 is $20,867[1], compared to $33,009[2] for the Bronx as a whole. In addition, it is expected that approximately 53 percent of affordable units would have two to four bedrooms, reflecting Bronx Community District 1's average of 3.0 persons per DU (based on 2010 U.S. Census data). Supportive housing units are expected to be studio apartments for seniors living with HIV/AIDS, single veterans, and individuals earning less than 60 percent of AMI. Given these statistics, the new residences would not be markedly different from the surrounding housing. As such, the socioeconomic characteristics of the proposed population would be similar to those existing in the surrounding area.

The Proposed Actions would not induce any new types of economic activity, as the retail spaces would be consistent with the existing variety of retail and service establishments in this area of the Hub and the YMCA and other community facility spaces would introduce additional amenities to neighborhood residents. It is anticipated that the proposed development would strengthen the existing commercial and mixed-use character of the surrounding area. The local real estate market and area industry would be affected only in that currently vacant and underutilized sites would be redeveloped, introducing new residents to the area, and improving the area's attractiveness for local businesses, consumers, and residents. Therefore, the Proposed Actions are not expected to have any significant adverse impacts on socioeconomic conditions and a detailed analysis is not warranted.

COMMUNITY FACILITIES & SERVICES

The *CEQR Technical Manual* defines community facilities as public or publicly funded schools, libraries, child care centers, health care facilities, and fire and police protection. Potential direct or indirect effects of a proposed action can trigger the need for a preliminary assessment of community facilities. Direct effects occur if an action or project would "physically alter a community facility, whether by displacement or other physical change." Indirect effects occur if an action or project would add population to an area, which may potentially affect service delivery.

The Proposed Actions would result in the development of predominantly vacant land and would not displace or physically alter any existing community facilities or services, nor would they affect the physical operations of or access to and from any police or fire stations. Therefore, the Proposed Actions would not have any significant adverse direct impacts on existing community facilities or services.

As the Proposed Actions would result in the addition of approximately 832 affordable DUs and 160 supportive housing units to the area, it is likely that demand for existing services would increase. Therefore, in order to determine the potential for indirect impacts, an assessment based on CEQR thresholds has been provided in Attachment D, "Community Facilities."

OPEN SPACE

Open space is defined as publicly or privately owned land that is publicly accessible and has been designated for leisure, play or sport, or conservation land set aside for protection and/or enhancement of the natural environment. An open space assessment may be necessary if a proposed action could potentially have a direct or indirect effect on open space resources in the surrounding area. A direct effect would "physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value." An indirect effect may occur when the population generated by a proposed action would be sufficient to noticeably diminish the ability of an area's open space to serve the existing or future population. According to the guidelines established in the *CEQR Technical Manual*, a project that would add fewer than 200

[1] 2010-2012 ACS 3-year estimate for PUMA 3710 (Bronx Community Districts 1 and 2).
[2] 2013 ACS 1-year estimate for Bronx County.

residents or 500 employees, or a similar number of other users to an area, is typically not considered to have indirect effects on open space.

As shown in Table B-2 above, the Proposed Actions would result in the incremental addition of an estimated 2,656 residents and 387 workers to the Project Area. As such, an assessment of the Proposed Actions' potential to affect open space and recreational facilities is required and has been provided in Attachment E, "Open Space." The attachment also includes a discussion of potential direct effects, such as the introduction of approximately 1.26 acres (55,151 sf) of public open space and approximately 1.19 acres (51,906 sf) of private open space in the future with the Proposed Actions. As discussed in Attachment E, "Open Space," the Proposed Actions and subsequent development are not anticipated to result in significant adverse impacts on open space resources.

SHADOWS

A shadow assessment considers actions that result in new shadows long enough to reach a publicly accessible open space or historic resource (expect within an hour and a half of sunrise or sunset). For actions resulting in structures less than 50 feet high, a shadow assessment is generally not necessary unless the site is adjacent to a park, historic resource, or important natural feature (if the features that make the structure significant depend on sunlight). According to the *CEQR Technical Manual*, some open spaces contain facilities that are not sunlight sensitive and do not require a shadow analysis, including paved areas (such as handball or basketball courts) and areas without vegetation.

The Proposed Actions would result in the construction of five buildings within the Project Area. The maximum heights of the proposed buildings (including rooftop mechanical equipment) would range from approximately 105 feet (9 stories) up to approximately 269 feet (25 stories). As the Project Area is located across the street from the Merrill Lynch Field of Dreams, a shadow assessment is required and has been provided in Attachment F, "Shadows." As described in the attachment, the Proposed Actions would not result in any significant adverse shadows impacts.

HISTORIC AND CULTURAL RESOURCES

Historic and cultural resources are defined as districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance. This includes properties that have been designated or are under consideration as New York City Landmarks or Scenic Landmarks, or are eligible for such designation; properties within New York City Historic Districts; properties listed on the State and/or National Register of Historic Places; and National Historic Landmarks. An assessment of architectural and archaeological resources is usually needed for projects that are located adjacent to historic or landmark structures, or projects that require in-ground disturbance, unless such disturbance occurs in an area that has already been excavated.

According to CEQR guidelines, impacts on historic resources are considered on those sites affected by a proposed action and in the area surrounding identified development sites. The historic resources study area is therefore defined as the area to be rezoned plus an approximate 400-foot radius. Archaeological resources are considered only in those areas where new excavation or ground disturbance is likely and would result in new in-ground disturbance compared to No-Action conditions; these are limited to Project Area parcels.

Architectural Resources

There are no designated architectural resources within the proposed rezoning area or within a 400-foot radius. In order to verify this, a request letter was sent to the New York City Landmarks Preservation Commission (LPC) to determine whether any architectural resources of concern are located within the

Project Area or in its immediate vicinity. In a letter dated 2/12/2015, LPC indicated that the Project Area does not contain any architecturally significant resources (refer to Appendix 1). As such, the Proposed Actions would not result in significant adverse impacts to architectural resources and further analysis is not warranted.

Archaeological Resources

An assessment of archaeological resources is typically required for any project that would result in in-ground disturbance. The Proposed Actions would result in the construction of five buildings, each of which would result in in-ground disturbances within the Project Area. Based on previous environmental reviews in this area of the Bronx, the LPC had previously determined that a section of the Project Area (portions of Lot 60 and former Lot 43 on Block 2294) had the potential to yield archaeologically significant material and requested field testing for the identified portions of each lot if construction were to occur.[3]

In 2011, Historical Perspectives, Inc. (HPI) completed the necessary field investigations on Lot 60 in consultation with the LPC. Six trenches were examined on Lot 60 but only an early twentieth century water management enclosure was encountered and investigated. The excavation of the remaining trenches found modern structural demolition impacts, extending well below the depths of potential resources. As such, no further archaeological consideration was recommended for Lot 60.

No archaeological field testing was initiated in 2011 on former Lot 43 due to the absence of below-grade impacts in project designs at that time. As the current project would require in-ground disturbances on former Lot 43, Phase IB archaeological testing is required for the site, and was completed by HPI in August and September of 2014. During the Phase IB archaeological testing program, no concentrations of historic artifacts or features were identified, and no evidence of an intact pre-contact horizon was observed. As detailed in the Phase IB report (refer to Appendix 2), the potentially significant soils located on the Project Area had been previously impacted by the twentieth century construction of adjacent buildings. Upon review of the Phase IB field investigation, LPC confirmed in a letter dated 2/12/2015 that there are no further archaeological concerns for former Lot 43 or any other properties within the Project Area (refer to Appendix 1). Therefore, no further archaeological testing within the Project Area is warranted. As such, no significant adverse impacts to archaeological resources are anticipated as a result of the Proposed Actions.

URBAN DESIGN AND VISUAL RESOURCES

A preliminary analysis of urban design and visual resources is appropriate when there is the potential for a pedestrian to observe from the street level a physical alteration beyond that allowed by existing zoning, including the following: (1) projects that permit the modification of yard, height, and setback requirements; and (2) projects that result in an increase in built floor area beyond what would be allowed ‘as-of-right’ or in the future without the proposed action.

As described above, the Proposed Actions include amendments to the City zoning map and a special permit to allow bulk and use modifications for a LSGD. As the Proposed Actions would increase the allowable floor area of the Project Area beyond what is permitted under existing zoning, as well as waive height and setback requirements, an assessment of the Proposed Actions’ potential to affect the pedestrian experience is required and has been provided in Attachment G, “Urban Design and Visual Resources.” As discussed in the attachment, the Proposed Actions would not have a significant adverse effect on the area’s urban design and visual resources. The Proposed Actions would facilitate new mixed-use development, including new residential, retail, and community facility uses as well as open space, replacing vacant land, parking lots, and a vacant building and enlivening the neighborhood. The Proposed Actions would have a positive influence on urban design in this area of the South Bronx and would enhance the pedestrian experience.

[3] *Plaza at the Hub proposal, 2005 (CEQR No. 06DME005X)*

HAZARDOUS MATERIALS

As detailed in the *CEQR Technical Manual*, the goal of a hazardous materials assessment is to determine whether a proposed action may increase the exposure of people or the environment to hazardous materials, and if so, whether this increased exposure would result in potential significant public health or environmental impacts. A hazardous material is any substance that poses a threat to human health or the environment. Substances that can be of concern include, but are not limited to, heavy metals, volatile and semivolatile organic compounds, methane, polychlorinated biphenyls and hazardous wastes (defined as substances that are chemically reactive, ignitable, corrosive, or toxic). According to the *CEQR Technical Manual*, the potential for significant impacts from hazardous materials can occur when: (a) hazardous materials exist on a site and (b) an action would increase pathways to their exposure; or (c) an action would introduce new activities or processes using hazardous materials.

An assessment was conducted in conformance with the American Society of Testing and Materials' (ASTM) International Standard Practice E1527-13 (Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process) to determine whether the Proposed Actions could lead to increased exposure of people or the environment to hazardous materials and whether the increased exposure would result in significant adverse public health impacts or environmental damage. On July 24, 2014, Roux Associates prepared a Phase I Environmental Site Assessment (ESA) for the Project Area (refer to Appendix 3). The findings are summarized below.

Phase I Environmental Site Assessment for the Project Area

The Phase I ESA consisted of a site description and history, records review, site reconnaissance, interviews and user provided information, and other environmental conditions. The Phase I ESA revealed that historical on-site and surrounding area land uses consisted of a variety of residential, commercial, and industrial uses.

Based on the information gathered as a result of the Phase I ESA process, Roux Associates identified three Recognized Environmental Conditions (RECs) within the Project Area:

- Soil and groundwater samples were previously collected on Parcel B (Block 2994, Lots 29, 32, former Lot 43) as part of a February 2006 limited Phase II ESA and subsequent July through September 2007 supplemental Phase II ESA, with both scopes of work approved by the New York City Department of Environmental Protection (DEP) under CEQR No. 06DME005X (the former "Plaza at the Hub" proposal). The testing identified semi volatile organic compounds (SVOCs) and metals, above the New York State Department of Environmental Conservations Technical and Administrative Guidance Memorandum Recommended Soil Cleanup Objectives. The SVOC and metal contamination identified in the Phase II ESA is indicative of historic fill which is acting as a potential source of native soil and groundwater contamination with these constituents.

  Polychlorinated biphenyls and various chlorinated volatile organic compounds were detected in separate groundwater samples collected at the Site at concentrations above the Ambient Water Quality Standards and Guidance Values.

  Based on the results of the Phase II ESA, DEP has established an Activity Use Limit (AUL) on Block 2294, Lot 32 which requires the preparation of a Construction Health and Safety Plan and a Remedial Action Plan prior to the commencement of any in-ground construction activities.

- The potential impact from heating oil storage tanks associated with numerous former residential dwellings that once occupied portions of Parcels A and B.

- The potential impact from historical uses of the site, which included a plumbers shop (Parcel A), a woodworking shop (Parcel A), parts and service garage (Parcel A), and current partial use of the site for parking and storage of trucks, buses, and cars (Parcel B).

In addition, Roux Associates identified the following historical REC (HRECs) in connection with the Project Area:

- The potential impact from a nearby 12,600-gallon underground dielectric fluid spill (NYSDEC spill #93-05461). However, based on information contained in the EDR report and the results of the 2007 Phase II ESA conducted by Roux Associates for Block 2994, Lots 29, 32, former Lot 43, this spill incident was remediated by the responsible party and apparently did not adversely impact soil and groundwater at the Project Area. Therefore, this HREC is no longer considered a REC.

No new activities or processes using hazardous materials would be introduced to the Project Area in the future with the Proposed Actions. The existing building would be demolished to facilitate the construction of the proposed development. The testing performed under CEQR No. 06DME005X (the former "Plaza at the Hub" proposal) was limited to a portion of the Project Area. Therefore, the Land Disposition Agreement (LDA) between HPD and the project sponsor would require that Phase II testing be performed for all parcels, including DEP review and approval of a workplan/Health and Safety Plan (HASP) prior to such testing. In addition, if remediation is warranted for one or more parcels/phases, a Remedial Action Plan (RAP) and associated Construction Health and Safety Plan (CHASP), subject to review and approval by HPD and DEP, would also be required. Finally, at the conclusion of construction and prior to occupancy of the new buildings, a Professional Engineer (P.E.)-certified Closure Report must be reviewed and approved by HPD and DEP. These measures would be required through the LDA between HPD and the project sponsor. As such, no significant adverse hazardous materials impacts are anticipated as a result of the Proposed Actions.

WATER AND SEWER INFRASTRUCTURE

Given the size of New York City's water supply system and the City's commitment to maintaining adequate water supply and pressures, few proposed actions have the potential to cause significant impacts on this system. Therefore only very large developments or actions having exceptionally large water demands (e.g., more than one million gallons per day) would warrant a detailed water supply assessment. For wastewater and stormwater conveyance and treatment, the *CEQR Technical Manual* indicates that a preliminary assessment would be needed if a project is located in a combined sewer area and would exceed the following incremental development of residential units or commercial space above the predicted No-Action scenario: (a) 1,000 residential units or 250,000 sf of commercial space or more in Manhattan or (b) 400 residential units or 150,000 sf of commercial space or more in the Bronx, Brooklyn, Staten Island or Queens.

As the Project Area is located within a combined sewer area of the Bronx and the Proposed Actions would facilitate the development of approximately 832 affordable DUs and 160 supportive housing units, an assessment of the Proposed Actions' effect on the City's water supply and sewer capacity is required and has been provided in Attachment H, "Water and Sewer Infrastructure." As discussed in Attachment H, as the Proposed Actions would increase untreated stormwater runoff to the combined sewer system, the project sponsor would be required to ensure a maximum stormwater release rate of 0.25 cfs or 10 percent of the allowable flow from the Project Area, pursuant to Title 15, Chapter 31 of the Rules of the City of New York. The project sponsor would manage stormwater by utilizing one or more detention techniques identified in *NYC Green Infrastructure Plan.* As requested by DEP, a Best Management Practices (BMPs) concept plan has been included in the EAS for illustrative purposes. BMPs would be explored and further refined as part of the site connection process with DEP. Through this process, DEP would ensure that the

necessary stormwater BMPs were implemented (as warranted). As such, the Proposed Actions and subsequent development would not result in significant adverse impacts on the City's water supply or wastewater and stormwater conveyance and treatment systems.

TRANSPORTATION

The *CEQR Technical Manual* identifies minimum development densities that have the potential to result in significant adverse impacts to traffic conditions and therefore require a detailed traffic analysis. As shown in Table 16-1 of the *CEQR Technical Manual*, actions with a single or multiple land uses which may result in fewer than 50 peak hour vehicle trips are generally unlikely to cause significant adverse impacts. For residential development in Zone 2 (which includes areas within a quarter-mile of a subway station in the Bronx) the development threshold requiring trip generation analysis to determine the volume of vehicular trips during peak hours is 200 DUs. As the Proposed Actions would facilitate the development of approximately 832 affordable DUs and 160 supportive housing units, an assessment of the Proposed Actions' effect on the City's transportation system is required and has been provided in Attachment I, "Transportation."

AIR QUALITY

Mobile Sources

Localized increases in pollutant levels may result from increased vehicular traffic volumes and changed traffic patterns in the study area as a consequence of a proposed project. According to the screening threshold criteria outlined in Section 210 of Chapter 17 of the *CEQR Technical Manual*, detailed analysis is required for this area of the City if 170 or more auto-trips are generated in any given peak period at nearby intersections in the study area as a result of a proposed action. The Proposed Actions would not exceed the CEQR threshold of 170 peak hour auto trips at nearby intersections in the study area, nor would it exceed the particulate matter emission screening threshold discussed in Chapter 17, Sections 210 and 311 of the *CEQR Technical Manual*. Therefore, a quantified assessment of emissions from project generated traffic is not warranted and no significant mobile source air quality impacts are expected as a result of the Proposed Actions.

Stationary Sources

Actions can result in stationary source air quality impacts when they (1) create new stationary sources of pollutants such as emission stacks from industrial plants, hospitals, or other large institutional uses, or building's boiler stack(s) used for heating/hot water, ventilation, or air conditioning systems (HVAC) that can affect surrounding uses; (2) introduce new sensitive receptors near existing (or planned future) emissions stacks that may adversely affect the new use; or (3) introduce potentially significant odors. No odors are associated with the proposed development. However, the proposed developments are expected to include natural gas-burning heating, ventilation, and air conditioning (HVAC) systems, as well as small cogeneration units for certain buildings. Therefore, a stationary sources air quality assessment is required and has been provided in Attachment J, "Air Quality." As discussed in the attachment, to ensure that there are no significant adverse impacts of $PM_{2.5}$ from the Proposed Project's sources of combustion emissions, certain fuel and height restrictions would be required for Buildings A, B, C, and D, which would also be required through the LDA between HPD and the project sponsor. Therefore, no significant adverse air quality impacts would occur as a result of the proposed development's HVAC and cogeneration units.

NOISE

The purpose of a noise analysis is to determine both a proposed project's potential effects on sensitive noise receptors and the effects of ambient noise levels on new sensitive uses introduced by the proposed project. The principal types of noise sources affecting the New York City environment are mobile sources (primarily motor vehicles), stationary sources (typically machinery or mechanical equipment associated with manufacturing operations or building heating, ventilating and air conditioning systems) and construction noise (e.g. trucks, bulldozers, power tools, etc.).

As the Project Area is located adjacent to an elevated rail line and the Proposed Project would result in increases to traffic on the surrounding street network and involve the operation of small cogeneration units on certain buildings, a detailed noise analysis is required and has been provided in Attachment K, "Noise." As discussed in the attachment, noise monitoring was conducted at 7 monitoring locations in the vicinity of the project site. These measurements were used as a baseline for determining total noise levels with the Proposed Project, which added noise due to the project-generated traffic and the project's turbine-related activities to noise levels without the Proposed Project.

As discussed in Attachment K, "Noise", the Proposed Project would comply with the New York City Zoning Resolution and New York City Noise Code but window-wall attenuation would be required for portions of certain buildings in order to meet CEQR and HUD requirements. These measures would be required through the LDA between HPD and the project sponsor.

NEIGHBORHOOD CHARACTER

Per the *CEQR Technical Manual*, a neighborhood character assessment considers how elements on the environment combined to create the context and feeling of a neighborhood and how a project may affect that context and feeling. To determine a project's effects on neighborhood character, a neighborhood's contributing elements are considered together.

According to the *CEQR Technical Manual*, an assessment of neighborhood character is generally needed when a proposed project has the potential to result in significant adverse impacts in the areas of land use, socioeconomic conditions, open space, urban design and visual resources, historic and cultural resources, transportation, and noise, or when the project may have moderate effects on several of these elements that define a neighborhood's character. As the Proposed Actions have the potential to affect the levels of traffic within the surrounding area, an analysis of the Proposed Actions' effects on neighborhood character will be provided in the EIS, as described in the Draft Scope of Work.

CONSTRUCTION

Although temporary, construction impacts can include noticeable and disruptive effects from an action that is associated with construction or could induce construction. Determination of the significance of construction impacts and need for mitigation is generally based on the duration and magnitude of the impacts. Construction impacts are usually important when construction activity could affect traffic conditions, archaeological resources, the integrity of historic resources, community noise patterns, and air quality conditions.

The Proposed Actions would result in the development of new mixed-use development with building heights of up to 25 stories, as well as the creation of new public open space by early 2020. As construction activity is expected to occur on multiple parcels over the course of approximately 45 months, a detailed analysis of potential construction impacts is warranted in accordance with the guidelines of the *CEQR Technical Manual* and is provided in Attachment L, "Construction." As discussed in Attachment L, construction-related activities resulting from the Proposed Actions are not expected to have any significant

adverse impacts on traffic, air quality, noise, or any other technical areas. Moreover, the construction process in New York City is highly regulated to ensure that construction period impacts are eliminated or minimized.

ATTACHMENT C
LAND USE, ZONING, AND PUBLIC POLICY

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Attachment C: Land Use, Zoning, and Public Policy

I. INTRODUCTION

According to 2014 *CEQR Technical Manual* guidelines, a land use analysis evaluates the uses and development trends in the area that may be affected by a proposed project, and determines whether that proposed project is compatible with those conditions or may affect them. Similarly, the analysis considers a proposed project's compliance with, and effect on, the area's zoning and other applicable public policies.

As detailed in Attachment A, "Project Description," the Proposed Actions include the disposition of City-owned property, designation and approval of the project as an Urban Development Action Area Project (UDAAP), a zoning map amendment, and special permit for a Large-Scale General Development (LSGD). The project sponsor may also seek approval for construction financing. The Proposed Actions would facilitate an approximately 1.1 million gsf, five building mixed-use development consisting of approximately 832 affordable DUs, approximately 160 supportive housing units, approximately 46,800 gsf of local retail and other commercial uses, and approximately 83,200 gsf of community facility uses (excluding supportive housing). The Proposed Project would also include up to approximately 262 accessory parking spaces and approximately 1.26 acres (55,151 sf) of public open space.

Under CEQR guidelines, a preliminary assessment, which includes a basic description of existing and future land use and zoning, should be provided for all projects that would affect land use or would change the zoning on a site, regardless of the project's anticipated effects. If the preliminary assessment cannot succinctly describe land use conditions in the study area, or if a detailed assessment is required in the technical analyses of Socioeconomic Conditions, Neighborhood Character, Transportation, Air Quality, Noise, Infrastructure, or Hazardous Materials, a detailed land use analysis is appropriate. As the Proposed Actions include zoning map changes and a special permit for a LSGD, a preliminary assessment cannot adequately describe existing and future conditions, and a detailed Land Use and Zoning analysis has been provided. The detailed analysis discusses existing and future conditions with and without the Proposed Actions for a primary study area (coterminous with the proposed rezoning area), and a secondary study area (400-feet) surrounding the proposed rezoning area.

II. METHODOLOGY

Existing land uses were identified through review of a combination of sources including field surveys, secondary sources such as the Triangle Plaza Hub EAS (2012) and subsequent Technical Memoranda (2013, 2014), the New York City Department of City Planning's (DCP) Primary Land Use Tax Lot Output (PLUTO™) data files, as well as online Geographic Information System (GIS) databases such as NYCityMap and the New York City Open Accessible Space Information System. New York City Zoning Maps and the Zoning Resolution of the City of New York were consulted to describe existing zoning districts in the study area and provided basis for the zoning evaluation of the No-Action and With-Action scenarios. Relevant public policy documents, recognized by DCP and other agencies, were utilized to describe existing public policies pertaining to the study area, and served as the basis for the No-Action and With-Action discussions of public policy.

The Proposed Actions include zoning map changes and a special permit for a LSGD that would affect land use, zoning, and potentially public policy. Land use, zoning, and public policy are addressed and analyzed for two geographical areas for the Proposed Actions: (1) the proposed rezoning area, also referred to as the

primary study area, and (2) a secondary study area. The primary study area includes the Project Area as well as small portions of adjacent tax lots (Block 2294, Lots 30, 60) and is bounded by Bergen Avenue to the west, Brook Avenue to the east, and the elevated IRT #2 and #5 subway tracks to the south (see Figure C-1). The proposed rezoning area includes portions of Westchester Avenue, East 152nd Street, East 153rd Street, and the elevated IRT #2 and #5 subway lines (Block 2294, Lot 55). The secondary study area extends approximately 400 feet from the boundary of the proposed rezoning area and encompasses areas that have the potential to experience indirect impacts as a result of the Proposed Actions. The secondary study area is generally bounded by lots fronting Third Avenue to the west, St. Ann's Avenue to the east, East 148th Street to the south, and East 156th Street to the north. Both the primary and secondary study areas have been established in accordance with *CEQR Technical Manual* guidelines and can be seen in Figure C-1.

III. PRELIMINARY ASSESSMENT

Land Use and Zoning

A preliminary assessment, which includes a basic description of existing and future land uses and zoning, should be provided for all projects that would affect land use or would change the zoning on a site, regardless of the project's anticipated effects. As a detailed analysis is warranted for the Proposed Actions, the information that would typically be included in a preliminary assessment (e.g., physical setting, present land use, zoning information, etc.) has been incorporated into the detailed analysis in Section IV below. As discussed in the detailed analysis, the Proposed Actions are not expected to adversely affect land use or zoning.

Public Policy

According to CEQR guidelines, a project that would be located within areas governed by public policies controlling land use, or that has the potential to substantially affect land use regulation or policy controlling land use, requires an analysis of public policy. A preliminary assessment of public policy should identify and describe any public policies, including formal plans or published reports, which pertain to the study area. If a proposed project could potentially alter or conflict with identified policies, a detailed assessment should be conducted; otherwise, no further analysis of public policy is warranted. As described below, the Proposed Actions do not warrant a detailed assessment of public policies.

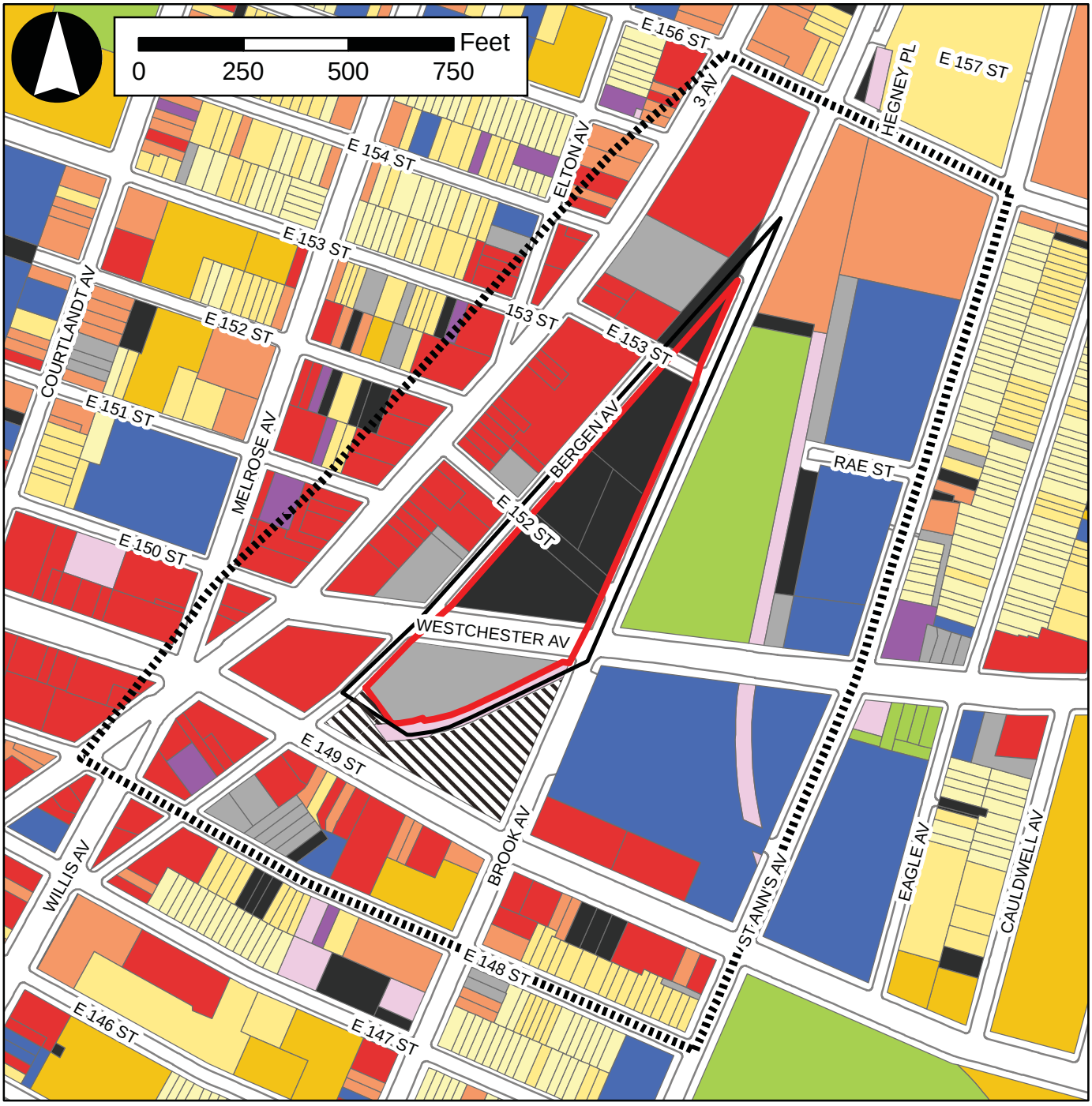
A number of adopted City policies are applicable to the primary study area including the Port Morris Empire Zone, South Bronx Initiative, One New York: The Plan for a Strong and Just City, the FRESH program, Vision Zero, and Housing New York. There are no 197-a plans or designated in-place industrial parks governing the primary study area, nor does the study area fall within the coastal zone boundary. In addition, the Proposed Actions do not involve the siting of any public facilities (Fair Share). Within the secondary study area, there is only one additional applicable public policy, the Hub-Third Avenue Business Improvement District (BID).

Port Morris Empire Zone

As shown in Figure C-2, portions of the primary and secondary study areas are located within the Port Morris Empire Zone, an economic development initiative of the New York State Empire State Development Empire Zones Program. Empire Zones were designated to stimulate business growth in economically distressed areas by providing New York State tax credits and incentives to businesses that expand within, or relocate to, the area.

Established in 1987, the Port Morris Empire Zone is administered by the South Bronx Overall Economic

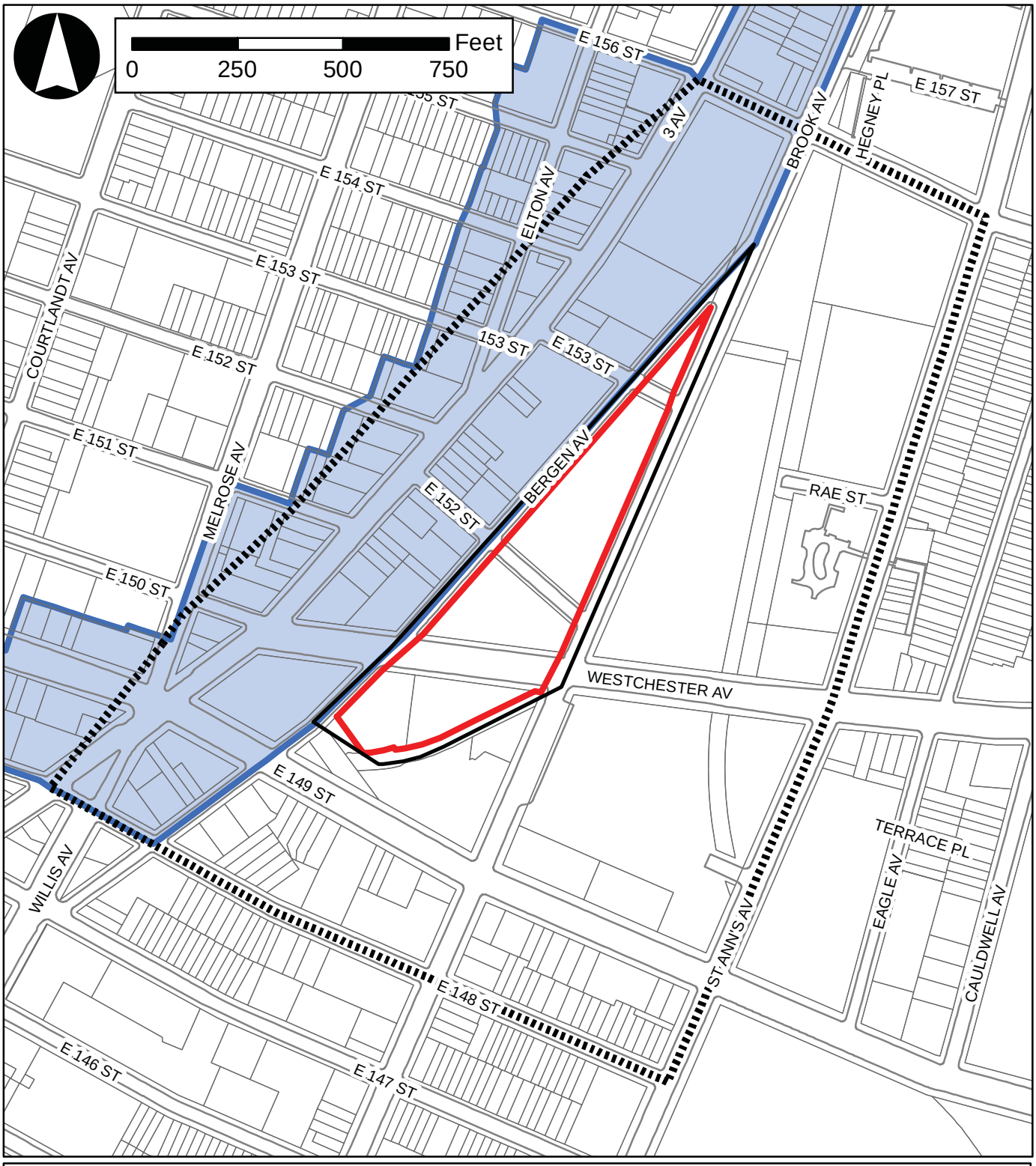
Figure C-1
Land Use Map



Legend

- Primary Study Area
- Secondary Study Area
- Project Area
- One & Two Family Buildings
- Multi-Family Walkup Buildings
- Multi-Family Elevator Buildings
- Mixed Commercial/Residential Buildings
- Commercial/Office Buildings
- Industrial/Manufacturing
- Transportation/Utility
- Public Facilities & Institutions
- Open Space
- Parking Facilities
- Vacant Land
- Under Construction

Figure C-2
Empire Zone Map



Legend

- Primary Study Area
- Secondary Study Area
- Project Area
- Port Morris Empire Zone

Development Corporation. The Port Morris Empire Zone is intended to foster economic and community development, business investment, and job creation. Empire Zones offer a wide variety of incentives, including tax and utility benefits, to commercial and industrial businesses that create and/or retain jobs within their boundaries. These benefits typically extend for a fixed number of years and may include items such as investment tax credits, wage tax credits, financing assistance, utility discounts, sales tax exemptions, and new business refunds. New York State must certify businesses within the Empire Zone before any benefits are granted.

South Bronx Initiative

The South Bronx Initiative is a comprehensive plan to sustain and strengthen the ongoing revitalization of the South Bronx. Developed by the Mayor's Office and an interagency team in coordination with local elected officials and community groups in 2008, the Initiative identifies three focus areas: Melrose Commons/Third Avenue, the Bronx Civic Center, and the Lower Grand Concourse. For each area, the Initiative outlines specific action items that will be implemented to achieve goals related to office, retail and residential development, affordable housing, transportation and open space. New developments in the Initiative area are expected to provide more than 8,000 housing units, approximately 800,000 sf of commercial and retail space, 160,000 sf of hotel and conference space, and new and enhanced parks and green spaces in the South Bronx.

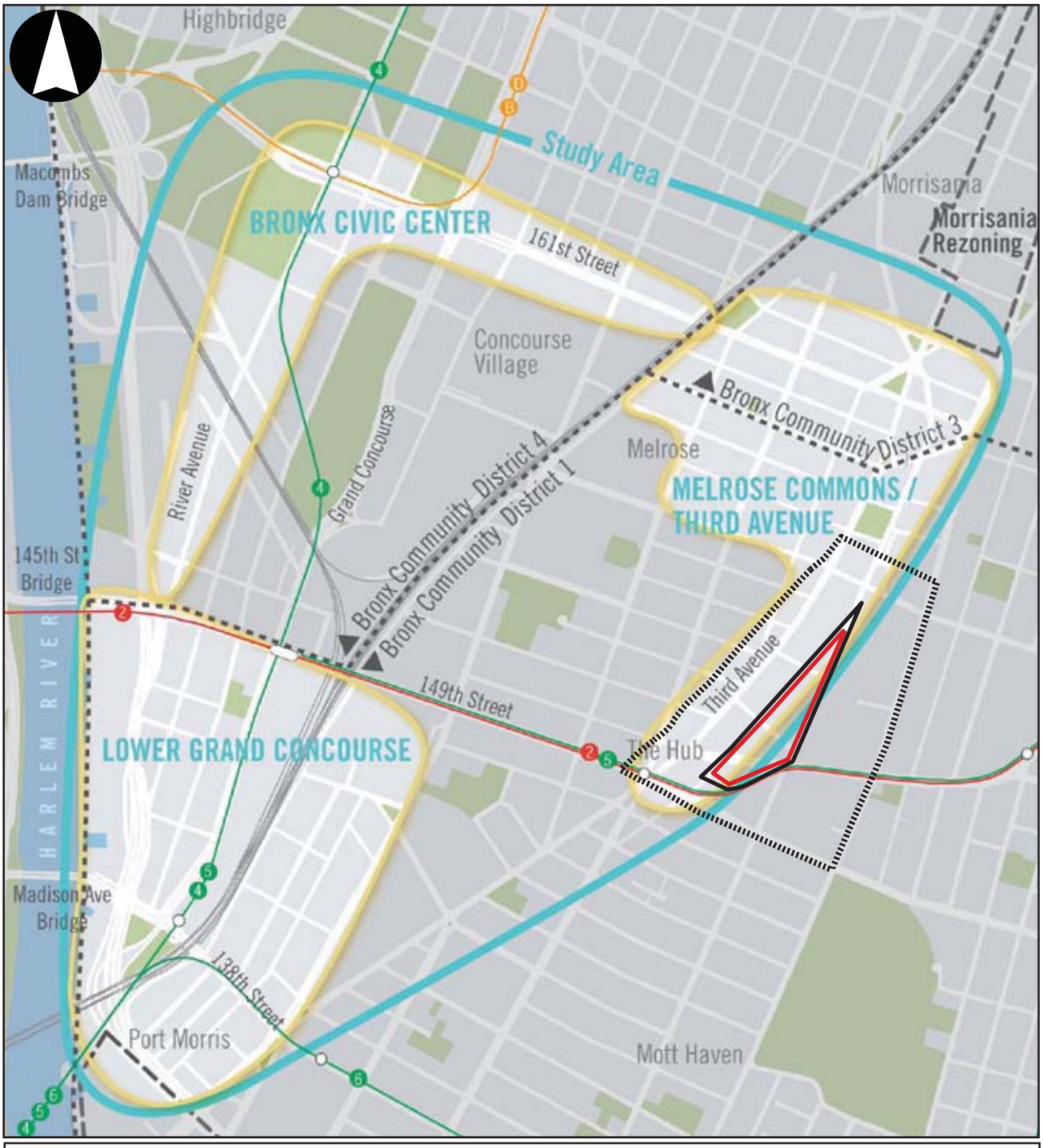
As shown in Figure C-3, the western sections of the primary and secondary study areas are located in the Melrose Commons/Third Avenue area, which is envisioned to be a mixed-income urban village with balanced neighborhood retail, new parks and open spaces, and a college campus. The Initiative recommends the following strategies to realize this vision:

- Develop the last remaining City-owned sites in the area to create affordable housing and ground-floor retail space;
- Market Melrose Commons to major retailers and support local businesses;
- Upgrade Roberto Clemente Plaza (located at the East 149th Street - Third Avenue Hub) and reconfigure the intersection at East 161st Street and Elton Avenue; and
- Pursue funding to develop new parks, while upgrading and preserving existing parks, open spaces, and community gardens.

One New York: The Plan for a Strong and Just City

In April 2015, Mayor Bill de Blasio released One New York: The Plan for a Strong and Just City (OneNYC), a comprehensive plan for a sustainable and resilient city for all New Yorkers that speaks to the profound social, economic, and environmental challenges faced. OneNYC is the update to the sustainability plan for the City started under the Bloomberg administration, previously known as PlaNYC 2030: A Greener, Greater New York. Growth, sustainability, and resiliency remain at the core of OneNYC, but with the poverty rate remaining high and income inequality continuing to grow, the de Blasio administration added equity as a guiding principle throughout the plan. In addition to the focuses of population growth; aging infrastructure; and global climate change, OneNYC brings new attention to ensuring the voices of all New Yorkers are heard and to cooperating and coordinating with regional counterparts. Since the 2011 and 2013 updates of PlanNYC, the City has made considerable progress towards reaching original goals and completing initiatives. OneNYC includes updates on the progress towards the 2011 sustainability initiatives and 2013 resiliency initiatives and also sets additional goals and outlines new initiatives under the organization of four visions: growth, equity, resiliency, and sustainability.

Figure C-3
South Bronx Initiative Study Area



Legend

Project Area

Primary Study Area

Secondary Study Area

Goals of the plan are to make New York City:

- A Growing, Thriving City by fostering industry expansion and cultivation, promoting job growth, creating and preserving affordable housing, supporting the development of vibrant neighborhoods, increasing investment in job training, expanding high-speed wireless networks, and investing in infrastructure.
- A Just and Equitable City by raising the minimum wage, expanding early childhood education, improving health outcomes, making streets safer, and improving access to government services.
- A Sustainable City by reducing greenhouse gas emissions, diverting organics from landfills to attain Zero Waste, remediating contaminated land, and improving access to parks.
- A Resilient City by making buildings more energy efficient, making infrastructure more adaptable and resilient, and strengthening coastal defenses.

New York City Food Retail Expansion to Support Health Program (FRESH)

The FRESH program provides zoning and discretionary tax incentives to promote the establishment and retention of neighborhood grocery stores in communities throughout the five boroughs that lack full-line grocery stores. Both the primary and secondary study areas are located within a FRESH designated area.

Vision Zero

The City's Vision Zero initiative seeks to eliminate all deaths from traffic crashes regardless of whether on foot, bicycle, or inside a motor vehicle. In an effort to drive these fatalities down, the New York City Department of Transportation (DOT) and the New York City Police Department (NYPD) developed a set of five plans, each of which analyzes the unique conditions of one New York City borough and recommends actions to address the borough's specific challenges to pedestrian safety. These plans pinpoint the conditions and characteristics of pedestrian fatalities and severe injuries; they also identify priority corridors, intersections and areas that disproportionately account for pedestrian fatalities and severe injuries, prioritizing them for safety interventions. The plans outline a series of recommended actions comprised of engineering, enforcement and education measures that intend to alter the physical and behavioral conditions on city streets that lead to pedestrian fatality and injury.

The *Vision Zero Bronx Pedestrian Safety Action Plan* was released in early 2015. The plan identifies Third Avenue as the only "Priority Corridor" within the primary or secondary study areas. In addition, the intersection of Third Avenue and East 149th Street was identified as a "Priority Intersection." The *Vision Zero Bronx Pedestrian Safety Action Plan* identified a series of engineering/planning, enforcement, and education/awareness campaign strategies to enhance pedestrian safety along the borough's Priority Corridors and Priority Intersections. These strategies included measures such as reducing the speed limit to 25 miles per hour, expanding exclusive pedestrian crossing time, installing additional lighting around key transit stops, expanding the bicycle network, prioritizing targeted enforcement and deploying speed cameras, and targeting intensive street-level outreach.

Housing New York

On May 5, 2014, the City released Housing New York, a five-borough, ten-year strategy to address the City's affordable housing plan. The plan outlines more than 50 initiatives to support the administration's goal of building or preserving 200,000 units of high-quality affordable housing to meet the needs of more than 500,000 people. The plan intends to do this through five guiding policies and principles: fostering diverse, livable neighborhoods; preserving the affordability and quality of the existing housing stock; building new affordable housing for all New Yorkers; promoting homeless, senior, supportive, and accessible housing; refining City financing tools and expanding funding source for affordable housing. The

implementation of the goals outlined in Housing New York will require a number of subsequent City actions.

Hub-Third Avenue Business Improvement District

Portions of the secondary study area are located in the Hub-Third Avenue Business Improvement District (BID). The Hub-Third Avenue BID was established in 1988 to stimulate economic activity by developing commercial and service establishments, spur private investment, and improve the area's physical appearance through enhanced safety and sanitation services, capital improvement and maintenance programs, and special events and promotions. BIDs are funded by the properties and businesses that lie within their service area.

The Hub-Third Avenue BID encompasses a total of 18 blocks (approximately 1.7 square miles) and over 340 businesses along Third Avenue between East 148th Street and East 153rd Street (refer to Figure C-4). The 2014 goals of the Hub-Third Avenue BID are to:

- Continue to partner with the 40th Precinct in order to ensure that the public safety program remains successful;
- Ensure that the BID's streets and sidewalks remain clean and presentable, maintaining the 100 percent Scorecard Rating achieved in 2013;
- Encourage merchants to hire local residents including high school and college students, and continue to support our community residents by sponsoring events and social service organizations;
- Hold more street festivals and encourage more merchants to participate; and
- Continue efforts to attract major tenants to the area and motivate property owners to take advantage of state, city and private grants to make improvements and decrease upper floor vacancies.

Assessment

No significant adverse public policy impacts are expected to result from the Proposed Actions. As detailed below, the Proposed Actions would be consistent with the public policies that govern the primary and secondary study areas and no further analysis of public policy is warranted.

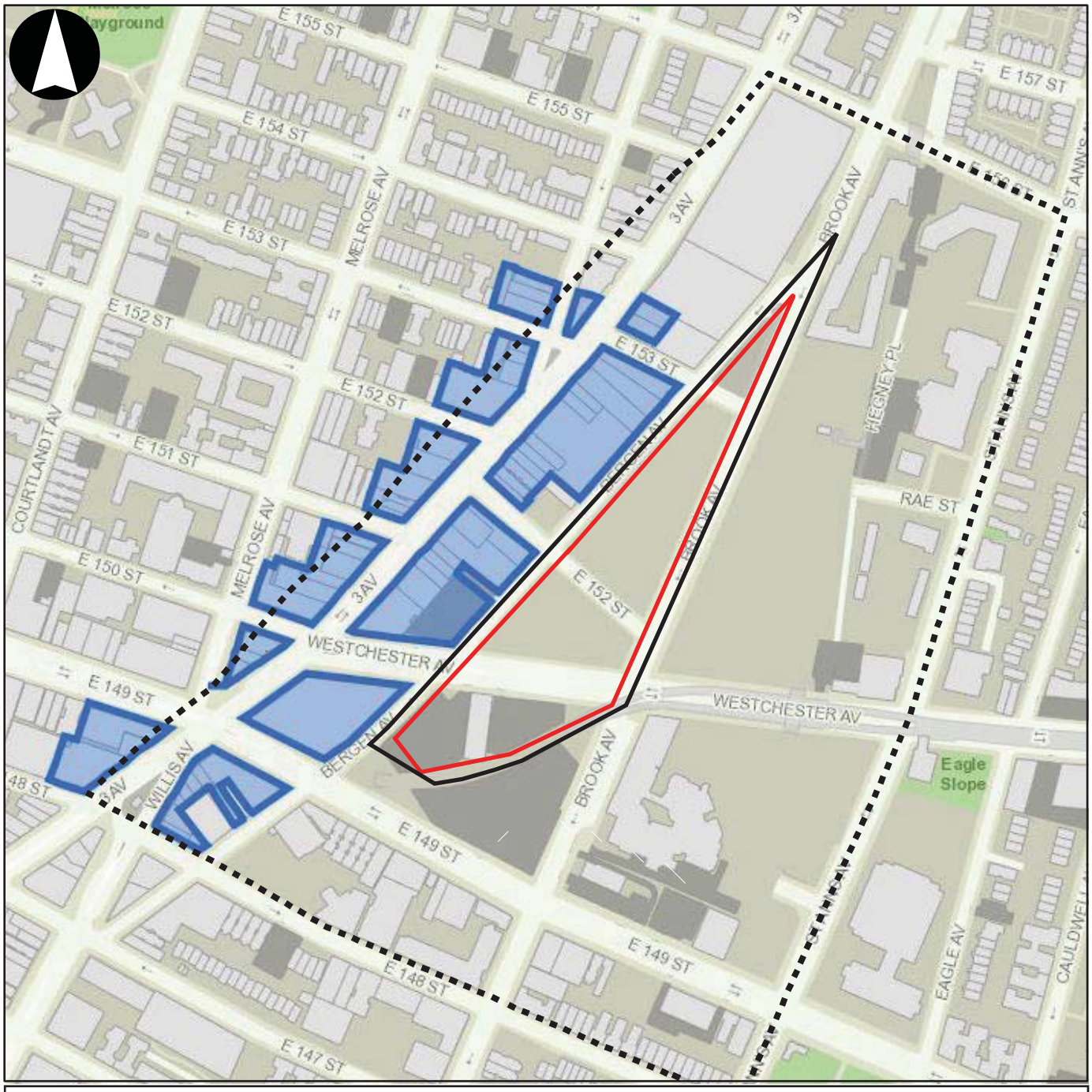
Port Morris Empire Zone

The Proposed Actions would result in the introduction of new commercial activity to the area that would help further the objectives of the Port Morris Empire Zone beyond its boundaries, fostering economic and community development, business investment, and job creation in the neighborhood. Therefore, the Proposed Actions would not conflict with this public policy.

South Bronx Initiative

As discussed above, the western sections of the primary and secondary study areas are located in the Melrose Commons/Third Avenue subarea of the South Bronx Initiative. The Proposed Actions would result in the development of remaining City-owned sites to create affordable housing, ground-floor retail space, community facility space, and new public parks, all specific goals of the Initiative. Therefore, the Proposed Actions would further the objectives of the Initiative and would not conflict with this public policy.

Figure C-4
Hub - Third Avenue BID



Legend

- Project Area
- Primary Study Area
- Secondary Study Area
- HUB - Third Avenue Business Improvement District (BID)

One New York: The Plan for a Strong and Just City

The Proposed Project would support OneNYC initiatives by constructing new affordable housing, as well as retail and community facility uses, on City-owned land that is in close proximity to transit, promoting transit use as well as walkability in the area. The Proposed Project is also generally consistent with OneNYC's open space initiatives as it would introduce approximately 1.26 acres (55,151 sf) of publicly accessible open space with vegetation, benches, walking paths, a skate park, and a rooftop farm. Therefore, the Proposed Actions would not conflict with this public policy.

New York City Food Retail Expansion to Support Health Program (FRESH)

As the Proposed Project would not introduce or displace any existing grocery stores, it would not alter or conflict with this public policy.

Vision Zero

As noted above, the City's Vision Zero initiative seeks to eliminate all deaths from traffic crashes regardless of whether on foot, bicycle, or inside a motor vehicle. The *Vision Zero Bronx Pedestrian Safety Action Plan* identified one Priority Corridor and one Priority Intersection within the primary and secondary study areas, where targeted strategies should be implemented to meet the Vision Zero goal to eliminate all deaths from traffic crashes.

As discussed in Attachment I, "Transportation," two intersections within the traffic and pedestrian study area were identified as "high accident locations," as defined by the *CEQR Technical Manual*. Both locations are anticipated to see increases in pedestrian traffic and/or turning vehicles conflicting with pedestrians as a result of the Proposed Actions. Coordination with DOT will be undertaken in order to monitor what changes can be made to improve safety at these intersections. Additional improvement measures that could be employed to improve pedestrian safety at these locations include new sidewalk extensions and the installation of supplemental advance-warning signage (i.e., "Turning Vehicles Yield to Pedestrians"). As the Proposed Actions are not expected to significantly worsen pedestrian and vehicular safety conditions, the Proposed Actions would be consistent with this public policy.

Housing New York

The Proposed Actions would facilitate the construction of 832 new affordable housing units for households earning between 30 percent and 100 percent of Area Median Income (AMI). The Proposed Actions would also facilitate the development of an additional 160 units of supportive housing, along with approximately 46,800 gsf of local retail and commercial uses, an approximately 50,500 gsf YMCA, approximately 32,700 gsf of other community facility uses, and 1.26 acres (55,151 sf) of publicly accessible open space. By fostering diverse, livable neighborhoods and providing new affordable housing opportunities on a large City-owned property, the Proposed Actions are consistent with the broad goals laid out by this plan.

Hub-Third Avenue Business Improvement District

The Proposed Project would introduce new commercial activity to the area that would help further the objectives of the BID beyond its boundaries, stimulating economic activity and expanding pedestrian activity eastward down Westchester Avenue. The Proposed Project would also improve the neighborhood's physical appearance, another objective of the Hub-Third Avenue BID. Therefore, the Proposed Actions would not conflict with this public policy.

IV. DETAILED ASSESSMENT

Existing Conditions

Land Use

Primary Study Area

The primary study area is coterminous with the boundaries of the proposed rezoning area. As shown in Figure C-1, the primary study area is generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and the elevated IRT #2 and #5 subway tracks to the south. It encompasses the Project Area, as well as small portions of adjacent tax lots to the south (Block 2294, Lots 30, 60). These adjacent lots are currently under construction as part of the Triangle Plaza Hub project at 459 East 149th Street. The primary study area also includes portions of Westchester Avenue, East 152nd Street, East 153rd Street, and the elevated IRT #2 and #5 subway lines (Block 2294, Lot 55).

The Project Area is currently City-owned and encompasses approximately 186,493 sf of lot area. Parcel B (Block 2294, Lot 32) is currently occupied by two paved public parking lots and a vacant two-story, approximately 11,000 gsf commercial building. The two parking lots have a combined capacity of approximately 74 parking spaces and are accessible via curb cuts on the south side of Westchester Avenue. Parcel A (Block 2361, Lots 1, 25, 26, 50) and Parcel C (Block 2363, Lot 1) are vacant and enclosed by chain-link fencing. There is no public access to these portions of the Project Area. East 152nd Street (demapped in 1975, but currently open to traffic) extends between Bergen and Brook Avenues as a functioning one-way westbound street with parking on both the north and south sides. A New York City Department of Environmental Protection (DEP) sewer easement is mapped within the demapped portion of East 152nd Street. In addition, there is an existing street widening easement, which has not been implemented, along East 153rd Street between Bergen and Brook Avenues (see Figure A-4 in Attachment A, "Project Description").

Secondary Study Area

The secondary study area includes the area within an approximate 400-foot radius of the primary study area and supports a variety of land uses, including residential, commercial, mixed-use, industrial/manufacturing, transportation/utility, public facilities and institutions, open space, parking facilities, and vacant land (see Figure C-1). Development is most concentrated to the southwest of the proposed rezoning area in close proximity to "the Hub," which is the point where East 149th Street and Third, Melrose, Willis, and Westchester Avenues intersect. The Hub is recognized as the borough's "downtown" regional shopping and commercial district. Although retail activity is primarily concentrated on Third Avenue and East 149th Street, it spills over to East 150th Street and Melrose, Willis, and Westchester Avenues. These street corridors are lined with a diverse range of retail, food, and service establishments, including clothing/apparel stores, hardware stores, drug stores, delis, restaurants, fast food restaurants, discount stores, and accessory retailers. Many national and regional franchises are located in the area. These retail spaces are heavily trafficked by pedestrians and vehicles.

In addition to its role as a commercial center for the Bronx, the Hub is recognized as a major transportation node that is accessible by a variety of mass transit options including the IRT #2 and #5 subway lines, and several New York City Transit (NYCT) bus routes, including the Bx4, Bx4a, Bx15, Bx19, Bx21, and Bx41 SBS. The Hub is also trafficked by automobiles and pedestrians on main thoroughfares such as Third Avenue and East 149th Street. Several parking lots accommodate parking demand within the secondary study area along Bergen Avenue, East 148th Street, and East 149th Street.

The area is easily accessible from other areas of the Bronx and from northern Manhattan. The Major Deegan Expressway (I-87), a major elevated north-south roadway, is located to the west of the secondary study area, and has on/off ramps at East 161st Street and East 138th Street, as well as an off ramp at East 149th Street. Moreover, the Madison Avenue Bridge, Third Avenue Bridge, and 145th Street Bridge connect with the Grand Concourse, Third Avenue, and East 149th Street, and provide vehicular and pedestrian access to and from northern Manhattan.

Portions of the elevated IRT #2 and #5 subway lines extend eastward down Westchester Avenue. Additionally, in the eastern portion of the secondary study area, midblock on Blocks 2276 and 2359, are the abandoned Port Morris Branch railroad tracks, which were the former connection to the Oak Point Freight Railroad and are now a Metro North railroad right-of-way.

There are two recently constructed developments located just north of the primary study area. To the northwest, on a site bounded by Third Avenue, East 156th Street, and Brook Avenue (Block 2363, Lot 4), is the two-story Hub Retail and Office Center constructed in 2006. This building contains ground-floor retail and second-floor offices for the New York City Department of Finance Bronx Business Center, as well as an adjoining multi-level parking garage. To the northeast of the Project Area on Brook Avenue (Block 2359, Lot 1001) is Via Verde, a subsidized housing development completed in 2012. Via Verde accommodates a stepped, 20-story apartment tower with 150 low-income rental units, 70 affordable cooperative units, community facility space, and ground-floor retail. Adjacent to Via Verde, to the northeast of the Project Area on East 156th Street and St. Ann's Avenue (Block 2359, Lot 210), is the 18-story New York City Housing Authority (NYCHA) Bronxchester Houses.

To the east and southeast of the primary study area are a number of public facilities and institutions, including the Mott Haven Village Preparatory High School and University Heights High School at 701 St. Ann's Avenue (Block 2359, Lot 240); Crotona Academy High School at 639-655 St. Ann's Avenue (Block 2359, Lot 100); and the United States Hub Station Post Office at 633 St. Ann's Avenue (Block 2359, Lot 130). To the west of these institutions is the approximately 3.8 acre Merrill Lynch Field of Dreams (also known as the South Bronx High School Athletic Field), which includes a baseball diamond, running track, and multipurpose synthetic turf field. To the south of these institutions is the Horizon Juvenile Center at 560 Brook Avenue (Block 2276, Lot 1), a self-contained juvenile detention facility with approximately 124 beds.

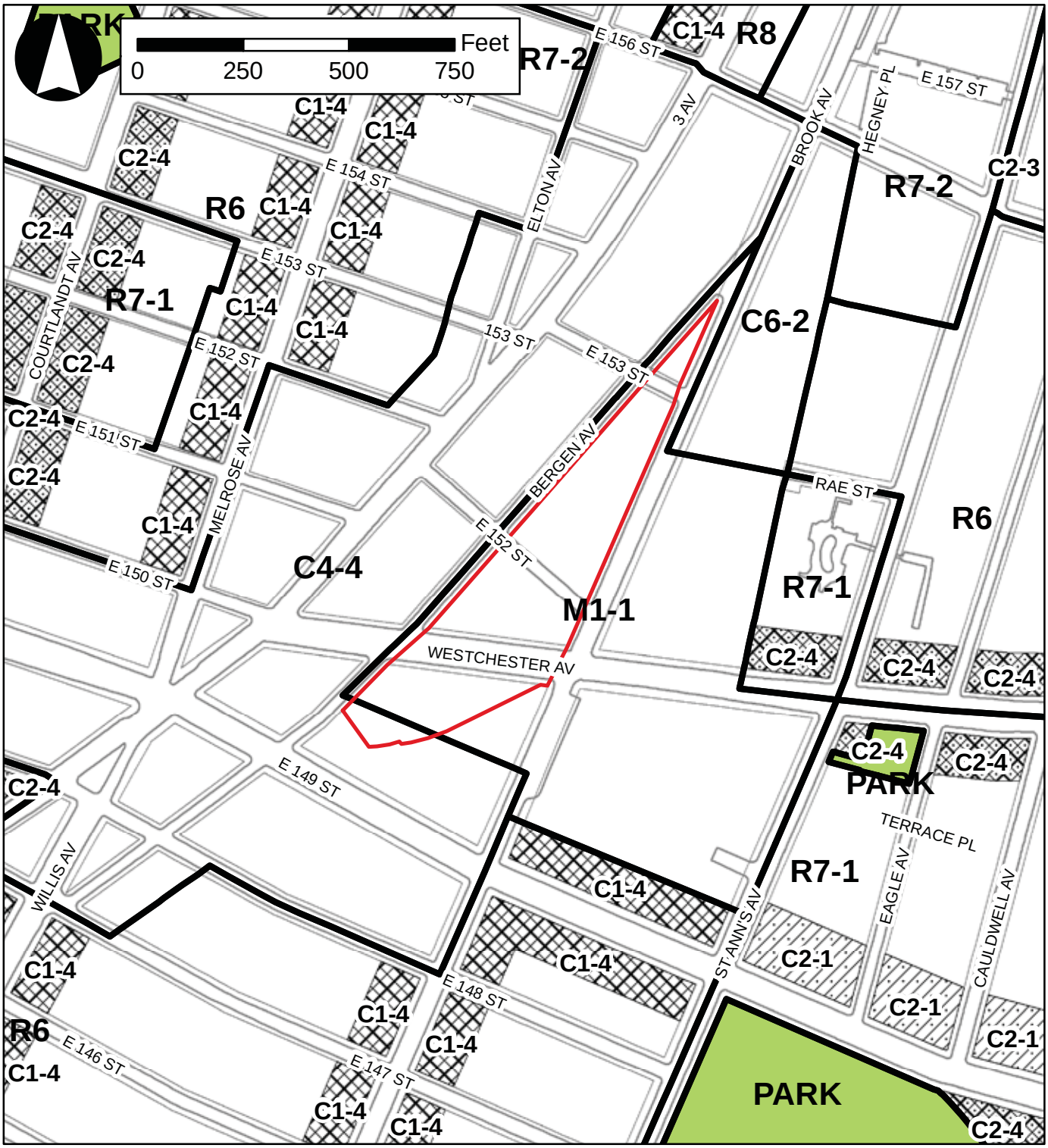
Zoning

Primary Study Area

As shown in Figure C-5, the majority of the Project Area is located in an M1-1 zoning district. M1-1 zoning districts are light manufacturing districts which often act as buffers between heavier manufacturing districts and adjacent residential and commercial districts. Use Groups 4 through 14, 16, and 17 are permitted in M1-1 districts. Nearly all industrial uses are permitted in M1-1 districts if they meet stringent M1 performance standards. M1-1 zoning districts have a maximum FAR of 1.0 for commercial, community facility, and manufacturing uses. Residential uses are not permitted. Building heights and setbacks are controlled by a sky exposure plane, which begins 30 feet above the street line. M1-1 zoning districts require off-street parking and a 20 foot minimum rear yard, except within 100 feet of a corner.

A small portion of Parcel B is zoned C4-4 (see Figure C-5). C4-4 zoning districts are general commercial districts typically mapped in regional commercial centers which are not located in Central Business Districts (CBDs). C4-4 districts have a maximum FAR of 3.44 for residential uses, 3.4 for commercial uses, and 6.5 for community facility uses. Manufacturing uses are not permitted. Building height is regulated by a sky exposure plane, which in C4-4 districts begins 60 feet above the street line and cannot be penetrated. C4-4 districts have a residential equivalent of R7 and Quality Housing regulations are optional. Quality

Figure C-5
Existing Zoning Map



Legend

- Project Area
- Zoning District
- Park
- C1-4 Commercial Overlay
- C2-1
- C2-4 Commercial Overlay

Housing regulations utilize height limits to produce lower, high lot coverage buildings set at or near the street line. In C4-4 districts, the optional Quality Housing regulations result in a maximum residential FAR of 4.0. Quality Housing regulations mandate a maximum base height of 65 feet before setback (10 feet when facing wide street, 15 feet when facing narrow street) and a maximum building height of 80 feet.

Secondary Study Area

As detailed in Table C-1 below and shown in Figure C-5, the area within an approximate 400-foot radius of the Project Area includes light manufacturing, general commercial districts, medium-density residential districts, and commercial overlays.

Table C-1
Existing Zoning Districts within the Secondary Study Area

Zoning	Definition/General Use	Maximum FAR
M1-1	Light manufacturing district	M: 1.0; CF: 1.0; C: 1.0
C4-4	General commercial district, R7 residential equivalent	R: 3.44 (4.0 with QH); CF: 6.5; C: 3.4
C6-2	General central commercial district, R8 residential equivalent	R: 6.02 (7.2 with QH); CF: 6.5; C: 6.0
R6	Medium-density residential district	R: 2.43; CF: 4.8; C: 2.0 as overlay (if mapped)
R7-1	Medium-density residential district	R: 3.44; CF: 4.8; C: 2.0 as overlay (if mapped)
R7-2	Medium-density residential district	R: 4.0; CF: 6.5; C: 2.0 as overlay (if mapped)
C1-4	Low-density commercial overlay, residential in character	Maximum 2.0 FAR
C2-4	Low-density commercial overlay, residential in character	Maximum 2.0 FAR

Source: New York City Zoning Resolution
Notes: R=Residential; C=Commercial; CF=Community Facility; M=Manufacturing; QH=Quality Housing Program

As detailed above, the majority of the primary study area and a portion of the secondary study area to the east are located in an M1-1 light manufacturing zoning district. M1-1 districts have a maximum FAR of 1.0 for commercial, community facility, and manufacturing uses. Residential uses are not permitted.

A small section of the primary study area and the portion of the secondary study area to the west and south are located in a C4-4 general commercial district. As detailed above, C4-4 districts have a residential equivalent of R7 and Quality Housing regulations are optional. Maximum floor area ratios include 3.44 for residential uses (4.0 with optional Quality Housing), 3.4 for commercial uses, and 6.5 for community facility uses. Manufacturing uses are not permitted.

A section of the secondary study area to the northeast of the Project Area is zoned C6-2. C6-2 zoning districts are typically mapped outside of central business districts and permit a wide range of high-bulk commercial uses requiring a central location. C6-2 districts have a residential equivalent of R8 and Quality Housing regulations are optional. Maximum floor area ratios include 6.02 for residential uses (7.2 with optional Quality Housing), 6.0 for commercial uses, and 6.5 for community facility uses. Manufacturing uses are not permitted. Off-street parking is generally not required in C6-2 districts, but is required for 40 percent of DUs.

The remaining sections of the secondary study area to the northeast, east, and southeast of the Project Area are located in R6, R7-1, and R7-2 zoning districts (see Figure C-5). All three zoning districts are medium-density residential districts that permit Use Groups 1 through 4. As shown in Table C-1 above, the maximum FARs for these three districts range from 2.43 to 4.0 for residential uses and from 4.8 to 6.5 for community facility uses. C1-4 and C2-4 commercial overlays are mapped within the R6 and R7-1 districts, respectively. Both commercial overlays have a maximum FAR of 2.0. Parking is required for 70 percent of DUs in R6 districts; 60 percent of DUs in R7-1 districts; and 50 percent of DUs in R7-2 districts.

Future Without the Proposed Actions (No-Action)

Land Use

Primary Study Area

In the future without the Proposed Actions, the Project Area would remain under the jurisdiction of HPD as underutilized and mostly vacant land with the exception of the southern parcel, which would continue to operate with two at-grade public parking facilities and a vacant 11,000 gsf building. East 152nd Street would continue to be open to traffic.

Additionally, it is anticipated that the two-story, approximately 83,000 gsf Triangle Plaza Hub commercial and institutional development at 459 East 149th Street (Block 2294, Lot 60), which is partially located in the southernmost portion of the proposed rezoning area, would be developed in the future without the Proposed Actions. The Triangle Plaza Hub project is currently under construction and is scheduled for completion in 2015 (refer to Figure C-6).

Secondary Study Area

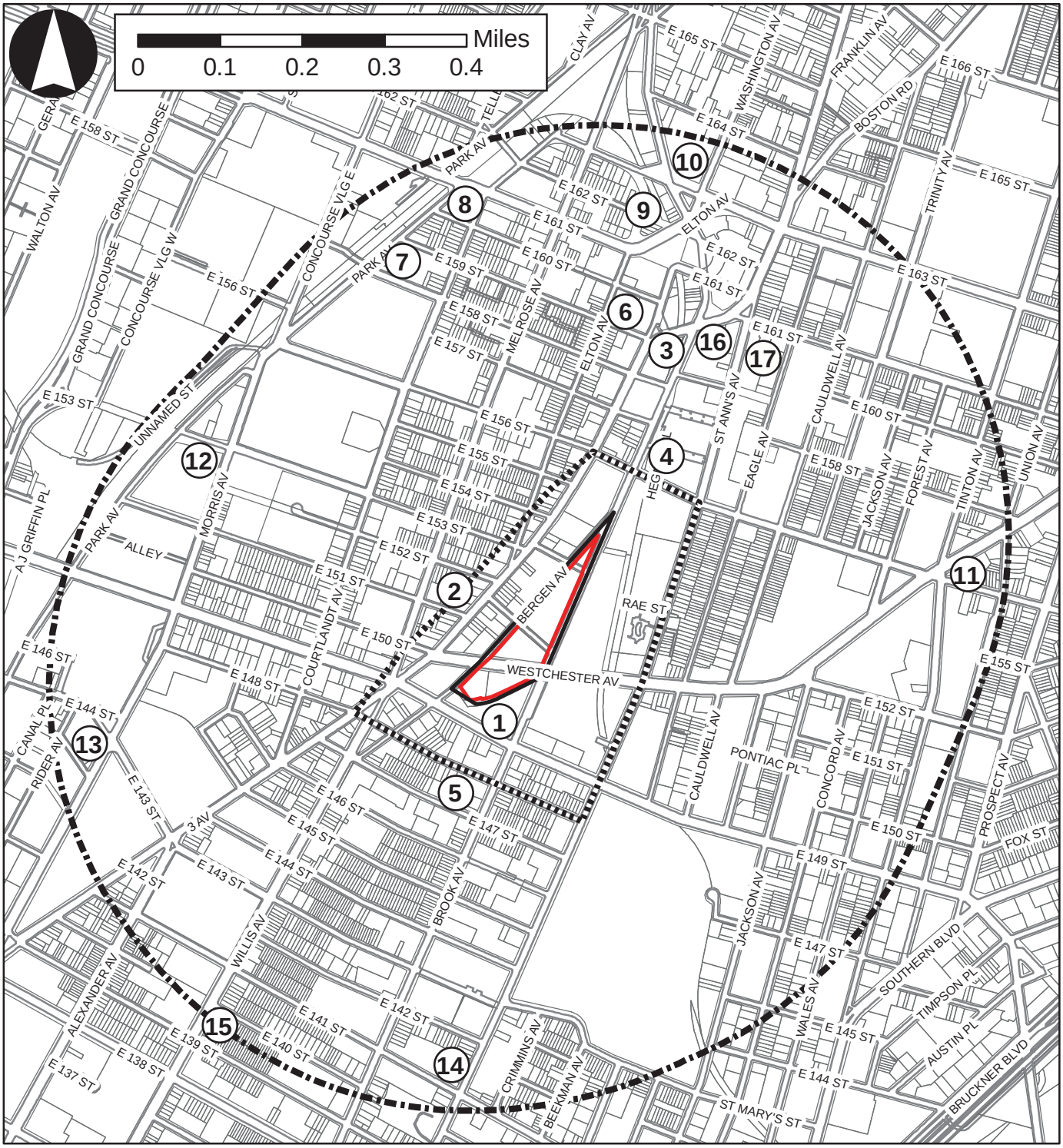
In the 2020 future without the Proposed Actions, there are two development projects anticipated to be completed within the approximate 400-foot secondary study area. These include the Triangle Plaza Hub development discussed above, as well as a 7-story mixed-use commercial and residential development (10 DUs) at 411 East 151st Street to the west of the proposed rezoning area. There is also a street reconfiguration project anticipated to be completed at Roberto Clemente Plaza, located to the southwest of the proposed rezoning area at the intersection of East 149th Street, Willis, Melrose, and Third Avenues. The reconstruction project includes the transformation of the asphalt traffic triangle into a 15,000 sf pedestrian plaza with trees, seating areas, and a fountain. Safety improvements such as lighting, distinctive pedestrian and bicyclist paving and crosswalks, and traffic signaling improvements in the vicinity of the Hub would also be incorporated. The street reconstruction is scheduled for completion in 2015.

For the purposes of other analyses that have a larger study area than the defined secondary study area, future No-Action developments beyond a 400-foot radius were identified (see Figure C-6). As presented in Table C-2 below, within a ½-mile radius there are 17 total developments anticipated to be completed by the analysis year of 2020.

Two developments are planned for construction immediately outside of the secondary study area. These include the 8-story, 42-unit Brook 156 residential building at East 156th Street and Brook Avenue, and the 5-story, 66-unit Brook Avenue Apartments at 455 East 147th Street/493 Brook Avenue. Other notable projects within a ½-mile of the proposed rezoning area include Melrose Commons North RFP Sites B & C, 655 Morris Avenue, and Morris Court Apartments. Melrose Commons North RFP Sites B & C are planned mixed-use developments that are expected to include approximately 480 DUs as well as space for commercial and community facility uses. 655 Morris Avenue is also a planned mixed-use development and is expected to include approximately 196 DUs and commercial space over 15 floors. Morris Court Apartments is a planned residential development which is expected to include approximately 201 DUs.

Additionally, it should be noted that a new Station House for the 40th Police Precinct in the Bronx is anticipated to be constructed to the west of the proposed rezoning area on Block 2276, immediately adjacent to the existing Horizon Juvenile Detention Center. The new approximately 43,000 sf facility abutting Westchester Avenue, East 149th Street, and Saint Ann's Avenue will have offices, staff areas, training rooms, client book and processing areas, and detention areas for the 40th Police Precinct. As the design for the new Station House is still in progress, it is conservatively assumed that the facility would not be completed until after the proposed development's build year of 2020. As such, the facility is not considered

Figure C-6
No-Build Development Sites



Legend

- Primary Study Area
- Secondary Study Area
- Project Area
- Half-Mile Radius
- (1) No-Build Site (refer to Table C-2)

a No-Action development site in the future without the Proposed Actions.

Table C-2
No-Action Developments Planned for Completion by 2020 within a ½-Mile Radius

Map No.[1]	Project Name/Address	Development Program	Transportation Assumptions	Build Year
Within a 400-Foot Radius				
1	Triangle Plaza Hub	83,000 gsf commercial	Incorporated in No-Action	2015
2	411 East 151st Street	10 DUs, 2,744 gsf commercial, 2,254 community facility	Incorporated in No-Action	2020
Within a Half-Mile Radius				
3	Cornerstone Round 3 Site B2	74 DUs, 3,656 gsf commercial	Incorporated in No-Action	2017
4	Brook 156	42 DUs	Included in background growth	2017
5	Brook Avenue Apartments	66 DUs	Incorporated in No-Action	2017
6	Addition to Courtlandt (Melrose Commons URA Site 31)	8 DUs	Included in background growth	2017
7	Addition to Park (Melrose Commons URA Site 23)	8 DUs	Included in background growth	2017
8	3160 Park Avenue	152 DUs, 21,400 gsf commercial	Incorporated in No-Action	2017
9	Melrose Commons North (RFP Sites B & C)	480 DUs, 60,746 gsf community facility	Incorporated in No-Action	2017
10	Plaza 163	81,000 gsf commercial	Not expected to generate substantial demand through analyzed locations, included in background growth	2015
11	766 Westchester Avenue	38,300 gsf commercial	Incorporated in No-Action	2020
12	655 Morris Avenue	196 DUs, 9,466 gsf commercial, 8,633 gsf community facility	Not expected to generate substantial demand through analyzed locations, included in background growth	2020
13	Morris Court Apartments	201 DUs	Not expected to generate substantial demand through analyzed locations, included in background growth	2014
14	St. Ann's / 142nd Street	100 DUs	Not expected to generate substantial demand through analyzed locations, included in background growth	2017
15	294-296 Willis Avenue	4 DUs, 4,982 gsf commercial	Included in background growth	2020
16	3146 Third Avenue	1,000 gsf commercial, 34,000 gsf community facility	Included in background growth	2020
17	861 Eagle Avenue	78 DUs, 10,000 gsf community facility	Included in background growth	2020

Sources: HPD; DCP; DOB New Building Applications; previous environmental assessments; newspaper articles; PHA site visits.
Notes: Refer to Figure C-6.

Zoning

As there are currently no known zoning map or text amendment proposals, no changes to zoning are expected within the primary and secondary study areas in the future without the Proposed Actions.

Future With the Proposed Actions (With-Action)

As described in Attachment A, "Project Description," the Proposed Project is seeking approval for several discretionary actions including the disposition of City-owned property, designation and approval of the project as an UDAAP, a zoning map amendment, and a special permit for a LSGD. The project sponsor

may also seek approval for construction financing at a future date. As currently envisioned, the Proposed Actions would facilitate a five building mixed-use development consisting of approximately 832 affordable DUs, approximately 160 supportive housing units, approximately 46,800 gsf of local retail and other commercial uses, and approximately 83,200 gsf of community facility uses. The Proposed Project would also include up to approximately 262 parking spaces and approximately 1.26 acres (55,151 sf) of public open space.

Land Use

Primary Study Area

The Proposed Actions would result in changes to land use within the primary study area by introducing residential space, ground-floor retail and other commercial space, and community facility uses to the Project Area. These uses would be consistent with uses already present in the surrounding area. As described above, this area is located in the immediate vicinity of the Hub, a major shopping and business district of the Bronx characterized by retail, food, and service establishments. The proposed development is expected to complement existing land uses and expand commercial and community facility offerings in the area with the introduction of ground-floor local retail, a YMCA, and a number of other local community uses including a public rooftop farm and a day care center.

The Proposed Actions would not generate land uses that would be incompatible with surrounding uses, nor would they displace land uses in such a way as to adversely affect surrounding land uses. Therefore, the Proposed Actions would support land use trends in the primary study area and no significant adverse land use impacts are expected.

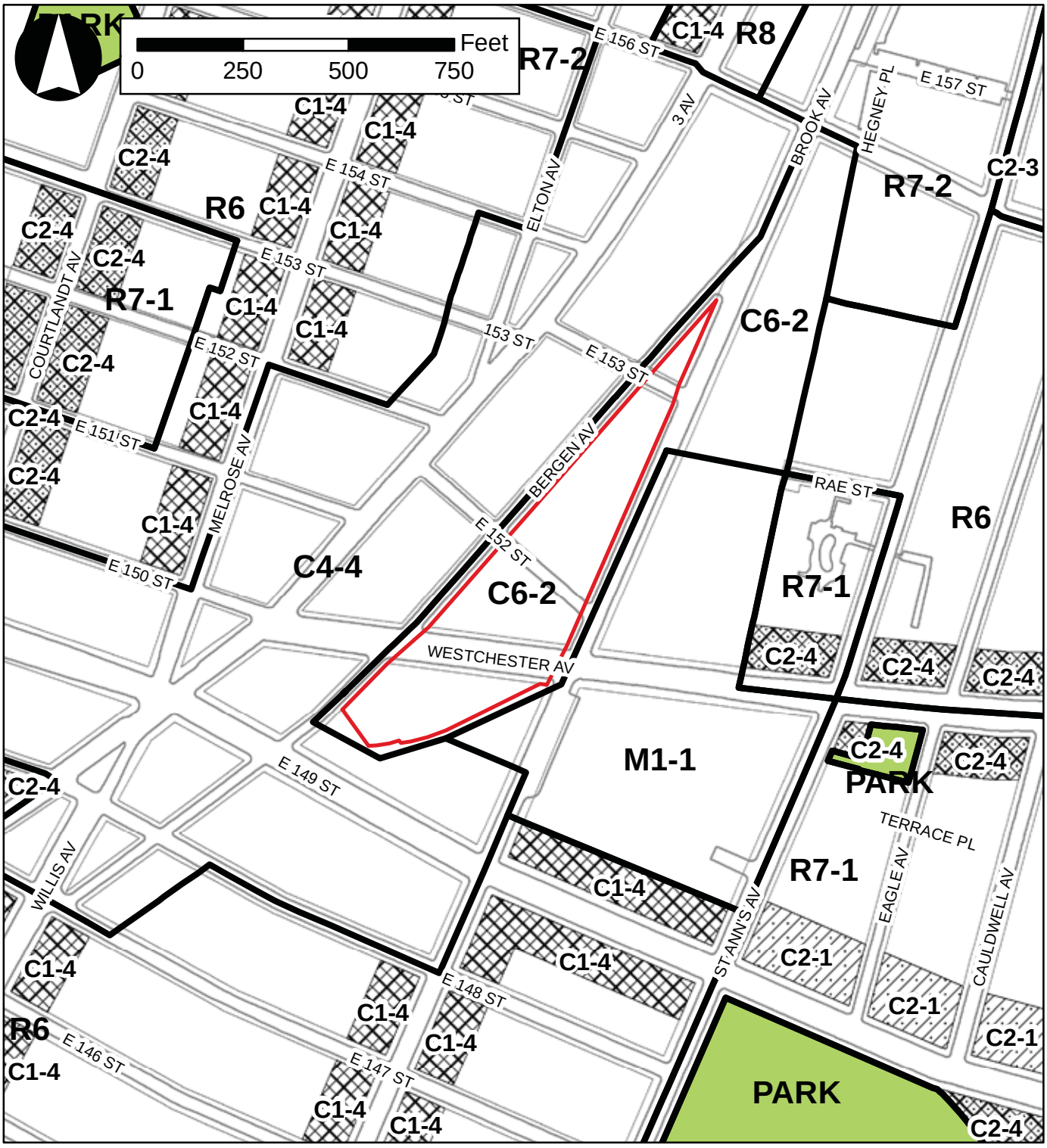
Secondary Study Area

The secondary study area would not undergo any changes as a result of the Proposed Actions. The Proposed Actions would have no direct effect on land uses in the secondary study area. As noted above, the secondary study area is primarily comprised of a diverse mix of uses including retail, food, and service establishments as well as public facilities and institutions, parking, and vacant land. Therefore, the Proposed Actions would not introduce new land uses that would be incompatible with their surroundings, and are not expected to result in significant adverse land use impacts in the secondary study area.

Zoning

Zoning Map Change

In the future with the Proposed Actions, the primary study area would be rezoned from M1-1 and C4-4 to C6-2 (see Figure C-7). C6-2 zoning districts are typically mapped outside of central business districts and permit a wide range of high-bulk commercial uses requiring a central location. C6-2 districts have a residential equivalent of R8 and the proposed development would be constructed under height factor regulations. The proposed zoning change would permit new residential, retail, and community facility development as-of-right in the Project Area, whereas no residential and only limited community facility uses are permitted under existing M1-1 zoning. Manufacturing and industrial uses would no longer be permitted at the site. The proposed C6-2 zoning district would allow new buildings with height and bulk significantly different than would be allowed under existing zoning. As shown in Table C-3, the proposed C6-2 zoning district would also increase allowable density to a maximum FAR of 6.02 for residential uses, 6.0 for commercial uses, and 6.5 for community facility uses. The rezoning would reduce the maximum open space ratio (OSR) to 11.9 and increase the maximum street wall height to 85 feet.



Legend

- Project Area
- Zoning District
- Park
- C1-4 Commercial Overlay
- C2-1
- C2-4 Commercial Overlay

Table C-3
Comparison of Height, Bulk, and Setback Regulations Under Existing and Proposed Zoning

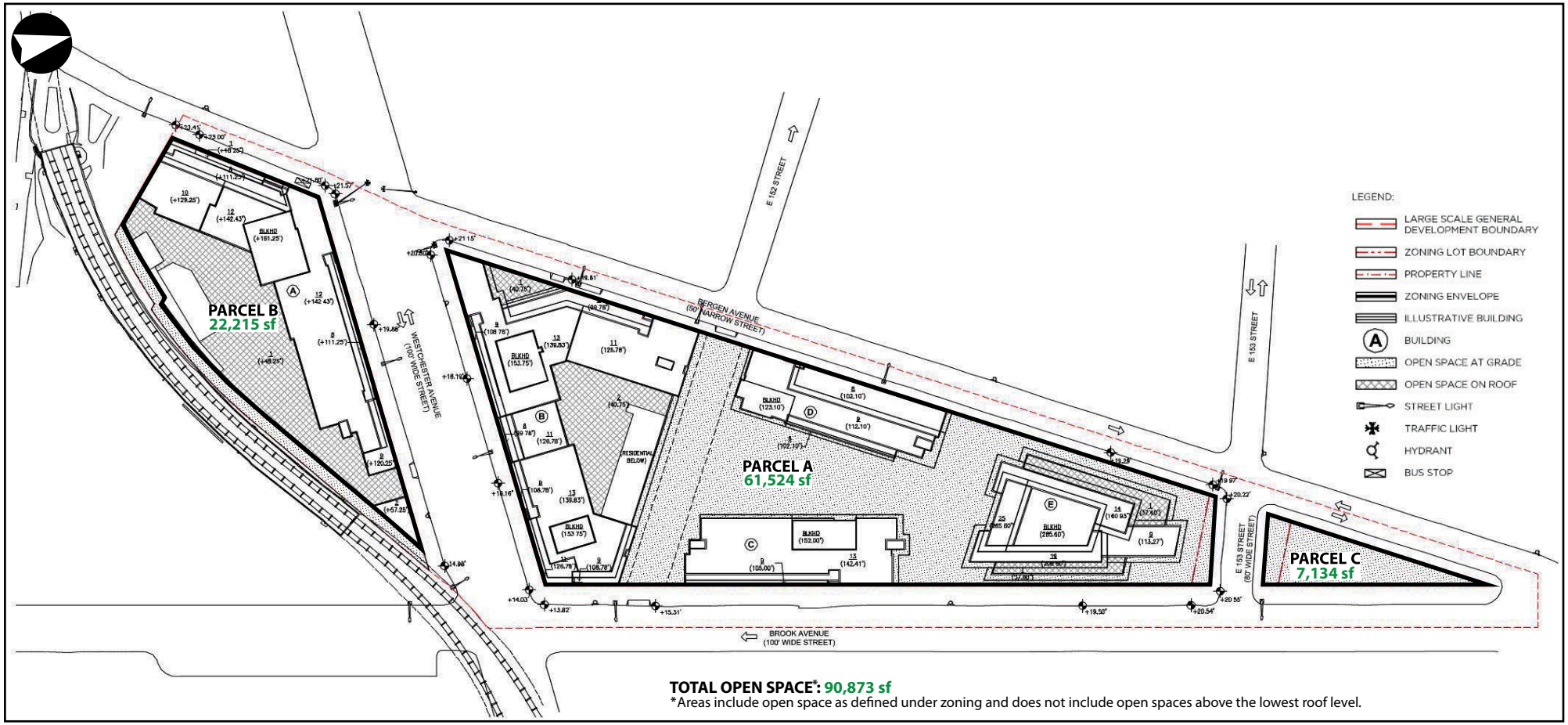
	Existing		Proposed
	M1-1	**C4-4 (R7)**	**C6-2 (R8)**
Floor Area Ratio (FAR)	1.0 manufacturing 1.0 commercial 1.0 community facility	3.44 residential 3.4 commercial 6.5 community facility	6.02 residential 6.0 commercial 6.5 community facility
Height and Setback	Building cannot penetrate sky exposure plane which begins 30' above street line	Building cannot penetrate sky exposure plane which begins 60' above street line	Buildings cannot penetrate sky exposure plane which begins 85' above street line
Open Space Ratio	N/A	15.5-25.5	5.9-11.9

Zoning Special Permit Pursuant to ZR Section 74-74 (LSGD)

The New York City Zoning Resolution allows the City Planning Commission to permit bulk modifications for distribution of total allowable floor area, lot coverage and open space without regard for zoning lot lines, the location of buildings without regard to yard, court, distance between buildings, or height and setback requirements, as well as use modifications for the location of commercial uses within a LSGD. The applicant is seeking approval to develop the Project Area as a LSGD pursuant to a ZR Section 74-74 special permit, which would include waivers pursuant to ZR Section 74-743 to permit the distribution of total required open space within the LSGD without regard for zoning lot lines and to permit the location of buildings without regard to applicable yard, court, distance between buildings and height and setback regulations, and ZR Section 74-744 to permit residential and non-residential uses to be arranged on the second floor within Building B without regard for location regulations of ZR Section 32-42. The requested approvals are necessary to facilitate a feasible plan and to provide a better site development and urban design concept than might otherwise be possible using standard zoning regulations. While the special permit for a LSGD would allow a development that does not strictly comply with as-of-right zoning controls, the overall density of the proposed development would not exceed what would be permitted as-of-right, and the overall built form of the proposed structures would achieve a superior site plan for the proposed residential, community facility, and commercial uses through greater flexibility in the application of district regulations than what could be produced as-of-right. Additional analysis of the required special permit and its effect on the design of the proposed development can be found in Attachment G, "Urban Design and Visual Resources."

The Proposed Project would require waivers pursuant to ZR Section 74-743(a)(1) to permit the distribution of required open space without regard for zoning lot lines (see Figures C-8). This modification would facilitate the creation of a site plan and project design that is uniquely suited to the irregularly-shaped Project Area, while providing ample open space and keeping buildings close to the street to maintain a pedestrian scale and activate the streetscape. Parcel A, which would be occupied by Buildings B, C, D, and E, would be developed with approximately 815,800 sf of floor area and would be required to provide approximately 64,277 sf of open space pursuant to ZR Section 23-142, but would only provide 61,524 sf through a courtyard and rooftop open spaces. Therefore, approximately 4,000 sf of open space on Parcel C would be counted toward Parcel A's open space requirement of 64,277 sf. Parcel C, which is an approximately 7,134 sf zoning lot, would be improved as a skate park, but would be open and unobstructed from its lowest level to the sky. In total, the Project Area would include approximately 90,873 sf of open space for zoning requirements, including approximately 61,524 sf on Parcel A, approximately 22,215 sf on Parcel B, and approximately 7,134 sf on Parcel C[1], which would exceed the open space zoning requirements.

[1] This open space is part of the zoning lot that is open, and unobstructed from its lowest level to the sky, except for specific obstructions, and is accessible to and usable by all persons occupying dwelling units on the zoning lot. It does not include proposed rooftop open space and terraces above the second floor.



Courtesy of FXFowle Architects

For Illustrative Purposes Only

The requested waivers pursuant to ZR Section 74-743(a)(2) would permit the locations of the proposed buildings without regard to the applicable height and setback, outer court, and rear yard regulations. Buildings A, B, C, D, and E would be located without regard to applicable yard, height, and/or setback requirements of ZR Sections 22-632 and 33-432 (refer to Figures C-9 through C-13). Buildings A, B, C, and D would exceed the maximum permitted street wall height of 85 feet in a C6-2 zoning district, encroach into the required initial 15-foot setbacks along Westchester and Brook Avenues (wide streets) and/or 20-foot setback on Bergen Avenue (a narrow street), and penetrate the required sky exposure planes, which commence at a height of 85 feet and extend at a ratio of 5.6:1 along Brook and Westchester Avenues and 2.7:1 along Bergen Avenue. In addition, Building A would partially obstruct the rear yard as required by ZR Sections 23-47, 33-026, and 35-50.

Building A

- Building A would be located on Parcel B and would have frontage along the south side of Westchester Avenue and the east side of Bergen Avenue. Sections 1 through 4 in Figure C-10 illustrate the areas for which waivers are being sought for Building A pursuant to ZR Section 74-743(a)(2) for applicable height, setback, and sky exposure plane requirements along both of the building's street frontages. In addition, Building A would require a waiver of the building's rear yard requirements.
    - As shown in Sections 1 and 2 of Figure C-10a, Building A would exceed the maximum permitted street wall height of 85 feet by up to 36 feet on Bergen Avenue and would encroach into the required initial 20-foot setback along a narrow street, penetrating the 2.7:1 sky exposure plane, which begins at a height of 85 feet.
    - As shown in Sections 3 and 4 of Figure C-10b, Building A would also exceed the maximum permitted street wall height of 85 feet by up to 36 feet on Westchester Avenue and would encroach into the required initial 15-foot setback along a wide street, penetrating the 5.6:1 sky exposure plane, which begins at a height of 85 feet.
    - Building A also requires waiver of rear yard requirements. ZR Section 23-47 requires a 30 foot rear yard at every rear lot line, commencing at the floor level of the lowest story used for dwelling units. ZR Section 33-26 requires a 20 foot rear yard at every rear lot line. A permitted obstruction of one story plus basement used for any permitted use other than residences, not exceeding 23 feet in height, is a permitted obstruction in the commercial rear yard, pursuant ZR Section 33-23(b)(3). Due to a downward slope running from west to east on Parcel B, the average curb level for Building A varies depending on which portion of the building it is measured from. Building A would provide a 30 foot rear yard commencing at approximately 25 feet in height above average curb level at the portion of the building near Bergen Avenue, and at approximately 31 feet in height above average curb level at the portion of the building along Westchester Avenue. Therefore, a waiver is being sought for an obstruction in the required rear yard ranging from approximately two to eight feet in height. On Westchester Avenue, the encroachment differs depending on the section of the building measured.

Building B

- Building B would be located in the southern portion of Parcel A and would have frontage along the west side of Brook Avenue, north side of Westchester Avenue, and east side of Bergen Avenue. Sections 5 through 9 in Figure C-11 illustrate the areas for which waivers are being sought for Building C pursuant to ZR Section 74-743(a)(2) for applicable height, setback, and sky exposure plane requirements along all three of the building's street frontages.
    - As shown in Section 5 of Figure C-11a, Building B would exceed the maximum permitted street wall height of 85 feet by approximately nine feet on Brook Avenue, and would encroach into the required initial 15-foot setback along a wide street, penetrating the 5.6:1 sky exposure plane, which begins at a height of 85 feet.

- As shown in Sections 6 through 9 of Figures C-11a and C-11b, Building B would exceed the maximum permitted street wall height of 85 feet by up to approximately 35 feet on Westchester Avenue, and would encroach into the required initial 15-foot setback along a wide street, penetrating the sky exposure plane of 5.6:1 on Westchester Avenue, which begins at 85 feet in height.
- As shown in Sections 5, 8, and 9 of Figures C-11a and C-11b, Building B would exceed the maximum permitted street wall height of 85 feet by up to approximately 35 feet on Bergen Avenue, and would encroach into the required initial 20-foot setback along a narrow street, penetrating the sky exposure plane of 2.7:1 on Bergen Avenue, which begins at 85 feet in height.

Building C

- Building C would be located on Parcel A along the west side of Brook Avenue. Sections 10 and 11 in Figure C-12 illustrate the areas for which waivers are being sought for Building C pursuant to ZR Section 74-743(a)(2) for applicable height, setback, and sky exposure plane requirements along Brook Avenue (a wide street). As shown in Section 11 of Figure C-12, Building C would exceed the maximum permitted street wall height of 85 feet by up to 40 feet, and would encroach into the required initial 15-foot setback along a wide street, penetrating the 5.6:1 sky exposure plane, which begins at a height of 85 feet.

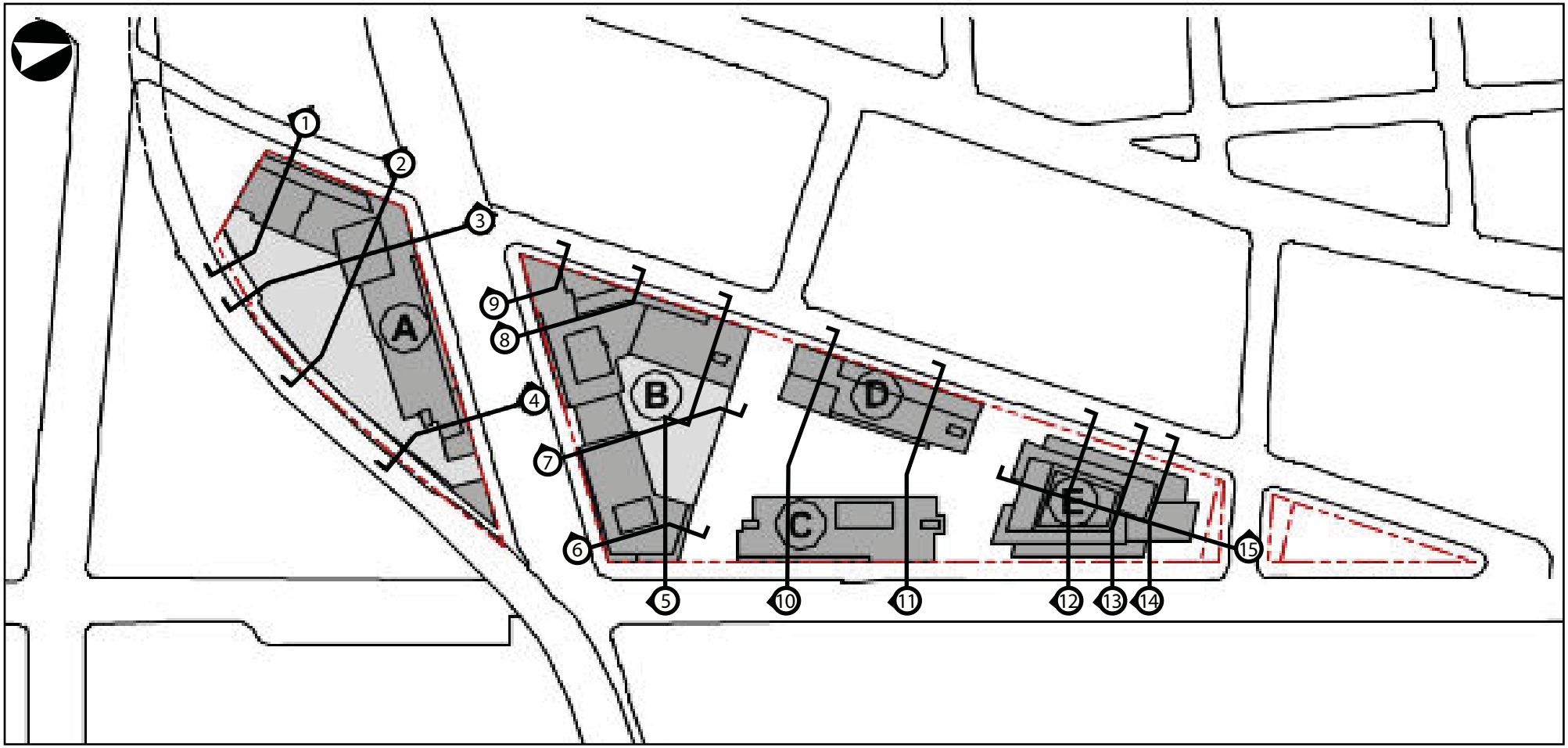
Building D

- Building D would be located on Parcel A along the east side of Bergen Avenue. Sections 10 and 11 in Figure C-12 also illustrate the areas for which waivers are being sought for Building D pursuant to ZR Section 74-743(a)(2) for applicable height, setback, and sky exposure plane requirements along Bergen Avenue (a narrow street). As shown in Section 10 of Figure C-12, Building D would exceed the maximum permitted street wall height of 85 feet by approximately 8 feet, and encroach into the required 20-foot setback along a narrow street, penetrating the 2.7:1 sky exposure plane, which begins at a height of 85 feet.

Building E

- Building E would be located in the northern portion of Parcel A and would have frontage on the west side of Brook Avenue, east side of Bergen Avenue, and the south side of East 153rd Street (see Sections 12 through 15 in Figure C-13). Sections 12 and 13 in Figure C-13a illustrate the areas for which waivers are being sought for Building E pursuant to ZR Section 74-743(a)(2) for applicable height, setback, and sky exposure plane requirements along Bergen Avenue (a narrow street). As shown in Sections 12 and 13 of Figure C-13a, Building E would penetrate the 2.7:1 sky exposure plane along Bergen Avenue beginning at the building's 20th story (at height of approximately 188 feet). Building E would comply with the maximum permitted street wall height of 85 feet, and the required initial setback of 20 feet along a narrow street. No waivers are being sought for the building's frontages along East 153rd Street or Brook Avenue.

The required waiver pursuant to ZR Section 74-744(b) would permit residential and non-residential uses to be arranged on the second floor of Building B without regard for the location regulations of ZR Section 32-42 (see Figure C-14). This waiver is being requested to allow Use Group 10 television studio and Use Group 2 residential units on the first and second stories of Building B. Pursuant to ZR Section 32-42 a Use Group 10 television studio is only permitted "on a story below the lowest story occupied in whole or in part by… dwelling units." As currently proposed, there are anticipated to be dwelling units on the first and second stories of Building B, in the form of duplex maisonette apartments fronting along the 50 foot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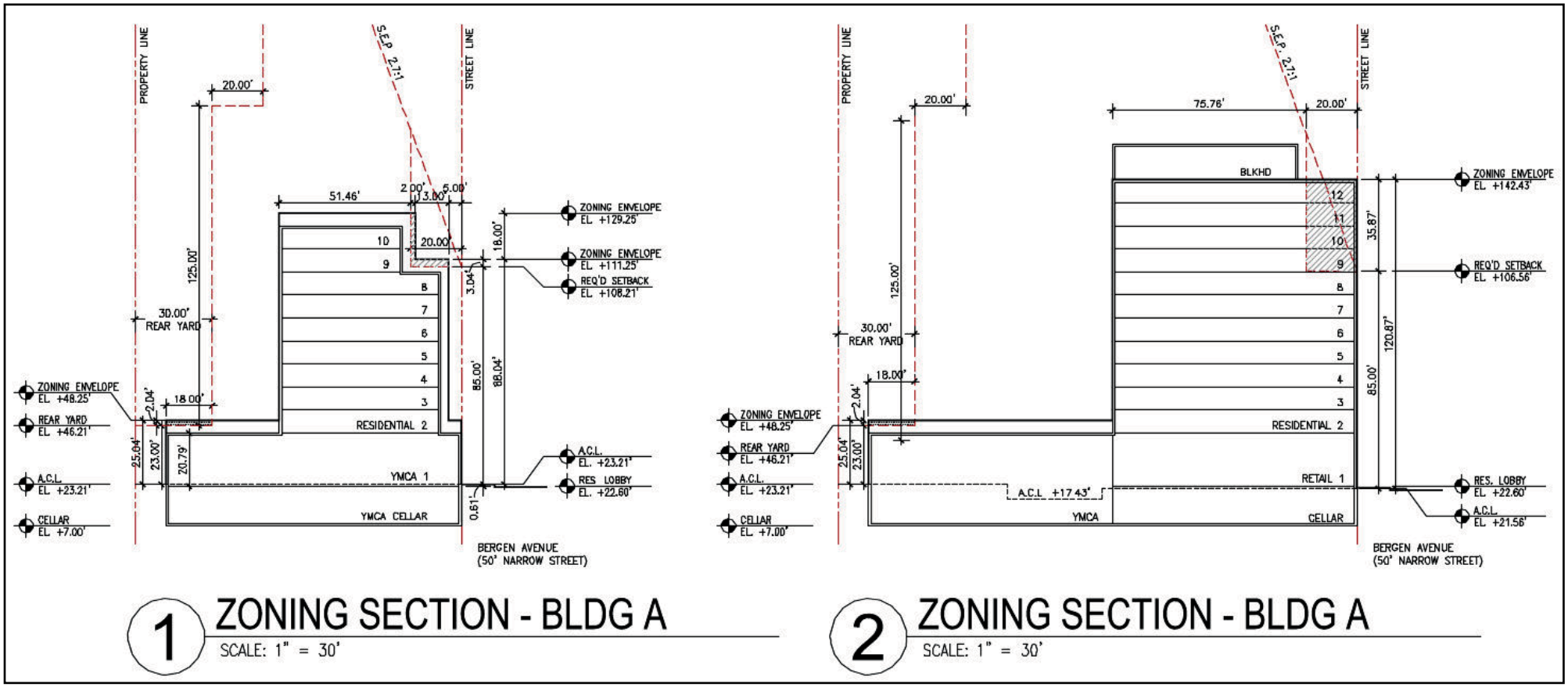
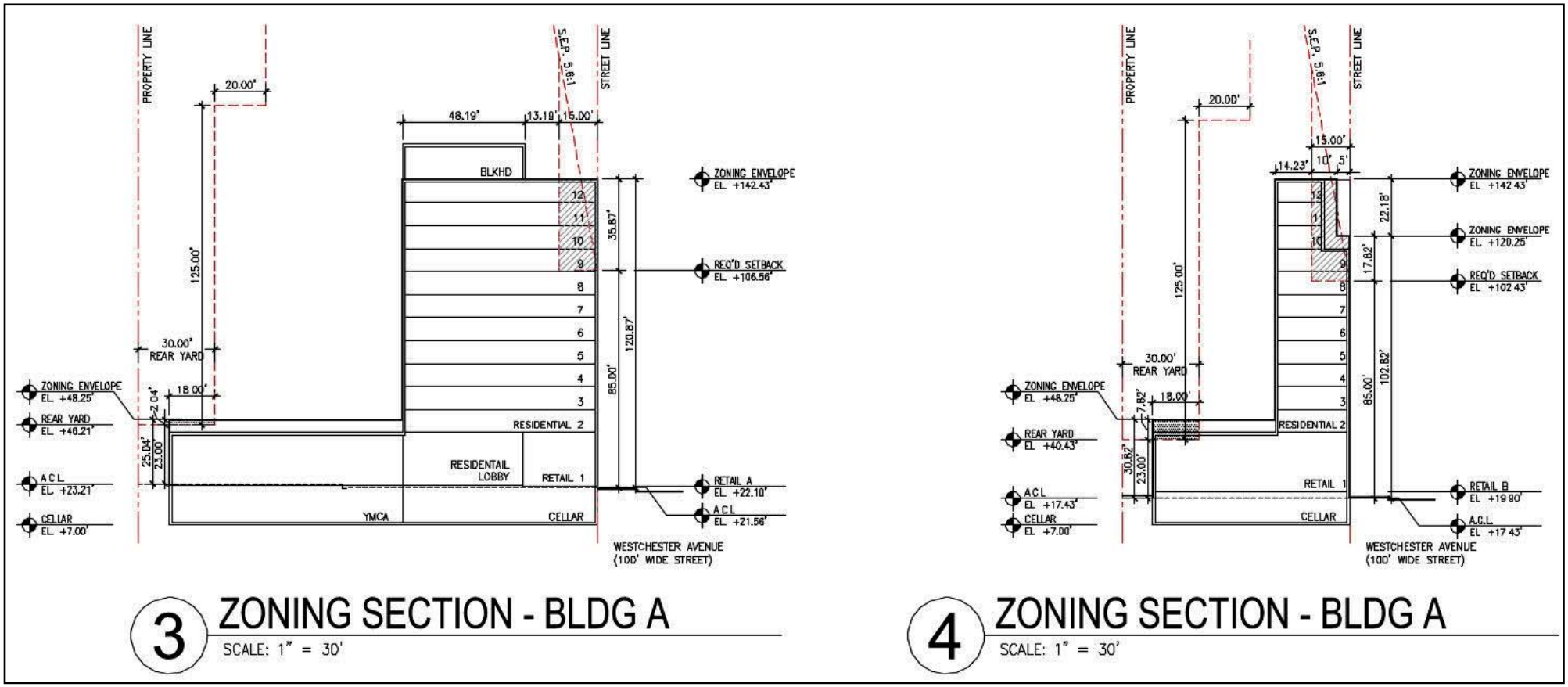


Courtesy of FXFowle Architects



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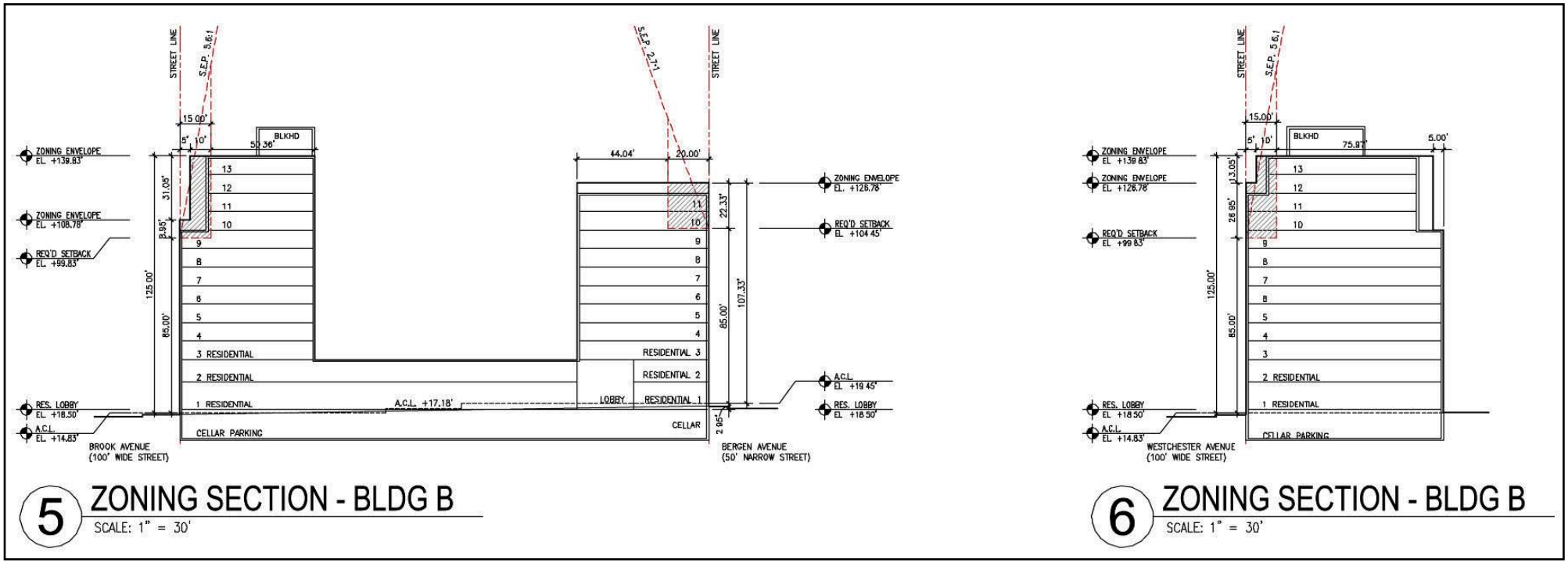

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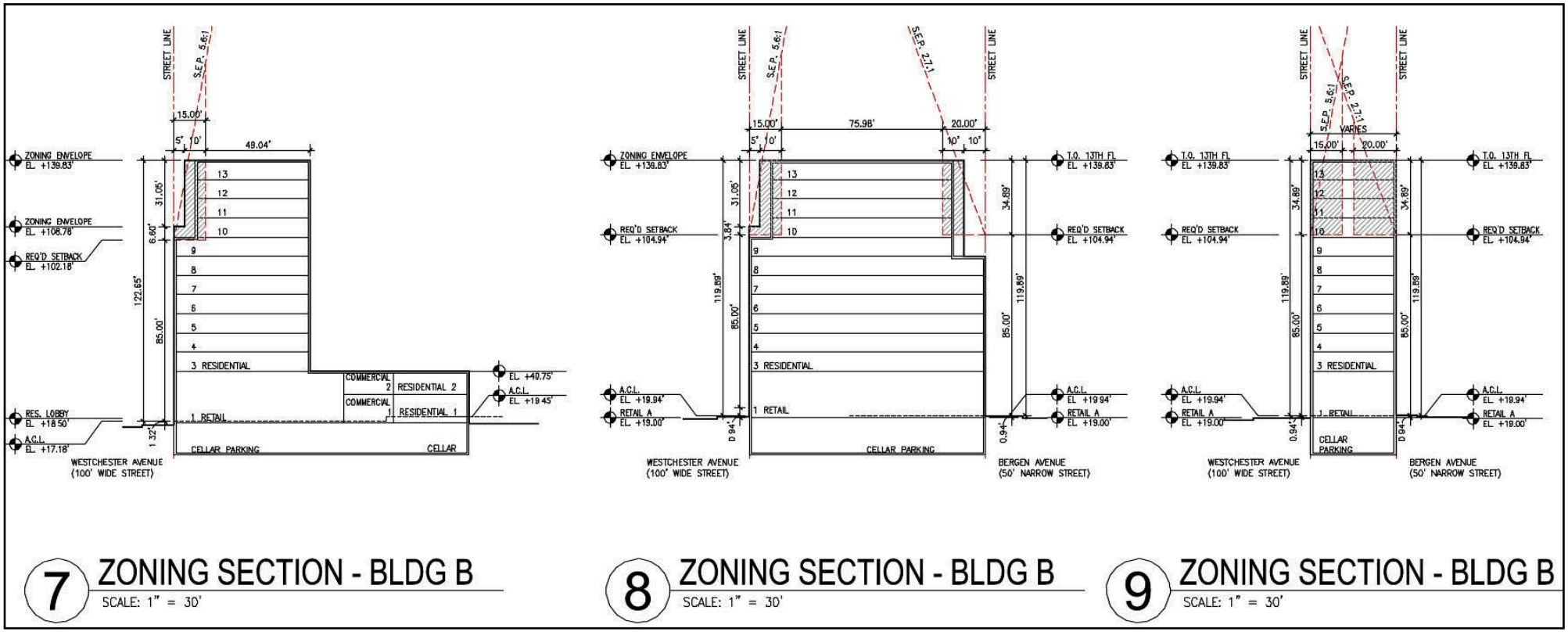


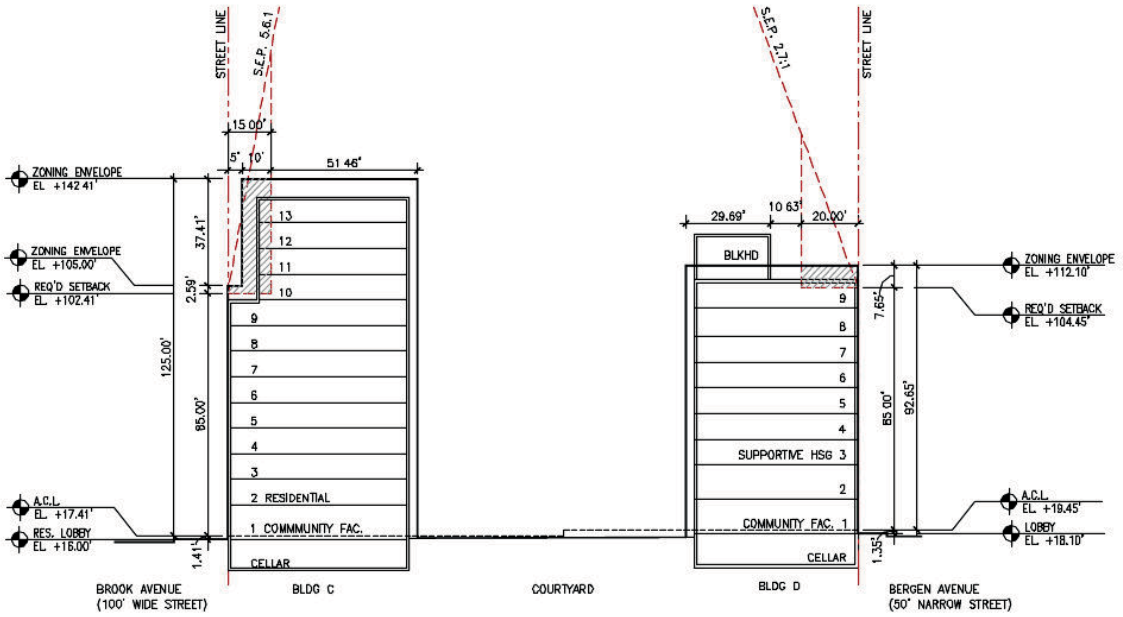
7 ZONING SECTION - BLDG B
SCALE: 1" = 30'

8 ZONING SECTION - BLDG B
SCALE: 1" = 30'

9 ZONING SECTION - BLDG B
SCALE: 1" = 30'

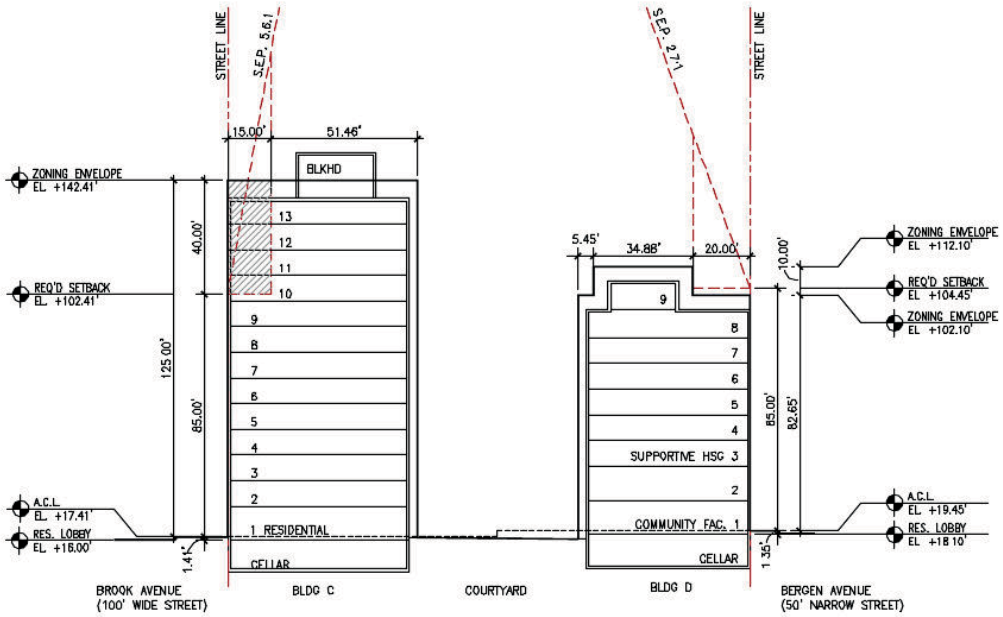
Courtesy of FXFowle Architects

Zoning Section - Buildings C & D



10 ZONING SECTION - BLDGS C & D

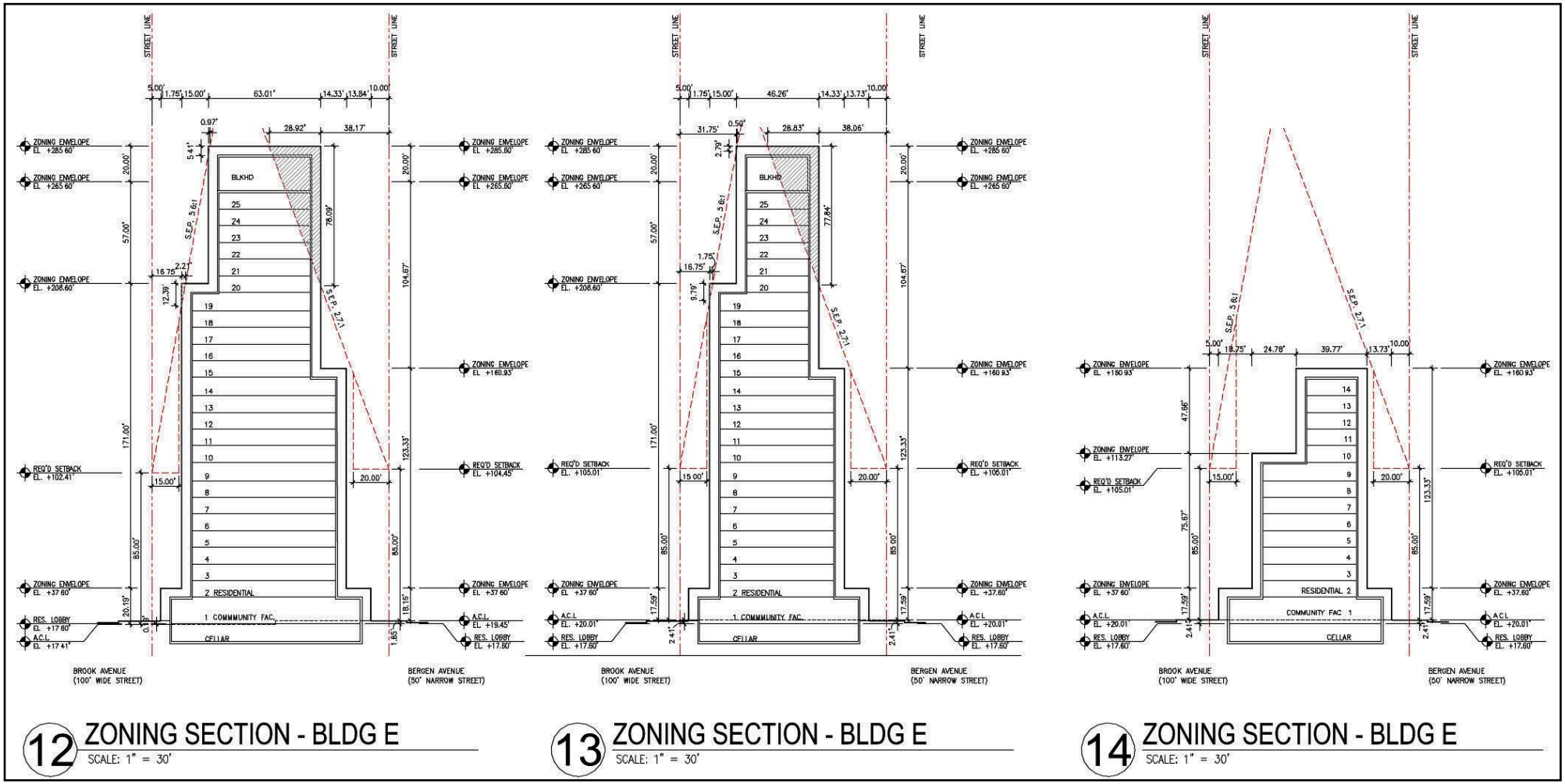
SCALE: 1" = 30'



11 ZONING SECTION - BLDGS C & D

SCALE: 1" = 30'

Courtesy of FXFowle Architects



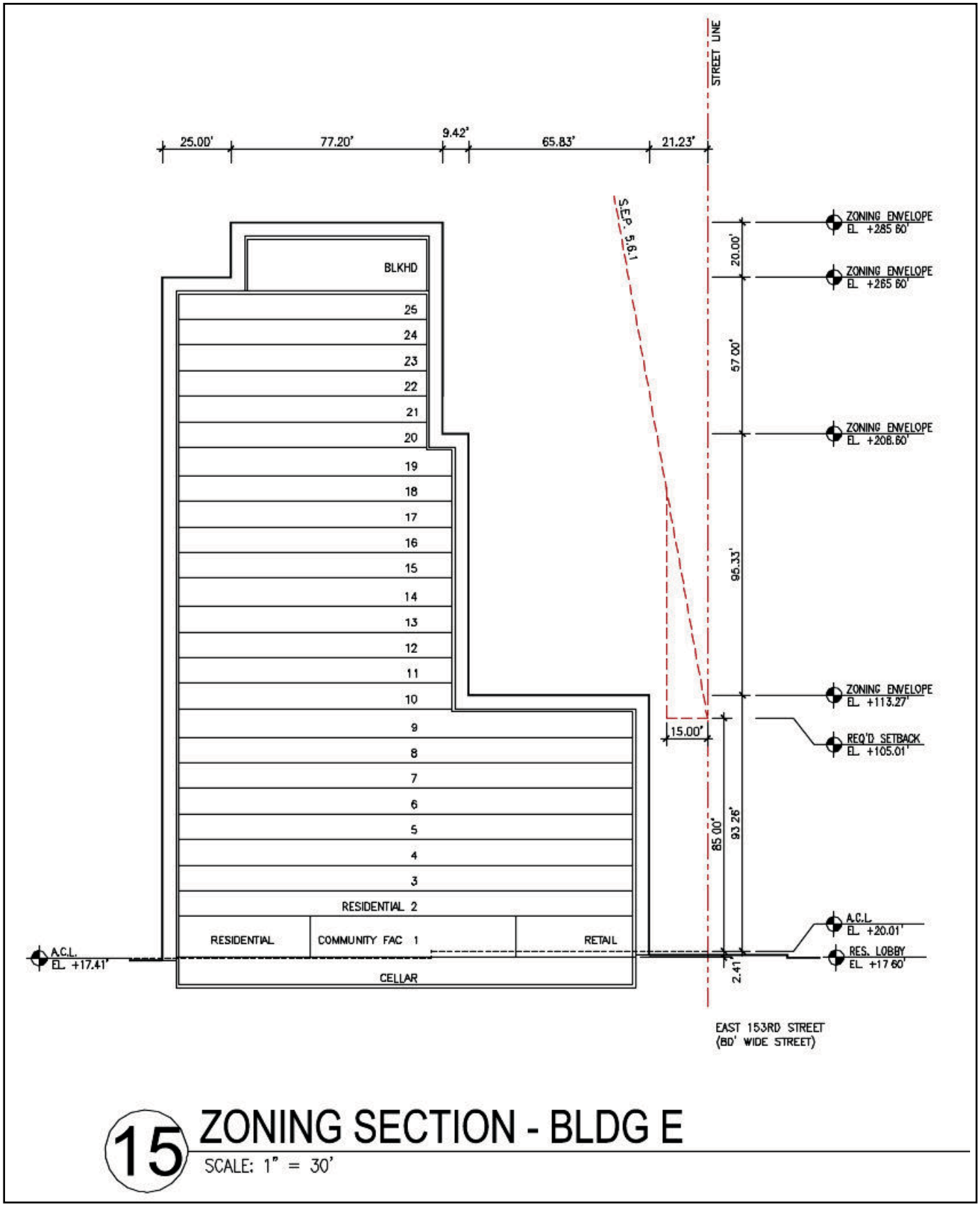
12 ZONING SECTION - BLDG E
SCALE: 1" = 30'

13 ZONING SECTION - BLDG E
SCALE: 1" = 30'

14 ZONING SECTION - BLDG E
SCALE: 1" = 30'

Courtesy of FXFowle Architects

Zoning Section - Building E



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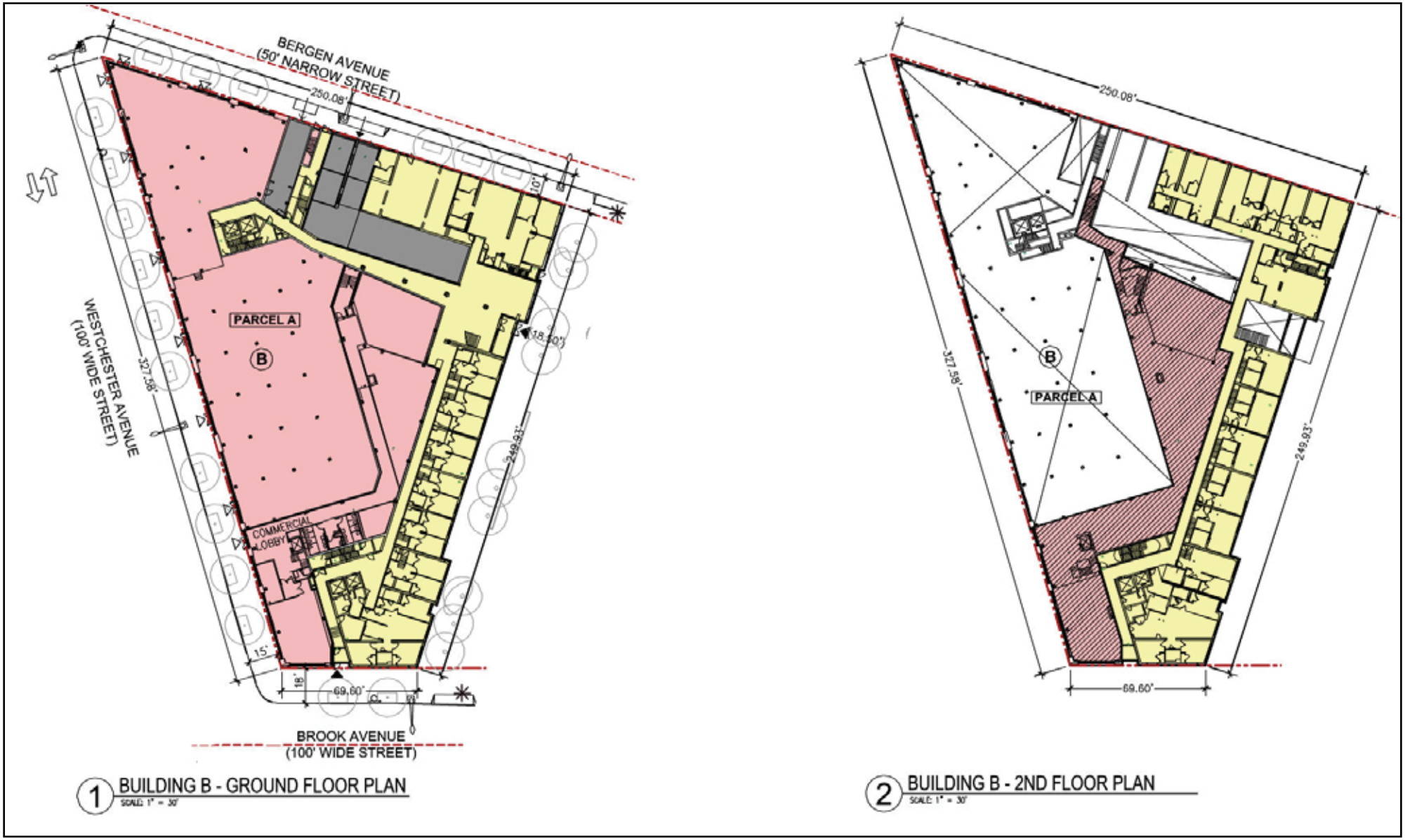


Courtesy of FXFowle Architects

pedestrian corridor above the sewer easement. A television studio is anticipated to have approximately 7,200 sf of space on the ground floor of Building B and approximately 5,500 sf of television studio and office would be located on the second floor. The duplex apartments would each have entrances on the pedestrian corridor and the television studio would have an entrance on Westchester Avenue. There would be no opening of any kind between the television studios and residential portion of Building B.

Assessment

Land Use and Zoning

According to the criteria set forth in the *CEQR Technical Manual*, the Proposed Actions would not result in significant adverse impacts on land use or zoning. The Proposed Actions would introduce zoning changes that would be in keeping with the City's land use, zoning, and public policy objectives for the area. The proposed zoning map and LSGD special permit would set the stage for the further growth and development of this area of Melrose, encouraging a vibrant mix of residential, local retail and commercial, community facility, and open space uses and taking advantage of the Hub's status as a neighborhood with excellent transit accessibility. The land use changes that would occur as a result of the Proposed Actions would enliven a vacant site and would generally be compatible with existing conditions in trends in the study areas as a whole in terms of use and scale. The Proposed Actions would enhance the existing character of this area of the South Bronx and expand opportunities for the development of affordable and supportive housing, local retail and commercial space, community facility uses, and public open space. The special permit waivers are being sought to achieve the goals and objectives of the Proposed Actions, including maximizing the availability of much needed affordable and supportive housing while providing for a more efficient site plan consistent with other mixed use developments in this area of the Bronx. The proposed height, scale and setbacks of the proposed buildings would contribute to creating a visually dynamic streetscape, and become part of the dense surrounding development. The waivers described above, sought through the special permit for the proposed LSGD, would be specific to the Proposed Project and would not alter the intent of the Zoning Resolution as it applies to other sites in the City. The waivers would provide flexibility of architectural design, and ensure adequate access of light and air to the street, proposed open space and surrounding streetscape, and encourage more attractive and innovative building forms. For these reasons, the Proposed Actions are considered to be compatible and consistent with existing land use and zoning, and the Proposed Actions would have no significant adverse impact on land use and zoning.

ATTACHMENT D
COMMUNITY FACILITIES

La Central EAS
Attachment D: Community Facilities

I. INTRODUCTION

The 2014 *CEQR Technical Manual* defines community facilities as public or publicly-funded facilities including schools, libraries, day care centers, health care facilities, and fire and police protection services. Potential direct or indirect effects of a proposed action can trigger the need for an assessment of community facilities. Direct effects may occur when a particular action physically alters or displaces a community facility. Indirect effects result from increases in population, which create additional demand on service delivery. The demand for community services generally stems from the introduction of new residents to an area. In general, size, income characteristics, and the age distribution of a new population are factors that could affect the delivery of services. The *CEQR Technical Manual* provides guidelines or thresholds that can be used to make an initial determination of whether a detailed study is necessary to determine potential impacts. Consistent with the guidelines of the *CEQR Technical Manual*, an assessment of community facilities will be provided in the Environmental Impact Statement (EIS).

II. PRELIMINARY ASSESSMENT

Direct Effects

The Proposed Actions would result in the development of predominately vacant land, and would not displace or physically alter any existing community facilities or services. Additionally, the proposed development would not affect the physical operations of or access to and from any police or fire stations. As such, the Proposed Actions would not result in any direct effects to existing community facilities.

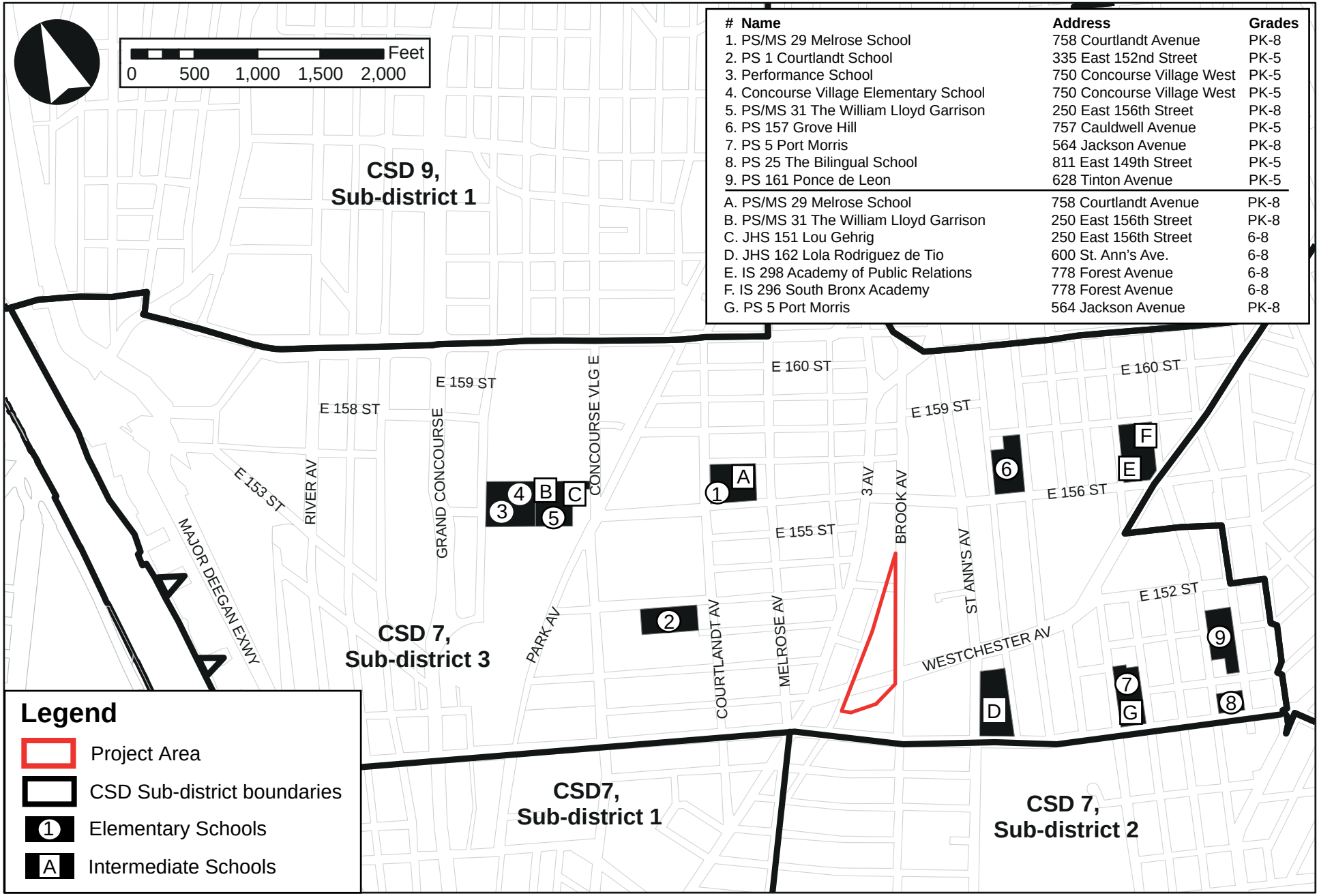
Indirect Effects

Public Schools

Per CEQR guidelines, if an action introduces more than 50 elementary and intermediate school students or 150 high school students, an assessment of school facilities is required. According to Table 6-1 of the *CEQR Technical Manual*, an increase of 90 dwelling units (DUs) in the Bronx would introduce more than 50 elementary and intermediate school students, and an increase of 787 DUs in the Bronx would introduce more than 150 high school students. As the Proposed Actions would introduce approximately 922 DUs[1] to the Project Area, they have the potential to result in significant adverse impacts on public schools, and therefore detailed analyses of public elementary, intermediate, and high schools are required.

According to the *CEQR Technical Manual*, the primary study area for the analysis of elementary and intermediate schools should be the school district's "sub-district" in which the project is located. The Project Area is located within sub-district 3 of Community School District (CSD) 7 (see Figure D-1). This sub-district will constitute the study area for elementary and intermediate school analysis. The Proposed Actions also trigger an analysis of high schools, which are assessed on a borough-wide basis. Detailed analyses of public elementary, intermediate, and high schools will be provided in the EIS, as detailed in the Draft Scope of Work.

[1] The proposed development includes 160 supportive housing units which would be single-room units for seniors living with HIV/AIDS, single veterans, and individuals earning less than 60 percent AMI. Therefore, it is anticipated that these 160 units would not introduce any children to the study area. As such, these 160 units will be excluded from the analysis for public schools.



#	Name	Address	Grades
1.	PS/MS 29 Melrose School	758 Courtlandt Avenue	PK-8
2.	PS 1 Courtlandt School	335 East 152nd Street	PK-5
3.	Performance School	750 Concourse Village West	PK-5
4.	Concourse Village Elementary School	750 Concourse Village West	PK-5
5.	PS/MS 31 The William Lloyd Garrison	250 East 156th Street	PK-8
6.	PS 157 Grove Hill	757 Cauldwell Avenue	PK-5
7.	PS 5 Port Morris	564 Jackson Avenue	PK-8
8.	PS 25 The Bilingual School	811 East 149th Street	PK-5
9.	PS 161 Ponce de Leon	628 Tinton Avenue	PK-5
A.	PS/MS 29 Melrose School	758 Courtlandt Avenue	PK-8
B.	PS/MS 31 The William Lloyd Garrison	250 East 156th Street	PK-8
C.	JHS 151 Lou Gehrig	250 East 156th Street	6-8
D.	JHS 162 Lola Rodriguez de Tio	600 St. Ann's Ave.	6-8
E.	IS 298 Academy of Public Relations	778 Forest Avenue	6-8
F.	IS 296 South Bronx Academy	778 Forest Avenue	6-8
G.	PS 5 Port Morris	564 Jackson Avenue	PK-8

La Central EAS

Figure D-1

Elementary and Intermediate Schools within CSD 7, Sub-district 3

Libraries

If a proposed action increases the number of residential units served by the local library branch by more than five percent, an analysis of library services is necessary per CEQR. According to Table 6-1 of the *CEQR Technical Manual,* the introduction of 682 DUs in the Bronx would represent a five percent increase in DUs per branch. As the Proposed Actions would introduce a total of 992 DUs to the Project Area (832 affordable units and 160 supportive units), it exceeds the CEQR threshold for a detailed analysis and the EIS will provide a detailed analysis of libraries, as described in the Draft Scope of Work.

Child Care

A detailed analysis of day care centers is required when a proposed action would produce substantial numbers of subsidized, low- to moderate-income family housing units that may generate a sufficient number of eligible children to affect the availability of slots at public day care centers. Typically, proposed actions that generate 20 or more eligible children under the age of six require further analysis. According to Table 6-1b of the *CEQR Technical Manual*, an increment of 141 DUs are needed to yield 20 or more eligible children under the age of six in the Bronx. As the Proposed Actions would introduce 992 DUs[2] to the Project Area, it exceeds the CEQR threshold for a detailed analysis and a detailed analysis of public child care facilities will be provided in the EIS, as described in the Draft Scope of Work. Additionally, a discussion of potential direct effects will also be provided, as the proposed development would include an approximately 8,300 gsf day care center.

Hospitals, Public Health Facilities, Fire Protection, and Police Protection Services

According to the *CEQR Technical Manual*, impacts on hospitals, public health facilities, fire protection, and police protection services occur when a proposed action physically changes an existing facility; affects the physical operations of, or access to and from, a facility; or creates a sizeable new neighborhood where none existed before. The Project Area is located within an existing and well-established community that is served by existing police, fire, and health care services. Therefore, the proposed actions would not create a neighborhood where none existed before and a detailed analysis of indirect effects on these community facilities is not warranted. For informational purposes, a description of existing police, fire, and health care facilities serving the rezoning area is provided below.

The Project Area is served by the 40th Police Precinct at 257 Alexander Avenue. The precinct is located approximately 0.7 miles to the southwest of the Project Area. As stated in the *CEQR Technical Manual*, the NYPD independently reviews staffing levels against a precinct's population, area coverage, crime levels, and other local factors, and makes service and resource adjustments as necessary. Additionally, it should be noted that a new Station House for the 40th Police Precinct in the Bronx is anticipated to be constructed to the west of the proposed rezoning area on Tax Block 2276, immediately adjacent to the existing Horizon Juvenile Detention Center. The new approximately 43,000 sf facility abutting Westchester Avenue, East 149th Street, and Saint Ann's Avenue will have offices, staff areas, training rooms, client book and processing areas, and detention areas for the 40th Police Precinct. As the design for the new Station House is still in progress, the facility is not expected to be completed until after the proposed development's build year of 2020.

The Project Area is served by Battalions 14 and 26 of the Fire Department of New York's (FDNY's) Division 6. There are three fire houses within an approximate half-mile radius of the Project Area. These include Engine Company 71 Ladder 55 at 720 Melrose Avenue, Engine Company 50 Ladder 10 at 1155

[2] The proposed development includes 160 supportive housing units which would be single-room units for seniors living with HIV/AIDS, single veterans, and individuals earning less than 60 percent AMI. Therefore, it is anticipated that these 160 units would not introduce any children to the study area. As such, these 160 units will be excluded from the child care analysis.

Washington Avenue, and Squad Company 41 at 330 East 150th Street. FDNY continually evaluates the need for changes in personnel, equipment, or locations of fire stations and makes any necessary adjustments.

There are two types of ambulances in the City - 911 providers and those providing inter-facility transport. Municipal FDNY and hospital-based ambulances are the sole providers of 911 services, and they operate that system under contract with Emergency Medical Services (EMS). Two EMS stations are located within a half-mile of the Project Area, including EMS Station 14 at 234 East 149th Street and EMS Station 55 at 3134 Park Avenue.

Under *CEQR Technical Manual* guidelines, health care facilities include public, proprietary, and nonprofit facilities that accept government funds (usually in the form of Medicare and Medicaid reimbursements) and that are available to any member of the community. Examples of these types of facilities include hospitals or public health clinics. The Lincoln Medical and Mental Health Center and Segundo Ruiz Belvis Diagnostic and Treatment Center are both located within a half-mile of the Project Area and are likely to be used by the residents and workers of the Project Area.

Therefore, no significant adverse impacts to hospitals, public health facilities, fire protection, and police protection services are anticipated in the future with the Proposed Actions, and no further analysis is warranted. Accordingly, an analysis of hospitals, public health facilities, fire protection, and police protection services will not be provided in the EIS.

ATTACHMENT E
OPEN SPACE

La Central EAS
Attachment E: Open Space

I. INTRODUCTION

An open space assessment may be necessary if a proposed action could potentially have a direct or indirect effect on open space resources in the area. According to the 2014 *CEQR Technical Manual*, a direct open space impact would result in the physical loss of public open space, change the use of an open space so that it no longer serves the same user population, limit public access to an open space, or cause increased noise or air pollutant emissions, odors, or shadows on public open space that would affect its usefulness, whether on a permanent or temporary basis. As the Proposed Actions would not physically affect any existing open space or recreational resource, it would not have any direct impacts on open space resources in the area.

An indirect effect on open space may occur when a population generated by a proposed action would be sufficiently large to noticeably diminish the ability of an area's open spaces to serve the future population. According to the guidelines established in the *CEQR Technical Manual*, a project that would add more than 200 residents or 500 employees, or a similar substantial number of other users to an area, is typically assessed for any potential indirect effects on open space. The Proposed Actions would facilitate an approximately 1.1 million gsf mixed-use development that is expected to add an incremental 2,656 residents and 387 workers to the area, an assessment of open space and recreational facilities is required. However, as the Proposed Actions would not exceed the 500 employee CEQR screening threshold for nonresidential users, this attachment does not provide an assessment of the effect of the new worker population on open space. However, the open space needs of the new worker population within the defined residential study area are accounted for, as discussed further below.

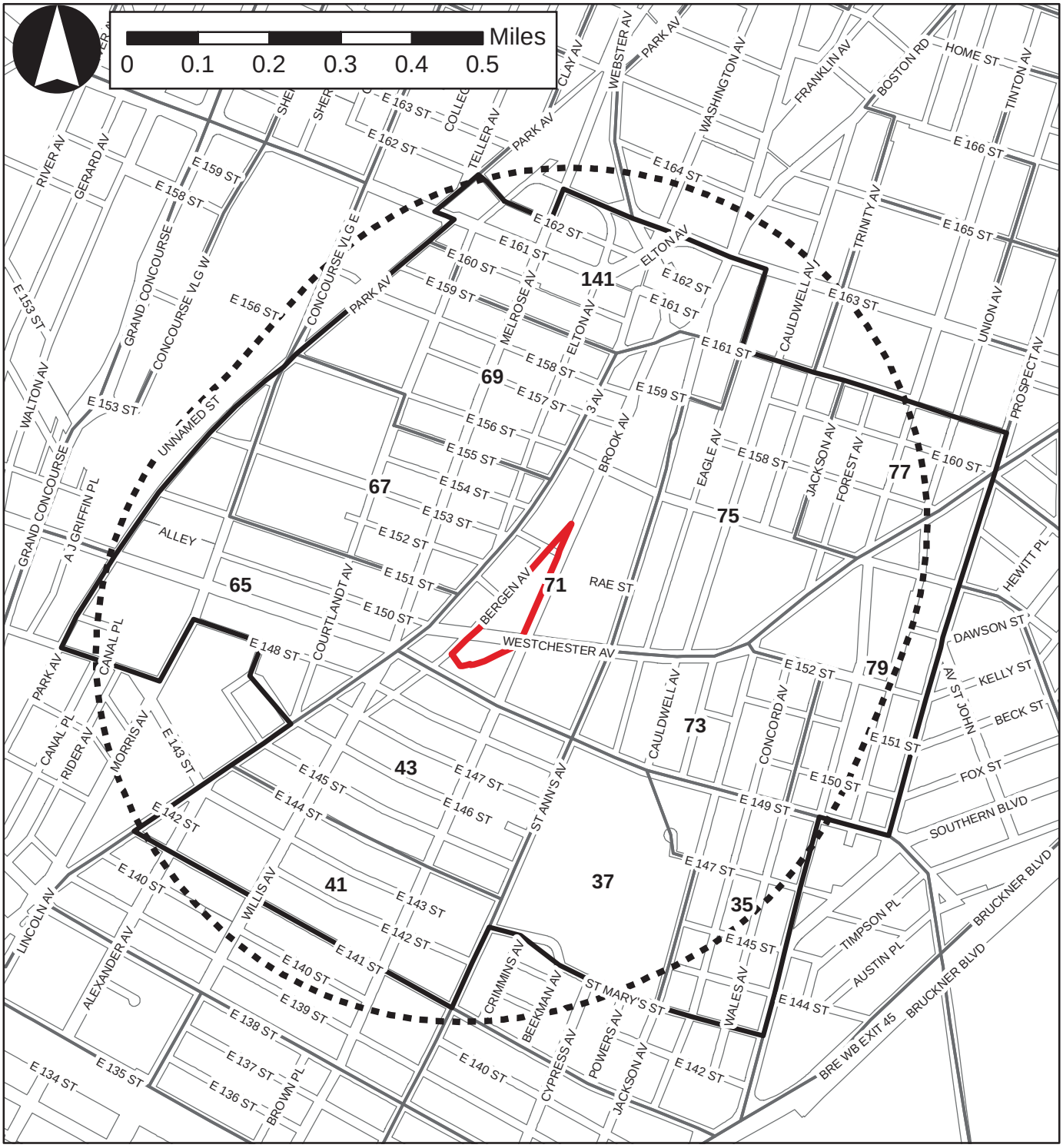
II. METHODOLOGY

The analysis of open space resources has been conducted in accordance with the guidelines established in the *CEQR Technical Manual*. Following CEQR guidelines, the adequacy of open space in the study area is assessed using a mixed quantitative and qualitative approach. Open space is measured quantitatively using a ratio of usable open space acreage to study area population, referred to as the open space ratio. The open space ratio is then used to assess the changes in the adequacy of open space resources in the future, both without and with the Proposed Actions. Qualitative factors such as an open space's conditions, capacity, and proximity to other resources are also considered in making an assessment of the Proposed Actions' effects on open space resources.

Study Area

According to CEQR guidelines, the open space study area is based on the distance a person is reasonably expected to walk in order to reach a neighborhood open space. It is assumed that workers or daytime users of open space walk approximately 10 minutes (¼-mile) or less to reach neighborhood open spaces, and residents are assumed to walk approximately 20 minutes (½-mile) or less. As discussed above, the Proposed Actions would not result in an increase of 500 or more workers in the study area, and an assessment of a non-residential study area is not necessary. Therefore, as recommended in the *CEQR Technical Manual*, the study area has been identified as a half-mile radius of the Project Area (see Figure E-1).

Figure E-1
Open Space Study Area



Legend

- Project Area
- Open Space Study Area
- Half-Mile Radius
- 71 — 2010 Census Tracts

Analysis Framework

With an inventory of available open space resources and potential users, the adequacy of open space in the study area can be assessed both quantitatively and qualitatively. The quantitative approach computes the ratio of open space acreage to the population in the study area and compares this ratio with certain guidelines. The qualitative assessment examines other factors that can affect conclusions about adequacy, including proximity to additional resources beyond the study area, the availability of private recreational facilities, and the demographic characteristics of the area's population. Specifically, the analysis in this chapter includes:

- Characteristics of the two open space user groups: residents and workers. To determine the number of residents in the study area, 2010 Census data have been compiled for Census tracts comprising the open space study area. As the study area is characterized by a workforce that may also use open spaces, the number of workers or daytime nonresidents in the study area was also calculated using 2006-2010 estimates from the Census Transportation Planning Program (CTPP).

- An inventory of all publicly accessible passive and active recreational facilities in the study area: open spaces were identified using New York City Open Accessible Space Information System (OASIS) and confirmed through field surveys conducted in late April 2014. The field surveys also served as the primary source of information on each study area open space's passive and active percentages, as well as existing park amenities, condition, utilization, and hours of operation. The New York City Department of Parks and Recreation (DPR) website's park information and park inspection databases served as secondary source validation. The park inspection database provides annual ratings of DPR parks' overall condition and cleanliness. Additional information on study area community gardens was obtained using OASIS; open space acreage was obtained using OASIS and confirmed by DPR.

- An assessment of the quantitative ratio of open space in the study area by computing the ratio of open space acreage to the population and comparing this open space ratio with CEQR guidelines. For the residential population, there are generally two guidelines that are used to evaluate residential open space ratios. The New York Department of City Planning (NYCDCP) generally recommends a comparison to the median ratio for community districts in New York City, which is 1.5 acres of open space per 1,000 residents. Alternately, the NYCDCP has established an optimal level, or planning goal, of 2.5 acres of open space per 1,000 residents, including 2.0 acres of active open space and 0.5 acres of passive open space. The needs of worker populations are also considered in the residential study area because it is assumed that both will use the same passive open spaces. Therefore, a weighted average is also considered for the analysis that balances the amount of open space necessary to meet the NYCDCP guideline of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 nonresidents. Because this ratio changes depending on the proportion of residents and nonresidents in each study area, the tables summarizing the open space ratios outline the amount of open space needed in each condition in each study area, and calculate the weighted average ratio of passive open space acres per 1,000 combined residents and nonresidents.

- An evaluation of qualitative factors affecting open space use.

- A final determination of the adequacy of open space in the nonresidential and residential open space study areas.

III. PRELIMINARY ASSESSMENT

As described above, pursuant to the guidelines of the *CEQR Technical Manual,* a preliminary open space assessment was conducted which provided a comparison of the total open space ratios for existing conditions and in the future with the Proposed Actions. As the study area exhibits a low open space ratio (i.e., below the citywide average of 1.50 acres per 1,000 residents) under existing conditions and in the future with the Proposed Actions, a detailed analysis is warranted and the information that would typically be included in a preliminary assessment (e.g., demographic characteristics, open space inventory results, etc.) has been incorporated in the detailed analysis below.

IV. DETAILED ANALYSIS

Existing Conditions

Demographic Characteristics of the Study Area

To determine the residential population served by existing open space resources, census tracts with a land area of 50 percent or greater located within a half-mile radius of the Project Area were identified for inclusion in the study area. The study area is comprised of 13 census tracts, including tracts 35, 37, 41, 43, 65, 67, 69, 71, 73, 75, 77, 79, and 141 (see Figure E-1). The worker or daytime nonresident population for the study area was also identified using 2006-2010 estimates from the CTPP.

Although the analysis conservatively assumes that residential and daytime users are separate populations, it is likely that some of the residents live near their workplace. As a result, there is likely to be some double counting of the daily user population when residential and worker populations overlap. Estimates of the residential study area population and age group distribution are provided in Table E-1 below.

Table E-1
Residential Population and Age Distribution in the Approximate Half-Mile Study Area

Census Tract	Residential Population	Under 5 Years		5 to 9 Years		10 to 14 Years		15 to 19 Years		20 to 64 Years		65+ Years		Median Age
		#	%	#	%	#	%	#	%	#	%	#	%	
35	3,761	300	8.0	296	7.9	256	6.8	352	9.4	2,251	59.8	306	8.1	29.8
37	245	21	8.6	11	4.5	20	8.2	23	9.4	155	63.2	15	6.1	35.1
41	6,127	492	8.0	494	8.1	514	8.4	627	10.2	3,394	55.4	606	9.9	29.4
43	5,056	371	7.3	402	8.0	376	7.4	472	9.3	2,770	54.8	665	13.2	30.3
65	5,337	441	8.3	405	7.6	393	7.4	468	8.8	3,245	60.8	385	7.2	30.3
67	6,984	582	8.3	570	8.2	557	8.0	679	9.7	3,971	56.9	625	8.9	28.7
69	7,564	744	9.8	690	9.1	598	7.9	744	9.8	4,202	55.6	586	7.7	27.6
71	1,907	118	6.2	153	8.0	159	8.3	221	11.6	1,078	56.5	178	9.3	31.0
73	3,893	333	8.6	357	9.2	310	8.0	319	8.2	2,219	56.9	355	9.1	29.3
75	4,869	388	8.0	408	8.4	430	8.8	462	9.5	2,673	54.9	508	10.4	29.9
77	1,927	142	7.4	175	9.1	170	8.8	187	9.7	1,127	58.5	126	6.5	30.5
79	6,733	542	8.0	573	8.5	608	9.0	671	10.0	3,698	54.9	641	9.5	29.4
141	3,437	334	9.7	302	8.8	273	7.9	297	8.6	1,976	57.5	255	7.4	28.5
Total	**57,840**	**4,808**	**8.3**	**4,836**	**8.4**	**4,664**	**8.1**	**5,522**	**9.5**	**32,759**	**56.6**	**5,251**	**9.1**	**29.8**

Source: 2010 U.S. Census data

As shown in the table, 2010 Census data indicate that the study area had a residential population of approximately 57,840 people and a median age of 29.8 years in 2010. Table E-1 also provides the age group distribution of the residential population in the study area from 2010 Census data. As shown, approximately

57 percent of the population falls between the ages of 20 and 64, which is less than the overall percentage for the Bronx (approximately 59.4 percent). Approximately 34 percent of the study area population is comprised of children and teenagers (0 to 19 years old), which is slightly higher than the Bronx average of approximately 30.1 percent. The elderly (65 years and older) account for 9 percent of the study area population, which is slightly lower than the Bronx average of 10.5 percent.

The worker population within the half-mile study area is based on 2000 reverse journey-to-work data and is presented in Table E-2 below. As shown in the table, the study area has an estimated worker or daytime nonresidential population of 24,115.

Table E-2
Existing Worker Population in the Half-Mile Study Area

Census Tract	Worker Population
35	770
37	175
41	1,085
43	2,420
65	10,070
67	1,960
69	1,325
71	2,275
73	665
75	495
77	1,165
79	1,000
141	710
Total	**24,115**

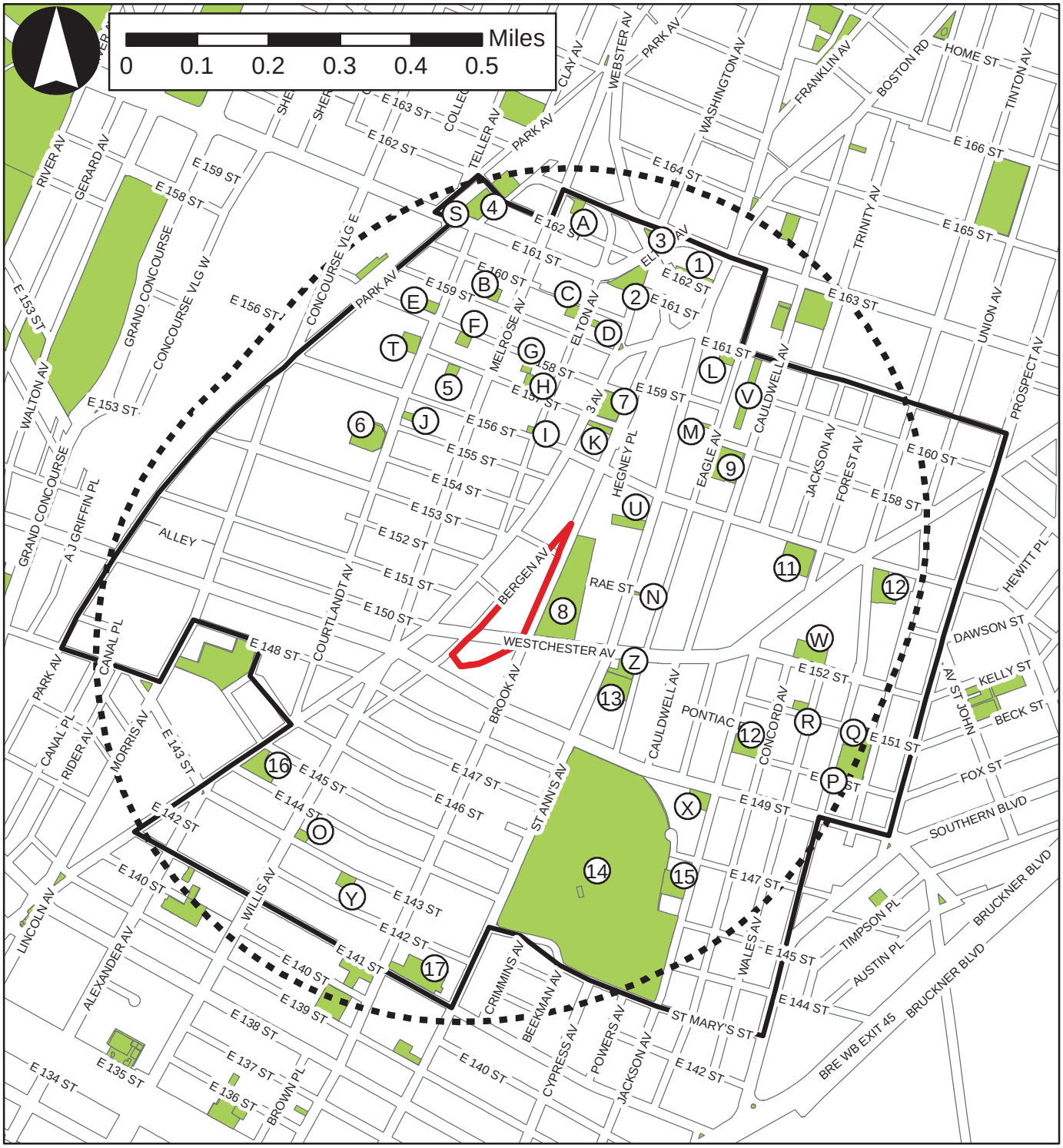
Sources: 2006-2010 Census Transportation Planning Program (CTPP) estimates

Given the range of age groups present in the population, there is a need for various kinds of active and passive recreation facilities, including those with amenities that can be used by both children and adults in the study area. Within a given area the age distribution of a population affects the way open spaces are used and the need for various types of recreational facilities. Typically, children 4 years old or younger use traditional playgrounds that have play equipment for toddlers and preschool children. Children ages 5 through 9 typically use traditional playgrounds, as well as grassy and hard-surfaced open spaces, which are important for activities such as ball playing, running, and skipping rope. Children ages 10 through 14 use playground equipment, court spaces, little league fields, and ball fields. Teenagers' and young adults' needs tend toward court game facilities such as basketball and field sports. Adults between the ages of 20 and 64 continue to use court game facilities and fields for sports as well as more individualized recreation such as rollerblading, biking, and jogging that require bike paths, promenades, and/or vehicle-free roadways. Adults also gather with families for picnicking, ad hoc active sports such as frisbee, and recreational activities in which all ages can participate. Senior citizens engage in active recreation such as tennis, gardening, and swimming, as well as recreational activities that require passive facilities.

Study Area Open Space Inventory

As shown in Table E-3 and illustrated in Figure E-2, there are 17 publicly accessible open spaces in the study area. In addition, there are 26 open space resources located within the study area that are not included in the quantitative analysis. These open space resources include: (1) community gardens operating under the DPR GreenThumb Program; and (2) open spaces administered by the New York City Housing Authority (NYCHA). While GreenThumb community gardens are required to be open to the public at specified hours posted on their gates, because these gardens are locked at other times, they are not considered fully

Figure E-2
Open Space Resources



accessible to the public and they are conservatively excluded from the quantitative open space analysis. Similarly, as the NYCHA-administered open space resources are not fully accessible to the public, they are not included in the quantitative analysis.

The study area contains a total of approximately 51.39 acres of publicly accessible open space, including approximately 25.32 acres (approximately 49 percent) of passive open space and approximately 26.07 acres (approximately 51 percent) of active open space (see Table E-3). The largest open space in the study area is the 35.31 acre St. Mary's Park, located two blocks to the southeast of the Project Area. This DPR-operated park has a variety of passive and active recreational spaces, including playgrounds, baseball diamonds, football and soccer fields, tennis and basketball courts, running tracks, recreation centers, indoor pools, fitness equipment, gardens, sitting areas, paths, barbecuing areas, and fountains. The park is open 24 hours a day, is heavily utilized, and is in fair to good condition. DPR is currently in the early stages of planning and design for a renovation of St. Mary's Park.

The second largest open space in the study area is the 3.8 acre Merrill Lynch Field of Dreams (also known as the South Bronx High School Athletic Field), to the east of the Project Area across Brook Avenue. This New York City Department of Education (DOE) operated athletic field includes a baseball field, multipurpose synthetic turf field, and running track. The park is open Monday to Friday from 6 AM to 8 PM, is in excellent condition, and has a high level of utilization.

All but one of the other publicly accessible open spaces in the study area are neighborhood parks and playgrounds of 1.5 acres in size or less. Several open spaces in the study area are adjacent to public schools and are jointly operated by the DPR and the DOE. These include the P.S. 29 Ball Field, Grove Hill Playground, Pontiac Playground, I-Am-Park, Hostos-Lincoln Academy of Science Middle School Courts, and Clark Playground.

As mentioned above, there are a number of community gardens, NYCHA-administered open spaces, and other recreational spaces in the study area which are conservatively not included in the quantitative analysis, because they are not fully accessible to the public, have limited hours, are very small, or do not include any seating or other amenities. However, these spaces constitute an important recreational resource for neighborhood residents.

Community gardens are managed by neighborhood residents and often provide space for garden members to cultivate vegetables, fruit, and flowers. Many community gardens also contain a shelter for the storage of materials, as well as pavilions, seating, shade trees, and other amenities available for public use at times that are typically posted at each garden. In addition to providing green space, community gardens offer public programs and events, such as educational workshops, children's programs, and neighborhood block parties. Many of the community gardens within the study area are located on formerly vacant lots, and many are under the jurisdiction of the New York City Department of Housing, Preservation, and Development (HPD). Many of these gardens are affiliated with GreenThumb, a DPR program that provides technical assistance to community garden members.

In addition, several NYCHA complexes contain publicly accessible open spaces. While these were developed for the use of NYCHA residents, they are open to the public during certain hours of the day. The Bronxchester Houses Playground, Morrisania Air Rights House Playground, South Bronx Area (Site 402), Adams Houses Playground, Moore Houses Playground, Jackson Houses Playground, and Betances Houses Playground contain a total of 5.55 acres of open space, the largest of which is the 2.40 acres surrounding the South Bronx Area (Site 402). These publicly accessible open spaces are programmed for both active (e.g., playgrounds and basketball courts) and passive (e.g., benches and lawns) uses. As these seven NYCHA-administered open space resources are not fully accessible to the public, they are not included in the quantitative analysis. However, they constitute important open space resources for the community and are therefore included in the qualitative analysis.

Table E-3
Open Space Inventory

Map No.[1]	Name	Address	Owner/ Agency	Amenities	User Groups	Hours of Access	Total Acres	Passive		Active		Condition & Utilization
								%	Acres	%	Acres	
1	Boricua Village	3213 Third Avenue	Boricua College	Benches, plantings	Adults, Senior Citizens	24 hours/day	1.50	100	1.50	0	0.00	Good condition/ Low utilization
2	O'Neill Triangle	Elton Avenue, East 161 Street, & Washington Avenue	DPR	Benches, landscaping, trees	Adults, Senior Citizens	Closes at 9PM	0.59	100	0.59	0	0.00	Good condition/ Low utilization
3	Triangle Park	East 163 Street, Washington Avenue, & Brook Avenue	DPR	Plantings, trees	Adults, Senior Citizens	24 hours/day	0.05	100	0.05	0	0.00	Fair condition/ Low utilization
4	Railroad Park	Park Avenue, East 162 Street, Courtland Avenue, & East 161	DPR	Playground, benches, trees, abandoned rail station	Children, Adults, Senior Citizens	Dawn to dusk	0.73	80	0.58	20	0.15	Good condition/ High utilization
5	P.S. 29 Ball Field	750 Courtlandt Avenue	DPR/DOE	Baseball field, playground, benches	Children, Teenagers	After school hours, weekend & holidays	1.11	0	0.00	100	1.11	Excellent condition/ Low utilization
6	Mayaro Playground (Melrose Houses)	Courtlandt Avenue between	DPR	Playground, basketball & handball courts, benches	Children, Teenagers	Dawn to dusk	1.00	15	0.15	85	0.85	Good condition/ High utilization
7	Flynn Playground	Brook Avenue, East 158 Street, Third Avenue, & East 157 Street	DPR	Playground, basketball & handball courts, benches, spray shower	Children, Teenagers	Dawn to dusk	0.82	20	0.16	80	0.66	Excellent condition/ High utilization
8	Merrill Lynch Field of Dreams	Brook Avenue between Westchester Avenue & East 156 Street	DOE	Running track, baseball, soccer, & football fields	Teenagers, Adults	Mon-Fri 6AM - 8AM	3.80	0	0.00	100	3.80	Excellent condition/ High utilization
9	Grove Hill Playground (P.S. 157)	East 158 Street between Cauldwell & Eagle Avenues	DPR/DOE	Playground, spray shower, basketball & handball courts, benches, comfort station	Children, Teenagers, Adults, Senior Citizens	Dawn to dusk	1.19	20	0.24	80	0.95	Good condition/ High utilization
10	Captain Rivera Playground (St. Mary's Houses)	Forest Avenue & East 156 Street	DPR	Playground, spray shower, basketball & handball courts, benches, comfort station, fitness equipment	Children, Teenagers, Adults, Senior Citizens	Dawn to dusk	0.99	25	0.25	75	0.74	Fair condition/ High utilization
11	Abigail Playground	East 156 Street & Tinton Avenue	DPR	Playground, benches, swings, basketball half-courts, climbing bars, game tables, handball	Children, Teenagers, Adults, Senior Citizens	Dawn to dusk	0.53	20	0.11	80	0.42	Good condition/ High utilization
12	Pontiac Playground	Jackson Avenue to Concord Avenue between East 150 & East 151 Streets	DPR/DOE	Playground, swings, baseketball & handball courts, benches	Children, Teenagers	Dawn to dusk	0.91	20	0.18	80	0.73	Good condition/ High Utilization
13	Hostos - Lincoln Academy of Science Middle School Courts	St. Ann's Avenue, Westchester Avenue, & Eagle Avenue	DPR/DOE	Basketball, tennis, asphalt play area	Children, Teenagers	Dawn to dusk	0.04	0	0.00	100	0.04	Good condition/ High utilization
14	St. Mary's Park	East 149 Street, Jackson Avenue, St. Mary's Street, & St. Ann's Avenue	DPR	Playgrounds, baseball diamonds, football & soccer fields, recreation centers, indoor pools, tennis & basketball courts, running tracks, fitness equipment, gardens, sitting areas, paths, barbecuing areas, fountains	Children, Teenagers, Adults, Senior Citizens	24 hours/day	35.31	60	21.19	40	14.12	Fair to good condition/ High utilization
15	I-Am-Park	Jackson Avenue south of East 147 Street	DPR/DOE	Basketball court, benches, asphalt play area	Teenagers	24 hours/day	0.71	5	0.04	95	0.67	Fair condition/ Low utilization
16	Clark Playground	Third Avenue & East 144 Street	DPR/DOE	Handball & basketball courts, benches, asphalt field, playground	Children, Teenagers	Dawn to dusk	0.72	10	0.07	90	0.65	Good condition/ High utilization
17	People's Park	East 141 Street between St. Ann's Avenue & Brook Avenue	DPR	Spray showers, basketball & handball courts, playground, swings, baseball field, seating	Children, Teenagers	Dawn to dusk	1.39	15	0.21	85	1.18	Good condition/ High utilization
Total Open Space in Quantitative Analysis:							**51.39**	**49%**	**25.32**	**51%**	**26.07**	

Table E-3
Open Space Inventory (Continued)

Map No.[1]	Name	Address	Owner/ Agency	Amenities	User Groups	Hours of Access	Total Acres	Passive		Active		Condition & Utilization
								%	Acres	%	Acres	
A	A. Badillo Community Rose	410 East 163 Street	HPD	Shelter, plant beds, trees	Adults, Senior Citizens	Tues-Fri 7PM - 8PM; Sat-Sun 3PM - 6PM	0.26	100	0.26	0	0.00	Good condition
B	Rainbow Block Assoc. Garden	379 East 159 Street	HPD	Shelter, plant beds, trees	Adults, Senior Citizens	Fri 3PM - 7PM; Sat-Sun 11AM - 7PM	0.17	100	0.17	0	0.00	Excellent Condition
C	Jardin la Roca/The Rock Garden	160 Elton Avenue	HPD	Shelter, plant beds	Adults, Senior Citizens	Varies	0.23	100	0.23	0	0.00	Excellent Condition
D	Edith Garden	826 Elton Avenue	HPD	Shelter, plant beds, trees	Adults, Senior Citizens	Mon-Sat 8AM - 6PM	0.11	100	0.11	0	0.00	Poor Condition
E	"811" Family & Friends Association Garden	809 Courtlandt Avenue	HPD/ DPR	Plant beds	Adults, Senior Citizens	Mon, Wed, & Thurs 8AM - 12PM	0.06	100	0.06	0	0.00	Good Condition
F	Courtlandt Avenue Association Garden	364-366 East 158 Street	DPR	Shelter, plant beds, trees	Adults, Senior Citizens	Wed-Sat 2PM - 4PM	0.17	100	0.17	0	0.00	Good Condition
G	Family Group Garden	422 East 158 Street	HPD/ DPR	Shelter, plant beds	Adults, Senior Citizens	Varies	0.22	100	0.22	0	0.00	Good Condition
H	Latinos Unidos	427 East 157 Street	DPR	Shelter, Plant beds, trees	Adults, Senior Citizens	Tues, Wed & Fri 12PM - 6PM	0.12	100	0.12	0	0.00	Good Condition
I	Vogue Community Garden	Elton Avenue & East 156 Street	DPR	Shelter, plant beds, trees	Adults, Senior Citizens	Mon-Tues 1PM - 6:30PM; Wed 12PM - 6:30PM; Thurs-Sun 2:30PM - 6:30PM	0.05	100	0.05	0	0.00	Good Condition
J	NYRP Member's Garden/Dalia Group Community Garden	724 Courtland Avenue	DPR	Toolshed, raised beds, pathways, grill	Adults, Senior Citizens	Mon-Sat Varies; Sun 10AM - 8PM	0.06	100	0.06	0	0.00	Good Condition
K	Centro Cultural Rincon Criollo Garden	East 157 Street & Brook Avenue	HPD	Shelter, plant beds, trees	Adults, Senior Citizens	Varies	0.18	100	0.18	0	0.00	Good Condition
L	Palmas del Caribe (Eagle Avenue Community Garden)	869 Eagle Avenue	Trust for Public Land	Plant beds, trees	Adults, Senior Citizens	Tues-Thurs 1PM - 5PM	0.24	100	0.24	0	0.00	Good Condition
M	El Batey Borincano Garden	811-815 Eagle Avenue	DPR	Shelter, plant beds, trees, playground	Adults, Senior Citizens	Tues-Thurs 10AM - 4PM; Fri-Sat 10AM - 6PM; Sun 10AM - 3PM	0.18	100	0.18	0	0.00	Good Condition
N	St. Ann's Block Association Garden	666-68 St. Ann's Avenue	DPR	Plant beds	Adults, Senior Citizens	Varies	0.03	100	0.03	0	0.00	Fair Condition
O	Willis Avenue Community Garden	East 143 Street & Willis Avenue	New York Restoration Project	Plant beds	Adults, Senior Citizens	Varies	0.10	100	0.10	0	0.00	Under Renovation
P	El Flamboyan Garden	Tinton Avenue, East 150 Street, & Union	DPR	Plant beds, plantings, benches, trees, shelter	Adults, Senior Citizens	Mon-Fri 2PM - 6PM; Sat-Sun Varies	0.40	0	0.00	100	0.40	Good Condition
Q	Fountain of Youth Playground	Union Avenue, East 150 Street, & Tinton Avenue	DPR/DOE	Playground, handball & basketball courts, seating & game tables, water sprinklers, trees, garden	Children, Teenagers, Adults, Senior Citizens	Varies	1.38	30	0.41	70	0.97	Good Condition
R	Isla Verde Green	Wales Street & East 151 Street	DPR	Plant beds, benches, trees, plantings	Adults, Senior Citizens	Mon-Thurs 3PM - 7PM;	0.01	100	0.01	0	0.00	Good Condition
S	Morrisania Air Rights Houses Playground	Park Avenue & East 161 Street	NYCHA	Benches, tables, playground	Children, Adults, Senior Citizens	24 hours/day	0.15	50	0.07	50	0.08	Fair condition/ Moderate utilization
T	Jackson Houses Playground	Courtlandt Avenue at East 157 Street	NYCHA	Basketball courts, benches, playgrounds	Children, Teenagers	Dawn to dusk	1.15	25	0.28	75	0.87	Good condition/ Moderate utilization
U	Bronxchester Houses Playground	St. Ann's Avenue south of East 156 Street	NYCHA	Basketball court, benches, playground	Children, Teenagers	Dawn to dusk	0.40	50	0.2	50	0.20	Excellent condition/ Moderate utilization
V	South Bronx Area (Site 402)	East 161 Street between Cauldwell & Eagle	NYCHA	Benches, trees, plantings	Adults, Senior Citizens	Dawn to dusk	2.40	100	2.40	0	0.00	Excellent condition/ Moderate utilization
W	Adams Houses Playground	East 152 Steet & Wale Avenue	NYCHA	Basketball court, benches, tables	Children, Adults, Senior Citizens	24 hours/day	0.72	0	0.00	100	0.72	Good condition/ Moderate utilization
X	Moore Houses Playground	East 149 Street, Jackson Avenue, St. Mary's	NYCHA	Basketball court, benches, playground, trees	Teenagers, Adults	Dawn to dusk	0.44	10	0.04	90	0.40	Good condition/ Moderate utilization
Y	Betances Houses Playground	East 143rd Street between Willis Avenue & Brook Avenue	NYCHA	Basketball court, benches, tables playground, trees	Children, Teenagers, Adults, Senior Citizens	24 hours/day	0.29	50	0.15	50	0.14	Fair condition/ Low utilization
Z	Granja Farm	St. Ann's Avenue, Westchester Avenue, & Eagle Avenue	DPR	Plantings, hydroponics, plant beds	Adults, Senior Citizens	Dawn to Dusk	0.38	100.00	0.38	0	0	Under Renovation
						Total Open Space not included in Quantitative Analysis:	**9.90**	**62%**	**6.12**	**38%**	**3.78**	

Sources: DoITT, DCP Bronx Community District 1 Profile, NYCDPR website, PLUTO (2014), PHA Site Visits (April 2014).
[1] Refer to Figure E-2.

Adequacy of Open Space

Quantitative Assessment

The following analysis of the adequacy of existing open space resources within the study area takes into consideration the ratio of active, passive, and total open space resources per 1,000 residents, as well as the ratio of passive open space per 1,000 combined residents and nonresidents.

As previously stated, there are approximately 51.39 acres of publicly accessible open space within the study area, including approximately 25.32 acres (approximately 49 percent) of passive open space and approximately 26.07 acres (approximately 51 percent) of active open space. With a residential population of 57,840, the total open space ratio for residents is 0.89 acres per 1,000 residents, which is less than the City's planning guideline of 2.50 acres of parkland per 1,000 residents (see Table E-4). The area's active open space ratio (0.45 acres per 1,000 residents) is lower than the City's planning guideline of 2.00 acres per 1,000 residents. The area's passive open space ratio (0.44 acres per 1,000 residents) is also below the City's planning guideline of 0.50 acres per 1,000 residents.

Table E-4
Existing Adequacy of Open Space Resources in the Study Area

Total Population		Open Space Acreage			Open Space Ratios Per 1,000 People			DCP Open Space Guidelines		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Residents	57,840	51.39	25.32	26.07	0.89	0.44	0.45	2.50	0.50	2.00
Combined Residents and Non Residents	81,955				N.A.	0.31	N.A.	N.A.	0.40[1]	N.A.

Notes:
[1] Based on a target open space ratio established by creating a weighted average of the amount of open space necessary to meet the City guideline of 0.15 acres of passive open space per 1,000 nonresidents and 0.50 acres of passive open space per 1,000 residents. As shown above, residents comprise 71 percent of the total study area population, and workers comprise 29 percent of the total study area population. Therefore, the target open space ratio is calculated by multiplying 71 percent by 0.50 acres and 29 percent by 0.15 acres, totaling 0.40 acres.

The combined residential and non-residential passive open space ratio is 0.31 acres per 1,000 residents and nonresidents. This does not meet the combined weighted average ratio guideline for passive open space in the area, which is 0.40 acres per 1,000 residents and non-residents.

Qualitative Assessment

Although the existing total open space ratio in the study area is less than the DCP planning goal of 2.50 acres per 1,000 residents and the citywide median of 1.50 acres per 1,000 residents, the deficiency of open space resources within the defined study area is ameliorated by several factors. A total of 14 out of the 17 open space resources in the study area were found to be in either good or excellent condition. In addition, 5 of the 17 open space resources have only low or moderate utilization levels and would be able to absorb additional users. Moreover, a wide variety of options for residents and workers are available, ranging from sitting areas and walking paths to playgrounds, basketball and handball courts, ball fields, and picnic areas.

The area's community gardens, NYCHA-administered open spaces, and other recreational spaces not included in the quantitative assessment provide approximately 6.12 acres of passive open space that can be used for sitting, strolling, or picnicking as well as approximately 3.78 acres of active open space including playgrounds and athletic courts. Although these open spaces were excluded from the quantitative assessment, it is likely that residents and workers within the study area would take advantage of these additional resources. If included in the quantitative analysis these open spaces would improve the open space ratios.

Future Without the Proposed Actions (No-Action Condition)

Open Space Resources

The Melrose Commons Urban Renewal Plan (URP) identified new open spaces to be developed within the Urban Renewal Area (URA), several of which are located in the study area and are anticipated to be completed by 2020. These new open space resources are shown in Figure E-3, and detailed below:

- **Central Park:** A proposed approximately 1.07 acre park that would be located on the western half of the block bounded by East 160th Street, Elton Avenue, East 159th Street, and Melrose Avenue (URA Site 32). Central Park would be programmed primarily for active recreational uses.

- **P.S. 29 Playground Extension:** A proposed approximately 0.31 acre extension of the existing P.S. 29 playground, which currently occupies the midblock area of the block bounded by East 157th Street, Melrose Avenue, East 156th Street, and Courtlandt Avenue. This new open space would extend the playground east to Melrose Avenue, and would be programmed primarily for active recreational uses. The proposed playground extension would be jointly operated by DPR and DOE.

- **Unnamed Park:** A proposed approximately 0.12 acre open space extending through the midblock area of the block bounded by East 157th Street, Melrose Avenue, East 156th Street, and Elton Avenue. This open space would provide a connection to the proposed Central Park, and would include both passive and active recreational uses.

In total, for the purposes of the quantitative analysis, the planned open spaces would result in the addition of 1.50 acres of public open space to the study area, including an estimated 1.44 acres of active open space and approximately 0.06 acres of passive open space.

Study Area Population

As discussed in Table C-3 of Attachment C, "Land Use, Zoning, and Public Policy," 17 residential, commercial, and/or community facility development projects are anticipated to be completed within the half-mile study area by 2020. These new developments would increase both the residential and nonresidential populations within the open space study area, and are therefore included in this analysis. As shown in Table C-2, these 17 No-Build projects are expected to introduce an additional 1,419 DUs to the study area, resulting in approximately 4,257 additional residents.[1] The No-Build projects are also anticipated to introduce approximately 1,157 workers into the study area.[2] Thus, by 2020, it is expected that the residential population in the half-mile study area would increase to 62,097 and the nonresidential population would rise to 25,272, for a total user population of 87,369.

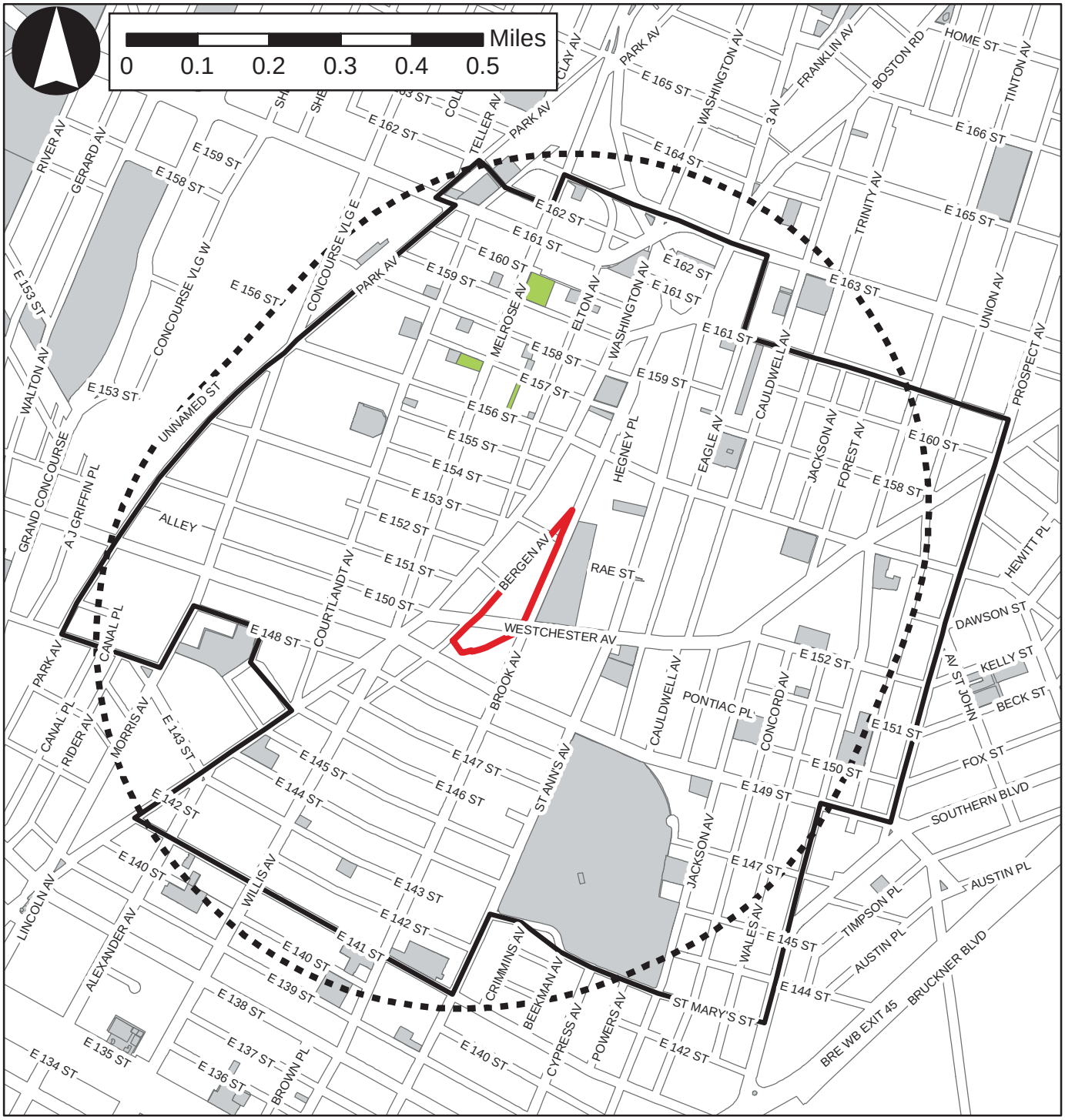
Adequacy of Open Space

Quantitative Assessment

As shown in Table E-5 below, in the absence of the Proposed Actions, the available public open spaces in the study area would include approximately 52.89 acres of open space, with approximately 25.38 acres of passive open space and approximately 27.51 acres of active open space. As such, the total open space ratio for every 1,000 residents would decrease slightly by approximately 0.04 acres, to 0.85 acres per 1,000 residents. This would continue to be below the City's recommended planning guideline of 2.50 acres per

[1] The anticipated number of new residents was determined by multiplying the number of units to be developed by the average household size of Bronx CD 1 (3.0 persons per household) per the 2010 Census.
[2] The worker population was calculated using the following standard ratios: 3 workers per 1,000 sf of retail space, 1 worker per 25 DUs, and 1 worker per 450 sf of community facility space.

Figure E-3
No-Action Open Space Resources



1,000 residents. The passive open space ratio would decrease by 0.03 acres to 0.41 acres per 1,000 residents, and would therefore be below the City's recommended guideline of 0.50 acres per 1,000 residents. The active open space ratio would decrease by approximately 0.01 acres, to 0.44 acres per 1,000 residents. This ratio would remain below the City's recommended planning guideline, which is 2.00 acres of active open space per 1,000 residents.

Table E-5
No-Action Adequacy of Open Space Resources in the Study Area

Total Population		Open Space Acreage			Open Space Ratios Per 1,000 People			DCP Open Space Guidelines		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Residents	62,097	52.89	25.38	27.51	0.85	0.41	0.44	2.50	0.50	2.00
Combined Residents and Non Residents	87,369				N.A.	0.29	N.A.	N.A.	0.40[1]	N.A.

Notes:
[1] Weighted average combines 0.15 acres per 1,000 nonresidents and 0.50 acres per 1,000 residents, as detailed above.

The combined residential and nonresidential passive open space ratio in the future without the Proposed Actions is 0.29 acres per 1,000 residents and nonresidents, which is a decrease of approximately 0.02 acres from existing conditions (0.31). The combined weighted average guideline for passive open space is 0.40 acres per 1,000 residents and nonresidents. Therefore, in the future without the Proposed Actions, the study area would continue to fall short of recommended planning guidelines for passive and active open space.

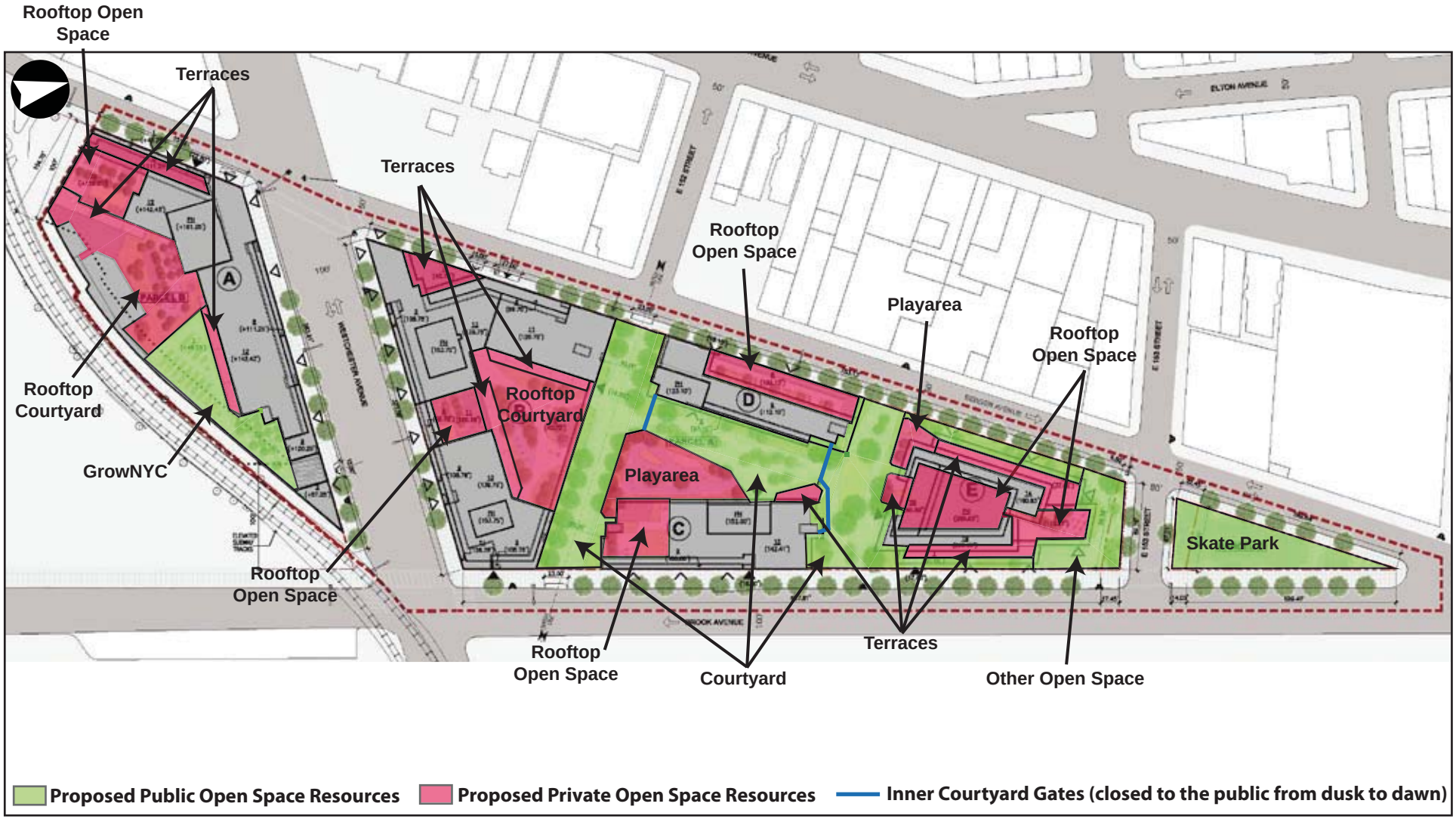
Qualitative Assessment

Although the study area's open space resources would continue to be deficient in meeting the community's open space needs under No-Action conditions, this deficiency of open space resources within the defined study area may be ameliorated by additional open space resources not included in the quantitative assessment. Although these resources are conservatively not included in the quantitative analysis, they would add a considerable amount of accessible active and passive open space which may be utilized by study area residents in the future without the Proposed Actions.

Future With the Proposed Actions (With-Action)

Open Space Resources

The proposed development would result in the addition of 1.26 acres (55,151 sf) of public open space to the study area, including an estimated 1.10 acres (48,017 sf) of passive open space and approximately 0.16 acres (7,134 sf) of active open space. As shown in Figure E-4, the proposed development is expected to include an approximately 0.94 acre (41,002 sf) central courtyard on Parcel A, of which approximately 0.75 acres (32,481 sf) would be publicly-accessible with grass, trees, plantings, pathways, and benches. Approximately 0.18 acres (7,911 sf) of other open space would also be located on Parcel A adjacent to Building E. Parcel C would be redeveloped with an approximately 0.16 acre (7,134 sf) public skate park. The project sponsor would be responsible for construction, maintenance, and operation of the skate park. A lower level of the Building A rooftop (Parcel B) is anticipated to include an approximately 0.17 acre (7,625 sf) public rooftop farm. These open space resources are anticipated to be complete and fully accessible to the public by the project's 2020 build year. As shown in Figure E-4, there are two gates around a portion of the interior courtyard between Buildings C and D. These gates would be locked from dusk to dawn, during which time the area would only be accessible to tenants of Buildings C and D. It is anticipated that the public rooftop farm would also be open to the public from approximately dawn to dusk, while the remainder of open space resources would be accessible to the public 24 hours a day.



For Illustrative Purposes Only

Additionally, the proposed development is expected to provide approximately 1.19 acres (51,906 sf) of private open space for building tenants, including an estimated 1.0 acre (43,385 sf) of passive open space and approximately 0.19 acres (8,521 sf) of active open space. As shown in Figure E-4, private open space would include approximately 1.0 acre of rooftop open spaces and terraces, with trees, plantings, benches, and tables for building residents. The proposed development is also expected to include approximately 0.19 acres of playground space within the courtyard adjacent to Buildings C and E. Playground spaces are expected to include jungle gym equipment, trees, and plantings. As the 1.19 acres of private open space resources included in the proposed development would not be accessible to the public, they are not included in the quantitative analysis. However, they constitute important open space resources for the community and are therefore included in the qualitative analysis. Additionally, it should be noted that the design of the private playgrounds would incorporate landscaping and shrubbery around fencing to make the entire central courtyard feel like a larger, more open public resource.

Study Area Population

As described in Attachment A, "Project Description," the Proposed Actions would result in new development that would consist of approximately 832 affordable DUs, approximately 160 supportive housing units, approximately 46,800 gsf of local retail and commercial uses, and approximately 83,200 gsf of community facility space (excluding supportive housing). The Proposed Actions would introduce an estimated 2,656 new residents and 387 employees to the project site. Therefore, within the study area, these increases would result in an estimated total residential population of 64,753 and a nonresidential population of 25,659 for a total user population of 90,412.

Adequacy of Open Space Resources

Quantitative Assessment

In the future with the Proposed Actions, there would be 54.15 acres of open space, of which 26.48 acres would be for passive use and 27.67 acres would be for active use (refer to Table E-6). With an estimated future residential population of 64,753, the total open space ratio per 1,000 residents would decrease by approximately 1.2 percent, from 0.85 acres to 0.84 acres per 1,000 residents, and would remain below the City's recommended planning guideline of 2.50 acres per 1,000 residents. The passive open space ratio would remain unchanged at 0.41 acres per 1,000 residents, and would continue to be below the recommended guideline of 0.50 acres per 1,000 residents. The active open space ratio under future With-Action conditions would decrease from 0.44 acres to 0.43 acres per 1,000 residents, also remaining below the recommended guideline of 2.00 acres per 1,000 residents.

Table E-6
With-Action Adequacy of Open Space Resources in the Study Area

Total Population		Open Space Acreage			Open Space Ratios Per 1,000 People			DCP Open Space Guidelines		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
No-Action Condition										
Residents	62,097	52.89	25.38	27.51	0.85	0.41	0.44	2.50	0.50	2.00
Combined Residents and Non Residents	87,369				N.A.	0.29	N.A.	N.A.	0.44[1]	N.A.
With-Action Condition										
Residents	64,753	54.15	26.58	27.67	0.84	0.41	0.43	2.50	0.50	2.00
Combined Residents and Non Residents	90,412				N.A.	0.29	N.A.	N.A.	0.44[1]	N.A.

Notes:
[1] Weighted average combining 0.15 acres per 1,000 nonresidents and 0.50 acres per 1,000 residents, as detailed in Table E-5 above.

The passive open space ratio for the combined residential and nonresidential population would remain at 0.29 acres per 1,000 residents, which is less than the recommended combined weighted average ratio for passive open space in the area under future With-Action conditions (0.40 acres). Therefore, as under No-Action conditions, open space ratios would fall short of the recommended planning guidelines for the study area in the With-Action condition.

However, while the area would continue to have a shortfall of open space, the demand for open space generated by the Proposed Actions would not significantly exacerbate the No-Action deficiency, with relatively minor decreases in the open space ratios (approximately a 1.2 percent decrease in total open space acreage in the study area). As the minor decreases in open space ratios would be below the *CEQR Technical Manual* significant impact threshold of five percent, the Proposed Actions would not result in a significant adverse impact on open space.

Qualitative Assessment

As previously stated, the Proposed Actions would not result in any direct displacement of existing public open space resources in the study area, nor would the Proposed Actions significantly exacerbate the deficiency in area open space.

The study area contains 17 publicly accessible open spaces, most of which are in good to excellent condition. These open spaces provide a range of active and passive amenities, including playgrounds and play equipment, basketball and handball courts, sitting areas, and walking paths. There are also a number of recreational schoolyards and playing fields which are likely utilized by many of the school-aged children residing in the study area that are not included in the quantitative analysis (since public use of these facilities is restricted). Additionally, there are several community gardens, NYCHA-administered open spaces, and other recreational spaces in the study area totaling approximately 9.90 acres which were conservatively not included in the quantitative analysis because they are not fully accessible to the public, have limited hours, are very small, or do not include any seating or other amenities.

The population added as a result of the Proposed Actions is not expected to noticeably affect utilization of the area's open spaces. In the future with the Proposed Actions, ratios of open spaces to residents would continue to be lower than the measure of open space adequacy and the optimal planning goals furnished by DCP. The population generated by the Proposed Actions is not expected to have any special characteristics, such as a disproportionately older or younger population, that would place heavy demands on facilities that cater to specific user groups. The residents in the future with the Proposed Actions are expected to exhibit similar characteristics to the current residents of the study area and the breakdown of the population is expected to remain the same. Furthermore, the Proposed Actions would include the construction of approximately 1.26 acres (55,151 sf) of publicly accessible actively and passively programmed open space (as well as approximately 1.19 acres (51,906 sf) of private open space), increasing the amount of available open space resources in the study area.

V. CONCLUSION

Pursuant to CEQR guidelines, a proposed action or project may result in a significant adverse impact on open space resources if (a) there would be a direct displacement/alteration of existing open space within the study area that has a significant adverse effect on existing and anticipated users; or (b) it would reduce the open space ratio and consequently result in overburdening existing facilities or further exacerbates a deficiency in open space. According to the *CEQR Technical Manual*, a five percent decrease in the open space ratio is generally considered to be a significant adverse impact in areas that are currently below the City's median community district open space ratio of 1.50 acres per 1,000 residents. However, if the study area exhibits a low open space ratio, even a small decrease in that ratio as a result of the action may have

an adverse effect; a change of less than one percent should be considered significant only if open space resources are very scarce in the study area.

The Proposed Actions would not result in the direct displacement or alteration of existing public open space resources in the study area. The Proposed Actions would add approximately 1.26 acres (55,151 sf) of new public open space to the study area as well as approximately 1.19 acres (51,906 sf) of private open space. At this time, public open spaces are anticipated to include: a central courtyard complete with grass, trees, plantings, pathways, and benches; a skate park; a public rooftop farm; and other open spaces adjacent to Building E. Private open spaces are anticipated to include: playground space within the central courtyard complete with jungle gym equipment, trees, and plantings; as well as rooftop terraces and other areas with trees, plantings, benches, and tables for building residents. Although there would continue to be a shortage of public open space in the study area, the increase in demand from the Proposed Actions would not result in significant reductions in open space ratios compared to the No-Action condition and consequently overburden existing facilities or further exacerbate a deficiency in open space.

There is a shortfall of active and passive open space within the study area under future No-Action and future With-Action conditions. Open space ratios present under existing and No-Action conditions are below the Citywide median of 1.50 acres of open space per 1,000 residents and also below the DCP planning guidelines of 2.00 acres of active open space per 1,000 residents and 0.50 acres of passive open space per 1,000 residents and would continue to be below those guidelines in the future with the Proposed Actions. However, the Proposed Actions would not result in a reduction in open space ratios of five percent or more (the CEQR threshold for impact significance). In addition, open space resources within the study area are not scarce and several additional regional open space resources are located just outside the study area. Most of the open space resources in the study area are in good to excellent condition and contain a mix of active and passive uses. There are also significant open space resources located just outside the study area boundary, which add considerable accessible active and passive open space for the residential population as well as some of the area's daytime users but are not included in the quantitative analysis

Moreover, the population to be generated by the Proposed Actions is not expected to have any special characteristics, such as a disproportionately younger or older population, that would place heavy demand on facilities that cater to specific user groups. As in the future without the Proposed Actions, the usability of the open spaces in the study area is not expected to be impaired by factors such as noise, air quality, shadows, design, or accessibility in the future with the Proposed Actions. Therefore, the Proposed Actions are not anticipated to result in a significant adverse impact on open space resources.

ATTACHMENT F
SHADOWS

La Central EAS
Attachment F: Shadows

I. INTRODUCTION

According to the 2014 *CEQR Technical Manual*, an adverse shadow impact is considered to occur when the incremental shadow from a proposed development falls on a sunlight-sensitive resource and substantially reduces or completely eliminates direct sunlight exposure, thereby significantly altering the public's use of the resource or threatens the viability of vegetation or other resources. Pursuant to CEQR guidelines, sunlight-sensitive resources of concern are those resources that depend on sunlight, or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity. Sunlight-sensitive resources can include publicly accessible open space, architectural resources, natural resources, and greenstreets. In general, shadows on city streets, sidewalks, buildings, or project-generated open spaces are not considered significant under CEQR. In addition, shadows occurring within an hour and a half of sunrise or sunset generally are not considered significant under CEQR.

According to the *CEQR Technical Manual*, a shadow assessment is required only if a project would result in structures (or additions to existing structures) of 50 feet or more and/or be located adjacent to, or across the street from, a sunlight-sensitive resource. The Proposed Actions would facilitate the construction of a 1.1 million gsf five-building mixed-use development, with maximum building heights (including rooftop mechanical equipment) ranging from approximately 105 feet to 269 feet. As the Project Area is located across the street from existing sunlight-sensitive resources, a shadows assessment is required in order to determine whether the Proposed Actions would result in new shadows long enough to reach any of the resources at any time of year. While the Proposed Actions would also generate new public open spaces, pursuant to *CEQR Technical Manual* guidelines, the effects of incremental shadows are not considered on project-generated open spaces. As discussed below, the Proposed Actions would not result in significant adverse shadow impacts, as compared to the No-Action condition.

II. METHODOLOGY

First, a preliminary screening assessment must be conducted to ascertain whether the shadows resulting from the Proposed Actions could reach any sunlight-sensitive resources at any time of year. The preliminary screening assessment consists of three tiers of analysis. The first tier identifies the longest shadow study area based on the maximum height of the structure(s) resulting from the proposed project. If there are sunlight-sensitive resources within this radius, the analysis proceeds to the second tier, which reduces the area that could be affected by project generated shadows by accounting for a specific range of angles that can never receive shade in New York City due to the path of the sun in the northern hemisphere. If the second tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a third tier of screening analysis further refines the area that could be reached by looking at specific representative days of the year and determining the maximum extent of shadows over the course of each representative day.

If the third tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a detailed shadow analysis is required to determine the extent and duration of the incremental shadows resulting from the Proposed Actions. The detailed analysis accounts for existing shadows cast by intervening and surrounding buildings and provides the data needed to assess the shadow impacts. The effects of the new shadows on the sunlight-sensitive resources are described, and their degree of

significance is considered. The results of the analysis and assessment are documented with graphics, a table of incremental shadow durations, and narrative text.

Future Without the Proposed Actions (No-Action)

As discussed in Attachment A, "Project Description," in the 2020 future without the Proposed Actions, it is expected that no changes would occur within the Project Area. The Project Area would remain under the jurisdiction of HPD and would remain underutilized and mostly vacant with the exception of Parcel B, which would continue to operate with two at-grade public parking facilities and a vacant 11,000 gsf building. No change in the maximum allowable FAR would occur and no new uses that are not currently permitted would be allowed.

As discussed in Attachment C, "Land Use, Zoning, and Public Policy," the surrounding area is generally characterized by low-rise (1- to 6-story) light manufacturing and commercial buildings with some taller mid-rise residential buildings (upwards of 20 stories) mixed in. In the future without the Proposed Actions, two development projects are anticipated to be completed within an approximate 400-foot radius of the Project Area. These include a 2-story commercial development and a 7-story mixed-use commercial and residential development. All development projects currently under construction or planned to be constructed within an approximate quarter-mile radius of the project site prior to the build year of 2020 were included in the shadows analysis.

Future With the Proposed Actions (With-Action)

The Proposed Actions would result in new buildings with height and bulk significantly different than would be allowed under existing zoning. The proposed 1.1 million gsf five building development would reach a maximum height of approximately 269 feet including rooftop mechanical equipment. This scenario represents the reasonable worst-case for shadows and will be compared with the No-Action condition in order to determine the extent and duration of incremental project-generated shadows.

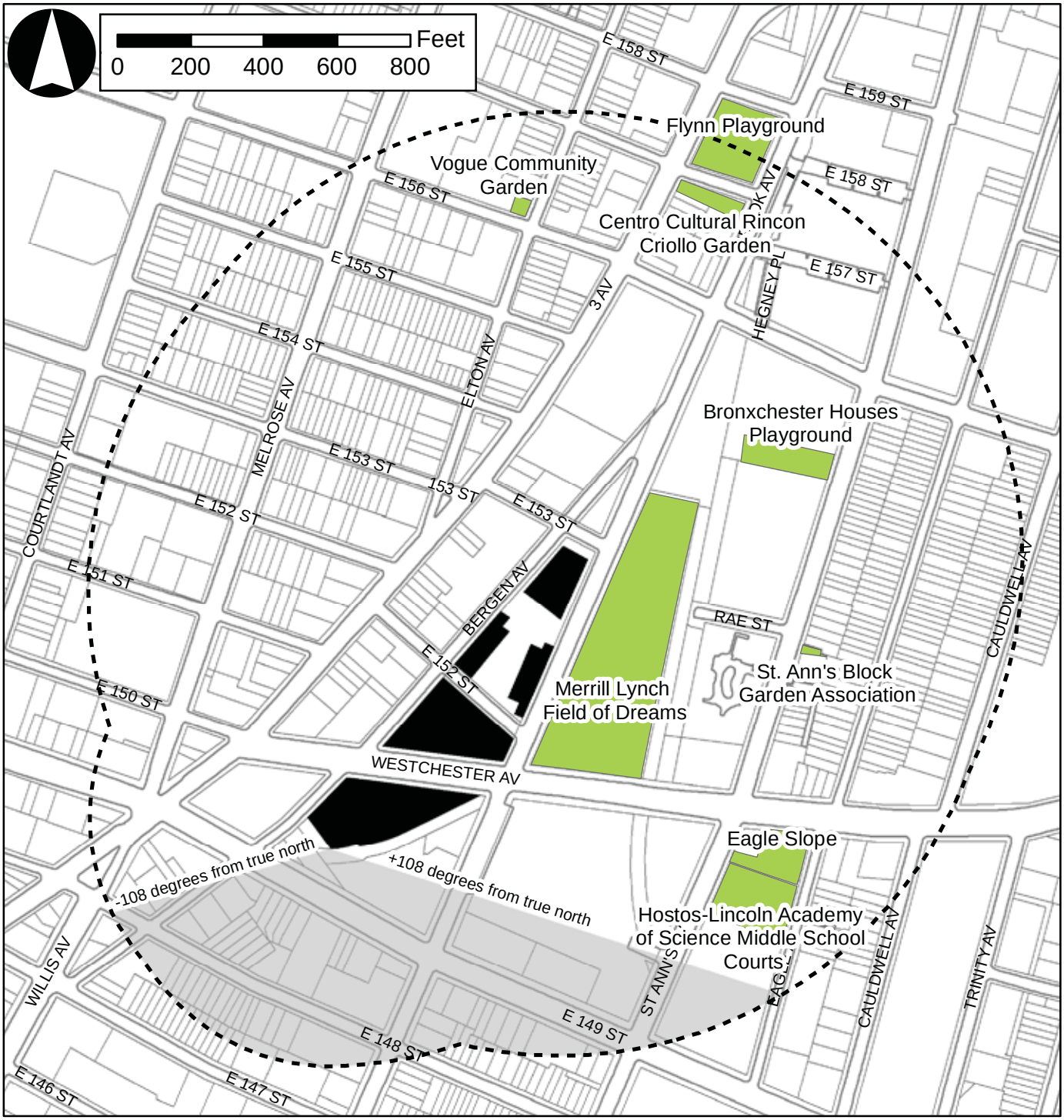
III. PRELIMINARY SCREENING

Tier 1 Screening Assessment

A base map was developed (see Figure F-1) showing the location of the Project Area, the surrounding street layout, and all potentially sunlight-sensitive resources (publicly accessible open spaces, architectural resources, natural resources, and greenstreets). According to the *CEQR Technical Manual*, the longest shadow that a structure can cast in New York City, except for periods close to dawn or dusk, occurs on December 21, the winter solstice, at the start of the analysis day at 8:51 AM, and is equal to 4.3 times the height of the structure. The height of each building (including mechanical space) was used to determine the longest shadow study areas, which were combined to form the longest shadow study area for the proposed development (Tier 1 Assessment). Anything outside this study area could never be affected by project-generated shadow, while anything inside the perimeter requires additional assessment.

As shown in Figure F-1, within this longest shadow study area, there are nine potentially sunlight-sensitive resources, all of which are publicly accessible open spaces. Therefore, further screening is warranted in order to determine whether these open space resources would be affected by any project-generated incremental shadows.

Figure F-1
Shadow Screening Assessment



Legend

- Longest Shadow Study Area
- Project Area
- Open Space Resources
- Unshadeable Region +/- 108 Degrees

Tier 2 Screening Assessment

For the Tier 2 screening assessment, according to the *CEQR Technical Manual*, shadows cast by buildings fall to the north, east, and west. In New York City, the shadow area is between -108 degrees from true north and +108 degrees from true north. Conversely, any area lying to the south of a site in the triangular area beyond these angles cannot be shaded by a proposed project. The purpose of the Tier 2 screening is to determine whether the sunlight-sensitive resources identified in the Tier 1 screening lie within the portion of the longest shadow study area that potentially can be shaded by the proposed project.

Figure F-1 presents the results of the Tier 1 and 2 screening assessments, i.e., the portion of the longest shadow study area lying within -108 degrees from the true north and +108 degrees from true north as measured from southernmost portions of the project site. As illustrated in Figure F-1, there are nine existing open space resources that fall within the longest shadow study area including the Merrill Lynch Field of Dreams, Bronxchester Houses Playground, St. Ann's Block Association Garden, Eagle Slope, Hostos-Lincoln Academy of Science Middle School courts, Centro Cultural Rincon Criollo Garden, Vogue Community Garden, and Flynn Playground.

Tier 3 Screening Assessment

Based on the results of the Tier 2 screening assessment, a Tier 3 screening assessment was performed to determine if shadows resulting from the proposed development could reach any sunlight-sensitive resources anytime between 1.5 hours after sunrise and 1.5 hours before sunset on representative analysis days. As shadows from the proposed project would reach two of the sunlight-sensitive open space resources (including the Merrill Lynch Field of Dreams and St. Ann's Block Association Garden) identified in the Tier 2 screening assessment on one or more of the four representative analysis days, a detailed shadow analysis is required.

IV. DETAILED ANALYSIS OF SHADOW IMPACTS

The purpose of the detailed analysis is to determine the extent and duration of new incremental shadows that fall on sunlight-sensitive resources as a result of the project, and to assess their effects. A baseline or future condition without the Proposed Actions is established, containing existing buildings and sunlight-sensitive resources and any future developments planned in the area, to illustrate the baseline shadows from buildings and other structures in the study area defined in the preliminary assessment. The future condition with the Proposed Actions and its shadows can then be compared to the baseline condition with shadows from the future without the Proposed Actions, to determine the incremental shadows that would result with the proposed development.

Resources Affected by Project-Generated Shadows

Merrill Lynch Field of Dreams

The Merrill Lynch Field of Dreams (also known as the South Bronx High School Athletic Field) is an approximately 3.80-acre active open space resource owned by the New York City Department of Education (DOE). Located across Brook Avenue from the project site between Westchester Avenue and East 156th Street, the central and southern portions of the open space include a running track, and multipurpose synthetic turf field. The area to the north is comprised of a baseball diamond and bleacher seating. The only vegetation within the open space are the infield and outfield lawns of the baseball diamond. There are no other planted areas or areas with landscaping.

St. Ann's Block Association Garden

The St. Ann's Block Association Garden is a community garden located on St. Ann's Avenue near the intersection of Rae Street. The community garden is approximately 0.03-acres and includes planting beds, a dirt walking path, and a toolshed. The garden does not feature any permanent elements such as tables or benches.

Detailed Shadows Analysis

Per CEQR guidelines, shadow analyses were performed for the two open space resources identified above on four representative days of the year: March 21/September 21, the equinoxes; May 6, the midpoint between the summer solstice and the equinox (and equivalent to August 6); June 21, the summer solstice and the longest day of the year; and December 21, the winter solstice and shortest day of the year. These four representative days indicate the range of potential shadows over the course of the year. CEQR guidelines define the temporal limits of a shadow analysis period to fall from an hour and a half after sunrise to an hour and a half before sunset. As discussed above, the results of the shadow analysis show the incremental difference in shadows between the No-Action and With-Action scenarios (see Table F-1). Table F-1 summarized the entry and exit times and total duration of incremental shadows on each affected sun-sensitive resource.

Table F-1
Duration of Shadows on Sunlight Sensitive Resources (Increment Compared to No-Action)

	Analysis Day	March 21/Sept. 21	May 6/August 6	June 21	December 21
		7:36 AM – 4:29 PM	6:27 AM – 5:18 PM	5:57 AM – 6:01 PM	8:51 AM – 2:53 PM
Merrill Lynch Field of Dreams	Shadow enter-exit time	2:22 – 4:29 PM	2:11 – 5:18 PM	2:16 – 6:01 PM	2:27 – 2:53 PM
	Incremental shadow duration	2 hours, 7 minutes	3 hours, 7 minutes	3 hours, 45 minutes	26 minutes
St. Ann's Block Association Garden	Shadow enter-exit time			5:24 – 6:01 PM	
	Incremental shadow duration			37 minutes	

Note: All times are Eastern Standard Time; Daylight Savings Time was not accounted for per *CEQR Technical Manual* guidelines.
Table indicates the entry and exit times and total duration of incremental shadow for each sunlight-sensitive resource.

As shown in Table F-1, the proposed project would increase shadow coverage at the Merrill Lynch Field of Dreams on all four analysis dates. The proposed project would also increase shadow coverage at the St. Ann's Block Association Garden on the June 21 analysis date. Figures F-2 through F-5 show the representative project-generated incremental shadows on the two open space resources of concern. As shadows are in constant motion, Figures F-2 through F-5 illustrate the extent of additional incremental shadow at particular moments in time, highlighted in red, and also show existing shadows and remaining areas of sunlight. An aerial view of the Merrill Lynch Field of Dreams is provided in Figure F-6.

It should be noted that, per the *CEQR Technical Manual*, all times reported herein are Eastern Standard Time and do not reflect adjustments for daylight savings time that is in effect from mid-March to early November. As such, the times reported in this attachment for March 21/September 21, May 6/August 6, and June 21 need to have one hour added to reflect the Eastern Daylight Saving Time.

March 21/September 21

On March 21/September 21 the time period for shadows analysis begins at 7:36 AM and continues until 4:29 PM. March is considered the beginning of the growing season in New York City, and September 21, which has the same shadow patterns as March 21, is also within the growing season. On the March 21/September 21 analysis day, incremental shadows from the proposed development would reach the

Merrill Lynch Field of Dreams. No incremental shadows would be experienced at the St. Ann's Block Association Garden.

The proposed development would cast incremental shadows on the Merrill Lynch Field of Dreams beginning at 2:22 PM and continuing until the end of the analysis day at 4:29 PM, for a duration of 2 hours and 7 minutes. Before 2:22 PM the open space would not experience any incremental shadow coverage as a result of the proposed development. As indicated in Figure F-2, incremental shadows would enter the open space from the northwest before moving in a southeasterly direction towards Westchester Avenue. By 3:30 PM, the extent of incremental shadow coverage would increase but the majority of the open space would continue to receive direct sunlight. By 4:30 PM incremental shadow coverage would increase and shift towards the east.

May 6/August 6

On May 6/August 6 the time period for shadows analysis begins at 6:27 AM and continues until 5:18 PM. On the midpoint between the equinoxes and the solstices, incremental shadows from the proposed development would reach the Merrill Lynch Field of Dreams. No incremental shadows would be experienced at the St. Ann's Block Association Garden.

The proposed development would cast incremental shadows on the Merrill Lynch Field of Dreams beginning at 2:11 PM and continuing until the end of the analysis day at 5:18 PM, for a duration of 3 hours and 7 minutes. Before 2:11 PM the open space would not experience any incremental shadow coverage as a result of the proposed development. As indicated in Figure F-3, by 2:45 PM incremental shadows would enter a small northwestern portion of the open space. By 4:15 PM incremental shadow coverage would increase, covering western and central portions, but the majority of the open space would continue to receive direct sunlight. By 5:00 PM, incremental shadow coverage from the proposed development would increase and shift towards the east, covering the majority of the open space but still allowing direct sunlight in a number of areas.

June 21

On June 21 the time period for shadows analysis begins at 5:57 AM and continues until 6:01 PM. On the summer solstice, which is the day of the year with the longest period of daylight, the sun is most directly overhead and generally shadows are shortest and move across the widest angular range from west to east. On this date the proposed development would cast incremental shadows on both the Merrill Lynch Field of Dreams and St. Ann's Block Association Garden.

The proposed development would cast incremental shadows on the Merrill Lynch Field of Dreams beginning at 2:16 PM and continuing until the end of the analysis day at 6:01 PM, for a duration of 3 hours and 45 minutes. Before 2:16 PM the open space would not experience any incremental shadow coverage as a result of the proposed development. As indicated in Figures F-4a and F-4b, by 2:45 PM incremental shadows would enter a small northwestern portion of the open space. By 4:15 PM incremental shadow coverage would increase but would be limited to small western and central areas, allowing the majority of the open space to receive direct sunlight. By 5:45 PM, incremental shadow coverage from the proposed development would cover the majority of the open space but would still allow for direct sunlight in some areas, including the entire area to the north of East 153rd Street.

Incremental shadow coverage on the St. Ann's Block Association Garden would begin at 5:24 PM and continue until the end of the analysis day at 6:01 PM, for a duration of 37 minutes. Before 5:24 PM the open space would not experience any incremental shadow coverage as a result of the proposed development. For a brief 17 minute span from 5:33 PM to 5:50 PM, incremental shadows would eliminate

all direct sunlight that the open space would receive in the absence of the proposed development and the block garden association would be completely cast in shade, as shown in Figure F-4b.

December 21

On the winter solstice, December 21, the day of the year with the shortest period of daylight, the sun is low in the sky and shadows are at their longest but move rapidly. On this date the proposed development would cast incremental shadows on the Merrill Lynch Field of Dreams. No incremental shadows would be experienced at the St. Ann's Block Association Garden.

The proposed development would cast incremental shadows on the Merrill Lynch Field of Dreams beginning at 2:27 PM and continuing until the end of the analysis day at 2:53 PM, for a duration of 26 minutes. Before 2:27 PM the open space would not experience any incremental shadow coverage as a result of the proposed development. As indicated in Figure F-5, by 2:45 PM incremental shadows would be limited to the northwestern edge and the majority of the open space would receive direct sunlight.

Assessment

A shadow impact occurs when the incremental shadow from a proposed project falls on a sunlight sensitive resource or feature and reduces its direct sunlight exposure. Determining whether this impact is significant or not depends on the extent and duration of the incremental shadow and the specific context in which the impact occurs.

For open spaces, the uses and features of the space indicate its sensitivity to shadows. Shadows occurring during the cold-weather months of interest generally do not affect the growing season of outdoor vegetation; however, their effects on other uses and activities should be assessed. Therefore, this sensitivity is assessed for both (1) warm-weather-dependent features like wading pools and sand boxes, or vegetation that could be affected by a loss of sunlight during the growing season; and (2) features, such as benches, that could be affected by a loss of winter sunlight. Uses that rely on sunlight include: passive use, such as sitting or sunning; active use, such as playfields or paved courts; and such activities as gardening, or children's wading pools and sprinklers. Where lawns are actively used, the turf requires extensive sunlight. Vegetation requiring direct sunlight includes the tree canopy, flowering plants and plots in community gardens. Generally, 4 to 6 hours a day of sunlight, particularly in the growing season, is often a minimum requirement. Consequently, the assessment of an open space's sensitivity to increased shadow focuses on identifying the existing conditions of its facilities, plantings, and uses, and the sunlight requirements for each.

Merrill Lynch Field of Dreams

The proposed development would cast incremental shadows on the Merrill Lynch Field of Dreams on each of the four representative analysis days. Due to the existing low-rise character of the surrounding area and the absence of intervening buildings between the open space and Project Area, incremental shadow duration would range from 26 minutes on December 21 to 3 hours and 45 minutes on June 21. This would include increases in shadow coverage during the mid- and late-afternoon periods that would generally be located along western, central, and northern portions of the open space (see Figure F-6 for aerial view of existing open space configuration).

On all analysis days, the Merrill Lynch Field of Dreams would not receive project-generated incremental shadows before 2:11 PM, allowing the open space to receive direct sunlight throughout the morning and early afternoon hours. As shadows are not static and move from east to west throughout the day, the athletic fields would continue to receive some direct sunlight throughout the afternoon on all four representative analysis days (see Figure F-2 through F-5). Additionally, incremental shadows on active recreational uses

during the months surrounding the summer solstice when temperatures are warmer would not significantly affect the usability of the open space. Furthermore, as the running track and multipurpose sports field are made of synthetic materials and the northern baseball field would still obtain adequate sunlight for plant growth during the growing season (at least the 4 to 6 hour minimum specified in the *CEQR Technical Manual*), vegetation would not be adversely affected. Therefore, the new incremental shadows cast as a result of the proposed development would not adversely affect the utilization or enjoyment of the Merrill Lynch Field of Dreams.

St. Ann's Block Association Garden

The shadows analysis determined that the duration and coverage of incremental shadows on the St. Ann's Block Association Garden would be limited. On June 21, project-generated incremental shadows would last for only approximately 37 minutes in the late afternoon. While incremental shadows from the proposed development would eliminate all direct sunlight for a brief 17 minute span from 5:33 PM to 5:50 PM, it is expected that the block garden association would still obtain adequate sunlight during the plant growing season (at least the 4 to 6 hour minimum specified in the *CEQR Technical Manual*) and vegetation would not be adversely affected. Therefore, with or without the proposed development, the shadow conditions on this open space resource would not significantly differ and no significant adverse shadow impacts would result.

2:45 PM

3:30 PM

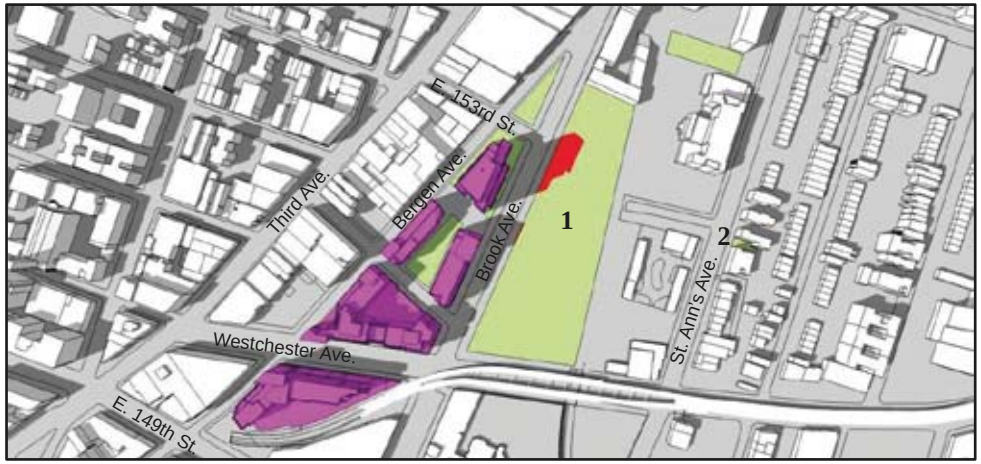
4:15 PM

Proposed Development **Incremental Shadow** **Open Space**

1. **Merrill Lynch Field of Dreams**
2. **St. Ann's Block Garden Association**

La Central EAS **Figure F-2**

Incremental Shadows on March 21/September 21



2:45 PM

3:30 PM

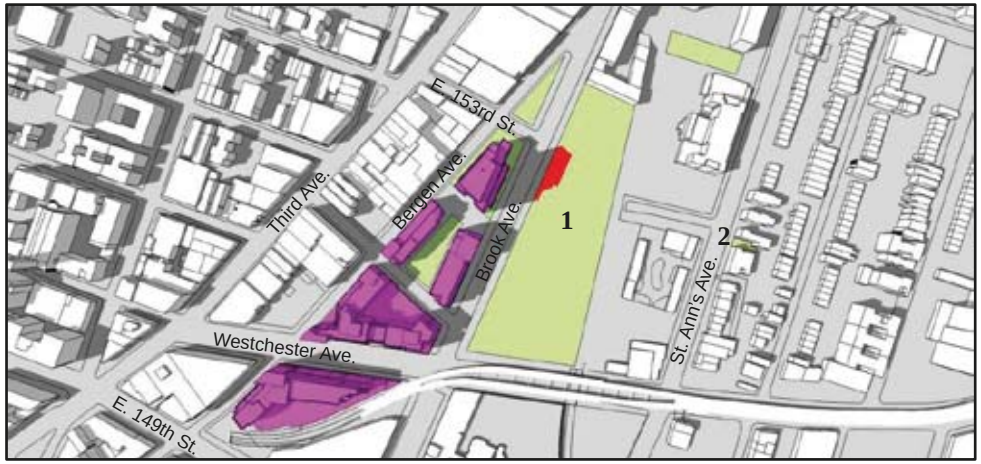
4:15 PM

5:00 PM

Proposed Development **Incremental Shadow** **Open Space**

1. **Merrill Lynch Field of Dreams**
2. **St. Ann's Block Garden Association**

Figure F-3
Incremental Shadows on May 6/August 6



2:45 PM

3:30 PM

4:15 PM

5:00 PM

Proposed Development **Incremental Shadow** **Open Space**

1. **Merrill Lynch Field of Dreams**
2. **St. Ann's Block Garden Association**

Incremental Shadows on June 21

5:45 PM

Proposed Development **Incremental Shadow** **Open Space**

1. **Merrill Lynch Field of Dreams**
2. **St. Ann's Block Garden Association**

2:45 PM

Proposed Development **Incremental Shadow** **Open Space**

1. **Merrill Lynch Field of Dreams**
2. **St. Ann's Block Garden Association**

Figure F-6
Aerial View

ATTACHMENT G
URBAN DESIGN AND VISUAL RESOURCES

La Central EAS
Attachment G: Urban Design & Visual Resources

I. INTRODUCTION

This attachment considers the potential effects of the Proposed Actions and the resulting development on urban design and visual resources. As defined in the 2014 *CEQR Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. Elements such as streets, buildings, visual resources, open space, natural resources, wind and sunlight play an important role in the pedestrian experience. The Proposed Actions would facilitate the redevelopment of three large vacant and underutilized parcels in the Melrose area of the South Bronx, replacing unimproved lots and vacant buildings with mixed-use development and future public open space on portions of three blocks generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and the elevated IRT #2 and #5 subway tracks to the south.

In accordance with CEQR guidelines, the assessment focuses on the components of the Proposed Actions that may have the potential to alter the arrangement, appearance, and functionality of the built environment. As described in Attachment A, "Project Description," the Proposed Actions include the disposition of City-owned property; amendments to the City zoning map; designation and approval of the project as an Urban Development Action Area Project (UDAAP); and a special permit to allow bulk and use modifications for a Large-Scale General Development (LSGD). In addition to the five proposed buildings, the Proposed Project would result in the removal of a functioning (but demapped) street which would have the potential to alter the pedestrian experience in the vicinity of the Project Area.

II. METHODOLOGY

As described in the *CEQR Technical Manual*, a preliminary assessment of urban design is appropriate when there is potential for a pedestrian to observe from the street level a physical alteration beyond that allowed by existing zoning. A preliminary assessment provides a "snapshot" of the project, comparing existing and future conditions with and without the Proposed Actions. The following assessment examines each of the elements that play an important role in the pedestrian experience, including street hierarchy and streetscape (including the arrangement and orientation of streets); building scale, form and arrangement; and natural features, open space, and topography. The effects of the Proposed Actions on the area's visual resources are also considered. Visual resources are generally considered to be important public view corridors, vistas, or natural or built features and can include waterfront views, public parks, landmark structures or districts, and rivers or geologic formations.

Per criteria of Section 230 of the *CEQR Technical Manual* a wind condition analysis is not warranted for the Proposed Actions. The proposed rezoning area is not located in a high wind location (such as along the waterfront), nor is it in a location where wind conditions from the waterfront are not attenuated by buildings or natural features.

Based on CEQR guidelines, the study area for urban design is the area where the project may influence land use patterns and the built environment. The urban design study area consists of both a primary study area (where urban design effects of the Proposed Actions are direct) and a secondary study area. For the purpose of this assessment, the primary study area is coterminous with the proposed rezoning area and includes the approximately 186,493 sf Project Area. The primary study area is generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and the elevated IRT #2 and #5 subway tracks to the south

(refer to Figure G-1). As views to and from the rezoning area are limited to the immediately surrounding streets, the secondary study area has been defined as being within approximately 400 feet of the primary study area. The secondary study area is generally bounded by lots fronting Third Avenue to the west, East 148th Street to the south, St. Ann's Avenue to the east, and East 156th Street to the north (refer to Figure G-1). Both the primary and secondary study areas have been established in accordance with *CEQR Technical Manual* guidelines.

The assessment is based on field visits, aerial views, photographs, and other graphic images of the proposed rezoning area and surrounding area. Zoning calculations, including floor area calculations, building heights and lot coverage information is also provided.

III. PRELIMINARY ASSESSMENT

Under CEQR, a preliminary assessment of urban design and visual resources is appropriate when there is the potential for a pedestrian to observe from the street level a physical alteration beyond that allowed by existing zoning, including the following: (1) projects that permit the modification of yard, height, and setback requirements; and (2) projects that result in an increase in built floor area beyond what would be allowed as-of-right or in the future without the Proposed Actions. CEQR stipulates that a detailed analysis is necessary for projects that would result in substantial alterations to the streetscape of the neighborhood by noticeably changing the scale of buildings. According to the *CEQR Technical Manual*, detailed analyses are generally appropriate for large-scale general developments. As the Proposed Actions meet these specifications, a detailed analysis of urban design and visual resources has been conducted and is provided below.

IV. DETAILED ASSESSMENT

Existing Conditions

Urban Design

Primary Study Area

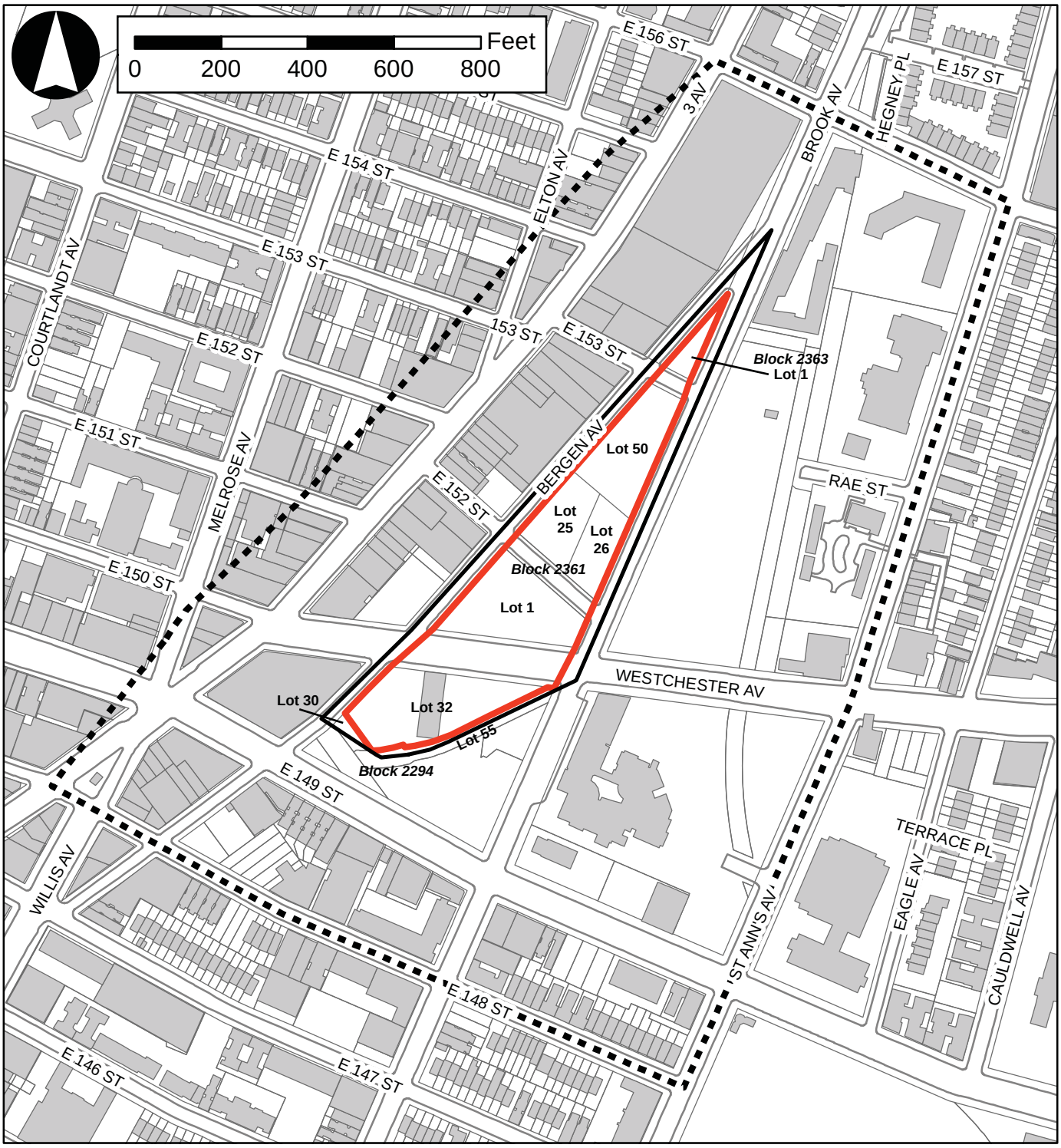
The primary study area is generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and the elevated IRT #2 and #5 subway tracks to the south (refer to Figure G-1). It encompasses the approximately 186,493 sf Project Area which is currently controlled by HPD, as well as portions of parcels to the south and southeast of the Project Area at 459 East 149th Street (part of Block 2294, Lots 30 and 60). The southern section of the primary study area also includes a portion of the elevated IRT #2 and #5 subway lines (Block 2294, Lot 55).

Buildings

With the exception of a single low-rise building, the Project Area is primarily undeveloped, vacant land. Parcel B (Block 2294, Lot 32) is currently occupied by two paved public parking lots and a two-story, approximately 11,000 sf commercial/institutional building located at 436 Westchester Avenue, which is currently vacant (refer to Figure G-2). The vacant building has an FAR of 0.22. The two parking lots have a combined capacity of approximately 74 parking spaces and are accessible via curb cuts on the south side of Westchester Avenue.

Parcels A and C (Block 2361, Lots 1, 25, 26, 50 and Block 2363, Lot 1) are vacant and enclosed by chain-

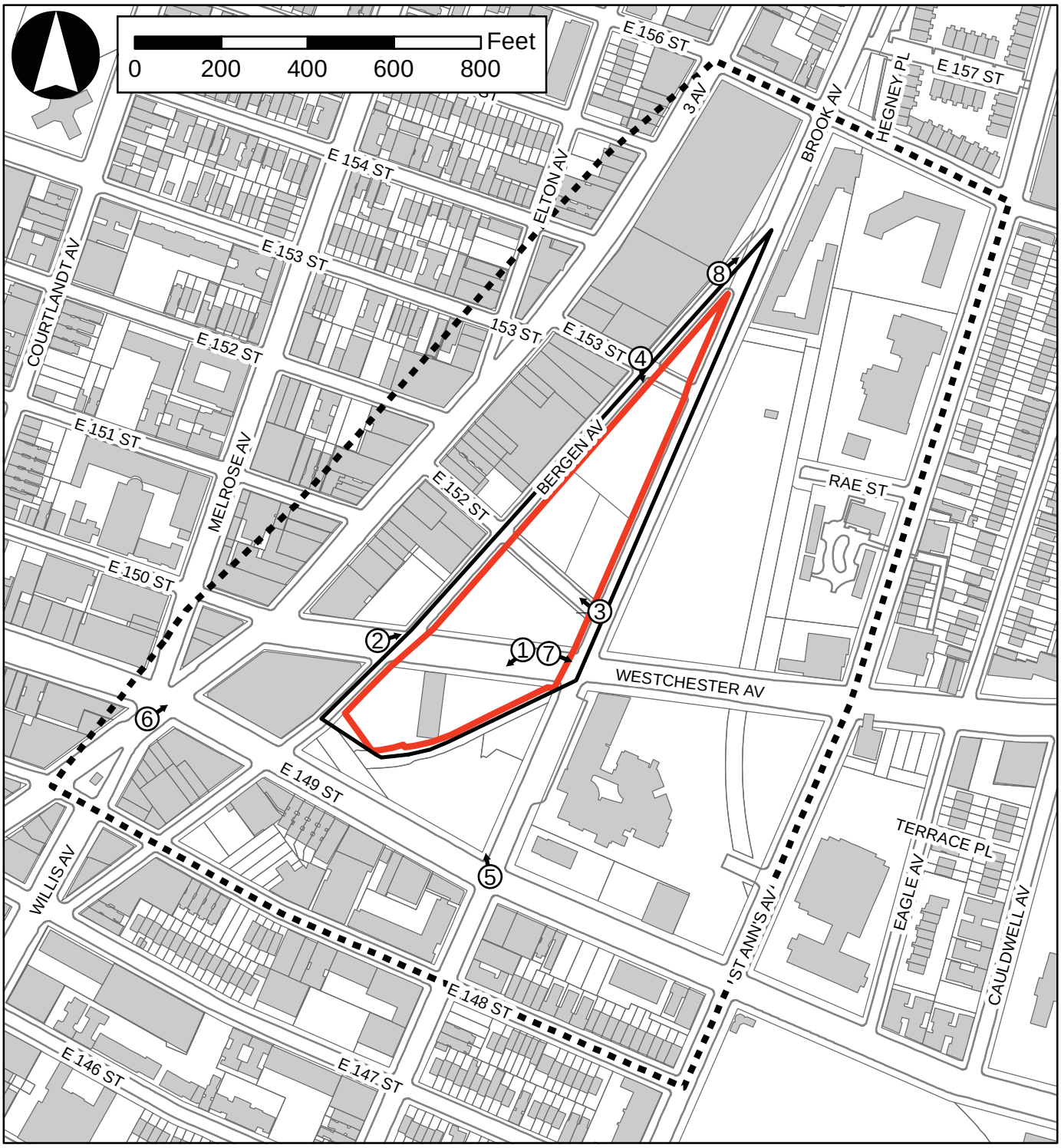
Figure G-1
Urban Design Study Area



Legend

- Project Area
- Proposed Rezoning Area
- Secondary Study Area
- Building Footprints

Figure G-2a
Photo Key



Legend

- Project Area
- Proposed Rezoning Area
- Secondary Study Area
- ① Photo Location

1. 436 Westchester Avenue and adjacent parking lots occupying of the Project Area.

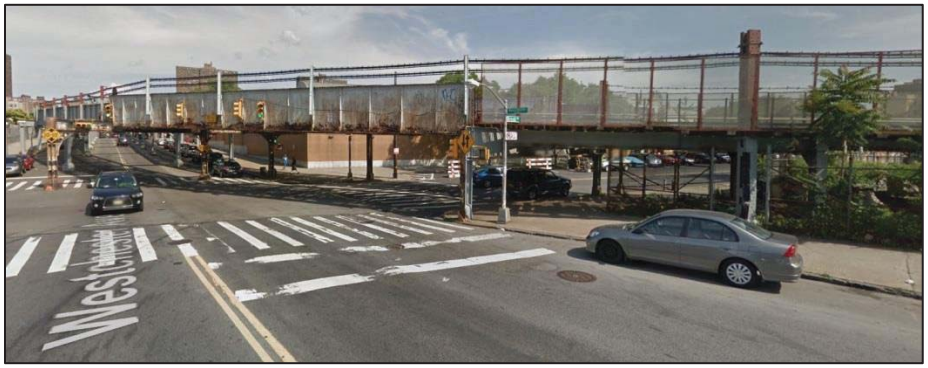
2. View of Parcel A looking northeast from the intersection of Westchester Avenue and Bergen Avenue.

3. View looking northwest along East 152nd Street (which was demapped in 1975) from Brook Avenue.

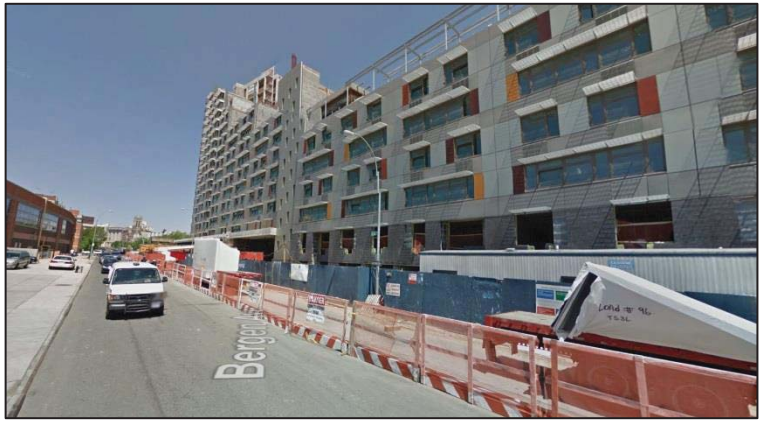
4. View of Parcel A looking south from the intersection of East 153rd Street and Bergen Avenue.

5. Northwest corner of East 149th Street and Westchester Ave.

6. Looking northeast at the intersection of East 149th Street and Third Ave.



7. View looking east along Westchester Avenue from Brook Avenue, with the elevated IRT #2 and #5 subway lines visible along Westchester Avenue.



8. View looking north at Via Verde from Bergen Avenue.

La Central EAS **Figure G-2c**

Existing Conditions – Secondary Study Area

link fencing. Both parcels are overgrown with grass and weeds and feature a few large trees. There is no public access to this portion of the Project Area. East 152nd Street (demapped in 1975, but currently open to traffic) extends between Bergen and Brook Avenues as a functioning one-way westbound street with parking on both the north and south sides.

The southernmost portion of the proposed rezoning area contains a portion of the elevated IRT #2 and #5 subway lines (Block 2294, Lot 55), as well as portions of two lots (Block 2294, Lots 30 and 60) which are part of the Triangle Plaza Hub construction site. Currently, only Lot 60 is under construction, as discussed further in the Future Without the Proposed Actions section below. Table G-1 provides a descriptive summary for each of the tax lots included within the primary study area. As shown in the table, the primary study area has few buildings and is predominantly composed of vacant land.

Table G-1
Existing Descriptions of Lots within the Primary Study Area

Block/Lot		Total Lot Area (SF)	Existing Zoning	Land Use	No. of Floors	Building Floor Area (SF)	Building FAR
Block 2294	Lot 30[1]	3,310	C4-4	*Under Construction*	-	-	-
	Lot 32	50,551	C4-4/M1-1	Vacant/Parking Lot	2-story	11,000	0.22
	Lot 55[1]	30,590	C4-4/M1-1	Transportation (elevated rail)	-	-	-
	Lot 60[1]	50,500	C4-4/M1-1	*Under Construction*	-	-	-
Block 2361	Lot 1	52,520	M1-1	Vacant	-	-	-
	Lot 25	22,756	M1-1	Vacant	-	-	-
	Lot 26	21,747	M1-1	Vacant	-	-	-
	Lot 50[2]	31,785	M1-1	Vacant	-	-	-
Block 2363	Lot 1	7,134	M1-1	Vacant	-	-	-

Sources: OASIS Maps; NYCDOF Tax Maps
Notes:
[1] Lot only partially included in the primary study area (refer to Figure G-1).
[2] Including a 1,003 sf portion of East 153rd Street easement.

Streets and Streetscape

The primary study area is characterized by an irregular street grid and is intersected by three east-west running streets (refer to Figure G-1). The stretch of Westchester Avenue that extends through the southern portion of the primary study area is open to two-way traffic and measures approximately 100 feet in width, including two parking lanes, two travel lanes, and 12.5-foot wide concrete sidewalks. To the north, the portion of East 152nd Street located between Bergen and Brook Avenues is currently open to traffic although it was officially demapped by the City in 1975. The street is one-way westbound and measures approximately 50 feet (mapped at 80 feet) in width, including two parking lanes, one travel lane, and 8-foot wide concrete sidewalks, but mapped. To the north is East 153rd Street, a two-way, approximately 50-foot wide street that includes two parking lanes, two travel lanes, and 8-foot wide concrete sidewalks.

The two streets which form the western, northern, and eastern boundaries of the primary study area are Bergen Avenue and Brook Avenue (refer to Figure G-1). Bergen Avenue extends northeast-southwest through the primary study area, forming its western boundary. The street is one-way northbound and has a width of approximately 50 feet, including two parking lanes, one travel lane, and 8-foot wide concrete sidewalks. Brook Avenue extends north-south through the primary study area, forming its eastern boundary. To the north of Westchester Avenue, Brook Avenue is one-way southbound and has a width of approximately 75 feet (mapped at 100 feet) including two parking lanes, two travel lanes, and 15-foot wide concrete sidewalks. To the south of Westchester Avenue, Brook Avenue becomes a two-way street with a

width of approximately 100 feet including one lane of angled parking spots for the Horizon Juvenile Center on the east side of the street, three travel lanes (two southbound, one northbound), and 15-foot wide concrete sidewalks. At the northernmost point of the primary study area, Bergen and Brook Avenues intersect.

Generally, sidewalks within the primary study area are not well maintained; many are in fair condition with cracked concrete pavement and weeds. Some sidewalks, like those adjacent to the Project Area along Bergen and Brook Avenues between East 152nd and East 153rd Streets, are almost completely overgrown with vegetation. There are many street trees along Bergen Avenue and Brook Avenue, but few street trees on Westchester Avenue, East 152nd Street, and East 153rd Street. While there are some streetscape elements throughout the proposed rezoning area, such as streetlights, there is almost no street furniture or landscaping in the area. The proposed rezoning area has minimal pedestrian traffic. Sidewalks along the southern portion of Block 2294 are covered in scaffolding due to the adjacent commercial development under construction at 459 East 149th Street (Block 2294, Lot 60).

Open Space

The primary study area contains no open space resources usable for recreational purposes, nor does it include natural features. The Project Area accommodates predominately vacant land that is overgrown and inaccessible to the public. In addition, the topography of the primary study area is generally flat.

Secondary Study Area

The secondary study area includes the area within an approximate 400-foot radius of the primary study area and is generally bounded by lots fronting Third Avenue to the west, East 148th Street to the south, St. Ann's Avenue to the east, and East 156th Street to the north (refer to Figure G-1). The secondary study area supports a variety of land uses, densities, and building types. Development is most concentrated around "the Hub," which is the point where Third, Melrose, Willis, and Westchester Avenues and East 149th Street intersect at Roberto Clemente Plaza, one block to the southwest of the proposed rezoning area. The Hub is recognized as the borough's "downtown" regional shopping and commercial district. The Hub also serves as a major transportation center well-served by mass transit, including the IRT #2 and #5 subway lines and the Bx2, Bx4, Bx15, Bx17, Bx19, Bx41, and Bx55 New York City Transit (NYCT) bus routes. As shown in Figures G-3 and G-4, development is less dense to the east of the proposed rezoning area.

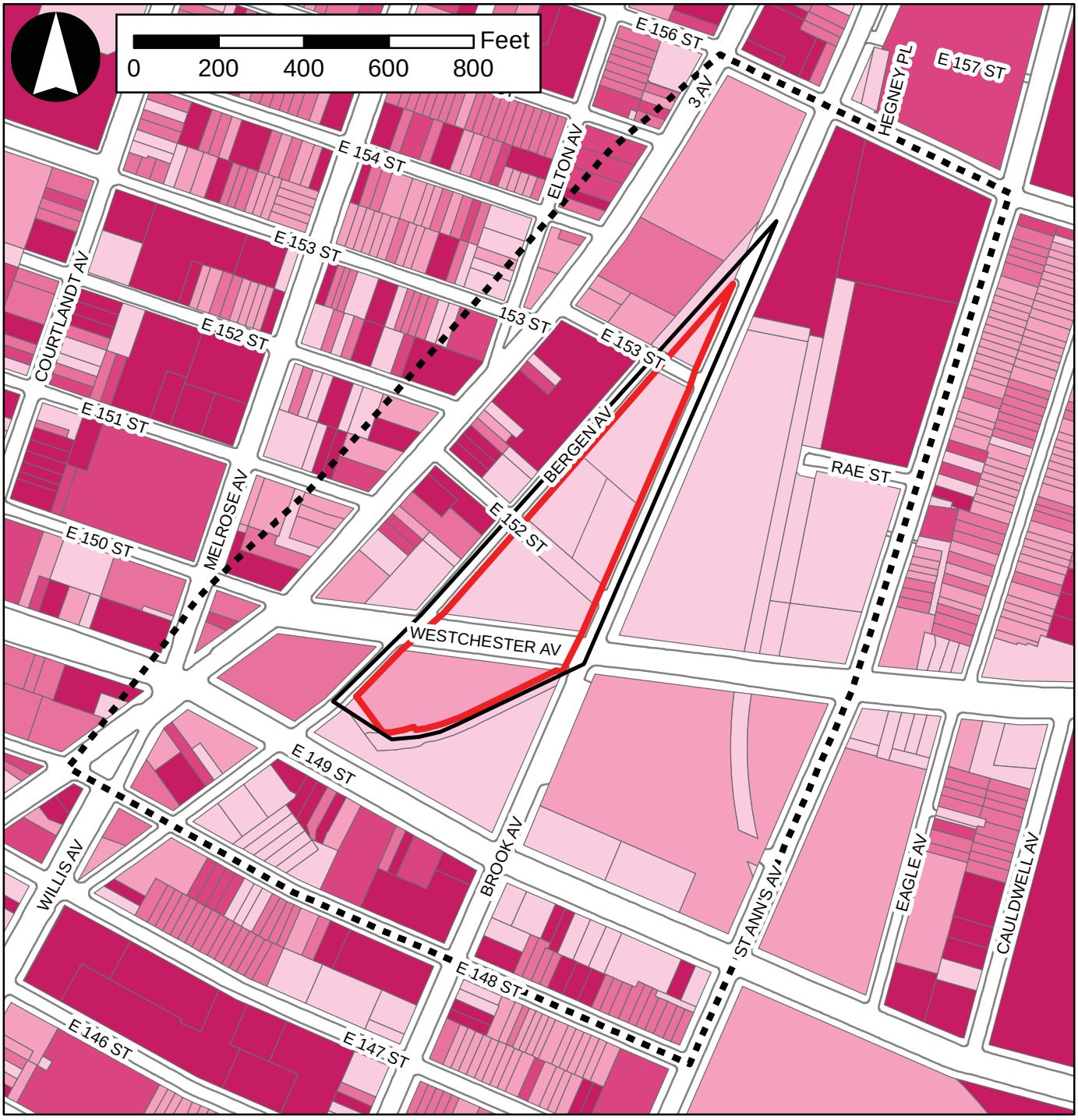
Buildings

Third Avenue is lined with one- to six-story commercial buildings which are typically set at the lot line and form a continuous streetwall. Several buildings have frontages on both Third and Bergen Avenues, although the Bergen Avenue frontages are typically used for deliveries while the Third Avenue frontages contain storefronts, eating and service establishments. Third Avenue is heavily trafficked by pedestrians.

Land uses and building types to the south of East 149th Street are extremely varied and contain a mix of uses including ground-floor retail, office space, mixed-use commercial/residential, multi-family apartment buildings, and parking. Buildings generally range from two- to six-stories in height and rise from the lot line without setback. The area to the east of the proposed rezoning area along St. Ann's Avenue is generally characterized by nondescript one- to two-story commercial and institutional buildings setback from the street on large lots. The area to the northeast of the Project Area contains high-rise residential buildings, including the 20-story Via Verde development and the 18-story Bronxchester Houses (refer to Figure G-2).

Streets and Streetscape

As shown in Figure G-1, the secondary study area's street network is characterized by an irregular block pattern with east-west streets such as East 148th Street, East 149th Street, and Westchester Avenue

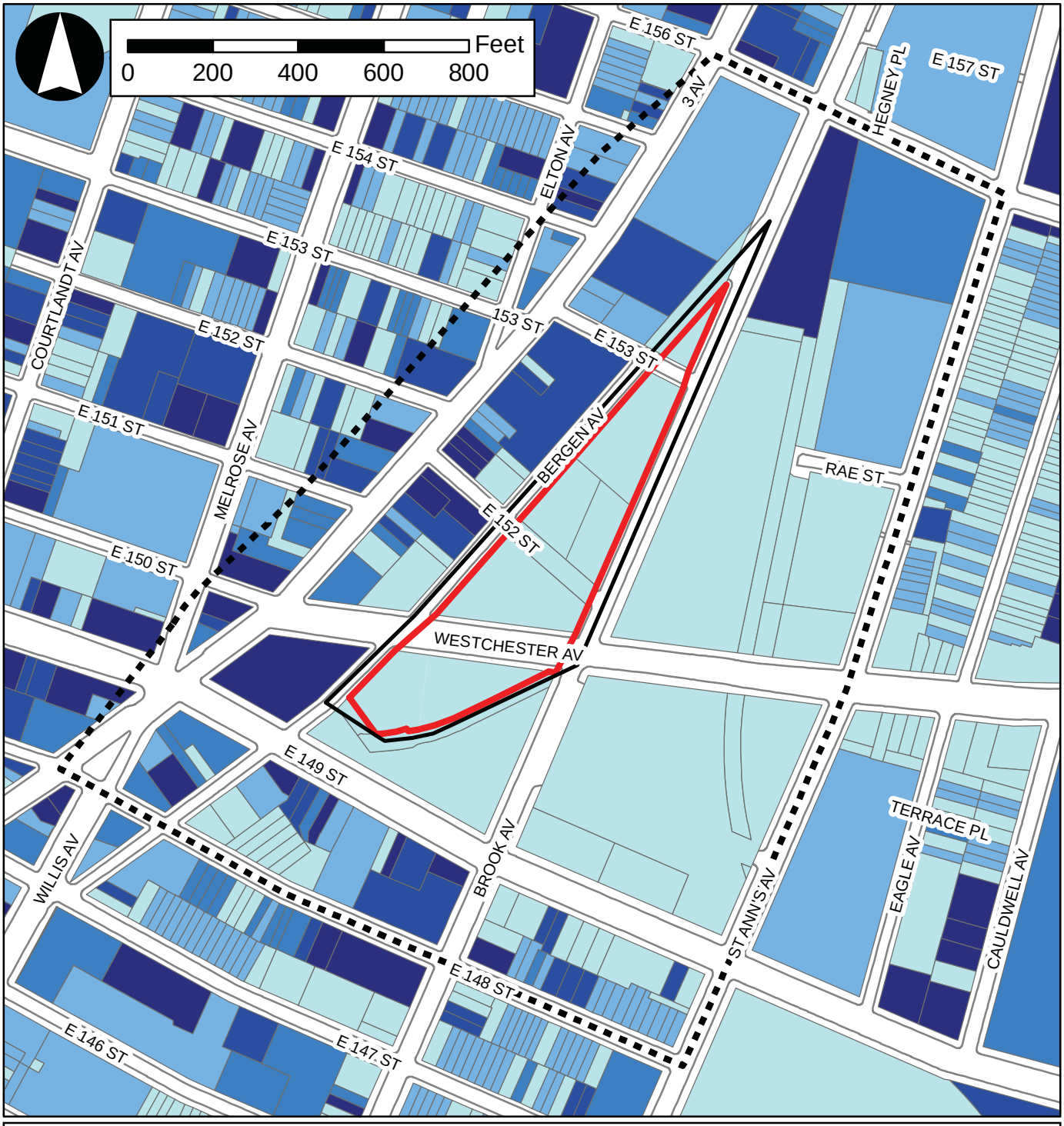


Legend

- Project Area
- Proposed Rezoning Area
- Secondary Study Area

Building Height

- 0 - 1 Floors
- 1 - 2 Floors
- 2 - 3 Floors
- 3 - 4 Floors
- 4+ Floors



Legend

- Project Area
- Proposed Rezoning Area
- Secondary Study Area

Density (Built FAR)

- 0.0 - 1.0 FAR
- 1.0 - 2.0 FAR
- 2.0 - 3.0 FAR
- 3.0 - 4.0 FAR
- 4.0+ FAR

intersected by streets that run northeast-southwest such as Third, Willis, Bergen, Brook, and St. Ann's Avenues. East 148th Street, Bergen Avenue, and Brook Avenue are not heavily trafficked, while East 149th Street, Westchester Avenue, Third Avenue, and St. Ann's Avenue are major thoroughfares in the secondary study area. With the exception of Third Avenue, most of the streets in the secondary study area lack streetscape elements such as street trees or street furniture. Third Avenue is lined with several street trees along with bus stop shelters, telephone booths, food vendors, and streetlights in the secondary study area.

Open Space

There are two open space resources located in the secondary study area, the Merrill Lynch Field of Dreams (also known as the South Bronx High School Athletic Field) and the Bronxchester Houses Playground. The 3.8-acre Merrill Lynch Field of Dreams is a publicly-accessible athletic field located immediately east of the primary study area, across Brook Avenue. It is operated by the New York City Department of Education (DOE) and includes a baseball field, synthetic multipurpose athletic field, and running track. To the northeast of the primary study area is the 0.4-acre Bronxchester Houses Playground on St. Ann's Avenue. Operated by the New York City Housing Authority (NYCHA), the playground includes play equipment, a basketball court, and benches. There are no other publicly-accessible open space resources, nor are there any natural resources in the secondary study area. In addition, the topography of the secondary study area is generally flat.

Visual Resources

The primary and secondary study areas do not possess or provide views of any natural or built features such as waterfront views, landmark structures or districts, rivers, or geologic formations. While there are two public open spaces located within the secondary study area, neither open space has a strong visual connection to the public realm, as both are physically setback from the streetline and are lined by trees and fencing. Therefore, there are no significant visual or natural resources located within the secondary study area.

Future Without the Proposed Actions (No-Action)

Urban Design & Visual Resources

Primary Study Area

Under No-Action conditions, the actions necessary to facilitate the Proposed Project would not be approved and no changes would occur within the Project Area. As such, the Project Area would continue to be comprised of vacant lots, two parking lots, and a vacant commercial building, and East 152nd Street would continue to be open to traffic.

Additionally, it is anticipated that the two-story, approximately 83,000 sf Triangle Plaza Hub commercial/institutional development at 459 East 149th Street (Block 2294, Lot 60), which is partially located in the southernmost portion of the proposed rezoning area, would continue to be developed in the future without the Proposed Actions. The Triangle Plaza Hub development will be built out to the lot line, improving the streetscape for pedestrians. Additionally, the project will include a publicly-accessible pedestrian plaza on the southwest corner of the site, which will include outdoor seating at the intersection of East 149th Street and Bergen Avenue. Triangle Plaza Hub is scheduled for completion in 2015. Construction of a separate building on Block 2294, Lot 30 is also planned as part of the Triangle Plaza Hub development, but the construction timeline has not been finalized.

Secondary Study Area

As discussed in Attachment C, "Land Use, Zoning, and Public Policy," it is expected that in the future without the Proposed Actions, no major changes in land use or zoning would occur in the study area surrounding the proposed rezoning area. It is anticipated that the existing street hierarchy, block form, and streetscape of the secondary study area would remain similar to existing conditions in the analysis year of 2020. In addition, with the exception of Roberto Clemente Plaza, no new open space resources are anticipated in the secondary study area by 2020. The secondary study area would continue to be a mixed-use residential and commercial neighborhood with institutional uses interspersed throughout.

Within the approximate 400-foot study area, there are two new developments planned in the near future. These include the Triangle Plaza Hub commercial/institutional development discussed above, as well as a 7-story, approximately 5,000 sf mixed-use commercial and residential development at 411 East 151st Street to the west of the proposed rezoning area. There is also the Roberto Clemente Plaza Reconstruction project, a DCP and DOT-sponsored street improvement project to the southeast of the proposed rezoning area at the Hub intersection. The existing asphalt Roberto Clemente traffic triangle is slated to become a 15,000 sf pedestrian plaza trees, seating areas, and a fountain. Safety improvements such as lighting, distinctive pedestrian and bicyclist paving and crosswalks, and traffic signaling improvements in the vicinity of the Hub would also be incorporated. The street reconstruction is scheduled for completion in 2015.

Additionally, there are two developments planned for construction immediately outside of the secondary study area. These include the 8-story, 42-unit Brook 156 residential building at East 156th Street and Brook Avenue, and the 5-story, 66-unit Brook Avenue Apartments at 455 East 147th Street/493 Brook Avenue (refer to Figure C-7 in Attachment C). These projects are anticipated to enhance the existing mixed-use character of the neighborhood with new housing options, retail and office spaces, and institutional space.

Future With the Proposed Actions (With-Action)

Urban Design

Primary Study Area

The Proposed Actions would allow the applicant to substantially alter the appearance of the Project Area by replacing the vacant and underutilized land with a mix of residential, commercial, and community facility space, as well as open space. The project site's existing M1-1/C4-4 zoning would be replaced with a C6-2 zoning district, which is a high bulk commercial district requiring a central location well-served by mass transit. The proposed zoning map change would extend an existing C6-2 zoning district mapped to the northeast to encompass the Project Area to allow the proposed residential, community facility, and commercial uses.

The existing two-story vacant commercial building at 436 Westchester Avenue would be demolished, and the two adjacent at-grade parking lots would be closed. In accordance with CEQR guidelines, the assessment focuses on the components of the Proposed Actions that may have the potential to alter the arrangement, appearance, and functionality of the built environment. As described in Attachment A, "Project Description," the Proposed Actions would facilitate the construction of 832 DUs, 160 supportive housing units, approximately 46,800 gsf of local retail and commercial uses, an approximately 50,500 gsf YMCA, and approximately 32,700 gsf of other community facility uses within the Project Area in five new mixed-use buildings (refer to Figure G-1). The proposed buildings would range in height from 9- to 13-stories, with the exception of Building E, which would rise 25-stories. Additionally, up to approximately 262 below-grade parking spaces, an approximately 41,002 sf courtyard (32,481 sf public and 8,521 sf private), an approximately 7,134 sf public skate park, an approximately 7,625 sf public rooftop farm, and

approximately 1.0 acre (43,385 sf) of private rooftop open space would be provided on site. Construction would begin in mid-2016 with all components complete and fully operational by early 2020. In addition to the five proposed new buildings, the Proposed Project would result in the conversion of a portion of East 152nd Street, an existing (but demapped) street, into a pedestrian plaza which would have the potential to alter the pedestrian experience in the vicinity of the Project Area.

Buildings

The applicant is seeking approval to develop the approximately 186,493 sf Project Area as a LSGD pursuant to ZR Section 74-74 to allow greater flexibility in the application of proposed C6-2 zoning district regulations. The LSGD would include waivers pursuant to: (1) ZR Section 74-743 to waive height and setback, yard and open space requirements; and (2) ZR Section 74-744 to waive use regulations. The requested LSGD would allow wavier of height and setback requirements for each of the five proposed buildings (Buildings A, B, C, D, and E) and also waive the rear yard requirements for Building A (refer to Attachment C, "Land Use, Zoning, and Public Policy" for specific details about the waivers being sought for each building).

All five of the proposed buildings would be oriented towards and built at the sidewalk, creating a strong street presence. The street walls of Buildings A, B, C, and D would exceed the maximum permitted street wall height of 85 feet in the proposed C6-2 zoning district, and Building A would partially obstruct the 30-foot rear yard, as required for residential portions of buildings and 20-foot rear yard, as required for commercial and community facility portions of buildings. The LSGD would also allow the applicant to satisfy the open space requirements for Parcel A, which would include four of the five proposed buildings (Buildings B, C, D, and E), through the proposed open space on the Parcel C skate park. A total of approximately 84,289 sf of open space would be required for approximately 909,300 sf of proposed residential floor area. In addition, the LSGD would allow certain commercial uses to be located on the same floor as residential uses. As there would be dwelling units on the second story of Building B, the location of a television studio on this story would be prohibited, and a special permit is required to allow the Use Group 10 television studio and the Use Group 2 residential units on the first and second stories of the building. The television studio would not be located directly over any portion of a story containing residential dwelling units, and access to the residential uses and commercial uses would be separate.

As shown in Figure G-5, Building A would be located on Parcel B along Bergen and Westchester Avenues. The building would rise 12 stories (approximately 125 feet) and would be comprised of 215 DUs (232,700 sf), approximately 15,400 sf of ground-floor local retail space, and 52,900 sf of community facility space including an approximately 50,500 sf YMCA (refer to Table G-2). The rooftop of Building A would accommodate an approximately 7,625 sf public rooftop garden overlooking the elevated subway tracks to the south. The main residential entrance to Building A would be located on Bergen Avenue, while the retail and community facility uses would be accessible from Bergen and Westchester Avenues (refer to Figure G-6). The building would be built out to the lot line along Westchester and Bergen Avenues. The retail and community facility spaces on the first floor of Building A would be faced in large panes of glass, while the upper floors would be faced in brick with regular fenestration. The windows would be highlighted by colored vertical and horizontal panels. The top floors of Building A would be setback in order to accommodate the public rooftop farm, the residents' private open space, and the rooftop solar panels.

Courtesy of FXFowle Architects

For Illustrative Purposes Only

1. Existing/No-Action Conditions: View looking northeast along Bergen Avenue from midway between East 149th Street and Westchester Avenues with a parking lot on proposed development site.

2. With-Action Condition: View looking northeast along Bergen Avenue from midway between East 149th Street and Westchester Avenues with Building A (including YMCA) on the proposed development site.

3. Existing/No-Action Conditions: Looking northeast from the intersection of Bergen and Westchester Avenues, with a parking lot and vacant building (to the right) and fenced-in vacant land (center) on the proposed development site.

4. With-Action Condition: Looking northeast from the intersection of Bergen and Westchester Avenues, with Building A (to the right), Building B (center), and Building E (left) on the proposed development site.

5. Existing/No-Action Conditions: View looking southwest from the intersection of Brook Avenue and East 153rd Street, with fenced-in vacant land on the proposed development site.

6. With-Action Condition: View looking southwest from the intersection of Brook Avenue and East 153rd Street, with Building E (center), Building C (left), and Building B (far left) on the proposed development site.

7. Existing/No-Action Conditions: View looking south from the intersection of Brook and Bergen Avenues. Parcel C in the foreground.

8. With-Action Condition: View looking south from the intersection of Brook and Bergen Avenues, with the skate park (Parcel C) in the foreground, Building E (center), Building C (left), and Building D (right).

Table G-2
Future With the Proposed Actions – Project Area Buildings[1]

Building	Residential (SF)	Residential (DU)	Commercial (SF)	Community Facility (SF)	Supportive Housing Units	Total (SF)	# of Stories
A	232,700	215	15,400[2]	52,900	-	301,000	12
B	309,600	281	29,100	-	-	338,700	13
C	153,900	137	-	8,600	-	162,500	13
D	0	1	-	89,200[3]	160	89,200	9
E	213,100	198	2,300	10,000	-	225,400	25
Total	**909,300**	**832**	**46,800[2]**	**160,700[3]**	**160**	**1,116,800**	**-**

Notes:
[1] Table G-2 does not include up to approximately 262 spaces of accessory parking.
[2] Includes 600 sf of permitted loading.
[3] Community facility space includes 160 supportive housing units.

Buildings B, C, D, and E would be located on Parcel A, bounded by Bergen Avenue, Brook Avenue, Westchester Avenue, and East 153rd Street (refer to Figure G-5). The buildings would be located on the edges of the parcel with an approximately 41,002 sf landscaped courtyard in the center. Each building would have an entrance onto the courtyard as well as entrances onto the street for residential, retail, and community facility spaces, creating a uniform streetwall along Westchester, Bergen, and Brook Avenues.

As shown in Figure G-5, Building B would have frontages along Westchester, Bergen, and Brook Avenues. The building would be 13 stories tall (approximately 125 feet) and would be comprised of 281 DUs (309,600 gsf) and approximately 29,100 gsf of ground-floor local retail and commercial space (refer to Table G-2). Entrances for residents would be located on Brook Avenue and within the courtyard, while local retail and commercial spaces would be accessible from Bergen and Westchester Avenues. An underground parking garage with up to approximately 262 accessory parking spaces would be located beneath Building B, and would be accessible from Bergen Avenue. As shown in Figure G-6, the retail and commercial spaces on the first floor of Building B would be faced in large panes of glass, while the upper floors would be faced in brick with regular fenestration. The windows would be highlighted by colored horizontal and vertical panels. The top floors of Building B would be setback in order to accommodate private rooftop terraces for residents and the rooftop solar panels. The setback portions of Building B and the facades facing the inner courtyard would be faced in a lighter material to contrast with the glass and masonry streetwall along Westchester, Bergen, and Brook Avenues.

As shown in Figure G-5, Building C would have frontages along Brook Avenue and the courtyard, and would rise to a height of 13 stories (approximately 125 feet). The building would be comprised of 137 DUs (153,900 gsf) and approximately 8,600 gsf of community facility space (refer to Table G-2). Residential entrances to Building C would be located along Brook Avenue and within the courtyard, while community facility uses would be accessible from Brook Avenue. Like Building B, community facility spaces on the first floor of Building C would be faced in large panes of glass, while the upper floors would be faced in brick with regular fenestration. The windows would be highlighted by colored horizontal and vertical panels. The top floors of Building C would be setback in order to accommodate private rooftop terraces for residents and the rooftop solar panels. The setback portions of Building C and the facades facing the inner courtyard would be faced in a lighter material to contrast with the glass and masonry streetwall along Brook Avenue (refer to Figure G-6).

Building D would have frontages along Bergen Avenue and the central courtyard, and would rise to a height of 9 stories (approximately 93 feet). The building would be comprised of 160 supportive housing units and one unit for the superintendent of the building (approximately 77,500 sf) operated by Common Ground as well as approximately 4,400 sf of community facility space on the first floor and approximately 7,300 sf of Common Ground offices on the second floor (refer to Table G-2). Residential entrances would be located along Bergen Avenue and within the courtyard, while the community facility space would be accessible

from Bergen Avenue (refer to Figure G-5). The Bergen Avenue frontage of Building D would be faced in brick, while the courtyard façade would be faced in a lighter, contrasting material. Both facades would have regular fenestration, and the building would accommodate rooftop solar panels.

As shown in Figure G-5, Building E would be located in the northern section of Parcel A and would have frontages along Bergen Avenue, Brook Avenue, and East 153rd Street. At a height of 25 stories (approximately 249 feet) it would be the tallest of the five proposed buildings. Building E would be comprised of 198 DUs (213,100 sf), approximately 2,300 sf of ground-floor local retail space, and approximately 10,000 sf of community facility space (refer to Table G-2). Residential entrances would be located on Brook Avenue and the south side of the building facing the courtyard, while the retail and community facility uses would be accessible from East 153rd Street, Bergen Avenue, and Brook Avenue. The facades of Building E would be comprised of a mixture of brick and a lighter, contrasting material, tying it together with the four other buildings of the proposed development (refer to Figure G-6). The fenestration of Building E would be regular. There would be several setbacks in Building E to accommodate the private rooftop terraces for residents, and the rooftop solar panels. Building E would be setback from East 153rd Street by an average of 27 feet to reduce the visual bulk of the building at the street level.

The proposed development would be a prominent and distinctive addition to the surrounding neighborhood's built environment. The LSGD special permit would provide greater flexibility of bulk and open space in the Project Area and is intended to create a better site development and urban design concept that would otherwise not be possible under standard zoning regulations. The locations of the proposed buildings would not unduly increase the bulk of any buildings on any one block of the Project Area. The proposed development does not concentrate bulk in any one portion of the site and would distribute the bulk across the Project Area within five buildings, each with varying levels of floor area and height. The requested LGSD would also allow the distribution of open space without regard to zoning lot lines, which would facilitate the creation of a site plan and project design that is uniquely suited to the irregularly shaped Project Area.

The requested height and setback waivers would allow the proposed buildings to have massings that better relate to the street and maintain a pedestrian scale. The proposed buildings would be oriented toward and located near the street, and would follow a natural street grid pattern facilitated by the East 152nd Street sewer easement. By locating the proposed buildings along perimeter streets, the site plan creates useable and better-designed concentrations of private and public open space on the site, and would allow for a better location of prospective retail and community facility tenants. These uses would activate the streetscape. The 50-foot wide open space between Buildings C, D, and E, would complement and parallel the 50-foot wide pedestrian corridor that would occupy the sewer easement. The spacing of the proposed buildings close to the street would contribute to a sense of space and light in the central courtyard. At least 50 feet of distance would be provided between each building.

In the future with the Proposed Actions, the bulk and height of the proposed buildings would be increased over No-Action conditions, resulting in a notable change in the pedestrian perspective in comparison to No-Action conditions. However, the proposed development would be consistent in scale and density with recent developments in the area, such as the 20-story Via Verde development immediately to the northeast of the proposed rezoning area, which was completed in 2012.

Streets and Streetscape

The proposed development would enhance the vitality of the streetscape, extending the pedestrian friendly environmental of the blocks to the west of the site, eastward and creating streetwalls and a building presence on the north and south sides of Westchester Avenue, the east side of Bergen Avenue, and the west side of Brook Avenue, where none currently exists. The proposed development would animate the street frontage and pedestrian experience. Moreover, as part of the proposed development, new street trees would be

provided on all sidewalks around the proposed development, as shown in Figure G-5. In addition to the new retail and community facility spaces on the ground-floor of the five buildings creating a continuous streetwall, these street trees would help to enhance the pedestrian experience in the area.

In addition, a publicly accessible portion of the courtyard would be located along the demapped portion of East 152nd Street between Bergen and Brook Avenues, in order to maintain the below-grade sewer easement. The permanent closure of East 152nd Street between Brook and Bergen Avenues to all traffic except emergency vehicles would slightly modify the existing street network and block form but would not affect street hierarchy in the study area, as the street is not a major thoroughfare in the area and is lightly used by vehicular traffic. All proposed development would be constructed on existing blocks. The publicly accessible pedestrian area on the former East 152nd Street would be paved and landscaped with trees, and the existing view corridor down East 152nd Street would be maintained in the future with the Proposed Actions.

Open Space

The approximately 0.94 acre (41,002 sf) landscaped courtyard located in the center of Parcel A would contain a mixture of public and private open spaces. As shown in Figure G-5, the publicly-accessible section of the courtyard on the former section of East 152nd Street would be paved, with patches of grass and trees surrounded by benches for passive recreation. The section of the courtyard in-between Buildings C and D would be fenced, but open to the public during the daytime, with grass and trees surrounded by benches and paved walking paths. Small portions of the courtyard immediately adjacent to Buildings C and E would be gated and only accessible to residents. These portions of the courtyard would accommodate play areas and outdoor dining areas. The Proposed Project would also include an approximately 0.16 acre (7,134 sf) at-grade public skate park on Parcel C.

Secondary Study Area

The Proposed Actions are site specific, and as such, would not result in significant adverse urban design impacts in the secondary study area. The Proposed Actions would facilitate the construction of new buildings that would be in keeping with the mixed-use character and varied density, form, and urban context of the study area, replacing currently vacant and underutilized sites, and would introduce additional open space into the area. The proposed buildings would be consistent with the scale and density of recent development in the area, such as Via Verde to the northeast, and in the greater Melrose neighborhood. The Proposed Actions would enhance streetscapes of the Project Area, increasing pedestrian activity in the secondary study area.

Visual Resources

The Proposed Actions would not result in any visual or contextual impacts to historic resources or open space resources in the primary or secondary study areas. The Proposed Actions would result in the development of approximately 1.26 acres (55,151 sf) of publicly accessible open space in the area. As noted above, there are no views of any natural or built features, such as waterfront views, landmark structures or districts, rivers, or geological formations in the primary or secondary study areas. The new buildings are expected to further define view corridors in the primary study area by creating solid streetwalls. Publicly accessible views of resources and view corridors would not be blocked, as all new development would occur on existing blocks. Therefore, the Proposed Actions would not result in significant adverse impacts on the visual resources in the study area.

V. CONCLUSIONS

The Proposed Actions and subsequent development would not have significant adverse effects on the area's urban design or visual resources. The Proposed Actions would facilitate new development, including residential, commercial, and community facility uses, as well as public open space within the Project Area. The Proposed Actions would improve the urban design of the Project Area and surrounding area by replacing vacant and underutilized City-owned land and a vacant, deteriorating building with new buildings and public open space which would enliven the neighborhood. The Proposed Actions would introduce street lighting, street trees, and other landscaping to the area, and improve the visual appearance of the undeveloped sites. While the Proposed Actions would require a special permit to allow a more flexible design with buildings of different bulks and heights than are currently permitted, the new development would not block significant views of any visual resources or obstruct important views or view corridors. Therefore, it is anticipated that the Proposed Actions would have a beneficial impact on the urban design and visual resources of the Project Area and secondary study area.

ATTACHMENT H
WATER AND SEWER INFRASTRUCTURE

La Central EAS
Attachment H: Water and Sewer Infrastructure

I. INTRODUCTION

As defined in the 2014 *CEQR Technical Manual*, infrastructure comprises the physical systems that support populations and include structures such as water mains and sewers, bridges and tunnels, roadways, and electrical substations. These structures are static and thus have defined capacities that may be affected by growth in a particular area.

This attachment provides an evaluation of the potential effect of the Proposed Actions on the City's water supply, wastewater treatment, and stormwater management infrastructure. Other City infrastructure identified in the *CEQR Technical Manual*, including the transportation network and public transportation systems, are discussed in separate attachments of this EAS. Included is a description of the existing water supply and wastewater infrastructure in the study area as well as changes to water supply, stormwater, and wastewater conditions that would occur in the 2020 future with and without the Proposed Actions.

II. METHODOLOGY

This analysis follows the methodologies set forth in the *CEQR Technical Manual.* Pursuant to CEQR guidelines, a preliminary water analysis is needed if a proposed project would result in an exceptionally large demand of water (over 1,000,000 gallons per day [gpd]), or is located in an area that experiences low water pressure. As the project site is not located in an area that experiences low water pressure (i.e., it is not located at the end of the water supply distribution system such as the Rockaway Peninsula or Coney Island) and would result in incremental water demand of less than 1,000,000 gpd, a detailed analysis is not warranted; however, total water demand is calculated in this attachment for the purposes of determining the sewage generated by the proposed development.

A preliminary sewer analysis is warranted if a project site comprises more than five acres and would result in an increase of impervious surfaces on the site, or if a project is located in a combined sewer area in the Bronx and would result in the incremental development of 400 residential units or 150,000 square feet of commercial, public facility and institutional and/or community facility space. As the project site is located in an area of the Bronx served by a combined sewer, and the proposed number of dwelling units would exceed CEQR thresholds, a preliminary sewer analysis is required and has been provided below.

Existing and future water demands and sanitary sewage generation are calculated based on use generation rates set forth in Table 13-2 of the *CEQR Technical Manual*. The New York City Department of Environmental Protection (DEP) Volume Calculation Matrix is then used to calculate the overall combined sanitary sewage and stormwater runoff volume discharged to the combined sewer system for four rainfall volume scenarios with varying durations. Stormwater runoff volumes are determined by estimating the amount of pervious and impervious surfaces on the project site. The ability of the City's water and sewer infrastructure to handle the estimated demand that is anticipated from the proposed development as a result of the Proposed Actions is assessed by estimating existing water demand and sewage rates and then comparing the existing demands with those estimated for the No-Action and With-Action scenarios. Per *CEQR Technical Manual* methodology, the incremental water demand and sewage generated from the proposed development serves as the basis for the impact assessment; per DEP guidance the stormwater infrastructure analysis compares future With-Action conditions to existing conditions.

III. EXISTING CONDITIONS

Water Supply

The New York City water supply system is comprised of a network of reservoirs, lakes, and aqueducts extending into the Catskill region and a pipe network that distributes water within the City. Because the Hudson River, Harlem River, and East River are not potable water sources, New York City obtains nearly all of its water from the Delaware, Catskill, and Croton watersheds located up to 125 miles north of the City. Water from the watersheds is stored at nineteen reservoirs and three control lakes with a combined capacity of approximately 580 billion gallons. The water is then carried into the City by a number of aqueducts.

Once in the City, the aqueducts distribute water into a network of water mains. Water mains up to 96 inches in diameter feed smaller mains that deliver water to their final destination. Nearly all of the water reaches its consumers by gravity alone, although some four percent—generally located at the outer limits of the system where in-line pressure is the lowest, at high elevations, or at a pressure extremity, such as Far Rockaway—is pumped to its final destination. Pressure regulators throughout the City monitor and control the water pressure.

DEP estimates that New York City currently consumes approximately 1.3 billion gpd of water. Given this supply capacity, the *CEQR Technical Manual* notes the unlikelihood that any particular action would result in a significant adverse impact on the City's water supply or water pressure.

Water Consumption

The proposed development site is comprised of six tax lots (Block 2363, Lot 1; Block 2361, Lots 1, 25, 26; Block 2294, Lot 32, 43) in the South Bronx. The site is generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and midblock on Block 2294 to the south. The proposed development site comprises a total of approximately 4.3 acres of primarily vacant and undeveloped land, except for two parking lots and a vacant 11,000 sf commercial building on Block 2294, Lots 32 and 43 in the southernmost portion of the site. As there are no active uses on the proposed development site, the current water demand is negligible.

Wastewater Treatment

According to the *CEQR Technical Manual*, wastewater is considered to include sanitary sewage, wastewater generated by industries, and stormwater. Water used for air conditioning generates a negligible amount of wastewater as it is recirculated or evaporates in the cooling and heating process.

The majority of New York City's wastewater treatment system is comprised of the sewer network beneath the streets and the fourteen water pollution control plants (WPCPs) located throughout the City. The majority of New York City's sewers are called combined sewers as they receive sanitary wastewater and stormwater runoff. Wastewater generated in a "drainage basin" (the area served by a WPCP) is conveyed through a network of combined sewers to the WPCP.

The proposed development site is located within an area served by the Wards Island WPCP. Any sanitary sewage from the site is conveyed to combined sewers in the abutting streets. As described above, the site is mostly vacant and does not support any active uses, with the exception of two parking lots and a vacant building on Block 2294, in the southern parcel of the proposed development site. As such, the proposed development site does not generate any sanitary sewage demand.

During dry weather, the WPCP primarily treats sanitary sewage. The average daily flow during dry weather is known as the "average dry-weather flow." WPCPs have treatment capacities set at twice their dry-weather design flow for a limited amount of time. During wet weather, stormwater enters the combined sewer system along with sanitary sewage, and both are treated at the WPCP. During wet weather, rainfall runoff can reach ten to fifty times the dry weather flow, well above the WPCP design capacity. To avoid flooding the WPCPs, built in regulators act as relief valves to direct the excess water to an outfall. During storm events, sanitary sewage entering or already in the combined sewer system, stormwater, and debris can be discharged untreated into the nearest body of water. This untreated overflow is known as "combined sewer overflow" (CSO).

A State Pollutant Discharge Elimination System (SPDES) permit issued by the New York State Department of Environmental Conservation (NYSDEC) regulates discharges from the WPCPs. For the Wards Island WPCP, the SPDES permit allows an inflow of 275 million gallons per day (mgd) average dry weather flow and 550 mgd wet weather flow. As shown in Table H-1, in the twelve month period from July 2011 through June 2012, Wards Island WPCP treated between 178 mgd to 250 mgd, for an average dry weather flow of approximately 209 mgd, which is below the SPDES permit allowable limit.

Table H-1
Monthly Average Actual Flows to the Wards Island WPCP

Year	Month	Flow (mgd)
2011	July	211
	August	250
	September	240
	October	215
	November	201
	December	206
2012	January	205
	February	195
	March	178
	April	180
	May	207
	June	219
12-Month Average		209

Source: New York City Department of Environmental Protection

Stormwater

As described above, the proposed development site is located in an area served by the City's combined sewer system. Stormwater runoff from impermeable surfaces is collected by catch basins along the street and conveyed by the City's combined sewer system to the Wards Island WPCP. During dry weather, regulators built into the combined sewer system direct flows to interceptor sewers leading to the WPCPs. However, during storm events, the regulators allow only twice the dry-weather design flow into interceptor sewers and any remaining flow is diverted as a CSO to the Bronx River.

Stormwater generated on the site either infiltrates into the ground in areas of pervious ground cover, flows off-site as runoff, or evaporates. Precipitation that falls on or flows into public streets in the study area is collected in curbside catch basins and connected via a network of combined sewers into the City's combined sewer system to Wards Island WPCP.

The proposed development site has a total area of approximately 4.3 acres on portions of three blocks, the majority of which has the permeability of grass and other softscape. Table H-2 describes the surfaces and surface areas of the proposed development site, as well as the calculated runoff coefficient. As shown in

Table H-2, an estimated 3 percent (approximately 5,500 sf) of the lot area of the proposed development site is roof and 30 percent (approximately 56,867 sf) is pavement and walkways, for a total of 33 percent impermeable surfaces. The remaining 67 percent (approximately 125,278 sf) of the lot area of the site is permeable (grass and softscape).

Table H-2
Surface Types on the Proposed Development Site – Existing Conditions

	Existing Weighted Runoff Coefficient, C				
	Surface Type	**Roofs**	**Pavement and Walks**	**Grass and Softscape**	**Total**
Proposed Development Site Total	**Area (%)**	3%	30%	67%	100%
	Surface Area (SF)	5,500	56,867	125,278	187,645
	Runoff Coefficient[1]	1.00	0.85	0.20	0.42

Notes:
[1] Runoff coefficients for each surface type are as per DEP.

For this analysis, standard DEP runoff coefficients were used to calculate the amount of stormwater runoff using the standard three-month, six-month, and twelve-month storm events, with rainfall ranging from 0.00 inches to 2.50 inches over durations of 3.80 to 19.50 hours. Table H-3 shows the existing combined stormwater runoff and wastewater generation for the proposed development site under existing conditions. As indicated in the table, the site currently generates between 0.00 and 0.12 mgd of stormwater within the Wards Island WPCP for the different rainfall intensities.

Table H-3
Existing Combined Stormwater Runoff and Wastewater Generation

	Storm Event Type	**Rainfall (Inches)**	**Duration (Hours)**	**Total Area (Acres)**	**Runoff Coefficient**	**Stormwater Runoff (MG[1])**	**Sanitary to CSS (MG)**
Proposed Development Site Total		0.00	3.80	4.3	0.42	0.00	0.00
	3-Month	0.40	3.80	4.3	0.42	0.02	0.00
	6-Month	1.20	11.30	4.3	0.42	0.06	0.00
	12-Month	2.50	19.50	4.3	0.42	0.12	0.00

Notes:
[1]MG = million gallons

Water Conservation and WPCP Load Reduction

During the 1990s, the City instituted a range of water conservation measures in response to excess flow to the City's WPCPs that exceeded the dry weather flow permitted under their respective SPDES permits. The City also implemented a metering program, installing water meters at thousands of properties where water fees had previously been based on property frontage rather than usage, as well as leak detection programs to identify and repair leaks in the water distribution system.

These programs have reduced water demand and the load on the City's WPCPs. At many WPCPs, this reduction has been in an order of magnitude of several million gallons per day. DEP projects that savings from the continued implementation of these conservation measures over the next decade would exceed any increase in water demand from consumers.

IV. THE FUTURE WITHOUT THE PROPOSED ACTIONS (NO-ACTION)

As described in Attachment A, "Project Description," in the future without the Proposed Actions, it is expected that no changes would occur at the proposed development site. The proposed development site would remain under the jurisdiction of HPD and would remain underutilized and mostly vacant with the exception of the southern parcel, which would continue to operate with two at-grade public parking facilities and a vacant 11,000 sf building. No change in the maximum allowable FAR would occur and no new uses that are not currently permitted would be allowed.

Water Supply

In the future without the Proposed Actions, water consumption occurring on the proposed development site would remain unchanged as compared to existing conditions. Therefore, in the future without the Proposed Actions water consumption would continue to be negligible.

Wastewater Treatment

In the future without the Proposed Actions, the proposed development site would remain underutilized and mostly vacant and would continue to not generate any sanitary sewage demand. Furthermore, as described above in the discussion of existing conditions, there is available capacity at the Wards Island WPCP for wastewater flows, and therefore the WPCP is expected to continue to operate within its design capacity.

Stormwater and Drainage Management

In the future without the Proposed Actions, stormwater runoff would continue to be collected and directed through the existing combined sewer system and then conveyed to the Wards Island WPCP for treatment. As the proposed development site would remain underutilized and mostly vacant in the future without the Proposed Actions, the amount of permeable surface is anticipated to remain the same as under existing conditions.

V. THE FUTURE WITH THE PROPOSED ACTIONS (WITH-ACTION)

As described in Attachment A, "Project Description," in the future with the Proposed Actions, the proposed development site would accommodate approximately 1.1 million gsf of total development including 832 affordable DUs, 160 supportive housing units, approximately 46,800 gsf of local retail and other commercial uses, an approximately 50,500 sf YMCA, approximately 32,700 gsf of other community facility uses, and approximately 1.26 acres (55,151 sf) of public open space. Up to approximately 262 accessory parking spaces would be provided below grade on the south side of the middle parcel.

Water Supply

The Proposed Actions and subsequent development would not result in significant adverse impacts to the City's water supply system. As summarized in Table H-5, the Proposed Project would result in an incremental increase in water demand of approximately 314,172 gpd (0.314 mgd) compared to No-Action scenario. This incremental demand would represent approximately 0.02 percent of the City's water supply demand. Therefore, the Proposed Actions are not expected to result in any potential significant adverse impacts on the City's water supply or system water pressure.

Table H-5
A Comparison of Water Consumption and Wastewater Generation in the Futures With and Without the Proposed Actions

Land Use	Rate	No-Action			With-Action			Incremental Change		
		Area (sf)	Domestic Water/ Wastewater Generation (gpd)	A/C (gpd)	Area (sf)	Domestic Water/ Wastewater Generation (gpd)	A/C (gpd)	Area (sf)	Domestic Water/ Wastewater Generation (gpd)	A/C (gpd)
Residential Units[1]	Domestic: 100 gpd/person A/C: 0 gpd/sf	0.00	0.00	0.00	992 DUs (2,656 residents)[2]	265,600	0	+992 DUs (2,656 residents)	+265,600	0
Commercial/ Retail	Domestic: 0.24 gpd/sf; A/C: 0.17 gpd/sf	0.00	0.00	0.00	46,800	11,232	7,956	+46,800	+11,232	+7,956
Community Facility: YMCA[3]	Domestic: 0.24 gpd/sf; A/C: 0.17 gpd/sf	0.00	0.00	0.00	50,500	12,120	8,585	+50, 500	+12,120	+8,585
Community Facility: Day Care[4]	Domestic: 10 gpd/seat; A/C: 0.17 gpd/sf	0.00	0.00	0.00	8,300 (68 seats)[5]	680	1,411	+8,300 (68 seats)	+680	+1,411
Community Facility: Other[6]	Domestic: 0.10 gpd/sf; A/C: 0.17 gpd/sf	0.00	0.00	0.00	24,400	2,440	4,148	+24,400	+2,440	+4,148
Water Consumption Subtotals			0	0		292,072	22,100		+292,072	+22,100
Sewage Generation Subtotals			0			292,072			+292,072	
Total Water Consumption			0			314,172			+314,172	
Total Wastewater Generation			0			292,072			+292,072	

Notes:
[1] Residential units include the 832 affordable DUs as well as the 160 supportive housing units.
[2] The total number of residents was calculated based on an average of 3.00 residents per affordable DU (2010 Census average household size in Bronx Community District 1), 1 person per supportive DU, and 1 person per superintendent's unit.
[3] YMCA rates based on retail rates, per the *Domino Sugar Rezoning FEIS (2010).*
[4] Day Care rates based on CEQR school rates, per the *Sugar Hill Rezoning EAS (2010).*
[5] Day Care seats/sf ratio based on the *Sugar Hill Rezoning EAS (2010).*
[6] "Other" community facility rates based on commercial/office building rates, per the *Domino Sugar Rezoning FEIS (2010).*

Wastewater Treatment

As described previously, the proposed development site is located in an area served by combined sewers. In the future with the Proposed Actions, wastewater from the proposed development site would continue to be treated by the Wards Island WPCP, which has an SPDES-permitted dry weather flow capacity of 275 million gpd. As shown in Table H-5, the Proposed Actions would result in an incremental increase of approximately 292,072 gpd of sanitary sewage compared to No-Action scenario. While this represents an increase in sanitary flows, it is equivalent to only 0.1 percent of the permitted capacity of the Wards Island WPCP. With an existing average daily flow of 209 million gpd, the Wards Island WPCP would continue to operate below permitted capacity in the future with the Proposed Actions. Therefore, the additional With-Action wastewater discharge is not expected to affect wastewater conveyance or treatment facilities.

Self-certification of house or site connection proposals is not permitted by the New York City Department of Buildings (DOB) or DEP in connection with any proposed new developments or expansions of existing development as per the Rules of the City of New York (RCNY), Title 15, Chapter 31, "Rule Governing House / Site Connections to the Sewer System." At this time, there are no plans to amend the drainage plan for the proposed affected area or upgrade the affected sewer system. To be issued a permit to connect to a City sewer within the site, an applicant proposing a new development or expansion of an existing development would be required to submit a site-specific hydraulic analysis to DEP for review and approval. The site specific hydraulic analysis would establish the adequacy of the existing combined sewer system that would serve the development lots. Based on this site-specific hydraulic analysis, incorporation of a variety of Best Management Practices (BMPs) may be required of the applicant at the time of the house or site connection proposal (see the "Stormwater Best Management Practices" section, below, for additional information).

Stormwater and Drainage Management

In the future with the Proposed Actions, while several new structures would be constructed (increasing the impervious surface area), additional open space and green roofs would be incorporated into the proposed designs to minimize the decrease in pervious surface area.[1] Table H-6 shows the surface types that are expected under future With-Action conditions based on preliminary site plans.

Table H-6
Surface Types on the Proposed Development Site – With-Action Scenario

	With-Action Weighted Runoff Coefficient, C				
	Surface Type	**Roofs[2]**	**Pavement and Walks**	**Grass and Softscape**	**Total**
Proposed Development Site Total	**Area (%)**	74%	17%	9%	100%
	Surface Area (SF)	139,705	31,444	16,496	187,645
	Runoff Coefficient[1]	1.00	0.85	0.20	0.90

Notes:
[1] Runoff coefficients for each surface type as per DEP
[2] Conservative estimate of the total roof areas on site, not accounting for planned green roofs on all buildings of the proposed development.

As indicated in Table H-6, construction of the proposed development is expected to result in increases in impervious area and minor decreases in pervious areas on the proposed development site. In the future with the Proposed Actions, the runoff coefficient would increase from 0.42 to 0.90 compared to existing/No-Action conditions.

Table H-7 shows the estimated combined flow volumes (stormwater runoff and sanitary flows) to the combined sewer system. As shown in the table, depending on the rainfall volume and duration, the total volume to the combined sewer system could be between 0.05 and 0.50 mgd.

Table H-7
Combined Stormwater Runoff and Wastewater Generation Flow Volumes – With-Action Scenario

	Storm Event Type	**Rainfall (Inches)**	**Duration (Hours)**	**Total Area (Acres)**	**Runoff Coefficient**	**Stormwater Runoff (MG)**	**Sanitary to CSS (MG)**	**Total Volume to CSS (MG)**
Proposed Development Site Total		0.00	3.80	4.3	0.90	0.00	0.05	0.05
	3-Month	0.40	3.80	4.3	0.90	0.04	0.05	0.09
	6-Month	1.20	11.30	4.3	0.90	0.13	0.14	0.27
	12-Month	2.50	19.50	4.3	0.90	0.26	0.24	0.50

Notes:
MG = million gallons

Table H-8 shows the incremental difference between the existing and With-Action conditions. As shown in the table, the Proposed Actions would result in an increase of approximately 0.05 to 0.38 mgd (depending on rainfall volume and duration) on the proposed development site. The Proposed Actions would increase flows into the City's combined sewer system that may discharge as CSOs into the Bronx River during storm events. Because of the available assimilative capacity of the Bronx River, the projected increased flows to the combined sewer system would not have a significant adverse impact on water quality.

As noted previously, DEP requires substantial stormwater detention in compliance with the drainage plan for existing or new developments fronting on streets with sewers if the development site's storm flow exceeds the allowable flow of the drainage plan. As a result of these requirements, it is expected that the

[1] For conservative analysis purposes, the planned green roofs on all five buildings of the proposed development are not included in the analysis.

buildings of the proposed development would incorporate stormwater detention and retention measures, including green roofs and seepage basins to handle stormwater runoff from the proposed development. As a result, it is likely that there would be some reduction in stormwater discharge from development of the proposed buildings on the proposed development sites in the With-Action scenario.

DEP amended Chapter 31 of Title 15 of the RCNY, the existing rules governing house and site connections to the City's sewer system. The rule amendment modifies the flow rate of stormwater to the City's combined sewer system for new and existing development, as part of sewer availability and connection approvals, and applies to development lots where new buildings or alterations of existing buildings would result in an expansion of the building footprint or impervious surfaces as proposed. The rule was promulgated on January 4, 2012, and went into effect on July 4, 2012. For a new development, the stormwater release rate is the greater of 0.25 cubic feet per second (cfs) or 10 percent of the allowable flow, unless the allowable flow is less than 0.25 cfs, in which case the stormwater release rate is the allowable flow. Therefore, the Proposed Project would be required to achieve this new flow rate.

Table H-8
Increase in Combined Stormwater Runoff and Wastewater Generation Flow Volumes to Combined Sewer System – Existing vs. With-Action Conditions

	Storm Event Type	Rainfall (Inches)	Duration (Hours)	Total Volume to Combined Sewer System (MG)		
				Existing	With-Action	Increment
Total		0.00	3.80	0.00	0.05	0.05
	3-Month	0.40	3.80	0.02	0.09	0.07
	6-Month	1.20	11.30	0.06	0.27	0.21
	12-Month	2.50	19.50	0.12	0.50	0.38

Notes:
MG = million gallons

As previously stated, at this time there are no plans to amend the drainage plan for the proposed development site or upgrade the affected sewer system. As described above, to be issued a permit to connect to a City sewer, the project sponsors would be required to submit a site-specific hydraulic analysis to DEP for review and approval. The site-specific hydraulic analysis would establish the adequacy of the existing combined sewer system that would serve the proposed developments. Based on this site-specific hydraulic analysis, sewer improvements and/or incorporation of a variety of the BMPs may be required of the project sponsor.

Stormwater Best Management Practices

The proposed development would be required to ensure a maximum stormwater release rate of 0.25 cfs or 10 percent of the allowable flow from the proposed development site, pursuant to the 2012 amendment to Title 15, Chapter 31 of the RCNY (as described above). This release rate is consistent with policies set forth in the Mayor's *PlaNYC 2030*, *Sustainable Stormwater Management Plan* (2008) and *NYC Green Infrastructure Plan* (2010). To ensure this maximum permitted stormwater release rate, BMPs would most likely be used on both sites.

The project sponsors would coordinate with DEP to establish appropriate BMPs that would help achieve this release rate from the site to the sewer system. The project sponsors would manage stormwater by utilizing one or more detention techniques identified in the *NYC Green Infrastructure Plan*, including green roofs, as well as potentially blue roofs, subsurface detention, infiltration, or a combination of these green technologies. These green technologies would retain or release stormwater with slowed discharge rates to control peak runoff rates. Trees planted per NYC's street tree requirements could also be utilized to capture and store water below enhanced tree pits. The design of water detention systems would be submitted to DEP for review and approval.

With the exception of green roofs, the specific BMPs to be used at the project site are not known at this time, and the preparation of stormwater BMP concept plans, including BMPs such as those outlined above and conceptually shown in Figure H-1, would be required as part of the site connection process and would be reviewed by DEP. Through this process, DEP would ensure that the necessary stormwater BMPs were implemented (as warranted) and reduce the increase in untreated stormwater flows to the Bronx River. As indicated in Figure H-1, rooftop detention areas and detention facilities within the buildings could potentially be implemented on/in all five of the proposed development's buildings and stormwater infiltration areas could be implemented within the proposed development's open space elements.

VI. CONCLUSION

Based on the analysis described above conducted pursuant to *CEQR Technical Manual* methodologies, it is concluded that the Proposed Actions and subsequent development would not result in significant adverse impacts to local water supply or wastewater and stormwater conveyance and treatment infrastructure with the above measures in place. The project sponsors would ensure a maximum storm water release rate of 0.25 cfs or 10 percent of the allowable flow from the proposed development site (pursuant to Title 15, Chapter 31 of the RCNY) and offset increased flows to the sewer system through the implementation of stormwater BMPs as warranted.

For Illustrative Purposes Only

Legend

- Area of Potential Rooftop Detention
- Site with Potential Detention Facilities within Building
- Proposed Open Space
- Potential Stormwater Infiltration Area

La Central EAS

Figure H-1

Stormwater Best Management Practices Concept Plan

ATTACHMENT I
TRANSPORTATION

La Central EAS
Attachment I: Transportation

I. INTRODUCTION

The 2014 *CEQR Technical Manual* describes a two-level screening procedure for the preparation of a preliminary assessment to determine if quantified analyses of transportation conditions are warranted. A preliminary assessment begins with a trip generation (Level 1) analysis to estimate the amount of person and vehicle trips expected to be generated by the Proposed Project. By CEQR guidelines, if a proposed action is expected to result in fewer than 50 peak-hour vehicle trips and fewer than 200 peak-hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (Level 2) are to be performed to estimate the incremental trips that could be incurred at specific transportation elements and to identify potential locations for further analyses. If the trip assignments show that a proposed action would generate 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a sidewalk, corner area, or crosswalk, further quantified operational analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrian, parking, and vehicular pedestrian safety.

II. SCREENING ASSESSMENT

Consistent with the guidelines of the *CEQR Technical Manual*, an assessment of transportation will be provided in the Environmental Impact Statement (EIS). As detailed in the Transportation Planning Factors and Travel Demand Forecast Memorandum included in Appendix 4, the Proposed Actions would introduce new development in the Project Area, including new residential, commercial, and community facility spaces. The new development would generate additional vehicular travel and demand for parking, as well as additional subway and bus riders and pedestrian traffic. These new trips have the potential to affect the area's transportation systems.

Based on a preliminary travel demand forecast and trip assignment, the Proposed Actions are expected to generate an incremental increase of more than 50 additional vehicular trips and more than 200 additional transit and pedestrian trips. As detailed in Appendix 4, the Proposed Project would generate an incremental increase of 1,166, 1,891, 1,749, and 1,677 person trips during the weekday AM, midday, PM, and Saturday midday peak hours, respectively. Compared to No-Action conditions, there would be an increase of 101, 148, 130, and 144 vehicle trips (auto, taxi, and truck combined) during the weekday AM, midday, PM, and Saturday midday peak hours, respectively. During the weekday AM and PM peak hours, the Proposed Project would generate 468 subway trips and 136 bus trips, and 550 subway trips and 181 bus trips, respectively. The Proposed Project would generate 440, 1,276, 852, and 900 walk-only trips during the weekday AM midday, PM, and Saturday midday peak hours, respectively.

As detailed in Appendix 4, a Level 2 screening assessment indicated that three intersections would exceed the CEQR threshold of 50 peak hour vehicles as a result of the proposed development: Bergen Avenue at Westchester Avenue; Bergen Avenue at East 152nd Street; and Brook Avenue at Westchester Avenue. As such, a detailed analysis of traffic is warranted and will be provided in the EIS. Additionally, as discussed in Appendix 4, two nearby intersections were selected to complete the traffic network: Bergen Avenue at East 153rd Street and Brook Avenue at East 153rd Street. All five intersections will be analyzed in the EIS during the AM, midday, and PM peak hours based on the assignment of project-generated traffic, as detailed in the Draft Scope of Work.

As the Proposed Actions exceed the CEQR screening thresholds, the EIS will provide detailed traffic, transit, and pedestrian analyses. As described in the Draft Scope of Work, the analyses will focus on peak hours and locations where the highest concentrations of action-generated demand would occur, and will provide a parking analysis focusing on existing and anticipated parking demand and supply at the project site. The EIS will also include safety analyses to resolve to what extent vehicular and pedestrian exposure to crashes may reasonably be expected to increase with the proposed project in place.

ATTACHMENT J
AIR QUALITY

I. INTRODUCTION

The Proposed Actions would facilitate an approximately 1.1 million gsf, five building mixed-use development consisting of approximately 832 affordable DUs (909,300 gsf) and approximately 160 supportive housing units (77,500 gsf), approximately 46,800 gsf of local retail and commercial uses, an approximately 50,500 gsf YMCA, and approximately 32,700 gsf of other community facility uses. The potential for air quality impacts from the Proposed Actions is examined in this attachment. Air quality impacts can be either direct or indirect. Direct impacts result from emissions generated by stationary sources at a development site, such as emissions from on-site fuel combustion systems, or emissions from parking garage ventilation systems. Indirect impacts are impacts that are caused by emissions from nearby existing sources (impacts on the Proposed Project) or by emissions from on-road vehicle trips generated by a project or other changes to future traffic conditions due to the project.

As discussed in the Transportation Planning Factors and Travel Demand Forecast Memorandum in Appendix 4, the Proposed Actions are not expected to significantly alter traffic conditions. The maximum hourly incremental traffic from the Proposed Actions would not exceed the 2014 *CEQR Technical Manual* carbon monoxide screening threshold of 170 auto trips for peak hour trips at nearby intersections in the study area, nor would it exceed the particulate matter emission screening threshold discussed in Chapter 17, Sections 210 and 311 of the *CEQR Technical Manual*. Therefore, a quantified assessment of emissions from project generated traffic is not warranted. The Proposed Project would include a below-grade parking garage with up to approximately 262 spaces; therefore, an analysis was conducted to evaluate potential future pollutant concentrations in the vicinity of ventilation outlet(s) with the proposed parking garage.

The Proposed Actions would include natural gas-burning heating, ventilation and air conditioning (HVAC) systems, as well as small cogeneration units for certain buildings. Therefore, a stationary source analysis was conducted to evaluate potential future pollutant concentrations with these proposed systems. In addition, portions of the Project Area are located adjacent to a zoned industrial area; therefore, air quality impacts from nearby industrial sources of air pollution (e.g., from manufacturing or processing facilities) were also examined.

II. POLLUTANTS FOR ANALYSIS

Ambient air quality is affected by air pollutants produced by both motor vehicles and stationary sources. Emissions from motor vehicles are referred to as mobile source emissions, while emissions from fixed facilities are referred to as stationary source emissions. Ambient concentrations of carbon monoxide (CO) are predominantly influenced by mobile source emissions. Particulate matter (PM), volatile organic compounds (VOCs), and nitrogen oxides (nitric oxide, NO, and nitrogen dioxide, NO_2, collectively referred to as NO_x) are emitted from both mobile and stationary sources. Fine PM is also formed when emissions of NO_x, sulfur oxides (SO_x), ammonia, organic compounds, and other gases react or condense in the atmosphere. Emissions of sulfur dioxide (SO_2) are associated mainly with stationary sources, and some sources utilizing non-road diesel such as large international marine engines. On-road diesel vehicles currently contribute very little to SO_2 emissions since the sulfur content of on-road diesel fuel, which is federally regulated, is extremely low. Ozone is formed in the atmosphere by complex photochemical processes that include NO_x and VOCs. Ambient concentrations of CO, PM, NO_2, SO_2, ozone, and lead

are regulated by the U.S. Environmental Protection Agency (EPA) under the Clean Air Act, and are referred to as 'criteria pollutants'; emissions of VOCs, NO_x, and other precursors to criteria pollutants are also regulated by EPA.

Carbon Monoxide

CO, a colorless and odorless gas, is produced in the urban environment primarily by the incomplete combustion of gasoline and other fossil fuels. In urban areas, approximately 80 to 90 percent of CO emissions are from motor vehicles. CO concentrations can diminish rapidly over relatively short distances; elevated concentrations are usually limited to locations near crowded intersections, heavily traveled and congested roadways, parking lots, and garages. Consequently, CO concentrations must be predicted on a local (microscale) basis.

The Proposed Actions are not expected to significantly alter traffic conditions. Since the Proposed Actions would result in fewer new peak hour vehicle trips than the *CEQR Technical Manual* screening threshold of 170 trips at nearby intersections in the study area, a quantified assessment of mobile source CO emissions is not warranted. However, an analysis was conducted to evaluate future CO concentrations with the operation of the proposed parking garage.

Nitrogen Oxides, VOCs, and Ozone

NO_x are of principal concern because of their role, together with VOCs, as precursors in the formation of ozone. Ozone is formed through a series of reactions that take place in the atmosphere in the presence of sunlight. Because the reactions are slow, and occur as the pollutants are adverted downwind, elevated ozone levels are often found many miles from sources of the precursor pollutants. The effects of NO_x and VOC emissions from all sources are therefore generally examined on a regional basis. The contribution of any action or project to regional emissions of these pollutants would include any added stationary or mobile source emissions.

The Proposed Actions would not have a significant effect on the overall volume of vehicular travel in the metropolitan area; therefore, no measurable impact on regional NO_x emissions or on ozone levels is predicted. An analysis of project-related emissions of these pollutants from mobile sources was therefore not warranted.

In addition to being a precursor to the formation of ozone, NO_2 (one component of NO_x) is also a regulated pollutant. Since NO_2 is mostly formed from the transformation of NO in the atmosphere, it has mostly been of concern further downwind from large stationary point sources, and not a local concern from mobile sources. (NO_x emissions from fuel combustion consist of approximately 90 percent NO and 10 percent NO_2 at the source.) However, with the promulgation of the 2010 1-hour average standard for NO_2, local sources such as vehicular emissions may become of greater concern for this pollutant. Potential impacts on local NO_2 concentrations from the fuel combustion for the Proposed Actions' combustion sources were evaluated.

Lead

Airborne lead emissions are principally associated with industrial sources. Lead in gasoline has been banned under the Clean Air Act, and therefore, lead is not a pollutant of concern for the Proposed Actions. Therefore, an analysis of this pollutant was not warranted.

Respirable Particulate Matter—PM_{10} and $PM_{2.5}$

PM is a broad class of air pollutants that includes discrete particles of a wide range of sizes and chemical compositions, as either liquid droplets (aerosols) or solids suspended in the atmosphere. The constituents of PM are both numerous and varied, and they are emitted from a wide variety of sources (both natural and anthropogenic). Natural sources include the condensed and reacted forms of naturally occurring VOC; salt particles resulting from the evaporation of sea spray; wind-borne pollen, fungi, molds, algae, yeasts, rusts, bacteria, and material from live and decaying plant and animal life; particles eroded from beaches, soil, and rock; and particles emitted from volcanic and geothermal eruptions and from forest fires. Naturally occurring PM is generally greater than 2.5 micrometers in diameter. Major anthropogenic sources include the combustion of fossil fuels (e.g., vehicular exhaust, power generation, boilers, engines, and home heating), chemical and manufacturing processes, all types of construction, agricultural activities, as well as wood-burning stoves and fireplaces. PM also acts as a substrate for the adsorption (accumulation of gases, liquids, or solutes on the surface of a solid or liquid) of other pollutants, often toxic, and some likely carcinogenic compounds.

As described below, PM is regulated in two size categories: particles with an aerodynamic diameter of less than or equal to 2.5 micrometers ($PM_{2.5}$), and particles with an aerodynamic diameter of less than or equal to 10 micrometers (PM_{10}, which includes $PM_{2.5}$). $PM_{2.5}$ has the ability to reach the lower regions of the respiratory tract, delivering with it other compounds that adsorb to the surfaces of the particles, and is also extremely persistent in the atmosphere. $PM_{2.5}$ is mainly derived from combustion material that has volatilized and then condensed to form primary PM (often soon after the release from a source exhaust) or from precursor gases reacting in the atmosphere to form secondary PM.

All gasoline-powered and diesel-powered vehicles, especially heavy duty trucks and buses operating on diesel fuel, are a significant source of respirable PM, most of which is $PM_{2.5}$; PM concentrations may, consequently, be locally elevated near roadways with high volumes of gasoline and diesel powered vehicles. The Proposed Actions would not result in any significant increases in truck traffic near the Project Area or in the region, nor other potentially significant increase in $PM_{2.5}$ vehicle emissions as defined in Chapter 17, Sections 210 and 311 of the *CEQR Technical Manual*. Therefore, an analysis of potential impacts from PM was not warranted.

The Proposed Actions' combustion sources would result in emissions of PM; therefore, potential 24-hour and annual incremental impacts of $PM_{2.5}$ from the fossil fuel-fired HVAC and cogeneration systems were evaluated using a microscale analysis.

Sulfur Dioxide

SO_2 emissions are primarily associated with the combustion of sulfur-containing fuels (oil and coal). SO_2 is also of concern as a precursor to $PM_{2.5}$ and is regulated as a $PM_{2.5}$ precursor under the New Source Review permitting program for large sources. Due to the federal restrictions on the sulfur content in diesel fuel for on-road and non-road vehicles, no significant quantities are emitted from vehicular sources. Vehicular sources of SO_2 are not significant and therefore, analysis of SO_2 from mobile and/or non-road sources was not warranted.

As part of the Proposed Actions, natural gas would be burned in the proposed heat and hot water systems. The sulfur content of natural gas is negligible; therefore, no analysis was performed to estimate the future levels of SO_2 with the Proposed Actions.

III. AIR QUALITY REGULATIONS, STANDARDS, AND BENCHMARKS

National and State Air Quality Standards

As required by the CAA, primary and secondary National Ambient Air Quality Standards (NAAQS) have been established for six major air pollutants: CO, NO_2, ozone, respirable PM (both $PM_{2.5}$ and PM_{10}), SO_2, and lead. The primary standards represent levels that are requisite to protect the public health, allowing an adequate margin of safety. The secondary standards are intended to protect the nation's welfare, and account for air pollutant effects on soil, water, visibility, materials, vegetation, and other aspects of the environment. The primary standards are generally either the same as the secondary standards or more restrictive. The NAAQS are presented in Table J-1. The NAAQS for CO, annual NO_2, and 3-hour SO_2 have also been adopted as the ambient air quality standards for New York State, but are defined on a running 12-month basis rather than for calendar years only. New York State also has standards for total suspended particles, settleable particles, non-methane hydrocarbons, 24-hour and annual SO_2, and ozone which correspond to federal standards that have since been revoked or replaced, and for the noncriteria pollutants beryllium, fluoride, and hydrogen sulfide.

EPA has revised the NAAQS for PM, effective December 18, 2006. The revision included lowering the level of the 24-hour $PM_{2.5}$ standard from 65 $\mu g/m^3$ to 35 $\mu g/m^3$ and retaining the level of the annual standard at 15 $\mu g/m^3$. The PM_{10} 24-hour average standard was retained and the annual average PM_{10} standard was revoked. EPA lowered the primary annual $PM_{2.5}$ average standard from 15 $\mu g/m^3$ to 12 $\mu g/m^3$, effective March 2013.

EPA has also revised the 8-hour ozone standard, lowering it from 0.08 to 0.075 parts per million (ppm), effective as of May 2008. On November 25, 2014, EPA proposed a change in the 2008 ozone NAAQS, lowering the primary and secondary NAAQS from the current 0.075 ppm level to within the range of 0.065 to 0.070 ppm EPA will take final action on the proposed standards by October 1, 2015. EPA expects to issue final area designations by October 1, 2017; those designations likely would be based on 2014-2016 air quality data.

EPA lowered the primary and secondary standards for lead to 0.15 $\mu g/m^3$, effective January 12, 2009. EPA revised the averaging time to a rolling 3-month average and the form of the standard to not-to-exceed across a 3-year span.

EPA established a 1-hour average NO_2 standard of 0.100 ppm, effective April 12, 2010, in addition to the annual standard. The statistical form is the 3-year average of the 98th percentile of daily maximum 1-hour average concentration in a year.

EPA also established a 1-hour average SO_2 standard of 0.075 ppm, replacing the 24-hour and annual primary standards, effective August 23, 2010. The statistical form is the 3-year average of the 99th percentile of the annual distribution of daily maximum 1-hour concentrations (the 4th highest daily maximum corresponds approximately to 99th percentile for a year.)

Federal ambient air quality standards do not exist for noncriteria pollutants; however, as mentioned above, the New York State Department of Environmental Conservation (NYSDEC) has issued standards for three noncriteria compounds. NYSDEC has also developed a guidance document DAR-1 (October 2010), which contains a compilation of annual and short term (1-hour) guideline concentrations for numerous other noncriteria compounds. The NYSDEC guidance thresholds represent ambient levels that are considered safe for public exposure.

Table J-1
National Ambient Air Quality Standards (NAAQS)

Pollutant	Primary		Secondary	
	ppm	µg/m^3	ppm	µg/m^3
Carbon Monoxide (CO)				
8-Hour Average (1)	9	10,000	None	
1-Hour Average (1)	35	40,000		
Lead				
Rolling 3-Month Average (2)	NA	0.15	NA	0.15
Nitrogen Dioxide (NO_2)				
1-Hour Average (3)	0.100	188	None	
Annual Average	0.053	100	0.053	100
Ozone (O_3)				
8-Hour Average (4,5)	0.075	150	0.075	150
Respirable Particulate Matter (PM_{10})				
24-Hour Average (1)	NA	150	NA	150
Fine Respirable Particulate Matter ($PM_{2.5}$)				
Annual Mean (6)	NA	12	NA	15
24-Hour Average (7)	NA	35	NA	35
Sulfur Dioxide (SO_2) (8)				
1-Hour Average(9)	0.075	196	NA	NA
Maximum 3-Hour Average (1)	NA	NA	0.50	1,300

Notes:
ppm – parts per million (unit of measure for gases only)
µg/m^3 – micrograms per cubic meter (unit of measure for gases and particles, including lead)
NA – not applicable
All annual periods refer to calendar year.
Standards are defined in ppm. Approximately equivalent concentrations in µg/m^3 are presented.

(1) Not to be exceeded more than once a year.
(2) EPA has lowered the NAAQS down from 1.5 µg/m^3, effective January 12, 2009. Federal standard is not to be exceeded.
(3) 3-year average of the annual 98th percentile daily maximum 1-hr average concentration. Effective April 12, 2010.
(4) 3-year average of the annual fourth highest daily maximum 8-hr average concentration.
(5) EPA has proposed lowering the primary standard further to within the range 0.060-0.070 ppm, and adding a secondary standard measured as a cumulative concentration within the range of 7 to 15 ppm-hours aimed mainly at protecting sensitive vegetation. A final decision on this standard has been postponed and is currently in review.
(6) 3-year average of annual mean. EPA has lowered the primary standard from 15 µg/m^3, effective March 2013.
(7) Not to be exceeded by the annual 98th percentile when averaged over 3 years.
(8) EPA revoked the 24-hour and annual primary standards, replacing them with a 1-hour average standard. Effective August 23, 2010.
(9) 3-year average of the annual 99th percentile daily maximum 1-hr average concentration.

Source: 40 CFR Part 50: National Primary and Secondary Ambient Air Quality Standards.

NAAQS Attainment Status and State Implementation Plans

The CAA, as amended in 1990, defines non-attainment areas (NAA) as geographic regions that have been designated as not meeting one or more of the NAAQS. When an area is designated as non-attainment by EPA, the state is required to develop and implement a State Implementation Plan (SIP), which delineates

how a state plans to achieve air quality that meets the NAAQS under the deadlines established by the Clean Air Act, followed by a plan for maintaining attainment status once the area is in attainment.

In 2002, EPA re-designated New York City as in attainment for CO. Under the resulting maintenance plans, New York City is committed to implementing site-specific control measures throughout the city to reduce CO levels, should unanticipated localized growth result in elevated CO levels during the maintenance period.

Manhattan has been designated as a moderate NAA for PM_{10}. On December 2, 2013, EPA approved New York State's withdrawal of the 1995 SIP and redesignation request for the 1987 PM_{10} NAAQS, and made a clean data finding instead, based on data monitored from 2010-2012 indicating PM_{10} concentrations well below the 1987 NAAQS. Although not yet a redesignation to attainment status, this determination removes further requirements for related SIP submissions.

The five New York City counties and Nassau, Suffolk, Rockland, Westchester, and Orange Counties, which had been designated as a $PM_{2.5}$ non-attainment area since 2004 under the CAA due to exceedance of the 1997 annual average standard, were redesignated as in attainment for that standard on April 18, 2014, and are now under a maintenance plan. As stated above, EPA lowered the annual average primary standard to 12 $\mu g/m^3$ effective March 2013. EPA designated the area as in attainment for the new 12 $\mu g/m^3$ NAAQS effective January 15, 2015.

On April 18, 2014, EPA redesignated the New York City Metropolitan Area, which had been nonattainment with the 2006 24-hour $PM_{2.5}$ NAAQS since November 2009, as in attainment. The area, now under a maintenance plan for this standard, includes the same 10-county area as the maintenance area for the 1997 annual $PM_{2.5}$ NAAQS.

Effective June 15, 2004, EPA designated Nassau, Rockland, Suffolk, Westchester, and the five New York City counties (NY portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT, NAA), and Dutchess, Orange and Putnam counties as moderate non-attainment for the 1997 8-hour average ozone standard. On February 8, 2008, NYSDEC submitted final SIP revisions to EPA to address the 1997 8-hour ozone standard. Based on recent monitoring data (2007-2011), EPA determined that the Poughkeepsie and the NY-NJ-CT nonattainment areas have attained the 1997 8-hour ozone NAAQS (0.08 ppm). Although not yet a redesignation to attainment status, this determination removes further requirements under the 1997 8-hour standard.

In March 2008 EPA strengthened the 8–hour ozone standards. EPA designated the New York–Northern New Jersey–Long Island, NY-NJ-CT NAA as a marginal NAA for the 2008 ozone NAAQS, effective July 20, 2012. SIPs are due starting in 2015.

New York City is currently in attainment of the annual-average NO_2 standard. EPA has designated the entire state of New York as "unclassifiable/attainment" of the 1-hour NO_2 standard effective February 29, 2012. Since additional monitoring is required for the 1-hour standard, areas will be reclassified once three years of monitoring data are available (likely 2017).

EPA has established a 1-hour SO_2 standard, replacing the former 24-hour and annual standards, effective August 23, 2010. Based on the available monitoring data, all New York State counties currently meet the 1-hour standard. Additional monitoring will be required. Draft attainment designations were published by EPA in February 2013, indicating that EPA is deferring action to designate areas in New York State and expects to proceed with designations once additional data are gathered.

Determining the Significance of Air Quality Impacts

The State Environmental Quality Review Act (SEQRA) regulations and the *CEQR Technical Manual* state that the significance of a predicted consequence of a project (i.e., whether it is material, substantial, large or important) should be assessed in connection with its setting (e.g., urban or rural), its probability of occurrence, its duration, its irreversibility, its geographic scope, its magnitude, and the number of people affected.[1] In terms of the magnitude of air quality impacts, any action predicted to increase the concentration of a criteria air pollutant to a level that would exceed the concentrations defined by the NAAQS (see Table J-1) would be deemed to have a potential significant adverse impact.

In addition, in order to maintain concentrations lower than the NAAQS in attainment areas, or to ensure that concentrations will not be significantly increased in non-attainment areas, threshold levels have been defined for certain pollutants; any action predicted to increase the concentrations of these pollutants above the thresholds would be deemed to have a potential significant adverse impact, even in cases where violations of the NAAQS are not predicted.

CO de Minimis Criteria

New York City has developed *de minimis* criteria to assess the significance of the increase in CO concentrations that would result from the impact of proposed projects or actions on mobile sources, as set forth in the *CEQR Technical Manual*. These criteria set the minimum change in CO concentration that defines a significant environmental impact. Significant increases of CO concentrations in New York City are defined as: (1) an increase of 0.5 ppm or more in the maximum 8-hour average CO concentration at a location where the predicted No-Action 8-hour concentration is equal to or between 8 and 9 ppm; or (2) an increase of more than half the difference between baseline (i.e., No-Action) concentrations and the 8-hour standard, when No-Action concentrations are below 8.0 ppm.

$PM_{2.5}$ de Minimis Criteria

The following *de minimis* criteria are used to determine the potential for significant adverse $PM_{2.5}$ impacts for projects subject to CEQR:

- Predicted increase of more than half the difference between the background concentration and the 24-hour standard;

- Annual average $PM_{2.5}$ concentration increments which are predicted to be greater than 0.1 $\mu g/m^3$ at ground level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations); or

- Annual average $PM_{2.5}$ concentration increments which are predicted to be greater than 0.3 $\mu g/m^3$ at a discrete receptor location (elevated or ground level).

Actions under CEQR predicted to increase $PM_{2.5}$ concentrations by more than the above *de minimis* criteria will be considered to have a potential significant adverse impact.

[1] *CEQR Technical Manual*, Chapter 1, section 222, March 2014; and State Environmental Quality Review Regulations, 6 NYCRR § 617.7

IV. METHODOLOGY FOR PREDICTING POLLUTANT CONCENTRATIONS

Mobile Sources

As stated above and detailed in the Transportation Planning Factors and Travel Demand Forecast Memorandum in Appendix 4, the Proposed Project is not expected to significantly alter traffic conditions in the study area. The maximum hourly incremental traffic from the Proposed Project would not exceed the *CEQR Technical Manual* CO screening threshold of 170 peak hour trips at nearby intersections in the study area, nor would it exceed the particulate matter emission screening thresholds discussed in chapter 17, Sections 210 and 311 of the *CEQR Technical Manual.* In terms of emissions of NO_2 from mobile sources, the incremental increases in NO_2 concentrations are primarily due to relatively small increases in the number of vehicles (as compared to existing or No-Action traffic in the study area). This increase would not be expected to significantly affect levels of NO_2 experienced near roadways without the Proposed Project. The overall level of traffic would not have the potential to significantly change air quality conditions; therefore, a quantified assessment of on-street mobile source is not warranted.

Parking Facilities

The Proposed Project would include a below-grade parking garage with an approximate capacity of up to 262 spaces. Emissions from vehicles using the mechanically-ventilated parking garage could potentially affect ambient levels of pollutants in the immediate vicinity of the ventilation outlets. An analysis was performed using the methodology delineated in the *CEQR Technical Manual* to calculate levels for the pollutants of concern (CO and PM).

Potential impacts from the proposed parking garage on CO and PM concentrations were assessed at multiple receptor locations. The concentrations were determined for the time periods when overall garage usage would be the greatest, considering the hours when the greatest number of vehicles would enter and exit the project site. Emissions from vehicles entering, parking, and exiting the parking garage were estimated using the EPA MOVES mobile source emission model. All arriving and departing vehicles were conservatively assumed to travel at an average speed of 5 miles per hour within the parking garage. In addition, all departing vehicles were assumed to idle for 1 minute before exiting. The concentration of pollutants within the garage was calculated assuming a minimum ventilation rate, based on New York City Building Code requirements, of 1 cubic foot per minute of fresh air per gross square foot of garage area.

To determine pollutant concentrations, the outlet vents were analyzed as a "virtual point source" using the methodology in EPA's *Workbook of Atmospheric Dispersion Estimates, AP-26*. This methodology estimates pollutant concentrations at various distances from an outlet vent by assuming that the concentration in the garage is equal to the concentration leaving the vent, and determining the appropriate initial horizontal and vertical dispersion coefficients at the vent faces.

Since design information regarding the garage's mechanical ventilation system is not available, a worst-case assumption that the air from the proposed parking garage would be vented through a single outlet was analyzed. The vent face was modeled to directly discharge at a height of approximately 10 feet above grade. A "near" and "far" receptor was placed on the sidewalk adjacent to the parking garage and on the sidewalk directly opposite the parking facility. In addition, a receptor was placed on the building façade at a height of 6 feet above the vent. To determine compliance with the NAAQS, CO concentrations were determined for the maximum 1- and 8-hour average periods, and PM concentrations were determined for the maximum 24-hour and annual average period. A persistence factor of 0.70 was used to convert the calculated 1-hour average maximum concentrations to 8-hour averages, accounting for meteorological variability over the average 8-hour period.

Background CO and PM_{10} concentrations from the nearest NYSDEC monitoring station with available data were added to the modeling results to obtain the total ambient levels. The on-street pollutant concentrations were determined using the methodology in the Air Quality Appendix of the *CEQR Technical Manual*, utilizing traffic volumes derived from the traffic study conducted in the area.

Stationary Sources

HVAC and Cogeneration Systems

A stationary source analysis was conducted to evaluate potential impacts from the Proposed Project's HVAC and cogeneration systems. Due to the size and proximity of the project's buildings, an initial HVAC screening-level analysis as described in the *CEQR Technical Manual* would not be sufficient to demonstrate no significant adverse air quality impacts. Therefore, refined dispersion modeling was performed, as described in this section.

Buildings A and B would each include a cogeneration unit (rated at approximately 65 kilowatts) for simultaneous production of electrical power and thermal energy, and domestic hot water would be supplied by gas-fired water heaters. A variable refrigerant volume heat pump system would be used for heating and cooling these buildings. The combustion equipment would use natural gas exclusively.

Since building specific design information is not yet available for Buildings C, D, and E, it was conservatively assumed that conventional boiler equipment would be used to provide building heat and hot water. Stack exhaust parameters and emission estimates for the conceptual boiler installations were conservatively estimated. It was assumed that natural gas-fired combustion equipment would be used to provide heating and hot water to these buildings, consistent with the proposed design for buildings A and B.

For Buildings A and B, short-term peak and annual energy demand estimates were provided based on the project's design. For Buildings C, D, and E boiler fuel usage was estimated based on the building's size (in square feet) and type of development, using the methodology referenced in the *CEQR Technical Manual*. In addition, the short-term impact analysis used monthly energy estimates for Buildings C and D to adjust the boiler load for each month of the year to approximate the short-term boiler demand.

Emissions rates were calculated based on emissions factors obtained from the EPA *Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume I: Stationary Point and Area Sources*. PM_{10} and $PM_{2.5}$ emissions include both the filterable and condensable fractions. Table J-2 presents the stack parameters and emission rates used in the analysis for Buildings A through E.

Table J-2
Cogeneration Unit and Boiler Stack Parameters and Emission Rates

Parameter		Building						
		A		B		C	D	E
		Water Heater (6)	Cogen Unit	Water Heater (6)	Cogen Unit			
Building Size (gsf)		330,100		367,200		166,600	99,900	234,200
Mechanical Roof Bulkhead (ft)(5)		143.8	143.8	138.9	138.9	134.6	103.7	265.6
Stack Exhaust Temp. (°F)		140	588	140	588	300(4)	300(4)	300(4)
Stack Exhaust Height (ft)		146.8	146.8	141.9	141.9	137.6	106.7	268.6
Height Above Mechanical Roof Bulkhead (ft)		3	3	3	3	3	3	3
Stack Exhaust Diameter (ft)		0.83	0.83	0.83	0.83	1.0(4)	1.0(4)	1.0(4)
Stack Exhaust Flow (ACFM)(1))(3)		331	1,740	331	1,740	1,087	652	1,528
Stack Exhaust Velocity (ft/s)(3)		10.1	53.2	10.1	53.2	23.1	13.8	32.4
Fuel Type		Gas	Gas	Gas	Gas	Gas	Gas	Gas
Lb/hr(2)	NO_x (1-hour)	0.160	0.269	0.160	0.269	0.151	0.090	0.571
	NO_x (Annual)	0.160	0.269	0.160	0.269	0.111	0.067	0.156
	PM (24-hour)	0.012	0.006	0.012	0.006	0.031	0.019	0.043
	$PM_{2.5}$ (Annual)	0.012	0.006	0.012	0.006	0.008	0.005	0.012

Notes:
(1) ACFM = actual cubic feet per minute.
(2) Emission rates are per unit.
(3) The stack exhaust flow rate and velocity are estimated based on the type of fuel and heat input rates.
(4) The stack exhaust diameter and temperature are based on similar sized equipment.
(5) Roof Height presented is the height above the average curb level.
(6) Buildings A and B each have two water heaters exhausting through individual stacks.

Dispersion Modeling

Potential impacts from the Proposed Project's combustion system emissions were evaluated using the EPA AERMOD dispersion model. AERMOD is a state-of-the-art dispersion model, applicable to rural and urban areas, flat and complex terrain, surface and elevated releases, and multiple sources (including point, area, and volume sources). AERMOD is a steady-state plume model that incorporates current concepts about flow and dispersion in complex terrain, including updated treatments of the boundary layer theory, understanding of turbulence and dispersion, and includes handling of the interaction between the plume and terrain.

The AERMOD model calculates pollutant concentrations from one or more points (e.g., exhaust stacks) based on hourly meteorological data, and has the capability to calculate pollutant concentrations at locations when the plume from the exhaust stack is affected by the aerodynamic wakes and eddies (downwash) produced by nearby structures. The analyses of potential impacts from exhaust stacks were made assuming stack tip downwash, urban dispersion and surface roughness length, with and without building downwash, and elimination of calms.

The AERMOD Model also incorporates the algorithms from the PRIME model, which is designed to predict impacts in the "cavity region" (i.e., the area around a structure that under certain conditions may affect an exhaust plume, causing a portion of the plume to become entrained in a recirculation region). The Building Profile Input Program (BPIP) for the PRIME model (BPIPRM) was used to determine the projected building dimensions modeling with the building downwash algorithm enabled. The modeling of

downwash from sources accounts for all obstructions within a radius equal to five obstruction heights of the stack.

The analysis was performed both with and without downwash in order to assess the worst-case impacts at elevated receptors close to the height of the sources, which would occur without downwash, as well as the worst-case impacts at lower elevations and ground level, which would occur with downwash, consistent with the recommendations in the *CEQR Technical Manual*.

Annual NO_2 concentrations from emission sources were estimated using a NO_2 to NO_x ratio of 0.75, as described in EPA's *Guideline on Air Quality Models* at 40 CFR part 51 Appendix W, Section 5.2.4.[2] EPA has recently prepared guidance for assessing 1-hour average NO_2 concentrations for compliance with NAAQS.[3] Background concentrations are currently monitored at several sites within New York City, which are used for reporting concentrations on a "community" scale. Because this data is compiled on a 1-hour average format, it can be used for comparison with the new 1-hour standards. Therefore, background 1-hour NO_2 concentrations currently measured at the community-scale monitors can be considered representative of background concentrations for purposes of assessing the potential impacts of the HVAC systems.

EPA's preferred regulatory stationary source model, AERMOD, is capable of producing detailed output data that can be analyzed at the hourly level required for the form of the 1-hour standards. EPA has also developed guidance to estimate the transformation ratio of NO_2 to NO_x, applicable to HVAC sources, as discussed further below. Therefore, an analysis was prepared.

1-Hour average NO_2 concentration increments from the HVAC systems were estimated using AERMOD model's Plume Volume Molar Ratio Method (PVMRM) module to analyze chemical transformation within the model. The PVMRM module incorporates hourly background ozone concentrations to estimate NO_x transformation within the source plume. Ozone concentrations were taken from the nearest available NYSDEC ozone monitoring stations, i.e., the Botanical Garden monitoring station in Bronx for the years 2008-2012. An initial NO_2 to NO_x ratio of 20 percent at the source exhaust stack was assumed for the cogeneration units, and 10 percent for the boilers which is considered representative for these source types.

Total 1-hour NO_2 concentrations were determined following methodologies that are accepted by the EPA as appropriate and conservative. The methodology used to determine the compliance of total 1-hour NO_2 concentrations from the proposed sources with the 1-hour NO_2 NAAQS[4] was based on adding the monitored background to modeled concentrations, as follows: hourly modeled concentrations from proposed sources were first added to the seasonal hourly background monitored concentrations; then the highest combined daily 1-hour NO_2 concentration was determined at each receptor location and the 98th percentile daily 1-hour maximum concentration for each modeled year was calculated within the AERMOD model; finally the 98th percentile concentrations were averaged over the latest five years. This refined approach is recognized as being conservative by EPA and the City and is referenced in EPA modeling guidance.

Meteorological Data

The meteorological data set consisted of five consecutive years of meteorological data: surface data collected at La Guardia Airport (2009–2013) and concurrent upper air data collected at Brookhaven, New

[2] http://www.epa.gov/scram001/guidance/guide/appw_05.pdf

[3] EPA Memorandum, "Additional Clarification Regarding Application of Appendix W, Modeling Guidance for the 1-Hour NO_2 National Ambient Air Quality Standard," March 1, 2011.

[4] http://www.epa.gov/ttn/scram/guidance/clarification/Additional_Clarifications_AppendixW_Hourly-NO2-NAAQS_FINAL_03-01-2011.pdf

York. The meteorological data provide hour-by-hour wind speeds and directions, stability states, and temperature inversion elevation over the five-year period. These data were processed using the EPA AERMET program to develop data in a format which can be readily processed by the AERMOD model. The land uses around the site where meteorological surface data were available were classified using categories defined in digital United States Geological Survey (USGS) maps to determine surface parameters used by the AERMET program.

Receptor Placement

A comprehensive receptor network (i.e., locations with continuous public access) was developed for the modeling analyses. Discrete receptors were analyzed, including locations on the Proposed Project and other nearby buildings, at operable windows, air intakes, and at publicly accessible ground-level locations. The model also included sidewalk receptors in order to address more distant locations and to identify the highest ground-level impact.

Background Concentrations

To estimate the maximum expected total pollutant concentrations, the calculated impacts from the emission sources must be added to a background value that accounts for existing pollutant concentrations from other sources (see Table J-3). The background levels are based on concentrations monitored at the nearest NYSDEC ambient air monitoring stations over a recent five-year period for which data are available (2009-2013), with the exception of PM_{10}, which is based on three years of data (2011-2013), consistent with current DEP guidance. For the 24-hour PM_{10} concentration the highest second-highest measured values over the specified period were used. The annual average background values are the highest measured average concentrations for these pollutants. The measured background concentration was added to the predicted contribution from the modeled source to determine the maximum predicted total pollutant concentration. It was conservatively assumed that the maximum background concentrations occur on all days.

Table J-3
Maximum Background Pollutant Concentrations for Stationary Source Analysis

Pollutant	Average Period	Location	Concentration (µg/m^3)	NAAQS (µg/m^3)
NO_2	1-Hour	Botanical Garden, Bronx	--(1)	188
NO_2	Annual	Botanical Garden, Bronx	41.1	100
PM_{10}	24-hour	IS 52/ Morrisania, Bronx	37	150
$PM_{2.5}$	24-hour	Botanical Garden, Bronx	24.2	35

Note:
(1) The 1-Hour NO_2 background concentration is not presented in the table since the AERMOD model determines the total 98th percentile 1-Hour NO_2 concentration at each receptor, so a single representative background concentration is not used.
Source: New York State Air Quality Report Ambient Air Monitoring System, NYSDEC, 2009–2013.

$PM_{2.5}$ impacts are assessed on an incremental basis and compared with the $PM_{2.5}$ *de minimis* criteria. The $PM_{2.5}$ 24-hour average background concentration of 24.2 µg/m^3 (based on the 98th percentile concentrations, averaged over 2011 to 2013) was used to establish the *de minimis* value, consistent with the background concentration provided for Botanical Garden in the *CEQR Technical Manual.*

Industrial Sources

To assess air quality impacts on the Proposed Project associated with emissions from nearby industrial sources, an investigation was conducted. Initially, land use and Sanborn maps were reviewed to identify potential sources of emissions from manufacturing/industrial operations.

A search of the New York City Department of Environmental Protection's (DEP) Bureau of Environmental Compliance (BEC) air permits was performed to determine whether manufacturing or industrial emissions occur. In addition, a search of federal and state-permitted facilities within the study area was conducted using the EPA's Envirofacts database.[5] No businesses were found to have a NYSDEC permit or DEP certificate of operation within the surveyed area. Therefore, no potential impacts from industrial sources would occur with the Proposed Project, and no further analysis was warranted.

V. EXISTING CONDITIONS

Monitored background concentrations of SO_2, NO_2, CO, ozone, lead, PM_{10} and $PM_{2.5}$ for the study area are shown in Table J-4. These values are the most recent monitored data that have been made available by NYSDEC. All data statistical forms and averaging periods are consistent with the definitions of the NAAQS. It should be noted that these values are somewhat different than the background concentrations presented in Table J-3, above.

Table J-4
Representative Monitored Ambient Air Quality Data

Pollutant	Location	Units	Averaging Period	Concentration	NAAQS
CO	Botanical Garden, Bronx	ppm	8-hour	1.3	9
			1-hour	2.0	35
SO_2	Botanical Garden, Bronx	$\mu g/m^3$	3-hour	67.3	1,300
			1-hour	80.9	196
PM_{10}	IS 52/ Morrisania, Bronx	$\mu g/m^3$	24-hour	35	150
$PM_{2.5}$	Botanical Garden, Bronx	$\mu g/m^3$	Annual	9.6	12
			24-hour	24.2	35
NO_2	Botanical Garden, Bronx	$\mu g/m^3$	Annual	34.6	100
			1-hour	112	188
Lead	IS 52, Bronx	$\mu g/m^3$	3-month	0.005	0.15
Ozone	Botanical Garden, Bronx	ppm	8-hour	0.074	0.075

Notes: Based on the NAAQS definitions, the CO and 3-hour SO_2 concentrations for short-term averages are the second-highest from the year. $PM_{2.5}$ annual concentrations are the average of 2011, 2012, and 2013, and the 24-hour concentration is the average of the annual 98th percentiles in 2011, 2012 and 2013. 8-hour average ozone concentrations are the average of the 4th highest-daily values from 2011 to 2012. SO_2 1-hour and NO_2 1-hour concentrations are the average of the 99th percentile and 98th percentile, respectively, of the highest daily 1-hour maximum from 2011 to 2013.
Source: DEC, New York State Ambient Air Quality Data.

These existing concentrations are based on recent published measurements, averaged according to the NAAQS (e.g., $PM_{2.5}$ concentrations are averaged over the three years); the background concentrations are the highest values in past years, and are used as a conservative estimate of the highest background concentrations for future conditions. There were no monitored violations of NAAQS at these monitoring sites in 2013.

Based on the 1-hour NO_2 concentrations measured at existing community-scale monitoring stations in New York City during the three recent years for which data have been made available by NYSDEC, NO_2 concentrations have consistently been below the new 1-hour NAAQS at all existing monitoring sites in New York City. However, as noted earlier, additional monitoring stations are expected to be established in 2014 near major roadways to collect additional data for the purpose of determining whether New York City is in attainment of the 1-hour standard. USEPA estimates that, in general, concentrations near roadways in the U.S. may be anywhere from 30 to 100 percent higher than those measured at community-scale monitors.[6]

[5] http://oaspub.epa.gov/enviro/ef_home2.air
[6] EPA. January 2010, Final Regulatory Impact Analysis (RIA) for the NO_2 NAAQS.

VI. FUTURE WITHOUT THE PROPOSED ACTIONS

In the future without the Proposed Actions, it is expected that no changes would occur at the Project Area. The Project Area would remain under the jurisdiction of HPD and would remain underutilized and mostly vacant with the exception of the southern parcel, which would continue to operate with two at-grade public parking facilities and a vacant 11,000 gsf building. Therefore, in the future without the Proposed Actions, mobile and stationary source emissions in the area would be less than with the Proposed Actions.

VII. PROBABLE IMPACTS OF THE PROPOSED ACTIONS

Mobile Sources

Parking Facilities

Based on the methodology previously described, the maximum predicted CO and PM concentrations from the proposed underground parking facility were analyzed at the following locations, assuming a vent location on the façade of the proposed building: a near side sidewalk receptor on the same side of the street as the parking facility and a far side sidewalk receptor on the opposite side of the street from the parking facility. Pollutant levels were also predicted on the building façade at a height of 6 feet above the vent. The total CO and PM_{10} concentrations include both background levels and contributions from traffic on adjacent roadways for the far side receptor only. $PM_{2.5}$ concentrations include contributions from project-generated trips on adjacent roadways for the far side receptor.

The maximum predicted 8-hour average CO concentration of all the receptors modeled is 2.0 ppm on the near side sidewalk receptor. This value includes a predicted concentration of 0.1 ppm from the parking garage vent, and a background level of 1.9 ppm. The maximum predicted concentration is substantially below the applicable standard of 9 ppm.

The maximum predicted 24-hour average PM_{10} concentration is 37.8 $\mu g/m^3$, on the far side sidewalk receptor. This value consists of a predicted concentration of 0.3 $\mu g/m^3$ from the parking garage vent, 0.5 $\mu g/m^3$ on-street traffic contribution and a background concentration of 37 $\mu g/m^3$. The maximum predicted concentration is substantially below the applicable standard of 150 $\mu g/m^3$.

The maximum predicted 24-hour $PM_{2.5}$ increment is 0.68 $\mu g/m^3$, on the near sidewalk receptor, and the maximum annual average $PM_{2.5}$ increment is 0.14 $\mu g/m^3$, on the far side sidewalk receptor. The maximum predicted $PM_{2.5}$ increments are well below the respective $PM_{2.5}$ *de minimis* criteria of 5.4 $\mu g/m^3$ on a 24-hour average and 0.3 $\mu g/m^3$ on an annual average.

Based on the results of the analysis, the proposed parking garage would not result in any significant adverse air quality impacts and therefore, no further analysis is warranted.

Stationary Sources

HVAC and Cogeneration Systems

Table J-5 shows maximum overall predicted concentrations for NO_2, and PM_{10} from the Proposed Project's HVAC and cogeneration systems. The maximum concentrations were predicted to occur on elevated locations on the Proposed Project, at Buildings A and E. As shown in the table, the predicted pollutant concentrations, when added to ambient background levels, for each of the pollutant time averaging periods shown are below their respective standards.

Table J-5
Future Maximum Modeled NO_2 and PM_{10} Concentrations from the Proposed Project (in μg/m³)

Pollutant	Averaging Period	Concentration Due to Stack Emission	Maximum Background Concentration	Total Concentration	Standard
NO_2	Annual(1)	3.7	41.1	44.8	100
	1-hour(2)	-	-	156.6	188
PM_{10}	24-hour	5.2	37	42.3	150

Notes:
(1) Annual NO_2 impacts were estimated using a NO_2/NO_x ratio of 0.75.
(2) Reported concentration is the maximum total 98th percentile concentration at any receptor using seasonal-hourly background concentrations.

The air quality modeling analysis also determined the highest predicted increase in $PM_{2.5}$ concentrations. The maximum predicted 24-hour and localized annual average incremental $PM_{2.5}$ increments are presented in Table J-6. Maximum $PM_{2.5}$ concentrations were predicted at Buildings A and B of the Proposed Project. The maximum 24-hour incremental impacts at any discrete receptor location would be less than the applicable *de minimis* criteria. On an annual basis, the maximum projected $PM_{2.5}$ increments would be less than the applicable *de minimis* criterion of 0.3 μg/m³ for local impacts and 0.1 for neighborhood scale impacts.

Table J-6
Future Maximum Predicted $PM_{2.5}$ Concentrations from the Proposed Project (in μg/m³)

Pollutant	Averaging Period	Maximum Concentration	*De Minimis*
$PM_{2.5}$	24-hour	5.27	5.4(1)
	Annual (discrete)	0.29	0.3
	Annual (Neighborhood Scale)	0.02	0.1

Note:
(1) $PM_{2.5}$ *de minimis* criteria — 24-hour average, not to exceed more than half the difference between the background concentration and the 24-hour standard of 35 μg/m³.

Overall, there would not be any significant adverse air quality impacts due to the Proposed Project's HVAC and cogeneration systems. However, to ensure that there are no significant adverse impacts of $PM_{2.5}$ from the Proposed Project's sources of combustion emissions, certain restrictions would be required. The terms of the restrictions to be included in the LDA between HPD and the project sponsors would be as follows:

- **Building A**
  Any new development on the above-referenced property must ensure that fossil fuel-fired heating and hot water equipment utilize only natural gas.

- **Building B**
  Any new development on the above-referenced property must ensure that fossil fuel-fired heating and hot water equipment utilize only natural gas.

- **Building C**
  Any new development on the above-referenced property must ensure that fossil fuel-fired heating and hot water equipment utilize only natural gas, and that heating and hot water equipment exhaust stack(s) are located at least 137.6 feet above average curb level, and located at least 357 feet away from the lot line facing East 153rd Street, and must be fitted with low NO_x burners with a maximum emission concentration of 30 ppm, to avoid any potential significant air quality impacts.

- **Building D**
  Any new development on the above-referenced property must ensure that fossil fuel-fired heating and hot water equipment utilize only natural gas, and that heating and hot water equipment exhaust stack(s) are located at least 106.7 feet above average curb level, and must be fitted with low NO_x burners with a maximum emission concentration of 30 ppm. In addition, any new development on the above-referenced property must ensure that fossil fuel-fired heating and hot water equipment exhaust stack(s) are located no more than 17 feet away from the lot line facing Bergen Ave and at least 341 feet away and no more than 440 feet away from the lot line facing East 153rd Street, or no more than 37 feet away from the lot line facing Bergen Ave and at least 400 feet away and no more than 440 feet away from the lot line facing East 153rd Street, to avoid any potential significant air quality impacts.

Figure J-1 shows the locations on Buildings C and D where HVAC stacks would need to be restricted to avoid a significant adverse air quality impact. With these restrictions in place, no significant adverse air quality impacts are predicted from the Proposed Project's HVAC and cogeneration units.

For Illustrative Purposes Only

Legend

Area where exhaust stack could be located

ATTACHMENT K
NOISE

I. INTRODUCTION

This chapter assesses potential noise effects that could result from the Proposed Actions, including an approximately 1.1 million gsf, five building mixed-use development consisting of approximately 832 affordable DUs (909,300 gsf) and 160 supportive housing units (77,500 gsf), approximately 46,800 gsf of local retail and commercial uses, an approximately 50,500 gsf YMCA, and approximately 32,700 gsf of other community facility uses. The noise analysis for the Proposed Actions consisted of three components:

1. A screening analysis to determine whether traffic generated by the Proposed Project would have the potential to result in significant noise impacts.
2. An analysis to determine whether the Proposed Project's cogen turbine-related activities (i.e., operation of the cogen turbines) would have the potential to result in significant noise impacts.
3. An analysis to determine the level of building attenuation necessary to ensure that the Proposed Project's interior noise levels satisfy applicable interior noise criteria.

II. NOISE FUNDAMENTALS

Quantitative information on the effects of airborne noise on people is well documented. If sufficiently loud, noise may adversely affect people in several ways. For example, noise may interfere with human activities, such as sleep, speech communication, and tasks requiring concentration or coordination. It may also cause annoyance, hearing damage, and other physiological problems. Several noise scales and rating methods are used to quantify the effects of noise on people. These scales and methods consider such factors as loudness, duration, time of occurrence, and changes in noise level with time. However, it must be remembered that all the stated effects of noise on people vary greatly with the individual.

"A"-Weighted Sound Level (dBA)

Noise is typically measured in units called decibels (dB), which are 10 times the logarithm of the ratio of the sound pressure squared to a standard reference presence squared. Because loudness is important in the assessment of the effects of noise on people, the dependence of loudness on frequency must be taken into account in the noise scale used in environmental assessments. One of the simplified scales that accounts for the dependence of perceived loudness on frequency is the use of a weighting network, known as "A"-weighting, in the measurement system, to simulate the response of the human ear. For most noise assessments, the A-weighted sound pressure level in units of dBA is used in view of its widespread recognition and its close correlation with perception. In the current study, all measured noise levels are reported in dBA or A-weighted decibels. Common noise levels in dBA are shown in Table K-1.

Table K-1
Common Noise Levels

Sound Source	(dBA)
Military jet, air raid siren	130
Amplified rock music	110
Jet takeoff at 500 meters	100
Freight train at 30 meters	95
Train horn at 30 meters	90
Heavy truck at 15 meters	80–90
Busy city street, loud shout	80
Busy traffic intersection	70–80
Highway traffic at 15 meters, train	70
Predominantly industrial area	60
Light car traffic at 15 meters, city or commercial areas, or residential areas close to industry	50–60
Background noise in an office	50
Suburban areas with medium-density transportation	40–50
Public library	40
Soft whisper at 5 meters	30
Threshold of hearing	0

Note: A 10 dBA increase in level appears to double the loudness, and a 10 dBA decrease halves the apparent loudness.
Sources: Cowan, James P. *Handbook of Environmental Acoustics,* Van Nostrand Reinhold, New York, 1994. Egan, M. David, Architectural Acoustics. McGraw-Hill Book Company, 1988.

Ability to Perceive Changes in Noise Levels

The average ability of an individual to perceive changes in noise levels is well-documented (see Table K-2). Generally, changes in noise levels of less than 3 dBA are barely perceptible to most listeners, whereas changes in noise levels of 10 dBA are normally perceived as doubling (or halving) of noise loudness. These guidelines permit direct estimation of an individual's probable perception of changes in noise levels.

Table K-2
Average Ability to Perceive Changes in Noise Levels

Change (dBA)	Human Perception of Sound
2-3	Barely perceptible
5	Readily noticeable
10	A doubling or halving of the loudness of sound
20	A "dramatic change"
40	Difference between a faintly audible sound and a very loud sound

Source: Bolt Beranek and Neuman, Inc., *Fundamentals and Abatement of Highway Traffic Noise*, Report No. PB-222-703. Prepared for Federal Highway Administration, June 1973.

Noise Descriptors Used in Impact Assessment

Because the sound pressure level unit of dBA describes a noise level at just one moment, and because very few noises are constant, other ways of describing noise over more extended periods have been developed. One way is to describe the fluctuating noise heard over a specific period as if it had been a steady, unchanging sound. For this condition, a descriptor called the "equivalent sound level," L_{eq}, can be computed. L_{eq} is the constant sound level that, in a given situation and period (e.g., 1 hour, denoted by $L_{eq(1)}$, or 24 hours, denoted by $L_{eq(24)}$), conveys the same sound energy as the actual time-varying sound. Statistical sound level descriptors, such as L_1, L_{10}, L_{50}, L_{90}, and L_x, are sometimes used to indicate noise

levels that are exceeded 1, 10, 50, 90, and X percent of the time, respectively. Discrete event peak levels are given as L_{01} levels.

For purposes of the Proposed Project, the maximum 1-hour equivalent sound level $L_{eq(1)}$ and L_{10} has been selected as the noise descriptors to be used in this noise impact evaluation. $L_{eq(1)}$ is the noise descriptor recommended for use in the 2014 *CEQR Technical Manual* for vehicular traffic, and is used to provide an indication of highest expected sound levels. The 1-hour L_{10} is the noise descriptor used in the *CEQR Technical Manual* noise exposure guidelines for City environmental impact review classification.

III. NOISE STANDARDS AND CRITERIA

Noise levels associated with the construction and operation of the Proposed Project would be subject to Performance Standards for Manufacturing Districts contained in the New York City Zoning Resolution, noise standards contained in the New York City Noise Control Code, and to noise impact criteria set forth in the *CEQR Technical Manual.*

New York City Zoning Resolution

The City of New York's Zoning Resolution Section 42-213 states that in all manufacturing districts, the sound pressure level resulting from any activity within an M1 zone, whether open or enclosed, shall not exceed, at any point on or beyond any lot line, the maximum permitted sound level for the designated octave band indicated in Table K-3.

The Performance Standards are specified in "old" octave bands. These bands have not been used in almost 40 years, and instrumentation is no longer available to measure per these specifications. The American National Standards Institute (ANSI) has promulgated a standard on the conversion of old octave bands to the current preferred values (and vice versa), to allow measurement and assessment. This conversion was done and the converted criteria are also provided in Table K-3.

Table K-3
City of New York Noise Performance Standards for M1 Manufacturing District

Old Octave Bands		Current Octave Bands	
Octave Band (Hz)	**M1 District (dB)**	**Octave Band (Hz)**	**M1 District (dB)**
20 to 75	79	63	78
75 to 150	74	125	72
150 to 300	66	250	64
300 to 600	59	500	58
600 to 1200	53	1000	52
1200 to 2400	47	2000	46
2400 to 4800	41	4000	41
Above 4800	39	8000	39

Source: City of New York Performance Standards for Manufacturing Districts Section 42-213

New York City Noise Control Code

The New York City Noise Control Code, amended in December 2005, contains prohibitions regarding unreasonable noise, requirements for noise due to construction activities, and specific noise standards, including plainly audible criteria for specific noise sources. In addition, the amended code specifies that no sound source operating in connection with any commercial or business enterprise may exceed the decibel levels in the designated octave bands shown in Table K-4 at the specified receiving properties.

Table K-4
New York City Noise Code

Octave Band Frequency (Hz)	Maximum Sound Pressure Levels (dB) as Measured Within a Receiving Property as Specified Below	
	Residential receiving property for mixed-use building and residential buildings (as measured within any room of the residential portion of the building with windows open, if possible)	*Commercial receiving property (as measured within any room containing offices within the building with windows open, if possible)*
31.5	70	74
63	61	64
125	53	56
250	46	50
500	40	45
1000	36	41
2000	34	39
4000	33	38
8000	32	37

Note: All dB levels shown in current octave bands, converted per Table K-3
Source: Section 24-232 of the Administrative Code of the City of New York, as amended December 2005.

New York CEQR Noise Criteria

The *CEQR Technical Manual* sets external noise exposure standards; these standards are shown in Table K-5. Noise exposure is classified into four categories: acceptable, marginally acceptable, marginally unacceptable, and clearly unacceptable. The noise level specified for outdoor areas requiring serenity and quiet is 55 dBA $L_{10(1h)}$.

The *CEQR Technical Manual* also defines attenuation requirements for buildings based on exterior noise level (see Table K-6). Recommended noise attenuation values for buildings are designed to maintain interior noise levels of 45 dBA or lower for noise sensitive uses and 50 dBA or lower for commercial/office uses and are determined based on exterior $L_{10(1)}$ noise levels.

In addition, the *CEQR Technical Manual* compares a proposed project's With-Action condition $L_{eq(1)}$ noise levels to those calculated for the No-Action condition, for receptors potentially affected by the project using the following criteria to determine whether a proposed project would result in a significant adverse noise impact:

- An increase of 5 dBA, or more, in With-Action $L_{eq(1)}$ noise levels at sensitive receptors (including residences, play areas, parks, schools, libraries, and houses of worship) over those calculated for the No-Action condition, if the No-Action levels are less than or equal to 60 dBA $L_{eq(1)}$ and the analysis period is not a nighttime period.
- An increase in With-Action $L_{eq(1)}$ noise levels at sensitive receptors of such that the total Build $L_{eq(1)}$ noise levels would be 65 dBA or greater, if the No-Action levels are between 60 and 62 dBA $L_{eq(1)}$ and the analysis period is not a nighttime period.
- An increase of 3 dBA, or more, in With-Action $L_{eq(1)}$ noise levels at sensitive receptors over those calculated for the No-Action condition, if the No-Action levels are greater than or equal to 62 dBA $L_{eq(1)}$ and the analysis period is not a nighttime period.
- An increase of 3 dBA, or more, in With-Action $L_{eq(1)}$ noise levels at sensitive receptors over those calculated for the No-Action condition, if the analysis period is a nighttime period (defined by the *CEQR Technical Manual* criteria as being between 10 PM and 7 AM).

Table K-5
Noise Exposure Guidelines For Use in City Environmental Impact Review

Receptor Type	Time Period	Acceptable General External Exposure	Airport[3] Exposure	Marginally Acceptable General External Exposure	Airport[3] Exposure	Marginally Unacceptable General External Exposure	Airport[3] Exposure	Clearly Unacceptable General External Exposure	Airport[3] Exposure
Outdoor area requiring serenity and quiet[2]		$L_{10} \leq 55$ dBA	---------- Ldn ≤ 60 dBA ----------	NA	NA	NA	(i) 65 < Ldn ≤ 70 dBA, (II) 70 ≤ Ldn	NA	---------- Ldn ≤ 75 dBA ----------
Hospital, nursing home		$L_{10} \leq 55$ dBA		55 < L_{10} ≤ 65 dBA	---------- 60 < Ldn ≤ 65 dBA ----------	65 < L_{10} ≤ 80 dBA		L_{10} > 80 dBA	
Residence, residential hotel, or motel	7 AM to 10 PM	$L_{10} \leq 65$ dBA		65 < L_{10} ≤ 70 dBA		70 < L_{10} ≤ 80 dBA		L_{10} > 80 dBA	
	10 PM to 7 AM	$L_{10} \leq 55$ dBA		55 < L_{10} ≤ 70 dBA		70 < L_{10} ≤ 80 dBA		L_{10} > 80 dBA	
School, museum, library, court, house of worship, transient hotel or motel, public meeting room, auditorium, outpatient public health facility		Same as Residential Day (7 AM-11 PM)		Same as Residential Day (7 AM-11 PM)		Same as Residential Day (7 AM-11 PM)		Same as Residential Day (7 AM-11 PM)	
Commercial or office		Same as Residential Day (7 AM-11 PM)		Same as Residential Day (7 AM-11 PM)		Same as Residential Day (7 AM-11 PM)		Same as Residential Day (7 AM-11 PM)	
Industrial, public areas only[4]	Note 4	Note 4		Note 4		Note 4		Note 4	

Notes:
(i) In addition, any new activity shall not increase the ambient noise level by 3 dBA or more; (ii) *CEQR Technical Manual* noise criteria for train noise are similar to the above aircraft noise standards: the noise category for train noise is found by taking the L_{dn} value for such train noise to be an L_{dn}^{χ} (L_{dn} contour) value.

Table Notes:
1 Measurements and projections of noise exposures are to be made at appropriate heights above site boundaries as given by American National Standards Institute (ANSI) Standards; all values are for the worst hour in the time period.
2 Tracts of land where serenity and quiet are extraordinarily important and serve an important public need, and where the preservation of these qualities is essential for the area to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
3 One may use FAA-approved L_{dn} contours supplied by the Port Authority, or the noise contours may be computed from the federally approved INM Computer Model using flight data supplied by the Port Authority of New York and New Jersey.
4 External Noise Exposure standards for industrial areas of sounds produced by industrial operations other than operating motor vehicles or other transportation facilities are spelled out in the New York City Zoning Resolution, Sections 42-20 and 42-21. The referenced standards apply to M1, M2, and M3 manufacturing districts and to adjoining residence districts (performance standards are octave band standards).
Source: New York City Department of Environmental Protection (adopted policy 1983).

Table K-6
Required Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				Clearly Unacceptable
Noise Level With the Proposed Project	70 < L_{10} ≤ 73	73 < L_{10} ≤ 76	76 < L_{10} ≤ 78	78 < L_{10} ≤ 80	80 < L_{10}
Attenuation[A]	(I) 28 dB(A)	(II) 31 dB(A)	(III) 33 dB(A)	(IV) 35 dB(A)	36 + (L_{10} – 80)[B] dB(A)

Notes:
A The above composite window-wall attenuation values are for residential dwellings and community facility development. Commercial office spaces, retail, and meeting rooms would be 5 dB(A) less in each category. All the above categories require a closed window situation and hence an alternate means of ventilation.
B Required attenuation values increase by 1 dB(A) increments for L_{10} values greater than 80 dBA.
Source: New York City Department of Environmental Protection.

HUD Development Guidelines

HUD sets exterior noise standards for housing construction projects based on Day-Night Sound Level (i.e., L_{dn}) values (see Table K-7, HUD Exterior Noise Standards). The L_{dn} refers to a 24-hour average noise level with a 10 dB penalty applied to the noise levels during the hours between 10 PM and 7 AM, due to increased sensitivity to noise levels during these hours. Noise attenuation values are designed to maintain an interior L_{dn} value of 45 dBA or lower for residential uses.

Table K-7
HUD Exterior Noise Standards

	Acceptable	Normally Unacceptable	Unacceptable
Noise Level With Proposed Project	$L_{dn} \leq 65$	$65 < L_{dn} \leq 75$	$75 < L_{dn}$
Source: U.S. Department of Housing and Urban Development			

Impact Definition

For purposes of impact assessment, the Proposed Project would have a significant noise impact if one or more of the following criteria are exceeded: the *CEQR Technical Manual* relative noise criteria; the HUD standards; the octave band noise levels specified in the Performance Standards for Manufacturing Districts contained in the New York City Zoning Resolution; or the octave band noise levels specified in the City of New York Noise Control Code.

IV. NOISE PREDICTION METHODOLOGY

The noise impact assessment predicted separately the effects of noise from the project-generated traffic and the Proposed Project's cogen turbine-related activities (i.e., operation of the turbines). Total noise levels with the Proposed Project (With-Action values) were obtained by adding noise due to the project-generated traffic and the project's turbine-related activities to noise levels without the Proposed Project (No-Action values). The methodologies used to determine noise effects from the project-generated traffic and the project's turbine-related activities are discussed below. Impacts were determined based upon the combined effects of both of these noise sources.

Mobile Noise Sources

Proportional modeling was used to determine locations which had the potential for having significant noise impacts and to quantify the magnitude of those potential impacts. Proportional modeling is one of the techniques recommended in the *CEQR Technical Manual* for mobile source analysis.

Using this technique, the prediction of future noise levels, where traffic is the dominant noise source, is based on a calculation using measured existing noise levels and predicted changes in traffic volumes to determine No-Action and With-Action levels. Vehicular traffic volumes are converted into Passenger Car Equivalent (PCE) values, for which one medium-duty truck (having a gross weight between 9,900 and 26,400 pounds) is assumed to generate the noise equivalent of 13 cars, and one heavy-duty truck (having a gross weight of more than 26,400 pounds) is assumed to generate the noise equivalent of 47 cars, and one bus (vehicles designed to carry more than nine passengers) is assumed to generate the noise equivalent of 18 cars. Future With-Action noise levels are calculated using the following equation:

$$FB\ NL - FNA\ NL = 10 * \log_{10} (FB\ PCE / FNB\ PCE)$$

where:

FB NL = Future Build Noise Level
FNA NL = Future No Action Noise Level
FB PCE = Future Build PCEs
FNA PCE = Future No Action PCEs

With this methodology, assuming traffic is the dominant noise source at a particular location if the existing traffic volume on a street is 100 PCE and if the future traffic volume were increased by 50 PCE

to a total of 150 PCE, the noise level would increase by 1.8 dBA. Similarly, if the future traffic were increased by 100 PCE, or doubled to a total of 200 PCE, the noise level would increase by 3.0 dBA.

Cogen Turbine Noise Sources

Three (3) cogen turbines would be installed in an enclosed structure on the rooftop of the proposed Building A, and three (3) turbines would be installed in an enclosed structure on the rooftop of the proposed Building B. It is assumed that all six (6) turbines would operate simultaneously for 24-hours per day, 7 days per week. The $L_{eq(1)}$ noise descriptor was used for assessment of compliance with CEQR impact criteria, and the L_{max} noise descriptor was used for the assessment of compliance with both the Performance Standards for Manufacturing Districts contained in the New York City Zoning Resolution and the New York City Noise Control Code. The measured data for the turbines were provided by the project sponsor.

Predicted noise levels due to the turbine operation at analysis receptor sites were calculated using the following formula:

$L_p = L_{p(1)} - A_{div} - A_{screen} - A_{TL}$

where:

$L_{p(1)}$ is the equipment source sound pressure level at a reference distance;
A_{div} is the attenuation due to geometrical divergence;
A_{screen} is the attenuation due to screening; and
A_{TL} is the attenuation due to sound transmission loss due to building partition.

Noise levels were calculated at receptors taking into account attenuation effects due to distance, shielding, and sound transmission loss, and ignoring absorptions due to ground, air, foliage, etc. This calculation methodology results in a conservative estimation of noise impacts.

V. EXISTING CONDITIONS

Site Description

The triangular-shaped project site is generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and the elevated IRT #2 and #5 subway tracks to the south. The study area is a mix of commercial, industrial and open space uses. Currently, the project site is located within an M1-1 zoning district. Ambient noise levels are primarily a combination of traffic on the adjacent streets and the elevated subway.

Selection of Noise Receptor Locations

Seven (7) noise receptor sites were selected for the noise impact analysis (see Figure K-1). Table K-8 lists the receptor site locations and their representative uses. All seven (7) receptor sites were used to determine CEQR and HUD building attenuation requirements for the project's buildings, and receptor sites 3, 4, 5, and 7 were also used to evaluate potential noise impacts due to the project-generated traffic and the Proposed Project's turbine-related operations. These receptors, due to their proximity to the project sites, represent the nearby sensitive noise receptors with the greatest potential to experience significant noise increases as a result of the Proposed Project. Sensitive receptors further from the project sites would be less likely to experience significant noise increases as a result of the Proposed Project.

For Illustrative Purposes Only

Legend

- 20-Minute Spot Measurements
- 24-Hour Continuous Measurements

Table K-8
Noise Receptor Locations

Receptor	Location	Existing Land Use
1	East 153rd Street between Bergen and Brook Avenues	Vacant
2	East 152nd Street Between Bergen and Brook Avenues	Vacant
3	Bergen Avenue Between 152nd street and Westchester Avenue	Commercial
4	Westchester Avenue Between Bergen and Brook Avenues	Commercial
5	Bergen Avenue between Westchester Avenue and 149th street	Commercial
6	Parking lot on Westchester Avenue near the elevated subway tracks	Commercial
7	Brook Avenue Between 152nd Street and 153rd Street	Open space

Noise Monitoring

At receptor sites 1 through 5, noise monitoring was conducted for three weekday conditions: AM, midday, and PM time periods. At these receptor sites, existing noise levels were measured for 20-minute periods during three weekday periods—AM (8:00 AM to 9:30 AM), midday (MD) (1:00 PM to 2:30 PM), and PM (4:30 to 6:00 PM). Measurements were taken on June 3 and 4, 2014. The selected time periods are when the Proposed Project would have maximum traffic generation and/or the maximum potential for significant adverse noise impacts based on the traffic studies presented in the Transportation Planning Factors and Travel Demand Forecast Memorandum in Appendix 4. At receptor sites 6 and 7, 24-hour continuous noise measurements were performed to determine existing noise levels. Measurements at Site 6 were taken on June 17, 2014, and measurements at Site 7 were taken on June 3, 2014.

Measurements were performed using Brüel & Kjær Sound Level Meters (SLM) Type 2260 and Type 2270, Brüel & Kjær ½ inch microphones Type 4189, and a Brüel & Kjær Sound Level Calibrator Type 4231. The Brüel & Kjær SLM is a Type 1 instrument according to ANSI Standard S1.4-1983 (R2006). The SLM has a laboratory calibration date within one year of the date of the measurements. The microphone was mounted on a tripod at a height of approximately 5 feet above the ground and was mounted away from any large reflecting surfaces that could affect the sound level measurements. The SLM was calibrated before and after readings with a Brüel & Kjær Type 4231 Sound Level Calibrator using the appropriate adaptor. Measurements at the location were made on the A-scale (dBA). The data were digitally recorded by the SLM and displayed at the end of the measurement period in units of dBA. Measured quantities included L_{eq}, L_1, L_{10}, L_{50}, and L_{90}. A windscreen was used during all sound measurements except for calibration. All measurement procedures were based on the guidelines outlined in ANSI Standard S1.13-2005.

Results of Baseline Measurements

The results of the existing noise level measurements are summarized in Table K-9. At all receptor sites, vehicular traffic and the elevated subway were the dominant noise sources. Measured levels were moderate to high and reflect the level of vehicular and subway traffic in the surrounding area. In terms of the CEQR criteria, the existing noise levels are in the "acceptable" category at receptor Site 1, the "marginally acceptable" category at receptor sites 2 and 3, the "marginally unacceptable" category at receptor sites 4 and 5, the "clearly unacceptable" category at receptor Site 6, and the existing noise levels exceed the 55 dBA $L_{10(1)}$ noise level guideline for outdoor areas requiring serenity and quiet provided in the *CEQR Technical Manual* noise exposure guidelines at receptor Site 7.

Table K-9
Existing Noise Levels (in dBA)

Site	Measurement Location	Time	L_{eq}	L_1	L_{10}	L_{50}	L_{90}	L_{dn}[1]
1	East 153rd Street between Bergen and Brook Avenues	AM	58.4	65.0	60.6	57.2	53.8	61.7
		MD	59.9	66.8	62.8	58.0	54.2	
		PM	60.7	65.6	63.6	59.0	55.8	
2	East 152nd Street Between Bergen and Brook Avenues	AM	62.4	69.4	67.0	58.0	54.9	65.8
		MD	63.1	70.2	67.6	58.8	56.0	
		PM	63.4	74.4	68.2	59.0	56.8	
3	Bergen Avenue Between 152nd street and Westchester Avenue	AM	64.5	72.7	67.6	61.4	56.4	66.7
		MD	66.0	75.2	68.8	61.0	57.0	
		PM	64.4	70.0	68.2	61.6	57.0	
4	Westchester Avenue Between Bergen and Brook Avenues	AM	65.0	71.8	68.6	61.4	56.2	68.8
		MD	65.1	73.6	69.4	60.2	55.8	
		PM	65.9	73.0	70.2	62.8	58.0	
5	Bergen Avenue between Westchester Avenue and 149th street	AM	69.4	78.6	73.8	64.4	59.0	73.2
		MD	68.1	77.8	72.2	64.6	60.4	
		PM	70.5	77.6	73.6	68.4	61.6	
6	Parking lot on Westchester Avenue near the elevated Subway	AM[2]	74.1	84.6	80.1	60.3	53.4	76.1
		AM	72.5	83.4	78.2	60.1	55.2	
		MD	68.3	81.7	68.0	52.0	50.5	
		PM	72.9	83.3	79.2	55.4	52.3	
7	Brook Avenue Between 152nd Street and 153rd Street	AM	63.2	71.2	67.0	60.5	54.4	65.9
		MD	63.4	71.2	66.9	60.7	54.6	
		PM	63.7	70.4	67.2	62.0	55.4	
		PM[2]	67.3	74.5	71.9	64.0	58.0	

Note: Field measurements were performed by AKRF, Inc. on June 3 and 4, 2014.
[1] At receptor sites 1 through 3, Ldn levels were calculated based upon the measured 24-hour noise levels at receptor Site 7, and at receptor sites 4 and 5 Ldn levels were calculated based upon the measured 24-hour noise levels at receptor Site 6.
2 Maximum measured L_{10} values during 24-hour measurements.

VI. FUTURE WITHOUT THE PROPOSED ACTIONS

Using the methodology previously described, future noise levels without the Proposed Project were calculated for the four analysis receptors for the analysis year. These No-Action values are shown in Table K-10.

Table K-10
No-Action Noise Levels (in dBA)

Receptor	Location	Time	Existing Noise Levels		No-Action Noise Levels		
			$L_{eq(1)}$	$L_{10(1)}$	$L_{eq(1)}$	$L_{10(1)}$	Change
3	Bergen Avenue Between 152nd street and Westchester Avenue	AM	64.5	67.6	64.6	67.7	0.1
		MD	66.0	68.8	66.1	68.9	0.1
		PM	64.4	68.2	64.5	68.3	0.1
4	Westchester Avenue Between Bergen and Brook Avenues	AM	65.0	68.6	65.1	68.7	0.1
		MD	65.1	69.4	65.3	69.6	0.2
		PM	65.9	70.2	66.0	70.3	0.1
5	Bergen Avenue between Westchester Avenue and 149th street	AM	69.4	73.8	69.5	73.9	0.1
		MD	68.1	72.2	68.3	72.4	0.2
		PM	70.5	73.6	70.6	73.7	0.1
7	Brook Avenue Between 152nd Street and 153rd Street	AM	63.2	67.0	63.3	67.1	0.1
		MD	63.4	66.9	63.5	67.1	0.1
		PM	63.7	67.2	63.8	67.3	0.1

The increase in $L_{eq(1)}$ noise levels without the Proposed Project would be less than 1 dBA at all four receptor sites. Changes of these magnitudes would be considered imperceptible, and they would be below

the CEQR threshold for a significant adverse impact. In terms of the CEQR criteria, the predicted noise levels would remain in the "marginally acceptable" category at receptor Site 3, the predicted noise levels would remain in the "marginally unacceptable" category at receptor sites 4 and 5, the predicted noise levels would remain above the 55 dBA $L_{10(1)}$ noise level guideline for outdoor areas requiring serenity and quiet provided in the *CEQR Technical Manual* noise exposure guidelines at receptor Site 7.

VII. FUTURE WITH THE PROPOSED ACTIONS

CEQR Impact Criteria

Using the methodology previously described, future 2020 noise levels with the Proposed Project were calculated at the four analyzed receptor locations. These With-Action values are shown in Table K-11.

Table K-11
With-Action Noise Levels (in dBA)

Receptor	Location	Time	No-Action Noise Levels		With-Action Noise Levels		
			$L_{eq(1)}$	$L_{10(1)}$	$L_{eq(1)}$	$L_{10(1)}$	Change
3	Bergen Avenue between 152nd street and Westchester Avenue	AM	64.6	67.7	66.8	69.9	2.2
		MD	66.1	68.9	66.9	69.7	0.8
		PM	64.5	68.3	65.6	69.4	1.1
4	Westchester Avenue between Bergen and Brook Avenues	AM	65.1	68.7	65.3	68.9	0.2
		MD	65.3	69.6	65.7	70.0	0.4
		PM	66.0	70.3	66.2	70.5	0.2
5	Bergen Avenue between Westchester Avenue and 149th street	AM	69.5	73.9	69.8	74.2	0.3
		MD	68.3	72.4	69.0	73.1	0.7
		PM	70.6	73.7	70.9	74.0	0.3
7	Brook Avenue between 152nd Street and 153rd Street	AM	63.3	67.1	64.2	68.0	0.9
		MD	63.5	67.1	64.0	67.6	0.5
		PM	63.8	67.3	64.3	67.8	0.5

The increase in $L_{eq(1)}$ noise levels with the Proposed Project would be less than 3 dBA at all four analysis receptor sites (i.e., sites 3, 4, 5, and 7). Changes of these magnitudes would be considered imperceptible or barely perceptible, and they would be below the CEQR threshold for a significant adverse impact. In terms of the CEQR criteria, the predicted noise levels would remain in the "marginally acceptable" category at receptor Site 3, the "marginally unacceptable" category at receptor sites 4 and 5, above the 55 dBA $L_{10(1)}$ noise level guideline for outdoor areas requiring serenity and quiet provided in the *CEQR Technical Manual* noise exposure guidelines at receptor Site 7.

Noise levels at receptor Site 7 are currently above the 55 dBA $L_{10(1)}$ recommended in the *CEQR Technical Manual* noise level for outdoor areas. In the future with the Proposed Project, noise levels at this location would be expected to continue to be above the 55 dBA $L_{10(1)}$ recommendation. No practical and feasible mitigation measures have been identified that could be implemented to reduce noise levels to below the 55 dBA $L_{10(1)}$ guideline. However, the noise levels in this location are already fairly high and are comparable to noise levels in portions of other public open spaces in this area that are also located adjacent to heavily trafficked roadways, including St. Ann's Block Association Garden, Eagle Slope, St. Mary's Park, and Flynn Playground. Although the 55 dBA $L_{10(1)}$ guideline is a goal for outdoor areas requiring serenity and quiet, this relatively low noise level is typically not achieved in parks and open space areas in New York City. Consequently, noise levels in this open space location, while exceeding the 55 dBA $L_{10(1)}$ CEQR guideline value, would not result in a significant adverse noise impact. Consequently, the proposed action would not result in a significant impact based on the CEQR impact criteria.

New York City Zoning Resolution

Noise from the turbines located in an enclosed structure on the roof of the proposed Building B was examined at the lot line. The nearest point along the lot line to the turbines (which, due to its proximity to the turbines, would be expected to experience the highest levels of turbine noise) was selected as the worst case to represent noise levels at the lot line. Using the methodology previously described, future noise levels with the proposed turbines were calculated at this point to determine compliance with the Performance Standards for Manufacturing Districts contained in the New York City Zoning Resolution.

Table K-12 shows maximum octave band sound pressure levels at the lot line with the use of an acoustical enclosure on the turbines. The acoustical enclosure is assumed to provide at least 10 dB insertion loss in each octave band. With the proposed turbines and acoustical enclosure, the maximum sound pressure levels would not exceed the maximum permitted decibel limits under the performance standards contained in the New York City Zoning Resolution. As a result, with an acoustical enclosure as described above, the Proposed Actions would not result in a significant impact.

Table K-12
Maximum Project Sound Pressure Levels at Closest Property Line (in dB)

Octave Band (Hz)	Performance Standard Limits for M1 District (in dB)	Project Noise Level (in dB)	Exceed Performance Standard?
63	78	43	No
125	72	41	No
250	64	36	No
500	58	52	No
1000	52	35	No
2000	46	31	No
4000	41	27	No
8000	39	24	No

Source: City of New York Performance Standards for Manufacturing Districts Section 42-213

New York City Noise Code

Using the methodology previously described, future noise levels with the proposed turbines (i.e., the Proposed Actions) were calculated at the closest commercial building to the project site to determine compliance with the New York City Noise Control Code.

Table K-13 shows maximum octave band sound pressure levels at the southern interior of the commercial building with windows open. With the operation of the turbines, the maximum sound pressure levels would be well below the maximum permitted decibel limits under the New York City Noise Control Code. Consequently, the Proposed Actions would not result in a significant impact based on the New York City Noise Control.

Table K-13
Maximum Project Sound pressure Levels Inside Commercial Building (in dB)

Octave Band (Hz)	Maximum Noise Level for Commercial Buildings	Project Noise Level dB	Exceed Performance Standard?
31.5	74	N/A*	N/A*
63	64	27	No
125	56	25	No
250	50	20	No
500	45	36	No
1000	41	19	No
2000	39	15	No
4000	38	11	No
8000	37	8	No

Source: Section 24-232 of the Administrative Code of the City of New York, as amended December 2005.
* Not Available

VIII. NOISE ATTENUATION MEASURES

As shown in Table K-6, the *CEQR Technical Manual* has set noise attenuation values for buildings based on exterior $L_{10(1)}$ noise levels in order to maintain interior noise levels of 45 dBA or lower for residential uses and 50 dBA or lower for commercial uses. HUD guidelines recommend that buildings should provide sufficient window/wall attenuation to result in L_{dn} values of 45 dBA or less for residential uses.

The highest hourly L_{10} values at the adjacent receptor sites were used to set CEQR attenuation requirements for the buildings facades. The HUD attenuation requirements were determined based on the measured L_{dn} values at sites 6 and 7, and the calculated L_{dn} values at sites 1 through 5. The results of the CEQR and HUD attenuation analysis are summarized in Table K-14 and illustrated in Figure K-2 and K-3 respectively.

As shown in Table K-14, the attenuation requirements decrease at the higher elevations of the proposed buildings. The L_{10} noise levels at elevated locations along the Proposed Project's facades have been determined by adjusting measured at-grade L_{10} noise levels with increased distance from the adjacent roadway or the subway, which is the dominant noise source at each of the measurement locations. Noise levels are assumed to be 3 dBA lower at locations above the 10^{th} and 20th floors than those at grade, and noise levels at heights beyond that are assumed to decrease an additional 3 dBA per doubling of distance from the roadway and the subway.

Table K-14
Window/Wall Attenuation Requirements

Proposed Building	Façade Location	Associated Receptor Site	Building Floor (story)	Projected Land Use	Maximum L_{10} (in dBA)[1]	CEQR Attenuation Required (in dBA)[2]	Maximum L_{dn} (in dBA)[3]	HUD Attenuation Required (in dBA)[4]
Building A	Westchester Avenue	4	1	Retail	70.5	23	69.2	N/A
			2-10	Residential	70.5	28	69.2	25
			11-top	Residential	67.5	N/A[6]	66.2	N/A[7]
	Bergen Avenue	5	1	Community Facility	74.3	31	73.7	N/A
			1	Retail	74.3	26	73.7	N/A
			2-10	Residential	74.3	31	73.7	29
			11-top	Residential	71.3	28	70.7	26
	Interior of Block (rear facing and southern party wall)	6	1	Community Facility	80.1	37	76.1	N/A
			1	Retail	80.1	32	76.1	N/A
			2-10	Residential	80.1	37	76.1	32
			11-top	Residential	77.1	33	73.1	29
Building B	Westchester Avenue (western portion shielded from rail tracks by Building A)	4	1	Retail	70.5	23	69.2	N/A
			2-10	Residential	70.5	28	69.2	25
			11-top	Residential	67.5	N/A[6]	66.2	N/A[7]
	Westchester & Brook Avenues (eastern portion with line of sight to rail tracks)	6	1-2	Retail	80.1	32	76.1	N/A
			2-10	Residential	80.1	37	76.1	32
			11-top	Residential	77.1	33	73.1	29
	Bergen Avenue	3	1	Retail	69.9	N/A[6]	68.4	N/A
			1	Residential Office	69.9	N/A[6]	68.4	N/A
			2-10	Residential	69.9	N/A[6]	68.4	N/A[7]
			11-top	Residential	66.9	N/A[6]	65.4	N/A[7]
	Other Façades	2	1-2	Retail	68.2	N/A[6]	65.8	N/A[7]
			1-10	Residential	68.2	N/A[6]	65.8	N/A[7]
			11-top	Residential	65.2	N/A[6]	62.8	N/A[7]
Building C	Brook Avenue	7	1	Community Facility	71.9	28	65.9	N/A
			1-10	Residential	71.9	28	65.9	N/A[7]
			11-top	Residential	68.9	N/A[6]	62.9	N/A[7]
	Other Façades (courtyard facing, north, south facing)	2	1	Community Facility	68.2	N/A[6]	65.8	N/A
			1-10	Residential	68.2	N/A[6]	65.8	N/A[7]
			11-top	Residential	65.2	N/A[6]	62.8	N/A[7]
Building D	Bergen Avenue	3	1	Community Facility	69.9	N/A[6]	68.4	N/A
			1-10	Residential	69.9	N/A[6]	68.4	N/A[7]
			11-top	Residential	66.9	N/A[6]	65.4	N/A[7]
	Other Façades (courtyard facing, north, south facing)	2	1	Community Facility	68.2	N/A[6]	65.8	N/A
			1-10	Residential	68.2	N/A[6]	65.8	N/A[7]
			11-top	Residential	65.2	N/A[6]	62.8	N/A[7]
Building E	Bergen Avenue	3	1	Community Facility	69.9	N/A[6]	68.4	N/A
			1	Retail	69.9	N/A[6]	68.4	N/A
			1-10	Residential	69.9	N/A[6]	68.4	N/A[7]
			11-20	Residential	66.9	N/A[6]	65.4	N/A[7]
			21-top	Residential	63.9	N/A[6]	62.4	N/A[7]

	Brook Avenue	7	1	Community Facility	71.9	28	65.9	N/A
			1	Retail	71.9	23	65.9	N/A
			1-10	Residential	71.9	28	65.9	N/A[7]
			11-20	Residential	68.9	N/A[6]	62.9	N/A[7]
			21-top	Residential	65.8	N/A[6]	59.9	N/A[7]
	East 153rd Street	1	1	Community Facility	65.1	N/A[6]	64.2	N/A
			1	Retail	65.1	N/A[6]	64.2	N/A
			2-10	Residential	65.1	N/A[6]	64.2	N/A[7]
			11-20	Residential	62.1	N/A[6]	61.2	N/A[7]
			21-top	Residential	59.1	N/A[6]	58.2	N/A[7]
	Other Façades	2	1	Community Facility	68.2	N/A[6]	65.8	N/A
			1-10	Residential	68.2	N/A[6]	65.8	N/A[7]
			11-20	Residential	65.2	N/A[6]	62.8	N/A[7]
			21-top	Residential	62.2	N/A[6]	59.8	N/A[7]

Notes:

(1) At receptor sites 1, 3, 4 and 5 L_{10} levels were calculated values, and at receptor sites 2, 6 and 7 L_{10} levels were measured values.

(2) The composite window-wall attenuation values are for residential dwellings, community facility development, and commercial uses. Attenuation requirements do not apply to lobby, pool, gymnasium, mechanical, or storage spaces.

(3) At receptor sites 1 through 5, L_{dn} levels were calculated values, and at receptor sites 6 and 7 L_{dn} levels were measured values.

(4) The HUD attenuations apply to residential uses only.

(5) This is the maximum window/wall attenuation required to satisfy both CEQR and HUD requirements, where applicable.

(6) "N/A" indicates that the L_{10} value is less than 70 dB(A). The *CEQR Technical Manual* guidelines do not address noise levels this low, therefore there is no minimum attenuation guidance.

(7) "N/A" indicates that the L_{dn} value is less than 70 dB(A), requiring no more than 25 dB(A) window/wall attenuation, which is expected to be provided by standard façade construction techniques, therefore there is no minimum attenuation guidance.

To satisfy CEQR interior noise level requirements at Building A, ground floor retail uses must provide 23 dBA window/wall attenuation along Westchester Avenue, 26 dBA window/wall attenuation along Bergen Avenue, and 32 dBA window/wall attenuation along other facades as well as an alternate means of ventilation. Ground floor Community Facility (i.e., the YMCA facility) uses must provide 31 dBA window/wall attenuation along Bergen Avenue and 37 dBA window/wall attenuation along non-street facades as well as an alternate means of ventilation. Residential dwelling units on floors two through 10 must provide 28 dBA window/wall attenuation along Westchester Avenue, 31 dBA attenuation along Bergen Avenue, and 37 dBA window/wall attenuation on non-street façades, as well as an alternate means of ventilation. Residential dwelling units on floors above the tenth must provide 28 dBA window/wall attenuation along Bergen Avenue and 33 dBA window/wall attenuation along non-street façades.

To satisfy HUD interior noise level requirements at Building A, residential dwelling units on floors two through 10 must provide 25 dBA window/wall attenuation along Westchester Avenue, 29 dBA window/wall attenuation along Bergen Avenue, and 32 window/wall attenuation along non-street façades. Residential dwelling units on floors above the tenth must provide 26 dBA window/wall attenuation along Bergen Avenue and 29 dBA window/wall attenuation along non-street façades.

To satisfy CEQR interior noise level requirements at Building B, ground and second floor retail uses must provide 23 dBA window/wall attenuation along the western portion Westchester Avenue shielded from rail tracks by Building A and 32 dBA window/wall attenuation along the eastern portion Westchester Avenue not shielded from rail tracks by Building A as well as an alternate means of ventilation. Residential dwelling units on floors one through 10 must provide 28 dBA window/wall attenuation along the western portion Westchester Avenue shielded from rail tracks by Building A and 37 dBA attenuation along the eastern portion Westchester Avenue not shielded from rail tracks by Building A well as an alternate means of ventilation. Residential dwelling units on floors above the tenth must provide 33 dBA

window/wall attenuation along along the eastern portion Westchester Avenue not shielded from rail tracks by Building A as well as an alternate means of ventilation.

To satisfy HUD interior noise level requirements at Building B, residential dwelling units on floors one through 10 must provide 25 dBA window/wall attenuation along the western portion Westchester Avenue shielded from rail tracks by Building A and 32 dBA attenuation along the eastern portion Westchester Avenue not shielded from rail tracks by Building A. Residential dwelling units on floors above the tenth must provide 29 dBA window/wall attenuation along along the eastern portion Westchester Avenue not shielded from rail tracks by Building A.

To satisfy CEQR interior noise level requirements at Building C, Community Facility uses and residential dwelling units on floors one through ten must provide 28 dBA window/wall attenuation along Brook Avenue as well as an alternate means of ventilation.

To satisfy CEQR interior noise level requirements at Building E, ground floor retail uses must provide 23 dBA window/wall attenuation along Brook Avenue as well as an alternate means of ventilation. Community Facility uses and residential dwelling units on floors one through ten must provide 28 dBA window/wall attenuation along Brook Avenue as well as an alternate means of ventilation.

The attenuation of a composite structure is a function of the attenuation provided by each of its component parts and how much of the area is made up of each part. Normally, a building façade consists of wall, glazing, and any vents or louvers associated with the building mechanical systems in various ratios of area. The design for the buildings included in the Proposed Actions will be required to include acoustically rated windows and an alternate means of ventilation. Alternate means of ventilation can be accomplished by central ducted ventilation, trickle vents or some other method, subject to NYC Building Code regulations. The proposed buildings' façades, including these elements, would be designed to provide a composite attenuation value greater than or equal to the required attenuation values listed in above in Table K-14 and illustrated in Figures K-2 and K-3, along with an alternative means of ventilation in all habitable rooms of residential units. These attenuation and alternate means of ventilation requirements would be required through the LDA between HPD and the project sponsor.

Based upon the $L_{10(1)}$ values measured at the project site, the Proposed Project's design measures would be expected to provide sufficient attenuation to achieve both the CEQR and the HUD interior noise level requirements.

In addition, the building mechanical system (i.e., heating and ventilation systems) would be designed to meet all applicable noise regulations (i.e., Subchapter 5, §24-227 of the New York City Noise Control Code and the New York City Department of Buildings Code) and to avoid producing levels that would result in any significant increase in ambient noise levels.

IX. CONCLUSION

Operation of the Proposed Project would not result in significant increases in noise levels at any locations in or near the study area that would exceed the impact criteria set forth in the *CEQR Technical Manual,* the HUD standards, the noise limits contained in the New York City Zoning Resolution, and the noise limits contained in the New York City Noise Control Code. Therefore, the Proposed Project would not result in any significant adverse noise impacts.

For Illustrative Purposes Only

Legend

Facade

24/21/NA CEQR Window/Wall Attenuation Requirements for Floors 1-2/2-10/11-20/21-top*
*All window/wall attenuation on floors 1-2 is assumed to be for retail. For community facility uses, add 5 dBA.

La Central EAS

Figure K-2

CEQR Window/Wall Attenuation Requirements (Keyed to Table K-14)

For Illustrative Purposes Only

Legend

- Facade
- NA/32/39 HUD Window/Wall Attenuation Requirements for Floors 1-2/2-10/11-20/21-top

La Central EAS

Figure K-3

HUD Window/Wall Attenuation Requirements (Keyed to Table K-14)

ATTACHMENT L
CONSTRUCTION

La Central EAS
Attachment L: Construction

I. INTRODUCTION

This attachment assesses the potential impacts of the construction of the proposed development on the Melrose neighborhood of the South Bronx. Construction impacts, although temporary, can include noticeable and disruptive effects from a project that is associated with construction or could induce construction. Determination of the significance of construction impacts and the need for mitigation is generally based on the duration and magnitude of the impacts. Construction impacts are usually important when construction activity could affect traffic conditions, archaeological resources, the integrity of historic resources, community noise patterns, or air quality concerns.

As described in Attachment A, "Project Description," the Proposed Actions would facilitate an approximately 1.1 million square foot (sf), five building mixed-use development consisting of approximately 832 affordable dwelling units (909,300 sf), approximately 160 supportive housing units (77,500 sf), approximately 46,800 sf of local retail and commercial uses, an approximately 50,500 sf YMCA, and approximately 32,700 sf of other community facility within the Project Area.[1] Additionally, up to approximately 262 below-grade parking spaces and approximately 1.26 acres (55,151 sf) of public open space would be provided on site. Construction of the proposed development is expected to be complete and fully operational by early 2020.

According to the 2014 *CEQR Technical Manual*, construction duration is broken into short-term (less than two years) and long-term (two or more years). Where the duration of construction is expected to be short-term, any resulting impacts generally do not require detailed assessment. As described below, it is estimated that the five buildings in the proposed development would each take approximately 23 to 27 months to complete. For conservative analysis purposes, it is assumed that construction of the five buildings would overlap for a total construction duration of approximately 45 months. Therefore, as construction activity associated with the Proposed Actions would occur on adjacent sites within the same geographic area, such that there is the potential for both construction timelines to overlap, a preliminary assessment of potential construction impacts was prepared in accordance with the guidelines of the *CEQR Technical Manual* and is presented in this attachment.

II. REGULATORY FRAMEWORK

Governmental Coordination and Oversight

The governmental oversight of construction in New York City is extensive and involves a number of City, state, and federal agencies. Table L-1 shows the main agencies involved in construction oversight and each agency's areas of responsibility. The primary responsibilities lie with New York City agencies. The New York City Department of Buildings (DOB) has the primary responsibility for ensuring that construction meets the requirements of the Building Code, and that buildings are structurally, electrically, and mechanically safe. In addition, DOB enforces safety regulations to protect both construction workers and the public. The areas of responsibility include the installation and operation of construction equipment, such as cranes and lifts, sidewalk sheds, safety netting, and scaffolding. The New York City Department of

[1] The floor areas used for construction worker and trip-generation estimates in this attachment are consistent with those used in the Transportation Planning Factors and Travel Demand Forecast Memorandum in Appendix 4. For conservative analysis purposes, floor areas for the proposed development have been rounded upwards.

Environmental Protection (DEP) enforces the Noise Code, approves remedial action plans (RAPs) and Construction Health and Safety Plans (CHASPs), and regulates water disposal into the sewer system. The New York City Fire Department (FDNY) has primary oversight for compliance with the Fire Code and for the installation of tanks containing flammable materials. The New York City Department of Transportation (DOT) reviews and approves any traffic land and sidewalk closures. New York City Transit (NYCT) is in charge of bus stop relocations and any subsurface construction within 200 feet of a subway. The Landmarks Preservation Commission (LPC) approves studies and testing to prevent loss of archaeological materials and to prevent damage to fragile historic structures.

Table L-1
Construction Oversight in New York City

Agency	Area(s) of Responsibility
New York City	
Department of Buildings (DOB)	Primary oversight for the Building Code and site safety
Department of Environmental Protection (DEP)	Noise, hazardous materials, dewatering
Fire Department (FDNY)	Compliance with the Fire Code, tank operation
Department of Transportation (DOT)	Traffic lane and sidewalk closures
New York City Transit (NYCT)	Bus stop relocation; any subsurface construction within 200 feet of a subway
Landmarks Preservation Commission (LPC)	Archaeological and historic architectural protection
New York State	
Department of Labor (DOL)	Asbestos workers
Department of Environmental Conservation (DEC)	Dewatering, hazardous materials, tanks, Stormwater Pollution Prevention Plan, Industrial State Pollution Discharge Elimination System (SPDES), if any discharge into the Hudson River
United States	
Environmental Protection Agency (EPA)	Air emissions, noise, hazardous materials, toxic substances
Occupational Safety and Health Administration (OSHA)	Worker safety

The New York State Department of Environmental Conservation (DEC) regulates discharge of water into rivers and streams, disposal of hazardous materials, and construction, operation, and removal of bulk petroleum and chemical storage tanks. The New York State Department of Labor (DOL) licenses asbestos workers. On the federal level, the United States Environmental Protection Agency (EPA) has wide ranging authority over environmental matters, including air emissions, noise, hazardous materials, and the use of poisons. Much of the responsibility is delegated to the state level. The United States Occupational Safety and Health Administration (OSHA) sets standards for work site safety and construction equipment.

Hours of Work

Construction activities for buildings in the City generally take place Monday through Friday, with exceptions that are discussed separately below. In accordance with city laws and regulations, construction work would generally begin at 7AM on weekdays, with workers arriving to prepare work areas between 6AM and 7AM. Normally, work would end at 3:30PM, but at times the workday could be extended to complete some specific tasks beyond normal work hours, such as completing the drilling of piles, finishing a concrete pour for a floor deck, or completing the bolting of a steel frame erected that day. The extended workday would generally last until about 6PM and would not include all construction workers on-site, but just those involved in the specific task requiring additional work time.

Occasionally, Saturday or overtime hours may be required to complete some time-sensitive tasks. Weekend work requires a permit from the DOB and, in certain instances, approval of a noise mitigation plan from the DEP under the City's Noise Code. The New York City Noise Control Code, as amended December 2005 and effective July 1, 2007 limits construction (absent special circumstances as described below) to weekdays between the hours of 7AM and 6PM, and sets noise limits for certain specific pieces of

construction equipment. Construction activities occurring after hours (weekdays between 6PM and 7AM and on weekends) may be permitted only to accommodate: (i) emergency conditions; (ii) public safety; (iii) construction projects by or on behalf of City agencies; (iv) construction activities with minimal noise impacts; and (v) undue hardship resulting from unique site characteristics, unforeseen conditions, scheduling conflicts and/or financial considerations. In such cases, the numbers of workers and pieces of equipment in operation would be limited to those needed to complete the particular authorized task. Therefore, the level of activity for any weekend work would be less than a normal workday. The typical weekend workday would be on Saturday from 7AM with worker arrival and site preparation to 5PM for site cleanup.

III. CONCEPTUAL CONSTRUCTION SCHEDULE AND ACTIVITIES

Construction Sequencing

Based on current plans, construction facilitated by the Proposed Actions would begin in the second half of 2016, and be completed by early 2020, with construction of each building anticipated to last approximately 23 to 27 months. As previously noted, for conservative analysis purposes it is assumed that construction of two or more of the five buildings would overlap for approximately 35 months, with all five buildings' construction schedules overlapping for a total of nine months (refer to Table L-2).

Typical Construction Activities

Following is a general outline of typical construction stages expected to take place within the Project Area, as illustrated in Table L-2.

- Stage 1 (six to ten months): Site clearance, excavation, and foundation. The first step in this construction phase would be abatement of asbestos and any other hazardous materials within the existing two-story building at 438 Westchester Avenue. Next, the existing utilities would be disconnected, after which the building would be demolished. The general demolition phase is expected to last two months. Typical equipment used for these activities would include excavators, backhoes, tractors, pile-drivers, hammers, and cranes. Trucks would arrive at the site to remove any material and construction debris. As discussed in the assessment of potential hazardous materials impacts resulting from construction of the proposed development, if remediation is warranted for one or more parcels/phases, all necessary abatement activities would be conducted in accordance with an HPD and DEP-approved Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP). The remainder of the Project Area would be cleared in preparation for excavation.

  At this point, below grade excavation and construction would begin. Project construction activities are expected to be typical for similar medium-density construction projects in New York City, including digging; excavation for the foundation; dewatering (to the extent required), and reinforcing and pouring of the foundation. Typical equipment used for these activities would include excavators, backhoes, tractors, hammers, and cranes. Trucks would arrive at the site with pre-mixed concrete and other building materials, and would remove any excavated material and construction debris.

- Stage 2 (five to six months): Erection of the superstructure. Once the foundations have been completed, the construction of the building's steel, block, and plank framework would take place. This process involves the installation of CMU blocks, beams, columns and decking or concrete plank, and would require the use of cranes, derricks, hoists, and welding equipment, as warranted.

Table L-2
Conceptual Construction Schedule

Development Sites	2016												2017												2018											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Building A (27 months)							62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62			
							16	*16*	*16*	*16*	*16*	*16*	*16*	*16*	*16*	*16*	*16*	*16*	*16*	*16*	*10*	*10*	*10*	*10*	*10*	*10*	*10*	*10*	*10*	*10*	*10*	*10*			
Building B (27 months)													70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
													18	*18*	*18*	*18*	*18*	*18*	*18*	*18*	*18*	*18*	*18*	*18*	*18*	*18*	*12*	*12*	*12*	*12*	*12*	*12*	*12*	*12*	*12*
Building C (23 months)																									39	39	39	39	39	39	39	39	39	39	39
																									9	*9*	*9*	*9*	*9*	*9*	*9*	*9*	*9*	*9*	*6*
Building D (23 months)													22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22		
													5	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*		
Building E (27 months)																									47	47	47	47	47	47	47	47	47	47	47
																									12	*12*	*12*	*12*	*12*	*12*	*12*	*12*	*12*	*12*	*12*
TOTAL CONSTRUCTION WORKERS PER DAY	0	0	0	0	0	0	62	62	62	62	62	62	154	154	154	154	154	154	154	154	154	154	154	154	240	240	240	240	240	240	240	240	240	178	178	156
	0			0			62			62			154			154			154			154			240			240			240			171		
TOTAL CONSTRUCTION TRUCKS PER DAY	*0*	*0*	*0*	*0*	*0*	*0*	*16*	*16*	*16*	*16*	*16*	*16*	*39*	*39*	*39*	*39*	*39*	*39*	*39*	*39*	*33*	*33*	*33*	*33*	*54*	*54*	*48*	*48*	*48*	*48*	*48*	*48*	*48*	*38*	*38*	*30*
	0			*0*			*16*			*16*			*39*			*39*			*37*			*33*			*52*			*48*			*48*			*35*		

Development Sites	2019												2020											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Building A (27 months)																								
Building B (27 months)	70	70	70																					
	12	*12*	*12*																					
Building C (23 months)	39	39	39	39	39	39	39	39	39	39	39													
	6	*6*	*6*	*6*	*6*	*6*	*6*	*6*	*6*	*6*	*6*													
Building D (23 months)																								
Building E (27 months)	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47									
	12	*12*	*8*	*8*	*8*	*8*	*8*	*8*	*8*	*8*	*8*	*8*	*8*	*8*	*8*									
TOTAL CONSTRUCTION WORKERS PER DAY	156	156	156	86	86	86	86	86	86	86	86	47	47	47	47	0	0	0	0	0	0	0	0	0
	156			86			86			73			47			0			0			0		
TOTAL CONSTRUCTION TRUCKS PER DAY	*30*	*30*	*26*	*14*	*14*	*14*	*14*	*14*	*14*	*14*	*14*	*8*	*8*	*8*	*8*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	29			*14*			*14*			*12*			*8*			*0*			*0*			*0*		

5 Demolition/Excavation/Foundation (# indicates est. # of daily construction workers)
5 Building Superstructure (# indicates estimated # of daily construction workers)
5 Exterior/Interior Fit-Out (# indicates estimated # of daily construction workers)
5 Estimated Number of Construction Trucks per day

DAILY PEAK	DAILY AVERAGE
240	130
52	*28*

- Stage 3 (12 to 13 months): Façade and roof construction, mechanical installation, interior and finishing work. This would include the assembly of exterior walls and cladding; installation of heating, ventilation and air conditioning (HVAC) equipment and ductwork; installation and checking of elevator, utility, and life safety systems; and work on interior walls and finishes. During these activities, hoists and cranes would continue to be used as warranted, and trucks would remain in use for material supply and construction waste removal. It should be noted that much of this work occurs when the building is fully enclosed, and therefore is not disruptive to the surrounding neighborhood.

During the course of construction, traffic lanes and sidewalks adjacent to the Project Area may have to be intermittently or temporarily closed or protected for varying periods of time to allow for certain construction activities. Any sidewalk or street closures would require the approval of DOT's Office of Construction Management and Coordination (DOT-OCMC), the entity that ensures critical arteries are not interrupted, especially in peak travel period. Construction activities would be subject to compliance with the New York City Noise Code and by EPA noise emission standards for construction equipment. In addition, there would be requirements for street crossing and entrance barriers, protective scaffolding, and strict compliance with all construction safety measures outlined in the DEP-approved CHASP.

Estimate of Construction Workers

Based on the square footage of each of the proposed buildings and the estimated construction costs, the person-years[2] of construction employment were estimated for each building. This calculated number was then divided by the anticipated construction period of 23 to 27 months for each of the buildings, to estimate the average number of construction workers on site at any time per quarter. The resultant combined estimate of the number of workers per quarter for the proposed buildings within the Project Area is summarized in Table L-2. As shown in the table, the peak number of daily construction workers is approximately 240, with a daily average of approximately 130 construction workers on site throughout the approximate 45 month combined construction period.

Estimate of Construction Period Trucks

Based on prior environmental assessment documents for new construction projects that contain a similar mix of uses, an estimate of the number of daily construction trucks generated per 100,000 sf of development was used for each of the three general construction stages described above (demolition, site clearance, excavation, and foundation; superstructure and foundation; and façade and roof construction, mechanical installation, and interior and finishing work). For buildings between 75,000 and 150,000 sf, it was estimated that approximately five trucks would be generated per day per 100,000 sf of development during all three stages of construction. For buildings above 150,000 sf, it was estimated that approximately 14 trucks would be generated per day per 100,000 sf of development during the first two stages of construction, and nine daily trucks per 100,000 sf would be generated in the third stage. These ratios were then applied to each proposed building and the resultant estimate of the number of daily trucks per month for each building (adjusted based on each building's total square footage) is summarized in Table L-2. As shown in the table, the peak daily number of construction trucks is estimated at approximately 52, and the daily average number of construction trucks would be approximately 28.

Determining Peak Year for Cumulative Construction and Operational Effects

According to the *CEQR Technical Manual*, if an action involves multiple development sites over varying construction timelines, a preliminary assessment must take into account whether the operational trips from

[2] A person-year is the equivalent of one person working full time for one year. This number is estimated from a Regional Input-Output Modeling System (RIMS II) analysis based on the construction cost estimate for each of the proposed buildings.

completed portions of the project and construction trips associated with construction activities could overlap. For the purposes of establishing a reasonable worst-case for the construction assessment, based on the conceptual construction schedule presented above, the first quarter (Q1) of 2018 was selected as the construction peak period for assessment in this attachment. As shown in Table L-2, all of the five proposed buildings would be under construction during this period.

While the late 2018 to early 2020 period would generate both construction and operational traffic, as the construction trip component would make up a small portion of the total trips during these final phases of construction (refer to Table L-2), the conditions would be more reflective of the final build-out, which is analyzed in the Transportation Planning Factors and Travel Demand Forecast Memorandum in Appendix 4. Additionally, any construction travel demand that would overlap with operational demand from completed developments from 2018 to 2020 would be significantly smaller than the peak period of 2018 Q1. Therefore, it is more appropriate to consider the 2018 Q1 peak construction scenario as the representative worst-case condition for assessing potential construction traffic impacts.

IV. PRELIMINARY ASSESSMENT

In accordance with the *CEQR Technical Manual*¸ development facilitated by the Proposed Actions was reviewed to determine whether further analysis of the proposed construction activities is needed for any technical area, as follows.

Transportation

According to the *CEQR Technical Manual*¸ a number of factors should be considered before determining whether a preliminary assessment of the effect of construction on transportation is needed, including:

- Whether the project's construction would be located in a Central Business District (CBD) or along an arterial or major thoroughfare;
- Whether the project's construction activities would require closing, narrowing, or otherwise impeding moving lanes, roadways, key pedestrian facilities, parking lanes, and/or parking spaces, bicycle routes and facilities, bus lanes or routes, or access points to transit; and
- Whether the project would involve construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap and last for more than two years overall.

As the proposed development would be located in a CBD, would require temporary closing of sidewalks and potentially street lanes around the Project Area, and would involve construction of several buildings in the same geographic area with overlapping construction timelines, an analysis of construction activities on transportation is necessary and has been provided below.

The Proposed Actions would facilitate residential, commercial, and community facility development in newly constructed buildings within the Project Area by 2020. These buildings would replace existing vacant and underutilized lots, which would remain vacant and underutilized in the future No-Action condition. During construction, the buildings would generate trips by workers traveling to and from the site as well as trips associated with the movement of materials and equipment. Given typical construction hours, worker trips would be concentrated in off-peak hours and would not represent a substantial increment during the area's peak travel periods.

Construction Traffic

As discussed above, average daily construction worker and truck activities were forecasted for the proposed buildings (refer to Table L-2). For a conservative reasonable worst-case analysis of potential construction traffic impacts, the peak levels of construction in each calendar quarter were used as the basis for estimating peak hour construction traffic volumes. The proposed construction schedule assumes peak construction activities would occur during the first quarter of 2018. As shown in Table L-2, during the peak construction period, the daily averages of construction workers and truck traffic were estimated at approximately 240 workers and approximately 52 trucks per day. These represent peak days of work, and many days during the construction period would have significantly fewer construction workers and trucks on-site.

Peak Construction Worker Travel Demand and Truck Trips in 2018

It is anticipated that construction workers would use both public transportation and private automobile to reach the Project Area. Approximately 50 percent of construction workers are expected to travel by private auto with approximately 49 percent traveling by public transportation and approximately 1 percent walking.[3] An average occupancy of approximately 1.39 persons per auto has been assumed.[4] It is also estimated that 80 percent of all workers would arrive and depart in the 60-minute period before and after each shift.

The construction schedule assumes that all site activities would take place during the typical construction shift of 7AM to 3:30PM. Construction truck trips would occur throughout the day (with higher numbers of trips during the early morning) and trucks would remain in the area for relatively short durations. Construction worker travel would typically take place during the hours before and after the work shift.

Table L-3 shows construction worker auto and construction truck trips during the 2018 Q1 peak construction period for the Project Area. The estimated daily vehicle trips were distributed to various hours of the day based on typical work shift allocations and conventional arrival/departure patterns of construction workers and trucks. For construction workers, as noted above, the substantial majority (80 percent) of the arrival and departure trips are expected to take place during the hour before and after each shift. For construction trucks, deliveries would occur throughout the time period while the construction site is active. However, to avoid traffic congestion and ensure that materials are on-site for the start of each shift, construction truck deliveries would often peak during the hour before the regular day shift (25 percent of shift total), overlapping with construction worker arrival traffic. Based on these assumptions, the peak hour construction traffic was estimated for the entire construction period. The total vehicle trips per hour are shown in Table L-3 along with passenger-car equivalent (PCE) values, which are based on one PCE per auto and two PCEs per truck. Each truck delivery therefore accounts for two truck trip-ends and four PCE trip-ends (in and out combined) during the same hour.

As shown in Table L-3, in 2018 Q1, approximately 13 trucks are expected to arrive and depart the construction sites (26 total truck trips) and 69 autos are expected to arrive at the construction sites during the 6AM to 7AM peak arrival hour for construction-related activity, while 5 trucks (10 total truck trips) and no autos are expected during the 8AM to 9AM peak commuter travel hour for the Project Area. In the afternoon, there would be no truck trips and approximately 69 auto trips (by departing construction workers) during the 3PM to 4PM peak departure hour for construction-related activity, while no construction-related auto or truck trips would occur during the 5PM to 6PM peak travel hour during the typical day. The maximum number of PCEs (estimated at 121) would occur in the 6AM to 7AM period, while PCE values during the peak 8AM to 9AM and 5PM to 6PM travel periods would be 20 and 0, respectively. There would be no incremental operational traffic in the peak 2018 Q1 construction period as none of the proposed

[3] *Triangle Plaza Hub EAS* (2012).
[4] *Melrose Commons North EAS* (2014).

buildings are expected to be completed by that time. Consequently, these incremental construction vehicle trips, which would be disbursed among various roadways and parking facilities, would not reach the *CEQR Technical Manual* analysis threshold of 50 PCEs at any one intersection in proximity to the Project Area in any peak hour (refer to Figure L-1). Additionally, any construction travel demand that would overlap with operational demand from completed buildings in 2018 to early 2020 would be significantly smaller than the peak period of 2018 Q1. A detailed construction traffic analysis is therefore not warranted for the Proposed Actions, as no significant adverse construction traffic impacts are expected to occur.

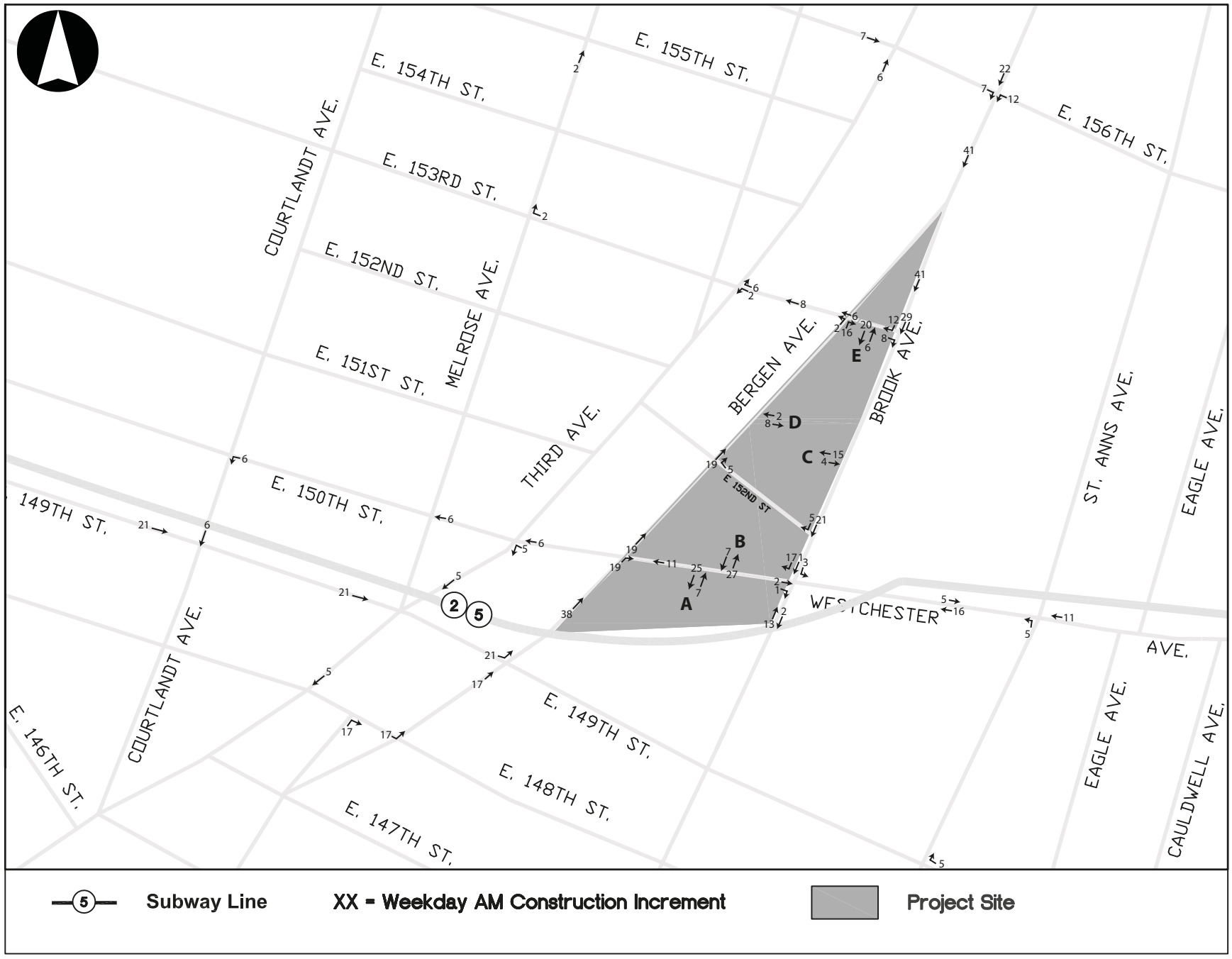
Table L-3
2018 (Q1) Peak Construction Vehicle Trip Projections

Hour	Auto Trips[1]			Truck Trips[2]			Total Vehicle Trips			Total PCEs[3]		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
6 AM – 7 AM	69	0	69	13	13	26	82	13	95	95	26	121
7 AM – 8 AM	17	0	17	5	5	10	22	5	27	27	10	37
8 AM – 9 AM	0	0	0	5	5	10	5	5	10	10	10	20
9 AM – 10 AM	0	0	0	5	5	10	5	5	10	10	10	20
10 AM – 11 AM	0	0	0	5	5	10	5	5	10	10	10	20
11 AM – Noon	0	0	0	5	5	10	5	5	10	10	10	20
Noon – 1 PM	0	0	0	5	5	10	5	5	10	10	10	20
1 PM – 2 PM	0	0	0	6	6	12	6	6	12	12	12	24
2 PM – 3 PM	0	17	17	3	3	6	3	20	23	6	23	29
3 PM – 4 PM	0	69	69	0	0	0	0	69	69	0	69	69
4 PM – 5 PM	0	0	0	0	0	0	0	0	0	0	0	0
5 PM – 6 PM	0	0	0	0	0	0	0	0	0	0	0	0

Notes:
(1) Construction auto trips were based on a peak of 240 daily workers (refer to Table L-2). A 50 percent auto share was assumed for construction workers, at an average occupancy of 1.39 persons per auto. It is assumed that 80 percent of construction worker arrival/departure trips would take place during the hour before/after each shift.
(2) Construction truck trips were based on a peak of 52 daily trucks (refer to Table L-2). 25 percent of daily trucks were conservatively assumed to arrive in the hour before the start of each shift, five percent in the last hour of the shift, and ten percent in each of the remaining hours during the work day. For analysis purposes, each truck delivery was assumed to result in two truck trips (four PCE trips) during the same hour.
(3) PCEs calculated at 1.0 PCE per worker auto and 2.0 per construction truck.

Street Lane and Sidewalk Closures

The Project Area has frontages along Westchester Avenue, Brook Avenue, Bergen Avenue, East 152nd Street, and East 153rd Street. As discussed above, there could be various curb lane and/or sidewalk closures associated with construction activities within the Project Area. These activities would include the unloading of construction materials from trucks and the loading of trucks with construction debris. Curb lane and/or sidewalk closures would not affect access points to public transportation including subway and bus stops. Truck movements would be spread throughout the day and would generally occur between the hours of 6AM and 3PM, depending on the stage of construction. Flaggers are expected to be present during construction to manage the access and movements of trucks. With the exception of E. 152nd Street (demapped in 1975 but currently open to traffic), which will be closed and incorporated into public open space as part of the Proposed Project, little if any rerouting of traffic is anticipated. Additionally, moving lanes of traffic are expected to be available at all times along the affected streets except on limited days when cranes will be erecting planks. It is anticipated that some sidewalks immediately adjacent to the Project Area would also be closed to accommodate heavy loading areas for at least several months of the construction period for each building. Pedestrians would either walk on the opposite side of the street or in a sectioned-off portion of the street. Detailed Maintenance and Protection of Traffic (MPT) Plans for each



La Central EAS **Figure L-1**

Weekday AM Construction Vehicle Increment

building would be submitted for approval to NYCDOT's Office of Construction Mitigation and Coordination (DOT-OCMC) prior to construction. Appropriate protective measures for ensuring pedestrian safety surrounding each of the proposed buildings would be implemented under these plans.

Transit and Pedestrians Screening

As previously discussed and shown in Table L-2, in the 2018 Q1 peak construction period, approximately 240 construction workers would travel to and from the Project Area each day. As no buildings are expected to be completed in Q1 of 2018, there would be no overlapping operational travel demand during this period. As also discussed above, a total of approximately 49 percent of construction workers are expected to travel to and from the Project Area by public transit (subway or bus) with an additional 1 percent walking. In addition, it is estimated that approximately 80 percent of all construction workers would arrive and depart in the peak hour before and after each shift.

Therefore, as shown in Table L-4, construction worker travel demand is expected to generate a maximum of approximately 94 transit trips in the 6AM to 7AM period, of which approximately 86 would be subway trips and approximately 8 would be bus trips. Given that these transit trips would be distributed among several subway lines and bus routes in proximity to the Project Area, the number of incremental trips at any one subway station (or station element) or any one bus route would be less than the 200-trip *CEQR Technical Manual* analysis threshold for a subway station analysis or the 50-trip threshold for a bus analysis (per route per direction) in all peak hours. As such, significant adverse transit impacts are not anticipated in the 2018 Q1 peak construction period.

Table L-4
2018 (Q1) Peak Construction Transit Trip Projections

Hour	Subway			Bus			Walk		
	In	Out	Total	In	Out	Total	In	Out	Total
6 AM – 7 AM	86	0	86	8	0	8	2	0	2
7 AM – 8 AM	22	0	22	2	0	2	0	0	0
8 AM – 9 AM	0	0	0	0	0	0	0	0	0
9 AM – 10 AM	0	0	0	0	0	0	0	0	0
10 AM – 11 AM	0	0	0	0	0	0	0	0	0
11 AM – Noon	0	0	0	0	0	0	0	0	0
Noon – 1 PM	0	0	0	0	0	0	0	0	0
1 PM – 2 PM	0	0	0	0	0	0	0	0	0
2 PM – 3 PM	0	22	22	0	2	2	0	0	0
3 PM – 4 PM	0	86	86	0	8	8	0	2	2
4 PM – 5 PM	0	0	0	0	0	0	0	0	0
5 PM – 6 PM	0	0	0	0	0	0	0	0	0

Notes: Assumes 45 percent subway, 4 percent bus, and 1 percent walk.

The maximum number of walk trips associated with transit trips in the 2018 Q1 peak construction period is expected to total 94 in any one period. Additionally, two construction workers would walk to the Project Area, resulting in 96 total pedestrian trips during the 6AM to 7AM and 3PM to 4PM periods. There would also be some additional pedestrian demand en route to and from area on-street and off-street public parking facilities. However, these trips would be widely dispersed among the sidewalks and crosswalks in proximity

to the Project Area, and the total number of new trips at any one sidewalk or crosswalk in any peak hour would not exceed the 200-trip *CEQR Technical Manual* pedestrian analysis threshold. Significant adverse pedestrian impacts are therefore not anticipated in the 2018 Q1 peak construction period.

V. AIR QUALITY

Emissions from on-site construction equipment and on-road construction-related vehicles, as well as dust generating construction activities, have the potential to affect air quality. In general, much of the heavy equipment used in construction has diesel-powered engines and produces relatively high levels of nitrogen oxides (NO_x) and particulate matter (PM). Fugitive dust generated by construction activities also contains PM. Finally, gasoline engines produce relatively high levels of carbon monoxide (CO). Therefore, the primary air pollutants of concern for construction activities include nitrogen dioxide (NO_2), particulate matter with an aerodynamic diameter of less than or equal to 10 micrometers (PM_{10}) and 2.5 micrometers ($PM_{2.5}$), and CO.

The *CEQR Technical Manual* lists several factors for consideration in determining whether a quantified on-site and/or off-site construction impact assessment for air quality is appropriate. These factors include the duration and intensity of construction activities, the location of nearby sensitive receptors, the use of emission control measures, and project generated construction-related vehicle trips.

Duration of Construction Activities

Construction under the Proposed Actions, as is the case with any construction activities, may be disruptive to the surrounding area. While the overall construction duration for the Proposed Project is anticipated to be approximately 45 months, the construction duration for each of the proposed buildings, except for Buildings A, B, and E, is anticipated to be approximately 23 months, a duration that is considered to be short-term (less than two years) according to the *CEQR Technical Manual*. The construction duration of Buildings A, B, and E are anticipated to be 27 months respectively (slightly longer than the construction durations for Buildings C and D) because Buildings A, B, and E would involve more extensive building demolition, excavation, and foundation activities.

The most intense construction activities in terms of air pollutant emissions occur during the demolition, excavation, and foundation stages, where the largest number of large non-road diesel engines would be employed. However, this work would last for only a relatively small portion of the overall construction duration, taking approximately six months to complete for Buildings C and D, and seven months to complete for Buildings A, B, and E. The demolition, excavation, and foundation activities at the project site are anticipated to occur for a total of approximately 25 months (13 months for the Buildings A, B, and D overlap, followed by five months with no demolition, excavation, or foundation activities, and additional 7 months for Building C, and subsequently E) out of the approximately 45 month overall construction period.

The other stages of construction, including superstructure, exterior facades, interior finishes and site work, would result in much lower air emissions since they would require few pieces of heavy duty diesel equipment. The equipment required for the latter stages of construction would generally have small engines and would be dispersed vertically throughout the building, resulting in very low concentration increments in adjacent areas. In addition, the latter stages of construction would not involve soil disturbance activities and therefore would result in significantly lower dust emissions. Further, interior finishes activities would be better shielded from nearby sensitive receptors by the proposed structures themselves.

Intensity of Construction Activities

During the construction of the proposed development, several large non-road diesel engines would be utilized. These engines would generally move throughout the site, although a concrete pump would be in one location during concrete pours. Based on the nature of the construction work for the proposed development, construction activities would not be considered out of the ordinary in terms of intensity; any ground-up construction on the project site that would require excavation, foundation, and superstructure construction (where large equipment such as cranes and pile drivers would be employed) would result in comparable air quality levels to the surrounding community during construction.

Location of Nearby Sensitive Receptors

The Project Area is located at some distance away from residential and school receptors, with the nearest being the residences at 700 Brook Avenue, approximately 275 feet northeast of the proposed Building E, and are separated from the project site by Brook Avenue. The nearest school building receptors are the Mott Haven Village Preparatory High School, approximately 385 feet east of the project site across Brook Avenue, and Crotona Academy High School, approximately 375 feet east of the project site across Brook Avenue. Based on the distances to these receptors, air emissions generated by construction activities would be greatly dispersed before reaching receptors, and would result in very low concentration increments.

The nearest sensitive location is the Merrill Lynch Field of Dreams, which includes football, baseball, and softball fields as well as a track for the adjacent high schools (e.g., Mott Haven Village Preparatory High School and Crotona Academy High School) located across Brook Avenue approximately 80 feet east of the project site. Based on the distance of the project site to the outdoor recreational space, air emissions generated by construction activities would be well dispersed before reaching the receptors, and therefore, potential concentration increments from on-site sources at this location would be significantly reduced compared to construction fence line receptor locations.

Emission Control Measures

All measures required by the portion of the *New York City Air Pollution Control Code* regulating construction-related dust emissions would be implemented. For example, all trucks hauling loose material would be equipped with tight-fitting tailgates and their loads securely covered prior to leaving the construction site; and water sprays would be used on-site to ensure that materials are dampened as necessary to avoid release of dust into the air. In addition, idling time would be limited to three minutes for all on-site equipment and vehicles that would not operate a loading, unloading, or processing device (e.g., concrete mixing trucks), or would not otherwise require idling for the proper operation of their engines.

Off-Site Sources

As discussed above in "Transportation," the incremental construction trips under the Proposed Actions would not reach the *CEQR Technical Manual* analysis threshold of 50 PCEs at any one intersection in proximity to the Project Area in any peak hour. In addition, construction worker commuting trips and construction truck deliveries would generally occur during off-peak hours. Therefore, construction of the Proposed Project would not result in significant adverse air quality impacts related to vehicular traffic, and further mobile-source analysis is not required.

Based on the duration and intensity of construction activities, the location of nearby sensitive receptors, the use of emission control measures, the Proposed Project would not result in any significant adverse construction air quality impacts. In addition, the maximum number of construction-related vehicle trips is not expected to exceed the *CEQR Technical Manual* thresholds for conducting a mobile source analysis. Therefore, no further analysis is required.

VI. NOISE

Impacts on community noise levels during construction of the proposed development could result from construction equipment operation and from construction and delivery vehicles traveling to and from the site. Noise levels caused by construction activities vary widely and depend on the phase of construction and the location of the construction relative to receptor locations. The most significant construction noise sources are expected to be the operation of impact equipment such as pile rigs and tower cranes as well as movements of trucks to and from the project site. Noise from construction activities and some construction equipment is regulated by the New York City Noise Control Code and by EPA. The New York City Noise Control Code requires the adoption and implementation of a noise mitigation plan for each construction site, limits construction (absent special approvals) to weekdays between the hours of 7:00 AM and 6:00 PM, and sets noise limits for certain specific pieces of construction equipment.

Construction Noise Impact Criteria

The *CEQR Technical Manual* states that significant noise impacts due to construction would occur "only at sensitive receptors that would be subjected to high construction noise levels for an extensive period of time." This has been interpreted to mean that such impacts would occur only at sensitive receptors where the activity with the potential to create high noise levels (the "intensity") would occur continuously for approximately two years or longer (the "duration"). The *CEQR Technical Manual* states that the impact criteria for vehicular sources, using the No-Action noise level as the baseline, should be used for assessing construction impacts. As recommended in the *CEQR Technical Manual*, this study uses the following criteria to define a significant adverse noise impact from mobile and on-site construction activities:

- If the No-Action noise level is less than 60 dBA $L_{eq(1)}$, a 5 dBA $L_{eq(1)}$ or greater increase would be considered significant.
- If the No-Action noise level is between 60 dBA $L_{eq(1)}$ and 62 dBA $L_{eq(1)}$, a resultant $L_{eq(1)}$ of 65 dBA or greater would be considered a significant increase.
- If the No-Action noise level is equal to or greater than 62 dBA $L_{eq(1)}$, or if the analysis period is a nighttime period (defined in the *CEQR* criteria as being between 10:00 PM and 7:00 AM), the incremental significant impact threshold would be 3 dBA $L_{eq(1)}$.

Noise Analysis Fundamentals

Construction activities for the Proposed Actions would be expected to result in increased noise levels as a result of: (1) the operation of construction equipment on-site; and (2) the movement of construction-related vehicles (i.e., worker trips, and material and equipment trips) on the roadways to and from the project site.

Noise from the operation of construction equipment on-site at a specific receptor location near a construction site is generally calculated by computing the sum of the noise produced by all pieces of equipment operating at the construction site. For each piece of equipment, the noise level at a receptor site is a function of the following:

- The noise emission level of the equipment;
- A usage factor, which accounts for the percentage of time the equipment is operating at full power;
- The distance between the piece of equipment and the receptor;
- Topography and ground effects; and
- Shielding.

Similarly, noise levels due to construction-related traffic are a function of the following:

- The noise emission levels of the type of vehicle (e.g., auto, light-duty truck, heavy-duty truck, bus, etc.);
- Volume of vehicular traffic on each roadway segment;
- Vehicular speed;
- The distance between the roadway and the receptor;
- Topography and ground effects; and
- Shielding.

Location Of Nearby Sensitive Receptors

As discussed above, the Project Area is located at some distance away from residential and school receptors, with the nearest being the residences at 700 Brook Avenue, approximately 275 feet northeast of the proposed Building E, and are separated from the project site by Brook Avenue. The nearest school building receptors are the Mott Haven Village Preparatory High School, approximately 385 feet east of the project site across Brook Avenue, and Crotona Academy High School, approximately 375 feet east of the project site across Brook Avenue. The residential building at 700 Brook Avenue has double-glazed windows and air conditioning and would be expected to provide 25-30 dBA of attenuation of exterior noise for interior spaces. Mott Haven Village Preparatory High School appears to have single-glazed windows and air conditioning, and would be expected to provide approximately 15-20 dBA of attenuation of exterior noise for interior spaces. Crotona Academy High School consists of pre-fabricated structures with double-glazed windows and air conditioning and would be expected to provide 25-30 dBA of attenuation of exterior noise for interior spaces.

Noise Reduction Measures

Construction under the Proposed Actions would be required to follow the requirements of the New York City Noise Control Code (New York City Noise Code) for construction noise control measures. Specific noise control measures would be described in a noise mitigation plan required under the New York City Noise Code. These measures would include a variety of source and path controls.

In terms of source controls (i.e., reducing noise levels at the source or during the most sensitive time periods), the following measures would be implemented in accordance with the New York City Noise Code:

- Equipment that meets the sound level standards specified in Subchapter 5 of the New York City Noise Control Code would be used from the start of construction. Table L-5 shows the noise levels for typical construction equipment and the mandated noise levels for the equipment that would be used for construction under the Proposed Actions.
- As early in the construction period as logistics will allow, diesel- or gas-powered equipment would be replaced with electrical-powered equipment such as welders, water pumps, and table saws (i.e., early electrification) to the extent feasible and practicable.
- Where feasible and practical, construction sites would be configured to minimize back-up alarm noise. In addition, all trucks would not be allowed to idle more than three minutes at the construction site based upon New York City Local Law.
- Contractors and subcontractors would be required to properly maintain their equipment and mufflers.

Table L-5
Typical Construction Equipment Noise Emission Levels (dBA)

Equipment List	NYCDEP & FTA Typical Noise Level at 50 feet[1]	Noise Level with Path Controls at 50 feet[2]
Backhoe/Loader	80	
Chipping Gun / Rivet Buster	85	
Compactor	80	
Compressor (less than or equal to 350 cfm)	75	
Compressor (greater than 350 cfm)	80	
Concrete Pump	82	
Concrete Truck	85	
Cranes (Crawler)	85	
Cranes (Tower)	85	75
Delivery Truck	84	
Dump Truck	84	
Excavator	85	
Generator (less than or equal to 25kVA)	70	
Generator (greater than 25kVA)	82	72
Hand Tool	59	
Hoist	75	65
Pile Driving Rig (Impact)	95	
Pump	77	
Saw (chainsaw)	85	
Saw (concrete)	90	
Welding Machine	73	

Notes:
[1] Sources: Citywide Construction Noise Mitigation, Chapter 28, Department of Environmental Protection of New York City, 2007. Transit Noise and Vibration Impact Assessment, FTA, May 2006. Kessler, Frederick M., "Noise Control for Construction Equipment and Construction Sites," report for Hydro Quebec.
[2] Path controls include portable noise barriers, enclosures, acoustical panels, and curtains, whichever feasible and practical.

In terms of path controls (e.g., placement of equipment, implementation of barriers or enclosures between equipment and sensitive receptors), the following measures for construction would be implemented to the extent feasible and practical:

- Where logistics allow, noisy equipment, such as cranes, concrete pumps, concrete trucks, and delivery trucks, would be located away from and shielded from sensitive receptor locations. Once building foundations are completed, delivery trucks would operate behind a construction fence, where possible;
- Noise barriers would be utilized to provide shielding (e.g., the construction sites would have a site perimeter barrier and, where logistics allow, truck deliveries would take place behind these barriers once building foundations are completed); and
- Path noise control measures (i.e., portable noise barriers, panels, enclosures, and acoustical tents, where feasible) would be used for certain dominant noise equipment to the extent feasible and practical (e.g., tower crane). These barriers are conservatively assumed to offer only a 10 dBA reduction in noise levels for each piece of equipment to which they are applied, as shown in Table L-5. The details for construction of portable noise barriers, enclosures, etc. are based upon New York City Department of Environmental Protection (DEP) Citywide Construction Noise Mitigation.

Construction Noise Analysis

The construction noise analysis considers the noise generated by construction-related traffic, including delivery trucks and worker vehicles, traveling to and from the project site as well as by on-site construction equipment and activity. As discussed above, the analysis looks first at the intensity of noise levels during construction, then assesses the potential duration of those noise levels, and finally makes a determination of the potential for impact. The most noise-intensive construction activities for each building included in the Proposed Project

would be demolition, excavation, and foundation work, which would last approximately seven months for Buildings A, B, and E and six months for the remaining project buildings.

Mobile Construction Noise Sources

Throughout the construction period, vehicles including construction related trucks and vehicles driven by workers at the construction site would travel to and from the project site. Most of these vehicles would be expected to use I-87, Third Avenue, and Westchester Avenue. These large roadways are already heavily trafficked, and the construction traffic would therefore not be expected to result in substantially increased noise at locations along these roadways. Some vehicles associated with construction under the Proposed Actions would be expected use Brook Avenue and/or Bergen Avenue, although further away from the project, the vehicles would be distributed amongst the different routes to and from the project, and the amount of construction traffic would be low compared to the existing traffic levels on these streets. Consequently, the construction noise analysis focuses on noise receptors adjacent to the site and the roadways immediately surrounding the site.

Intensity of Construction Noise from On-Site Sources

The residential building at 700 Brook Avenue represents the location most likely to experience increased noise levels resulting from the operation of stationary construction equipment. With the construction noise control measures described, maximum $L_{eq(1)}$ noise levels at 700 Brook Avenue during construction would be expected to be approximately in the low to mid 70s dBA[5]. Such maximum construction noise levels would occur during demolition, excavation, and foundation work occurring at Building E; during work at the other project buildings, or during less intense construction phases at Building E, noise levels would be lower. During demolition, excavation, and foundation work at Building C, which is the next closest building to 700 Brook Avenue, $L_{eq(1)}$ noise levels would be in the low 60s dBA. Measured existing noise levels near this receptor were in the mid-60s dBA, and would be expected to remain unchanged in the future without the Proposed Actions. Consequently, only noise generated by on-site construction activities at Building E would be expected to result in exceedances of the *CEQR Technical Manual* noise impact criteria at 700 Brook Avenue, and the potential for significant noise impacts at this building is evaluated further in the section below.

The school buildings west of St. Ann's Avenue represent the next location most likely to experience increased noise levels resulting from the operation of stationary construction equipment. With the construction noise control measures described, maximum $L_{eq(1)}$ noise levels at these school buildings during construction would be expected to be approximately in the low to mid 60s dBA. Measured existing noise levels near this receptor were in the mid-60s dBA, and would be expected to remain unchanged in the future without the Proposed Actions. Consequently, noise generated by on-site construction activities would not be expected to result in exceedances of the *CEQR Technical Manual* noise impact criteria at these school buildings.

Duration of Construction Noise from On-Site Sources

The construction activities with the greatest potential to result in the *CEQR Technical Manual* noise impact criteria at 700 Brook Avenue would be demolition, excavation, and foundation work at Building E, which would last approximately seven months. The later stages of construction of Building E would include superstructure and exterior façade and interior and finishing. Superstructure and exterior façade work, which would be expected last up to approximately seven months, would require less heavy construction equipment as compared to the demolition, excavation and foundation work. Construction equipment with higher noise

[5] Based on detailed noise analyses prepared for several other large-scale construction projects with comparable noise-control measure commitments, including Seward Park (*CEQR* No. 11DME012M) and Domino Sugar (*CEQR* No. 07DCP094K).

levels such as pile drivers and excavators, etc. would not be used during the superstructure and exterior façade phases of construction. In addition, fewer dump trucks would travel to and from the site during the superstructure and exterior façade phases of construction than during demolition, excavation, and foundation activities. Therefore, the superstructure and exterior façade activities would be expected to result in noise levels less than those anticipated during demolition/excavation/foundation work, although it still may result in some limited exceedances of the *CEQR Technical Manual* noise impact criteria at 700 Brook Avenue.

Finishing work, which would last up to approximately 13 months at Building E, would require significantly less heavy construction equipment, and would be better shielded from the nearby sensitive receptors by the buildings being constructed. Equipment used during finishing would mainly include a variety of small hand-held tools, along with a construction hoist. In addition, most of the construction activities would occur within the buildings so this stage of construction is usually the quietest. Therefore, during these later phases of construction (i.e., interiors and finishing), the noise levels from construction would not be expected to result in exceedances of the *CEQR Technical Manual* noise impact criteria.

Given that exceedances of the *CEQR Technical Manual* noise impact criteria would occur only during the 14 months of excavation, foundation, superstructure, and exterior façade work on Building E, no exceedances lasting for two consecutive years would be expected to occur at 700 Brook Avenue and thus no significant adverse construction noise impacts are predicted on this property. In addition, based on the maximum predicted exterior construction noise levels at this receptor, and the expected window/wall attenuation provided by the building based on its double-glazed windows, the receptor would be expected to experience interior $L_{10(1)}$ values less than 45 dBA, which would be considered acceptable according to the *CEQR Technical Manual* criteria, during most of the construction period.

Consequently, noise due to construction of the Proposed Project is not expected to result in any significant adverse impacts on nearby sensitive receptor locations.

Vibration

Construction activities have the potential to result in vibration levels that may in turn result in structural or architectural damage, and/or annoyance or interference with vibration-sensitive activities. In general, vibratory levels at a receiver are a function of the source strength (which in turn is dependent upon the construction equipment and methods utilized), the distance between the equipment and the receiver, the characteristics of the transmitting medium, and the receiver building construction. Construction equipment operation causes ground vibrations which spread through the ground and decrease in strength with distance. Vehicular traffic, even in locations close to major roadways, typically does not result in perceptible vibration levels unless there are discontinuities in the roadway surface. With the exception of the case of fragile and possibly historically significant structures or buildings, generally construction activities do not reach the levels that can cause architectural or structural damage, but can achieve levels that may be perceptible and annoying in buildings very close to a construction site. An assessment has been prepared to quantify potential vibration impacts of construction activities on structures and residences near the project site.

Construction Vibration Criteria

For purposes of assessing potential structural or architectural damage, the determination of a significant impact was based on the vibration impact criterion used by LPC of a peak particle velocity (PPV) of 0.50 inches/second. For non-fragile buildings, vibration levels below 0.60 inches/second would not be expected to result in any structural or architectural damage.

For purposes of evaluating potential annoyance or interference with vibration-sensitive activities, vibration levels greater than 65 vibration decibels (VdB) would have the potential to result in significant adverse impacts if they were to occur for a prolonged period of time.

Analysis Methodology

For purposes of assessing potential structural or architectural damage, the following formula was used:

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

where: PPV_{equip} is the peak particle velocity in in/sec of the equipment at the receiver location;
PPV_{ref} is the reference vibration level in in/sec at 25 feet; and
D is the distance from the equipment to the received location in feet.

For purposes of assessing potential annoyance or interference with vibration sensitive activities, the following formula was used:

$$L_v(D) = L_v(ref) - 30\log(D/25)$$

where: $L_v(D)$ is the vibration level in VdB of the equipment at the receiver location;
$L_v(ref)$ is the reference vibration level in VdB at 25 feet; and
D is the distance from the equipment to the receiver location in feet.

Table L-6 shows vibration source levels for typical construction equipment.

Table L-6
Vibration Source Levels for Construction Equipment

Equipment	PPVref (in/sec)	Approximate Lv (ref) (VdB)
Pile Driver (Impact)*	0.644-1.518	104-112
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Caisson drilling	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58

Note: * Sonic rather than impact pile drivers will be utilized.
Source: *Transit Noise and Vibration Impact Assessment*, FTA-VA-90-1003-06, May 2006.

Construction Vibration Analysis Results

The building of most concern with regard to the potential for structural or architectural damage due to vibration would be the residential building at 700 Brook Avenue located northeast of the project site. However, as a result of the building's distance from the construction site, vibration levels at these buildings and structures would not be expected to exceed 0.50 inches/second PPV.

In terms of potential vibration levels that would be perceptible and annoying, the equipment that would have the most potential for producing levels which exceed the 65 VdB limit is the pile driver. It would produce perceptible vibration levels (i.e., vibration levels exceeding 65 VdB) at receptor locations within a distance of approximately 230 feet. The residential building at 700 Brook Avenue is located 275 feet away from the nearest point of the project site, and would consequently not be expected to experience perceptible vibration as a result of construction activities. In no case are significant adverse impacts from vibrations expected to occur.

Based on the duration and intensity of construction activities, the location of nearby sensitive receptors, the use of noise control measures, the Proposed Project would not result in any significant adverse construction noise and vibration impacts.

VII. OTHER TECHNICAL AREAS

Land Use and Neighborhood Character

According to the *CEQR Technical Manual*, a construction impact analysis of land use and neighborhood character is typically needed if construction would require continuous use of a property for an extended duration, thereby having the potential to affect the nature of the land use and character of the neighborhood. A land use and neighborhood character assessment for construction impacts looks at the construction activities that would occur on the site (or portions of the site) and their duration. The analysis determines whether the type and duration of the activities would affect neighborhood land use patterns or neighborhood character. For example, a single property might be used for staging for several years, resulting in a "land use" that would be industrial in nature. Depending on the nature of existing land uses in the surrounding area, this use of a single piece of property for an extended duration and its compatibility with neighboring properties may be assessed to determine whether it would have a significant adverse impact on the surrounding area.

Construction activities would affect land uses within the Project Area, but would not alter surrounding land uses. Construction of each proposed building would occur over a period of approximately 23 to 27 months on portions of three city blocks, with a combined construction period of approximately 45 months. As is typical with construction projects in the City, during periods of peak construction activity there would be some disruption, predominantly noise, to the nearby area. There would be construction trucks and construction workers coming to the Project Area as well as noise, sometimes intrusive, from building construction, and trucks and other vehicles backing up, loading, and unloading. These disruptions would be temporary in nature and would have limited effects on land uses in the surrounding area, particularly as most construction activities would take place within the Project Area or within portions of sidewalks, curbs, and/or travel lanes of public streets immediately adjacent to the site.

Throughout the construction period, access to residences, businesses, and institutions in the area surrounding the Project Area would be maintained, as required by City regulations. In addition, measures would be implemented to control noise, vibration, emissions, and dust on construction sites, including the erection of construction fencing. Because none of these impacts would be continuous or ultimately permanent, they would not create significant impacts on land use patterns or neighborhood character in the area. Therefore, while construction of the proposed buildings would cause temporary impacts, particularly related to noise, it is expected that such impacts in any given area would be relatively short-term and therefore not create a neighborhood character impact (see the construction air and noise assessment above). Therefore, no significant construction impacts to land use or neighborhood character are expected as a result of the Proposed Actions and further assessment is not warranted.

Socioeconomic Conditions

According to the *CEQR Technical Manual*, construction impacts to socioeconomic conditions are possible if a proposed project would entail construction of a long duration that could affect the access to and therefore viability of a number of businesses, and if the failure of those businesses has the potential to affect neighborhood character. Construction activities associated with the Proposed Actions would not result in any significant adverse impacts to socioeconomic conditions. Construction of the proposed buildings would be of limited duration lasting approximately 23 to 27 months at each site. Construction would, in some

instances, temporarily affect pedestrian and vehicular access on street frontages immediately adjacent to the Project Area, including Bergen, Brook, and Westchester Avenues and East 152nd and East 153rd Streets. However, lane and/or sidewalk closures are expected to be of very limited duration and are not expected to occur in front of entrances to any existing retail businesses. In addition, construction activities would not obstruct major thoroughfares used by customers or businesses, and businesses would not be significantly affected by any temporary reductions in the amount of pedestrian foot traffic or vehicular delays that could occur as a result of construction activities. As such, no significant construction impacts to socioeconomic conditions are expected as a result of the Proposed Actions and further assessment is not warranted.

Community Facilities

According to the *CEQR Technical Manual*, construction impacts to community facilities are possible if a community facility would be directly affected by construction (e.g., if construction would disrupt services provided at a facility or close a facility temporarily, etc.). Construction activities related to the Proposed Actions would not physically displace or alter any existing community facilities. No community facilities would be directly affected by construction activities for an extended duration. The construction sites would be surrounded by construction fencing and barriers that would limit the effects of construction on nearby facilities. Construction workers would not place any burden on public schools and would have minimal, if any, demands on libraries, day care facilities, and health care. Construction of the proposed buildings would not block or restrict access to any facilities in the area, and would not materially affect emergency response times. NYPD and FDNY emergency services and response times would not be materially affected as a result of the geographic distribution of the police and fire facilities and their respective coverage areas. Therefore, no significant construction impacts to community facilities are expected as a result of the Proposed Actions and further assessment is not warranted.

Open Space

According to the *CEQR Technical Manual*, construction impacts to open space are possible if open space resources are taken out of service for a period of time during the construction process. No open space resources would be disrupted during the construction of the proposed buildings, nor would access to any publicly accessible open space be impeded during construction. The open space resource most proximate to the Project Area, the DOE-operated Merrill Lynch Field of Dreams, is located across Brook Avenue to the east. At limited times, early stage construction activities such as excavation and foundation construction within the Project Area may generate noise that could impair the enjoyment of nearby open space users, but such noise disturbances would be temporary. Additionally, construction fences around the Project Area would shield the nearby parks from construction activities. Furthermore, construction activities would be required to comply with the New York City Noise Code, which regulates construction noise to reduce the effects on noise sensitive receptors including public parks. As such, no construction impacts related to open space are expected and further assessment is not warranted.

Historic and Cultural Resources

According to the guidelines in the *CEQR Technical Manual*, construction impacts may occur on historic and cultural resources if in-ground disturbances or vibrations associated with project construction could undermine the foundation or structural integrity of nearby resources. In a letter dated 2/12/2015, LPC indicated that the Project Area does not contain any architecturally and/or archaeologically significant resources of concern. As such, no construction impacts related to historic and cultural resources are expected and further assessment is not warranted.

Natural Resources

According to the *CEQR Technical Manual*, a preliminary construction assessment is not required for natural resources unless the construction activities would disturb a site or be located adjacent to a site containing natural resources. As there are no natural resources of note within the Project Area or within its vicinity, no significant adverse construction impacts to natural resources are expected, and further assessment is not warranted.

Hazardous Materials

According to the guidelines of the *CEQR Technical Manual*, a construction assessment is not needed for hazardous materials unless the construction activities would disturb a site or be located adjacent to a site containing hazardous materials. As discussed in Attachment B, "Supplemental Screening," prior to the commencement of any in-ground construction activities within the Project Area, if remediation is warranted for one or more parcels/phases, RAP and CHASP would be prepared and subject to review by HPD and DEP. Additionally, all applicable federal, state, and city regulations pertaining to the asbestos, lead paint, and other toxic substances would be followed during and after completion of demolition activities. Therefore, no significant adverse construction impacts to hazardous materials are expected, and further assessment is not warranted.

IV. CONCLUSION

Development facilitated by the Proposed Actions would not result in significant adverse construction-related impacts. While short-term construction would occur on the proposed development within the same geographic area, the existing adjacent roadways and sidewalks would not be significantly affected and construction of the proposed development would not result in significant adverse transportation impacts. In addition, through adherence to relevant guidelines and the requirement that the applicant implements a set of construction impact prevention measures, development facilitated by the Proposed Actions would not result in significant adverse construction-related noise or air quality impacts. Furthermore construction of the proposed development would not result in significant adverse impacts on land use, zoning, and public policy, socioeconomic conditions, community facilities, open space, historic and cultural resources, or hazardous materials.

APPENDIX 1
LPC AND SHPO CORRESPONDENCE

Landmarks Preservation Commission

1 Centre Street
9th Floor North
New York, NY 10007

Voice (212)-669-7700
Fax (212)-669-7960
http://nyc.gov/landmarks

ARCHAEOLOGY

Project number: ECONOMIC DEVELOPMENT CORP. / 11DME011X
Project: LA CENTRAL
Date received: 4/28/2014

Comments: as indicated below. Properties that are individually LPC designated or in LPC historic districts require permits from the LPC Preservation department. Properties that are S/NR listed or S/NR eligible require consultation with SHPO if there are State or Federal permits or funding required as part of the action.

This document only contains Archaeological review findings. If your request also requires Architecture review, the findings from that review will come in a separate document.

Comments: The LPC is in receipt of the, "Protocol: Archaeological Field Testing for La Central, Bronxchester EAS, B 2294 L 43, the Bronx, NY," prepared by HPI and dated April 28, 2014 and the "Unanticipated Discoveries Plan," also created by HPI. The LPC concurs with the protocol. Please alert us when work begins.

5/2/2014

SIGNATURE DATE
Amanda Sutphin, Director of Archaeology

File Name: 27697_FSO_ALS_05022014.doc

Landmarks Preservation Commission

1 Centre Street
9th Floor North
New York, NY 10007

Voice (212)-669-7700
Fax (212)-669-7960
http://nyc.gov/landmarks

ENVIRONMENTAL REVIEW

Project number: HOUSING PRESERVATION AND DEV. / 15HPD041X
Project: LA CENTRAL
Date received: 2/12/2015

Comments: as indicated below. Properties that are individually LPC designated or in LPC historic districts require permits from the LPC Preservation department. Properties that are S/NR listed or S/NR eligible require consultation with SHPO if there are State or Federal permits or funding required as part of the action.

Properties with no Architectural significance:
1) ADDRESS: 430 WESTCHESTER AVENUE, BBL: 2022940032
2) ADDRESS: 438 WESTCHESTER AVENUE, BBL: 2022940043
3) ADDRESS: 599 BROOK AVENUE, BBL: 2023610001
4) ADDRESS: EAST 153 STREET, BBL: 2023610025
5) ADDRESS: 626 BERGEN AVENUE, BBL: 2023610026
6) ADDRESS: 503 EAST 153 STREET, BBL: 2023630001

Properties with no Architectural or Archaeological significance:
1) ADDRESS: 430 WESTCHESTER AVENUE, BBL: 2022940032
2) ADDRESS: 599 BROOK AVENUE, BBL: 2023610001
3) ADDRESS: EAST 153 STREET, BBL: 2023610025
4) ADDRESS: 626 BERGEN AVENUE, BBL: 2023610026
5) ADDRESS: 503 EAST 153 STREET, BBL: 2023630001

The LPC is in receipt of the, "Phase 1B Archaeological Field Investigation La Central, Bronxchester EAS, Block 2294, Lot 43, Westchester Avenue, Bronx, New York," prepared by Historical Perspectives, Inc and dated September 2014. The LPC concurs that there are no further archaeological concerns for this lot. Please submit two bound copies of the final report to the LPC.

Gina Santucci

2/19/2015

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 30240_FSO_DNP_02192015.doc

Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

New York State Office of Parks, Recreation and Historic Preservation

Division for Historic Preservation
P.O. Box 189, Waterford, New York 12188-0189
518-237-8643

9 July 2014

Mr. Aaron Werner
City of New York - Department of Housing Preservation & Development
Office of Development – Building and Land Development Services
100 Gold Street, Rm 9V-4
New York, NY 10038

Re: HPD
La Central Housing
Borough of the Bronx, Bronx County
14PR02501

Dear Mr. Werner:

The Office of Parks, Recreation and Historic Preservation (OPRHP) Division for Historic Preservation has reviewed the information submitted for this project. Our review has been in accordance with the State Environmental Quality Review Act (SEQRA).

OPRHP has received a copy of the proposed "Protocol: Archaeological Field Testing", including the "Unanticipated Discoveries Plan: Human Remains", dated 28 April 2014, prepared by Historical Perspectives, Inc. OPRHP concurs with the proposed testing protocol. Please keep us informed regarding the progress of the investigation.

These comments are those of the Division for Historic Preservation and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Please be aware that if this undertaking will involve or require a permit, license or funding from a state or federal agency/authority the action may be subject to Section 14.09 of New York State Parks, Recreation and Historic Preservation Law or Section 106 of the National Historic Preservation Act, in which case consultation with state or federal agencies will be required.

If you have any questions please don't hesitate to contact me.

Sincerely,

Philip A. Perazio, Historic Preservation Program Analyst – Archaeology Unit
Phone: 518-237-8643 x3276; FAX: 518-233-9049
Email: Philip.Perazio@parks.ny.gov

Cc: Patrick Blanchfield, HPD (via email)
Amanda Sutphin, NYCLPC (via email)

APPENDIX 2
PHASE IB ARCHAEOLOGICAL FIELD INVESTIGATION

HISTORICAL PERSPECTIVES INC.

Phase IB Archaeological Field Investigation
La Central, Bronxchester EAS
Block 2294, Lot 43
Westchester Avenue
Bronx, New York
06DME005X
11DME011X

Phase IB Archaeological Field Investigation
La Central, Bronxchester EAS
Block 2294, Lot 43
Westchester Avenue
Bronx, New York
06DME005X
11DME011X

Prepared For:
Philip Habib & Associates
102 Madison Avenue, 11th Floor
New York, NY 10016

Prepared By:
Historical Perspectives, Inc.
P.O. Box 529
Westport, CT 06881

Author:
Sara Mascia, Ph.D., RPA

September 2014

EXECUTIVE SUMMARY

A development proposal by the New York City Department of Housing Preservation and Development and public and private project sponsors for Block Lot 43 within Block 2294 in the Bronx has necessitated a cultural resources review (Figure 1). The project site is located at 436-442 Westchester Avenue and is currently a paved parking lot (Photographs 1 and 2).

This location, along with neighboring Lot 60, was initially assessed by Celia Bergoffen in 2006. Her study concluded that portions of Lots 43 and 60 were potentially sensitive for precontact and/or historical archaeological resources. As a function of the CEQR process, the Landmarks Preservation Commission (LPC) reviewed and concurred with the documentary study's findings and requested field-testing for the identified portions of each lot if construction impacts were unavoidable (06DME005X).

In 2011, Historical Perspectives, Inc. (HPI) completed the necessary field investigations on Lot 60 in consultation with LPC. Six trenches were examined on Lot 60 but only an early 20th century water management enclosure was encountered and investigated. The excavation of the remaining trenches found modern structural demolition impacts from 3.6 meters below grade, extending well below the depths of potential resources. No further archaeological consideration was recommended for Lot 60 (HPI 2011). No archaeological field-testing was initiated in 2011 on Lot 43 due to the absence of below-grade impacts in project designs.

Subsequent to the2011 field investigation, the location was reviewed a second time by LPC as ECONOMIC DEVELOPMENT CORP./11DME011X. At this time, the design plans for Lot 43 have been revised as part of the current La Central, Bronxchester proposal.

Bergoffen's 2006 analysis identified a limited area in Lot 43 as sensitive for precontact resources. The approximately 10 foot x 120-foot former alleyway runs roughly north-south through the 436 Westchester Avenue parcel. According to Philip Habib and Associates (PHA), the new plans for Lot 43 entail below-grade impacts and the archaeological field-testing recommended earlier by LPC will now be undertaken by HPI as the project moves forward.

As per LPC Guidelines (2002), archaeological testing in New York City must be based on a detailed protocol established specifically for the sensitive land parcel and approved by LPC. In March 2014 HPI prepared a testing protocol that addressed Bergoffen's analysis and LPC's request. The protocol complies with the CEQR Technical Manual (Section 321.2 Determine Significance of Past Uses that May Remain). LPC reviewed and concurred with the protocol (5/2/2014).

During August 2014, field-testing at the La Central project site was completed. Two large trenches were excavated during the archaeological examination of the location of a former alley within Block 43. No evidence of an intact precontact horizon was observed in either of the two excavation trenches. The 20th century construction of the adjacent buildings clearly impacted any potential intact soils within the former alley. At this time, no further archaeological consideration is recommended for Lot 43.

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PHOTOGRAPHS

I. INTRODUCTION

A development proposal by the New York City Department of Housing Preservation and Development and public and private project sponsors for Block Lot 43 within Block 2294 in the Bronx has necessitated a cultural resources review (Figure 1). The project site is located at 436-442 Westchester Avenue and is currently a paved parking lot (Photographs 1 and 2).

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II. SUMMARY OF LOT DEVELOPMENT

Bergoffen's Documentary Study identified the earliest record of historical development within Lot 43 took place between 1860 and 1880 (Bergoffen 2006: 15). Maps indicate that a "wagon house" was built on the site within the portion of the lot identified as 440-442 Westchester Avenue. Research found that the "wagon house" was enlarged to extend the length (north-south) of the lot and made into a "vaudeville" theatre sometime between 1900-1907. A small alley was located immediately east of the theater. Further east (446-448 Westchester Avenue) a brick large structure, which had been constructed by 1907 and identified in 1921 as the site of "Teitlebaum & Co.", was present. Records indicate that alley between the theatre and "Teitlebaum & Co." building was never developed. As a result, Bergoffen found that the location of the former alley was sensitive for potential precontact cultural resources (Bergoffen 2006: 21).

Bergoffen's report noted the "relative paucity of well recorded prehistoric sites in the Bronx," an observation based in large part on Eugene Boesch's prehistoric settlement report for LPC (1996). Boesch's study on the borough stated that the Bronx is poorly documented archaeologically and, consequently, not well known or understood. Because the sensitive section of Lot 43 had no record of formal development, earlier occupation levels may have been protected by modern overburden.

III. FIELD METHODOLOGY/RESEARCH DESIGN

The objective of Phase IB field-testing is to (1) ascertain the presence/absence, type, extent and potential significance of archaeological deposits within the location deemed sensitive for precontact cultural resources in the Phase 1A report (Bergoffen 2006). According to the CEQR guidelines for cultural resources, the determination of potential significance of a project site is directly related to whether the identified resource type "is likely to contribute to current knowledge of the history of the period in question". The determination of significance is largely dependent on the research issues that have been identified.

The preservation of Native American sites by "fill cover" is a research issue raised by Boesch (1996). He noted that traditional testing methods, e.g., shovel testing, might not be effective in establishing the presence or absence of archaeological remains in sites with a fill overmantle. Therefore, the proposed testing strategy for the project site relies on machine excavation for the removal of the fill overburden to the likely depths (ca. 2-5 feet) of potential precontact resources.

Archaeological Testing Tasks

The first field objective was to ascertain the integrity of the subsurface conditions and determine the presence or absence of an intact, buried precontact horizon. Due to the configuration of the former alley corridor, plans were established in the HPI protocol to combine machine-aided excavations and hand excavations (if necessary) within two linear trenches, each approximately 10 feet x 45 feet. Based on the historic maps, the alley corridor might have been narrower than 10 feet but the final size of the trenches was designed to accommodate safety regulations and afford sufficient exposure of the substrates. If the former foundation walls on either side of the alley were located, the alignment of the foundation walls would provide a guide for maximizing the trench exposure.

If during the excavation, the monitored machine cuts identified a buried precontact horizon soil, hand testing was planned to expose this stratum and determine if any cultural resources were still present. The exact number and configuration of the hand tested excavation units, estimated to be 1m x1m, within the trenches was to depend upon the presence and extent of any intact buried horizons. If excavated, the Test trench locations and excavation units would be plotted on project plans for the technical report. Professional standards for excavation, screening through one-quarter inch wire mesh, recording of features and stratigraphy, labeling, mapping, and cataloging were applied. Photographs of the work in progress were taken.

If the archaeologists identified features that contain artifacts during the field investigation, the team would clean, stabilize, and inventory all cultural material removed from the field. An artifact catalog, recording the depth and location of each recovered artifact, would be created. Once the fieldwork is completed, HPI would produce a technical report documenting the findings. All archaeological field testing was designed in accordance with LPC's *Guidelines for Archaeological Work in New York City, 2002.* Archaeologists meeting the Secretary of the Interior's Professional Qualifications Standards (48 FR 44716) and who are certified members of the Register of Professional Archaeologists (RPA) were placed in charge of the field investigations.

IV. RESULTS OF INVESTIGATIONS

During August 2014, field-testing at the La Central project site was completed. As mentioned above, the testing plan called for the excavation of two trenches within a former alley located within Block 43. The goal of the field examination was to expose any buried intact precontact surfaces and/or buried cultural features. A visual inspection of the project site found that the entire ground surface was covered by asphalt as well as concrete in a few locations (Photographs 1 and 2). Machine-aided excavation removed surface pavement, as well as any fill layers containing 20th century debris in the locations of the archaeological test trenches. The field archaeologists directed the backhoe operator to remove only shallow increments of soil when nearing the location of a possible precontact buried ground surface.

Below is a summary of the results of field-testing completed by HPI.

Trench 1

Although plans called for Trench 1 to be approximately 10 feet x 45 feet in size, the final area excavated was approximately 10 x 50 feet (4.6 x 15.25 meters). The north-south trench was located on the north side of lot 43 in the location of the former alley (Figure 2). A series of both compact and loose fill strata was identified beneath the asphalt and pavement bedding (Table 1; Photograph 3).

Table 1. Stratigraphy Noted in Trench 1 (Depths noted in Centimeters Below Surface [cmbs]).

Level	Depths	Description
1	0-7 cmbs	Asphalt
2	7-11 cmbs	Gravel Bedding
3	11-220 cmbs	Mixed modern 20th century fill 10YR 4/3 sandy silt mixed with 10YR 5/6 silty sand
4	220-295 cmbs	Mixed modern 20th century fill 10YR 4/2 silt mixed with 10YR 5/6 silty sand

The trench was excavated by machine under the supervision of the HPI archaeologists and the mixed fill strata identified in Trench 1 were found to contain a significant amount of architectural demolition debris; in particular numerous embossed bricks were noted (Photograph 4). The variety of architectural debris within the mixed fill layers included the aforementioned bricks, metal and ceramic pipe fragments, concrete fragments, thick Styrofoam, tar paper, reinforced glass, phone wires, steel I beam fragments, plastic sheeting, and a long section of a green garden hose.

Research on historic bricks used during late 19th and early 20th century construction in the New York City area is an evolving area of study as material from archeological sites and from various manufacturers are collated. Although the present testing protocol was designed to ascertain the presence or absence of precontact materials, the recovery of a significant number of historic bricks as part of this project affords the opportunity to add site-specific data to this growing area of study.

The Hudson River Valley, often referred to as the brickmaking capital of the world, furnished the majority of the raw materials needed for the construction of numerous buildings in New York City. As the population of the City grew, the corresponding growth in the number of industrial, commercial and residential buildings assured the rapid growth of the brick industry. In fact, by the turn of the 20th century, one hundred thirty brick manufacturers employed seven to eight thousand workers (Hutton 2003). The final Hudson River Valley brick manufacturer closed in 2003, terminating an industry that provided a vast amount of the construction materials utilized for many of the structures in New York City. As mentioned above, bricks and brick fragments were noted throughout the trench, several with specific makers marks. A sampling of these bricks is included in Table 2, followed by a brief summary of the Hudson River Valley brick companies represented on the site.

Table 2. Identified Brick Marks

BRICK MARK	COMPANY	LOCATION
ATLAS	Atlas Brick Co.	Hudson
BROCKWAY	Brockway Brick Co.	Fishkill Landing
HUTTON	The Hutton Brick Co.	Kingston
LYNCH	Lynch Brothers Brick Co.	East Kingston
N BROS	Nicholson Brothers	Dutchess Junction
ROSE	Rose Brick Co.	Roseton (near Newburgh)
SS B Co.	Sutton & Suderly Brick Co.	Coeymans
ZZZ	Ziegler Bros.	Coeymans

The Atlas Building and Material Works was listed in a 1910 directory; it was one of several that were located in Hudson, New York just after the turn of the 20th century. Not much is known about the fate of this company, which appears to have closed before the end of the first quarter of the 20th century.

Edwin Brockway, who had previously owned a smaller brickyard in Haverstraw, founded the Brockway Brick Company in East Fishkill in 1899. The Brockway family eventually built a small community, with a school and company store, around the East Fishkill complex, which was finally abandoned in 1999 (Yasinsac 2014).

The Hutton and Cordts Brick Company was located in Kingston and is one of the older brickmaking establishments represented in the collection from the La Central Site. Founded in 1865 by William Hutton and John H. Cordts, the company quickly established connections to the rapidly growing New York City brick market. Hutton was a silent partner, focusing on his nearby lumber company, until Cordts' death in 1890. From 1890 until 1965 the company was known as the Hutton Brick Company.

The brick identified with the name Lynch was manufactured by Patrick Lynch and his brother John. In the late 19th century, first Patrick and then both brothers worked for Daniel DeNoyelles in Haverstraw from 1887 to 1896. The Lynch Brothers operated this yard in 1903. In 1910, O'Brien and Lynch operated Yard #11 and John Lynch worked Yard #22. In *Within These Gates* Daniel deNoyelles lists the Lynch Brothers operating 5 machines in "the Kingston district" in 1910.

Between the mid 1840s until 1930 several brickyards operated in the small community of Dutchess Junction. This industrial enclave had been established in the area where the Newburgh, Dutchess and Connecticut Railroad intersected with the Hudson River Railroad. One of the companies that operated around the turn of the 20th century was the Nicholson Brothers Brick Yard. Little detail could be found regarding the closure date for this company.

The Rose Brick Company was one of the largest and most prolific in the Hudson River Valley. The Rose Brick Yards comprised several manufacturing sites into one of the largest brickmaking plants in the Hudson River Valley by 1905. The Rose Brick Company was manufacturing over 75,000,000 bricks a year during the first decade of the 20th century. In fact, during those years, the Rose Brick Company not only provided the materials for construction, they also provided the brick, used for creating numerous walking paths in Central Park, Prospect Park, and other smaller parks all over New York City (Brick Collecting 2011; Hudson-River-Brick-Industry 2011).

Some of the bricks in the collection were from companies located further north on the Hudson River. By the late 19th century, the brickyards of the upper Hudson Valley were just a prolific as those further south. Coeymans, located in Albany County, was once the site of over a dozen brickyards, including the Sutton & Suderly Brick Co. and the Ziegler Bros. John Sutton and Conrad Suderly founded the Sutton & Suderly Brick Company in 1885. This company was the location of one of the most dramatic events in the Hudson River brickmaking history in 1906 when the workers from numerous brick companies demanded a 10-hour workday and an increase in pay (Rinaldi and Yasinsac 2006). Thousands of workers went on strike and several companies, including the Sutton & Suderly Brick Company, hired migrant workers to keep production going. The strikers marched to each of the yards that were still working and forced the temporary workers away. When they reached the Sutton & Suderly Brick yard, the management, led by Conrad Suderly, took up arms to keep the strikers out. The subsequent firefight and loss of the yard to the strikers, led the Governor to order the State Militia to Coeymans to restore order. The militia disbanded the strikers, arrested the ringleaders, and the companies went back to work.

The bricks that were recovered during the excavation of Trench 1 offer a microcosm of the many different brick manufacturers who provided the materials to build the majority of the buildings in New York City.

At the north end of the trench two unidentified brick piers were exposed (Feature 1) and photographed (Photograph 5). The piers were discovered at a depth of approximately 2.3 feet (71 cmbs). The piers were adjacent to a large concrete pier associated with the adjacent rail corridor. It is possible that the brick piers were at one time associated with supports for the adjacent transportation corridor.

The review of historic maps indicates that elevation of the project site is only minimally different throughout the historic period to present (approximately 15-20 feet ASL). The surface of Trench 1 is currently 17 feet ASL and excavation halted at approximately 9 – 9.4 feet below the surface (275-285 cmbs) (Photograph 6). No evidence of the undisturbed alley or potential precontact strata were identified in Trench 1. Testing indicated that this location had been extensively

impacted during the demolition of the buildings on either side of the former alley. A deep excavation section was completed in the center of the trench that extended to a depth of almost 10 feet (295) cmbs to confirm that the soils were impacted by the 20th century building construction and demolition to greater depths in this location.

Trench 2

Although plans called for Trench 2 to be approximately 10 x 45 feet in size, the final area excavated was approximately 15 x 50 feet (4.6 x 15.25 meters), as during excavation the trench was extended to the west. The north-south trench was located on the north side of Lot 43 in the location of the former alley (see Figure 2; Photograph 2). A series of both compact and loose fill strata was identified beneath the asphalt and pavement bedding (Table 3; Photograph 7).

Table 3. Stratigraphy Noted in Trench 2.

Level	Depths	Description
1	0—8 cmbs	Asphalt
2	8-36 cmbs	Gravelly Sand
3	36-49 cmbs	Mixed modern 20th century fill 10YR 4/3 sandy silt mixed with 10YR 5/6 silty sand
4	49-56 cmbs	Mixed modern 20th century fill 10YR 4/2 silt mixed with 10YR 5/6 silty sand
5	56-72 cmbs	Fill 10YR 4/6 sandy loam with scattered stones
6	72-150 cmbs	Mixed 10YR 4/3 sandy loam with 10YR 4/6 sand and 10YR 5/4 clayey loam (redeposited soil). Traces of brick fragments.
7	150-163 cmbs	10YR 2/1 mixed silty sand with macadam fragments
8	163-188 cmbs	10YR 4/6 clayey loam (redeposited soil) mixed with pipe fragments and artifacts in the location of utility trench
9	188-290 cmbs	10YR 4/6 clayey loam (redeposited and disturbed soil) mixed with scattered brick and mortar fragments

The trench was excavated by machine under the supervision of the HPI archaeologists. The team encountered the stone foundation wall (Feature 2) of a former building near the eastern side of the trench (Photograph 8). To the east of the wall was the filled basement of a large structure, likely the "Teitlebaum & Co." building depicted on 20th century maps. The stone wall was approximately 2 feet (60 cm) in width and extended the length of the trench.

Excavation then concentrated on the western portion of the test trench where multiple fill and mixed soil strata were noted. The original 10-foot wide trench was extended 5 feet to the west to expose more of the area to the west of the wall (Feature 2). Although Trench 2 did not contain the same degree of architectural debris observed in Trench 1, there was still a substantial amount of architectural material in the upper layers. The variety of architectural debris within the fill

included bricks, metal and ceramic pipe fragments, concrete fragments, reinforced glass, and unidentified metal fragments.

At approximately 1.8 feet (56 cmbs) in depth, the team noted a stratum of sand with scattered stones. It is possible that this was once a former surface of the alley, likely during the early 20th century. The stones were not tightly packed cobbles, but instead were loosely placed in the sand to perhaps provide some type of stable surface or they were introduced to control drainage in the alley between the two large buildings. No specific date could be ascertained for when this stratum was introduced, or if, the stone/sand layer was actually utilized as a surface. The number of stones dwindled as the sand layer extended to the south and completely disappeared at the southern end of Trench 2, specifically the southernmost 10 feet (3 meters), where the team noted a significant increase in the fill that contained considerable architectural demolition materials, similar to the soils observed in Trench 1.

The strata below the sandy stone layer in the rest of the trench were comprised of soils that appeared to be a mix of what was likely redeposited B-horizon and fill. At a depth of approximately 5 feet (155 cmbs) the archaeologists noted remnants of macadam within Level 6. The majority of the macadam fragments were concentrated at the northernmost end of the trench, near Westchester Avenue, although there were small fragments noted throughout the trench at this elevation. The presence of macadam fragments at the northern end of the lot might indicate that when the alley was excavated during construction, the location was used to dump excess materials from an episode where Westchester Avenue was paved.

Fragments of a ceramic utility pipe were noted at a depth of 6.1 feet (188 cmbs) in the west wall of the trench. A handful of large fragments of white soft paste porcelain (5) and yellowware (2) were collected from around the location of a former pipe. This collection of fragments was the only domestic material observed in either of the trenches excavated. Although the fragments do not mend, it is clear that they were from two vessels (a porcelain tureen lid and yellowware bowl).

No evidence of an undisturbed precontact horizon was identified in Trench 2 and excavation halted at approximately 8.9 feet below the surface (275 cmbs) in the majority of the trench (Photograph 9). A deep test was also conducted in this trench to 9.5 feet (290 cmbs), and the mixed strata was still present, well below the depths of potential intact precontact soils. In addition, the wall at the eastern edge of the alley continued well past the depth of the excavation. In summary, it appears that the majority of the alley soils were disturbed during the initial construction of this significant foundation wall and again at times when utilities were introduced and when the surrounding buildings were finally demolished. The remaining mixed soils present are the combination of the former undisturbed alley soils redeposited with architectural construction debris to shore up the alley.

V. CONCLUSIONS AND RECOMMENDATIONS

Two large trenches were excavated during the archaeological examination of the location of a former alley within the La Central project site in the Bronx. During the field examination the proposed sizes of the test trenches were expanded slightly to ensure the maximum safe coverage of the narrow alley. Testing confirmed the presence of a significant fill and/or the building construction and demolition strata in this location above and around the former 20th century buildings. The archaeologists working on the project site discovered two features during the field investigation, both dating to the 20th century. The northernmost portion of the sensitive location, within Trench 2, was the only area where part of the stone foundation (Feature 2) for the eastern building remained in place. The narrow alley had clearly been significantly impacted by the construction of the large buildings with substantial foundation walls and basements on either side. The depth of disturbance within the alley indicates that the soils had likely been altered, or more likely excavated and refilled, during the construction and/or extensive demolition of the large buildings on either side of the alley.

No evidence of an intact precontact horizon was observed in either of the two excavation trenches. The 20th century construction of the adjacent buildings clearly impacted any former or potential intact soils within the former alley. At this time, no further archaeological consideration is recommended for for Lot 43.

VI. REFERENCES

Bergoffen, Celia
2006 Phase 1A Archaeological Assessment Report. Plaza at the Hub, Borough of the Bronx, New York. Prepared for Philip Habib and Associates.

Boesch, Eugene J.
1996 Archaeological Evaluation and Sensitivity Assessment of the Prehistoric and Contact Period Aboriginal History of the Bronx, New York. Unpub. MS, Landmarks Preservation Commission, New York.

Brick Collecting
2014 http://brickcollecting.com. Accessed 10/17/11.

City Environmental Quality Review (CEQR)
2012 *City Environmental Quality Review Technical Manual*. City of New York, Mayor's Office of Environmental Coordination.

Historical Perspectives, Inc.
2011 Phase IB Archaeological Field Investigation, Triangle Plaza Hub, Lot 60, Bronx, New York, Prepared for: Triangle Equities, Inc. New York.

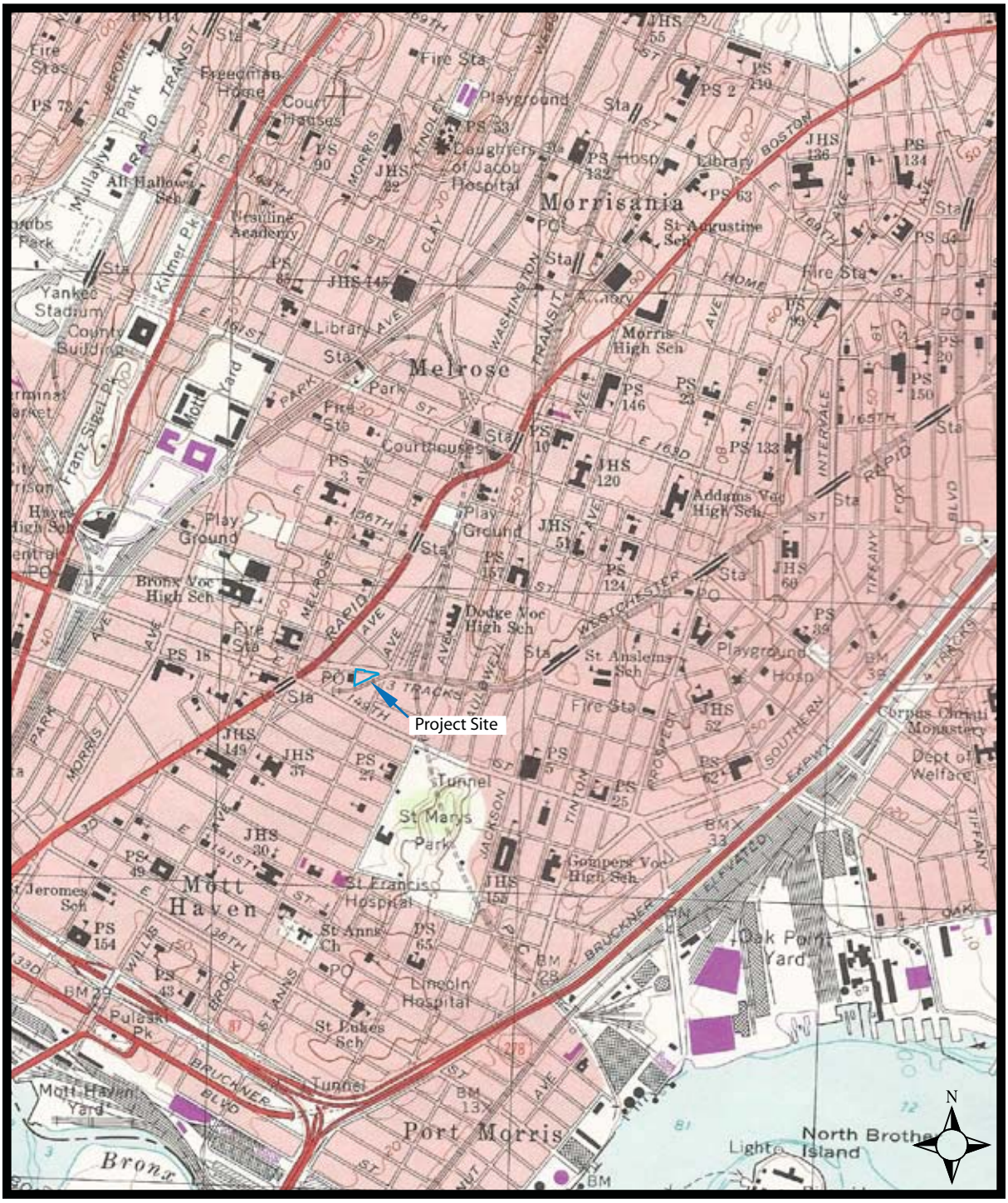
Hudson-River-Brick-Industry
2014 http://arch-re-review.blogspot.com/2010/09/hudson-river-brick-industry.html. Accessed 10/17/11.

Hutton, George V.
2003 The Great Hudson River Brick Industry: Commemorating Three And One Half Centuries Of Brickmaking. Purple Mountain Press, Fleischmanns, New York.

Landmarks Preservation Commission (LPC)
2002 *Landmarks Preservation Commission Guidelines for Archaeological Work in New York City*.

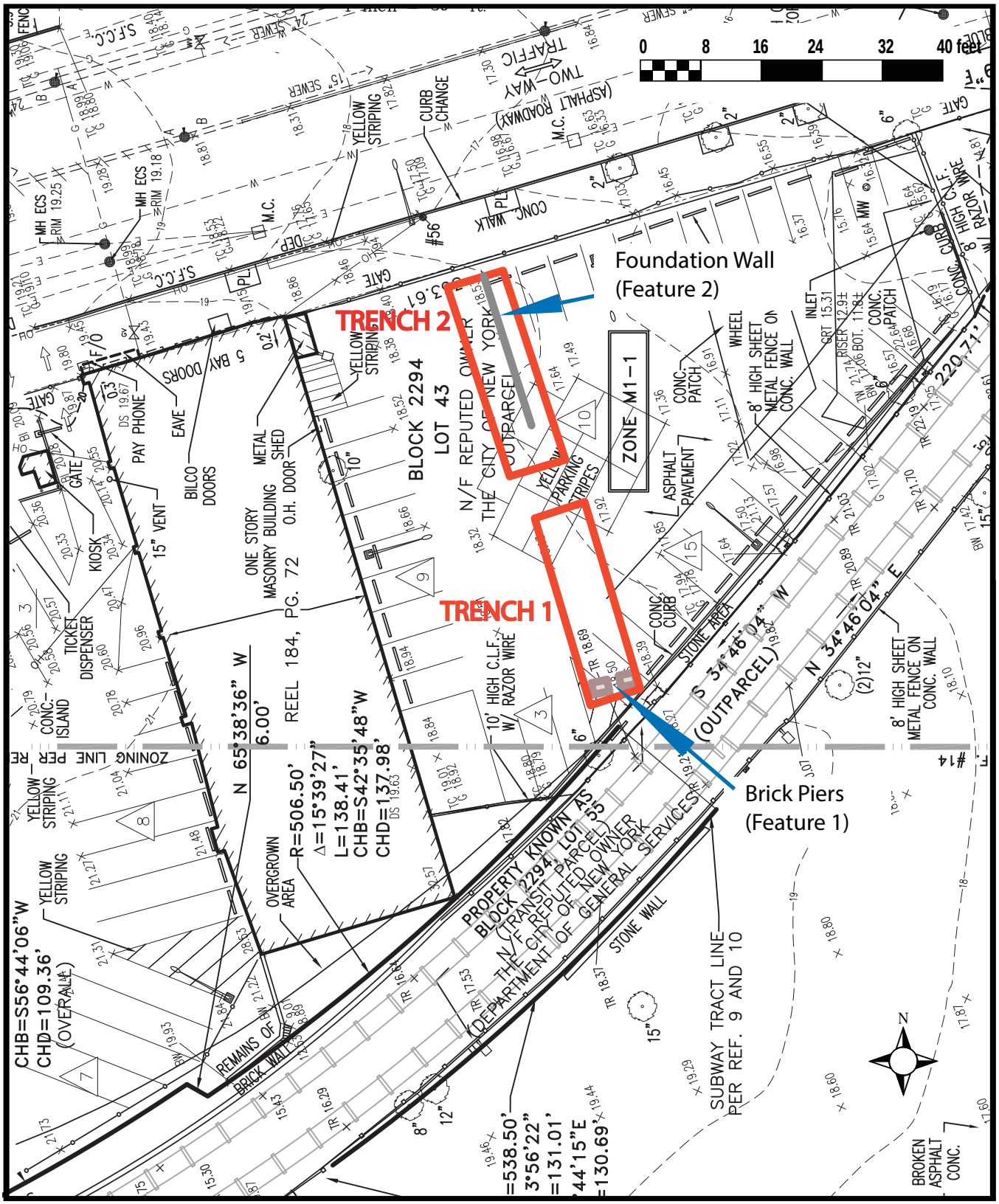
Rinaldi, Thomas and Rob Yasinsac
2006 Hudson Valley Ruins: Forgotten Landmarks of an American Landscape. University Press of New England, New York.

Yasinsac, Rob
2014 http://www.hudsonvalleyruins.org/yasinsac/brockway/brockway.html. Accessed 9/1/2014.



Phase IB Archaeological Field Investigation
La Central, Bronxchester EAS
Block 2294, Lot 43
Westchester Avenue, Bronx, New York

FIGURE 1. Project site on USGS, 7.5' Topographical Map, Central Park, NY, Quadrangle, USGS 2013.



Phase 1B Archaeological Field Investigation
La Central, Bronxchester EAS
Block 2294, Lot 43
Westchester Avenue, Bronx, New York

FIGURE 2. Project site showing Location of Test Trenches.

Photograph 1. Location of Trench 1 Prior to the Field Excavation.

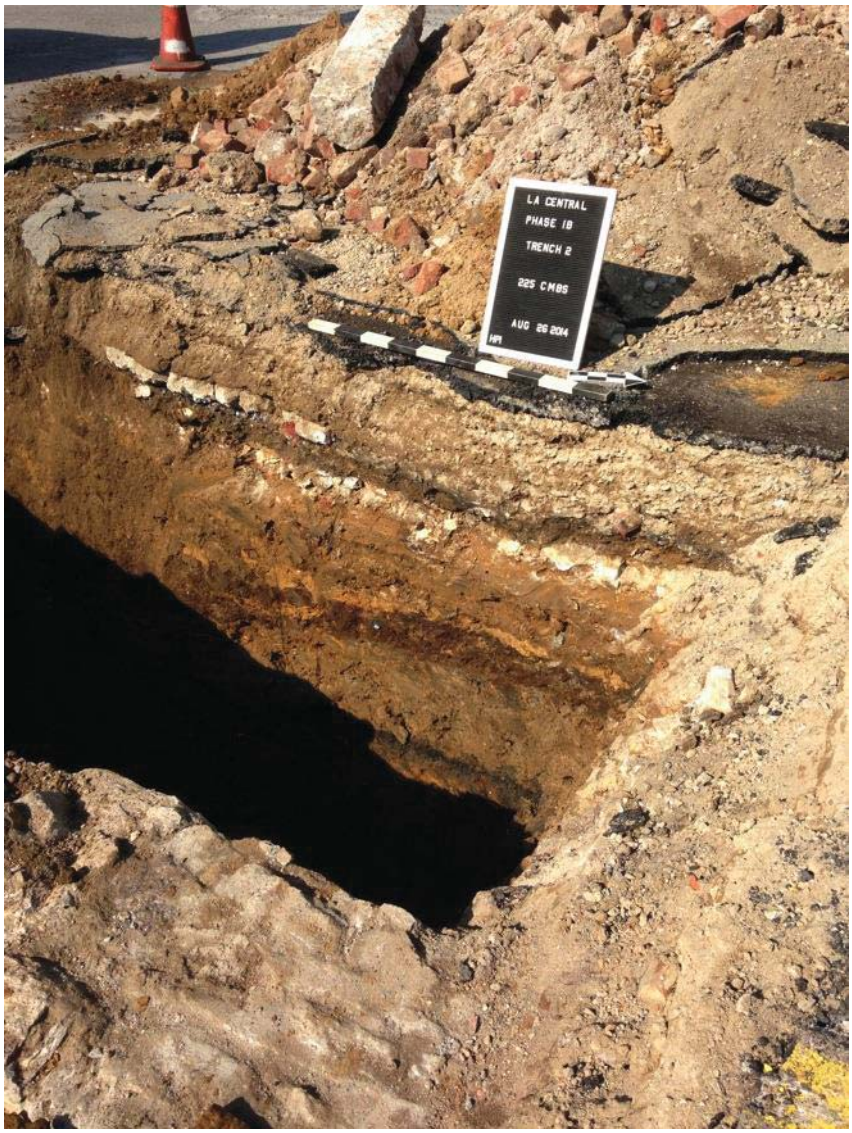
Photograph 2. Location of Trench 2 Prior to the Field Excavation.

Photograph 3. Trench 1, Fill Strata.

Photograph 4. Trench 1, Brick Rubble from Fill.

Photograph 5. Trench 1, Exposed Piers, Feature 1.

Photograph 6. Overview of Trench 1.



Photograph 7. Fill Strata and Redeposited Subsoil in Trench 2.

Photograph 8. Trench 2, Feature 2, Foundation Wall.

Photograph 9. Overview of Trench 2.

APPENDIX 3
PHASE I ESA SUMMARY AND DEP CORRESPONDENCE

July 24, 2014

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

Tax Lots 32 and 43 of Tax Block 2294
Tax Lot 1 of Tax Block 2363
Tax Lots 1, 25, and 26 of Tax Block 2361
Bronx, New York

Prepared for

LA CENTRAL MANAGER LLC
767 Third Avenue
New York, New York 10017

ROUX ASSOCIATES, INC.

Environmental Consulting & Management

ROUX

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EXECUTIVE SUMMARY

At the request of La Central Manager LLC (La Central), Roux Associates, Inc. (Roux Associates) performed a Phase I Environmental Site Assessment (ESA) of real property known as the La Central Project Site occupying Tax Lots 32 and 43 of Tax Block 2294; Tax Lot 1 of Tax Block 2363; and Tax Lots 1, 25, and 26 of Tax Block 2361 in the Borough of the Bronx, City and State of New York (Site) (Figure 1). The Phase I ESA was conducted in accordance with the scope of work presented in the contract between Roux Associates and La Central dated April 30, 2014 and in general accordance with the American Society of Testing and Materials' (ASTM) International Standard Practice E1527-13 (Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process).

Roux Associates utilized a variety of information sources to perform the Phase I ESA, including radial information searches from state and federal regulatory agency databases, freedom of information law (FOIL) requests submitted to federal, state and local regulatory agencies, a review of readily available information including: historical aerial photographs, historical Sanborn fire insurance maps, historical topographic maps, City Directory search, lien search, interviews with site representatives, and observations made during Site reconnaissance.

Based on the information gathered as a result of the Phase I ESA process, Roux Associates has identified the following RECs in connection with the Site.

- Degraded soil and groundwater quality: Soil and groundwater samples collected at the Site as part of a February 2006 Limited Phase II Environmental Site Assessment (ESA) and subsequent September 2007 Supplemental Phase II ESA, with both scopes of work approved by the New York City Department of Environmental Protection (NYCDEP), identified semi-volatile organic compounds and metals, above the New York State Department of Environmental Conservations Technical and Administrative Guidance Memorandum Recommended Soil Cleanup Objectives. The SVOC and metal contamination identified in the Phase II ESA is indicative of historic fill which is acting as a potential source of native soil and groundwater contamination with these constituents.

  Additionally polychlorinated biphenyls and various chlorinated volatile organic compounds were detected in separate groundwater samples collected at the Site at concentrations above the Ambient Water Quality Standards and Guidance Values.

  Based on the results of the Phase II ESA, the NYCDEP has established an Activity Use Limit (AUL) on Block 2294, Lot 32 which requires the preparation of a Construction

Health and Safety Plan and a Remedial Action Plan prior to the commencement of any in-ground construction activities.

- Former heating oil tanks: The potential impact from heating oil storage tanks associated with numerous former residential dwellings on the Site.

- Historical onsite uses: The potential impacts from historical uses of the Site, which included a plumbers shop, a woodworking shop, parts and service garage, and current partial use of the Site for the parking and storage of trucks, buses, and cars.

The following historical recognized environmental conditions (HRECs) in connection with the Site were identified as a result of the completion of this Phase I ESA:

- The potential impact from a nearby 12,600-gallon underground dielectric fluid spill (NYSDEC spill # 93-05461).

Based on information contained in the EDR report and the results of the 2007 Phase II ESA conducted by Roux Associates, this spill incident was remediated by the responsible party and apparently did not adversely impact soil and groundwater at the Site. Therefore, this HREC is no longer considered a REC.

Roux Associates has identified the following data gaps in the information developed as part of the inquiry that affect the ability of the environmental professional to identify conditions indicative of releases at the Site:

- Pending response to FOIL requests from the United States Environmental Protection Agency, the New York City Department of Environmental Protection, the New York City Fire Department, and the New York State Department of Environmental Conservation. If any additional pertinent information is obtained from responses to outstanding FOIL requests, Roux Associates will prepare a letter addendum summarizing these findings.

Please note that although lack of record sources listed above is considered a data gap, it is not considered a material limitation for the completion of this Phase I ESA report.

APPENDIX 4
TRANSPORTATION PLANNING FACTORS AND TRAVEL DEMAND FORECAST MEMORANDUM

Philip Habib & Associates
Engineers and Planners • 102 Madison Avenue • New York, NY 10016 • 212 929 5656 • 212 929 5605 (fax)

TECHNICAL MEMORANDUM

TO:	New York City Department of Housing Preservation and Development
FROM:	Philip Habib & Associates
DATE:	September 30, 2015
PROJECT:	La Central (PHA No. 1413)
RE:	Transportation Planning Factors and Travel Demand Forecast

This memorandum summarizes the transportation planning factors to be used for the environmental assessment statement (EAS) analyses of traffic, parking, transit, and pedestrian conditions for the proposed La Central environmental review. The Proposed Project is seeking approval for several discretionary actions that would facilitate the development of an underutilized 4.2-acre site in the Melrose neighborhood of the South Bronx by introducing affordable and supportive housing, local retail, community facility uses, and public open space. The Proposed Project would create new employment and affordable housing opportunities for local residents, would increase tax revenues for the City, and would expand community facility offerings for area residents.

PROJECT AREA

The Project Area is generally bounded by Bergen Avenue to the west, Brook Avenue to the east, and the elevated IRT #2 and #5 subway tracks to the south (see Figure 1). The 4.2-acre site spans four blocks and includes the demapped portion of East 152nd Street between Bergen and Brook Avenues. The Project Area is undeveloped with the exception of two at-grade public parking lots (74 spaces) and a vacant two-story building (11,000 gsf) located to the south of Westchester Avenue. The Project Area is well served by public transportation, including the IRT #2 and #5 subway lines at 3rd Avenue – 149th Street as well as a number of nearby bus lines including the Bx2, Bx15, Bx19, Bx21, and Bx41 SBS.

FUTURE NO-ACTION ASSUMPTIONS

In the absence of the Proposed Project, no development is anticipated on-site and the Project Area would remain under the jurisdiction of HPD. It is expected that the two public parking lots and a vacant two-story building to the south of Westchester Avenue would remain. Within an approximate ½-mile radius of the Project Area, 17 planned and/or approved developments are expected to be built by 2020.

FUTURE WITH-ACTION ASSUMPTIONS

The Proposed Project would facilitate a five building development with approximately 992 dwelling units (832 affordable and 160 supportive), approximately 46,800 gsf of local retail and other commercial uses (including an approximately 12,700 sf TV studio), an approximately 50,500 gsf YMCA, and approximately

La Central

Figure 1

Aerial View

32,700 gsf of other community facility uses including: 2,400 gsf associated with a rooftop farm (Building A), an approximately 8,600 gsf recording studio (Building C), an approximately 8,300 gsf day care facility (Building E), approximately 7,300 gsf of office space for Common Ground (Building D), and approximately 6,100 gsf of other community facility uses (Buildings D and E). A conceptual site plan is provided in Figure 2. The Proposed Project would also include a below-grade parking garage with up to approximately 262 spaces and approximately 1.26 acres (55,151 sf) of publicly accessible open space. Construction of the proposed development is expected to begin in mid-2016 with all components complete and fully operational by 2020.

Table 1 below provides a comparison of the No-Action and With-Action development scenarios. As the increment between the No-Action and With-Action scenarios would exceed the minimum development densities identified in Table 16-1 of the *2014 CEQR Technical Manual*, a preliminary travel demand forecast is required.

Table 1
Comparison of No-Action and With-Action Development Scenarios

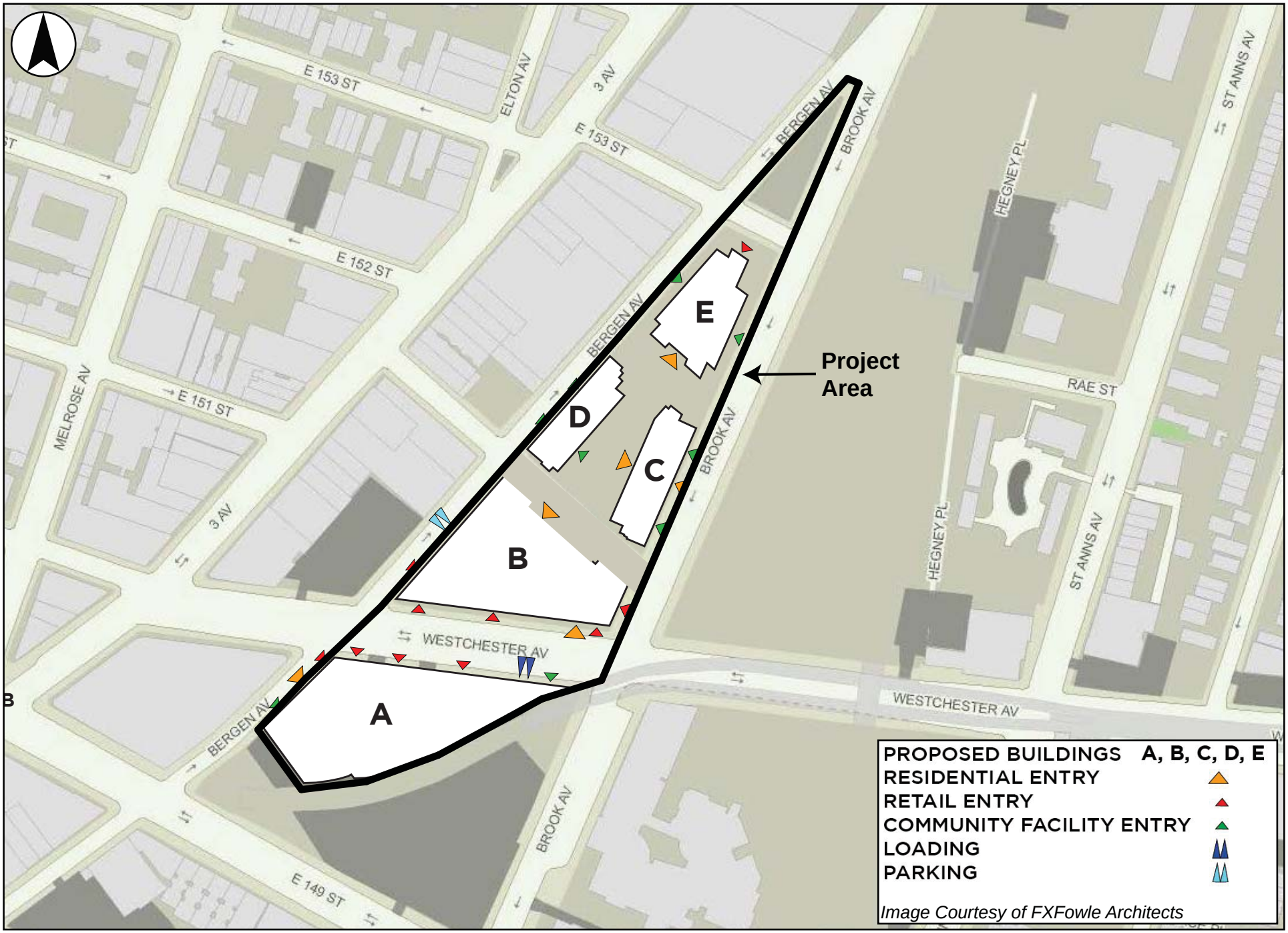
Use		No-Action Condition	With-Action Condition	Net Increment
Residential – Affordable Housing		--	832 DUs (909,300 gsf)	**832 DUs (909,300 gsf)**
Community Facility	Supportive Housing	--	160 units (77,500 gsf)	**160 units (77,500 gsf)**
	YMCA	--	50,500 gsf	**50,500 gsf**
	Other Uses	--	32,700 gsf	**32,700 gsf**
Commercial	Local Retail and Other Commercial Uses	--	46,800 gsf	**46,800 gsf**
	Vacant	11,000 gsf	--	***-11,000 gsf***
Parking and Loading	Public	74 spaces	--	***-74 spaces***
	Accessory	--	262 spaces (37,580 gsf)	**262 spaces (37,580 gsf)**
Publicly Accessible Open Space		--	1.26 acres (55,151 sf)	**1.26 acres (55,151 sf)**

Notes:
[1] All 832 proposed DUs would all be affordable housing units.
[2] The 160 supportive DUs are considered a Use Group 3 non-profit institution with sleeping accommodations.

SELECTION OF PEAK HOURS FOR ANALYSIS

Manual turning movement and automatic traffic recorder (ATR) counts were conducted during the weekday AM, midday, PM, and Saturday midday peak periods from late March to early April 2014. Based on existing peak traffic volumes along major corridors in the study area, the peak hours selected for the weekday analyses are 7:30-8:30 AM, 1-2 PM, and 4:45-5:45 PM, and 1:45-2:45 PM on Saturday.

Transit (subway and bus) analyses generally examine conditions during the weekday 8-9 AM and 5-6 PM commuter peak periods, as it is during these times that overall transit demand (and the potential for significant adverse impacts) is typically greatest. The analyses of transit conditions therefore focus on these two periods.



La Central

Figure 2

Proposed Conceptual Site Plan

TRANSPORTATION PLANNING FACTORS

The Proposed Project would exceed the minimum development densities identified in Table 16-1 of the *2014 CEQR Technical Manual* and a travel demand forecast is required. Table 2 shows the transportation planning factors to be used for the travel demand forecast generated by the RWCDS in the weekday AM, midday, and PM, as well as Saturday midday peak hours. These include trip generation rates, temporal and directional distributions, mode choice factors, vehicle occupancies and truck trip factors. The factors in Table 2 were based on accepted *City Environmental Quality Review (CEQR) Technical Manual* criteria, estimates based on tenure data from the 2008-2012 American Community Survey (ACS) for Census Tract 71, the 2012 *West Harlem Rezoning FEIS*, the 2012 *Triangle Plaza Hub EAS*, data provided by the Chinatown YMCA in 2014, data provided by NYCDOT in 2014, the 2007 *Jamaica Plan Rezoning FEIS*, the 2006-2010 AASHTO reverse journey to work data for Census Tract 71, the 2004 No.7 Subway Extension – Hudson Yards Rezoning and Development Program FGEIS, and the 2014 *Melrose Commons North EAS*.

Residential

The forecast of travel demand for residential used a weekday trip generation rate of 8.075 person trips per dwelling unit and a Saturday trip generation rate of 9.6 person trips per dwelling unit. Temporal distributions of 10.0 percent for the weekday AM peak hour, 5.0 percent for the midday peak hour, 11.0 percent for the PM peak hour, and 8.0 percent for the Saturday midday peak hour were used. Both trip generation and temporal distribution rates were provided by the *2014 CEQR Technical Manual*. The residential modal split of 6.8 percent by auto, 3.8 percent by taxi, 51.9 percent by subway, 13.3 percent by bus, and 24.2 percent by walk/other reflects means of transportation to work by tenure data from the 2008-2012 ACS for Census Tract 71. Vehicle occupancy rates of 1.05 persons per auto and 1.40 persons per taxi were based on tenure journey-to-work data from the 2008-2012 ACS for Census Tract 71 and the *West Harlem Rezoning FEIS (2012).*

Local Retail

The forecast of travel demand for local retail used a weekday trip generation rate of 205 person trips per 1,000 sf and a Saturday trip generation rate of 240 person trips per 1,000 sf. Temporal distributions of 3.0 percent for the weekday AM peak hour, 19.0 percent for the weekday midday peak hour, 10.0 percent for the PM peak hour, and 10.0 percent for the Saturday midday peak hour were used. Both trip generation and temporal distribution rates were provided by the *2014 CEQR Technical Manual*. The local retail modal split of 2.0 percent by auto, 3.0 percent by taxi, 6.0 percent by subway, 6.0 percent by bus, and 83.0 percent by walk/other is based on the *Triangle Plaza Hub EAS (2012).* Vehicle occupancy rates of 2.0 persons per auto and taxi, respectively, were based on the *West Harlem Rezoning FEIS (2012).* A 10 percent linked trip credit is assumed for local retail uses in accordance with CEQR guidelines.

Health Club (YMCA)

The forecast of travel demand for a health club (YMCA) used a weekday trip generation rate of 44.7 person trips per 1,000 sf and a Saturday trip generation rate of 26.1 person trips per 1,000 sf. Temporal distributions of 4.0 percent for the weekday AM peak hour, 9.0 percent for the weekday midday peak, 5.0 percent for the PM peak hour, and 9.0 percent for the Saturday midday peak hour were used. Both trip generation and temporal distribution rates were provided by the *2014 CEQR Technical Manual*. The health club (YMCA) modal split of 4.0 percent by auto, 9.0 percent by taxi, 12.0 percent by subway, 5.0 percent by bus, and 70.0 percent by walk/other, as well as vehicle occupancy rates of 1.40 persons per auto and taxi, respectively, were based on the *Triangle Plaza Hub EAS (2012).* A 10 percent linked trip credit is assumed for health club (YMCA) uses in accordance with CEQR guidelines.

Table 2

La Central Travel Demand Forecast Assumptions

Land Use:	**Residential**	**Local Retail**	**Health Club (YMCA)**	**Office (Common Ground)**	**Day Care**	**Community Facility (Recreation) (Rooftop Garden/Other)**	**TV Studio**	**Music Studio Rehearsal**
Size/Units:	992 DU	34,100 gsf	50,500 gsf	7,300 gsf	8,300 gsf	6,800 gsf	12,700 gsf	8,600 gsf 102 seats
Trip Generation:	(1)	(1)	(1)	(1)	(9)	(3)	(1,10)	(11)
Weekday	8.075	205	44.7	18	33	44.7	10	27 per 1,000 sf
Saturday	9.6	240	26.1	3.9	2	26.6	10	2.68 per seat
	per DU	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	
Temporal Distribution:	(1)	(1)	(1)	(1)	(9)	(3)	(1,10)	(11)
AM	10.0%	3.0%	4.0%	12.0%	16.0%	5.8%	12.0%	1.0%
MD	5.0%	19.0%	9.0%	15.0%	5.0%	7.4%	15.0%	16.0%
PM	11.0%	10.0%	5.0%	14.0%	19.0%	7.6%	11.0%	13.0%
Sat MD	8.0%	10.0%	9.0%	17.0%	12.0%	10.0%	15.0%	10.0%
	(2)	(4)	(4)	(8,4)	(2)	(3)	(8,4)	(11)
Modal Splits:	ALL PERIODS	ALL PERIODS	ALL PERIODS	AM/PM/SAT MD	ALL PERIODS	ALL PERIODS	AM/PM/SAT MD	ALL PERIODS
Auto	6.8%	2.0%	4.0%	35.9% 10.0%	6.8%	4.0%	35.9% 10.0%	19.5%
Taxi	3.8%	3.0%	9.0%	0.0% 2.0%	3.8%	9.0%	0.0% 2.0%	10.0%
Subway	51.9%	6.0%	12.0%	22.1% 5.0%	51.9%	12.0%	22.1% 5.0%	20.0%
Bus	13.3%	6.0%	5.0%	20.3% 5.0%	13.3%	5.0%	20.3% 5.0%	20.0%
Walk	24.2%	83.0%	70.0%	21.7% 78.0%	24.2%	70.0%	21.7% 78.0%	30.5%
	100.0%	100.0%	100.0%	100.0% 100.0%	100.0%	100.0%	100.0% 100.0%	100.0%
	(3)	(4)	(5)	(4)	(9)	(3)	(4)	(11)
In/Out Splits:	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out
AM	15% 85%	50% 50%	60% 40%	94% 6%	53% 47%	66% 34%	94% 6%	61% 39%
MD	50% 50%	50% 50%	53% 47%	50% 50%	50% 50%	58% 42%	50% 50%	55% 45%
PM	70% 30%	50% 50%	50% 50%	5% 95%	47% 53%	34% 66%	5% 95%	29% 71%
Sat MD	53% 47%	50% 50%	34% 66%	60% 40%	47% 53%	58% 42%	60% 40%	0% 100%
								(11)
Vehicle Occupancy:	(2,3)	(3)	(4)	(8)	(9)	(3)	(8)	Weekday Weekend
Auto	1.05	2.00	1.40	1.05	1.65	1.40	1.05	1.60 2.90
Taxi	1.40	2.00	1.40	1.05	1.40	1.40	1.05	1.20 2.30
Truck Trip Generation:	(1)	(1)	(4)	(1)	(9)	(3)	(1)	(11)
Weekday	0.06	0.35	0.04	0.32	0.07	0.04	0.32	0.14
Saturday	0.02	0.04	0.04	0.01	0.00	0.01	0.01	0.01
	per DU	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf
	(1)	(1)	(4)	(1)	(9)	(3)	(1)	(11)
AM	12.0%	8.0%	8.0%	10.0%	9.6%	7.7%	10.0%	10.0%
MD	9.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%
PM	2.0%	2.0%	1.0%	2.0%	1.0%	2.0%	2.0%	2.0%
Sat MD	9.0%	11.0%	0.0%	11.0%	0.0%	11.0%	11.0%	11.0%
	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out
All Peak Hours	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%

Notes :

(1) 2014 CEQR Technical Manual.

(2) Estimated from 2008-2012 American Community Survey (ACS) Tenure Data for Bronx tracts 71.

(3) West Harlem Rezoning FEIS, August 2012.

(4) Triangle Plaza Hub EAS, January 2012.

(5) Based on data provided by Chinatown YMCA facility on March 5 and 8, 2014.

(6) Based on data provided by NYCDOT.

(7) Jamaica Plan Rezoning FEIS, June 2007.

(8) 2006-2010 AASHTO Reverse Journey to Work Data for Bronx tracts 71.

(9) No. 7 Subway Extension - Hudson Yards Rezoning and Development Program FGEIS, 2004.

(10) Due to unavailable data for Saturday, Saturday daily trip rate and temporal distribution assumed to be the same as weekday.

(11) Melrose Commons North EAS, 2014.

Office (Common Ground)

The forecast of travel demand for office space for a community facility use (Common Ground) used a weekday trip generation rate of 18 person trips per 1,000 sf and a Saturday trip generation rate of 3.9 person trips per 1,000 sf. Temporal distribution rates of 12.0 percent for the weekday AM peak hour, 15.0 percent for the weekday midday peak hour, 14.0 percent for the weekday PM peak hour, and 17.0 percent for the Saturday midday peak hour were used. Both trip generation and temporal distribution rates were provided by the *2014 CEQR Technical Manual*. The office modal split of 35.9 percent by auto (10.0 percent midday), 0.0 percent by taxi (2.0 percent midday), 22.1 percent by subway (5.0 percent midday), 20.3 percent by bus (5.0 percent midday), and 21.7 percent by walk/other (78.0 percent midday) were based on reverse journey to work data from AASHTO 2006-2010 for Census Tract 71 and the *Triangle Plaza Hub EAS (2012)*. Vehicle occupancy rates of 1.05 persons per auto and taxi, respectively, were also based on reverse journey to work data from AASHTO 2006-2010 for Census Tract 71.

Day Care

The forecast of travel demand for a day care facility used a weekday trip generation rate of 33 person trips per 1,000 sf and a Saturday trip generation rate of 2 person trips per 1,000 sf. Temporal distribution rates of 16.0 percent for the weekday AM peak hour, 5.0 percent for the weekday midday peak hour, 19.0 percent for the weekday PM peak hour, and 5.0 percent for the Saturday midday peak hour were used. Both trip generation and temporal distribution rates were based on the *No. 7 Subway Extension - Hudson Yards Rezoning and Development Program FGEIS (2004)*. The day care modal split of 6.8 percent by auto, 3.8 percent by taxi, 51.9 percent by subway, 13.3 percent by bus, 24.2 percent by walk/other were based on tenure data from the 2008-2012 ACS for Census Tract 71. Vehicle occupancy rates of 1.65 persons per auto and 1.40 persons per taxi were based on the *No. 7 Subway Extension - Hudson Yards Rezoning and Development Program FGEIS (2004).*

Community Facility/Recreation

The forecast of travel demand for a community facility/recreation use used a weekday trip generation rate of 44.7 person trips per 1,000 sf and a Saturday trip generation rate of 26.6 person trips per 1,000 sf. Temporal distribution rates of 5.8 percent for the weekday AM peak hour, 7.4 percent for the weekday midday peak hour, 7.6 percent for the weekday PM peak hour, and 10.0 percent for the Saturday midday peak hour were used. Both trip generation and temporal distribution rates were based on the *West Harlem Rezoning FEIS (2012).* The community facility/recreation use modal split of 4.0 percent by auto, 9.0 percent by taxi, 12.0 percent by subway, 5.0 percent by bus, and 70.0 percent by walk/other and vehicle occupancy rates of 1.40 persons per auto and taxi, respectively, were also based on the *West Harlem Rezoning FEIS (2012).*

Television Studio

The forecast of travel demand for a television studio used a weekday and Saturday trip generation rate of 10 persons per 1,000 sf. Temporal distributions of 12.0 percent for the weekday AM peak hour, 15.0 percent for the weekday midday peak hour, 11.0 percent for the weekday PM peak hour, and 15.0 percent for the Saturday midday peak hour were used. Both trip generation and temporal distribution rates were provided by the *2014 CEQR Technical Manual.* It should be noted that due to unavailable data, the Saturday daily trip rate and temporal distribution were assumed to be the same as a weekday. The television studio modal split of 35.9 percent by auto (10.0 percent midday), 0.0 percent by taxi (2.0 percent midday), 22.1 percent by subway (5.0 percent midday), 20.3 percent by bus (5.0 percent midday), and 21.7 percent by walk/other (78.0 percent midday) were based on reverse journey to work data from AASHTO 2006-2010 for Census Tract 71 and the *Triangle Plaza Hub EAS (2012)*. Vehicle occupancy rates of 1.05 persons per auto and

taxi, respectively, were based on reverse journey to work data from AASHTO 2006-2010 for Census Tract 71.

Community Facility/Music Studio

The forecast of travel demand for a community facility/music studio rehearsal space used a weekday trip generation rate of 27 persons per 1,000 sf and Saturday trip generation rate of 2.68 persons per seat. Temporal distributions of 1.0 percent for the weekday AM peak hour, 16.0 percent for the weekday midday peak hour, 13.0 percent for the weekday PM peak hour, and 10.0 percent for the Saturday midday peak hour were used. Both trip generation and temporal distribution rates were based on data from the *Melrose Commons North EAS (2014)*. Modal splits of 19.5 percent by auto, 10.0 percent by taxi, 20.0 percent by subway, 20.0 percent by bus, and 30.5 percent by walk/other and vehicle occupancy rates of 1.60 auto (2.90 weekend) and 1.20 auto (2.30 weekend) were also based on the *Melrose Commons North EAS (2014).*

TRIP GENERATION

A travel demand forecast was prepared for the Proposed Project based on the factors shown in Table 2 and discussed above. Table 3 summarizes the results of the travel demand forecast for the Proposed Project. The data in Table 3 compare the net incremental increase (versus the No-Action condition) in the number of peak hour person and vehicle trips that would be generated by each scenario in 2020 with construction of the Proposed Project.

As shown in Table 3, the Proposed Project would generate an incremental increase of 1,166, 1,891, 1,749, and 1,677 person trips during the weekday AM, midday, PM, and Saturday midday peak hours, respectively. Compared to No-Action conditions, there would be an increase of 101, 148, 130, and 144 vehicle trips (auto, taxi, and truck combined) during the weekday AM, midday, PM, and Saturday midday peak hours, respectively. During the weekday AM and PM peak hours, the Proposed Project would generate 468 subway trips and 136 bus trips, and 550 subway trips and 181 bus trips, respectively. The Proposed Project would generate 440, 1,276, 852, and 900 walk-only trips during the weekday AM, midday, PM, and Saturday midday peak hours, respectively.

VEHICLE TRIP ASSIGNMENT AND TRAFFIC STUDY AREA

The origins and destinations of project increment auto and taxi trips were determined using 2006-2010 AASHTO reverse journey to work data for Bronx Census Tract 71 where the project site is located. Autos and taxis were assigned to the most likely routes between these origins/destinations.

Figure 3 shows the vehicle assignment diagram for the project-generated traffic, and Figure 4 shows the three intersections that would exceed the *2014 CEQR Technical Manual* threshold of 50 vehicles per intersection. As shown in Figures 3 and 4, project-generated vehicle trips are expected to be most concentrated in the immediate vicinity of the site along Third Avenue, Bergen Avenue, and Westchester Avenue.

While only three intersections would exceed the CEQR threshold of 50 vehicles (Bergen Avenue at Westchester Avenue, Bergen Avenue at E. 152nd Street, Brook Avenue at Westchester Avenue), an additional two intersections have been selected to complete the traffic network (Bergen Avenue at E. 153rd Street, Brook Avenue at E. 153rd Street). Therefore, as shown in Figure 5, a total of 5 intersections (2 signalized and 3 unsignalized) have been selected for the analysis of weekday traffic conditions during the AM, midday, and PM peak hours based on the assignment of project-generated traffic. These intersections, listed below, are where traffic generated by the Proposed Project is expected to be most concentrated.

Table 3

La Central Travel Demand Forecast

Land Use:		**Residential**		**Local Retail**		**Health Club (YMCA)**		**Office (Common Ground)**		**Day Care**		**Community Facility (Recreation) (Rooftop Garden/Other)**		**TV Studio**		**Music Studio Rehearsal**		**Total**		
Size/Units:		992	DU	34,100	gsf	50,500	gsf	7,300	gsf	8,300	gsf	6,800	gsf	12,700	gsf	8,600	gsf			
Peak Hour Person Trips:																				
	AM	801		189		81		16		44		18		15		2		1,166		
	MD	401		1,195		183		20		14		22		19		37		1,891		
	PM	881		629		102		18		52		23		14		30		1,749		
	Sat MD	762		737		107		5		2		18		19		27		1,677		
Person Trips:																				
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
AM	**Auto**	8	46	2	2	2	1	5	0	2	1	0	0	5	0	0	0	24	50	74
	Taxi	5	26	3	3	4	3	0	0	1	1	1	1	0	0	0	0	14	34	48
	Subway	62	353	6	6	6	4	3	0	12	11	1	1	3	0	0	0	93	375	468
	Bus	16	91	6	6	2	2	3	0	3	3	1	0	3	0	0	0	34	102	136
	Walk	29	165	78	77	34	23	4	1	5	5	9	4	3	1	1	1	163	277	440
	Total	120	681	95	94	48	33	15	1	23	21	12	6	14	1	1	1	328	838	1,166
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
MD	**Auto**	14	14	12	12	4	3	1	1	0	0	1	0	1	1	4	3	37	34	71
	Taxi	8	8	18	18	9	8	0	0	0	0	1	1	0	0	2	2	38	37	75
	Subway	104	104	36	36	12	10	1	1	4	4	2	1	0	0	4	3	163	159	322
	Bus	27	27	36	36	5	4	1	1	1	1	1	0	0	0	4	3	75	72	147
	Walk	48	47	496	495	68	60	7	7	2	2	9	6	9	8	6	6	645	631	1,276
	Total	201	200	598	597	98	85	10	10	7	7	14	8	10	9	20	17	958	933	1,891
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
PM	**Auto**	42	18	6	6	2	2	0	6	2	2	0	1	0	5	2	4	54	44	98
	Taxi	23	10	9	9	5	5	0	0	1	1	1	1	0	0	1	2	40	28	68
	Subway	320	137	19	19	6	6	0	4	13	14	1	2	0	3	2	4	361	189	550
	Bus	82	35	19	19	3	3	0	3	3	4	0	1	0	3	2	4	109	72	181
	Walk	150	64	261	262	35	35	1	4	5	7	5	11	0	3	3	6	460	392	852
	Total	617	264	314	315	51	51	1	17	24	28	7	16	0	14	10	20	1,024	725	1,749
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
Sat MD	**Auto**	27	24	7	7	1	3	1	1	0	0	0	0	4	3	0	5	40	43	83
	Taxi	15	14	11	11	3	6	0	0	0	0	1	1	0	0	0	3	30	35	65
	Subway	210	186	22	22	4	8	1	0	0	1	1	1	3	2	0	5	241	225	466
	Bus	54	48	22	22	2	4	1	0	0	0	1	0	2	2	0	5	82	81	163
	Walk	98	86	307	306	26	50	1	0	1	0	8	5	2	1	0	9	443	457	900
	Total	404	358	369	368	36	71	4	1	1	1	11	7	11	8	0	27	836	841	1,677
Vehicle Trips :																				
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
AM	**Auto**	8	44	1	1	1	1	5	0	1	1	0	0	5	0	0	0	21	47	68
	Taxi	4	19	2	2	3	2	0	0	1	1	1	1	0	0	0	0	11	25	36
	Taxi Balanced	23	23	4	4	5	5	0	0	2	2	2	2	0	0	0	0	36	36	72
	Truck	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	8
	Total	35	71	5	5	6	6	5	0	3	3	2	2	5	0	0	0	61	87	148
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
MD	**Auto**	13	13	6	6	3	2	1	1	0	0	1	0	1	1	3	2	28	25	53
	Taxi	6	6	9	9	6	6	0	0	0	0	1	1	0	0	2	2	24	24	48
	Taxi Balanced	12	12	18	18	12	12	0	0	0	0	2	2	0	0	4	4	48	48	96
	Truck	3	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	4	4	8
	Total	28	28	25	25	15	14	1	1	0	0	3	2	1	1	7	6	80	77	157
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
PM	**Auto**	40	17	3	3	1	1	0	6	1	1	0	1	0	5	1	3	46	37	83
	Taxi	16	7	5	5	4	4	0	0	1	1	1	1	0	0	1	2	28	20	48
	Taxi Balanced	23	23	10	10	8	8	0	0	2	2	2	2	0	0	3	3	48	48	96
	Truck	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
	Total	64	41	13	13	9	9	0	6	3	3	2	3	0	5	4	6	95	86	181
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
Sat MD	**Auto**	26	23	4	4	1	2	1	1	0	0	0	0	4	3	0	2	36	35	71
	Taxi	11	10	6	6	2	4	0	0	0	0	1	1	0	0	0	1	20	22	42
	Taxi Balanced	21	21	12	12	6	6	0	0	0	0	2	2	0	0	1	1	42	42	84
	Truck	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
	Total	48	45	16	16	7	8	1	1	0	0	2	2	4	3	1	3	79	78	157

	Total Vehicle Trips			**Existing Parking Credit**			
	In	**Out**	**Total**	**In**	**Out**	**Total**	**Total**
AM	**61**	**87**	**148**	**-44**	**-4**	**-48**	**101**
MD	**80**	**77**	**157**	**-3**	**-6**	**-9**	**148**
PM	**95**	**86**	**181**	**-3**	**-48**	**-51**	**130**
Sat MD	**79**	**78**	**157**	**-10**	**-3**	**-13**	**144**

Notes:

10% linked-trip credit applied to local retail and health club uses.

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Figure 3

Project Split Percentage Assignments

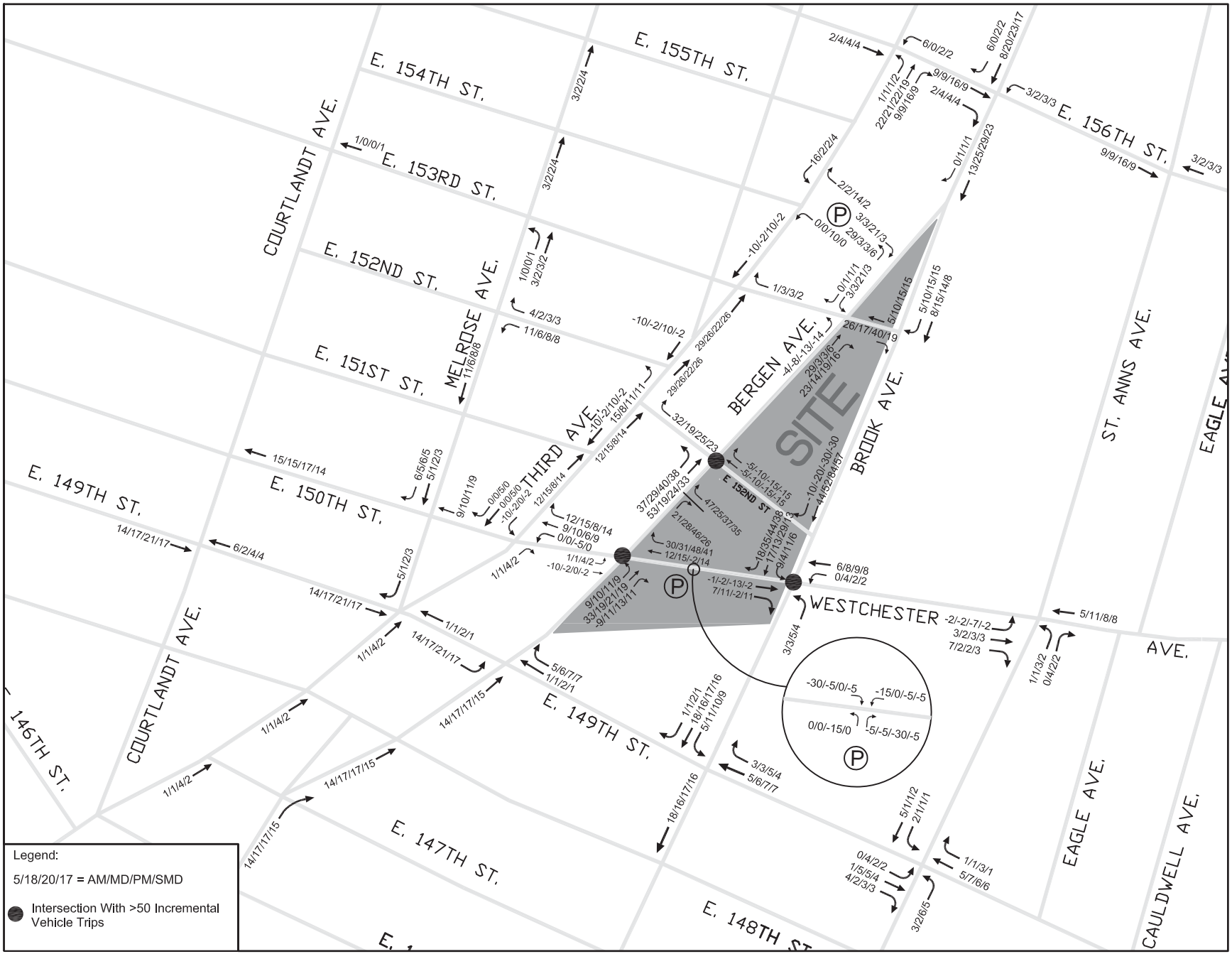

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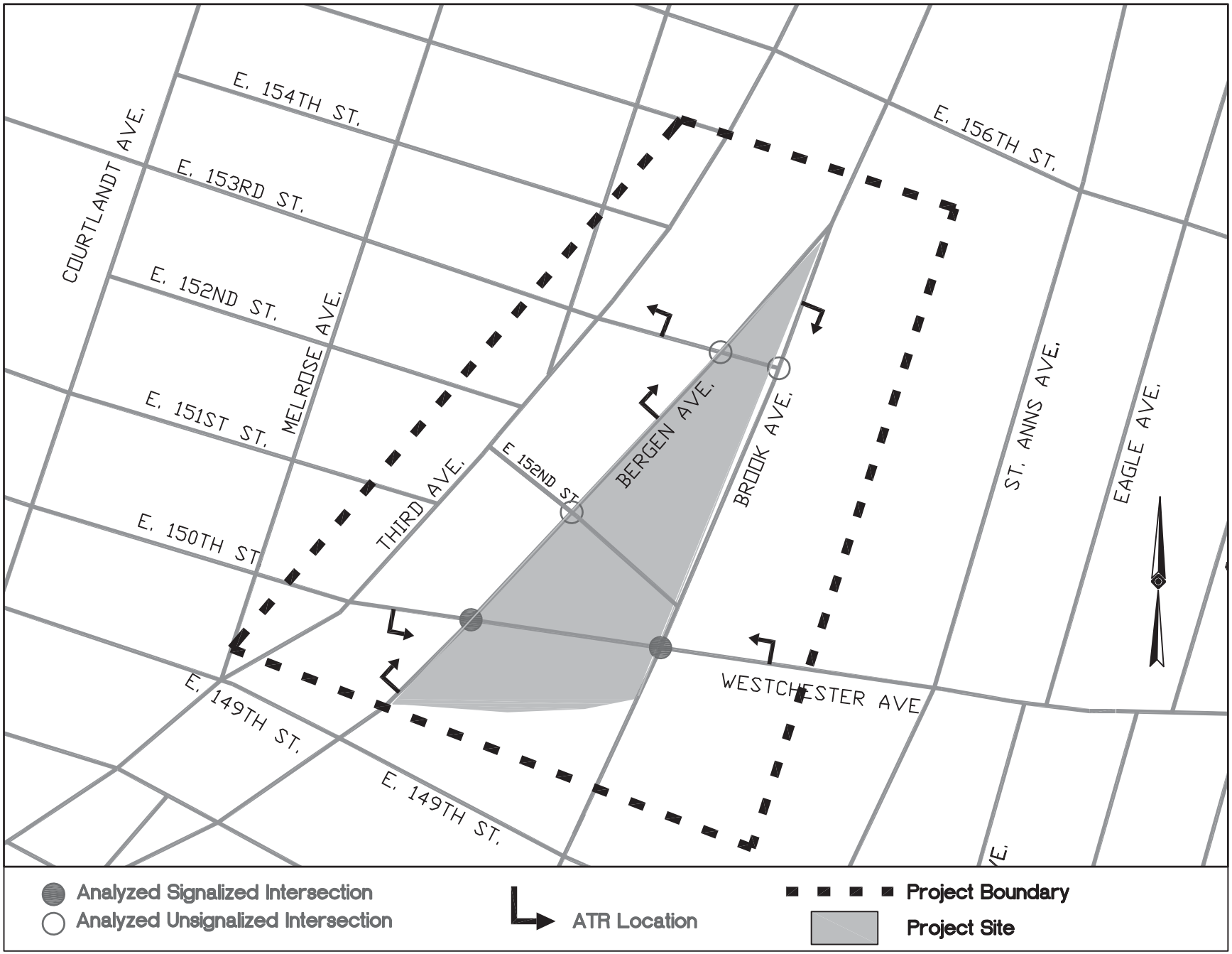
Figure 4

Net Project Increment



La Central

Figure 5

Traffic Study Area

Weekday Traffic Analysis Locations

1. Bergen Avenue at Westchester Avenue
2. Bergen Avenue at E. 152nd Street
3. Bergen Avenue at E. 153rd Street
4. Brook Avenue at E.153rd Street
5. Brook Avenue at Westchester Avenue

Parking

The Proposed Project would result in an increase of up to approximately 262 accessory parking spaces (provided below-grade at Building B) and a loss of 74 public parking spaces from two existing at-grade public parking lots located to the south of Westchester Avenue. As shown in Table 4 below, the two existing parking lots currently experience a total of 48 vehicle trips in the AM peak hour, 9 vehicle trips in the midday peak hour, and 53 vehicle trips in the PM peak hour. These vehicle trips would be eliminated in the future with the Proposed Project and a credit has been applied to the traffic demand forecast in Table 3.

Table 4
Vehicle Trips at Existing On-Site Parking Lots

Peak Hour	In	Out	Total
AM	44	4	48
Midday	3	6	9
PM	3	48	53

Source: PHA counts conducted on February 26, 2014.

As a quantified traffic analysis is necessary and parking demand is expected to increase as a result of the Proposed Project, a preliminary analysis of future parking conditions was prepared. As shown in Table 5, assuming a shared parking system for all uses of the Proposed Project, parking demand generated by the various retail, commercial, and community facility uses would typically peak during the midday hours whereas residential parking demand would typically peak during the late evening. As shown in the table, the majority of weekday parking demand is expected to be generated by residential uses. Overall, the proposed development would generate a total demand of approximately 135 parking spaces in the weekday midday period and 173 spaces during the late evening between 8 PM and 9 PM.

Saturday parking accumulation is shown in Table 6. Weekend parking demand is expected to exhibit similar characteristics as the weekday, with retail, commercial, and community facility uses peaking during the midday hours and residential demand peaking during the late evening. As shown in the table, the majority of Saturday parking demand is expected to be generated by residential uses. Overall, the proposed development would generate a total demand of approximately 125 during the Saturday midday period and 177 spaces during the late evening between 8 PM and 9 PM.

As discussed above, 100% of parking demand would be accommodated on both weekdays and Saturday if approximately 177 spaces are provided. As the Proposed Project is expected to provide up to approximately 262 parking spaces, all project-generated demand is expected to be accommodated on-site. It is also important to note that 74 existing public parking spaces would be displaced as a result of the Proposed Project. Displaced drivers are expected to find parking on-street or at other public parking facilities within the surrounding area. Therefore, no significant adverse impacts are anticipated and further detailed parking analysis is not warranted.

Table 5
With-Action Weekday Parking Accumulation

	Residential[1]			Local Retail[1]			Health Club (YMCA)[2]			Office[1] (Common Ground)			Day Care[3]			Community Facility[1] (Recreation) (Rooftop Garden & Other)			TV Studio[4]			Music Studio Rehearsal[5]			Total Accumulation		
	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.
12-1 AM	1	1	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	169
1-2	1	1	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	169
2-3	1	1	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	169
3-4	1	1	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	169
4-5	1	1	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	169
5-6	2	5	166	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5	167
6-7	5	16	155	0	0	0	2	0	3	1	0	1	0	0	0	0	0	0	2	0	2	0	0	0	10	16	161
7-8	5	16	144	1	0	1	2	2	3	4	0	5	1	1	0	0	0	0	4	0	6	0	0	0	17	19	159
8-9	8	44	108	1	1	1	1	1	3	5	0	10	1	1	0	0	0	0	5	0	11	0	0	0	21	47	133
9-10	9	14	103	2	1	2	3	3	3	6	1	15	1	1	0	1	1	0	3	1	13	1	0	1	26	22	137
10-11	9	16	96	2	2	2	2	3	2	0	0	15	0	0	0	0	0	0	2	0	15	2	1	2	17	22	132
11-12	10	13	93	3	2	3	1	2	1	0	0	15	0	0	0	0	0	0	1	0	16	2	1	3	17	18	131
12-1 PM	13	13	93	6	6	3	3	2	2	1	1	15	0	0	0	1	1	0	1	1	16	3	2	4	28	26	133
1-2	13	14	92	3	4	2	2	1	3	2	1	16	0	0	0	1	0	1	1	0	17	1	1	4	23	21	135
2-3	14	13	93	3	4	1	2	2	3	1	0	17	0	0	0	0	0	1	1	1	17	1	1	4	22	21	136
3-4	20	12	101	3	4	0	3	2	4	0	0	17	0	0	0	1	0	2	1	2	16	1	2	3	29	22	143
4-5	31	17	115	3	3	0	2	3	3	1	7	11	1	1	0	0	1	1	1	4	13	1	2	2	40	38	145
5-6	40	17	138	3	3	0	1	1	3	0	6	5	1	1	0	0	1	0	0	5	8	1	3	0	46	37	154
6-7	26	13	151	3	3	0	4	2	5	1	4	2	1	1	0	1	1	0	0	4	4	1	1	0	37	29	162
7-8	24	12	163	2	2	0	2	4	3	1	3	0	0	0	0	0	0	0	0	2	2	0	0	0	29	23	168
8-9	16	8	171	0	0	0	1	3	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	17	12	173
9-10	4	5	170	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	5	7	171
10-11	3	4	169	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5	169
11-12	3	3	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	169
	In	**Out**		**In**	**Out**		**In**	**Out**		**In**	**Out**		**In**	**Out**		**In**	**Out**		**In**	**Out**		**In**	**Out**		**In**	**Out**	
24 Hr Total	260	260		35	35		33	33		23	23		6	6		5	5		22	22		14	14		398	398	

Notes:

(1) West Harlem Rezoning FEIS, August 2012.

(2) Based on data provided by Chinatown YMCA facility on March 5 and 8, 2014.

(3) No. 7 Subway Extension - Hudson Yards Rezoning and Development Program FGEIS, 2004.

(4) Parking pattern for office is used for this land-use.

(5) Melrose Common North EAS, 2014.

Table 6
With-Action Saturday Parking Accumulation

	Residential[1]			Local Retail[1]			Health Club (YMCA)[2]			Office[1] (Common Ground)			Day Care[3]			Community Facility[1] (Recreation) (Rooftop Garden & Other)			TV Studio[4]			Music Studio Rehearsal[5]			Total Accumulation		
	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.
12-1 AM	1	1	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	169
1-2	1	1	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	169
2-3	0	0	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	169
3-4	0	0	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	169
4-5	0	0	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	169
5-6	3	7	165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	7	165
6-7	3	14	154	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	4	14	155
7-8	3	23	134	1	0	1	2	1	1	1	0	1	0	0	0	0	0	0	2	0	3	0	0	0	9	24	140
8-9	10	27	117	2	1	2	3	1	3	1	0	2	0	0	0	0	0	0	5	0	8	0	0	0	21	29	132
9-10	8	23	102	3	2	3	3	1	5	1	0	3	0	0	0	1	1	0	3	1	10	0	0	0	19	28	123
10-11	14	23	93	3	2	4	2	2	5	0	0	3	0	0	0	0	0	0	1	0	11	1	0	1	21	27	117
11-12	14	21	86	3	3	4	3	3	5	0	0	3	0	0	0	0	0	0	1	0	12	3	0	4	24	27	114
12-1 PM	26	23	89	4	4	4	1	2	4	1	1	3	1	0	1	0	0	0	4	3	13	0	2	2	37	35	116
1-2	25	25	89	3	4	3	2	2	4	0	0	3	0	1	0	1	0	1	1	1	13	1	2	1	33	35	114
2-3	23	10	102	4	4	3	1	2	3	0	0	3	0	0	0	0	0	1	0	2	11	2	1	2	30	19	125
3-4	19	7	114	4	4	3	1	2	2	0	0	3	0	0	0	0	0	1	0	2	9	2	1	3	26	16	135
4-5	25	14	125	4	4	3	1	1	2	1	2	2	0	0	0	0	1	0	1	4	6	0	1	2	32	27	140
5-6	31	17	139	4	4	3	0	1	1	0	1	1	0	0	0	0	0	0	1	5	2	0	1	1	36	29	147
6-7	30	14	155	3	3	3	0	1	0	0	1	0	0	0	0	1	1	0	1	3	0	0	1	0	35	24	158
7-8	27	14	168	2	3	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	30	18	170
8-9	22	14	176	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	16	177
9-10	12	12	176	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	13	176
10-11	6	11	171	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	11	171
11-12	6	8	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	8	169
	In	**Out**		**In**	**Out**		**In**	**Out**		**In**	**Out**		**In**	**Out**		**In**	**Out**		**In**	**Out**		**In**	**Out**		**In**	**Out**	
24 hr total	309	309		41	41		19	19		5	5		1	1		3	3		22	22		9	9		409	409	

Notes:

(1) West Harlem Rezoning FEIS, August 2012.

(2) Based on data provided by Chinatown YMCA facility on March 5 and 8, 2014.

(3) No. 7 Subway Extension - Hudson Yards Rezoning and Development Program FGEIS, 2004.

(4) Parking pattern for office is used for this land-use.

(5) Melrose Common North EAS, 2014.

SELECTION OF TRANSIT FACILITIES FOR ANALYSIS

According to the general thresholds used by the Metropolitan Transportation Authority and specified in the *2014 CEQR Technical Manual*, detailed transit analyses are not required if an initial screening indicates that a proposed project would result in less than 200 new peak hour subway or bus transit riders, as fewer than this number of new transit trips is considered unlikely to create significant impacts on existing transit facilities. If a proposed project would generate more than 200 transit trips, then a detailed analysis is warranted for any subway station to which the project would add 200 or more peak hour trips, or for any bus line to which 50 or more passengers per hour would be assigned (in the peak direction).

Subway

It is anticipated that project-generated subway trips would utilize one subway station - the 3rd Avenue-149th Street (2, 5) station located approximately one block to the southwest of the site along E. 149th Street (see Figure 6). As shown in Table 7, the Proposed Project is expected to generate a net total of 468 and 550 subway trips in the weekday AM and PM peak hours, respectively.

Table 7
Net Total Project-Generated Trips by Subway Line

Subway Station	Weekday AM			Weekday PM		
	In	Out	Total	In	Out	Total
3rd Avenue - 149th St (2, 5)	93	375	468	361	189	550
Total	93	375	468	361	189	550

Based on the peak hour subway trip assignment shown in Table 6, the Proposed Project would exceed the 200-trip *2014 CEQR Technical Manual* analysis threshold at the 3rd Avenue-149th Street (2, 5) station. Therefore, a detailed subway analysis is warranted to assess the potential of a significant adverse impact during these peak commuter periods.

Bus

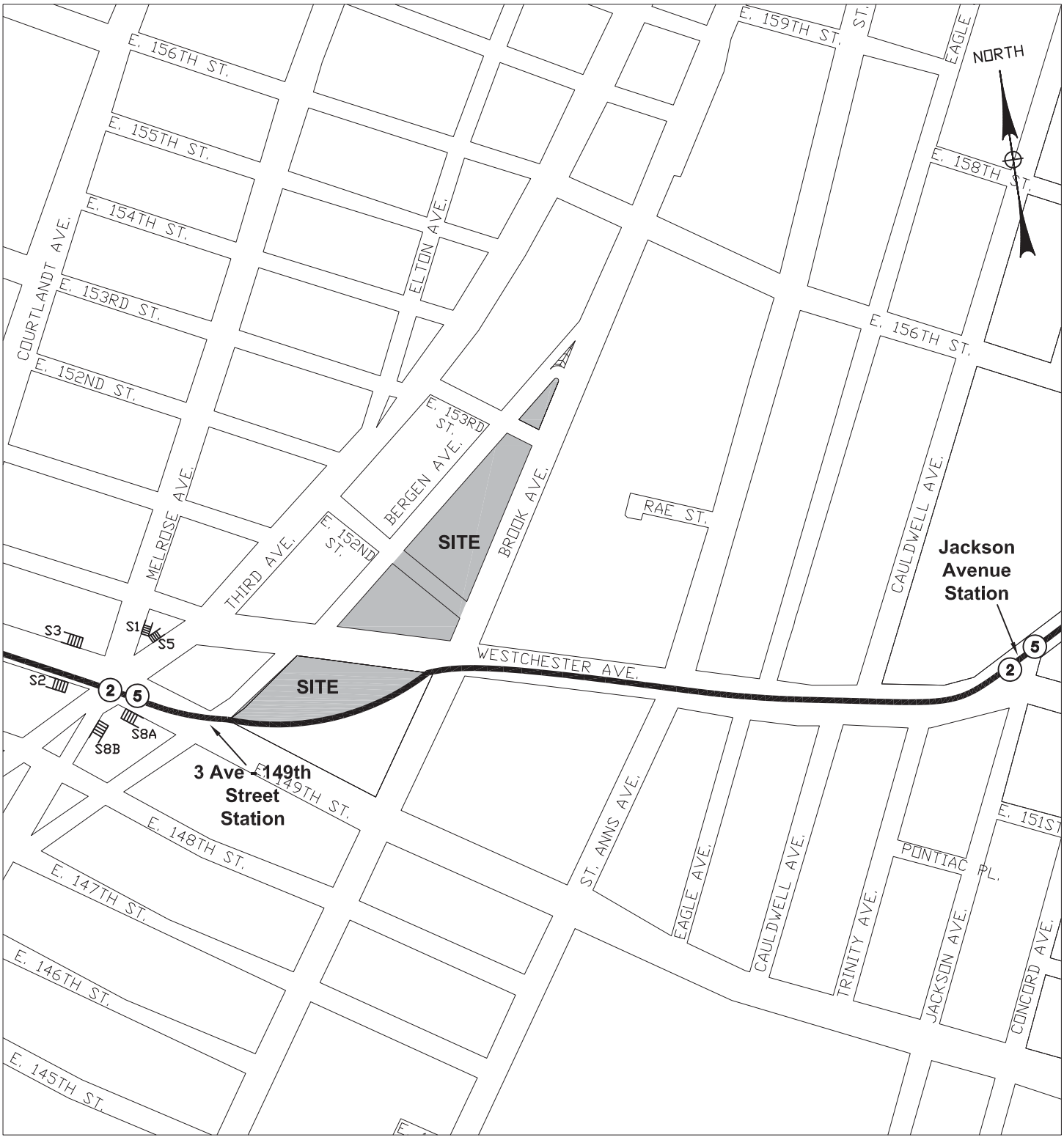
As shown in the travel demand forecast presented in Table 3, it is estimated that the Proposed Project would generate a net total of 136 and 181 bus trips (including bus-subway transfer trips) in the weekday AM and PM peak hours, respectively. As these bus trips are expected to be distributed across six NYC Transit bus routes, including the Bx4, Bx4a, Bx15, Bx19, Bx21, and Bx41 Select Bus Service (SBS), project-generated bus trips would not exceed 50 or more passengers per hour in the peak direction. Therefore, the Proposed Project is not expected to result in significant impacts on any bus lines and further detailed analysis is not warranted.

SELECTION OF PEDESTRIAN ANALYSIS LOCATIONS

Many project-generated trips would include a walk component using local sidewalks, street corners, and crosswalks, to access the project site. Based on the preliminary travel demand forecast shown in Table 3, it is anticipated that the Proposed Project would have the potential to add more than the 200-trip *2014 CEQR Technical Manual* analysis threshold to sidewalks, corner areas, and crosswalks in the immediate vicinity of the project site during the weekday AM, midday, and PM peak hours. Accordingly, the EAS will provide detailed analyses for the pedestrian facilities in the immediate vicinity of the project site where project-generated pedestrian trips are expected to be most concentrated, including the sidewalks, corner areas, and crosswalks providing access to entrances, and along corridors leading to the 3rd Avenue-149th Street (2, 5)

Figure 6

Area Subway Stations



LEGEND:

Projected Development Site

Subway Entrance Stair

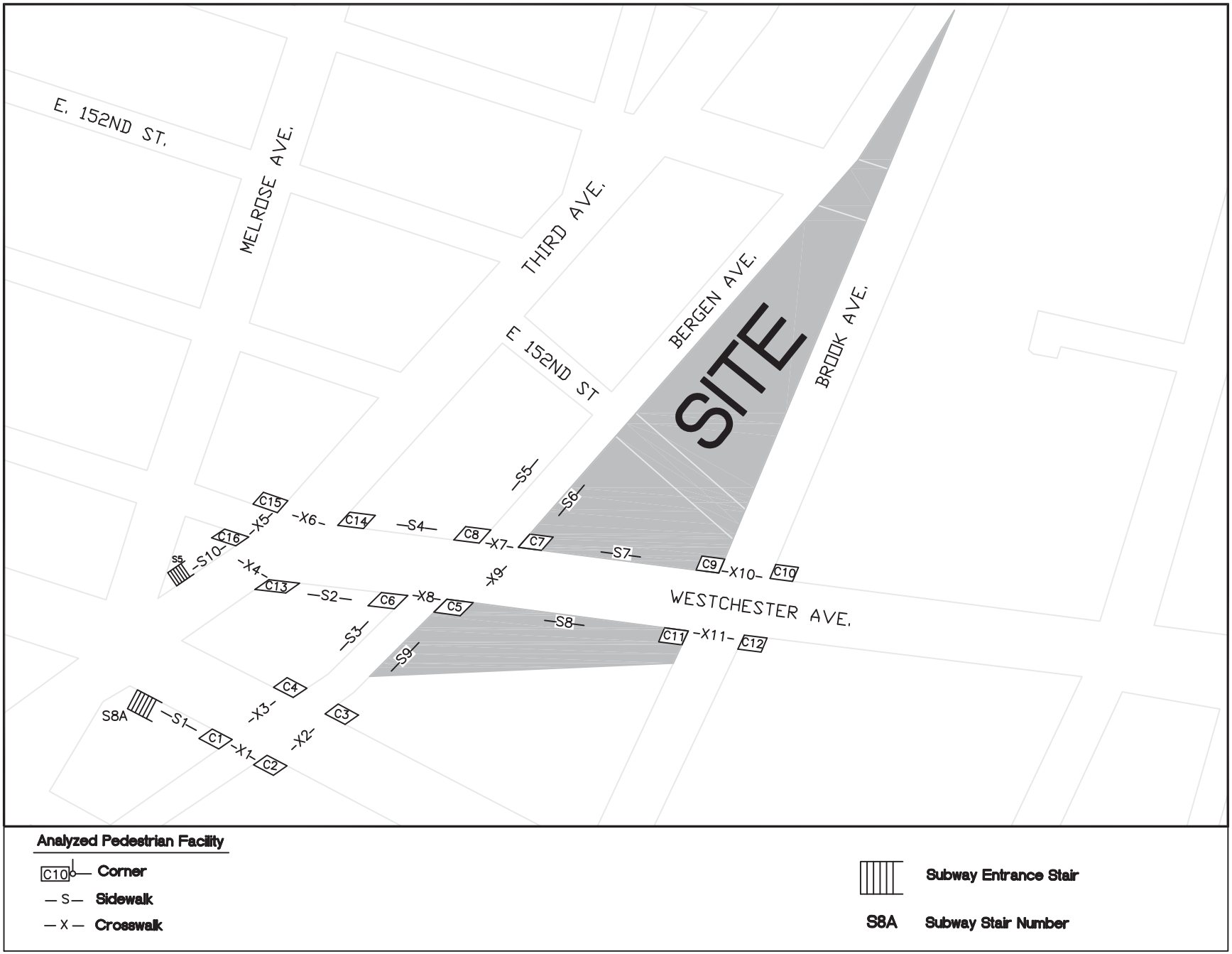
Subway Line

S8A **Subway Stair Number**

subway station. As shown in Figure 7, analysis locations will include sidewalks, corner areas, and crosswalks along Westchester Avenue and Bergen Avenue.

Pedestrian Safety

As the Proposed Project would contain a large amount of residential and community facility uses that are expected to attract a mix of age groups, the EAS will provide an assessment of pedestrian safety. This assessment will include research and documentation on high pedestrian and bicyclist crash locations in the vicinity of the project site. If any high crash locations are identified, measures will be recommended to reduce vehicle/pedestrian and/or vehicle/bicycle conflicts and enhance overall safety.



La Central

Figure 7

Pedestrian Analysis Locations