Fulton and Elliott-Chelsea Houses Redevelopment Project
Draft Scope of Work to Prepare a Draft Environmental Impact Statement

January 5, 2024

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NEPA Notice of Intent to Prepare an Environmental Impact Statement

A. INTRODUCTION

New York City, acting through the New York City Department of Housing Preservation and Development ("HPD"), as Responsible Entity and lead agency under the National Environmental Policy Act of 1969 ("NEPA") in accordance with 24 Code of Federal Regulations (CFR) Section 58.2(a)(7), and the New York City Housing Authority ("NYCHA"), serving as local project sponsor and joint lead agency in accordance with 40 CFR 1501.7(b), intend to prepare an Environmental Impact Statement ("EIS") for the proposed Fulton and Elliott-Chelsea Houses Redevelopment Project in the Chelsea neighborhood of Manhattan, New York (the "Proposed Action"). The Proposed Action to be evaluated in the EIS includes the replacement of existing residential and community facility uses across NYCHA's Fulton, Elliott, Chelsea, and Chelsea Addition Houses campuses in Manhattan as well as new development across the Project Sites. As part of the Permanent Affordability Commitment Together ("PACT") Program, NYCHA intends to submit an application(s) to the United States Department of Housing and Urban Development ("HUD") for disposition of public housing property as authorized under Section 18 of the U.S. Housing Act of 1937 as amended and implementing regulations at 24 CFR part 970 ("Section 18") and the Rental Assistance Demonstration ("RAD") Program created by the Consolidated and Further Continuing Appropriations Act of 2012, as amended, for the conversion of subsidies under Section 9 of the United States Housing Act of 1937 (42 U.S.C. 1437g) to project-based vouchers ("PBVs") subsidies under Section 8 of the United States Housing Act of 1937 (42 U.S.C 1437f). Under the PACT program, NYCHA would enter into 99-year ground leases involving the Project Sites, with Elliott Fulton LLC, a joint venture between Essence Development and The Related Companies and/or affiliates thereof (collectively, the "PACT Partner"). Such planned activities and applications at HUD-assisted Project Sites require environmental clearance.

The Proposed Action affects two NYCHA campuses consisting of the Fulton Houses ("Fulton Houses Project Site"), Elliott Houses, Chelsea Houses, and Chelsea Addition Houses (collectively, "Elliott-Chelsea Houses Project Site") (collectively, the "Project Sites"). The Proposed Action includes the following activities:

a) The staged replacement and demolition of all existing dwelling units and community facility spaces at the Project Sites; and
b) The staged development of additional new mixed-use buildings on the Project Sites, that would create additional permanently affordable and market rate residential units, additional community facility space and provide new retail and supermarket uses

Besides HUD approvals, the Proposed Action requires approvals from NYCHA's Board and may require New York City land use approvals, subject to the alternative chosen for the Proposed Action.

Implementing the Proposed Action requires the preparation of an EIS in accordance with NEPA as amended, 42 U.S.C. 4321 *et seq.*, the Council on Environmental Quality ("CEQ") NEPA regulations at 40 CFR parts 1500-1508, and HUD implementing regulations at 24 CFR part 58. NEPA governs the disclosure and analysis of the environmental effects of actions that are funded, approved, or directly undertaken by a federal government agency. Pursuant to 24 CFR part 58 (Environmental Review Procedures for Entities assuming HUD Environmental Responsibilities),

New York City acting through HPD has assumed the role of HUD by serving as the Responsible Entity for the environmental review of the Proposed Action. As such, HPD is acting as Lead Agency under NEPA. NYCHA, a New York State public benefit corporation, is serving as local project sponsor and joint-lead agency under NEPA in accordance with 40 CFR 1501.7(b). Since the Proposed Action also requires state approvals, the EIS will also satisfy the State Environmental Quality Review Act ("SEQRA") and its implementing regulations (6 New York Code Rules and Regulations ["NYCRR"] Part 617). Additionally, in the event the Proposed Action requires local approvals by the City of New York, it would also be subject to City Environmental Quality Review ("CEQR"), as set forth in Executive Order 91 of 1977, CEQR regulations, and subsequent CEQR amendments. HPD and NYCHA, with the cooperation of a number of involved and interested agencies at the city, state and federal levels, will therefore be preparing a NEPA EIS that will analyze the potential environmental impacts of the Proposed Action and the identified alternatives. The EIS will serve to fulfill the analysis requirements of NEPA, SEQRA and CEQR.

Public scoping is the first step in the environmental review process and is the period during which government agencies, elected officials, community organizations, groups, and individuals can review and provide comments on the Draft Scope of Work ("DSOW") to Prepare a Draft EIS ("DEIS"). This DSOW therefore describes the following: the background for the Proposed Action; the purpose and need for the Proposed Action; a summary of the Proposed Action and its alternatives; and the methodologies to be used in assessing the potential for impacts associated with the Proposed Action alternatives. The proposed DEIS impact assessment criteria and methodologies contained in this DSOW are primarily based on the guidance set forth in the 2021 *CEQR Technical Manual,* but also draw upon state and federal guidelines, where applicable. The proposed scope of work for each DEIS impact category area is described in the sections below. The potential for impacts will be assessed and disclosed in the DEIS.

B. BACKGROUND OF THE PROPOSED ACTION

This section provides information about how the Proposed Action and its development alternatives were identified through a process involving extensive consultation with NYCHA residents and other stakeholders, selection of the PACT Partner, and vote by NYCHA residents on options for the future of the Project Sites.

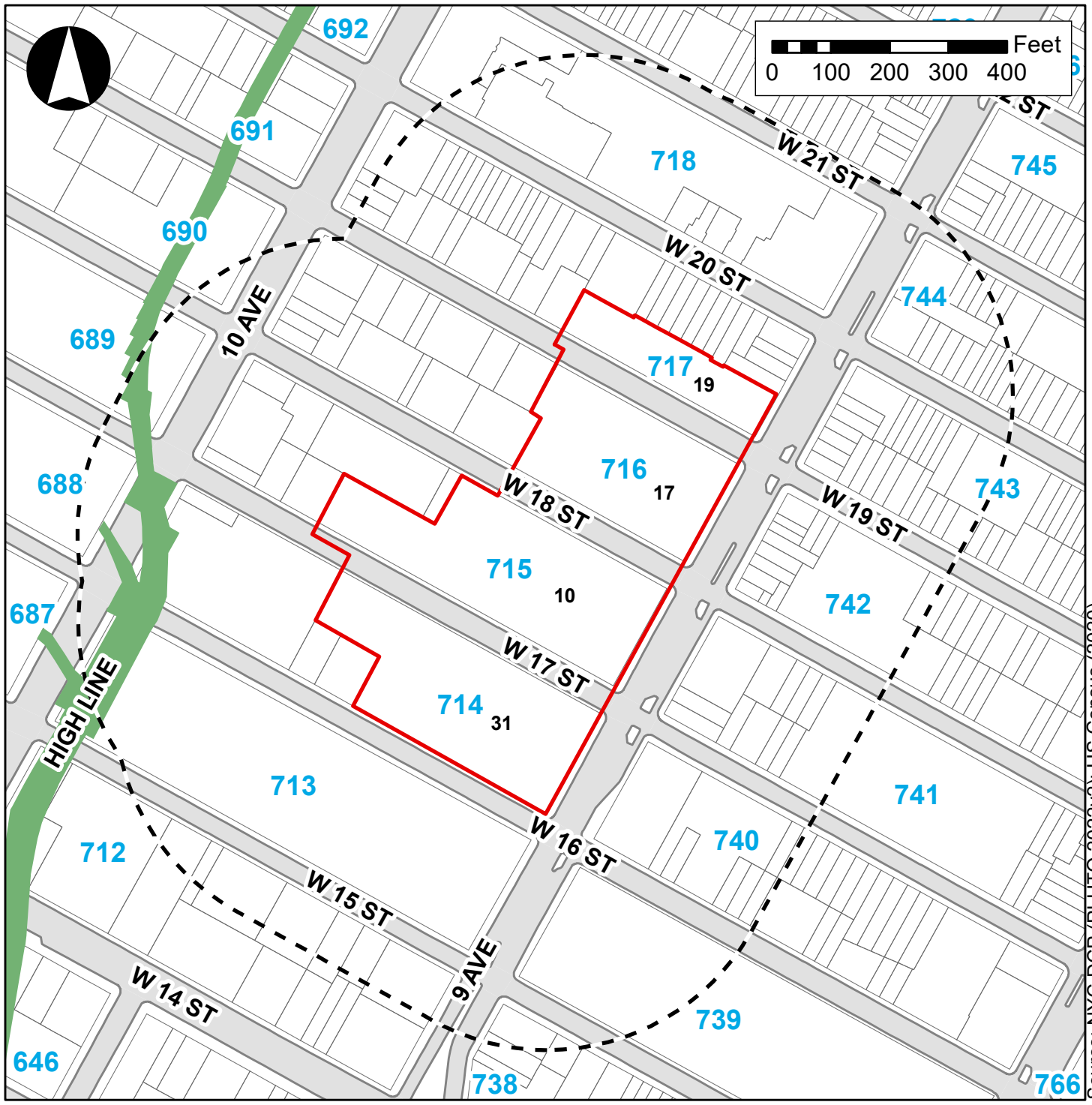
As the Fulton Houses Project Site and the Elliott-Chelsea Houses Project Site are separated by approximately a quarter-mile. **Figures 1a** and **1b** identify the location of the Fulton Houses Project Site and the Elliott-Chelsea Houses Project Site, respectively, and **Figures 2a** and **2b** provide aerial photographs.

Formally called the Robert S. Fulton Houses, the Fulton Houses Project Site was completed in 1965. It is a "towers-in-the-park" development with open areas including playgrounds, a basketball court, landscaping, seating, walking paths, accessory parking, and ancillary areas.

The Fulton Houses Project Site occupies portions of four blocks that are bound by W. 20th Street on the north, 9th Avenue on the east, W. 16th Street on the south, and 10th Avenue on the west. Uses on the Fulton Houses Project Site include 944 NYCHA dwelling units (DUs), 14,634 gross square feet (gsf) of neighborhood center space, and 95 accessory parking spaces. The Fulton

Figure 1a

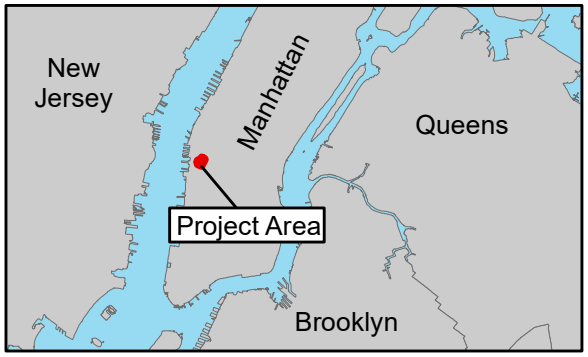
Location Map: Fulton Houses Project Site



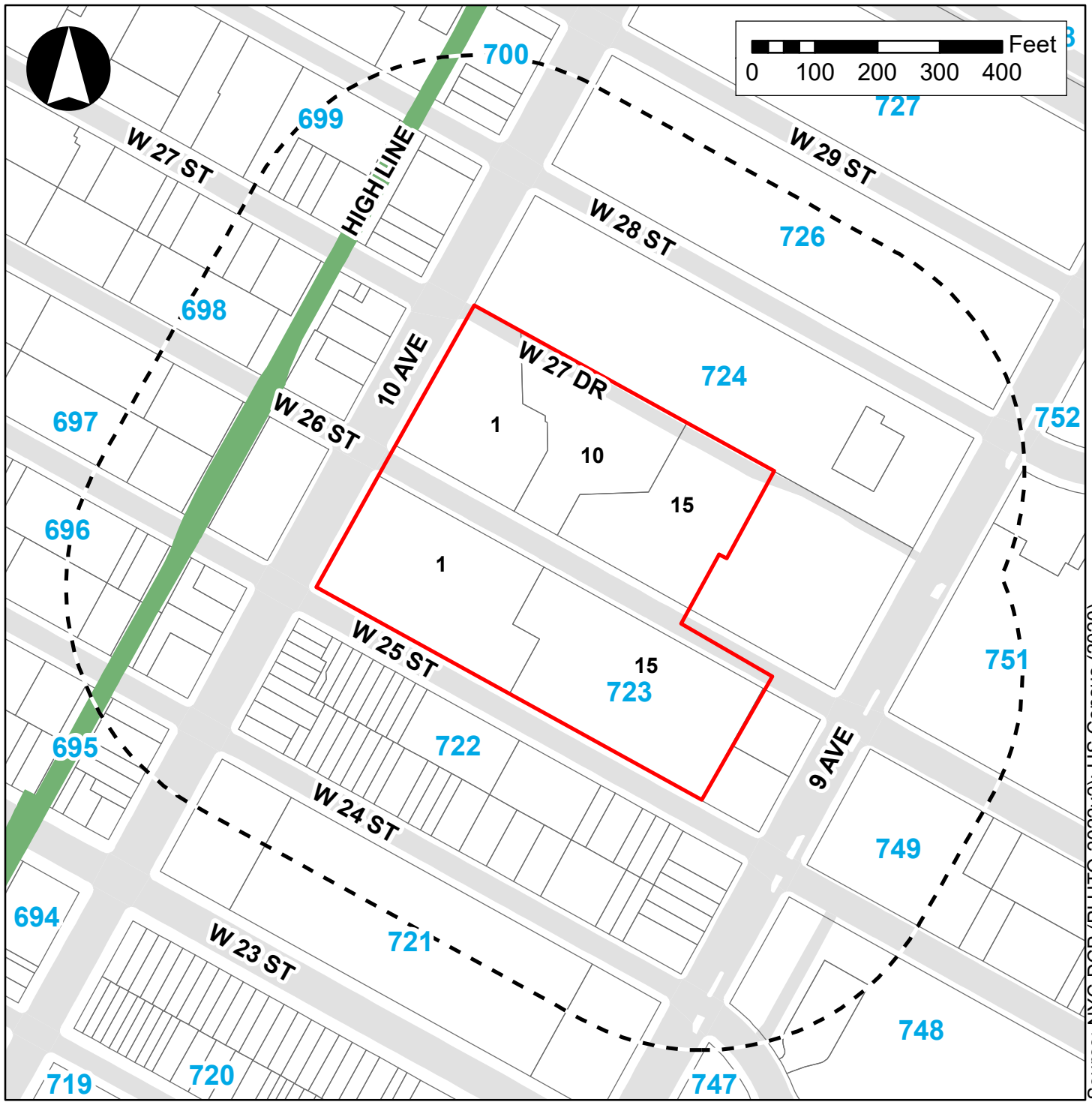
Source: NYC DCP (PLUTO 2022v2); US Census (2020)

Legend

- Fulton Houses
- 400-Foot Radius
- The High Line
- 715 Blocks
- 10 Lots



Location Map, Elliott-Chelsea Houses Project Site



Legend

- Elliott-Chelsea Houses
- 400-Foot Radius
- The High Line
- 724 Blocks
- 10 Lots

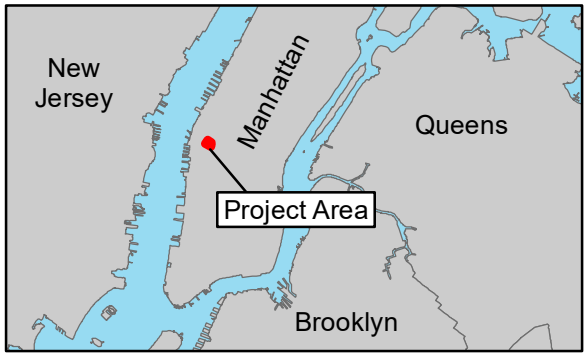
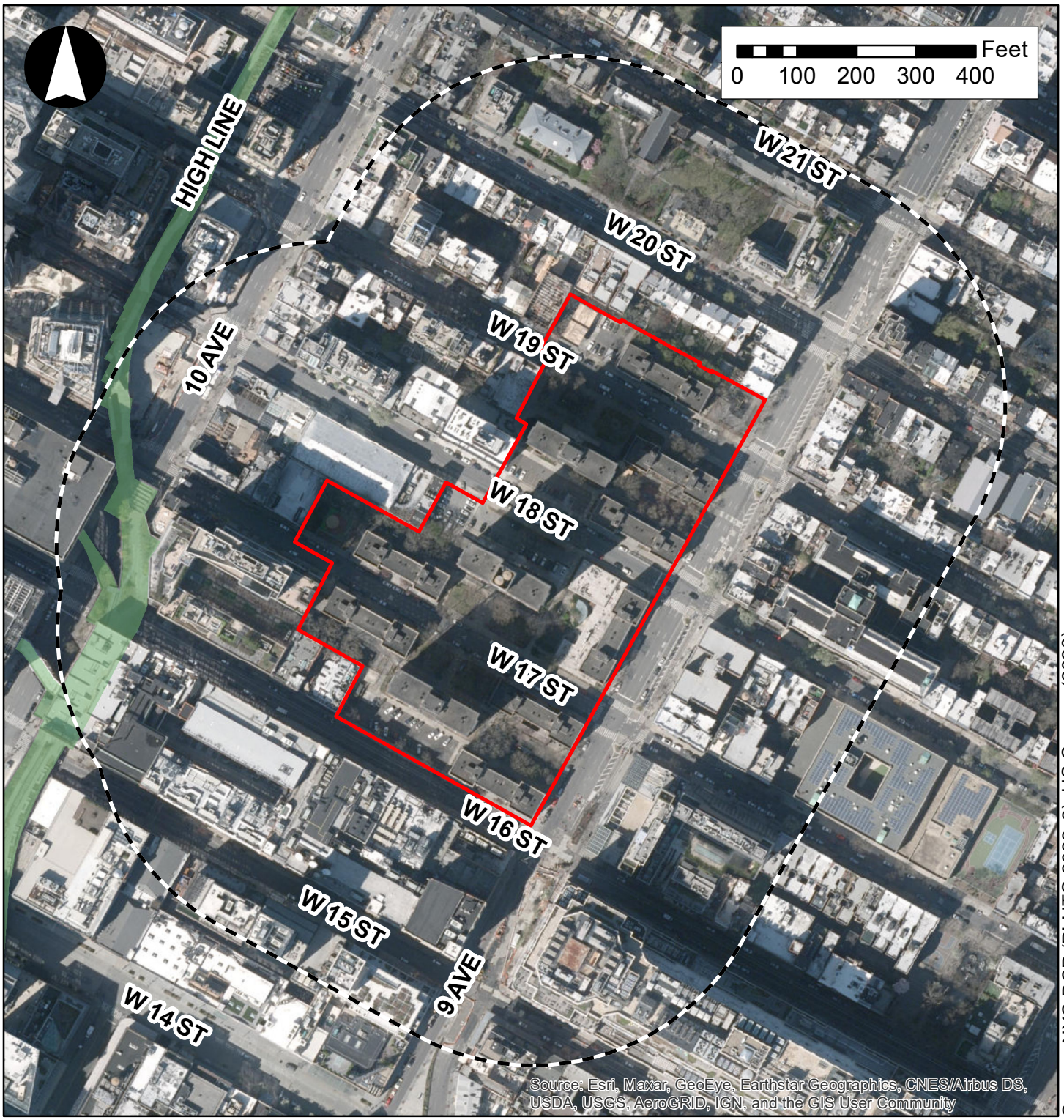


Figure 2a

Aerial Photograph, Fulton Houses Project Site



Source: NYC DCP (PLUTO 2022v2); US Census (2020)

Legend

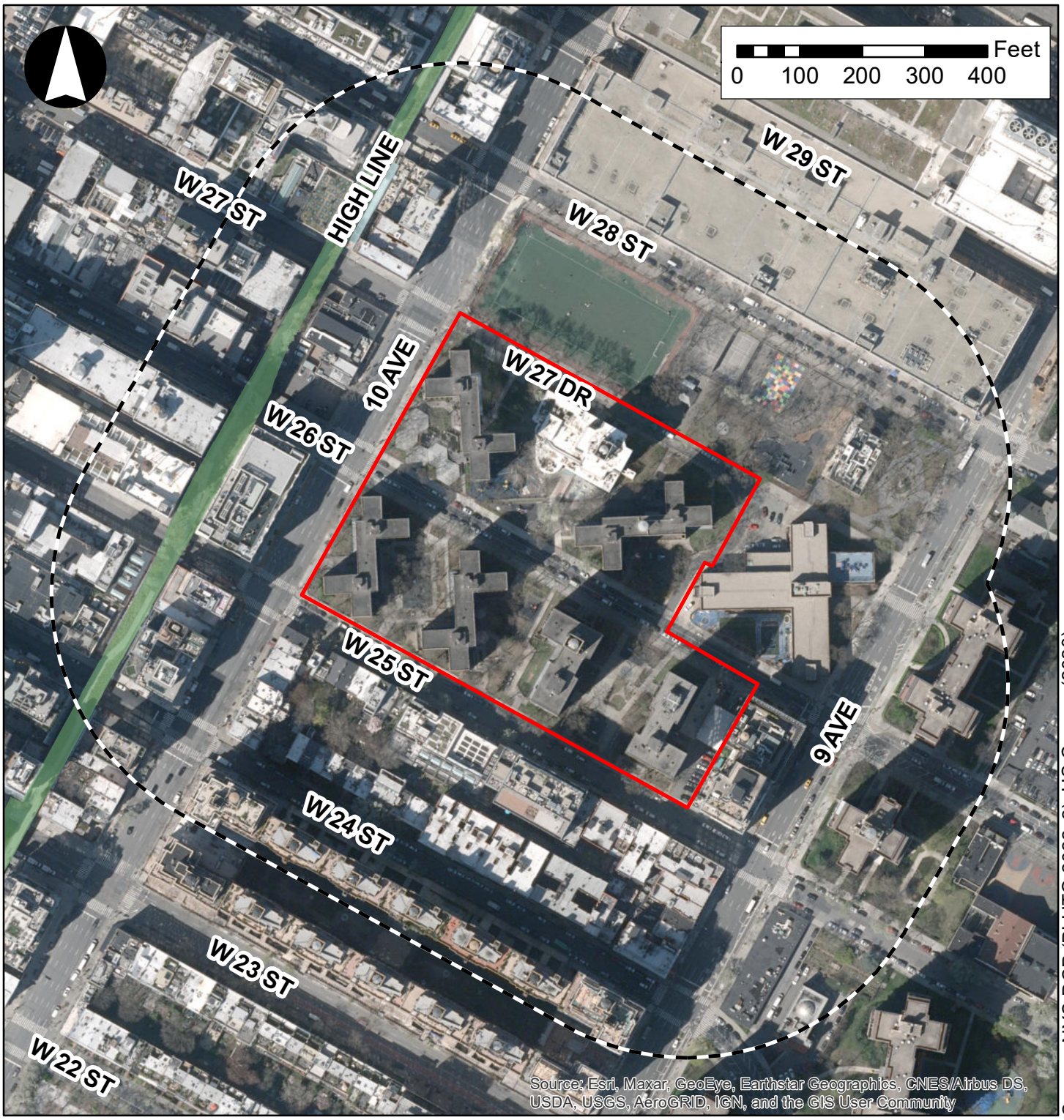
Fulton Houses

400-Foot Radius

The High Line

Figure 2b

Aerial Photograph, Elliott-Chelsea Houses Project Site



Source: NYC DCP (PLUTO 2022v2); US Census (2020)

Legend

Elliott-Chelsea Houses

400-Foot Radius

The High Line

Houses Project Site includes 12 existing buildings, consisting of 11 apartment buildings and 1 storage/garage building, ranging from 1 to 25 stories, with the tallest building 232 feet tall.

The Elliott-Chelsea Houses Project Site occupies portions of two blocks that are bound by Chelsea Park on the north, 9th Avenue on the east, W. 25th Street on the south, and 10th Avenue on the west. Uses on the Elliott-Chelsea Houses Project Site include 1,112 NYCHA DUs, 42,225 gsf of community facility neighborhood center space, and 10,300 gsf of daycare space. The Elliott-Chelsea Houses Project Site includes 10 existing buildings, consisting of 7 apartment buildings, 2 community facility buildings, and 1 storage/garage building, ranging from 1 to 21 stories with the tallest building 223 feet tall.

The John Lovejoy Elliott Houses, completed 1947, Chelsea Houses, completed in 1964, and Chelsea Addition Houses, constructed in 1968, are administered as one entity and comprise the Elliot-Chelsea Houses Project Site. The Elliott-Chelsea Houses Project Site is also a "towers-in-the-park" development, but unlike the Fulton Houses Project Site, this complex does not have any accessory parking.

In total, the Project Sites include 22 existing buildings, consisting of 18 apartment buildings, 2 community facility buildings, and 2 storage/garage buildings, ranging from 1 to 25 stories with the tallest building 232 feet tall. Existing uses on the Project Sites include 2,056 NYCHA DUs, 56,859 gross square feet (gsf) of neighborhood center space, 10,300 gsf of daycare, and 95 accessory parking spaces.

Process of Identifying the Proposed Action

The buildings and units on the Project Sites are severely deteriorated and would need substantial repair and rehabilitation to address issues including persistent mold and leaks, the presence of lead-based paint, outdated elevator, heating, ventilation, mechanical and electrical systems, old fixtures and appliances, and many other issues that negatively impact residents' quality of life.[1]

The Proposed Action and its development alternatives, described in Section F.2 below, were determined through an extensive public engagement process conducted from 2019 to 2023, including consultations with NYCHA residents, elected officials, community representatives, and housing organizations and advocates. Over the course of many months, these stakeholders engaged in weekly meetings to collect feedback, discuss finance, and strategize on ways to address the capital needs. Among other strategies to raise revenue for repairs, recommendations included that the Fulton and Elliott-Chelsea developments be included in PACT and identified appropriate locations and design guidelines for new mixed-use redevelopment.

In 2019, the stakeholders involved in these ongoing consultations and NYCHA agreed to release a request for proposals for the selection of a PACT partner to rehabilitate 100 percent of the DUs on the Project Sites, and build new infill mixed-income residential buildings to raise funds needed for the rehabilitation of existing DUs. In late 2021, NYCHA, in consultation with residents of the

[1] The PACT Partner and NYCHA are advancing a separate project to address building conditions for the purpose of improving resident quality of life, intended as an interim measure until the completion of replacement buildings under the Proposed Action. More information is provided below under "No-Action Alternative."

Fulton and Elliott-Chelsea Houses (FEC residents), selected Elliott Fulton, LLC, a joint venture between Essence Development and The Related Companies, as NYCHA's PACT Partner.

Following designation by NYCHA, the PACT Partner completed a comprehensive, five-month pre-design due diligence process that revealed significant, previously unanticipated capital repair needs and determined that extensive temporary relocation of residents would be required as a result of the particular conditions of major building systems. Before moving forward with renovations, resident leaders worked with the PACT Partner to identify alternative development solutions and allowed residents to decide their preferred option.

In 2023, the PACT Partner continued its engagement with residents, NYCHA, and the Citizens Housing and Planning Council (CHPC)[2] in a transparent process for NYCHA residents to determine the future of their homes by deciding whether to pursue total redevelopment of their campuses or to rehabilitate existing buildings. Over a 60-day period beginning in March, the PACT Partner and NYCHA held 35 information sessions, canvassed thousands of residents, and mailed informational packets to every apartment on the Project Sites to inform the community of the selection process and the options up for consideration. Residents 18 years of age and older could indicate their preference for new buildings or rehabilitation of existing buildings, using either an online or paper survey administered by CHPC. If residents selected new buildings, they could then choose from two variations of new construction plans, one requiring a rezoning and one that would be developed without a rezoning. A majority of resident respondents were in favor of building new NYCHA Project-Based Section 8 buildings across the Project Sites and, of that majority, more selected the rezoning proposal.

Therefore, NYCHA and the PACT Partner, in consultation with leadership from the Fulton and Elliott Chelsea Tenants Associations, are proposing a revised and expanded project, which is the Proposed Action identified herein.

C. PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the Proposed Action is to improve the quality of life and housing stability for existing public housing residents of the Fulton and Elliott-Chelsea Houses. It would do so by constructing new PBV-assisted housing for all existing residents, while also preserving permanent affordability and residents' rights under the PACT Program. The purpose of the Proposed Action is also to facilitate the construction of additional affordable and market rate housing units to address the critical shortage of affordable housing and housing in general in New York City and financially support the PACT portion of the project. The new affordable units would directly address the shortage by increasing New York City's affordable housing stock while the new market-rate units would indirectly address the shortage by increasing the overall supply of housing in New York City. The Proposed Action would also facilitate the development of additional community facility, retail and open space for the benefit of NYCHA residents and the surrounding community.

[2] CHPC is a non-profit research and education organization focused on housing and planning policy in NYC.

D. ENVIRONMENTAL REVIEW PROCESS

The environmental review process provides a means for decision-makers to systematically consider environmental effects of the Proposed Action, to evaluate and compare reasonable alternatives, and to identify and mitigate, where practicable, any significant adverse environmental impacts per 24 CFR part 50, subpart A. HPD and NYCHA, as joint-Lead Agencies under NEPA, have determined that the Proposed Action has the potential to result in significant adverse environmental impacts. Therefore, at their request, HUD has issued a Notice of Intent to Prepare an EIS ("NOI-EIS") (in accordance with 40 CFR part 1502) for the Proposed Action [attached hereto as an appendix]. The joint-Lead Agencies have prepared this DSOW for the DEIS which describes the methodologies to be used in the impact analysis and to allow for public and stakeholder participation in the scoping process. The joint-Lead Agencies will then prepare a DEIS based on the Final Scope of Work ("FSOW"). The FSOW will include a response to comments on the DSOW and any modifications to address those comments.

Once the joint-Lead Agencies have determined that the DEIS is complete, a Notice of Availability will be prepared, distributed, and published in accordance with applicable regulations. The DEIS will then be subject to additional public review, including a public hearing and a period for public comment. After the DEIS public comment period has closed, a FEIS will be prepared, which will include a summary of the comments received on the DEIS, responses to all substantive comments, and any appropriate revisions to the DEIS to address those comments. No sooner than 30 days after publishing the FEIS, a Record of Decision and Statement of Findings describing the Preferred Alternative for the project, its environmental impacts, and any required mitigation will be issued. Once the environmental review process is concluded, the Proposed Action may proceed.

E. APPROVALS AND COORDINATION

The Proposed Action requires Federal and State approvals and possibly City discretionary approvals. The discretionary approvals are listed below, followed by a more detailed summary of each item.

Federal approvals by HUD required to facilitate the Proposed Action are anticipated to include:

- HUD Section 18 and RAD Program Applications Approvals
- HUD PBV Approval

State and/or City approvals required:

- NYCHA Board approval;
- New York City Planning Commission ("CPC") land use approvals (colloquially, a rezoning) to facilitate the Rezoning Alternative, as it is not as-of-right under existing zoning (this would not be required for the Non-Rezoning Alternative);

HUD Approvals

NYCHA intends to submit an application(s) to HUD for the disposition of public housing property as authorized under the federal RAD program created by the Consolidated and Further Continuing Appropriations Act of 2012 (Public Law No. 112-55, approved November 18, 2011), as amended, and the corresponding HUD Notice H-2019-09 PIH 2019-2023 (HA) REV-4 (September 5, 2019), as amended by Notice H-2023-08, PIH 2023-19 (HA) (July 27, 2023) as may be further amended, as authorized under Section 18 of the U.S. Housing Act of 1937 as amended and implementing regulations of 24 CFR part 970 and HUD Notice PIH-2021-07 (HA), Demolition and/or Disposition of Public Housing Property, Eligibility for Tenant-Protection Vouchers, and Associated Requirements, (January 19, 2021) (Section 18).

NYCHA Board Approval

NYCHA Board approval is required to facilitate the Proposed Action and would include approval of one or more long-term (99-year) ground lease(s) of the Project Sites to the PACT Partner, who in this capacity would be the designated Recipient of the disposition. This disposition would be executed in accordance with the terms of the HUD approvals.

Land Use Approvals (if required)

If approved under the Proposed Action, the first building to be constructed on each of the Project Sites would comply with the regulations set forth in the New York City Zoning Resolution (i.e. it would be "as-of-right"). The remaining buildings to be constructed on the Project Sites under the Rezoning Alternative would not be as-of-right and therefore would require city land use approvals. Although the specific land use approvals will not be finalized until that time, the objective of the land use approvals would be to facilitate the use and bulk comprising the Rezoning Alternative. These approvals would be expected to include:

(a) a zoning map amendment to establish zoning districts that would allow the proposed bulk as described in the Rezoning Alternative, by:

  (i) permitting a maximum floor area ratio (FAR) of 12.0 within 100 feet of avenues and 8.0 along midblocks beyond 100 feet of avenues; and
  (ii) establishing, where needed and appropriate, a commercial overlay district to permit proposed retail and supermarket uses in buildings bases along avenue corridors;

(b) a zoning text amendment to designate the Projects Sites as Mandatory Inclusionary Housing Areas (MIHAs); and

(c) a large scale general development (LSGD) special permit to facilitate the proposed site plan by allowing:

  (i) distribution of floor area without regard to zoning lot lines or district boundaries; and
  (ii) location of buildings without regard for the applicable yard, court, distance between buildings or height and setback regulations.

These approvals are collectively referred as a rezoning.

These land use approvals are subject to New York City's Uniform Land Use Review Procedure (ULURP).

ULURP, mandated by Sections 197-c and 197-d of the City Charter, is a process that allows public review of a proposed action requiring certain discretionary land use approvals under CPC jurisdiction. It involves advisory reviews and/or votes to approve at four levels: advisory review of the Community Board, advisory review of the Borough President, a review and vote to approve by the CPC, and a review and vote to approve by 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 EIS will provide more information on the City's land use review and approval process.

Mayoral Zoning Override (MZO) (if required)

An MZO is a discretionary action by the Mayor of the City of New York, to allow relief or modification of certain zoning requirements. The potential for an MZO to address, for example, non-compliant interim conditions on the Project Sites, is indicated as a potential required approval.

F. PUBLIC SCOPING FOR THE DSOW

The Scoping of the Proposed Action provides the public with an opportunity to learn what is being proposed and to provide input to be included in the environmental review.

An NOI-EIS, including information on the scoping process, has been published in the *Federal Register* on January 8th, 2024 and a Notice of Availability of Draft Scope and Public Scoping Session has been published in the New York State *Environmental Notice Bulletin* on January 10th, 2024. Notices and project information have been placed in publications serving the community and were published in the following languages: English, Spanish, Traditional Chinese, Simplified Chinese, and Russian.

Notices were placed in the following newspapers in the classified advertising sections:

- Metro
- El Diario
- World Forum
- World Journal

A copy of this DSOW can be obtained online at https://www.nyc.gov/site/nycha/about/pact/Chelsea-Fulton.page or by contacting:

New York City Department of Housing Preservation and Development
Attn: Anthony Howard
100 Gold Street, #7-A3
New York, NY 10038
Nepa_env@hpd.nyc.gov

Public Comment Period and Community Meetings

To solicit public comments on the Proposed Action, the alternatives to be analyzed in the EIS, and this DSOW, a public comment period will be open until 10 days after the last public scoping meeting, whichever is later. During this time, NYCHA and HPD will hold three (3) public scoping meetings and accept written comments to receive public input. The public meetings will be held on:

- Thursday, February 1st, 2024, 6 PM– **In-person** at Fulton Houses (119 9th Avenue, New York, NY 10011)
- Monday, February 5th, 2024, 4 PM – Online https://bit.ly/FECEISjan
- Wednesday, February 7th, 2024, 6:30 PM – **In-person** at Elliott-Chelsea Houses (428 W. 26th Street, New York, NY 10001)

Each meeting will have simultaneous Spanish, Mandarin, Cantonese, Russian, and American Sign Language interpretation. Individuals who require additional special assistance, such as interpretation, captioning, or signing services to participate in the scoping meetings, should make the request by emailing nepa_env@hpd.nyc.gov by Monday, January 19th, 2024.

How to Comment in Writing

Written comments may be provided through the 10th day after the last public scoping meeting:

By email to:

Anthony Howard
Nepa_env@hpd.nyc.gov

By mail to:

New York City Department of Housing Preservation and Development
Attn: Anthony Howard
100 Gold Street, #7-A3
New York, NY 10038

How Comments Will be Used

At the end of the comment period, the joint-Lead Agencies will collect, review, and summarize the written and verbal comments received and prepare a FSOW for the DEIS. The FSOW will address the comments received during the public review. The FSOW will include a response to comments on the DSOW and will include any changes that are necessary to address those comments.

F.1. Organization and Scope of the Draft Environmental Impact Statement

The DEIS will consist of several chapters. The initial set of chapters, which are descriptive in nature, will include the following: Purpose and Need for the Proposed Action; Project Alternatives; Process Coordination and Public Participation; and Analysis Framework. These will be followed by analysis chapters identifying the affected environment and environmental consequences of the Proposed Action on the following impact categories: Land Use, Zoning, and Public Policy; Coastal Zone Management/Waterfront Revitalization Policies (WRP); Floodplain Management and Flood

Insurance; Socioeconomic Conditions; Community Facilities and Services; Open Space; Shadows; Historic and Cultural Resources; Urban Design and Visual Resources, Natural Resources; Hazardous Materials; Water and Sewer Infrastructure; Solid Waste and Sanitation Services; Energy; Transportation; Air Quality; Greenhouse Gas Emissions and Climate Change; Noise; Public Health; Neighborhood Character; Construction; and Environmental Justice. An Executive Summary will precede the EIS's first chapter. The EIS will also contain the following summary chapters: Indirect and Cumulative Effects; Unavoidable Adverse Impacts; and Irreversible and Irretrievable Commitments of Resources.

F.2. Description of Alternatives

For the Proposed Action, up to four alternatives are identified at this time: Alternative 1 – No-Action Alternative; Alternative 2 – Rezoning Alternative; Alternative 3 – Non-Rezoning Alternative; and Alternative 4 – No Significant Adverse Impacts Alternatives. The Rezoning, Non-Rezoning, and No Significant Adverse Impacts Alternatives are referred to as the "development alternatives" as they would involve new development pursuant to granting of discretionary approvals whereas the No-Action Alternative, which serves as a baseline for comparison of the effects of the other alternatives would occur in the absence of the proposed discretionary approvals and implementation of the Proposed Action.

In order to provide a conservative analysis, for each of the alternatives the EIS will study an indicative development program (identified below) that reflects the maximum development program that would be expected.

F.2.1 Alternative 1 – No-Action Alternative

The No-Action Alternative is intended to provide the lead, expert, and cooperating agencies with an assessment of the expected environmental impacts of no action on their part.

The EIS will evaluate No-Action Alternative conditions in the 2040 analysis year without the Proposed Action, including other projects being constructed and/or operated within the same vicinity and time frame.

The No-Action Alternative assumes that without the implementation of one of the Proposed Action's development alternatives, the Project Sites would remain in their current condition. Therefore, the existing buildings would not be replaced, and no new development would occur on the Project Sites. Additionally, major capital improvements, rehabilitation, or renovations subject to discretionary approvals such as the PACT/RAD rehabilitation program, would not occur. Routine maintenance and repairs would be carried out.

As under existing conditions, the No-Action Alternative would include 22 existing buildings, consisting of 18 apartment buildings, 2 community facility buildings, and 2 storage/garage buildings, ranging from 1 to 25 stories. The tallest building is 232 feet.

Under the No-Action Alternative, the Fulton Houses Project Site would continue to have the existing uses as shown in Table 1a. These include 944 NYCHA DUs, 14,634 gross square feet (gsf) of community facility neighborhood center space, and 95 accessory parking spaces.

Likewise, under the No-Action Alternative, the Elliott-Chelsea Houses Project Site would continue to have the existing uses as shown in Table 1b. These include 1,112 NYCHA DUs, 42,225 gsf of community facility neighborhood center space, and 10,300 gsf of daycare space.

Under the No-Action Alternative there would continue to be 2,056 NYCHA DUs, 56,859 gsf of community facility neighborhood center space and 10,300 gsf of daycare space across the Project Sites, and 95 accessory parking spaces at the Fulton Houses Project Site.

Separate from the Proposed Action, NYCHA has authorized the PACT Partner to undertake improvements at the Project Sites' existing buildings, including enhanced security, increased pest control, and proactive maintenance of heating systems, intended to improve the safety, security, living conditions, and quality of life for public housing residents prior to the completion of the NYCHA replacement buildings under the Proposed Action.

These improvements are anticipated to begin in the near-term and are not contingent upon completion of the environmental review and approval process for the Proposed Action. They are referred to as the Maintenance and Operations Improvements at Fulton, Elliott, Chelsea, and Chelsea Addition Houses project.[3] These improvements and routine maintenance and repairs would not fully remedy the serious deterioration that is the root cause of many of the building conditions. Given that this work would occur with or without the Proposed Action, it is considered as part of the No-Action Alternative.

As part of the No-Action Alternative, the EIS will identify expected and in-progress developments and other changes in the surrounding areas that would affect the various impact category chapter study areas.

F.2.2 Alternative 2 – Rezoning Alternative

For this alternative, NYCHA and the PACT Partner would seek certain discretionary land use actions from the City of New York to facilitate development of the Proposed Action. A reasonable worst-case development of the Project Sites pursuant to those City actions will be analyzed in a "Rezoning Alternative". Under the Rezoning Alternative, there would be a staged replacement and demolition of all existing buildings and DUs on the Project Sites. All existing NYCHA DUs would be replaced and reserved for current residents of the Fulton and Elliott-Chelsea Houses as Project-Based Section 8 units. Existing community facility space would also be replaced. Additional development would occur, including new mixed-income buildings containing both non-NYCHA MIH permanently affordable housing DUs and market rate DUs with ground floor commercial and community facility uses. Community facility space serving the Chelsea neighborhood and surrounding areas would be expanded, as compared to the No-Action Alternative. Local retail (including supermarket uses) would be introduced to the Project Sites and accessory open space

[3] NYCHA and HPD executed a NEPA Exempt/Categorially Excluded Not Subject to 24 CFR part 58.5 letter on September 26th, 2023 for the Maintenance and Operations Improvements at Fulton, Elliott, Chelsea, and Chelsea Addition Houses project.

would be provided. The 95 existing accessory parking spaces on the Fulton Houses Project Site also would be replaced and one additional space would be added for a total of 96 spaces.

Should the City land use process result in modifications to the Rezoning Alternative analyzed in the EIS, further assessment would be conducted to determine if such changes would result in significant adverse impacts not identified in the EIS.

Development Program

The Rezoning Alternative development program that will be studied in the EIS is presented in **Table 2a** for the Fulton Houses Project Site and in **Table 2b** for the Elliott-Chelsea Houses Project Site. **Table 2b** also includes a summary row showing the program for the entire FEC Project Sites. Refer to **Figure 3a and 3b** which show the location of the proposed buildings.

As shown in **Table 2a**, under the Rezoning Alternative, the Fulton Houses Project Site would be developed with 944 Project-Based Section 8 DUs set aside for existing residents of the FEC Project Sites, an additional 1,788 mixed-income building DUs, of which 537 would be MIH permanently affordable housing DUs (i.e., 30 percent of the total residential floor area),[4] and the remainder, 1,251 DUs (70 percent of the total residential floor area), would be market rate units.[5] There would also be 16,724 gsf of local retail, 6,580 gsf of supermarket, and an additional 53,939 gsf of community facility neighborhood center, 9,770 gsf of daycare, and 2,500 gsf of medical office related uses (also referred to as health care).

As shown in **Table 2b** under the Rezoning Alternative, the Elliott-Chelsea Houses Project Site would be developed with 1,112 Project-Based Section 8 DUs set aside for existing residents of the FEC Project Sites, an additional 1,666 mixed-income building DUs, of which 501 would be MIH permanently affordable housing DUs and the remainder, 1,165 DUs, would be market rate units. There would also be 12,060 gsf of local retail, 11,000 gsf of supermarket, 90,143 gsf of community facility neighborhood center, 8,215 gsf of daycare, and 11,285 gsf of medical office related uses.

The Rezoning Alternative would consist of 15 new buildings ranging from 11 to 39 stories. For conservative analysis purposes, the EIS will analyze the potentially tallest building heights (416 feet) as well as the potentially largest bulk of the proposed buildings. All heights indicated for Proposed Action buildings in the Rezoning Alternative and for the Non-Rezoning Alternative are for the maximum building envelope including 30 feet of rooftop mechanical bulkheads.

[4] Under the Rezoning Alternative the new affordable housing units would be provided pursuant to MIH. As such, affordable housing could be provided at either 25 or 30 percent of residential floor area depending on the levels of affordability. As applicable, the worst-case condition will be considered in the EIS. Throughout this document, the amount of affordable housing DUs to be provided is described as 30 percent of the total new (incremental) units in mixed-income buildings.

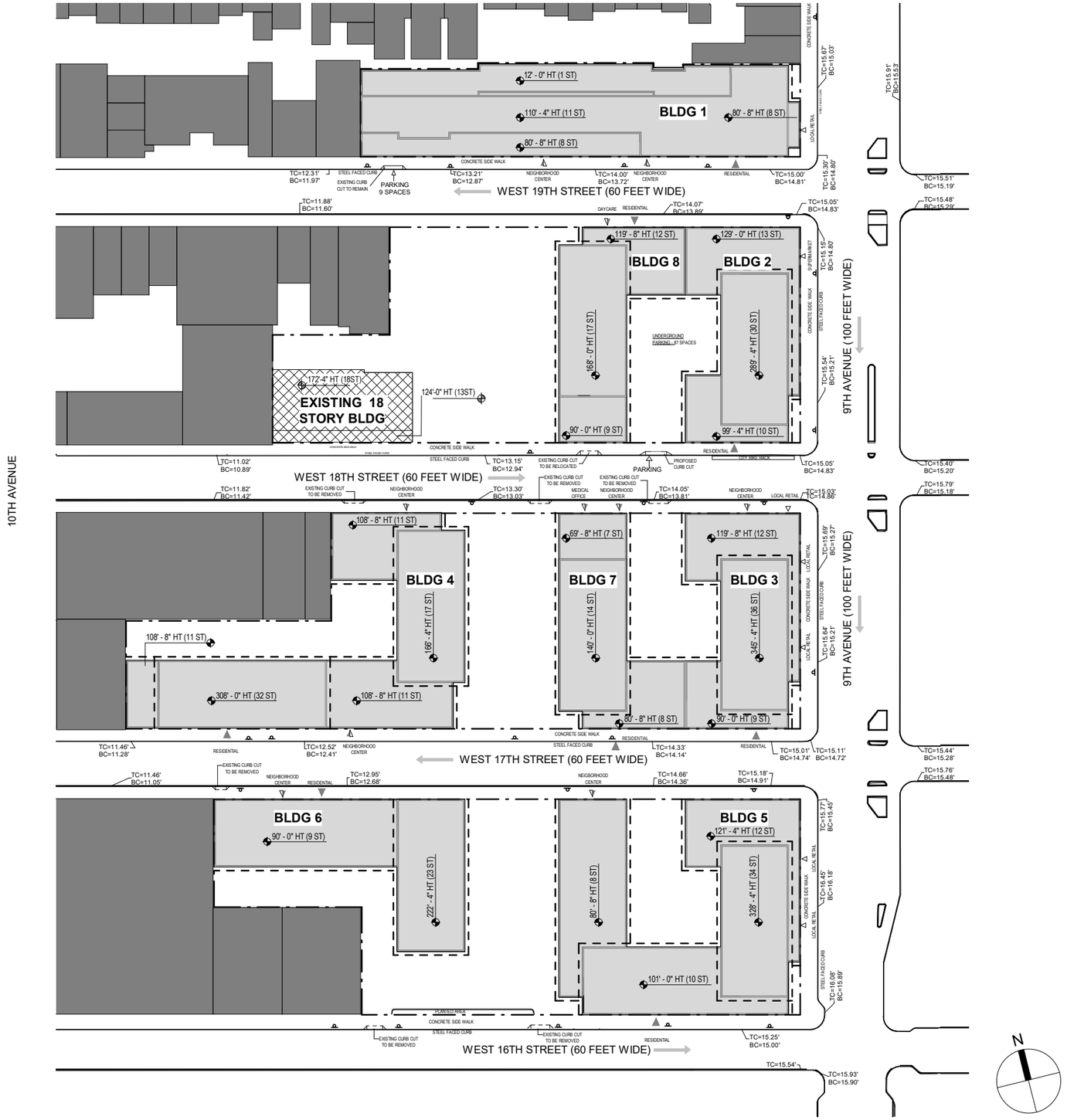
[5] This 30 percent / 70 percent split for affordable and market rate residential floor area, respectively, would apply to all new mixed-income units on both campuses and all the development scenarios.

LEGEND:

- Proposed Maximum Max Zoning Envelope
- Proposed Preliminary Zoning Envelope
- **Development Envelope Height**
  Illustrative Building Height (# of stories)
- Illustrative Building Line
- Existing Context Building
- Residential Access Point
- Commercial Access Point
- Community Access Point
- Spot Elevation/Height (relative to NAVD88)
- Proposed Building
- Parking Access Point
- Loading Access (at loading berths)
- Traffic Direction
- Centerline of Driveway
- Street Sign
- Additional Parcels in Zoning Lot Not Included as Part of the Proposed Action
- Proposed Curb Cut
- Existing Curb Cut (to be relocated)
- Existing Curb Cut (to be matained)

Notes
1. Elevations referenced to North American Vertical Datum of 1988 (NVD88) which is 1.095 feet above National Geodetic Survey Datum at Sandy Hook, New Jersey.
2. Building shown within zoning envelopes are for illustrative purposes only and are subject to change.
3. Location of bulkheads illustrative and subject to change.
4. Graphic scale applicable to all non-dimensioned elements.
5. The landscape design of open space, including rooftop terraces, street network, and parking lots depicted are shown for illustrative purposes only and are subject to change.
6. Entrances to proposed buildings are illustrative.
7. For existing and proposed tree locations refer to "Landscape Plan".

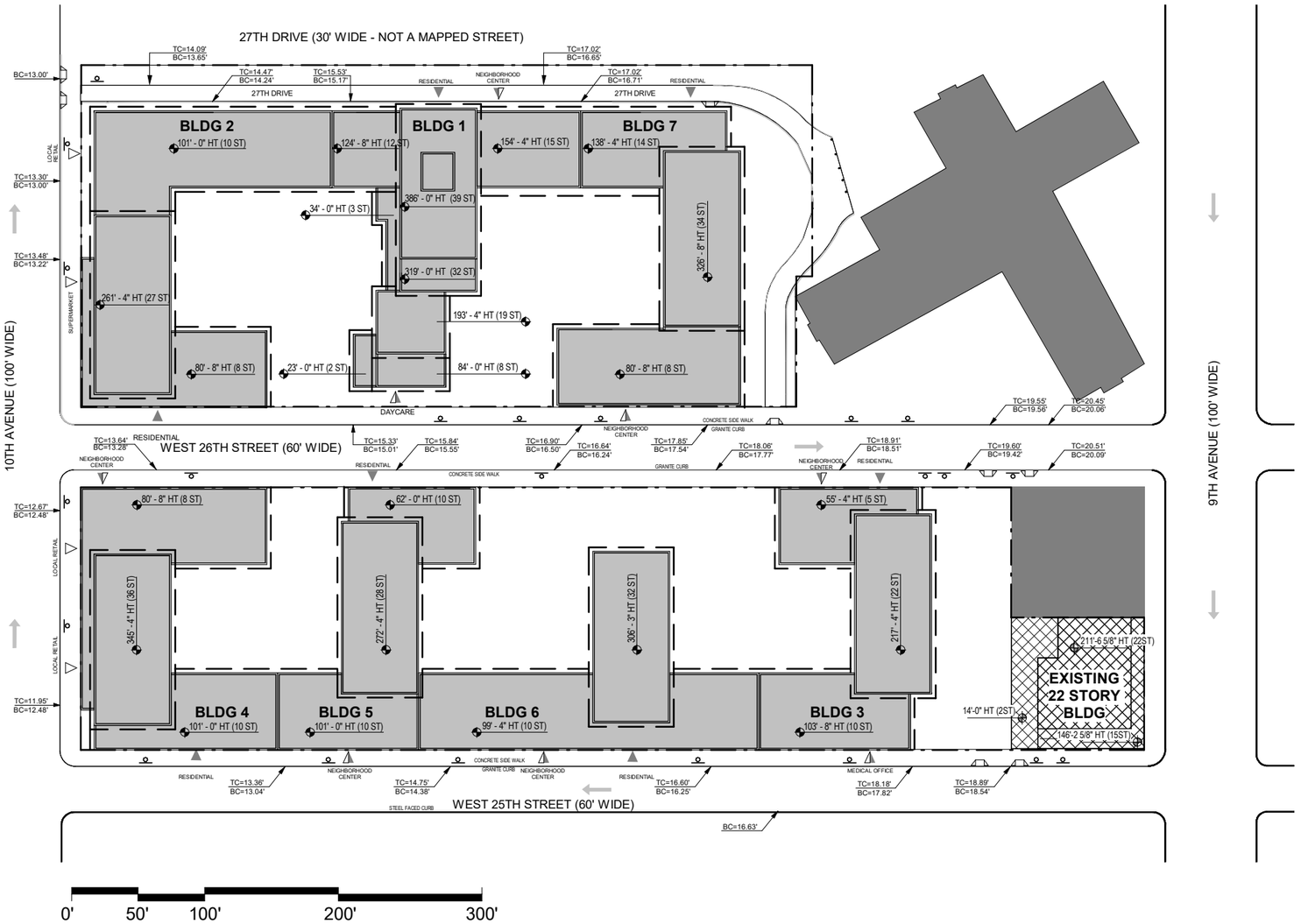
0' 50' 100' 200' 300'



Fulton and Elliott-Chelsea Houses Redevelopment Project

Figure 3a

Rezoning Alternative, Fulton Houses Project Site Plan



LEGEND:

- Proposed Maximum Zoning Envelope
- Proposed Preliminary Zoning Envelope
- **Development Envelope Height** / Illustrative Building Height (# of stories)
- Illustrative Building Line
- Existing Context Building
- Residential Access Point
- Commercial Access Point
- Community Access Point
- Spot Elevation/Height (relative to NAVD88)
- Proposed Building
- Parking Access Point
- Loading Access (at loading berths)
- Traffic Direction
- Centerline of Driveway
- Street Sign
- Additional Parcels in Zoning Lot Not Included as Part of the Proposed Action
- Proposed Curb Cut
- Existing Curb Cut (to be relocated)
- Existing Curb Cut (to be maintained)

Notes
1. Elevations referenced to North American Vertical Datum of 1988 (NVD88) which is 1.095 feet above National Geodetic Survey Datum at Sandy Hook, New Jersey.
2. Building shown within zoning envelopes are for illustrative purposes only and are subject to change.
3. Location of bulkheads illustrative and subject to change.
4. Graphic scale applicable to all non-dimensioned elements.
5. The landscape design of open space, including rooftop terraces, street network, and parking lots depicted are shown for illustrative purposes only and are subject to change.
6. Entrances to proposed buildings are illustrative.
7. For existing and proposed tree locations refer to "Landscape Plan".

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Fulton and Elliott-Chelsea Houses Redevelopment Project

Figure 3b

Rezoning Alternative, Elliott-Chelsea Houses Project Site Plan

As also shown in **Table 2b**, both Project Sites would be developed with 2,056 Project-Based Section 8 DUs set aside for existing residents of the FEC Project Sites, an additional 3,454 mixed-income building DUs, of which 1,038 would be MIH permanently affordable housing DUs and the remainder, 2,416 DUs, would be market rate units.

In total, the Project Sites would have 28,784 gsf of local retail, 17,580 gsf of supermarket, 144,082 gsf of community facility neighborhood center, 17,985 gsf of daycare, and 13,785 gsf of medical office related uses.

Net Increment: Possible Effects of the Rezoning Alternative

Table 3 identifies the development program for the Rezoning Alternative that will be studied in the EIS and also identifies the net incremental changes to the Project Sites under the Rezoning Alternative as compared to the No-Action Alternative.

Table 2a, Rezoning Alternative, Fulton Houses Project Site

				Dwelling Units						Gross Square Feet (GSF)							Height (max. building envelope)	
										Residential	Commercial		Community Facility					
Name / No.	Type	Block	Location	PB Section 8 DUs*	Mix Inc Bldg Affordable DU's	Subtotal, All Affordable DU's	Mix Inc Bldg Market Rate DU's	Mix Inc Bldg All DU's	Total, All DU's	Residential gsf	Local retail gsf	Supermarket gsf	Neighborhood center gsf	Daycare gsf	Medical office related uses gsf	Total gsf	Stories	Feet
Fulton 1	Replacement	717	9 Av, 19 St	201	0	201	0	0	201	208,773	3,144	0	11,649	0	0	223,566	11	140.33
Fulton 2	Replacement	716	9 Av, 18 St, 19 St	351	0	351	0	0	351	317,340	0	6,580	0	0	0	323,920	30	319.33
Fulton 3	Replacement	715	9 Av, 17 St, 18 St	392	0	392	0	0	392	354,500	3,080	0	3,000	0	0	360,580	36	375.33
Fulton 4	New Mxd Inc	715	17 St, 18 St	0	175	175	407	582	582	494,390	0	0	20,130	0	0	514,520	32	338.00
Fulton 5	New Mxd Inc	714	9 Av, 16 St, 17 St	0	158	158	369	527	527	448,230	10,500	0	5,810	0	0	464,540	34	358.33
Fulton 6	New Mxd Inc	714	17 St	0	88	88	206	294	294	249,700	0	0	6,080	0	0	255,780	23	252.33
Fulton 7	New Mxd Inc	715	17 St, 18 St	0	52	52	120	172	172	146,101	0	0	7,270	0	2,500	155,871	14	170.00
Fulton 8	New Mxd Inc	716	18 St, 19 St	0	64	64	149	213	213	181,390	0	0	0	9,770	0	191,160	17	198.00
Fulton Subtotals																		
1 to 3	Replacements	-		944	0	944	0	0	944	880,613	6,224	6,580	14,649	9,770	0	2,489,937		
4 to 8	New Mxd Inc's	-		0	537	537	1,251	1,788	1,788	1,519,811	10,500	0	39,290	9,770	2,500	1,581,871		
All Fulton Buildings				**944**	**537**	**1,481**	**1,251**	**1,788**	**2,732**	**2,400,424**	**16,724**	**6,580**	**53,939**	**9,770**	**2,500**	**2,489,937**		
Fulton Minimum Height																	11	140.33
Fulton Maximum Height																	36	375.33

* Project-Based Section 8 DUs reserved for existing NYCHA FEC residents

Table 2b, Rezoning Alternative, Elliott-Chelsea Houses Project Site

				Dwelling Units						Gross Square Feet (GSF)							Height (max. building envelope)	
										Residential	Commercial		Community Facility					
Name / No.	Type	Block	Location	PB Section 8 DUs*	Mix Inc Bldg Affordable DU's	Subtotal, All Affordable DU's	Mix Inc Bldg Market Rate DU's	Mix Inc Bldg All DU's	Total, All DU's	Residential gsf	Local retail gsf	Supermarket gsf	Neighborhood center gsf	Daycare gsf	Medical office related uses gsf	Total gsf	Stories	Feet
Elliott-Chelsea 1	Replacement	724	26 St, 27 Dr	464	0	464	0	0	464	418,415	0	0	41,808	8,215	0	468,438	39	416.00
Elliott-Chelsea 2	Replacement	724	10 Av, 26 St, 27 Dr	396	0	396	0	0	396	359,400	4,060	11,000	0	0	0	374,460	27	291.33
Elliott-Chelsea 3	Replacement	723	25 St, 26 St	252	0	252	0	0	252	228,500	0	0	14,610	0	11,285	254,395	22	247.33
Elliott-Chelsea 4	New Mxd Inc	723	10 Av, 25 St, 26 St	0	136	136	316	452	452	384,101	8,000	0	3,890	0	0	395,991	36	375.33
Elliott-Chelsea 5	New Mxd Inc	723	25 St, 26 St	0	98	98	228	326	326	276,755	0	0	8,400	0	0	285,155	28	302.33
Elliott-Chelsea 6	New Mxd Inc	723	26 St	0	127	127	295	422	422	358,471	0	0	10,200	0	0	368,671	32	336.25
Elliott-Chelsea 7	New Mxd Inc	724	26 St, 27 Dr	0	140	140	326	466	466	396,070	0	0	11,235	0	0	407,305	34	356.67
Elliott-Chelsea subtotals																		
1 to 3	Replacements			1,112	0	1,112	0	0	1,112	1,006,315	12,060	11,000	90,143	8,215	11,285	2,554,415		
4 to 7	New Mxd Inc's			0	501	501	1,165	1,666	1,666	1,415,397	8,000	0	33,725	0	0	1,457,122		
All Elliott-Chelsea Buildings				**1,112**	**501**	**1,613**	**1,165**	**1,666**	**2,778**	**2,421,712**	**12,060**	**11,000**	**90,143**	**8,215**	**11,285**	**2,554,415**		
Elliott-Chelsea Minimum Height																	22	247.33
Elliott-Chelsea Maximum Height																	39	416.00
Fulton Elliott-Chelsea Totals				**2,056**	**1,038**	**3,094**	**2,416**	**3,454**	**5,510**	**4,822,136**	**28,784**	**17,580**	**144,082**	**17,985**	**13,785**	**5,044,352**		

* Project-Based Section 8 DUs reserved for existing NYCHA FEC residents

As shown in **Table 3**, the incremental (net) change in residential development resulting from the Rezoning Alternative would be an increase of 3,454 DUs. Of the 3,454 DUs, there would be an incremental increase of 1,038 MIH permanently affordable DUs. The remaining DUs, 2,416 DUs, would be market rate units, in new mixed-income buildings. The number of new Project-Based Section 8 DUs for existing NYCHA residents in new buildings across the Project Sites would be 2,056 DUs, the same number of NYCHA DUs that exist currently. The incremental (net) change in non-residential development resulting from the Rezoning Alternative would be an increase of 87,223 gsf of community facility neighborhood center, 7,685 gsf of daycare, 13,785 gsf of medical office related uses, 28,784 gsf of local retail, 17,580 gsf of supermarket, and 1 accessory parking space. Total building area would increase by approximately 3.2 million gsf across the Project Sites. The increase in the tallest building height would be an increment of 14 stories, from 25 stories under the No-Action Alternative to 39 stories under the Rezoning Alternative. The building heights would have an incremental change of 184 feet, from 232 feet under the No-Action Alternative to 416 feet under the Rezoning Alternative. Specifically, the tallest building under the No-Action Alternative is the existing 25-story (232-foot tall) Building 6 at the Fulton Houses Project Site, located at 419 W. 17th Street/420 W. 18th Street and the tallest building under the Rezoning Alternative would be the proposed 39-story (416-foot tall) Building 1 at the Elliott-Chelsea Project Site, which would be a midblock through lot building with frontage on W. 26th Street and W. 27th Drive.

Table 3: Rezoning Alternative Compared to No-Action Alternative

Land Use	No-Action Alternative	Rezoning Alternative	Increment
Existing NYCHA DUs	2,056	0	-2,056
Future Project-Based Section 8 DUs (replacement of existing NYCHA DUs)*	0	2,056	+2,056
MIH Affordable DUs	0	1,038	+1,038
Market Rate DUs	0	2,416	+2,416
Total DUs	**2,056**	**5,510**	**+3,454**
Community facility/Neighborhood Center gsf	56,859	144,082	+87,223
Daycare gsf	10,300	17,985	+7,685
Medical Office Related Uses gsf	0	13,785	+13,785
Local Retail gsf	0	28,784	+28,784
Supermarket gsf	0	17,580	+17,580
Total Building Area sf	1.9 million	5.1 million	+3.2 million
Accessory Parking Spaces	95	96	+1
Building height (maximum)	232’	416’	+184’
Building stories (maximum)	25	39	+14

***** The Project-Based Section 8 DUs would be set aside for existing NYCHA residents and would replace the existing NYCHA DUs that would remain under the No-Action Alternative. As such, while the classification of these DUs would change, the population served and number of units would be the same as under the No-Action Alternative.

Temporary Relocations

Under both the Rezoning Alternative and the Non-Rezoning Alternative (to be described in the following section), prior to the construction of the replacement buildings for existing NYCHA tenants, one building on each of the Project Sites would be vacated and approximately 120 households would be relocated either in vacant existing units in other buildings on the Project Site or housing units nearby. Relocation assistance and counseling will be provided, and residents of these households will have a guaranteed right to return to the first two new replacement buildings. These approximately 120 households represent 6 percent of the total existing NYCHA DUs on the Project Sites.

The Elliott Center community facility operated by Hudson Guild would also be relocated and temporary space(s) on- and off-site (identified and designed in coordination with the Hudson Guild leadership team) would be provided to house its existing programming.

The first replacement buildings, namely Fulton 1 and Elliott-Chelsea 1, once completed, will accommodate all initially affected households and all programming originally housed within the Elliott Center.

Any relocation of residents or businesses will adhere to requirements of applicable statutes and regulations, including but not limited to the Uniform Relocation and Real Property Acquisition Policies Act of 1970, as amended (URA) and implementing regulations at 49 CFR 24, Notice H 2016-17; PIH 2016-17, as may be amended from time to time ("RAD Fair Housing, Civil Rights, and Relocation Notice"), Section 18 of the Housing Act of 1937, as amended and implementing regulation, 24 CFR part 970 and all applicable state and local regulations. Refer to discussion of relocation below under "Socioeconomic Conditions."

F.2.3 Alternative 3 – Non-Rezoning Alternative

Under the Non-Rezoning Alternative, similar to the Rezoning Alternative, all existing buildings on the Project Sites would be demolished and new buildings would be constructed in stages. All existing NYCHA affordable housing DUs would be replaced and reserved for current residents of the Fulton and Elliott-Chelsea Houses as Project-Based Section 8 units. Existing community facility space would also be replaced. Additional development would occur, including new mixed-income buildings containing both non-NYCHA affordable housing DUs[6] and market rate DUs with ground floor commercial and community facility uses. Community facility space serving the local community would be expanded, as compared to the No-Action Alternative. Local retail and supermarket uses would be introduced to the Fulton Houses Project Site and accessory open space would be provided. The 95 existing accessory parking spaces on the Fulton Houses Project Site also would be replaced and one additional space would be added for a total of 96 spaces.

[6] Under the Non-Rezoning Alternative, the additional affordable housing DUs would be developed in mixed-income buildings and would remain permanently affordable through NYCHA Regulatory Agreement and other transaction documents between NYCHA and the PACT Partner.

Development Program

The Non-Rezoning Alternative development program that will be studied in the EIS is presented in **Table 4a** for the Fulton Houses Project Site and in **Table 4b** for the Elliott-Chelsea Houses Project Site. **Table 4b** also includes a summary row showing the program for the entire FEC Project Sites. Refer to **Figure 4a and 4b** which show the location of the proposed buildings.

As shown in **Table 4a**, under the Non-Rezoning Alternative the Fulton Houses Project Site would be developed with 944 Project-Based Section 8 DUs set aside for existing residents of the Project Sites, an additional 960 mixed-income DUs, of which 289 would be affordable housing DUs, and the remainder, 671 DUs, would be market rate units. There would also be 21,675 gsf of local retail, 7,400 gsf of supermarket, 57,367 gsf of community facility neighborhood center, 3,206 gsf of daycare, and 2,500 gsf of medical office related uses.

As shown in **Table 4b** under the Non-Rezoning Alternative, the Elliott-Chelsea Houses Project Site would be developed with 1,112 Project-Based Section 8 DUs set aside for existing residents of the FEC Project Sites, an additional 823 mixed-income DUs, of which 247 would be affordable housing DUs and the remainder, 576 DUs, would be market rate units. There would also be 117,640 gsf of community facility neighborhood center, 9,449 gsf of daycare, and 9,546 gsf of medical office related uses.

The Non-Rezoning Alternative would include 17 new buildings ranging from 11 to 39 stories. For conservative analysis purposes, the EIS will analyze the potentially tallest building heights for the buildings (416 feet), inclusive of 30 feet of rooftop mechanical volumes, as well as the potentially largest bulk of the proposed buildings.

As also shown in **Table 4b**, both FEC Project Sites would be developed with 2,056 Project-Based Section 8 DUs set aside for existing residents of the FEC Project Sites, an additional 1,783 mixed-income DUs, of which 536 would be affordable housing DUs and the remainder, 1,247 DUs, would be market rate units.

In total, the Project Sites would have 21,675 gsf of local retail, 7,400 gsf of supermarket, 175,007 gsf of community facility neighborhood center, 12,655 gsf of daycare, and 12,046 gsf of medical office related uses.

Net Increment: Possible Effects of the Non-Rezoning Alternative

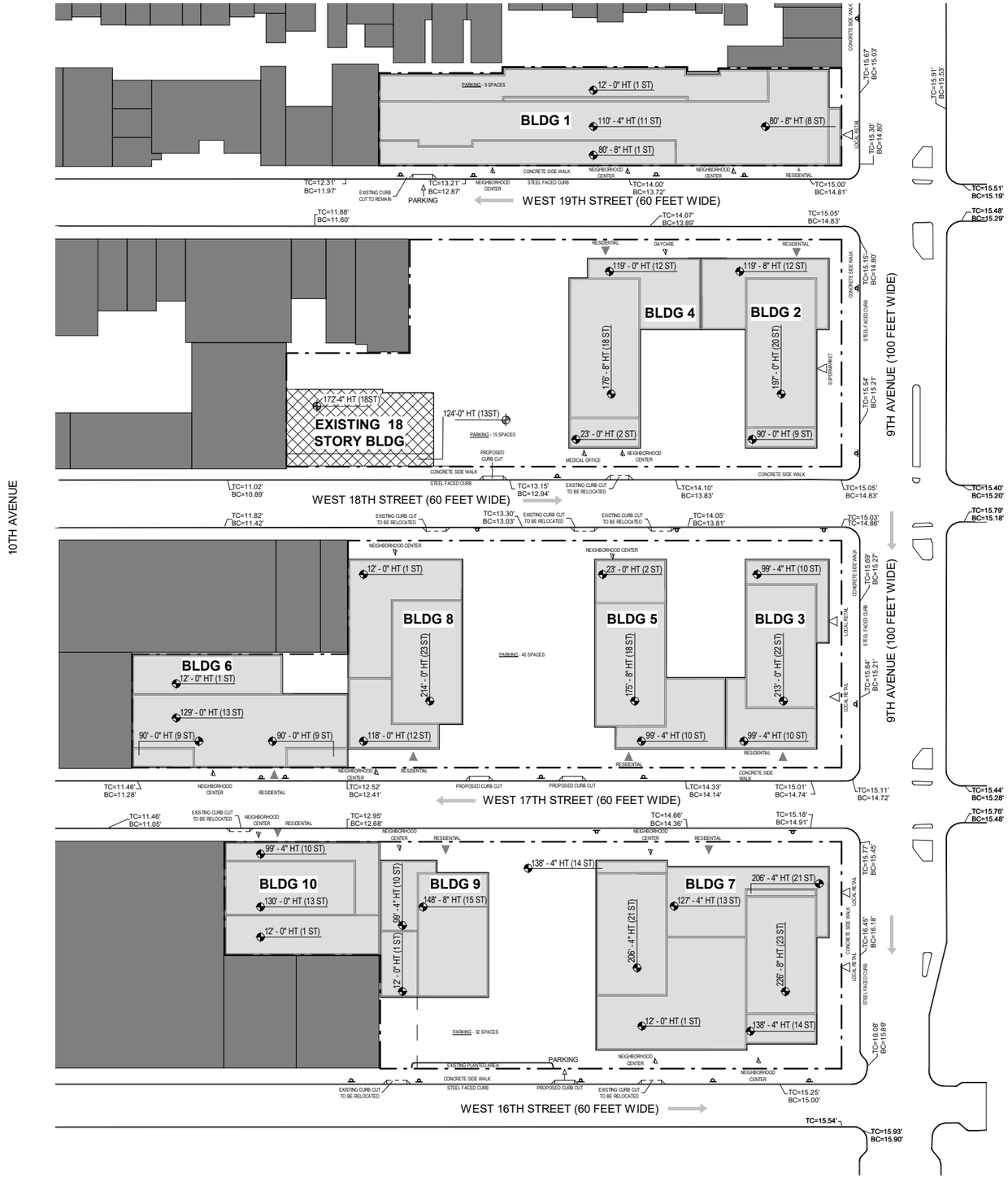
Table 5 identifies the development program for the Non-Rezoning Alternative that will be studied in the EIS and also identifies the net incremental changes to the Project Sites under the Non-Rezoning Alternative as compared to the No-Action Alternative.

LEGEND:

- Proposed Preliminary Zoning Envelope
- **Development Envelope Height** / Illustrative Building Height (# of stories)
- Illustrative Building Line
- Existing Context Building
- Residential Access Point
- Commercial Access Point
- Community Access Point
- Spot Elevation/Height (relative to NAVD88)
- Proposed Building
- Parking Access Point
- Loading Access (at loading berths)
- Traffic Direction
- Centerline of Driveway
- Street Sign
- Additional Parcels in Zoning Lot Not Included as Part of the Proposed Action
- Proposed Curb Cut
- Existing Curb Cut (to be relocated)
- Existing Curb Cut (to be maintained)

Notes
1. Elevations referenced to North American Vertical Datum of 1988 (NVD88) which is 1.095 feet above National Geodetic Survey Datum at Sandy Hook, New Jersey.
2. Building shown within zoning envelopes are for illustrative purposes only and are subject to change.
3. Location of bulkheads illustrative and subject to change.
4. Graphic scale applicable to all non-dimensioned elements.
5. The landscape design of open space, including rooftop terraces, street network, and parking lots depicted are shown for illustrative purposes only and are subject to change.
6. Entrances to proposed buildings are illustrative.
7. For existing and proposed tree locations refer to "Landscape Plan".

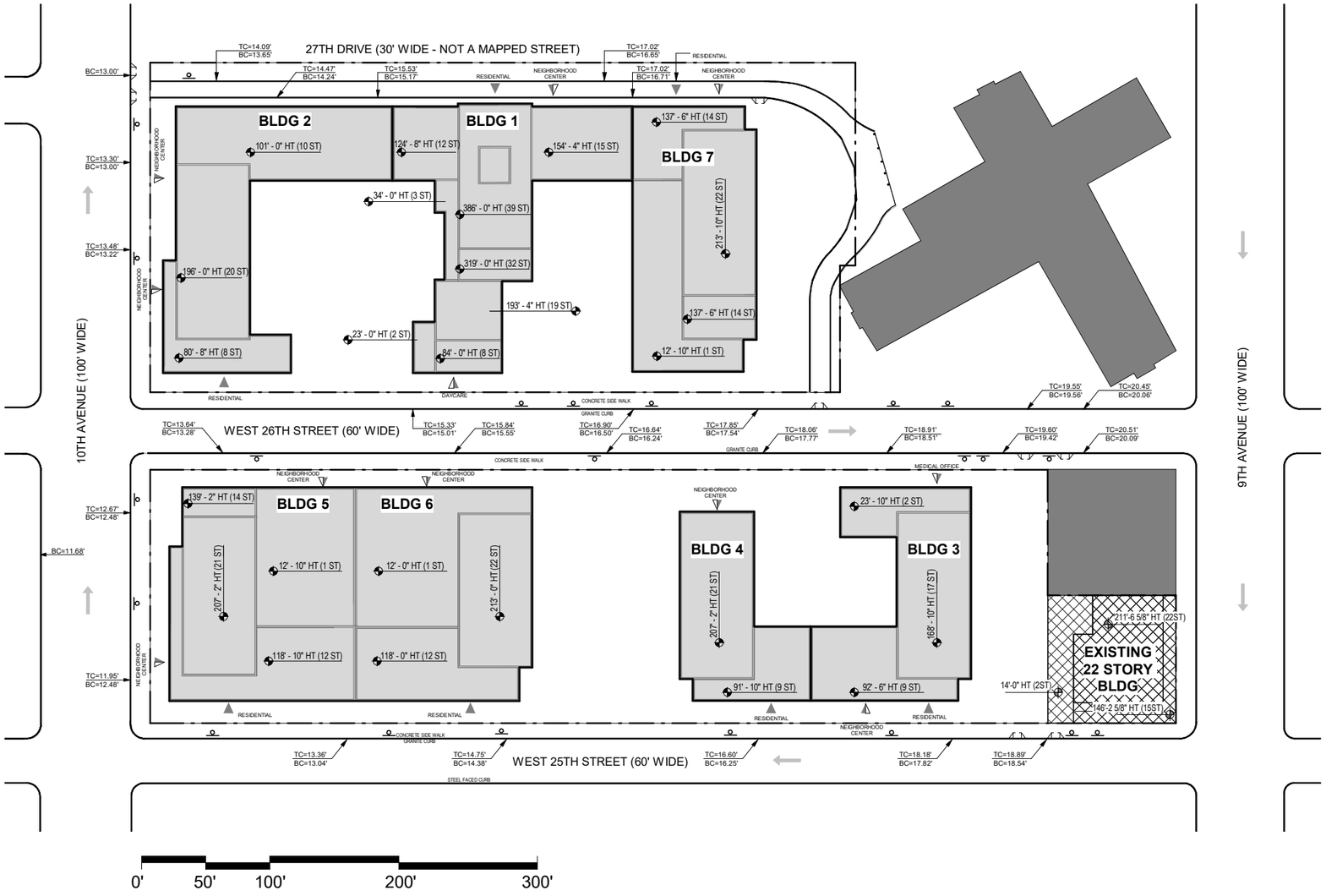
0' 50' 100' 200' 300'



Fulton and Elliott-Chelsea Houses Redevelopment Project

Figure 4a

Non-Rezoning Alternative, Fulton Houses Project Site Plan



LEGEND:

- Proposed Preliminary Zoning Envelope
- **Development Envelope Height** / Illustrative Building Height (# of stories)
- Illustrative Building Line
- Existing Context Building
- Residential Access Point
- Commercial Access Point
- Community Access Point
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- Proposed Building
- Parking Access Point
- Loading Access (at loading berths)
- Traffic Direction
- Centerline of Driveway
- Street Sign
- Additional Parcels in Zoning Lot Not Included as Part of the Proposed Action
- Proposed Curb Cut
- Existing Curb Cut (to be relocated)
- Existing Curb Cut (to be maintained)

Notes
1. Elevations referenced to North American Vertical Datum of 1988 (NVD88) which is 1.095 feet above National Geodetic Survey Datum at Sandy Hook, New Jersey.
2. Building shown within zoning envelopes are for illustrative purposes only and are subject to change.
3. Location of bulkheads illustrative and subject to change.
4. Graphic scale applicable to all non-dimensioned elements.
5. The landscape design of open space, including rooftop terraces, street network, and parking lots depicted are shown for illustrative purposes only and are subject to change.
6. Entrances to proposed buildings are illustrative.
7. For existing and proposed tree locations refer to "Landscape Plan".

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Fulton and Elliott-Chelsea Houses Redevelopment Project

Figure 4b

Non-Rezoning Alternative, Elliott-Chelsea Houses Project Site Plan

Table 4a, Non-Rezoning Alternative, Fulton Houses Project Site

				Dwelling Units						Gross Square Feet (GSF)							Height (max. building envelope)	
										Residential	Commercial		Community Facility					
Name / No.	Type	Block	Location	PB Section 8 DUs*	Mix Inc Bldg Affordable DU's	Subtotal, All Affordable DU's	Mix Inc Bldg Market Rate DU's	Mix Inc Bldg All DU's	Total, All DU's	Residental gsf	Local retail gsf	Supermarket gsf	Neighborhood center gsf	Daycare gsf	Medical office related uses gsf	Total gsf	Stories	Feet
Fulton 1	Replacement	717	9 Av, 19 St	201	0	201	0	0	201	208,773	3,144	0	11,649	0	0	223,566	11	140.33
Fulton 2	Replacement	716	9 Av, 18 St, 19 St	213	0	213	0	0	213	186,656	0	7,400	0	0	0	194,056	20	227.00
Fulton 3	Replacement	715	9 Av, 17 St, 18 St	194	0	194	0	0	194	170,076	6,620	0	0	0	0	176,696	22	243.00
Fulton 4	Replacement	716	18 St, 19 St	180	0	180	0	0	180	157,498	0	0	2,116	3,206	2,500	165,320	18	206.67
Fulton 5	Replacement	715	17 St, 18 St	156	0	156	0	0	156	136,922	0	0	6,892	0	0	143,814	18	205.67
Fulton 6	New Mxd Inc	715	17 St	0	44	44	102	146	146	123,880	0	0	7,300	0	0	131,180	13	159.00
Fulton 7	New Mxd Inc	714	9 Av, 16 St, 17 St	0	121	121	282	403	403	342,329	11,911	0	8,469	0	0	362,709	23	256.67
Fulton 8	New Mxd Inc	715	17 St, 18 St	0	58	58	135	193	193	164,137	0	0	10,591	0	0	174,728	23	244.00
Fulton 9	New Mxd Inc	714	17 St	0	35	35	80	115	115	97,780	0	0	4,850	0	0	102,630	15	178.67
Fulton 10	New Mxd Inc	714	17 St	0	31	31	72	103	103	87,400	0	0	5,500	0	0	92,900	13	160.00
Fulton Subtotals																		
1 to 5	Replacements	-		944	0	944	0	0	944	859,925	9,764	7,400	20,657	3,206	2,500	903,452		
6 to 10	New Mxd Inc's	-		0	289	289	671	960	960	815,526	11,911	0	36,710	0	0	864,147		
All Fulton Buildings				**944**	**289**	**1,233**	**671**	**960**	**1,904**	**1,675,451**	**21,675**	**7,400**	**57,367**	**3,206**	**2,500**	**1,767,599**		
Fulton Minimum Height																	11	140.33
Fulton Maximum Height																	23	256.67

* Project-Based Section 8 DUs reserved for existing NYCHA FEC residents

Table 4b, Non-Rezoning Alternative, Elliott-Chelsea Houses Project Site

				Dwelling Units						Gross Square Feet (GSF)							Height (max. building envelope)	
										Residential	Commercial		Community Facility					
Name / No.	Type	Block	Location	PB Section 8 DUs*	Mix Inc Bldg Affordable DU's	Subtotal, All Affordable DU's	Mix Inc Bldg Market Rate DU's	Mix Inc Bldg All DU's	Total, All DU's	Residential gsf	Local retail gsf	Supermarket gsf	Neighborhood center gsf	Daycare gsf	Medical office related uses gsf	Total gsf	Stories	Feet
Elliott-Chelsea 1	Replacement	724	26 St, 27 Dr	464	0	464	0	0	464	425,775	0	0	53,111	9,449	0	488,335	39	416.00
Elliott-Chelsea 2	Replacement	724	10 Av, 26 St, 27 Dr	288	0	288	0	0	288	263,198	0	0	10,692	0	0	273,890	20	226.00
Elliott-Chelsea 3	Replacement	723	25 St, 26 St	172	0	172	0	0	172	157,693	0	0	9,795	0	9,546	177,034	17	198.83
Elliott-Chelsea 4	Replacement	723	25 St, 26 St	188	0	188	0	0	188	171,711	0	0	17,841	0	0	189,552	21	237.17
Elliott-Chelsea 5	New Mxd Inc	723	10 Av, 25 St, 26 St	0	89	89	206	295	295	250,342	0	0	8,840	0	0	259,182	21	237.17
Elliott-Chelsea 6	New Mxd Inc	723	25 St, 26 St	0	79	79	185	264	264	224,663	0	0	9,813	0	0	234,476	21	233.67
Elliott-Chelsea 7	New Mxd Inc	724	26 St, 27 Dr	0	79	79	185	264	264	224,438	0	0	7,548	0	0	231,986	22	243.83
Elliott-Chelsea subtotals																		
1 to 4	Replacements			1,112	0	1,112	0	0	1,112	1,018,377	0	0	91,439	9,449	9,546	1,128,811		
5 to 7	New Mxd Inc's			0	247	247	576	823	823	699,443	0	0	26,201	0	0	725,644		
All Elliott-Chelsea Buildings				**1,112**	**247**	**1,359**	**576**	**823**	**1,935**	**1,717,820**	**0**	**0**	**117,640**	**9,449**	**9,546**	**1,854,455**		
Elliott-Chelsea Minimum Height																	17	198.83
Elliott-Chelsea Maximum Height																	39	416.00
Fulton Elliott-Chelsea Totals				**2,056**	**536**	**2,592**	**1,247**	**1,783**	**3,839**	**3,393,271**	**21,675**	**7,400**	**175,007**	**12,655**	**12,046**	**3,622,054**		

* Project-Based Section 8 DUs reserved for existing NYCHA FEC residents

As shown in **Table 5**, the incremental (net) change in residential development resulting from the Non-Rezoning Alternative would be an increase of 1,783 DUs. Of that total, there would be an incremental increase of 536 DUs that would be affordable housing and the remainder, 1,247 DUs, would be market rate units in new mixed-income buildings, while the number of DUs for existing NYCHA residents across the FEC Project Sites would remain the same at 2,056 units in new buildings.

The incremental (net) change in non-residential development resulting from the Non-Rezoning Alternative would be an increase of 118,148 gsf of community facility neighborhood center, 2,355 gsf of daycare, 12,046 gsf of medical office related uses, 21,675 gsf of local retail, 7,400 gsf of supermarket, and 1 accessory parking space. The total building area would increase by approximately 1.7 million gsf across the Project Sites. The increase in the tallest building height would be an increment of 14 stories, from 25 stories under the No-Action Alternative to 39 stories under the Non-Rezoning Alternative. The building heights would have an incremental change of 184 feet, from 232 feet under the No-Action Alternative to 416 feet under the Non-Rezoning Alternative. Specifically, the tallest building under the No-Action Alternative is the existing 25-story (232-foot tall) Building 6 at the Fulton Houses Project Site, located at 419 W. 17th Street/420 W. 18th Street and the tallest building under the Non-Rezoning Alternative would be the proposed 39-story (416-foot tall) Building 1 at the Elliott-Chelsea Project Site, which would be a midblock through lot building with frontage on W. 26th Street and W. 27th Drive.

Table 5: Non-Rezoning Alternative Compared to No-Action Alternative

Land Use	No-Action Alternative	Non-Rezoning Alt.	Increment
Existing NYCHA DUs	2,056	0	-2,056
Future Project-Based Section 8 DUs (replacement of existing NYCHA DUs)*	0	2,056	+2,056
Affordable DUs	0	536	+536
Market Rate DUs	0	1,247	+1,247
Total DUs	**2,056**	**3,839**	**+1,783**
Community facility/Neighborhood Center gsf	56,859	175,007	+118,148
Daycare gsf	10,300	12,655	+2,355
Medical Office Related Uses gsf	0	12,046	+12,046
Local Retail gsf	0	21,675	+21,675
Supermarket gsf	0	7,400	+7,400
Total Building Area sf	1.9 million	3.6 million	+1.7 million
Accessory Parking Spaces	95	96	+1
Building height (maximum)	232’	416’	184’
Building stories (maximum)	25	39	+14

***** The Project-Based Section 8 DUs would be set aside for existing NYCHA FEC residents and would replace the existing Section 9 DUs that would remain under the No-Action Alternative. As such, while the classification of these DUs would change, the population served and number of units would be the same as under the No-Action Alternative.

Temporary Relocations

Please refer to the description of temporary relocations above under Rezoning Alternative, which is also applicable to the Non-Rezoning Alternative.

F.2.4 Alternative 4 – No Significant Adverse Impacts Alternative

Per the *CEQR Technical Manual*, when a project would result in significant adverse impacts, it is often CEQR practice to include an assessment of an alternative to the project that would result in no significant adverse impacts. If the Proposed Action is found to result in significant adverse impacts, the EIS will present an analysis to determine measures, such as changes in density and/or design, that would eliminate all the significant adverse impacts and a No Significant Adverse Impacts Alternative that does so will be described. A further analysis would consider whether the required changes to the Proposed Action as a result of such measures would meet the purpose and need for the Proposed Action. If this is the case, then technical analysis of the No Significant Adverse Impacts Alternative would be included in the EIS. If it is found that the No Significant Adverse Impacts Alternative would not meet the purpose and need for the Proposed Action, then it will be determined to be infeasible and will not be analyzed further.

F.3. Analytical Framework

This chapter will outline the framework for the EIS technical analyses.

Under each development alternative, all proposed buildings are anticipated to be fully constructed and in operation by 2040. Accordingly, the EIS will use a 2040 analysis year. As the completion of development facilitated by the Proposed Action is expected to be operational in 2040, its environmental setting is not the current environment, but the future environment. Therefore, the technical analyses assess current conditions and forecast these conditions to the analysis year of 2040 for the purposes of determining potential impacts.

The EIS will consider both the short-term (construction) and long-term (operational) impacts for each alternative. This environmental review and its EIS are being prepared to satisfy NEPA and technical analysis requirements to satisfy CEQR/SEQRA. 40 CFR parts 1500 through 1508 lay out the CEQ Implementing Regulations of NEPA, and Title 24 CFR part 58 lays out the Environmental Review Procedures for Entities Assuming HUD Environmental Responsibilities. Collectively, these regulations identify the environmental review requirements for complying with NEPA. Federal, city and state requirements and guidance have considerable overlap and generally for HUD-NEPA reviews, local guidance can be followed in terms of analysis methodologies. As such, the *CEQR Technical Manual* will be used as a guidance document for analysis methodology and impact determination, but where there is additional or different HUD-NEPA requirements these also will be addressed. The impact categories, each to be analyzed in its own chapter, are discussed below in items F.4.1 to F.4.20, with descriptions of the relevant guidance and requirements that will be followed.

For each impact category chapter, after identifying methodology and other relevant context information, the analysis will discuss the affected environment. This will include descriptions of the Project Sites and surrounding study areas, as relevant to the given impact category. Next, each impact category chapter will describe the No-Action Alternative as defined in the Alternatives chapter. The No-Action Alternative will include a discussion of projects expected to be completed independent of the Proposed Action and, as consistent with applicable guidance, general growth above baseline conditions that is not attributable to specific development projects, for example general growth in traffic volumes assumed for the transportation analysis. Then, the analysis will present and evaluate the Rezoning Alternative, Non-Rezoning Alternative, and, if feasible, the No Significant Adverse Impact Alternative, collectively called the development alternatives. Each impact category chapter will then make a determination as to whether significant adverse impacts would occur as a result of the Proposed Action for each development alternative. The technical analysis and identification of potential significant adverse impacts will focus on the incremental change to the affected environment that each of the development alternatives would create as compared with the No-Action Alternative, except where *CEQR Technical Manual* or HUD-NEPA guidance indicates that impact determinations should be made based on the total project effects and not the incremental difference compared to the No-Action Alternative. Each alternative will be evaluated at an equal level of detail under each impact category and consistent with applicable analysis screening thresholds, methodologies, and impact determination thresholds.

Where significant adverse project impacts are identified, within the respective impact category chapter, practicable measures that could be implemented to mitigate those impacts will be identified and assessed. Additionally, the mitigation assessment will also consider when such measures will need to be implemented. These measures will be developed and coordinated with the responsible federal, state and city expert and cooperating agencies, as necessary. Where impacts cannot be practicably mitigated, they will be described as unavoidable adverse impacts.

The Proposed Action is one project affecting two discrete areas separated by approximately a quarter-mile. Some EIS chapters will analyze the cumulative effects of new development on both of the Project Sites. For example, the transportation analysis will examine the combined effects of action-generated travel demand on transportation facilities surrounding the Project Sites. However, as some types of effects to be studied are site-specific or only affect a relatively small adjacent area, analyses would be discrete geographically. For example, the analysis of the indirect and contextual architectural effects of the Proposed Action under the Historical and Cultural Resources analysis, would look at discrete study areas surrounding the two Project Sites.

F.4. Affected Environment and Environmental Consequences

This section of the EIS will present the impact category chapters.

F.4.1 Land Use, Zoning, and Public Policy

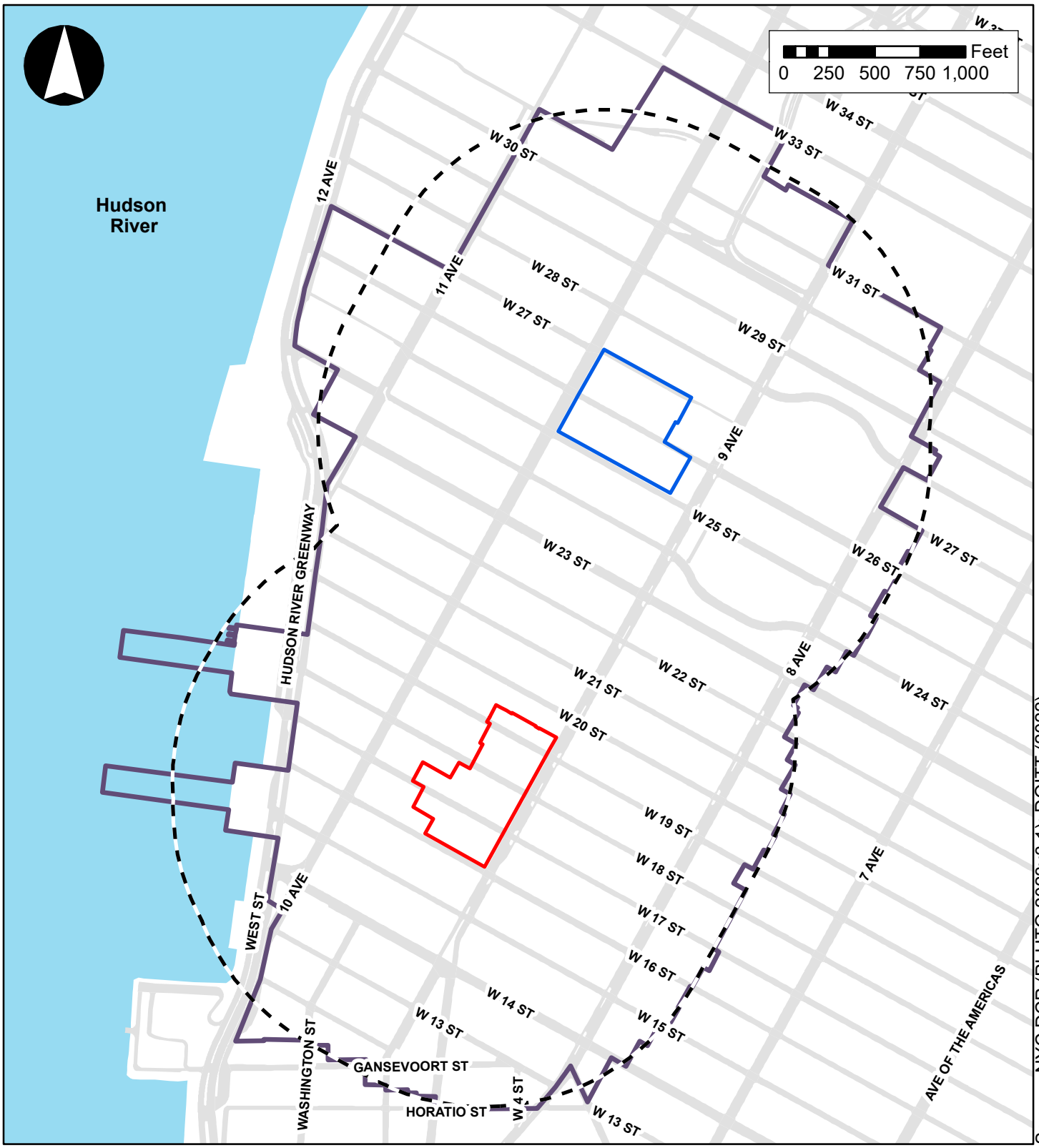
This chapter will analyze the potential impacts of the Proposed Action on land use, zoning, and public policy, pursuant to the methodologies presented in the *CEQR Technical Manual*. Under CEQR, a land use analysis characterizes the uses and development trends in the area that may be affected by a proposed action, describes the public policies that guide development in the area, and

determines whether a proposed action is compatible with those conditions and consistent with these policies. In addition to considering the Proposed Action's effects in terms of land use compatibility and trends in zoning and public policy, this chapter will also provide a baseline and context for other technical analyses in the EIS by including a discussion of existing land use and future land use without the proposed action, i.e., the No-Action Alternative.

The primary land use study area will consist of the Project Sites, where the potential effects of the Proposed Action would be directly experienced. The *CEQR Technical Manual* advises that appropriate study area for land use and zoning is related to the type and size of the project being proposed as well as the location and neighborhood context of the area that could be affected by the project. Given the geographic scope of the Proposed Action, and the scale of the proposed development relative to the density of the surrounding area, a quarter-mile radius from the Project Sites has been selected as the basis for a secondary study area. It is unlikely that the Proposed Action would have indirect effects beyond a quarter-mile radius. For analysis purposes, the secondary study area boundary has been modified to include entire lots where the majority of these lots falls within the quarter-mile radius. Lots where the opposite is true were excluded, as shown in **Figure 5**. Because the Fulton Houses Project Site and the Elliott-Chelsea Houses Project Site are located a quarter-mile apart, the secondary study is a single contiguous area encompassing a quarter-mile radius of both campuses. The analysis will include the following subtasks:

- Provide a brief development history of the Project Sites and surrounding (secondary) study area.
- Provide a description of land use, zoning, and public policy in the study areas discussed above. Recent trends in the area will be noted. Other public policies that apply to the study areas will also be described, including *Vision Zero*, *Housing Our Neighbors: A Blueprint for Housing and Homelessness*, *OneNYC 2050* (formerly *PlaNYC*), and the *Waterfront Revitalization Program* (*WRP*).
- Identify, describe, and graphically portray predominant land use patters for the balance of the study area, based on field surveys and prior studies. Describe recent land use trends in the study areas and identify major factors influencing land use trends.
- Describe and map existing zoning and recent zoning actions in the study areas.
- Prepare a list of future development projects in the study areas that are expected to be constructed by the 2040 analysis year and may influence future land use trends. Also, identify pending zoning actions or other public policy actions that could affect land use patterns and trends in the study areas. Based on these planned projects and initiatives, assess future land use and zoning conditions without the proposed action (No-Action Alternative).
- Describe each of the development alternatives and provide an assessment of their impacts on land use and land use trends, zoning, and public policy. Consider the effects of the Proposed Action related to issues of compatibility with surrounding land use, consistency with public policy initiatives, and the effect on development trends and conditions in the area.
- The federal Coastal Zone Management (CZM) Act of 1972 establishes the CZM program at the federal level as well as approved programs at the state level. In accordance with federal regulations found at 15 CFR Part 930 and sections 307 (c) and (d) of the CZM Act, the Proposed Action will be reviewed for consistency with the federal CZM Program.
- Since the Project Sites are located in the Coastal Zone, for each of the alternatives an assessment of the Proposed Action's consistency with the WRP also will be provided.

Figure 5
Land Use Study Area



Source: NYC DCP (PLUTO 2023v3.1); DOITT (2022)

Legend

- Elliott-Chelsea Houses
- Fulton-Houses
- 1/4-Mile Radius
- Land Use Study Area

- The Project Sites are located in the 0.2% annual chance flood hazard area, also known as the 500-year floodplain, but not the 1% annual chance Special Flood Hazard Area, also known as the 100-year floodplain. Nevertheless, an assessment of the project's consistency with 24 CFR part 55, Executive Order 11988 "Floodplain Management" will be conducted as necessary.
- The Proposed Action will be reviewed for the applicability of and, if warranted, compliance with the following: Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]; flood insurance requirements per the Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]; Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658; floodplain management policies per Executive Order 11988, particularly section 2(a); 24 CFR part 55; and compliance with HUD policy as described in 24 CFR part 51, subpart D (Airport Clear Zones).

If necessary, mitigation measures to avoid or reduce the potential significant adverse impacts will be identified.

F.4.2 Socioeconomic Conditions

This chapter will analyze the impacts of the Proposed Action under each of the development alternatives on the area's socioeconomic conditions, including population, housing, and economic activity. Socioeconomic changes may occur when a project directly or indirectly causes any of these elements to change. Although socioeconomic changes may not result in impacts under CEQR, they are disclosed if they would affect land use patterns, low-income populations, the availability of goods and services, or economic investment in a way that changes the socioeconomic character of the area.

Per the *CEQR Technical Manual*, the five principal issues of concern with respect to socioeconomic conditions are whether a Proposed Action would result in significant adverse impacts due to: (1) direct residential displacement; (2) direct business and institutional displacement; (3) indirect residential displacement; (4) indirect business and institutional displacement; and (5) adverse effects on specific industries.

As pertains to direct socioeconomic effects of the Proposed Action, the Project Sites currently contain 2,056 NYCHA Section 9 housing units and 67,159 gsf of community facility uses, including a neighborhood center and daycare facilities. All of these uses would have dedicated space in the newly constructed buildings as part of the Proposed Action. As the Proposed Action would not directly displace more than 500 residents, assessment of direct residential displacement is not warranted. Likewise, as it would not directly displace any businesses, assessment of direct business displacement is not warranted. Project staging is organized so that approximately 94 percent of new units would be completed before the occupied units they replace are vacated. This approach allows most residents to remain in existing buildings until the replacement buildings are ready for occupancy.

However, prior to construction of the first replacement buildings, up to approximately 120 households (6 percent of households) would be temporarily relocated. Relocation assistance and counseling will be provided, and residents of these households will have a guaranteed right to

return to the first two new replacement buildings. Relocation Plans for any affected households and for the Elliott Center (discussed further below) will adhere to requirements of applicable statutes and regulations, including but not limited to the Uniform Relocation and Real Property Acquisition Policies Act of 1970, as amended (URA) and implementing regulations at 49 CFR 24, Notice H 2016-17; PIH 2016-17, as may be amended from time to time ("RAD Fair Housing, Civil Rights, and Relocation Notice"), Section 18 of the Housing Act of 1937, as amended and implementing regulation, 24 CFR part 970 and all applicable state and local regulations. Likewise, one of the existing community facilities, the Elliott Center, would be vacated prior to opening of new community facility space. Temporary spaces on- and off-site, identified and designed in coordination with the Hudson Guild leadership team, would also be provided to accommodate Elliott Center's existing programming. While the Proposed Action would involve temporary relocation of some residents and the Elliott Center, with the measures summarized above in place, it would not result in significant adverse direct residential, business, or institutional displacement. Additional information on these measures will be provided in the EIS.

For each of the alternatives, the Proposed Action would not exceed the 200,000-sf incremental commercial area screening threshold for indirect business and institutional displacement. Commercial development of 200,000 sf or less would typically not result in significant socioeconomic impacts related to indirect business displacement due to increased rents. Moreover, this type of development would not have the potential to draw a substantial amount of sales from existing businesses within the study area, and would not result in indirect business displacement due to market saturation. If a proposed development is located on multiple sites located across a project area, a preliminary analysis is likely only warranted for retail developments in excess of 200,000 sf that are considered regional-serving (not the type of retail that primarily serves the local population). As the Proposed Action under all scenarios would generate less than 200,000 gsf of commercial space and would not involve only local retail in ground floor locations, an assessment of indirect business and institutional displacement is not warranted for the Proposed Action.

Given that the Proposed Action would not include any citywide regulatory changes that would adversely affect the economic and operational conditions of certain types of businesses or processes, it would not have the potential to result in significant adverse impacts on specific industries. Therefore, no further analysis of this socioeconomic issue of concern is warranted.

The Proposed Action under each of the development alternatives would facilitate the construction of more than 200 incremental DUs, and therefore would exceed the CEQR threshold warranting assessment of indirect residential displacement. As such, an assessment of indirect residential displacement is required for the Proposed Action.

Indirect Residential Displacement

As the Proposed Action would exceed the screening threshold for indirect residential displacement, for each alternative the EIS will provide analysis of this technical sub-area.

Indirect residential displacement is the involuntary displacement of residents that results from a change in socioeconomic conditions created by a Proposed Action. Indirect residential displacement could occur if a proposed action either introduces or accelerates a trend of changing

socioeconomic conditions that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change. The potential for indirect displacement depends on the characteristics of the imposed project but also on the characteristics of a study area. To assess this potential impact, socioeconomic conditions analysis answers a series of threshold questions in terms of whether the project substantially alters the demographic character of an area through population change or introduction of higher-income housing.

The indirect residential displacement analysis will use the most recent available U.S. Census data, NYC Housing and Vacancy Survey, New York City Department of Finance's Real Property Assessment Data (RPAD), DCP Housing Database, Public Microdata Use Area (PUMA) from the Administration for Children's Services (ACS), as well as current real estate market data, to present demographic and residential market trends and conditions for the study area. The description of study area characteristics will include population estimates, housing tenure and vacancy status, median value and rent, estimates of the number of housing units not subject to rent protection, and median household income. The preliminary assessment will carry out the following step-by-step evaluation, to determine whether the Proposed Action would add substantial new population with higher incomes as compared with the incomes of the study area population, and evaluate whether the study area has experienced a readily observable trend toward increasing rents.

For analysis, the study area would be a half-mile radius around the Project Sites, which is appropriate for projects that would potentially increase the quarter-mile population by more than five percent (as is expected under the Proposed Action). Because of the distance between the Fulton Houses Project Site and the Elliot-Chelsea Houses Project Site is approximately a quarter-mile, the study areas will overlap.

- Step 1: Determine if the proposed action would add new population with higher average incomes compared to the average incomes of the existing populations and any new population expected to reside in the study area under the No-Action Alternative. If the expected average incomes of the new population would exceed the average incomes of the study area population, then Step 2 of the analysis will be conducted.
- Step 2: Determine if the project's increase in population is large enough relative to the size of the population expected to reside in the study area without the project to affect real estate market conditions in the study area. If the population increase is greater than 5 percent in the study area as a whole or within any identified subareas, Step 3 of the analysis will be conducted. If the population increase is greater than 10 percent in the study areas as a whole or within any identified subarea, a Detailed Analysis will be conducted.
- Step 3: Consider whether the study area has already experienced a readily observable trend toward increasing rents and the likely effect of the action on such trends. For the purposes of Step 3, "near" is defined as within a half-mile of the study area boundary.

A detailed analysis, if warranted, would utilize more in-depth demographic analysis and field surveys to characterize existing conditions of residents and housing, identify populations at risk of displacement, assess current and future socioeconomic trends that may affect these populations, and examine the effects of the Proposed Action on prevailing socioeconomic trends and, thus, impacts on the identified populations at risk. The detailed analysis would distinguish areas within

the broader study area, utilizing data from census tracts or other smaller geographies within the study area and provide comparative data for the borough and city.

If the population that is vulnerable to displacement exceeds five percent of a study area, a significant adverse impact may occur. If the project would result in significant adverse socioeconomic impacts, the EIS will disclose the anticipated significant adverse impacts and identify measures to avoid, minimize, or mitigate such adverse impacts.

F.4.3 Community Facilities and Services

Community facilities are public or publicly-funded schools, libraries, childcare centers (also referred to as early childhood programs or day care), health care facilities and fire and police protection. An analysis examines a project's potential effect on the services provided by these facilities compared to the ability of community facilities to provide service under the No-Action Alternative. An action can affect community facility services directly, when it physically displaces or alters a community facility; or indirectly, when it causes a change in population that may affect the services delivered by a community facility. Potential impact is based on the likelihood that the Proposed Action would create demand for services greater than the ability of existing facilities to provide said services, which could be a result of displacement of an existing facility or by an increase in population.

The Proposed Action under each of the development alternatives would not result in the direct displacement of any existing community facilities or services. The existing community facility spaces would be replaced and expanded through the redevelopment of the Project Sites to allow for increased services. In some cases, existing community facilities on the Project Sites would be temporarily relocated to allow for continuity of operations before they are relocated to new permanent replacement spaces. Therefore, an analysis of potential direct impacts on community facilities and services is not warranted, but information on the replacement space, and where necessary, temporary arrangements for community facility space under the Proposed Action will be provided in the EIS.

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. The demand for community facilities and services is directly related to the type and size of the new population generated by the development resulting from a Proposed Action.

Under each of the development alternatives the Proposed Action would introduce new residential populations that would exceed thresholds identified in Table 6-1 of *CEQR Technical Manual* Chapter 6, requiring detailed analyses of elementary/middle schools, child care centers, and libraries. Therefore, analyses of the effects of the Proposed Action on these types of facilities will be provided in the EIS.

However, the Proposed Action would not exceed thresholds requiring detailed analyses of public high schools, police/fire services, or health care facilities, and no significant adverse impacts on these technical areas are expected to occur.

Per the *CEQR Technical Manual*, the community facilities and services analysis in the EIS for elementary/middle schools, child care centers, and libraries will follow specific methodologies that are described below.

Public Schools

- The primary study area for the analysis of elementary and intermediate schools should be the school "sub-district" in which the action is located. As the Project Sites are located wholly within Community School District (CSD) 2, Sub-district 3, the elementary and intermediate school analyses will be conducted for schools in that sub-district.
- Public elementary and intermediate schools serving CSD 2, Sub-district 3 will be identified and located. Existing capacity, enrollment, and utilization data for all public elementary and intermediate schools within the affected sub-district will be provided for the current (or most recent) school year, noting any specific shortages of school capacity.
- Conditions that would exist under the No-Action Alternative for the sub-district will be identified, taking into consideration projected changes in future enrollments, including those associated with other developments in the affected sub-district, using the SCA's *Projected New Housing Starts*. Plans to alter school capacity either through administrative actions on the part of the New York City Department of Education (DOE), or as a result of the construction of new school space prior to the 2040 analysis year, will also be identified or incorporated into the analyses.
- For each of the development alternatives, future conditions with the Proposed Action will be analyzed, adding action-generated students to the projections for the No-Action Alternative. Impacts will be assessed based on the difference between the development alternative projections and the No-Action Alternative projections at the sub-district level for enrollment, capacity, and utilization in 2040.
- A determination of whether the Proposed Action would result in significant adverse impacts to elementary and intermediate schools will be made. A significant adverse impact may result, warranting consideration of mitigation, if the Proposed Action would result in: (1) a collective utilization rate of the elementary and/or intermediate schools in the sub-district study area that is equal to or greater than 100 percent with the Proposed Action; and (2) 100 or more new incremental students generated by the Proposed Action past the 100 percent utilization rate.

Libraries

- Local public library branches that serve the area within approximately ¾-mile of the Project Sites, which is the distance that one might be expected to travel for such services, will be identified and presented on a map.
- Existing libraries within the study area and their respective information services and user populations will be described. Information regarding services provided by branches within the study area will include holdings and other relevant existing conditions. Details on library operations will be based on publicly available information and/or consultation with New York Public Library officials. If applicable, holdings per resident may be estimated to provide a quantitative gauge of available resources in the applicable branch libraries in order to form a baseline for the analysis.

- For the No-Action Alternative, projections of population change in the area and information on any planned changes in library services or facilities will be described, and the effects of these changes on library services will be assessed. Using the information gathered for existing conditions, holdings per resident in the No-Action Alternative will be estimated.
- For each of the development alternatives, the effects of the addition of the population resulting from the Proposed Action on the library's ability to provide information services to its users will be assessed. Holdings per resident with the Proposed Action will be estimated and compared to the No-Action Alternative holdings estimate.
- If the Proposed Action would increase a branch library's ¾-mile study area population by five percent or more over the No-Action Alternative, and it is determined, in consultation with the New York Public Library, that this increase would impair the delivery of library services in the study area, a significant adverse impact may occur, warranting consideration of mitigation.

Child Care Centers

- Existing publicly funded early childhood programs within approximately 1.5 miles of the Project Sites will be identified. Each facility will be described in terms of its location, number of slots (capacity), enrollment, and utilization in consultation with the New York City Department of Education (DOE).
- For the No-Action Alternative, information will be obtained for any changes planned for child care programs or facilities in the area, including the closing or expansion of existing facilities and the establishment of new facilities. Any expected increase in the population of children under age six within the eligibility income limitations will be discussed as potential additional demand, and the potential effect of any population increases on demand for child care services in the study area will be assessed. The available capacity or resulting deficiency in slots and the utilization rate for the study area will be calculated for the No-Action Alternative.
- For each of the development alternatives, the potential effects of the additional eligible children resulting from the Proposed Action will be assessed by comparing the estimated net demand over capacity to a net demand over capacity under the No-Action Alternative.
- A determination of whether the Proposed Action would result in significant adverse impacts to early childhood programs will be made. A significant adverse impact may result, warranting consideration of mitigation, if the Proposed Action would result in both of the following: (1) a collective utilization rate of the group early childhood programs in the study area that is greater than 100 percent with the Proposed Action; and (2) an increase of five percent or more in the collective utilization rate of early childhood programs in the study area above the No-Action Alternative.

F.4.4 Open Space

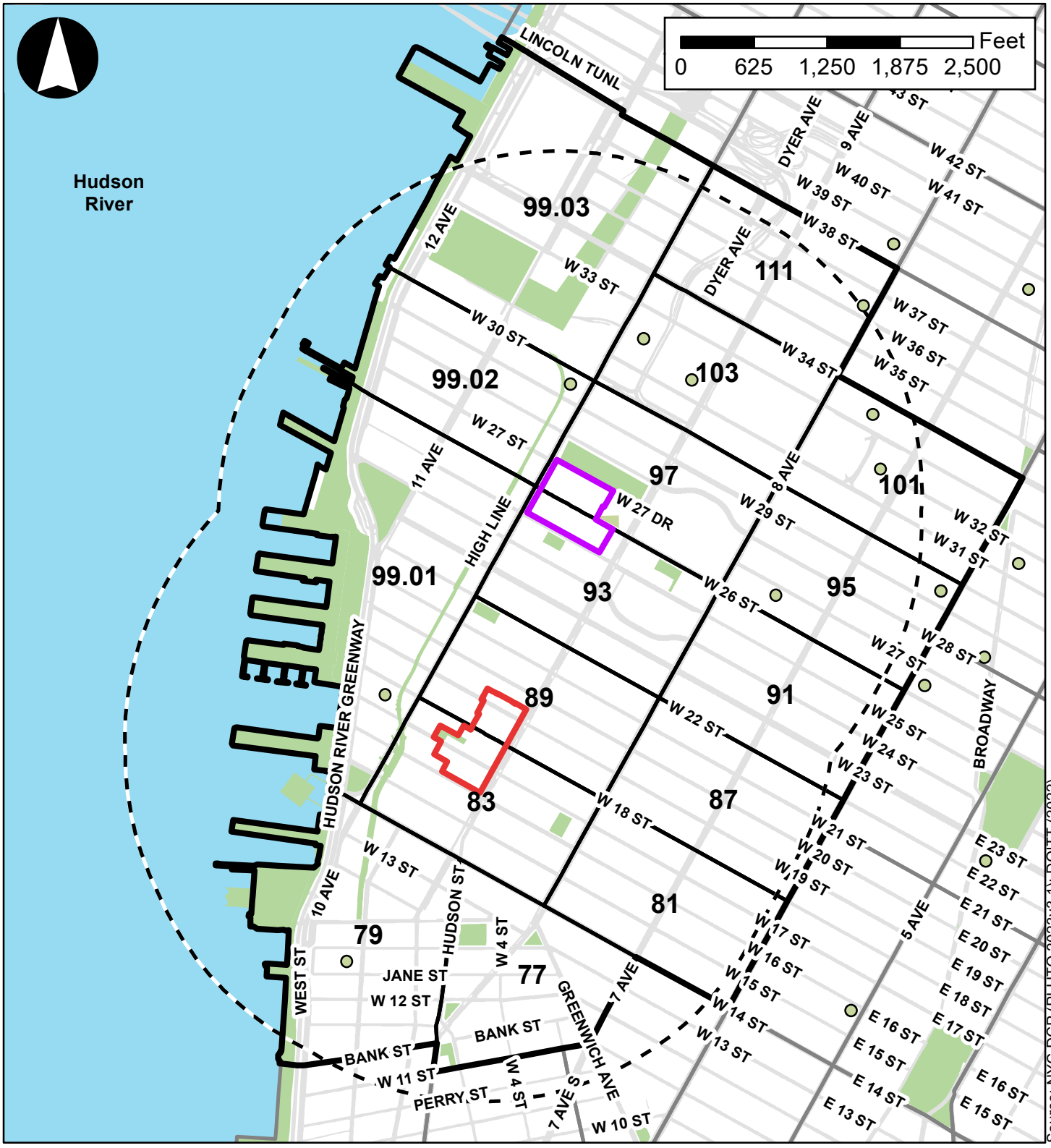
An open space assessment is typically warranted if an action would cause a direct effect from the elimination or alteration of open space or an indirect effect if the proposed action would increase the area population causing open space resources to be overburdened. Indirect effects may occur when the population generated by the proposed action would be sufficiently large to noticeably

diminish the ability of an area's open space to serve the future population. Open space includes both "active" and "passive" categories, such as sports fields, play fields, plazas, medians, bench areas, or lawns.

Under each development alternative the Proposed Action would add more than 200 incremental residents to the Project Sites and may have direct effects on surrounding open space due to shadows. Therefore, a detailed open space analysis is warranted for the residential population only. Per the *CEQR Technical Manual*, the analysis in the EIS would include following sub-tasks:

- As the Proposed Action would primarily introduce new residents to the area (the number of new workers would not exceed the threshold for worker analysis), the analysis of each development alternative will focus on both active and passive open space resources.
- Using the most recent Census data, calculate the total residential population of the open space study area. As shown in **Figure 6**, the open space study area is defined as the area within a ½-mile boundary from the Project Sites for nonresidential projects, adjusted to include all census tracts with at least 50 percent of their land area within the ½-mile radius.
- Conduct an inventory of existing active and passive open spaces within the open space study area. The condition and usage of existing facilities will be described based on the inventory and field visits. Jurisdiction, features, user groups, quality/condition, factors affecting usage, hours of operation, and access will be included in the description of facilities. The acreage of these facilities will be determined and total study area acreage calculated. The percentage of active and passive open space will also be calculated. A map showing the locations of open spaces keyed to the inventory will be provided.
- Based on the inventory of facilities and residential study area populations, open space ratios (OSR) will be calculated for the residential population in the study area and compared to City guidelines to assess adequacy. Open space ratios are expressed as the amount of open space acreage per 1,000 residents, and will be calculated for active and passive open space, as well as the ratio for the aggregate open space.
- For the No-Action Alternative, assess expected changes in future levels of open space supply and demand in the 2040 analysis year, based on other planned development projects within the open space study area. Any new open space or recreational facilities that are anticipated to be operational by the analysis year will also be accounted for. Open space ratios will be developed for the No-Action Alternative and compared with existing ratios to determine changes in future levels of adequacy.
- Assess the effects on open space supply and demand resulting from increased residential populations added by the Proposed Action. Any new accessory open space facilities proposed as part of the Proposed Action would also be taken into account. The assessment of the Proposed Action's impacts will be based on a comparison of open space ratios for the No-Action Alternative versus each of the development alternatives. In addition to the quantitative analysis, qualitative analysis will be performed to determine if the changes resulting from the Proposed Action constitute a substantial change (positive or negative) or an adverse effect to open space conditions. Accessory open space to be provided as part of the Proposed Action would be included in the qualitative assessment.
- If the results of the impact analysis identify a potential for a significant impact, discuss potential mitigation measures.

Open Space Study Area



Source: NYC DCP (PLUTO 2023v3.1); DOITT (2022)

Legend

- Elliott-Chelsea Houses
- Fulton Houses
- 1/2-Mile Radius
- 83 Residential Open Space Study Area
- Census Tracts
- Open Space Resources
- Privately Owned Public Space (POPS)

F.4.5 Shadows

A shadows analysis assesses whether new structures resulting from a Proposed Action would cast shadows on sunlight sensitive publicly accessible resources or other resources of concern, such as open space, historic resources, and natural resources, and to assess the significance of their impact. For each alternative, this chapter will examine the Proposed Action's potential for shadow impacts. Generally, the potential for shadow impacts exists if an action would result in new structures or additions to buildings resulting in structures over 50 feet in height that could cast shadows on important natural features, publicly accessible open space, or on historic features that are dependent on sunlight. New construction or building additions resulting in incremental height changes of less than 50 feet can also potentially result in shadow impacts if they are located adjacent to, or across the street from, a sunlight-sensitive resource.

As the Proposed Action would result in buildings taller than 50 feet, a shadows assessment is warranted to determine the extent, duration, and effects of any potential incremental new shadows on any sunlight-sensitive resources in the vicinity of the Project Sites. For each of the development alternatives, the shadows assessment will follow the methodology described in the *CEQR Technical Manual*, and will include the following:

- A preliminary shadows screening assessment will be prepared to ascertain whether shadows from the Proposed Action may potentially reach any sunlight-sensitive resources at any time of year.
  - A Tier 1 Screening Assessment will be conducted to determine the longest shadow study area for the Proposed Action, which is defined as 4.3 times the height of a structure (the longest shadow that would occur on December 21, the winter solstice). A base map that illustrates the location of the Proposed Action in relation to the sunlight-sensitive resources will be created.
  - A Tier 2 Screening Assessment will be conducted if any portion of a sunlight-sensitive resource lies within the longest shadow study area. The Tier 2 assessment will determine the triangular area that cannot be shaded by the Proposed Action due to the path of the sun across the sky, which in New York City is the area that lies between -108 and +108 degrees from true north.
  - If any portion of a sunlight-sensitive resource is within the area that could be potentially shaded by the Proposed Action, a Tier 3 Screening Assessment will be conducted. The Tier 3 Screening Assessment will determine if shadows resulting from the Proposed Action can reach a sunlight-sensitive resource through the use of three-dimensional computer modeling software with the capacity to accurately calculate shadow patterns. The model will include a three-dimensional representation of the sunlight-sensitive resource(s), a three-dimensional representation of the Proposed Action, and a three-dimensional representation of topographical information within the area to determine the extent and duration of new shadows that would be cast on sunlight-sensitive resources as a result of the Proposed Action.
- If the screening analysis does not rule out the possibility that action-generated shadows would reach any sunlight-sensitive resources, a detailed analysis of potential shadow impacts on publicly-accessible open spaces and/or sunlight-sensitive historic resources resulting from the Proposed Action will be provided in the EIS. The detailed shadow

analysis will establish a baseline condition (No-Action Alternative), which will be compared to the future condition resulting from the Proposed Action (each of the development alternatives) to illustrate the shadows cast by existing or future buildings and distinguish the additional (incremental) shadow cast by the Proposed Action. The detailed analysis will include the following tasks:

- The analysis will be documented with graphics comparing shadows resulting from the No-Action Alternative with shadows resulting from each of the development alternatives, with incremental shadow highlighted in a contrasting color.
- A summary table listing the entry and exit times and total duration of incremental shadow on each applicable representative day for each affected resource will be provided.
- The significance of any shadow impacts on sunlight-sensitive resources will be assessed based on CEQR criteria.
- If a significant adverse shadows impact is identified (i.e., if the Proposed Action result in incremental shadows that would substantially reduce or completely eliminate direct sunlight exposure on a sunlight-sensitive resource, thereby significantly altering the public's use of the resource or threatening the viability of vegetation or other resources), the EIS would investigate measures to avoid, minimize, or fully mitigate such adverse impacts related to shadows.

F.4.6 Historic and Cultural Resources

The historic and cultural resources assessment of the Proposed Action will be prepared in accordance with both the Section 106 of the 1966 National Historic Preservation Act (NHPA) and the *CEQR Technical Manual*.

Section 106 mandates that federal agencies consider the effect of their actions on any properties listed on or meeting the criteria for listing on the National Register. Compliance under Section 106 fulfills the requirements of Section 14.09 of the New York State Historic Preservation Act.

The *CEQR Technical Manual* states that a historic and cultural resources assessment is required if a project would have the potential to affect either archaeological or architectural resources.

The historic and cultural resources analysis will be prepared in consultation with the New York State Office of Parks, Recreation and Historic Preservation, State Historic Preservation Office (SHPO) and the NYC Landmarks Preservation Commission (LPC), and any other consulting parties identified through the Section 106 Process.

Architectural Resources

Impacts on architectural resources are considered on the affected site and in the area surrounding the Project Sites.

In October 2023, SHPO determined that the Elliott-Chelsea Houses Project Site buildings, inclusive of the Elliott Houses, Chelsea Houses, and Chelsea Addition, are eligible for listing on the State and National Registers of Historic Places (S/NR), and the Fulton Houses Project Site

buildings are not S/NR-eligible. None of the buildings on the Project Sites are designated NYC Landmarks (NYCL), and LPC determined in June 2023 that none of these buildings are NYCL-eligible. Based on a preliminary review, there are also several designated and eligible historic resources located within the 400-foot radii of the Project Sites: Chelsea Historic District which is S/NR-listed and NYCL-designated; Gansevoort Market Historic District which is S/NR-listed and NYCL-designated; Merchants Refrigeration Company Warehouse, 501 W. 16th Street, which is S/NR-listed; West Chelsea Historic District which is S/NR-eligible and NYCL-designated; Penn South which is S/NR-eligible; R.C. Williams Warehouse, 259-273 10th Avenue, which is S/NR-listed; the Houses at 437-459 W. 24th Street which are S/NR-listed and NYCL-designated; the Church of the Holy Apostles, 300 9th Avenue, which is S/NR-listed and NYCL-designated; the Bayard Rustin High School for the Humanities, 351 W. 18th Street, which is S/NR-eligible; the Port of NY Authority and Union Inland Terminal, 111 8th Avenue, which is S/NR-eligible; and London Terrace, 401 W. 23rd Street, which is S/NR-eligible. Therefore, an assessment of historic architectural resources will be included in the EIS.

The architectural resources study area is therefore defined as 400-foot radii surrounding the Project Sites. LPC and SHPO have been consulted to identify designated and eligible architectural resources in the study area, which will be described and mapped in the EIS. For each alternative, the EIS will assess the potential impacts of the Proposed Action on any identified architectural resources, including visual and contextual changes as well as any direct physical impacts, including during construction. Potential impacts will be evaluated through a comparison of the No-Action Alternative and each of the development alternatives, and a determination will be made as to whether any historic resources would be negatively affected.

As SHPO advised in October 2023 that the effects of the Proposed Action on the S/NR-eligible Elliott-Chelsea Houses requires review under Section 106, the Lead Agencies will work with SHPO and any interested parties, tribes, or agencies and conduct any appropriate outreach with the public through a SHPO Section 106 process. This includes assessing compliance with applicable federal acts and executive orders including the NHPA 36 CFR 800, Archaeological Resources Protection Act of 1970 (ARPA) 43 CFR part 7, Historic Sites Act of 1935, and Executive Order (EO) 13007 Indian Sacred Sites. As part of the Section 106 Review, an Alternatives Analysis will be prepared that studies alternatives that could potentially avoid or minimize the adverse effects of demolishing the Elliott-Chelsea Houses. If necessary, a Memorandum of Agreement (MOA) would be signed between all interested parties, tribes, and agencies with the Lead Agencies and SHPO to outline how adverse effects to historic properties will be mitigated.

Archaeological Resources

Archaeological resources are only considered in those areas where new excavation and ground disturbance would occur (i.e. the Project Sites). In June 2023, LPC issued its determination that the Project Sites have no archaeological sensitivity and therefore there would be no potential for disturbance of archaeological resources from incremental excavation or other in-ground disturbance. Although the Project Sites have been previously developed, if SHPO determines that

the Proposed Action has a potential for effects on archaeological resources, an analysis would be provided, including the following sub-tasks:

- A Phase 1A Archaeological Study will be prepared if requested by LPC and/or SHPO and summarized in the EIS. This report will clarify the initial findings and determine if further analyses are required.
- The EIS will evaluate the project's potential effects on any identified archaeological resources.
- If necessary, mitigation measures to avoid or reduce potential significant adverse impacts will be identified in consultation with the Agencies and any consulting parties.

F.4.7 Urban Design and Visual Resources

Urban design is the totality of components that may affect a pedestrian's experience of public space. An 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. When an action would potentially obstruct view corridors, compete with icons in the skyline, or would result in substantial alterations to the streetscape of the neighborhood by noticeably changing the scale of buildings, a more detailed analysis of urban design and visual resources would be appropriate. As the Rezoning Alternative would allow physical changes on the Project Sites beyond the bulk and form currently permitted as-of-right under existing zoning, it could affect a pedestrian's experience of public space. Therefore, an assessment of urban design and visual resources will be provided in the EIS.

The urban design study area will be the same as that used for the land use analysis (generally delineated by a quarter-mile radius from the Project Sites boundary). For visual resources, the view corridors within the study area from which such resources are publicly viewable will be identified. The urban design and visual resources assessment will consist of the following:

- A narrative will be developed to describe the existing Project Sites, the No-Action Alternative, and, as warranted, the development alternatives. The narrative will discuss any changes in the pedestrian visual experience with information related to changes in proposed floor area, lot coverage, building heights, setbacks, changes in land use(s), and any other urban design aspects that may affect the surrounding built environment. Additionally in the narrative, any view corridors existing in the study area will be included.
- Based on field visits, the urban design and visual resources of the directly affected area and adjacent study area will be described using text, photographs, and other graphic material, as necessary, to identify critical features, use, bulk, form, and scale.
- In coordination with Task F.4.1, Land Use, Zoning and Public Policy, the changes expected in the urban design and visual character of the study area due to known development projects in the No-Action Alternative will be described.
- Potential changes that could occur in the urban design character of the study area as a result of the Proposed Action will be described. For the Project Sites, the analysis will focus on the Proposed Action's building massings, as well as elements such as streetwall height, setback, and building envelope. Photographs and/or other graphic materials will be utilized, where applicable, to assess the potential effects on urban design and visual resources,

including views of/to resources of visual or historic significance and a three-dimensional representation of the development alternatives condition streetscape.

- Three-dimensional representations will be developed and included in the EIS of the No-Action Alternative and development alternatives conditions using photos gathered from field visits to show the incremental development.

Per the *CEQR Technical Manual,* if warranted based on the preliminary assessment, a detailed urban design and visual resources analysis would be prepared. Examples of projects that may require a detailed analysis are those that would make substantial alterations to the streetscape of a neighborhood by noticeably changing the scale of buildings, potentially obstruct view corridors, or compete with icons in the skyline. The detailed analysis would describe the Project Sites and the urban design and visual resources of the surrounding area. The analysis would describe the potential changes that could occur to urban design and visual resources with each of the development alternatives, in comparison to the No-Action Alternative, focusing on the changes that could negatively affect a pedestrian's experience of the area.

F.4.8 Natural Resources

The *CEQR Technical Manual* states that two possibilities determine whether an adverse impact on a natural resource might occur, and therefore, whether an assessment may be appropriate: (1) the presence of a natural resource on or near the site of the project; and (2) disturbance of that resource caused by the project. Natural resources are defined as (1) the City's biodiversity (plants, wildlife, and other organisms); (2) any aquatic or terrestrial areas capable of providing suitable habitat to sustain the life processes of plants, wildlife, and other organisms; and (3) any areas capable of functioning in support of the ecological systems that maintain the City's environmental stability.

As the Project Sites and the surrounding area are an urbanized, constructed environment, species that have adapted to urban conditions, such as eastern grey squirrels (Sciurus carolinensis), rock dove pigeons (Columba livia), and other creatures commonly found in the City would be the most likely primary residents on the Project Sites and study area.

In addition, this chapter will assess the project's consistency with 50 CFR 402: the Endangered Species Act. This will include consultation with the U.S. Fish and Wildlife Service's Information for Planning and Consultation (IPaC) website to determine whether any Federally Listed Endangered and Threatened Species and Candidate Species are located in the vicinity of the Project Sites, whether or not the sites are critical habitats of these species, and whether or not construction and operation processes of the project will violate the Endangered Species Act.

Furthermore, the Proposed Action will be reviewed for the applicability of and, if warranted, compliance with the following: policies on sole source aquifers contained in the Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR part 149; policies on wetlands protection contain in Executive Order 11990, particularly sections 2 and 5; and the Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c).

F.4.9 Hazardous Materials

A hazardous materials assessment determines 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. The potential for significant impacts related to hazardous materials can occur when: a) elevated levels of hazardous materials exist on a site and the project would increase pathways to human or environmental exposure; b) a project would introduce new activities or processes using hazardous materials and the risk of human or environmental exposure is increased; or c) the project would introduce a population to potential human or environmental exposure from off-site sources.

For each alternative, the hazardous materials chapter will examine the potential for significant adverse hazardous materials impacts from the Proposed Action. As part of the hazardous materials task, Phase I Environmental Site Assessments (ESAs) will be prepared for the Project Sites in accordance with the standards established by the current ASTM Phase I ESA standards. These standards aim to provide a thorough review of any previous reports, historical maps, City directories, and environmental database materials to identify any potential recognized environmental conditions that would lead to a concern for hazardous materials impacts. A visual inspection of the Project Sites will also be conducted to assess any potential for hazardous materials impacts. The Hazardous Materials chapter of the EIS will provide a summary of the site's historical and current environmental conditions.

The chapter will also summarize the findings of the completed Phase I ESAs including recommendations for additional testing, if any, by means of a Phase II subsurface site investigation, or other activities that would be required either prior to or during construction and/or operation of the project. If needed, the Phase II subsurface site investigation would include three major elements: 1) a plan for site characterization that addresses the media to be sampled, types of sampling, and rationale for the approach, along with the investigative, sampling and laboratory analytical methods to be used; 2) a Health and Safety Plan (HASP) for personnel undertaking the work; and 3) a quality assurance and quality control plan for the acquisition, handling, and analysis of samples collected. Following the Phase II subsurface site investigation activities outlined, a Phase II ESA would be developed in accordance with ASTM E1903 standards.

If hazardous materials are identified at the site and it appears that remedial measures are likely to be required to adequately mitigate the contamination, a Remedial Action Plan (RAP) and site-specific Construction Health and Safety Plan (CHASP) would be submitted along with the Phase II ESA Report. All reports would be submitted for review, recommendation, and approval to the New York City Department of Environmental Protection (DEP) and summarized in the EIS chapter. The implementation of remediation during construction or that otherwise would occur at a later date, will be memorialized in an enforceable legal mechanism, also referred to as an institutional control, binding for the applicable block and lot, such as a condition of the long-term lease disposition from NYCHA to the PACT Partner. In the event any further required testing or development of remediation action work plans prior to approvals is determined to be infeasible due to existing site limitations or other conditions preventing the collection of adequate site sampling, any such requirements can also be recorded in the enforceable legal mechanism. All reports (Phase I ESA, Phase II ESA, etc.) will be included as an appendix to the EIS. These reports

also will be used to document the Proposed Action's compliance with HUD's policies relating to contamination and toxic substances, including those described in 24 CFR part 50.3(i) and 24 CFR part 58.5(i)(2) and explosive and flammable hazards described in 24 CFR part 51 subpart C.

Consistent with NEPA guidance, the chapter also will identify the radon potential of the Project Sites.

F.4.10 Water and Sewer Infrastructure

The water and sewer infrastructure assessment determines whether a Proposed Action may adversely affect the City's water distribution or sewer system and, if so, assess the effects of such actions to determine whether their impact is significant. The *CEQR Technical Manual* outlines thresholds for analysis of an action's water demand and its generation of wastewater and stormwater. The Proposed Action would result in an incremental demand of approximately 698,576 gallons per day (gpd) under the Rezoning Alternative and approximately 415,783 gpd under the Non-Rezoning Alternative, below the threshold of one million gpd. Accordingly, a detailed analysis of the City's water supply is not warranted for the Proposed Action. Additionally, the Project Sites are not located in an area that experiences low water pressure. Water demand estimates will be provided in the EIS to inform the wastewater and stormwater conveyance and treatment analysis.

In February 2022, DEP adopted amendments to the Unified Stormwater Rule (USWR) which requires compliance when a Proposed Action would result in:

- Disturbance of 20,000 sf or more of soil; or
- Creation of 5,000 sf or more of new impervious area; or
- Is a covered maintenance activity; or
- Requires a new sewer connection

The EIS will discuss applicability of this rule and summarize any reports and findings as a result of this rule.

The threshold of preliminary wastewater and stormwater analysis for projects in Manhattan with combined sewers is 1,000 dwelling units or 250,000 sf of commercial space or more, which the Proposed Action would exceed. Accordingly, an assessment of wastewater and stormwater conveyance systems is warranted and will be provided in the EIS. The water and sewer infrastructure analysis will consider the potential for significant adverse impacts resulting from the Proposed Action and will consist of the following:

Water Supply

- The existing water distribution system serving the Project Sites will be described based on information obtained from DEP's Bureau of Water and Sewer Operations to define the study area.
- Water demand generated by the Project Sites under existing conditions, No-Action Alternative and development alternatives will be projected.

- The effects of the incremental demand on the City's water supply system will be assessed to determine if there would be impacts to water supply or pressure. The incremental change will be the difference between the water demand for the No-Action Alternative and each of the development alternatives on the Project Sites.

Wastewater and Stormwater Infrastructure

- The appropriate study area for the assessment will be established and also in consultation with DEP. The Proposed Action's directly affected area is located within the service area of the North River Wastewater Resource Recovery Facility (WRRF).
- The existing stormwater drainage system and surfaces (pervious or impervious) on the Project Sites will be described, and the amount of stormwater generated on the site will be estimated using DEP's volume calculation worksheet.
- The existing sewer system serving the Project Sites will be described based on records obtained from DEP. The existing sewage flows to the North River WRRF, which serves the directly affected area, will be obtained for the latest twelve-month period, and the average dry weather monthly flow will be presented.
- Any changes to the stormwater drainage plan, sewer system, and surface area expected in the future without the Proposed Action will be described, as warranted.
- Future stormwater generation from the Proposed Action will be assessed to determine the Proposed Action's potential impacts. Changes to the Project Sites's surface area will be described, runoff coefficients and runoff for each surface type/area will be presented, and volume and peak discharge rates from the site will be determined based on the DEP volume calculation worksheet.
- Sanitary sewage generation for the Project Sites will also be estimated. The effects of the incremental demand on the system will be assessed to determine if there will be any impact on operations of the North River WRRF.

A more detailed assessment may be required if increased sanitary or stormwater discharges from the Proposed Action are predicted to affect the capacity of portions of the existing sewer system, affect combined sewer overflow (CSO) volumes/frequencies, or contribute greater pollutant loadings in stormwater discharged to receiving water bodies. The scope of a more detailed analysis, if necessary, will be developed based on conclusions from the preliminary infrastructure assessment and in coordination with DEP and the Lead Agencies. If the results of the impact analysis identify a potential for a significant impact, the EIS will discuss potential mitigation measures.

F.4.11 Solid Waste and Sanitation Services

A solid waste assessment determines whether an action has the potential to cause a substantial increase in solid waste production that may overburden available waste management capacity or otherwise be inconsistent with the City's Solid Waste Management Plan (SWMP) or with State policy related to the City's integrated solid waste management system. As the solid waste and sanitation services analysis is a density-related analysis, the analysis focuses on development anticipated on the Project Sites. The Proposed Action would induce new development that would require sanitation services. Per the *CEQR Technical Manual,* if an action's generation of solid

waste would not exceed 50 tons per week, it may be assumed that there would be sufficient public or private carting and transfer station capacity in the metropolitan area to absorb the increment, and further analysis generally would not be required. The Rezoning Alternative and Non-Rezoning Alternative are expected to result in total increases which exceed the 50-ton screening threshold, therefore an assessment of solid waste and sanitation services is warranted for the Proposed Action. To conduct a conservative analysis, this chapter will provide an estimate of the additional solid waste expected to be generated by the Project Sites and assesses its effects on the City's solid waste and sanitation services. This assessment will:

- Describe existing and future New York City solid waste disposal practices.
- Estimate solid waste generation by the Project Sites for existing conditions, the No-Action Alternative, and for each of the development alternative.
- Describe existing solid waste pickup and carting practices and how these may shift in for each of the development alternatives due to the implementation of pursuant to zoning changes.
- For each development alternative assess the impacts of the Proposed Action's solid waste generation on the City's collection needs and disposal capacity. The Proposed Action's consistency with the City's Solid Waste Management Plan will also be assessed.
- Any project feature that may minimize waste or enhance recycling beyond what is required by law will be identified and discussed in the EIS
- Any aspects of the project that may make recycling difficult, impede waste collection, or result in the generation of high levels of solid waste will be identified and discussed in the EIS

F.4.12 Energy

Per the *CEQR Technical Manual*, in most cases, a project does not need a detailed energy assessment, but its operational energy is projected. A detailed energy assessment is limited to projects that may significantly affect the transmission or generation of energy. For other projects, in lieu of a detailed assessment, the estimated amount of energy that would be consumed annually as a result of the day-to-day operation of the buildings and uses resulting from a proposed action is disclosed.

Accordingly, a projection of the anticipated additional demand for each alternative will be provided in this chapter. It will disclose the projected energy consumption during long-term operation resulting from the Proposed Action. The projected amount of energy consumption during long-term operation will be estimated based on the average and annual whole-building energy use rates for New York City (per Table 15-1 of the *CEQR Technical Manual*).

This chapter will also discuss a thermal energy network pilot project Consolidated Edison is currently investigating and its relationship to the identified alternatives. As envisioned, this initiative will capture and recycle heat from a data center, located within a commercial office building at 85 10th Avenue, located on the block bound by W. 16th Street, 10th Avenue, W. 15th Street, and 11th Avenue, which would provide energy to some of the existing Fulton Houses

Project Site buildings under all of the identified alternatives to be analyzed as part of the Proposed Actions.[7]

F.4.13 Transportation

For each alternative, detailed travel demand forecasts will be prepared discretely using standard sources, including the *CEQR Technical Manual*, U.S. census data, previously-approved studies, and other references to determine the worse-case scenario to be analyzed in the EIS transportation analysis. A travel demand forecast (a Level 1 screening assessment) will be presented by peak hour, mode of travel, and person and vehicle trips. The travel demand forecasts will also identify the number of peak hour person trips made by transit and the numbers of pedestrian trips traversing the area's sidewalks, corner areas, and crosswalks. Detailed vehicle, pedestrian and transit trip assignments (a Level 2 screening assessment) will be prepared based on the results of the travel demand forecast to identify the intersections and pedestrian/transit elements selected for quantified analysis.

Traffic

The EIS will provide a detailed traffic analysis focusing on those peak hours and street network intersections where the highest concentrations of action-generated demand would occur. The peak hours for analysis will be selected, and the specific intersections to be included in the traffic study area will be determined based upon the assignment of project-generated traffic and the analysis threshold of 50 additional, i.e., incremental, vehicle trips per hour, or at known congested locations. A discussion on the existing bicycle network in the study area will be included in the EIS.

The following outlines the anticipated scope of work for conducting a traffic impact analysis for the Proposed Action:

- Conduct a count program for traffic analysis locations that includes a mix of automatic traffic recorder (ATR) machine counts and intersection turning movement counts, along with vehicle classification counts and travel time studies (speed runs) as support data for air quality (Task F.4.14) and noise (Task F.4.16) analyses. Turning movement count data will be collected at each analyzed intersection during the weekday and Saturday peak hours, and will be supplemented by nine days of continuous ATR counts. Vehicle classification count data will be collected during each peak hour at several representative intersections along each of the principal corridors in the study area. The turning movement counts, vehicle classification counts and travel time studies will be conducted concurrently with the ATR counts. Where applicable, available information from recent studies in the

[7] For more information, please see: https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={50C13588-0000-CD14-ABF3-6D5DFFB6067B} pages 6 to 12.

vicinity of the study area will be compiled, including data from such agencies as DOT and DCP.

- Inventory physical data at each of the analysis intersections, including street widths, number of traffic lanes and lane widths, pavement markings, turn prohibitions, bicycle routes, curbside parking regulations, and vehicle queue lengths. Signal phasing and timing data for each signalized intersection included in the analysis will be obtained from DOT.
- Determine existing traffic operating characteristics at each analysis intersection including capacities, volume-to-capacity ("v/c") ratios, average vehicle delays, and levels of service ("LOS") per lane group, per intersection approach, and per overall intersection. This analysis will be conducted using the 2000 Highway Capacity Manual (HCM) methodology with the latest approved Highway Capacity Software (HCS), or other methodology as may be determined in consultation with DOT.
- Based on available sources, Census data, and standard references, including the *CEQR Technical Manual*, estimate the demand from other major developments planned in the vicinity of the Project Sites by the 2040 analysis year. This will include total daily and peak hour person and vehicular trips, and the distribution of trips by auto, taxi, and other modes. A truck trip generation forecast will also be prepared based on data from the *CEQR Technical Manual* and previous relevant studies. Mitigation measures for future projects in the surrounding area, as well as other DOT initiatives, will be included in the No-Action Alternative network, as applicable.
- Compute the future 2040 No-Action Alternative traffic volumes based on approved background traffic growth rates for the study area (0.25 percent for years one through five, and 0.125 percent for years six and above) and demand from major development projects expected to be completed in the future without the Proposed Action. Incorporate any planned changes to the roadway system anticipated by 2040, and determine the No-Action Alternative v/c ratios, delays, and LOS at analyzed intersections.
- Based on available sources, Census data, and standard references, develop a travel demand forecast for the RWCDS net change in uses compared to the No-Action condition. Determine the net change in vehicle trips expected to be generated by the RWCDS. Assign the net action-generated trips in each analysis period to likely approach and departure routes, and prepare traffic volume networks for the No-Action Alternative for each analyzed peak hour.
- Determine the v/c ratios, delays, and LOS at analyzed intersections for each of the development alternatives, and identify significant adverse traffic impacts.
- Identify and evaluate potential traffic mitigation measures, as appropriate, for any significantly impacted locations in the study area in consultation with the Lead Agencies and DOT. Potential traffic mitigation could include both operational and physical measures, such as changes to lane striping, curbside parking regulations and traffic signal timing and phasing, roadway widening, and the installation of new traffic signals. Where impacts cannot be fully or partially mitigated, they will be described as unavoidable adverse impacts.

Transit

Detailed transit analyses are generally not required if a Proposed Action is projected to result in fewer than 200 incremental peak hour rail or bus transit trips according to the general thresholds

used by the Metropolitan Transportation Authority (MTA) and specified in the *CEQR Technical Manual*. If a Proposed Action would result in 50 or more incremental bus trips being assigned to a single bus line (in one direction), or if it would result in an increase of 200 or more incremental trips at a single subway station or on a single subway line, a detailed bus or subway analysis would be warranted.

The Project Sites are served by multiple subway stations, lines, and bus routes.

Subway

To be conservative, transit analyses typically focus on the weekday AM and PM commuter peak hours when overall demand on the transit system is usually highest. The Rezoning and Non-Rezoning Alternatives are expected to generate a net increase of more than 200 additional subway trips at one or more subway stations; therefore they require a detailed subway analysis at any such stations. The detailed subway analysis will include the following subtasks:

- Analyze stairways and fare entrance control elements that are expected to be used by significant concentrations of action-generated demand in the weekday AM and PM peak hours.
- Conduct or utilize existing counts of existing weekday AM and PM peak hour demand at affected station elements and determine existing v/c ratios and LOS.
- Determine volumes and conditions at the affected station elements in the future without the Proposed Action using approved background growth rates and accounting for any trips expected to be generated by major No-Action Alternative projects in the vicinity of the Project Sites.
- Add action-generated demand to the No-Action Alternative volumes at analyzed subway station elements and determine AM and PM peak hour volumes and conditions for each development alternative.
- Identify potential significant adverse impacts at subway station stairways and fare control elements.
- For each alternative, if it is determined that the Proposed Action is expected to generate 200 or more incremental subway trips in the peak or non-peak directions of any subway line, subway line haul conditions will also be assessed in the EIS if or as needed. The analysis would use existing maximum load point subway service and ridership data provided by New York City Transit (NYCT) to assess existing conditions, the No-Action Alternative, and for each development alternative at the peak load points of the affected subway routes during the weekday AM and PM peak hours.
- Mitigation needs and potential subway station improvements will be identified, as appropriate, in conjunction with the Lead Agencies and NYCT. Where impacts cannot be mitigated, they will be described as unavoidable adverse impacts.

Bus

As part of the EIS, a Level 1 trip generation and (if warranted) Level 2 bus trip assignment will be prepared for the RWCDS. A detailed analysis of bus conditions is generally not required if a Proposed Action is projected to result in fewer than 50 incremental peak hour trips being assigned

to a single bus route (in one direction) based on the general thresholds used by the MTA and specified in the *CEQR Technical Manual*. For each alternative, if the incremental person-trips by bus generated by the Proposed Action is anticipated to exceed 50 incremental peak hour trips along any MTA NYCT bus route in at least one direction during the weekday AM and PM peak hours, a detailed bus analysis of such bus route(s) would be warranted and will be included in the EIS.

Pedestrians

Per the *CEQR Technical Manual*, projected incremental pedestrian volumes of less than 200 persons per hour at any pedestrian element (sidewalks, corner areas, and crosswalks) would not typically be considered a significant impact, since the level of increase would not generally be noticeable and therefore would not require further analysis. Based on the level of new pedestrian demand generated, for both the Rezoning and Non-Rezoning Alternative it is anticipated that action-generated pedestrian trips would exceed the incremental 200-trip analysis threshold at one or more locations in one or more peak hour. A detailed pedestrian analysis will therefore be prepared for the EIS focusing on selected sidewalks, corner areas, and crosswalks along corridors that would experience more than 200 additional peak hour pedestrian trips. Pedestrian counts will be conducted at each analysis location and used to determine existing LOS. No-Action Alternative and development alternative pedestrian volumes and LOS will be determined based on approved background growth rates, trips expected to be generated by major projects in the vicinity of the study area, and action-generated demand. The specific pedestrian facilities to be analyzed will be determined in consultation with the Lead Agencies once the assignment of action-generated pedestrian trips has been finalized. The analysis will evaluate the potential for incremental demand from the Proposed Action to result in significant adverse impacts. Potential measures to mitigate any significant adverse pedestrian impacts will be identified and evaluated, as warranted, in consultation with the Lead Agencies and DOT.

Street User Safety

The City's *Vision Zero* initiative seeks to eliminate all deaths from traffic crashes whether on foot, bicycle, or inside a motor vehicle. Related to this initiative, the Project Sites are located adjacent to or within a quarter-mile of *Vision Zero* "Priority Corridors' including 8th, 9th, and 10th Avenues, and W. 14th and W. 23rd Streets, and the Project Sites are located within a Senior Pedestrian Zone. Per the *CEQR Technical Manual*, an evaluation of street user safety is needed for locations within the traffic and pedestrian study areas that have been identified as high-crash locations. These are defined as locations along a *Vision Zero* priority intersection or locations where 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. In addition, any location along a *Vision Zero* priority corridor with three or more pedestrian/bicyclist injury crashes in any consecutive 12 months of the most recent three-year period for which data is available should be identified as a "high crash location."[8] Data on traffic crashes involving pedestrians and/or cyclists at study area intersections will be obtained from DOT for the most recent three-year period available. This data will be analyzed to determine if any of the studied locations may be classified

[8] *Vision Zero* corridors and intersections are identified as locations that disproportionately account for pedestrian fatalities and severe injuries, thus prioritizing them for safety interventions.

as "high crash locations" and whether vehicle and/or pedestrian trips and any street network changes resulting from each alternative would adversely affect vehicular and pedestrian safety in the area. If any "high crash locations" are identified, feasible improvement measures will be explored to alleviate potential safety issues.

Parking

An hourly parking accumulation forecast will be prepared for the RWCDS. For each alternative, a detailed parking analysis will be prepared to determine if there is sufficient off-street capacity at and within the vicinity of the Project Sites to accommodate demand from the Proposed Action. As the Proposed Action would include increased residential, retail, and community facility uses, the analysis of parking conditions would focus on the weekday midday and overnight peak periods and/or the Saturday peak period, when demand is expected to be highest. Existing parking inventories would be conducted for the weekday midday period (when parking in a business area is frequently at peak occupancy) and overnight (when residential demand peaks) to document existing supply and demand for each period. Parking utilization within a 0.25-mile radius of the Project Sites will be analyzed. The parking analysis would document changes in the parking utilization in proximity to the Project Sites under the No-Action Alternative and for each of the development alternatives based on accepted background growth rates and projected demand from the Project Sites and other major projects in the vicinity of the study area for the No-Action Alternative and for each of the development alternatives. Per the *CEQR Technical Manual*, in areas of the City such as where the Project Sites are located, the inability of a proposed action or the surrounding area to accommodate an action'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.

F.4.14 Air Quality

Air quality may be affected by air pollutants produced by motor vehicles, referred to as "mobile sources"; by fixed facilities, usually referenced as "stationary sources"; or by a combination or both. Proposed actions may have effects on air quality during operation and/or construction.

Per the *CEQR Technical Manual*, site-specific or generic projects may result in significant mobile source air quality impacts when they increase or cause a redistribution of traffic, create any other mobile sources of pollutants, or add new uses near mobile sources. For each alternative, the projected number of project-generated vehicle trips will potentially exceed carbon monoxide (CO) and/or particulate matter (PM) analysis screening thresholds for conducting a mobile source intersection analysis. Therefore, a screening analysis will be performed for each alternative; if any screening thresholds are exceeded, a microscale analysis of CO and/or PM mobile source emissions would be performed using the American Meteorological Society (AMS)/Environmental Protection Agency (EPA) Regulatory Model (AERMOD) dispersion model at the intersection(s) with the greatest number of action-generated vehicle trips. In addition, the effect of the proposed parking facilities on air quality will be analyzed, and the results from that analysis will be combined with the intersection analyses, where applicable. As applicable, the assessment will include a determination of the Proposed Action's conformity with the Clean Air Act (CAA).

The Proposed Action is anticipated to utilize electric-powered heating and hot water systems to provide heating and cooling and domestic hot water to the proposed buildings. No fossil fuel-fired heating and hot water equipment would be utilized. Therefore, no significant adverse air quality impacts would occur from stationary sources associated with the Proposed Action. However, the existing NYCHA boiler plants serving the Elliott and Chelsea Houses will be evaluated to assess the potential for interim air quality effects on the Proposed Action, under each alternative.

An analysis of uses surrounding the Project Sites will be conducted to determine the potential for impacts from existing or proposed industrial emissions. A review of land uses will be performed to determine if there are any manufacturing or processing facilities within 400 feet of potential new sensitive receptors within the Project Sites. In addition, a search of federal and state air permits, and the DEP's Bureau of Environmental Compliance (BEC) files will be performed to determine if there are permits for any sources of toxic air compounds from industrial processes. If manufacturing or processing facilities are identified within 400 feet of the Project Sites, an industrial stationary source air quality analysis, will be performed. EPA's AERMOD refined dispersion model will be used to estimate the short-term and annual concentrations of critical pollutants at sensitive receptor locations. Predicted values will be compared with the short-term guideline concentrations (SGC) and annual guideline concentrations (AGC) reported in NYSDEC's DAR-1 AGC/SGC Tables guidance document to determine the potential for significant impacts.

Existing large and major sources of emissions currently operate within 1,000 feet of the Project Sites. Therefore, the analysis of potential air quality effects of such sources on the Proposed Action for each alternative is required. Criteria pollutant concentrations will be predicted using the AERMOD model. Concentrations of the air contaminants of concern will be determined at ground level receptors as well as elevated receptors representing floors of the Proposed Action alternatives. The modeling results will be compared with NAAQS for NO_2, sulfur dioxide (SO_2, if fuel is used), and PM (PM_{10}, and $PM_{2.5}$).

F.4.15 Greenhouse Gas Emissions and Climate Change

Increased greenhouse gas (GHG) emissions are changing the global climate, which is predicted to lead to wide-ranging effects on the environment, including rising sea levels, increases in temperature, and changes in precipitation levels. Although this is occurring on a global scale, the effects of climate change are also likely to be felt at the local level. HUD's *Climate Action Plan* (November 2021) had identified greenhouse gas emissions reductions as a key goal for HUD-assisted projects. As the Proposed Action exceeds the 350,000-sf development threshold, a GHG emissions assessment will be provided in the EIS.

Per the *CEQR Technical Manual*, for each alternative, GHG emissions generated by the Proposed Action will be quantified, and an assessment of consistency with the City's established GHG reduction goal will be prepared. Emissions will be estimated for the analysis year and reported as carbon dioxide equivalent (CO_2e) metric tons per year. GHG emissions other than carbon dioxide (CO_2) will be included if they would account for a substantial portion of overall emissions, adjusted to account for the global warming potential. Relevant measures to reduce energy consumption and GHG emissions that could be incorporated into the Proposed Action will be discussed, and the

potential for those measures to reduce GHG emissions from the Proposed Action will be assessed to the extent practicable.

The analysis will include the following tasks:

- Building Operational Emissions: For each alternative, GHG emissions from the Proposed Action will be estimated based on carbon intensity factors.
- Mobile Source Emissions: GHG emissions from vehicle trips to and from the Project Sites will be quantified using trip distances and vehicle emission factors.
- Potential Measures to Reduce GHG Emissions: Design features and operational measures to reduce the Proposed Action's energy use and GHG emissions will be discussed to the extent that information is available.
- Consistency with the City's GHG Reduction Goal: Consistency of the Proposed Action overall will be assessed. While the City's overall goal is to reduce GHG emissions by 30 percent below 2005 levels by 2025, individual project consistency is evaluated based on building energy efficiency, proximity to transit, on-site renewable power and distributed generation, efforts to reduce on-road vehicle trips and/or to reduce the carbon fuel intensity or improve vehicle efficiency for project-generated vehicle trips, and other efforts to reduce the project's carbon footprint.

Since portions of the Project Sites are located within the 0.2 percent annual chance floodplain, the potential impacts of climate change on the Proposed Action will be evaluated. The qualitative discussion will focus on the potential sea level rise and changes in storm frequency projected to result from global climate change and the potential future impact of those changes on project infrastructure and uses.

F.4.16 Noise

For each alternative, there are two major areas of concern regarding noise: (1) the effect the Proposed Action would have on noise levels in the surrounding community; and (2) the level of building attenuation necessary to achieve interior noise levels that satisfy CEQR and HUD requirements, with the higher required attenuation value, if there are differences between the two, applicable.

The Proposed Action would generate vehicle trips, so the EIS will include a screening assessment to determine whether there are any locations where there is the potential for each alternative to result in significant noise impacts (i.e., doubling of Noise Passenger Car Equivalents [PCEs]) due to project-generated traffic. A detailed analysis of potential noise impacts due to outdoor mechanical equipment is not required as the outdoor mechanical equipment for any future development facilitated by the Proposed Action would be required to meet applicable regulations, which are more stringent than *CEQR Technical Manual* impact criteria. The noise analysis will also examine the level of building attenuation necessary to meet interior noise level requirements of 45 dBA, as the Project Sites are located in areas with high ambient noise levels. Per the *CEQR Technical Manual,* the following tasks will be performed:

- Based on the traffic studies conducted for Task F.4.13, Transportation, a screening analysis will be conducted to determine whether there are any locations where there is the potential for each alternative to result in significant noise impacts (i.e., doubling Noise PCEs) due to incremental project-generated traffic. If it is determined that noise PCEs would double at any sensitive receptor, a detailed analysis would be conducted.
- Appropriate noise descriptors for building attenuation purposes would be selected. Based on CEQR criteria, the noise analysis will examine the L_{10} and the one-hour equivalent ($L_{eq(1)}$) noise levels and acceptable L_{dn} noise levels to comply with HUD criteria. The L_{10} and L_{dn} noise descriptors, as used by *CEQR Technical Manual* and *HUD Noise Guidebook* noise abatement criteria, respectively, will be used to characterize noise in this analysis.
- Existing noise levels will be measured at receptor locations adjacent to the Project Sites. As vehicular noise is the dominant noise source at the selected receptor locations adjacent to the Project Sites, 20-minute measurements will be performed during typical weekday AM, midday, PM, and Saturday peak periods (coinciding with the traffic peak periods) at each receptor site. Additionally, due to the location of P.S. 33 - Chelsea Prep immediately east of the northern block of the Elliott-Chelsea Project Site campus, additional noise measurements will be performed during the school dismissal/bus departure (School PM) peak period. Noise measurements will be recorded and measured noise level descriptors will include equivalent noise level (L_{eq}), maximum level (L_{max}), minimum level (L_{min}), and statistical percentile levels such as L_1, L_{10}, L_{50}, and L_{90}. A summary table of existing measured noise levels will be provided as part of the EIS.
- In the event significant differences between traffic counts during the noise measurements and the existing traffic condition presented in Task F.4.13, Transportation are identified, existing noise measurements will be adjusted based on the difference between the vehicle counts conducted during noise measurement and the existing traffic condition collected and summarized as part of Task F.4.13, Transportation, of the EIS.
- Noise levels will be estimated at the noise receptor locations based on acoustical fundamentals and will be consistent with No-Action Alternative and development alternatives vehicular volumes provided in the EIS as part of Task F.4.13, Transportation. All projections will be made with L_{eq} noise descriptor.
- As the existing Chelsea Park Soccer Field (directly north of the Elliott-Chelsea houses), and as the Proposed Action may include several private open space areas and/or playgrounds, for each alternative, a stationary noise analysis may be warranted. Noise from the proposed stationary source(s) will be determined, which may require additional noise measurements (depending on the location of any project-generated play areas).[9]
- The cumulative noise effects from both future mobile and stationary noise sources will be calculated by logarithmically adding the projected L_{eq} noise values to yield total maximum-possible L_{eq} and L_{10} noise levels. To determine the potential for significant adverse impacts caused by the Proposed Action, the total noise levels for each of the development alternatives will be compared to the total No-Action Alternative noise levels at each receptor location and will be based on the applicable standards and CEQR impact thresholds.

[9] Refer to Section 333 of Chapter 19, "Noise," and Appendix 6, "Noise," of the *CEQR Technical Manual*.

The level of building attenuation necessary to satisfy interior noise requirements (a function of the exterior noise levels) will be determined based on the highest L_{10} noise level estimated at each monitoring site while L_{dn} is the noise description used in the HUD Noise guidebook that sets exterior noise standards for housing construction projects receiving federal funds. However, because the L_{dn} descriptor tends to average out high hourly values over 24 hours, the *CEQR Technical Manual* recommends that the L_{eq} descriptor be used for purposes of impact analysis. If required, an enforceable legal mechanism will be proposed to memorialize building attenuation requirements, such as a condition of the long-term lease disposition from NYCHA to the PACT Partner.

The analysis in this chapter also will be used to document the Proposed Action's compliance with Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR part 51 subpart B.

F.4.17 Public Health

Public health is the organized effort of society to protect and improve the health and well-being of the population through monitoring; assessment and surveillance; health promotion; prevention of disease, injury, disorder, disability, and premature death; and reducing inequalities in health status, as defined in the *CEQR Technical Manual*. The goal of CEQR with respect to public health is to determine whether adverse impacts on public health may occur as a result of a proposed action, and, if so, to identify measures to mitigate such effects.

Per the *CEQR Technical Manual,* a public health assessment may be warranted if an unmitigated significant adverse impact is identified in other impact category analysis areas, such as air quality, hazardous materials, or noise. For each alternative, if unmitigated significant adverse impacts are identified in any of these technical areas and the Lead Agencies determine that a public health assessment is warranted, an analysis will be provided for the specific technical area or areas.

F.4.18 Neighborhood Character

Neighborhood character is established by numerous factors, including land use patterns, the scale of its development, the design of its buildings, the presence of notable landmarks, and a variety of other physical features that include traffic and pedestrian patterns, noise, etc. The Proposed Action has the potential to alter certain elements contributing to the affected area's neighborhood character. Therefore, a neighborhood character chapter will be provided in the EIS.

A preliminary assessment of neighborhood character for each alternative will be provided in the EIS to determine whether changes or any significant adverse impacts that are expected in other technical analysis areas—land use, zoning, and public policy; socioeconomic conditions; community facilities; open space; historic and cultural resources; urban design and visual resources; shadows; transportation; and noise—may affect a defining feature of neighborhood character. This will draw heavily from assessments in their respective chapters in determining the potential for impact to neighborhood character. The preliminary assessment will:

- Identify the defining features of the existing neighborhood character.

- Summarize changes in the character of the neighborhood that can be expected in each of the development alternatives and compare them to the No-Action Alternative condition.
- Evaluate whether the Proposed 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 the relevant technical areas.

Per the *CEQR Technical Manual,* for each alternative, if the preliminary assessment determines that the Proposed Action could affect the defining features of neighborhood character, a detailed analysis will be conducted.

If warranted, this section will describe the predominant factors that contribute to defining the character of the neighborhood. The assessment will be based on existing development within the study area, visual resources, historic resources, traffic, noise, and, if warranted, public health.

For each alternative, as warranted, this section will summarize any planned development projects and public policy initiatives that may be expected to affect the character of the neighborhood.

This analysis will also assess whether each alternative would have the potential to affect defining neighborhood character features, either through potential for a significant adverse impact or a combination of moderate effects in relevant technical analysis areas. If the alternative has the potential to affect the defining features of the neighborhood, a detailed assessment of neighborhood character will be prepared.

F.4.19 Construction

Construction impacts, though temporary, can have a disruptive and noticeable effect on the adjacent community, as well as people passing through the area. Construction impacts arise when construction activity has the potential to affect transportation conditions, archaeological resources and the integrity of historic resources, community noise levels, air quality conditions, or mitigation of hazardous materials. Per the *CEQR Technical Manual,* projects with overall construction periods lasting longer than two years and that are near to sensitive receptors (i.e., residences, open spaces, etc.) should undergo a preliminary impact assessment. Construction of the Proposed Action is expected to take place over a period greater than two years, with ongoing stages over an approximately 16-year period, and is therefore considered long-term. This chapter of the EIS will provide a preliminary impact assessment for each alternative. The preliminary assessment will evaluate the duration and severity of the disruption or inconvenience to nearby sensitive receptors. If the preliminary assessments indicate the potential for a significant impact during construction, a detailed construction impact analysis for each alternative, as warranted, will be undertaken and reported in the EIS. Technical areas to be assessed include the following:

- **Transportation Systems:** The travel demand that would be generated during construction of the Proposed Action will be forecast to identify the expected number of vehicle, transit (bus and subway) and pedestrian trips from construction workers and equipment. Based on the trip projections of activities associated with peak construction for the Proposed Action, an assessment of potential transportation impacts during construction and how they are compared to the trip projections under the operational condition will be provided. If this effort identifies

the need for a separate detailed analysis, such analysis will be prepared. The assessment will also evaluate the potential effects of construction activities on streets, sidewalks, bicycle and bus lanes, and transit access points adjacent to the Project Sites, where applicable.

- **Air Quality:** This section will contain a detailed dispersion analysis of construction sources at each of the two housing complexes to determine the potential for air quality impacts on sensitive receptor locations. Air pollutant sources would include combustion exhaust associated with non-road construction engines (e.g., cranes, excavators) and trucks operating on-site, construction-generated traffic on local roadways, as well as onsite activities (e.g., excavation, demolition) that generate dust. The pollutants of concern include carbon monoxide (CO), particulate matter (PM), and nitrogen dioxide (NO2). The potential for significant impacts will be determined by a comparison of the model predicted concentrations to the National Ambient Air Quality Standards (NAAQS), or by comparison of the predicted increase in concentrations to applicable interim guidance thresholds. The air quality analysis will include a discussion of the strategies to reduce project related air pollutant emissions associated with construction activities. The assessment will include a determination of conformity with the Clean Air Act (CAA) during construction.

  In addition, CAA (42 U.S.C. 7401 et seq.), and in particular sections 176 (c) and (d), prohibits federal assistance to projects that are not in conformance with the State Implementation Plan (SIP). Therefore, as applicable, this section will include a conformity analysis to determine the consistency of the proposed construction activities with the strategies contained in the SIP for the area. At any receptor sites where violations of standards occur, further analyses will be performed to determine what mitigation measures would be required to attain standards.
- **Noise and Vibration:** This section will contain a quantitative (modeling) analysis of noise from the Proposed Action's construction activity at each of the two housing complexes. The detailed analysis will use the CadnaA 3D noise model to determine construction noise levels based on projected activity and equipment usage for various stages of construction at the housing complexes. The projected construction noise levels will be compared to existing condition noise levels as determined based on the operational noise analysis and augmented by mathematical models and projections as necessary. The noise analysis will identify potential construction noise impacts based on the intensity, duration, and location of emissions relative to nearby sensitive locations. As necessary, feasible and practicable project-specific control measures to further reduce construction noise disruption to the surrounding community will be considered.

  Construction activities have the potential to result in vibration levels that may result in structural or architectural damage, and/or annoyance or interference with vibration-sensitive activities. A construction vibration assessment will be performed. This assessment will determine critical distances at which various pieces of equipment may cause damage or annoyance to nearby buildings based on the type of equipment, the building construction, and applicable vibration level criteria. Should it be necessary for certain construction equipment to be located closer to a building than its critical distance, vibration mitigation options will be proposed.

- **Other Technical Areas:** As appropriate, the construction assessment will discuss other areas of environmental concern, including Land Use and Neighborhood Character, Socioeconomic

Conditions, Community Facilities, Open Space, Historic and Cultural Resources, and Hazardous Materials, for potential construction-related impacts.

F.4.20 Environmental Justice

Federal Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) requires federal agencies to consider whether actions they might fund or approve may have any disproportionately high and adverse environmental or human health effects on low-income or minority populations. The EIS will consider the project's potential for disproportionately high and adverse impacts on minority and low-income populations following the guidance and methodologies outlined in the Council on Environmental Quality's *Environmental Justice Guidance under the National Environmental Policy Act* (December 1997). This analysis will also rely on the other technical analyses included in the DEIS for a determination of impacts, recognizing that the impacts within minority or low-income populations may be different from impacts on the general population.

For each alternative, the environmental justice analysis will identify and describe existing demographic data in the study area using available data from local and State agencies and other sources. Data collection will include compilation of race and ethnicity and poverty status data for the study area and identification of minority or low-income communities. To identify minority and low-income populations in the study area, data will be gathered from the U.S. Census Bureau's *Census 2020* and *2017-2021 American Community Survey (ACS)*, respectively, for all census block groups substantially within the study area. For comparison purposes, data will be aggregated for the study area as a whole, and compiled for Manhattan and the other four boroughs of New York City.

The environmental justice analysis will identify any disproportionately high and adverse effects on minority or low-income communities associated with the No-Action Alternative within the study area. For each development alternative, the environmental justice analysis will also involve the following steps:

- Identifying the potential for significant adverse effects on minority and low-income communities within the study area as a result of the Proposed Action.
- Evaluating the overall potential significant adverse effects associated with the Proposed Action on minority and low-income communities to determine whether any potential significant adverse effects on those communities would be disproportionate and, therefore, disproportionately high and adverse.

This chapter will also summarize any public participation efforts associated with each alternative and specifically any targeted outreach to minority or low-income populations.

F.5. Indirect and Cumulative Effects

The cumulative effects of the each of the alternatives, considered in conjunction with other projects being constructed and/or operated within the same vicinity and time frame, will be assessed in this

section of the EIS. Projects to be included in this analysis will include, but not be limited to, the following:

- Maintenance and Operations Improvements at Fulton, Elliott, Chelsea, and Chelsea Addition Houses project; and
- Private developments.

F.6. Summary Chapters

Several summary chapters will be prepared, focusing on various aspects of the EIS, as set forth in the regulations and the *CEQR Technical Manual*. They are as follows:

1. *Executive Summary.* Once the EIS technical sections have been prepared, a concise executive summary will be drafted. The executive summary will utilize relevant material from the body of the EIS to describe the proposed development and actions, their environmental impacts, measures to mitigate those impacts, and alternatives to the proposed development and actions.
2. *Unavoidable Adverse Impacts.* Those impacts, if any, that could not be avoided and could not be practicably mitigated, will be listed in this chapter.
3. *Irreversible and Irretrievable Commitments of Resources.* This chapter focuses on those resources, such as energy and construction materials, that would be irretrievably committed if the project is built.

Appendix

NEPA Notice of Intent to Prepare an Environmental Impact Statement