



**U.S. Department of Housing and Urban
Development**

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**Environmental Assessment
Determinations and Compliance Findings for HUD-assisted Projects
24 CFR Part 58**

Project Information

Project Name:

Hope Gardens: Groups A-E CDBG-DR Storm Resiliency
Multiple Addresses
Brooklyn, New York 11221

HEROS Number: 900000010361422

Responsible Entity: City of New York Mayor's Office of Management and Budget (OMB)

Grant Recipient (if different than Responsible Entity):

City of New York
New York City Housing Authority, NYCHA (Subrecipient)
Hope Gardens I LLC (Beneficiary)
Bushwick Gardens I LLC (Beneficiary)

State/Local Identifier: New York

Preparer: Hillmann Consulting on behalf of Penrose and NYCHA

Certifying Officer Name and Title:

Julie Freeman, Senior Assistant Director, Community Development - Entitlement & Disaster Recovery (OMB)

Consultant (if applicable): Hillmann Consulting

Direct Comments to:

Julie Freeman
Senior Assistant Director
NYC Office of Management and Budget
255 Greenwich Street, 8th Floor
New York, NY 10007

Via email to CDBGComments@omb.nyc.gov

Project Location:

This CDBG-DR-funded project is limited to Bushwick II Groups A & C, Bushwick II Groups B & D, and Bushwick II CDA Group E, respectively (“Groups A - E”), which are comprised of 55 separate buildings, with 876 affordable housing units spread throughout a square mile of the Bushwick neighborhood of Brooklyn, New York (“the Project Area” or “Project Site”). The properties are multi-story, multi-family residential buildings with basements and community facility spaces. Additional site features include asphalt paved parking lots, concrete/asphalt recreation yards, and landscaping, including grass yards, shrubs, and trees. Groups A and E are owned by Bushwick Gardens I LLC. Groups B, C, and D are owned by Hope Gardens I LLC.

See Appendix for maps showing the location, spatial extent, and block/lot of each group, collectively. Addresses of each group are as follows:

Group A	Group B	Group C	Group D	Group E
580 Central Avenue	400 Central Avenue	251 Central Avenue	375 Central Avenue	524 Knickerbocker Avenue
85 Covert Street	440 Central Avenue	269 Central Avenue	399 Central Avenue	550 Knickerbocker Avenue
75 Covert Street	415 Evergreen Avenue	289 Central Avenue	1300 Gates Avenue	319 Wilson Avenue
155 Eldert Street	431 Evergreen Avenue	139 Harman Street	1320 Gates Avenue	339 Wilson Avenue
595 Evergreen Avenue	1201 Gates Avenue	140 Harman Street	161 Palmetto Street	357 Wilson Avenue
615 Evergreen Avenue	1210 Gates Avenue	190 Harman Street	170 Palmetto Street	
670 Evergreen Avenue	95 Palmetto Street	140 Himrod Street	180 Palmetto Street	
690 Evergreen Avenue	105 Palmetto Street	160 Himrod Street	190 Palmetto Street	
	1229 Greene Avenue	1229 Greene Avenue	200 Palmetto Street	
	1240 Greene Avenue	1240 Greene Avenue	210 Palmetto Street	
	125 Palmetto Street	1259 Greene Avenue	390 Wilson Avenue	
	143 Palmetto Street	1280 Greene Avenue	191 Woodbine Street	
	1230 Gates Avenue	250 Wilson Avenue		
	1240 Gates Avenue	270 Wilson Avenue		
	1260 Gates Avenue			

Groups A and C include an existing 25-building, 300-unit public housing development located at the above-referenced addresses. The development spans three adjacent city blocks and a portion of three city blocks to the north. Generally, the development is bound by Wilson Avenue to the north, Bleeker Street to the east, Central Avenue to the south, and Himrod Street to the west.

Group B and D, located at the above-referenced addresses, is a 25-building development with 300 units in total. Generally, the site is bound by Wilson Avenue to the north, Madison Avenue to the east, Evergreen Avenue to the South, and Linden Street to the West.

Lastly, Group E, located at the above-referenced addresses, features five residential public housing buildings with 276 units. The site is generally bound by Knickerbocker Avenue to the north, Gates Avenue to the east, Wilson Avenue to the south, and Menahan Street to the west.

Maps, photographs, and other documentation of project location and description:

[Detailed Scope of Work.pdf](#)

[Site Maps.pdf](#)

[Site List.xlsx](#)

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

Hope Gardens is a community of former public housing buildings converted through NYCHA's Permanent Affordability Commitment Together ("PACT" program in 2019 to a public/private partnership between NYCHA and Pennrose LLC and Acacia Network (collectively, the "Developer") pursuant to with a 99-year ground lease between NYCHA and Hope Gardens I LLC and Bushwick Gardens I LLC (entities formed by the Developer). Following the conversion, the Hope Gardens portfolio included 60 individual buildings that were part of five separate former NYCHA developments: Hope Gardens, Palmetto Gardens, Bushwick II "Groups A & C," Bushwick II "Groups B & D," and Bushwick II CDA "Group E."

The Proposed Project seeks to introduce much-needed storm resiliency to the existing housing development through the relocation of the building's vulnerable critical infrastructure above flood elevations. The proposal encompasses the design, engineering, permitting, and construction of seventeen (17) new exterior mechanical facilities across Groups A-D and relocating utilities to the roofs for Group E. (Note - the design, engineering, and environmental work was covered by a previous environmental review completed on 7/5/2023, HEROS ID # 900000010335963.)

All flood-prone equipment in the basements would be removed. All building-critical infrastructure would be moved to the roofs or new centralized mechanical facilities, allowing the properties to stay online in future extreme flooding events. The 17 new mechanical facilities would be placed throughout the property, servicing multiple residential buildings, protecting from storm events and adding critical redundancy in case of equipment failure. The activities mentioned above are referred to as the "Proposed Project."

The Proposed Project will receive federal Community Development Block Grant - Disaster Recovery (CDBG-DR) funding from the U.S. Department of Housing and Urban Development (HUD) as allocated by the City of New York. HUD allocates CDBG-DR funds following presidentially declared disasters. Funds must be used to address unmet needs related to "disaster relief, long-term recovery, restoration of infrastructure and housing, economic revitalization, and mitigation in the most impacted and distressed areas."

The New York City Mayor's Office of Management and Budget (OMB) serves as the Responsible Entity (RE) for CDBG-DR projects pursuant to HUD's Environmental Review Procedures for Entities Assuming HUD Environmental Responsibilities at 24 C.F.R. Part 58 and as authorized through a mayoral delegation of authority.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:

On September 1, 2021, Post Tropical Cyclone Ida struck New York City bringing record-breaking rainfall that caused widespread flooding and hundreds of millions of dollars in damage citywide. During the storm the neighborhood of Bushwick suffered heavy flooding and wind-driven rain resulting in surges of water of up to four feet in many buildings causing substantial damage to ground floor common areas and apartments, and completely destroying the Property's mechanical rooms and crawl spaces located in the building basements. In total, more than 40 of the property's structures suffered damage requiring an insurance-funded restoration project that lasted over a year. Since Ida, the Property has suffered additional damage from two flash flood events in 2022

that destroyed much of the new mechanical equipment providing heat and hot water. To-date, storm-related losses at the Property in the last 24 months exceed \$42 million.

The Proposed Project would serve to mitigate future equipment loss and disruption of service to the Project occupants.

Existing Conditions and Trends [24 CFR 58.40(a)]:

Group A, B, C, and D are three-story structures with sloped roofs and attic spaces in each building. Group E buildings are three-story structures with flat roof construction. The boiler rooms are currently in the basements for all groups.

The new mechanical facilities would be placed throughout the property with many serving multiple residential buildings providing protection from storm events and critical redundancy in case of equipment failure. Upon completion of this resiliency and sustainability project, the community of 4,000+ residents would be protected from recurring heat and hot water outages and this invaluable affordable housing and community resource would be placed on stable footing for the decades to come. Without these improvements, and requisition funding, the property is likely to become uninsurable and at risk of catastrophic failure in the face of future flood events.

Recent executive actions (<https://www.governor.ny.gov/programs/taking-executive-action-housing>) reflect a trend of affordable housing demand exceeding supply, further reinforcing the need to preserve and ensure the continued viability of existing developments.

Determination:

✓	Finding of No Significant Impact [24 CFR 58.40(g)(1); 40 CFR 1508.13] The project will not result in a significant impact on the quality of human environment
	Finding of Significant Impact

Approval Documents:

7015.15 certified by Certifying Officer on: November 9, 2023

7015.16 certified by Authorizing Officer on: TBD

Funding Information

Grant Number	HUD Program	Funding Amount
B-21-MF-36-0002	Community Development Block Grant - Disaster Recovery	\$51,023,632

Estimated Total HUD Funded Amount: \$51,023,632

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]: \$51,023,632

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable

permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	The project site is not within 15,000 feet of a military airport or 2,500 feet of a civilian airport. No Runway Clear Zones are within or near the Proposed Project. The nearest airports, LaGuardia Airport (LGA) and John F. Kennedy International Airport (JFK) are located approximately 5.8 miles north-northeast and east-southeast of the Project, respectively. The project is in compliance with Airport Hazards requirements. See attached Airport Hazards figure.
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	As shown in the attached maps, there is only one Coastal Barrier Resource System (CBRS) Unit in New York City (NY-60P Jamaica Bay), which primarily consists of undeveloped land in the Gateway National Recreation Area. Privately-owned developed properties have been excluded from the CBRS Unit; therefore, this project has no potential to impact a CBRS Unit and is in compliance with the Coastal Barrier Resources Act. See attached CBRS figures.
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	The Project Site is not located within a Special Flood Hazard Area. See the attached FEMA Floodplain Map. A general insurance policy is carried which provides a \$25 million aggregate limit. This coverage includes loss due to storms.
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5		
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	A Review of the USEPA Green Book on Nonattainment Areas Criteria Pollutants indicated the following for the project county (Kings): No excursions from National Ambient Air Quality Standards (NAAQS) listed except for 8-Hour Ozone in 2015 (Moderate excursion) [In 2008 8-Hour Ozone was listed as Serious excursion).

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		<p>Given the nature of the Proposed Project, storm resiliency with no changes anticipated to the Property census, no increase in building emissions is anticipated.</p> <p>Additionally, the Proposed Project would not generate any additional vehicular traffic; therefore, no exceedances of the National Ambient Air Quality Standard (“NAAQS”) associated with carbon monoxide (“CO”) or particulate matter (“PM”) would occur. Furthermore, the Proposed Project does not include a transportation or industrial component; therefore, the Proposed Project would not result in any new stationary source of pollutants. The Proposed Project would not adversely affect the State Implementation Plan (“SIP”).</p> <p>See the attached USEPA Green Book.</p>
<p>Coastal Zone Management</p> <p>Coastal Zone Management Act, sections 307(c) & (d)</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The Project Site is not located within New York City’s designated Coastal Zone Boundary or with Waterfront Revitalization Program boundaries; therefore, the Proposed Project would not violate the Coastal Zone Management Act. See the attached Coastal Zone Boundary Map.</p>
<p>Contamination and Toxic Substances</p> <p>24 CFR Part 50.3(i) & 58.5(i)(2)</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>Phase I ESAs were prepared for the Project Area in 2018 (as required, through the PACT conversion) and in August of 2023 for the purposes of this project.</p> <p>As part of the PACT conversion, multiple contaminants (VOCs, SVOCs, metals, PCBs and Pesticides) were identified in soil, groundwater, and/or soil vapor. Remedial Action Reports (RAR) dated May 2022 (Groups A and E) and August 2021 (Groups B, C, and D) were prepared by HK Engineering & Geology, D.P.C. and detail remedial actions that were taken, which achieved protection of public health and the environment for the intended use of the property. The remedial action consisted of the following tasks:</p> <ol style="list-style-type: none"> 1. Selection of Restricted-Residential Use (Track 2) Soil Cleanup Objectives (SCOs). 2. Site mobilization involving Site security setup, equipment mobilization, utility mark outs, marking and staking excavation areas.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		<p>3. Excavation and removal of soil/fill for new landscaping. Transportation and off-Site disposal of excavated soil/fill material at licensed or permitted facilities in accordance with applicable laws and regulations for handling, transport, and disposal, and this plan. Sampling and analysis of excavated media as required by disposal facilities. Appropriate segregation of excavated media on-Site.</p> <p>4. Imported materials used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations.</p> <p>5. As part of development, two feet of clean soil in all newly landscaped areas including in areas identified in the RAWPs.</p> <p>For Groups A & E:</p> <p>6. Performed all activities required for the remedial action, including acquisition of required permits and attainment of pretreatment requirements, in compliance with applicable laws and regulations. For Group A, a total of 58 cubic yards of soil were excavated and removed. For Group E, a total of 66 cubic yards of soil were excavated and removed. The material was classified as non-hazardous, non-contaminated, and transported to an approved disposal facility. Clean backfill (approximately 180 cubic yards) was imported and was 2 feet in thickness, capping the native soil.</p> <p>For Groups B, C and D</p> <p>6. A composite cover consisting of a 2.5" thick concrete slab and 20-mil vapor barrier was installed at 1320 Gates Avenue, 1300 Gates Avenue, 200 Palmetto Street, 390 Wilson Avenue, 191 Woodbine Avenue, 440 Central Avenue and 431 Evergreen Avenue.</p> <p>7. Performed all activities required for the remedial action, including acquisition of required permits and attainment of pretreatment requirements, in compliance with applicable laws and regulations.</p>

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		<p>8. A total of 25 cubic yards of soil was excavated, removed, and classified as non-hazardous, non-contaminated material. It was transported to an approved disposal facility. Clean backfill (approx. 60 cubic yards) was imported to the property and was 2 feet in thickness, capping the native soil.</p> <p>NYC DEP approval/concurrence was obtained in letters dated November 3, 2021 and July 19, 2022 (Attachment 6.1).</p> <p>The 2023 Phase I ESAs were conducted as follows: Groups A&E dated August 18, 2023 (Attachment 6.2), and Groups B, C & D, dated August 21, 2023 (Attachment 6.3). No new RECs were identified, and no further investigation was recommended. The Phase I Reports details the Controlled Recognized Environmental Conditions (CRECs) associated with the remedial actions completed at the Project Sites, which are subject to engineering and institutional controls.</p> <p>While no significant excavation/soil disposal is anticipated for the DR-funded project, some digging/trenching is required to connect utility lines from the existing buildings to the pods. Given the level of remediation already achieved at the site, the presence of soil contamination during the project is not anticipated. However, all activities will be in accordance with applicable regulations and the approved Soil Management Plan (Attachment 6.4).</p>
<p>Endangered Species</p> <p>Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The Project Site is located in a substantially developed urban area in Brooklyn. According to information obtained through the U.S. Fish and Wildlife Service’s Information for Planning and Consultation (IPaC) website, the Federally Listed Endangered and Threatened Species and Candidate Species located near the Project Site are the Northern Long-eared Bat (endangered), the Piping Plover and Red Knot (threatened), and the Monarch Butterfly (candidate). There are no critical habitats at the Project Site for these species. Given the scope of work, none of the endangered species identified through the IPaC online tool are anticipated to be impacted.</p>

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		<p>The proposed project does not anticipate any impact on trees, including removal or pruning of limbs. If it is determined that tree removal is required post-project closing, the Developer will replace mature trees in a 6:1 ratio. To ensure no adverse effect on the Northern Long-eared Bat, the City reviewed winter hibernacula locations and the NYS Department of Environmental Conservation's listing of towns with recorded summer roosts, none of which are in New York City. Accordingly, no impacts on the Northern Long-eared Bats are anticipated.</p> <p>See attached IPaC results.</p>
<p>Explosive and Flammable Hazards</p> <p>24 CFR Part 51 Subpart C</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The proposed project does not include development, construction, rehabilitation that will increase residential densities, or conversion of properties from non-residential to residential. No significant explosive and flammable hazards were identified within proximity of potential effect on the Proposed Project and no further analysis is required.</p>
<p>Farmlands Protection</p> <p>Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>This project does not include any activities that could potentially convert agricultural land to a non-agricultural use. The project is in compliance with the Farmland Protection Policy Act.</p>
<p>Floodplain Management</p> <p>Executive Order 11988, particularly section 2(a); 24 CFR Part 55</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The Project Site is not located within a Special Flood Hazard Area. Therefore, the proposed storm resiliency Proposed Project would not have any impact on floodplain management. See the attached FEMA Floodplain Map.</p>
<p>Historic Preservation</p> <p>National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The Proposed Project was submitted to the New York State Historic Preservation Office (SHPO) pursuant to a Programmatic Agreement between NYCHA, SHPO, and the NYC Department of Housing Preservation and Development. SHPO reviewed the project (23PR07660) in accordance with Section 106 of the National Historic Preservation Act of 1966 and issued a No Effect determination on September 21, 2023.</p>

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
<p>Noise Abatement and Control</p> <p>Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The proposed Project does not involve the development of noise sensitive uses. The funds are exclusively sought for the resilience of the mechanical systems previously housed within basement mechanical rooms subject to flooding from extreme weather events. No change to the Property building census is proposed or anticipated.</p>
<p>Sole Source Aquifers</p> <p>Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>As shown in the attached map from the U.S. Environmental Protection Agency's (EPA) interactive Sole Source Aquifer (SSA) mapper, the Project is located within the boundaries of the recharge area of the Brooklyn-Queens Aquifer System. However, properties in these areas are primarily connected to the NYC municipal water supply and sewer system maintained by the NYC Department of Environmental Protection. Per the Memorandum of Understanding for Region II between the U.S. Environmental Protection Agency and the U.S. Department of Housing and Urban Development, attached is a completed Initial Screen for Non-Housing Projects (while Hope and Bushwick Gardens are residential properties, the new mechanical facilities will not be habitable sites). Based on the work scope and the attached maps from the New York State Department of Environmental Conservation, the screening resulted in no affirmative responses. Thus, no further compliance steps or mitigation is required.</p>
<p>Wetlands Protection</p> <p>Executive Order 11990, particularly sections 2 and 5</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>No wetlands were identified within or adjacent to the Proposed Project using the FWS.Gov Wetlands mapper. The nearest wetland, an PEM1Fh Freshwater Emergent Wetland is located approximately 1.5-miles east of the Project. See the attached FWS.gov figure.</p>
<p>Wild and Scenic Rivers</p> <p>Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The Proposed Project does not contain and is not in close proximity to Designated or Study Wild and Scenic Rivers as mapped by Rivers.gov.</p> <p>The nearest Wild and Scenic designated river is approximately 65 miles to the west at the NJ-PA border - the Delaware Wild and Scenic River.</p> <p>The nearest Recreational River is the Hackensack River in New Jersey. See the attached Rivers.gov map.</p>

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	<p>The Proposed Project does not create adverse environmental impacts (no proposed change to Project Site use, no significant ground disturbance, and no change to anticipated Proposed Project residential units count or future Project census/occupancy) and no adverse impacts are anticipated to impact occupants. The Proposed Project will ensure the mechanical systems that serve the associated buildings will remain in service during future extreme weather events. The Proposed Project would not result in any unmitigated adverse environmental impacts.</p> <p>See the attached USEPA EJScreen Report.</p> <p>Please note the Developer and NYCHA have worked, and will continue to work, to ensure the surrounding communities been involved in the planning process of the project. The Developer has presented plans to and consulted with relevant stakeholders as further described in the Public Outreach section found later in this assessment.</p>

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.

- (1) Minor beneficial impact
- (2) No impact anticipated
- (3) Minor Adverse Impact - May require mitigation
- (4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	The proposed Project anticipated a) no change in land use, b) no change to the number of units, c) no change to the Property census, d) limited ground disturbance (pods are on-grade 160-240-square foot mechanical equipment enclosures). Unless otherwise indicated the rationale for "2" - "no impact anticipated" relates to a, b, c and/or d and the impact evaluation will state "see above".
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	2	Pods are expected to range from 160 square feet to 240 square feet. As currently designed, the pods would occupy 3,600 square feet (6 pods at 160 square feet and 11 pods at 240 square feet). However, a conservative estimate of square footage would be 4,080 square feet (or all pods designed at 240 square feet). Additionally, three pods will be placed over paved surfaces, further reducing the impact to permeable surfaces to total between 2,880 and 3,600 square feet. Runoff from each 160-240 square foot pod during a typical rainfall event is anticipated to encounter surrounding soil and saturate underlying soils. No significant added load to the NYC CSO system is anticipated from the proposed project. The placement of the "pods" will be performed with care to reduce any potential ponding of water between pods and buildings per field conditions.
Hazards and Nuisances including Site Safety and Noise	2	Hillmann Consulting interviewed Anu Maheshwari, Principal of Applied Heat Transfer, the boiler manufacturer. Per Anu the typical fully operating noise level three feet from the pumps (assuming no walls or barriers between the pumps and the three-foot distance measurement) would be 59dB. Additionally, the pumps are designed with Variable Frequency Drives, which allows them to gradually reach peak noise levels. Since the pumps will be enclosed with pod walls and double doors it would be significantly less than 59 dB outside the pods and well below the 65 or greater trigger for HUD's requirement for additional studies or mitigation. A sound pressure chart from the manufacturer is attached.

Environmental Assessment Factor	Impact Code	Impact Evaluation
SOCIOECONOMIC		
Employment and Income Patterns	2	See above.
Demographic Character Changes, Displacement	2	See above.

Environmental Assessment Factor	Impact Code	Impact Evaluation
Environmental Justice	2	See above.

Environmental Assessment Factor	Impact Code	Impact Evaluation
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	2	See above.
Commercial Facilities	2	See above.
Health Care and Social Services	2	See above.
Solid Waste Disposal / Recycling	2	See above.
Wastewater / Sanitary Sewers	2	See above.
Water Supply	2	See above.
Public Safety - Police, Fire and Emergency Medical	1	A primary goal of the Proposed Project is to ensure continuous supply of service to the existing development residents, ensuring their safety and well-being and mitigating any public safety concerns.
Parks, Open Space and Recreation	2	Pod locations will not impact parks or playgrounds present within the site.
Transportation and Accessibility	2	See above.

Environmental Assessment Factor	Impact Code	Impact Evaluation
NATURAL FEATURES		
Unique Natural Features, Water Resources	2	See above.
Vegetation, Wildlife	2	The proposed project does not anticipate any impact on trees, including removal or pruning of limbs. If it is determined that tree removal is required post-project closing, the Developer will replace mature trees in a 6:1 ratio.
Other Factors	2	See above.

Environmental Assessment Factor	Impact Code	Impact Evaluation
CLIMATE AND ENERGY		
Unique Natural Features, Water Resources	1	A primary goal of the proposed Project is to preserve affordable housing infrastructure during extreme weather events projected to increase due to climate change.

Environmental Assessment Factor	Impact Code	Impact Evaluation
Vegetation, Wildlife	2	See above.

Additional Studies Performed:

Phase I Environmental Site Assessment, August 18 and 21, 2023
 Remedial Action Workplan, CEQR Number 77CHA002K, December 2018

Field Inspection (Date and completed by):

July 12, 2023 - Dominick Aponte, Environmental Scientist, Hillmann Consulting

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]:

- New York City Department of City Planning (DCP)
- New York City Department of Environmental Protection (DEP)
- New York City Mayor’s Office of Environmental Remediation’s Environmental Project Information Center
- New York State Department of Environmental Conservation (DEC)
- New York State Department of State, Division of Coastal Resources
- New York State Governor’s Office (governor.ny.gov)
- New York State Office of Parks, Recreation and Historic Preservation (OPRHP)
- United States Census Bureau (data.census.gov)
- United States Department of the Interior - Fish and Wildlife Service (FWS)
- United States Environmental Protection Agency (EPA)
- United States Federal Emergency Management Agency (FEMA)
- United States Geological Survey (USGS)

List of Permits Obtained:

To be determined

Public Outreach [24 CFR 50.23 & 58.43]:

Pennrose is actively keeping stakeholders informed of the much-needed improvements of the Proposed Project since the initial application. Pennrose participates in an on-site meeting at Hope Gardens every month, attended by representatives from NYC and NYS elected officials, the Tenant Association, Community Board 4, NYCHA, the property management team, and community development partner Acacia. During the monthly meetings, campus-wide challenges and initiatives are discussed, and Pennrose provides project updates on the Proposed Project and answers any questions from stakeholders.

Pennrose presented updates on the Proposed Project at the September 20th Community Board 4 meeting and will continue to provide project updates at the monthly on-site meeting. On July 19, 2023, the Tenant Association (TA) submitted a letter of support in favor of the approval and release of the CDBG-DR funds to help expedite funding for the Proposed Project so construction may begin. Please refer to the TA letter attached.

Cumulative Impact Analysis [24 CFR 58.32]:

As previously noted, the Hope Gardens development previously went through RAD conversion between 2019 and 2022. The conversion entailed a nearly \$400 million capital rehabilitation, which

included modernized building systems, upgraded building entrances, renovated building exteriors, and upgraded site security through the installation of new monitored security camera systems at building entrances and exits, site parking lots, open space, amenity, and community facility spaces across the Project Site. These improvements primarily consisted of interior rehabilitation to existing facilities and did not increase the number of units or residents. Given that this project also will not increase residential densities and has been determined to not have a significant impact on the environment, the project's cumulative impacts are also not expected to be significant (either adverse or beneficial).

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]

No viable alternatives were identified by the design and development team within the existing time and budgetary constraints.

No Action Alternative [24 CFR 58.40(e)]:

The no action alternative would leave the mechanical equipment in a continued vulnerable state susceptible to irreparable damage from future extreme weather events. Without these improvements, and requisition funding, the property is likely to become uninsurable and at risk of catastrophic failure in the face of future flood events.

Summary of Findings and Conclusions:

The proposed project is not expected to lead to any significant impacts, either beneficial or potentially adverse, to the surrounding environment. However, the project will positively impact the quality of life for the nearly 2,000 residents that occupy the properties that will benefit from the improvements. While the project entails minor new construction, it will not lead to an increase of residents or businesses that will newly occupy the site. Rather, the new mechanical facility "pods" will house relocated utilities that already exist elsewhere on the site and lead to a minor loss in open space. The work scope as presently described is not expected to have significant impacts on trees, wildlife, or the neighboring residents.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure
24 CFR Part 50.3(i) & 58.5(i)(2)	<p>While no significant excavation/soil disposal is anticipated, said activities will be in accordance with Remedial Action Reports for Groups A through E and applicable regulations. In installation of the "pods" all disturbed soil shall be field screened during excavation activities. The anticipated general contractor Procida Construction, a project field consultant, with oversight from Hillman Consulting will be on sight to field screen soil for contamination. This will include visual and olfactory methods to determine if any staining or odors are observed and screening for potential volatile organic compounds (VOCs) with a photo-ionization detector (PID). Any potential contaminated soil would be set aside in a stockpile (on and covered by poly) for sampling to confirm if contamination is present and/or off-site disposal is required. All soils will be handled in accordance with the applicable sections of the NYCDEP approved Remedial Actions Reports (Attachments 6.5 and 6.6), Soil Management Plan (included in said attachments with an excerpt uploaded as Attachment 6.4), and best management practices. The Developer, including its environmental consultant Hillman, will be responsible for implementing and monitoring mitigation measures until the time of project completion.</p>

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).



U.S. Department of Housing and Urban
Development
451 Seventh Street, SW
Washington, DC 20410
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espanol.hud.gov

Environmental Assessment Determinations and Compliance Findings for HUD-assisted Projects 24 CFR Part 58

Project Information

Project Name: Hope-Gardens:-Groups-A-E-CDBG-DR-Storm-Resiliency-

HEROS Number: 900000010361422

Project Location: 125 Palmetto St, Brooklyn, NY 11221

Additional Location Information:

This CDBG-DR-funded project is limited to Bushwick II Groups A & C, Bushwick II Groups B & D, and Bushwick II CDA Group E, respectively ("Groups A - E"), which are comprised of 55 separate buildings, with 876 affordable housing units spread throughout a square mile of the Bushwick neighborhood of Brooklyn, New York ("the Project Area" or "Project Site"). The properties are multi-story, multi-family residential buildings with basements and community facility spaces. Additional site features include asphalt paved parking lots, concrete/asphalt recreation yards, and landscaping, including grass yards, shrubs, and trees. Groups A and E are owned by Bushwick Gardens I LLC. Groups B, C, and D are owned by Hope Gardens I LLC. Groups A and C include an existing 25-building, 300-unit public housing development located at the above-referenced addresses. The development spans three adjacent city blocks and a portion of three city blocks to the north. Generally, the development is bound by Wilson Avenue to the north, Bleeker Street to the east, Central Avenue to the south, and Himrod Street to the west. Group B and D, located at the above-referenced addresses, is a 25-building development with 300 units in total. Generally, the site is bound by Wilson Avenue to the north, Madison Avenue to the east, Evergreen Avenue to the South, and Linden Street to the West. Lastly, Group E, located at the above-referenced addresses, features five residential public housing buildings with 276 units. The site is generally bound by Knickerbocker Avenue to the north, Gates Avenue to the east, Wilson Avenue to the south, and Menahan Street to the west.

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

Hope Gardens is a community of former public housing buildings converted through NYCHA's Permanent Affordability Commitment Together ("PACT") program in 2019 to a public/private partnership between NYCHA and Pennrose LLC and Acacia Network (collectively, the "Developer") pursuant to with a 99-year ground lease between NYCHA and, Hope Gardens I LLC, and Bushwick Gardens I LLC (entities formed by the Developer). Following the conversion, the Hope Gardens portfolio included 60 individual buildings that were part of five separate former NYCHA developments: Hope Gardens, Palmetto Gardens, Bushwick II "Groups A & C," Bushwick II "Groups B & D," and Bushwick II CDA "Group E." The Proposed Project seeks to introduce much-needed storm resiliency to the existing housing development through the relocation of the building's vulnerable critical infrastructure above flood elevations. The proposal encompasses the design, engineering,

permitting, and construction of seventeen (17) new exterior mechanical facilities across Groups A-D and relocating utilities to the roofs for Group E. (Note - the design, engineering, and environmental work was covered by a previous environmental review completed on 7/5/2023, HEROS ID # 900000010335963.) All flood-prone equipment in the basements would be removed. All building-critical infrastructure would be moved to the roofs or new centralized mechanical facilities, allowing the properties to stay online in future extreme flooding events. The 17 new mechanical facilities would be placed throughout the property, servicing multiple residential buildings, protecting from storm events and critical redundancy in case of equipment failure. The activities mentioned above are referred to as the "Proposed Project." The Proposed Project will receive federal Community Development Block Grant - Disaster Recovery (CDBG-DR) funding from the U.S. Department of Housing and Urban Development (HUD) as allocated by the City of New York. HUD allocates CDBG-DR funds following presidentially declared disasters. Funds must be used to address unmet needs related to "disaster relief, long-term recovery, restoration of infrastructure and housing, economic revitalization, and mitigation in the most impacted and distressed areas." The New York City Mayor's Office of Management and Budget (OMB) serves as the Responsible Entity (RE) for CDBG-DR projects pursuant to HUD's Environmental Review Procedures for Entities Assuming HUD Environmental Responsibilities at 24 C.F.R. Part 58 and as authorized through a mayoral delegation of authority.

Funding Information

Grant Number	HUD Program	Program Name
B-21-MF-36-0002	Community Planning and Development (CPD)	Community Development Block Grants (Disaster Recovery Assistance)

Estimated Total HUD Funded Amount: \$51,023,632.00

Estimated Total Project Cost [24 CFR 58.2 (a) (5)]: \$51,023,632.00

Mitigation Measures and Conditions [CFR 1505.2(c)]:

Summarized below are all mitigation measures adopted by the Responsible Entity to reduce, avoid or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure or Condition
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Project Mitigation Plan

[6-6 - Remedial Action Reports Groups B-D\(1\).pdf](#)

[6-5 - Remedial Action Reports Groups A-C\(1\).pdf](#)

[6-4 - Soil Management Plan Excerpt\(1\).pdf](#)

Determination:

<input checked="" type="checkbox"/>	Finding of No Significant Impact [24 CFR 58.40(g)(1); 40 CFR 1508.13] The project will not result in a significant impact on the quality of human environment
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<input type="checkbox"/>	Finding of Significant Impact
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Preparer Signature: J. Freeman Date: 11/9/2023

Name / Title/ Organization: Julie E. Freeman / / NEW YORK CITY

Certifying Officer Signature: J. Freeman Date: 11/9/2023

Name/ Title: Julie Freeman, Director of Community Development / CDBG-DR Certifying Officer

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environment Review Record (ERR) for the activity / project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).



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November 28, 2022

Dylan Salmons
Regional Vice President
Pennrose, LLC
45 Main Street, Suite 539
Brooklyn, NY 11201

Re: NYCHA – Hope Gardens Resiliency Engineering Pricing Report

On the complex of the Hope Gardens Houses in Bushwick, NY damage was created by recent heavy rain events. These events have caused flooding of mechanical boiler rooms located in the basement causing damage to mechanical boiler systems and equipment, extensive outages, and replacement cost. The objective of this report is to describe the proposed necessary changes in the existing Boiler/Hot Water Heater installation. The revised system described in this report will have minimal risk of damaging equipment from flooding. All revisions of the system are itemized by trade providing the necessary information for a preliminary pricing of the project.

The proposed necessary changes in the existing Boiler/Hot Water Heater installation described in this report is for the following two groups of building types:

- Group A, B, C, and D buildings.
- Group E buildings.

Following are our recommendations for increasing the resistance to flood damage for each building group type.

Group A, B, C & D Type Buildings:

Group A, B, C & D are 3 story structures with sloped roof and an attic space. The boiler rooms are in the basement. Our list of changes in the existing system is based on the following recommendations:

- Remove the existing Boiler, Hot Water Heater, Pumps, Control Panels, Piping, Accessories and Controls from the Boiler room in the basement.
- Provide a newly created Mechanical Building at grade that would house the new Boiler, Hot Water Heater, Pumps, Piping, and all other accessories as described below. The capacity of the equipment will be such to handle several buildings that are in proximity with each other. See Site Map for approximate Mechanical Building locations along with approximate pipe routing.

The New Work that will be included in each Mechanical Building will be as follows:

A. Mechanical Buildings that serve One (1) Building (A2, A3, A4 and B5)

Architectural Work:

- Construction of a new Mechanical Building with an approximate area of 160 ft² located in the area shown in the Site Plan.

Mechanical Work:

- Installation of Boiler System with total capacity of 1,000,000 BTU/hr.
- Installation of two (2) Hot Water Supply and Return Pumps for the Heating System. Each Pump shall have a total water flow of approximately 150 gpm and total head of approximately 60 ft wg.
- Installation of Two (2) Hot Water Pumps serving the Domestic Hot Water Heater. Each Pump shall have a total water flow of approximately 8 gpm and total head of approximately 30 ft wg.
- Installation of 4" Hot Water Supply and Return Piping from the Mechanical Building to the Building the system serves. Piping shall be insulated and buried underground.
- Installation of 1½" insulated Hot Water Supply and Return Piping to the Domestic Hot Water Heater.
- Installation of all piping accessories including Expansion Tank, Air Separator, Shot Feeder, Valves, Supports etc.
- Connection of the new piping to existing at the building served.
- Installation of 6" Double Wall Flue for the boiler system. Flue shall be installed as per NYC Code requirements and shall be terminated 3'-0" minimum distance from the roof of the Mechanical Building.
- Installation of Combustion Air System, consisting of Louvers, Ductwork and Motorized Dampers.
- Installation of a 5 kW Electric Unit Heater.
- Installation of the system controls including control panel and wiring.

Plumbing Work:

General: New Domestic Cold Water Booster Pump may be required if pressure will not be enough to provide the service for furthest plumbing fixtures.

Domestic Water:

- Provide new 3" incoming water service from City Main Water.
- Provide new 3" Backflow Prevention Device (RPZ) with BFP assembly requirements. (Control valve, strainer, meter and etc.).
- Cross Connection Application required to submit to DEP.

Hot Water:

- Installation of new Domestic Hot Water 200-gallon Storage Capacity.
 - Installation of new two (2) Recirculating Pumps and Controller. Each Pump shall size accordingly based on Mechanical Building location and distance.
 - Installation of new 1-1/2" Insulated Domestic Hot Water Supply Piping below grade to connect to existing.
 - Installation of new 3/4" Insulated Domestic Hot Water Return Piping below grade to connect to existing.
-

- Installation of all piping accessories including Tempering Valve, Isolation Valves, Supports, etc.

Sanitary Work

- Installation of new 4" Floor Drain with trap primer.
- Installation of Sewage Ejector Pump (3Hp)
- Installation of new 4" Vented Sanitary House Trap
- Provide new 6" combined sewer connection to city sewer.
- Submit for Approval Site Connection Application to DEP (combined with Storm)

Storm Work

- Installation of new 3" Roof Drain with 3" Overflow Secondary Drain (or scupper)
- Installation of new 4" Storm House Trap
- Connect 4" storm piping to 6" combined sewer.

Gas Work

- Provide Gas Load Letter to Utility Company
- Provide new incoming gas service sized by utility company. with new shut-off valve and new gas meter.
- Provide new 1" gas connection to each new boiler.

Electrical Work:

- Installation of a new 100A, 208V, 3-phase, 4-wire service and a 100A, 42-pole panel.
- Furnish and install power devices & wiring for new & existing mechanical equipment specified in mechanical scope of work.
- Furnish and install power devices & wiring for new & existing plumbing equipment specified in plumbing scope of work.
- Furnish and install lighting fixtures and associated controls in new Mechanical Building.
- Furnish and install convenience receptacles in new Mechanical Building.
- Furnish and install fire alarm devices as part of an extension to existing building fire alarm panel to support new Mechanical Building, as required. Fire Alarm will be evaluated with FDNY for proper coverage where required.

Structural Work:

- Provide structure for each of new ground floor mechanical building per mechanical work.
 - Provide shallow foundation (spread footing ~4' below grade, depth to be verified with geotechnical report).
 - Provide mat slab (~10" thick) approximately 3' to 4' off the ground.
 - Provide load-bearing CMU wall (8" thick) at perimeter of the single-story building.
 - Provide concrete plank (10" thick) as the roof.

B. Mechanical Buildings that serve Two (2) Buildings (A1 and B4).

Architectural Work:

- Construction of a new Mechanical Building with an approximate area of 200 ft² located in the area shown in the Site Plan.

Mechanical Work:

- Installation of Boiler System with total capacity of 2,000,000 BTU/hr.
- Installation of two (2) Hot Water Supply and Return Pumps for the Heating System. Each Pump shall have a total water flow of approximately 200 gpm and total head of approximately 60 ft wg.
- Installation of Two (2) Hot Water Pumps serving the Domestic Hot Water Heater. Each Pump shall have a total water flow of approximately 16 gpm and total head of approximately 30 ft wg.
- Installation of 4" Hot Water Supply and Return Piping from the Mechanical Building to the Building the system serves. Piping shall be insulated and buried underground.
- Installation of 1½" insulated Hot Water Supply and Return Piping to the Domestic Hot Water Heater.
- Installation of all piping accessories including Expansion Tank, Air Separator, Shot Feeder, Valves, Supports etc.
- Connection of the new piping to existing at the building served.
- Installation of 6" Double Wall Flue for each of the boilers in the system. Flues shall be installed as per NYC Code requirements and shall be terminated 3'-0" minimum distance from the roof of the Mechanical Building.
- Installation of Combustion Air System, consisting of Louvers, Ductwork and Motorized Dampers.
- Installation of a 5 kW Electric Unit Heater.
- Installation of the system controls including control panel and wiring.

Plumbing Work:

General: New Domestic Cold Water Booster Pump may be required if pressure will not be enough to provide the service for furthest plumbing fixtures.

Domestic Water:

- Provide new 3" incoming water service from City Main Water.
- Provide new 3" Backflow Prevention Device (RPZ) with BFP assembly requirements. (Control valve, strainer, meter and etc.).
- Cross Connection Application required to submit to DEP.

Hot Water:

- Installation of new Domestic Hot Water 400-gallon Storage Capacity.
- Installation of new two (2) Recirculating Pumps and Controller. Each Pump shall size accordingly based on Mechanical Building location and distance.
- Installation of new 2" Insulated Domestic Hot Water Supply Piping below grade to connect to existing.
- Installation of new ¾" Insulated Domestic Hot Water Return Piping below grade to connect to existing.
- Installation of all piping accessories including Tempering Valve, Isolation Valves, Supports, etc.

Sanitary Work

- Installation of new 4" Floor Drain with trap primer.
 - Installation of Sewage Ejector Pump (3Hp)
 - Installation of new 4" Vented Sanitary House Trap
-

- Provide new 6" combined sewer connection to city sewer.
- Submit for Approval Site Connection Application to DEP (combined with Storm)

Storm Work

- Installation of new 4" Roof Drain with 4" Overflow Secondary Drain (or scupper)
- Installation of new 4" Storm House Trap
- Connect 4" storm piping to 6" combined sewer.

Gas Work

- Provide Gas Load Letter to Utility Company
- Provide new incoming gas service sized by utility company. with new shut-off valve and new gas meter.
- Provide new 1" gas connection to each new boiler.

Electrical Work:

- Installation of a new 200A, 208V, 3-phase, 4-wire service and a 200A, 42-pole panel.
- Furnish and install power devices & wiring for new & existing mechanical equipment specified in mechanical scope of work.
- Furnish and install power devices & wiring for new & existing plumbing equipment specified in plumbing scope of work.
- Furnish and install lighting fixtures and associated controls in new Mechanical Building.
- Furnish and install convenience receptacles in new Mechanical Building.
- Furnish and install fire alarm devices as part of an extension to existing building fire alarm panel to support new Mechanical Building, as required. Fire Alarm will be evaluated with FDNY for proper coverage where required.

Structural Work:

- Provide structure for each of new ground floor mechanical building per mechanical work
 - Provide shallow foundation (spread footing ~4' below grade, depth to be verified with geotechnical report).
 - Provide mat slab (~10" thick) approximately 3' to 4' off the ground.
 - Provide load-bearing CMU wall (8" thick) at perimeter of the single-story building.
 - Provide concrete plank (10" thick) as the roof.

C. Mechanical Buildings that serve Three (3) Buildings (A5, B1, B2, C2, and C3)

Architectural Work:

- Construction of a new Mechanical Building with an approximate area of 250 ft² located in the area shown in the Site Plan.

Mechanical Work:

- Installation of Boiler System with total capacity of 3,000,000 BTU/hr.
 - Installation of two (2) Hot Water Supply and Return Pumps for the Heating System. Each Pump shall have a total water flow of approximately 300 gpm and total head of approximately 60 ft wg.
 - Installation of Two (2) Hot Water Pumps serving the Domestic Hot Water Heater. Each Pump shall have a total water flow of approximately 24 gpm and total head of approximately 30 ft wg.
-

- Installation of 6" Hot Water Supply and Return Piping from the Mechanical Building to the Building the system serves. Piping shall be insulated and buried underground.
- Installation of 2" insulated Hot Water Supply and Return Piping to the Domestic Hot Water Heater.
- Installation of all piping accessories including Expansion Tank, Air Separator, Shot Feeder, Valves, Supports etc.
- Connection of the new piping to existing at the building served.
- Installation of 6" Double Wall Flue for each of the boilers in the system. Flues shall be installed as per NYC Code requirements and shall be terminated 3'-0" minimum distance from the roof of the Mechanical Building.
- Installation of Combustion Air System, consisting of Louvers, Ductwork and Motorized Dampers.
- Installation of a 5 kW Electric Unit Heater.
- Installation of the system controls including control panel and wiring.

Plumbing Work:

General: New Domestic Cold Water Booster Pump may be required if pressure will not be enough to provide the service for furthest plumbing fixtures.

Domestic Water:

- Provide new 3" incoming water service from City Main Water.
- Provide new 3" Backflow Prevention Device (RPZ) with BFP assembly requirements. (Control valve, strainer, meter and etc.).
- Cross Connection Application required to submit to DEP.

Hot Water:

- Installation of new Domestic Hot Water 600-gallon Storage Capacity.
- Installation of new two (2) Recirculating Pumps and Controller. Each Pump shall size accordingly based on Mechanical Building location and distance.
- Installation of new 2" Insulated Domestic Hot Water Supply Piping below grade to connect to existing.
- Installation of new 3/4" Insulated Domestic Hot Water Return Piping below grade to connect to existing.
- Installation of all piping accessories including Tempering Valve, Isolation Valves, Supports, etc.

Sanitary Work

- Installation of new 4" Floor Drain with trap primer.
- Installation of Sewage Ejector Pump (3Hp)
- Installation of new 4" Vented Sanitary House Trap
- Provide new 6" combined sewer connection to city sewer.
- Submit for Approval Site Connection Application to DEP (combined with Storm)

Storm Work

- Installation of new 3" Roof Drain with 3" Overflow Secondary Drain (or scupper)
 - Installation of new 4" Storm House Trap
 - Connect 4" storm piping to 6" combined sewer.
-

Gas Work

- Provide Gas Load Letter to Utility Company
- Provide new incoming gas service sized by utility company. with new shut-off valve and new gas meter.
- Provide new 1" gas connection to each new boiler.

Electrical Work:

- Installation of a new 200A, 208V, 3-phase,4-wire service and a 200A, 42-pole panel.
- Furnish and install power devices & wiring for new & existing mechanical equipment specified in mechanical scope of work.
- Furnish and install power devices & wiring for new & existing plumbing equipment specified in plumbing scope of work.
- Furnish and install lighting fixtures and associated controls in new Mechanical Building.
- Furnish and install convenience receptacles in new Mechanical Building.
- Furnish and install fire alarm devices as part of an extension to existing building fire alarm panel to support new Mechanical Building, as required. Fire Alarm will be evaluated with FDNY for proper coverage where required.

Structural Work:

- Provide structure for each of new ground floor mechanical building per mechanical work.
 - Provide shallow foundation (spread footing ~4' below grade, depth to be verified with geotechnical report).
 - Provide mat slab (~10" thick) approximately 3' to 4' off the ground.
 - Provide load-bearing CMU wall (8" thick) at perimeter of the single-story building.
 - Provide concrete plank (10" thick) as the roof.

D. Mechanical Buildings that serve Four (4) Buildings (B3, C1, C4, D1, D2 and D3)

Architectural Work:

- Construction of a new Mechanical Building with an approximate area of 300 ft² located in the area shown in the Site Plan.

Mechanical Work:

- Installation of Boiler System with total capacity of 4,000,000 BTU/hr.
 - Installation of two (2) Hot Water Supply and Return Pumps for the Heating System. Each Pump shall have a total water flow of approximately 400 gpm and total head of approximately 60 ft wg.
 - Installation of Two (2) Hot Water Pumps serving the Domestic Hot Water Heater. Each Pump shall have a total water flow of approximately 32 gpm and total head of approximately 30 ft wg.
 - Installation of 6" Hot Water Supply and Return Piping from the Mechanical Building to the Building the system serves. Piping shall be insulated and buried underground.
 - Installation of 3" insulated Hot Water Supply and Return Piping to the Domestic Hot Water Heater.
 - Installation of all piping accessories including Expansion Tank, Air Separator, Shot Feeder, Valves, Supports etc.
 - Connection of the new piping to existing at the building served.
-

- Installation of 6" Double Wall Flue for each of the boilers in the system. Flues shall be installed as per NYC Code requirements and shall be terminated 3'-0" minimum distance from the roof of the Mechanical Building.
- Installation of Combustion Air System, consisting of Louvers, Ductwork and Motorized Dampers.
- Installation of a 5 kW Electric Unit Heater.
- Installation of the system controls including control panel and wiring.

Plumbing Work:

General: New Domestic Cold Water Booster Pump may be required if pressure will not be enough to provide the service for furthest plumbing fixtures.

Domestic Water:

- Provide new 3" incoming water service from City Main Water.
- Provide new 3" Backflow Prevention Device (RPZ) with BFP assembly requirements. (Control valve, strainer, meter and etc.).
- Cross Connection Application required to submit to DEP.

Hot Water:

- Installation of new Domestic Hot Water 800-gallon Storage Capacity.
- Installation of new two (2) Recirculating Pumps and Controller. Each Pump shall size accordingly based on Mechanical Building location and distance.
- Installation of new 2-1/2" Insulated Domestic Hot Water Supply Piping below grade to connect to existing.
- Installation of new 1" Insulated Domestic Hot Water Return Piping below grade to connect to existing.
- Installation of all piping accessories including Tempering Valve, Isolation Valves, Supports, etc.

Sanitary Work

- Installation of new 4" Floor Drain with trap primer.
- Installation of Sewage Ejector Pump (3Hp)
- Installation of new 4" Vented Sanitary House Trap
- Provide new 6" combined sewer connection to city sewer.
- Submit for Approval Site Connection Application to DEP (combined with Storm)

Storm Work

- Installation of new 3" Roof Drain with 3" Overflow Secondary Drain (or scupper)
- Installation of new 4" Storm House Trap
- Connect 4" storm piping to 6" combined sewer.

Gas Work

- Provide Gas Load Letter to Utility Company
- Provide new incoming gas service sized by utility company. with new shut-off valve and new gas meter.
- Provide new 1" gas connection to each new boiler.

Electrical Work:

- Installation of a new 200A, 208V, 3-phase,4-wire service and a 200A, 42-pole panel.
- Furnish and install power devices & wiring for new & existing mechanical equipment specified in mechanical scope of work.
- Furnish and install power devices & wiring for new & existing plumbing equipment specified in plumbing scope of work.
- Furnish and install lighting fixtures and associated controls in new Mechanical Building.
- Furnish and install convenience receptacles in new Mechanical Building.
- Furnish and install fire alarm devices as part of an extension to existing building fire alarm panel to support new Mechanical Building, as required. Fire Alarm will be evaluated with FDNY for proper coverage where required.

Structural Work:

- Provide structure for each of new ground floor mechanical building per mechanical work.
 - Provide shallow foundation (spread footing ~4' below grade, depth to be verified with geotechnical report).
 - Provide mat slab (~10" thick) approximately 3' to 4' off the ground.
 - Provide load-bearing CMU wall (8" thick) at perimeter of the single-story building.
 - Provide concrete plank (10" thick) as the roof.

Group E:

Group E buildings (including 357 Wilson Avenue which was the only building damaged) are 3 story structures with flat roof construction. The boiler room is in the basement. Our recommendation is to remove the boilers from the basement and to relocate them to the roof. Our list of changes in the existing system is based on the following recommendations:

- Remove the existing Boiler, Hot Water Heater, Pumps, Control Panels, Piping, Accessories and Controls from the Boiler room in the basement.
- Provide a newly created Mechanical Room on the roof that would house the new Boiler, Hot Water Heater, Pumps, Piping, and all other accessories as described below.

The New Work that will be included in each Mechanical Room will be as follows:

Architectural Work:

- Construction of a new Mechanical Room on the roof of each building of Group E with an approximate area of 300 ft² located in the area shown in the Site Plan.

Mechanical Work:

- Installation of Boiler System with total capacity of 2,000,000 BTU/hr.
 - Installation of two (2) Hot Water Supply and Return Pumps for the Heating System. Each Pump shall have a total water flow of approximately 200 gpm and total head of approximately 80 ft wg.
 - Installation of Two (2) Hot Water Pumps serving the Domestic Hot Water Heater. Each Pump shall have a total water flow of approximately 16 gpm and total head of approximately 30 ft wg.
 - Installation of 4" insulated Hot Water Supply and Return Piping. Piping that is exposed on roof shall be protected with aluminum jacketing. Piping shall be routed from the mechanical room on the roof to the existing chimney opening down to the basement.
-

Approximately 70 ft of Hot Water Supply and 70 ft of Hot Water Return piping shall be installed on the roof and in the chimney.

- Installation of 1½" insulated Hot Water Supply and Return Piping to the Domestic Hot Water Heater.
- Installation of all piping accessories including Expansion Tank, Air Separator, Shot Feeder, Valves, Supports etc.
- Connection of the new piping to existing at the basement of the building.
- Installation of 6" Double Wall Flue for each of the boilers in the system. Flues shall be installed as per NYC Code requirements and shall be terminated 3'-0" minimum distance from the roof of the Mechanical Room.
- Installation of Combustion Air System, consisting of Louvers, Ductwork and Motorized Dampers.
- Installation of a 5 kW Electric Unit Heater.
- Installation of the system controls including control panel and wiring.

Plumbing Work:

Gas Work

- Based on the street pressure, -Gas Booster Pump may be provided.
- Provide new gas piping up to the roof and connect to new boilers.
- Provide new 1" gas connection to each new boiler.

Domestic Water:

- General: New Domestic Cold Water Booster Pump may be required if pressure will not be enough to provide the service for furthest plumbing fixtures.
- Provide new 3" water connection to new boiler from existing utility service.

Hot Water:

- Installation of new Domestic Hot Water 400-gallon Storage Capacity.
- Installation of new two (2) Recirculating Pumps and Controller. Each Pump shall size accordingly based on new Boiler location on the roof and distance.
- Connect new 2" Insulated Domestic Hot Water Supply Piping to the existing pipe at cellar level.
- Connect new 1" Insulated Domestic Hot Water Return Piping to existing at cellar level.
- Installation of all piping accessories including Tempering Valve, Isolation Valves, Supports, etc.

Sanitary Work

- Installation of new 4" Floor Drain with trap primer.
- Connect new 4" sanitary pipe to the nearest existing waste piping below.
- Provide 3" vent pipe up thru roof from the new floor drain.

Storm Work

- Installation of new 3" Roof Drain with 3" Overflow Secondary Drain (or scupper)
- Connect new storm piping to the existing below, Overflow piping to connect to the existing vertical leader.

Sprinkler Work:

- Sprinkler coverage shall be provided at boiler room.

Electrical Work:

- Installation of a new 100A, 208V, 3-phase,4-wire, 42-pole panel. New panel shall be powered off existing base building distribution. Provide all required connections and devices. In the event that there is insufficient capacity on the existing service, an upgrade of service will be requested from Con Ed.
- Furnish and install power devices & wiring for new & existing mechanical equipment specified in mechanical scope of work.
- Furnish and install power devices & wiring for new & existing plumbing equipment specified in plumbing scope of work.
- Furnish and install lighting fixtures and associated controls in new Mechanical Building.
- Furnish and install convenience receptacles in new Mechanical Building.
- Furnish and install fire alarm devices as part of an extension to existing building fire alarm panel to support new Mechanical room on roof, as required. Fire Alarm will be evaluated with FDNY for proper coverage where required.

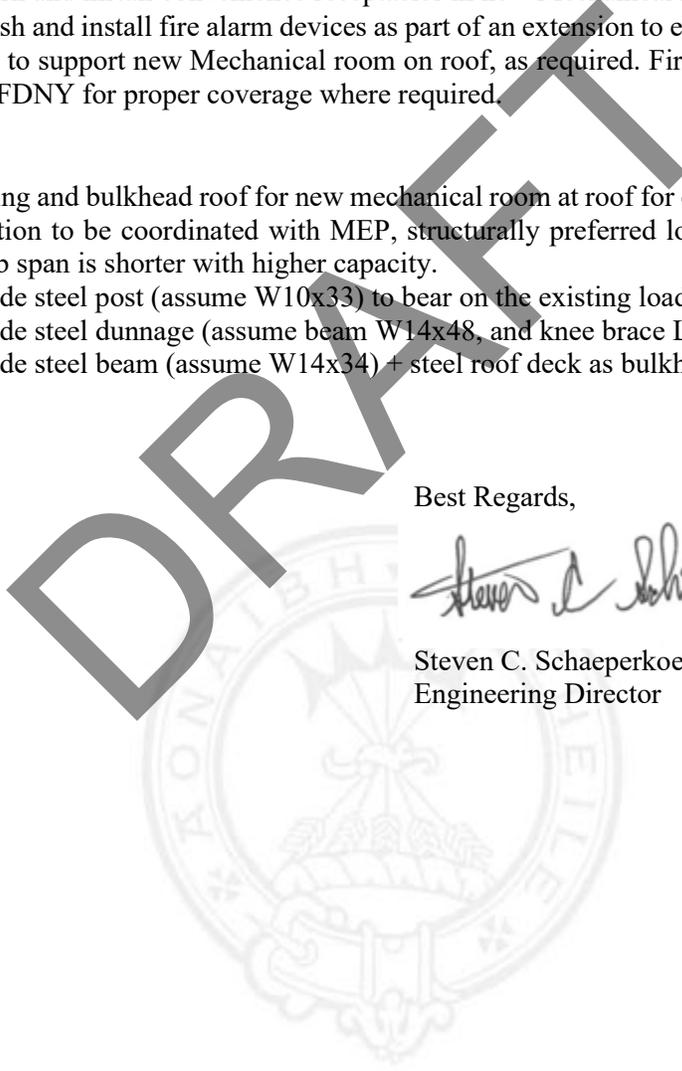
Structural Work:

- Provide framing and bulkhead roof for new mechanical room at roof for each of 5 buildings. Room size and location to be coordinated with MEP, structurally preferred location is next to the stair where the slab span is shorter with higher capacity.
 - Provide steel post (assume W10x33) to bear on the existing load-bearing CMU wall.
 - Provide steel dunnage (assume beam W14x48, and knee brace L4x4x3/8).
 - Provide steel beam (assume W14x34) + steel roof deck as bulkhead roof.

Best Regards,



Steven C. Schaeperkoetter, P.E., LEED AP
Engineering Director



BUSHWICK II (GROUPS A & C) [MAP 1 OF 2]

BOROUGH: BROOKLYN



PACT Project Name: Hope Gardens

Conversion Date: 7/18/2019

Property Manager(s)*: Pinnacle City Living

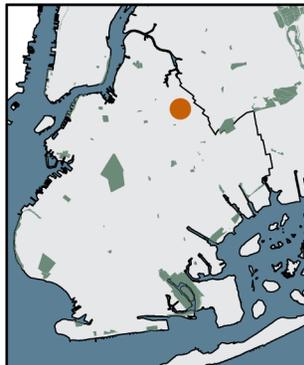
Social Service Provider(s): Acacia Network

*Contact(s) for more information about property management:

David Sorise
(646) 891-4940
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Iris Cruz
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- Proposed Mechanical Buildings (*Not drawn to scale)
- PACT Development
- PACT Building
- Residential Addresses
- NYC Parks



N 0 210
Feet

Prepared by: Performance Tracking & Analytics Department (August 2022)



Group	Addresses Served	Pod Location?
A	580 Central Avenue	X
A	595 Evergreen Avenue	X
A	615 Evergreen Avenue	X
A	670 Evergreen Avenue	X
A	690 Evergreen Avenue	X
A	155 Eldert Street	
A	75 Covert Street	
A	85 Covert Street	
B	125 Palmetto Street	X
B	400 Central Avenue	X
B	415 Evergreen Avenue	X
B	431 Evergreen Avenue	X
B	440 Central Avenue	X
B	105 Palmetto Street	
B	1201 Gates Avenue	
B	1210 Gates Avenue	
B	1230 Gates Avenue	
B	1240 Gates Avenue	
B	1260 Gates Avenue	
B	143 Palmetto Street	
B	95 Palmetto Street	
C	1240 Greene Avenue	X
C	250 Wilson Avenue	X
C	251 Central Avenue	X
C	269 Central Avenue	X
C	1229 Greene Avenue	
C	1259 Greene Avenue	
C	1280 Greene Avenue	
C	139 Harman Street	
C	140 Harman Street	
C	140 Himrod Street	
C	160 Himrod Street	
C	190 Harman Street	
C	270 Wilson Avenue	
C	289 Central Avenue	
D	170 Palmetto Street	X
D	375 Central Avenue	X
D	390 Wilson Avenue	X
D	1300 Gates Avenue	
D	1320 Gates Avenue	
D	161 Palmetto Street	
D	180 Palmetto Street	
D	190 Palmetto Street	
D	191 Woodbine Street	
D	200 Palmetto Street	
D	210 Palmetto Street	
D	399 Central Avenue	
E	319 Wilson Avenue	Roof
E	339 Wilson Avenue	Roof
E	357 Wilson Avenue	Roof
E	524 Knickerbocker Avenue	Roof
E	550 Knickerbocker Avenue	Roof

BUSHWICK II (GROUPS A & C) [MAP 2 OF 2]

BOROUGH: BROOKLYN



PACT Project Name: Hope Gardens

Conversion Date: 7/18/2019

Property Manager(s)*: Pinnacle City Living

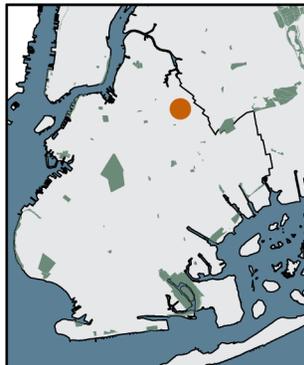
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-  PACT Development
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-  NYC Parks



N 0 210
Feet

Prepared by: Performance Tracking & Analytics Department (August 2022)



BUSHWICK II (GROUPS A & C)

BOROUGH: BROOKLYN



BUILDING #	STAIRHALL #	ADDRESS	ZIP CODE	RESIDENTIAL	BLOCK	LOT	BIN	HZ
1	005	580 CENTRAL AVENUE	11207	YES	3410	33	3326292	
2	006	155 ELDELT STREET	11207	YES	3410	33	3326291	
3	007	595 EVERGREEN AVENUE	11207	YES	3403	1	3078553	
4	008	615 EVERGREEN AVENUE	11207	YES	3410	1	3078789	
5	009	690 EVERGREEN AVENUE	11207	YES	3415	39	3326305	
6	010	670 EVERGREEN AVENUE	11207	YES	3409	32	3078774	
7	011	85 COVERT STREET	11207	YES	3415	39	3326315	
8	012	75 COVERT STREET	11207	YES	3415	39	3326314	
9	013	160 HIMROD STREET	11221	YES	3276	1	3325660	
10	014	140 HIMROD STREET	11221	YES	3276	1	3325659	
11	015	139 HARMAN STREET	11221	YES	3276	1	3325658	
12	016	251 CENTRAL AVENUE	11221	YES	3276	1	3325657	
13	017	270 CENTRAL AVENUE	11221	YES	3275	47	3074721	
14	018	290 CENTRAL AVENUE	11221	YES	3285	49	3075041	
15	019	310 CENTRAL AVENUE	11221	YES	3296	46	3075382	
16	020	250 WILSON AVENUE	11237	YES	3286	1	3325686	
17	021	190 HARMAN STREET	11221	YES	3286	1	3325688	
18	022	1259 GREENE AVENUE	11221	YES	3286	1	3325685	
19	023	140 HARMAN STREET	11221	YES	3286	1	3325687	
20	024	1229 GREENE AVENUE	11221	YES	3286	1	3325684	
21	025	269 CENTRAL AVENUE	11221	YES	3286	1	3325683	
22	026	270 WILSON AVENUE	11237	YES	3297	1	3325697	
23	027	1280 GREENE AVENUE	11221	YES	3297	1	3325696	
24	028	1240 GREENE AVENUE	11221	YES	3297	1	3325695	
25	029	289 CENTRAL AVENUE	11221	YES	3297	1	3325694	

BUSHWICK II (GROUPS B & D)

BOROUGH: BROOKLYN



PACT Project Name: Hope Gardens

Conversion Date: 7/18/2019

Property Manager(s)*: Pinnacle City Living

Social Service Provider(s): Acacia Network

*Contact(s) for more information about property management:

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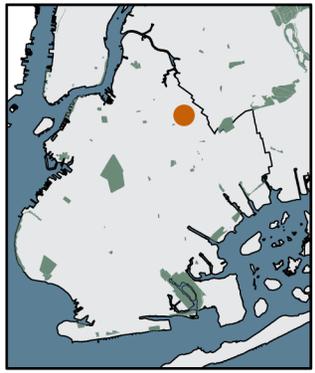
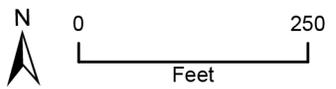
 Proposed Mechanical Buildings (Not drawn to scale*)

 PACT Development

 PACT Building

 Residential Addresses

 NYC Parks



Prepared by: Performance Tracking & Analytics Department (August 2022)



BUSHWICK II (GROUPS B & D)

BOROUGH: BROOKLYN



BUILDING #	STAIRHALL #	ADDRESS	ZIP CODE	RESIDENTIAL	BLOCK	LOT	BIN	HZ
26	030	1201 GATES AVENUE	11221	YES	3332	1	3325725	
27	031	415 EVERGREEN AVENUE	11221	YES	3332	1	3325726	
28	032	431 EVERGREEN AVENUE	11221	YES	3341	1	3326139	
29	033	1210 GATES AVENUE	11221	YES	3341	1	3326140	
30	034	1230 GATES AVENUE	11221	YES	3341	1	3326141	
31	035	1240 GATES AVENUE	11221	YES	3341	1	3326142	
32	036	1260 GATES AVENUE	11221	YES	3341	1	3326137	
33	037	400 CENTRAL AVENUE	11221	YES	3341	1	3326138	
34	038	143 PALMETTO STREET	11221	YES	3341	1	3326146	
35	039	125 PALMETTO STREET	11221	YES	3341	1	3326145	
36	040	105 PALMETTO STREET	11221	YES	3341	1	3326144	
37	041	95 PALMETTO STREET	11221	YES	3341	1	3326143	
38	042	440 CENTRAL AVENUE	11221	YES	3359	29	3076768	
39	043	1320 GATES AVENUE	11221	YES	3342	1	3326150	
40	044	1300 GATES AVENUE	11221	YES	3342	1	3326149	
41	045	375 CENTRAL AVENUE	11221	YES	3342	1	3326148	
42	046	161 PALMETTO STREET	11221	YES	3342	1	3326147	
43	047	390 WILSON AVENUE	11221	YES	3351	1	3326174	
44	048	210 PALMETTO STREET	11221	YES	3351	1	3326173	
45	049	200 PALMETTO STREET	11221	YES	3351	1	3326172	
46	050	190 PALMETTO STREET	11221	YES	3351	1	3326171	
47	051	191 WOODBINE STREET	11221	YES	3351	1	3326175	
48	052	180 PALMETTO STREET	11221	YES	3351	1	3326170	
49	053	170 PALMETTO STREET	11221	YES	3351	1	3326165	
50	054	399 CENTRAL AVENUE	11221	YES	3351	1	3326169	
51	093	420 CENTRAL AVENUE	11221		3350	28	3076595	
51	094	422 CENTRAL AVENUE	11221		3350	28	3076595	

BUSHWICK II CDA (GROUP E)

BOROUGH: BROOKLYN



PACT Project Name: Hope Gardens

Conversion Date: 7/18/2019

Property Manager(s)*: Pinnacle City Living

Social Service Provider(s): Acacia Network

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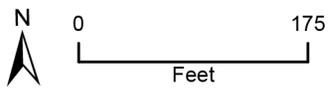
Proposed Mechanical Buildings (*Not drawn to scale)

PACT Development

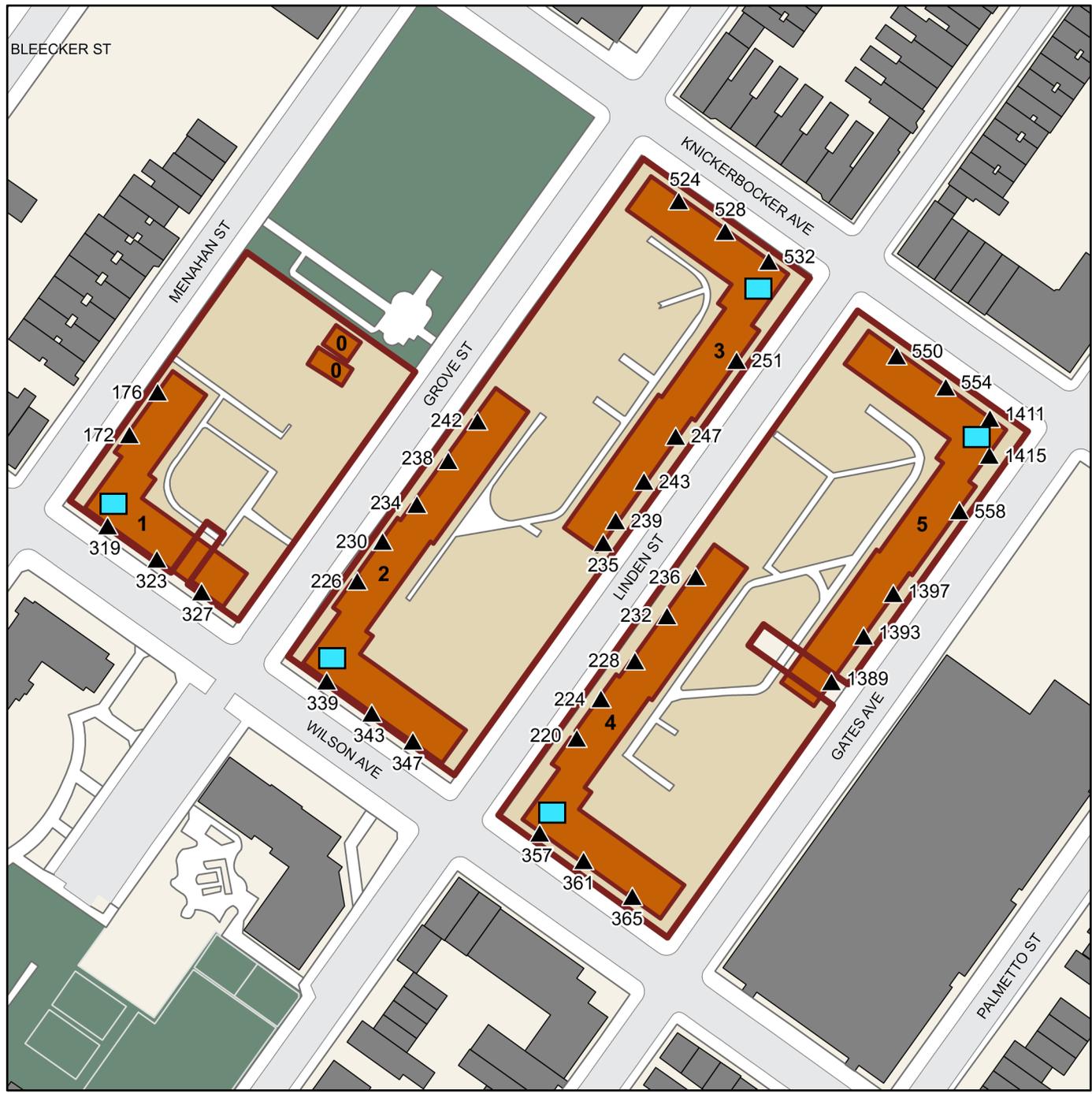
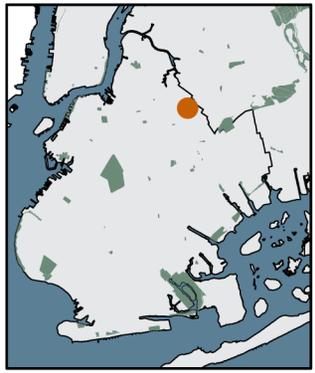
PACT Building

Residential Addresses

NYC Parks



Prepared by: Performance Tracking & Analytics Department (August 2022)



BUSHWICK II CDA (GROUP E)

BOROUGH: BROOKLYN



BUILDING #	STAIRHALL #	ADDRESS	ZIP CODE	RESIDENTIAL	BLOCK	LOT	BIN	HZ
	800	1387 GATES AVENUE	11221		3334	1	3342119	
	801	230 LINDEN STREET	11221		3334	22	3000000	
1	056	176 MENAHAN STREET	11237	YES	3316	1	3075907	
1	057	172 MENAHAN STREET	11237	YES	3316	1	3075907	
1	058	319 WILSON AVENUE	11237	YES	3316	1	3075907	
1	059	323 WILSON AVENUE	11237	YES	3316	1	3075907	
1	060	327 WILSON AVENUE	11237	YES	3316	1	3075907	
2	061	242 GROVE STREET	11237	YES	3325	1	3338492	
2	062	238 GROVE STREET	11237	YES	3325	1	3338492	
2	063	234 GROVE STREET	11237	YES	3325	1	3338492	
2	064	230 GROVE STREET	11237	YES	3325	1	3338492	
2	065	226 GROVE STREET	11237	YES	3325	1	3338492	
2	066	339 WILSON AVENUE	11221	YES	3325	1	3338492	
2	067	343 WILSON AVENUE	11221	YES	3325	1	3338492	
2	068	347 WILSON AVENUE	11221	YES	3325	1	3338492	
3	069	235 LINDEN STREET	11221	YES	3325	1	3338491	
3	070	239 LINDEN STREET	11221	YES	3325	1	3338491	
3	071	243 LINDEN STREET	11221	YES	3325	1	3338491	
3	072	247 LINDEN STREET	11221	YES	3325	1	3338491	
3	073	251 LINDEN STREET	11221	YES	3325	1	3338491	
3	074	532 KNICKERBOCKER AVENUE	11221	YES	3325	1	3338491	
3	075	528 KNICKERBOCKER AVENUE	11221	YES	3325	1	3338491	
3	076	524 KNICKERBOCKER AVENUE	11221	YES	3325	1	3338491	
4	077	236 LINDEN STREET	11221	YES	3334	1	3338493	
4	078	232 LINDEN STREET	11221	YES	3334	1	3338493	
4	079	228 LINDEN STREET	11221	YES	3334	1	3338493	
4	080	224 LINDEN STREET	11221	YES	3334	1	3338493	
4	081	220 LINDEN STREET	11221	YES	3334	1	3338493	
4	082	357 WILSON AVENUE	11221	YES	3334	1	3338493	
4	083	361 WILSON AVENUE	11221	YES	3334	1	3338493	

BUSHWICK II CDA (GROUP E)

BOROUGH: BROOKLYN



PLANNING
FOR PACT

BUILDING #	STAIRHALL #	ADDRESS	ZIP CODE	RESIDENTIAL	BLOCK	LOT	BIN	HZ
4	084	365 WILSON AVENUE	11221	YES	3334	1	3338493	
5	085	1389 GATES AVENUE	11221	YES	3334	1	3342119	
5	086	1393 GATES AVENUE	11221	YES	3334	1	3396593	
5	087	1397 GATES AVENUE	11221	YES	3334	1	3342119	
5	088	1411 GATES AVENUE	11221	YES	3334	1	3342119	
5	089	1415 GATES AVENUE	11221	YES	3334	1	3342119	
5	090	558 KNICKERBOCKER AVENUE	11221	YES	3334	1	3342119	
5	091	554 KNICKERBOCKER AVENUE	11221	YES	3334	1	3342119	
5	092	550 KNICKERBOCKER AVENUE	11221	YES	3334	1	3342119	

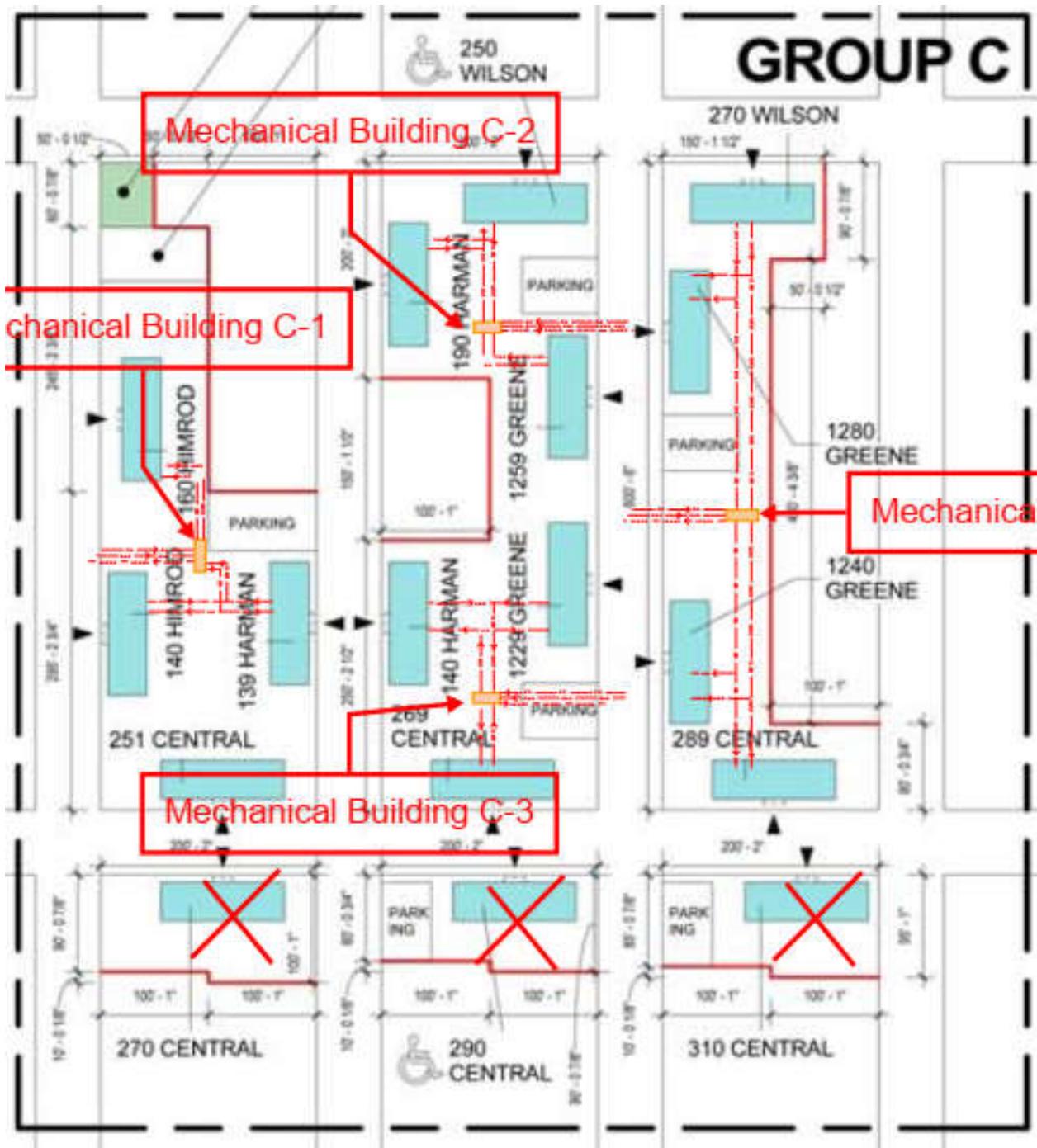


Figure 2A – Group C

= Subject Properties



Project Location: Brooklyn, NY

Project No.: Z35093

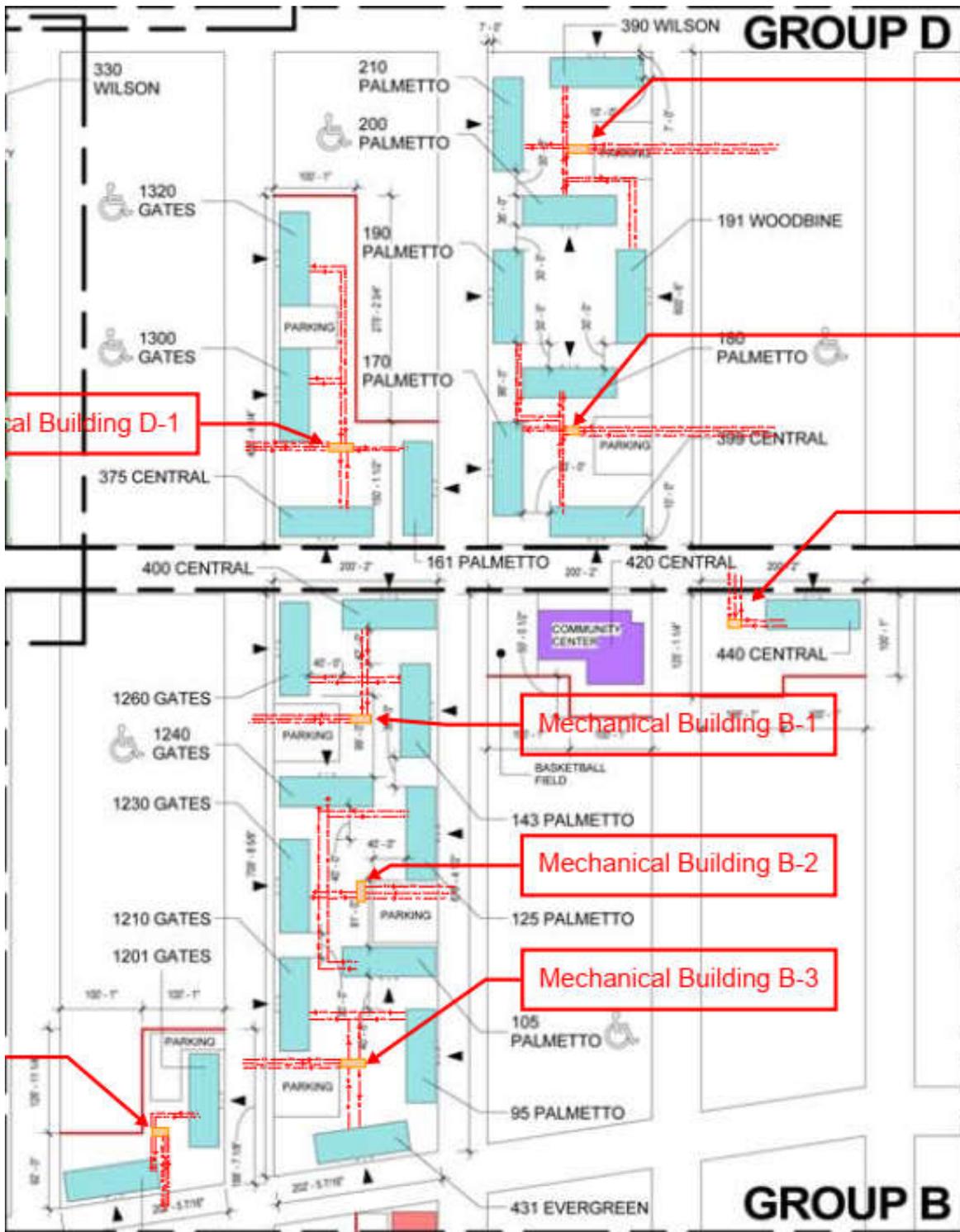


Figure 2B – Groups B & D

  = Subject Properties



Project Location: Brooklyn, NY

Project No.: Z35093

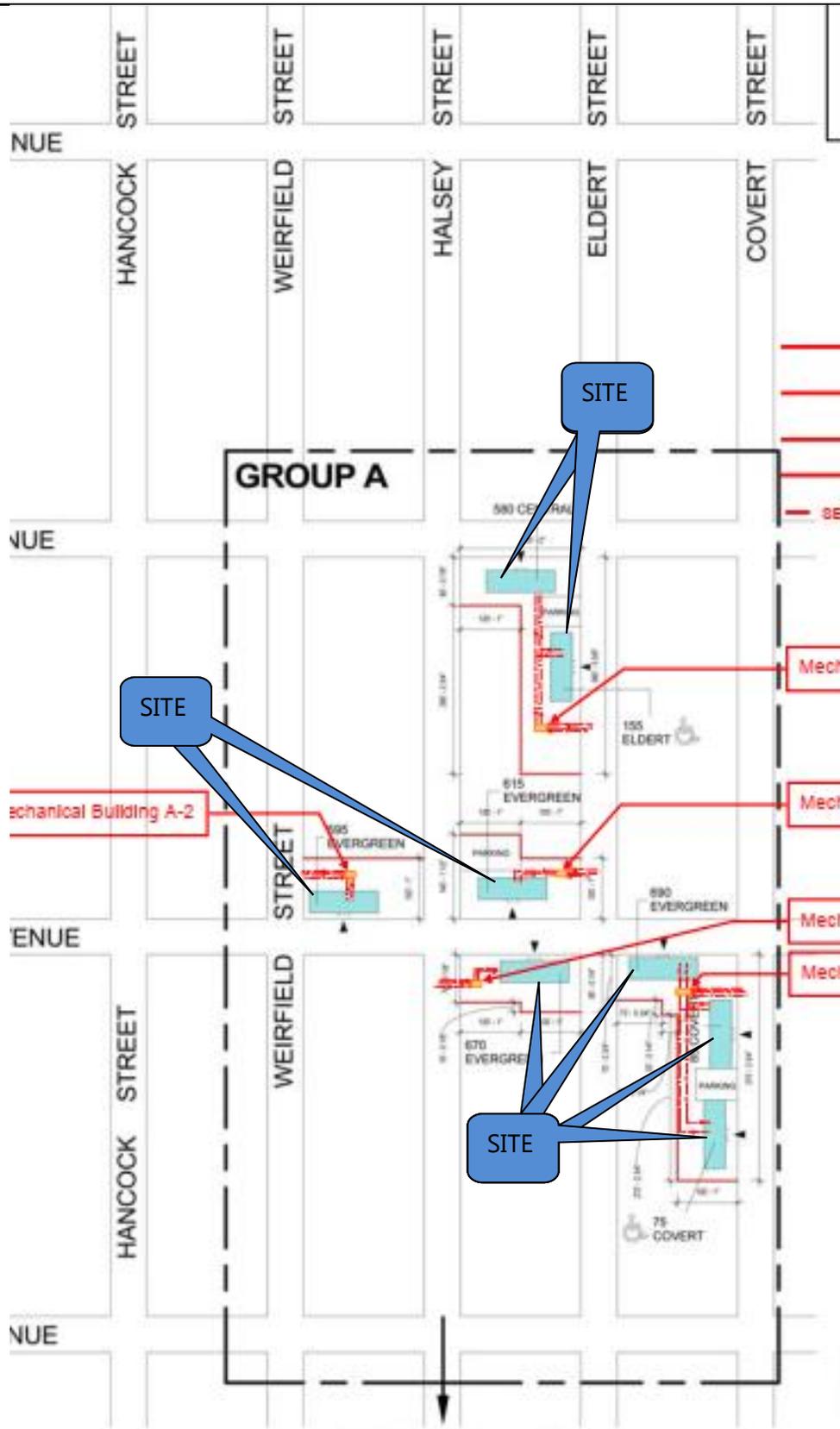


Figure 2A: Site Map

Group A

Brooklyn, NY 11207



SCALE:

(NOT TO SCALE)

PROJECT No.: Z35093

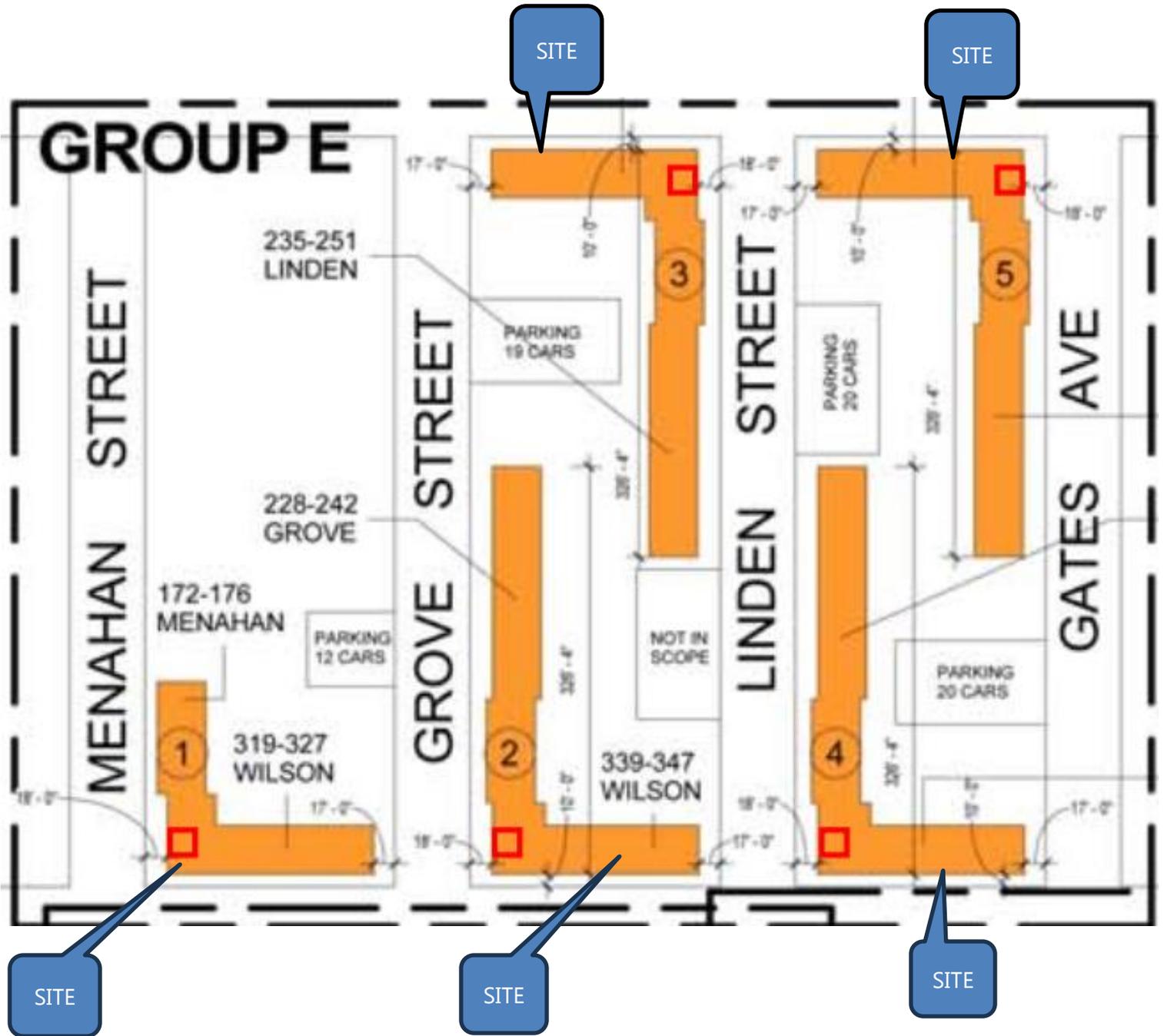


Figure 2B: Site Location Map

Group E

Brooklyn, NY 11207



SCALE: (NOT TO SCALE)

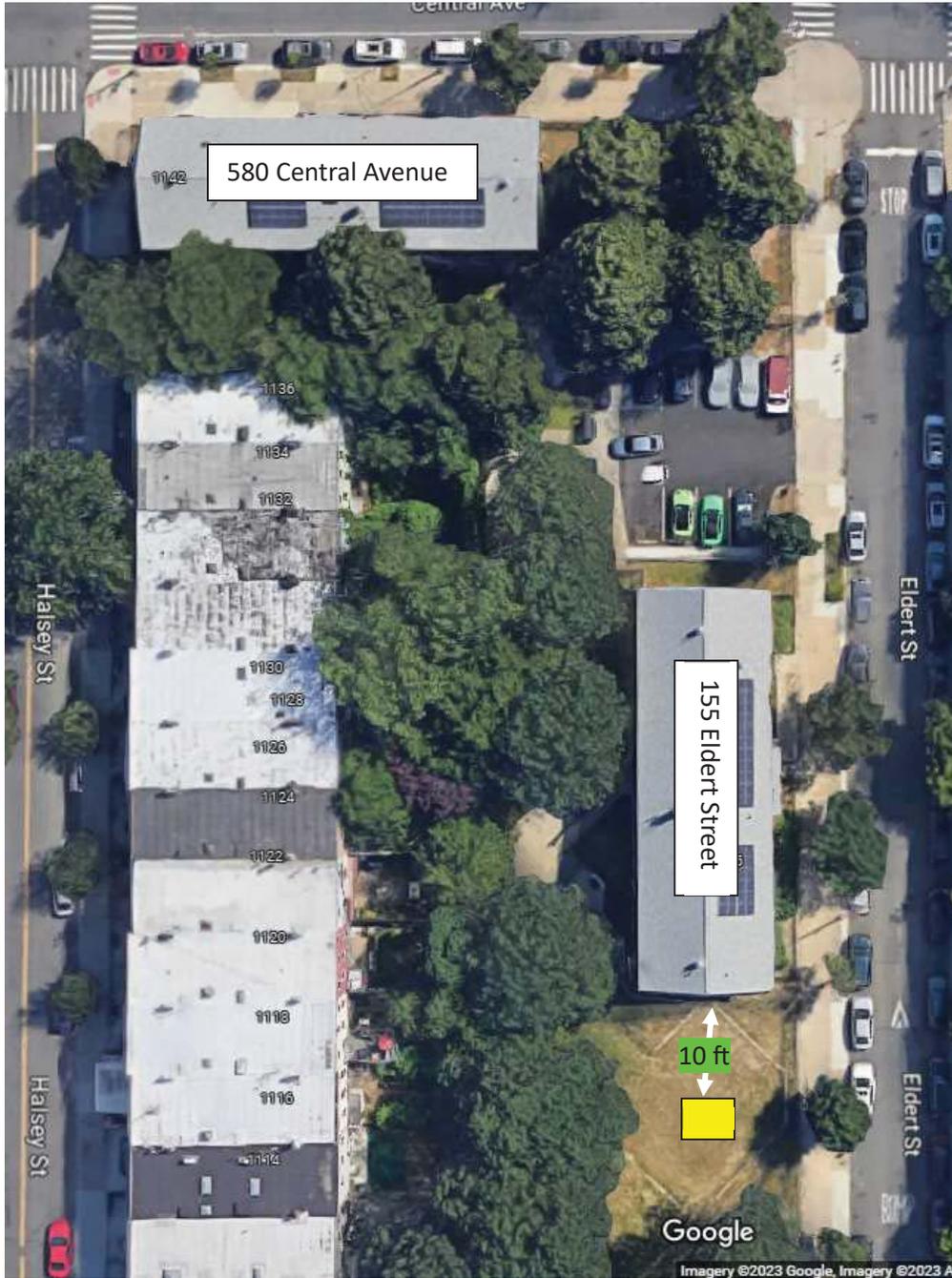
PROJECT No.: Z35093

PENNROSE

Bricks & Mortar | Heart & Soul

Adjusted locations of Boiler Pods:

1. Pod A-1 to serve 2 buildings: 580 Central Avenue, 155 Eldert Street
 - Tree impact: none
 - Playground equipment impact: none
 - Approximately 10 ft to closest building, 155 Eldert



Pod A-1 seen in yellow will be approximately 160 SF; not drawn to scale.

PENNROSE

Bricks & Mortar | Heart & Soul

2. Pod A-2 is to serve 1 building: 595 Evergreen Avenue
 - Tree impact: adjacent to trees but none to be impacted or removed
 - Playground equipment impact: none
 - Approximately 20 ft to closest building, 595 Evergreen



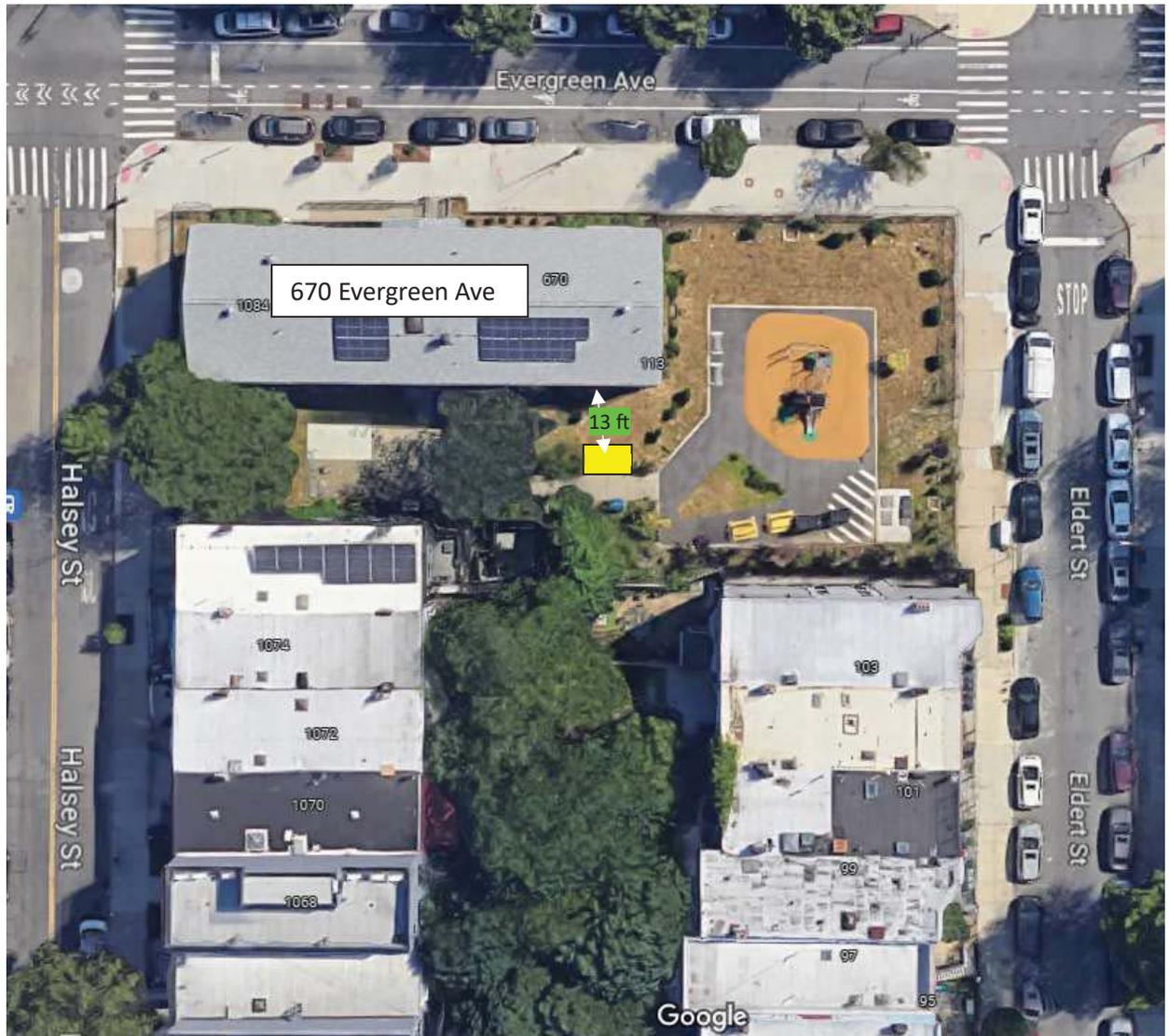
Pod A-2 shown in yellow will be approximately 160 SF; not drawn to scale.

3. Pod A-3 is to serve 1 building: 615 Evergreen Avenue
- Tree impact: adjacent to trees but none to be impacted or removed
 - Playground equipment impact: none
 - Approximately 20 ft to closest building, 615 Evergreen



Pod A-3 shown in yellow will be approximately 160 SF; not drawn to scale.

- 4. Pod A-4 is to serve 1 building: 670 Evergreen Avenue
 - Tree impact: adjacent to trees but none to be impacted or removed
 - Relocation of playground equipment: none
 - Approximately 13 ft to closest building, 670 Evergreen



Pod A-4 shown in yellow will be approximately 160 SF; not drawn to scale.

5. Pod A-5 is to serve 3 buildings: 690 Evergreen Avenue, 85 Covert Street, and 75 Covert Street
 - Tree impact: adjacent to trees but none to be impacted or removed; pod to be installed over paved surface
 - Relocation of playground equipment: adjacent to playground but none to be impacted
 - Approximately 17 ft to closest building, 85 Covert Street



Pod A-5 shown in yellow will be approximately 240 SF; not drawn to scale.

Alternate view of Pod A-5 shown in yellow; not drawn to scale. Unauthorized personal property to be removed.



PENNROSE

Bricks & Mortar | Heart & Soul

6. Pod B-1 is to serve 3 buildings: 1260 Gates Avenue, 400 Central Avenue, and 143 Palmetto
 - Tree impact: None to be impacted or removed; pod to be installed over paved surface
 - Playground equipment impact: none
 - Approximately 30 ft from closest building, 143 Palmetto



Pod B-1 shown in yellow will be approximately 240 SF; not drawn to scale.

PENNROSE

Bricks & Mortar | Heart & Soul

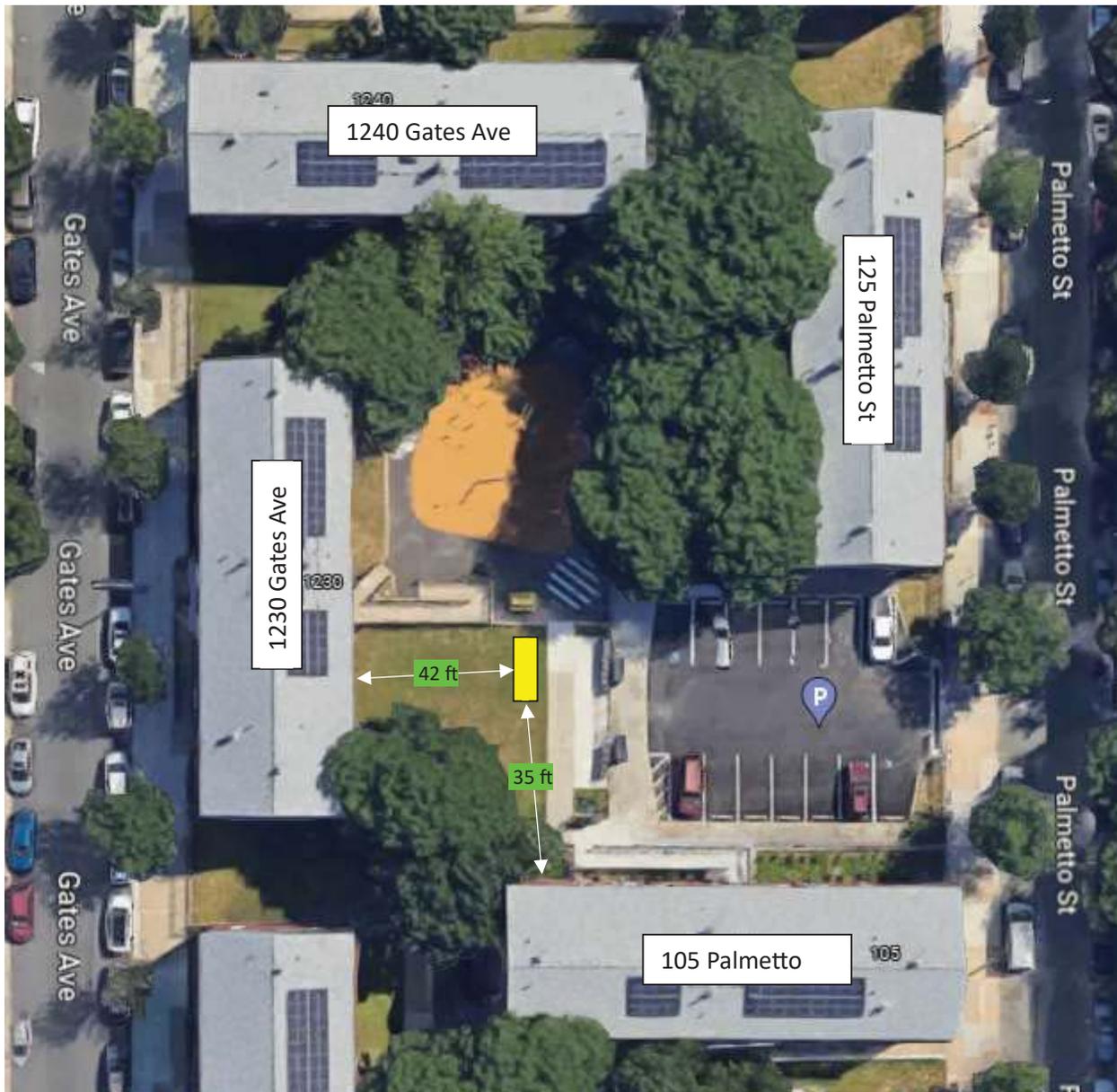
Alternate view of pod B-1 shown in yellow below; dumpsters to be relocated.



PENNROSE

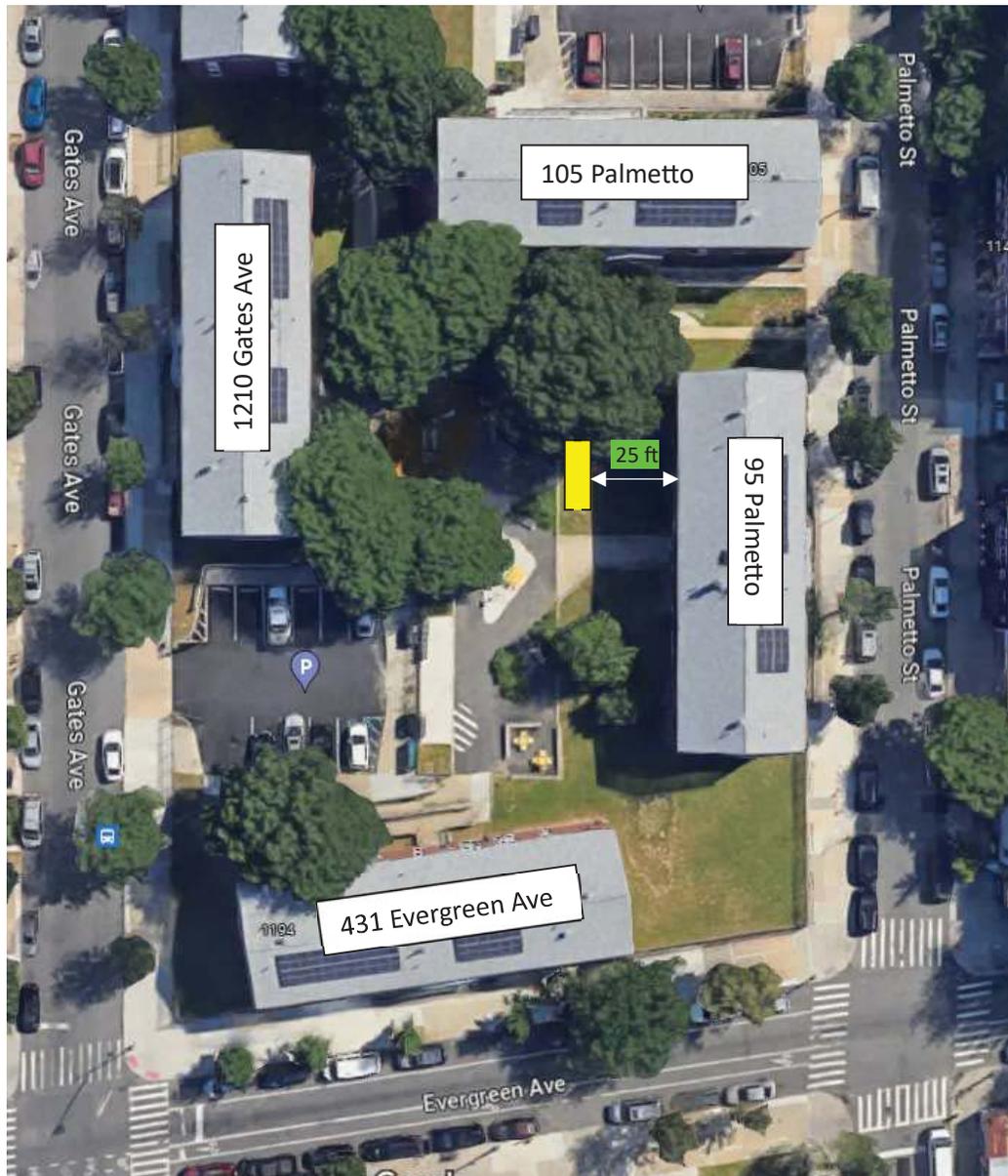
Bricks & Mortar | Heart & Soul

7. Pod B-2 is to serve 3 buildings: 1240 Gates Avenue, 1230 Gates Avenue, and 125 Palmetto Street
 - Tree impact: none
 - Playground equipment impact: none
 - Approximately 35 ft from closest building, 105 Palmetto



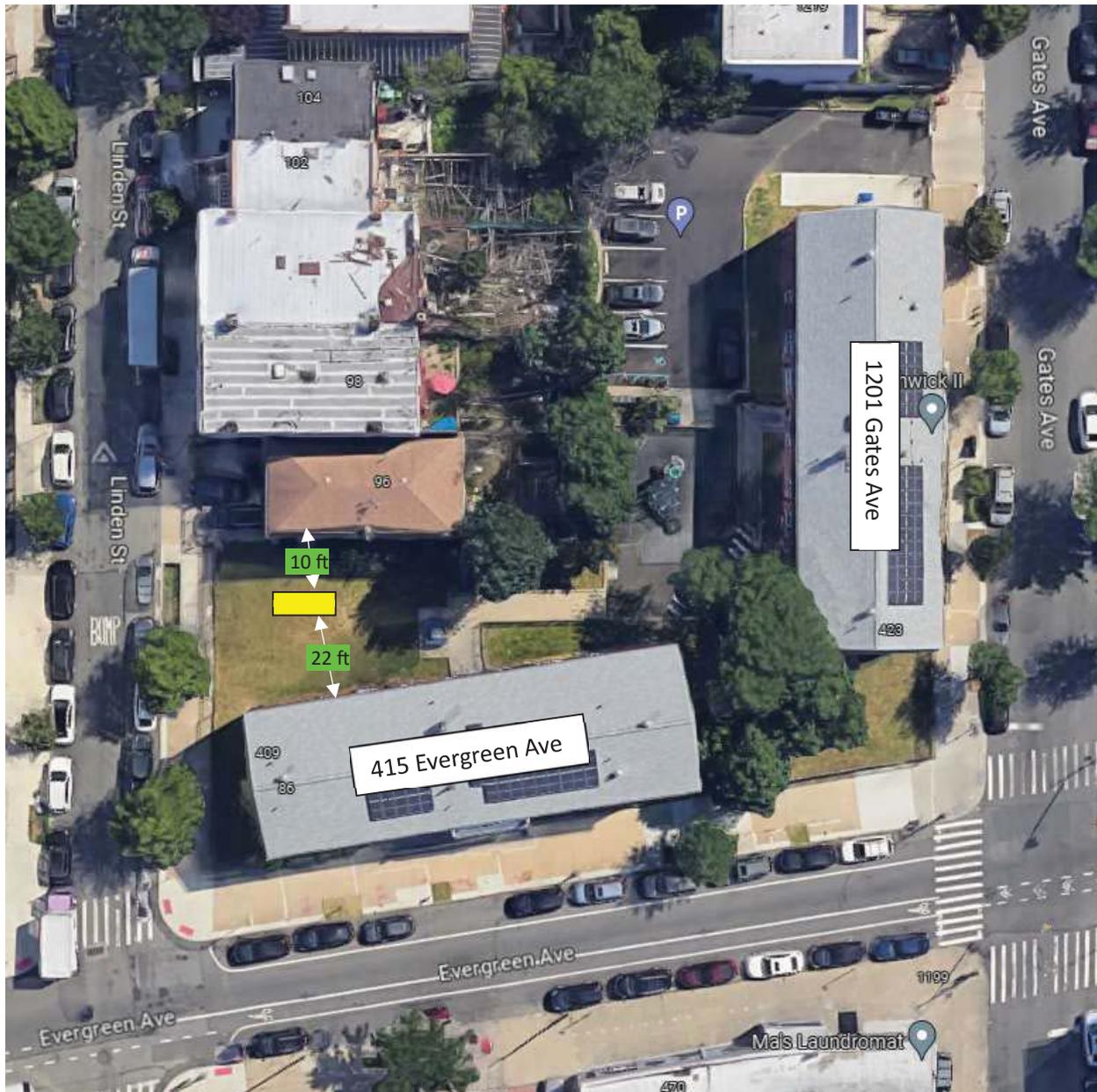
Pod B-2 shown in yellow will be approximately 240 SF; not drawn to scale

8. Pod B-3 is to serve 4 buildings: 1210 Gates Avenue, 105 Palmetto Street, 95 Palmetto Street, and 431 Evergreen Avenue
- Tree impact: adjacent to a tree but none to be impacted or removed
 - Playground equipment impact: none
 - Approximately 25 ft from closest building, 95 Palmetto



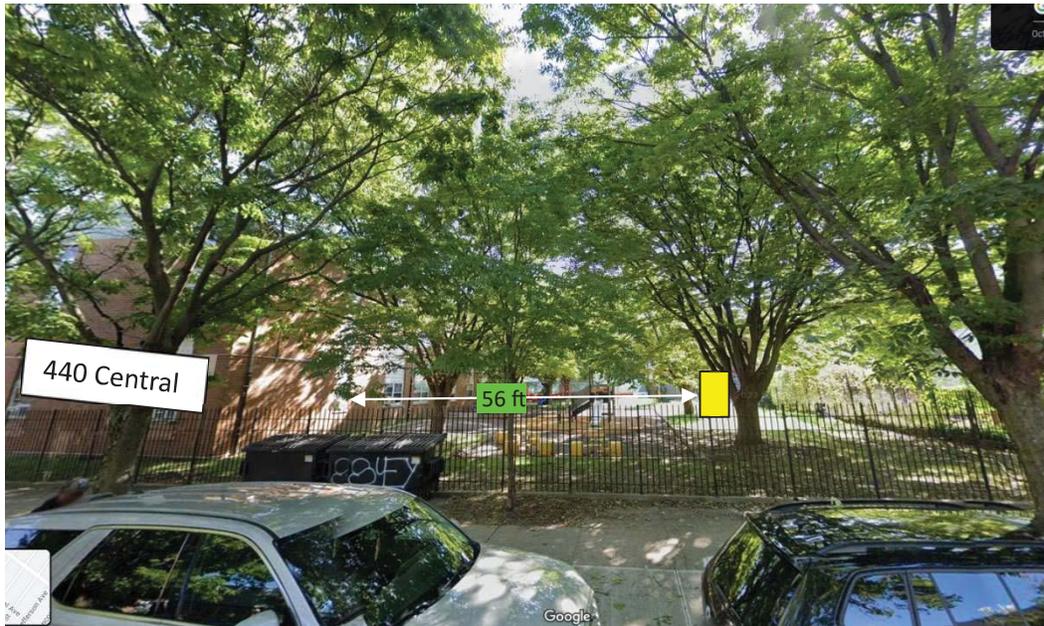
Pod B-3 shown in yellow will be approximately 240 SF; not drawn to scale

9. Pod B-4 is to serve 2 buildings: 1201 Gates Avenue, 415 Evergreen Avenue
- Tree impact: none
 - Playground equipment impact: none
 - Approximately 22 ft from closest project building, 415 Evergreen



Pod B-4 shown in yellow will be approximately 160 SF; not drawn to scale

10. Pod B-5 is proposed to serve 1 building: 440 Central Avenue
- Tree impact: adjacent to two trees but none to be impacted or removed
 - Playground equipment impact: none
 - Approximately 56 ft from closest building, 440 Central

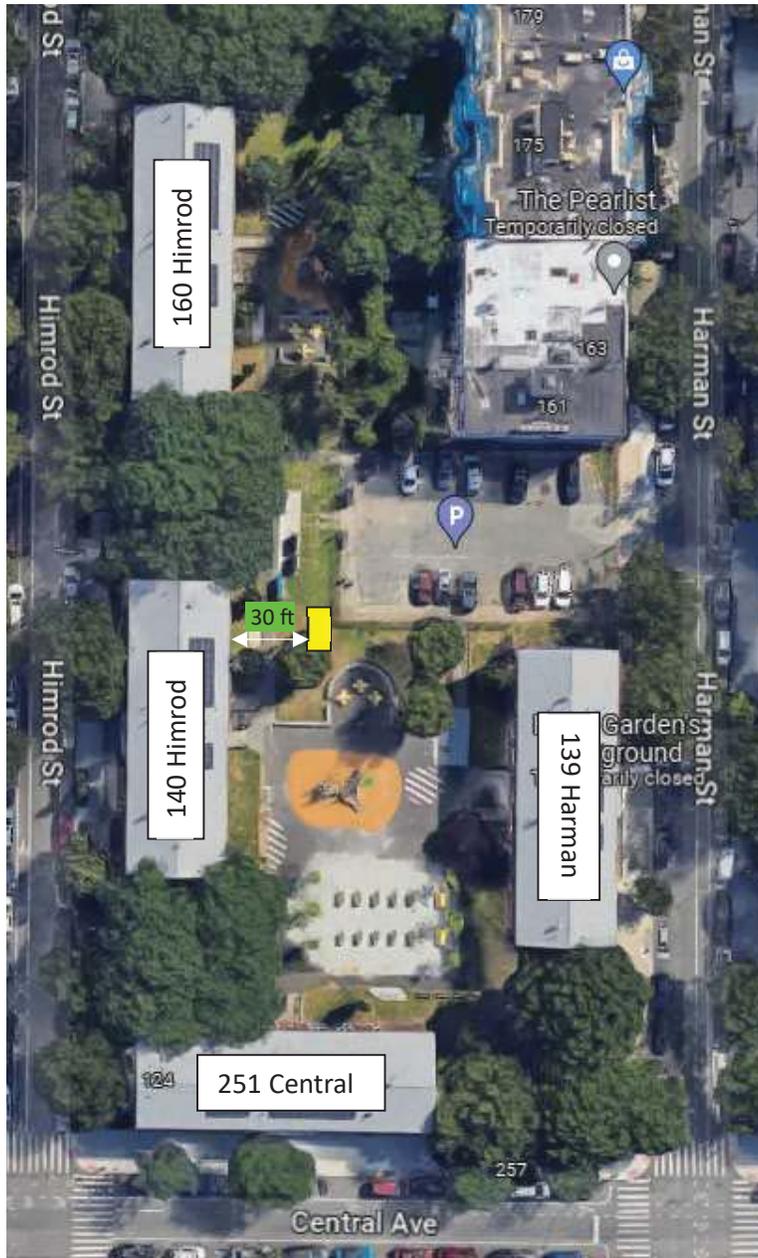


Pod B-5 shown in yellow will be situated between two trees and be approximately 160 SF; not drawn to scale. Alternate view below.



11. Pod C-1 is to serve 4 buildings: 160 Himrod Street, 140 Himrod Street, 139 Harman Street, and 251 Central Avenue

- Tree impact: adjacent to a tree, but none expected to be impacted
- Playground equipment impact: none
- Approximately 30 ft from closest building, 140 Himrod

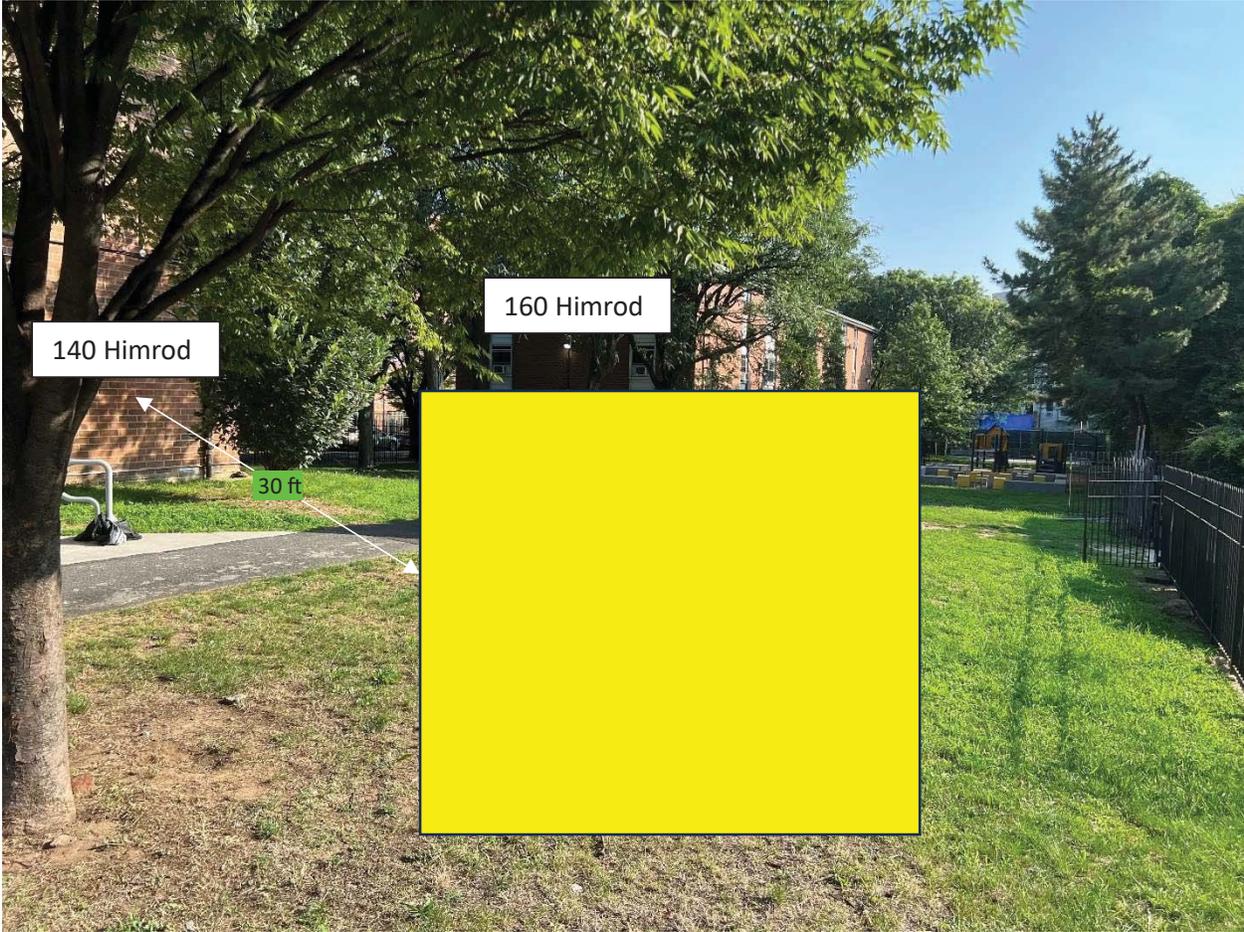


Pod C-1 shown in yellow will be adjacent to a nearby tree and will be approximately 240 SF; not drawn to scale.

PENNROSE

Bricks & Mortar | Heart & Soul

Alternate view of Pod C-1 adjacent to tree shown below; not drawn to scale



PENNROSE

Bricks & Mortar | Heart & Soul

12. Pod C-2 is to serve 3 buildings: 250 Wilson Avenue, 190 Harman Street, and 1259 Greene Avenue
- Tree impact: none
 - Playground equipment impact: none
 - Approximately 34 ft from closest building, 190 Harman



Pod C-2 shown in yellow will be approximately 240 SF; not drawn to scale.

13. Pod C-3 is to serve 3 buildings: 140 Harman Street, 1229 Greene Avenue, and 269 Central Avenue
- Tree impact: adjacent to a tree but no impact expected
 - Playground equipment impact: none; tables to be relocated nearby
 - Approximately 45 ft from closest building, 140 Harman



Pod C-3 shown in yellow will be approximately 240 SF; not drawn to scale.

14. Pod C-4 is to serve 4 buildings: 270 Wilson Avenue, 1280 Greene Avenue, 1240 Greene Avenue, and 289 Central Avenue

- Tree impact: none
- Playground equipment impact: none
- Approximately 50 ft from closest building, 1240 Greene



Pod C-4 shown in yellow will be approximately 240 SF; not drawn to scale.

15. Pod D-1 is to serve 4 buildings: 1320 Gates Avenue, 1300 Gates Avenue, 375 Central Avenue, and 161 Palmetto Street

- Tree impact: none; pod to be installed on paved surface
- Playground equipment impact: none
- Approximately 26 ft from closest building, 161 Palmetto



Pod D-1 shown in yellow will be approximately 240 SF; not drawn to scale.

PENNROSE

Bricks & Mortar | Heart & Soul

Alternate view of Pod D-1 shown in yellow. To be installed over paved surface; not drawn to scale.



16. Pod D-2 is to serve 4 buildings: 210 Palmetto Street, 200 Palmetto Street, 390 Wilson Avenue, and 191 Woodbine Street

- Tree impact: none
- Playground equipment impact: none
- Approximately 25 ft from closest building, 390 Wilson



Pod D-2 shown in yellow will be approximately 240 SF; not drawn to scale.

17. Pod D-3 is to serve 4 buildings: 190 Palmetto Street, 180 Palmetto Street, 170 Palmetto Street, and 399 Central Avenue

- Tree impact: none
- Playground equipment impact: none
- Approximately 30ft from closest building, 180 Palmetto



Pod D-3 shown in yellow will be approximately 240 SF; not drawn to scale.

Group	Addresses Served	Pod Location?
A	580 Central Avenue	X
A	595 Evergreen Avenue	X
A	615 Evergreen Avenue	X
A	670 Evergreen Avenue	X
A	690 Evergreen Avenue	X
A	155 Eldert Street	
A	75 Covert Street	
A	85 Covert Street	
B	125 Palmetto Street	X
B	400 Central Avenue	X
B	415 Evergreen Avenue	X
B	431 Evergreen Avenue	X
B	440 Central Avenue	X
B	105 Palmetto Street	
B	1201 Gates Avenue	
B	1210 Gates Avenue	
B	1230 Gates Avenue	
B	1240 Gates Avenue	
B	1260 Gates Avenue	
B	143 Palmetto Street	
B	95 Palmetto Street	
C	1240 Greene Avenue	X
C	250 Wilson Avenue	X
C	251 Central Avenue	X
C	269 Central Avenue	X
C	1229 Greene Avenue	
C	1259 Greene Avenue	
C	1280 Greene Avenue	
C	139 Harman Street	
C	140 Harman Street	
C	140 Himrod Street	
C	160 Himrod Street	
C	190 Harman Street	
C	270 Wilson Avenue	
C	289 Central Avenue	
D	170 Palmetto Street	X
D	375 Central Avenue	X
D	390 Wilson Avenue	X
D	1300 Gates Avenue	
D	1320 Gates Avenue	
D	161 Palmetto Street	
D	180 Palmetto Street	
D	190 Palmetto Street	
D	191 Woodbine Street	
D	200 Palmetto Street	
D	210 Palmetto Street	
D	399 Central Avenue	
E	319 Wilson Avenue	Roof
E	339 Wilson Avenue	Roof
E	357 Wilson Avenue	Roof
E	524 Knickerbocker Avenue	Roof
E	550 Knickerbocker Avenue	Roof

APPENDIX A: Related Federal Laws and Authorities

Airport Hazards

General policy	Legislation	Regulation
It is HUD's policy to apply standards to prevent incompatible development around civil airports and military airfields.		24 CFR Part 51 Subpart D

1. To ensure compatible land use development, you must determine your site's proximity to civil and military airports. Is your project within 15,000 feet of a military airport or 2,500 feet of a civilian airport?

No

Based on the response, the review is in compliance with this section. Document and upload the map showing that the site is not within the applicable distances to a military or civilian airport below

Yes

Screen Summary

Compliance Determination

The project site is not within 15,000 feet of a military airport or 2,500 feet of a civilian airport. No Runway Clear Zones are within or near the Proposed Project. The nearest airports, LaGuardia Airport (LGA) and John F. Kennedy International Airport (JFK) are located approximately 5.8 miles north-northeast and east-southeast of the Project, respectively. The project is in compliance with Airport Hazards requirements. See attached Airport Hazards figure.

Supporting documentation

[1 - Airport Hazards.pdf](#)

Are formal compliance steps or mitigation required?

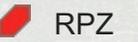
Yes

No

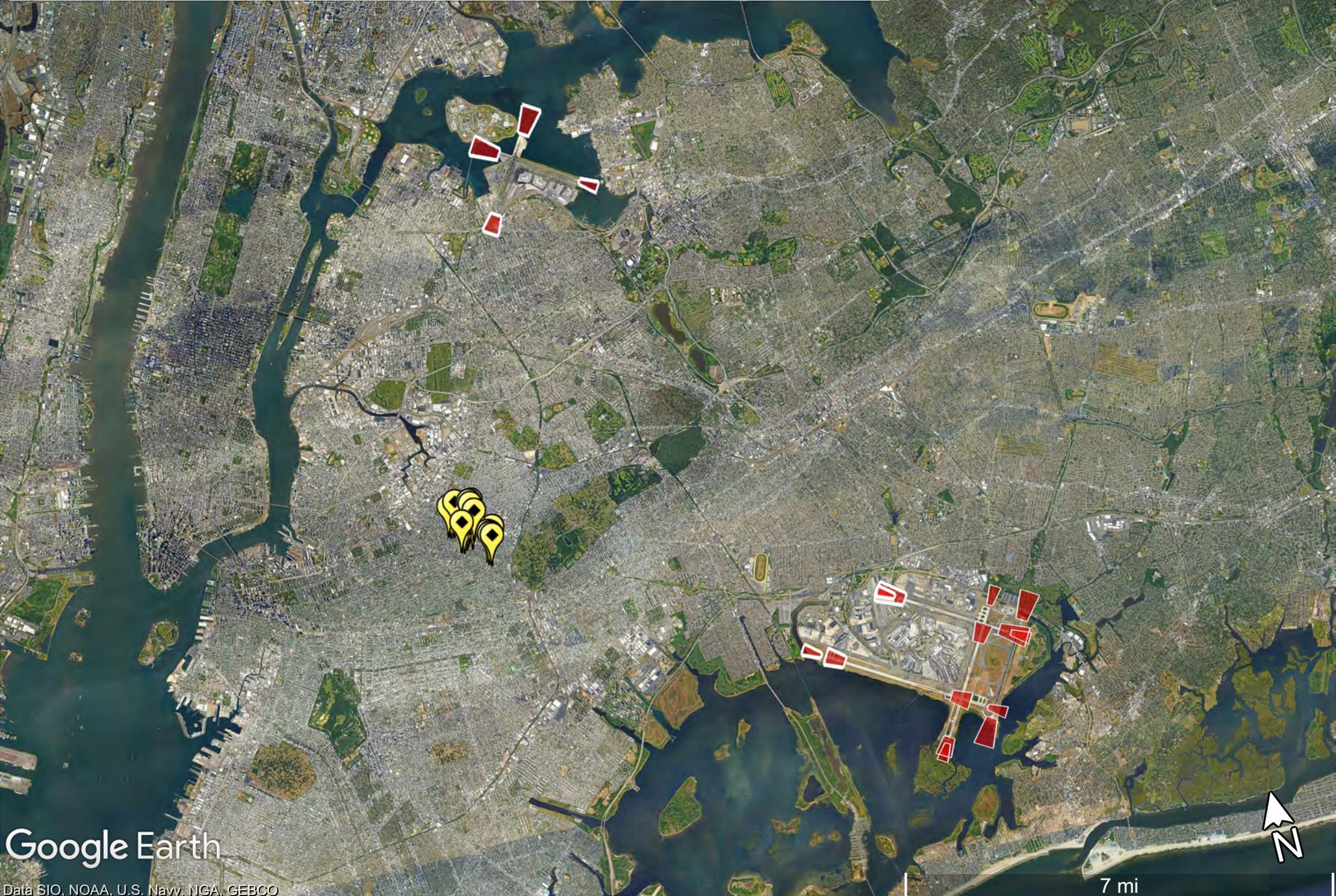
Hope Gardens (CDBG-DR)

This map shows the proximity of the proposed mechanical facilities at Hope Gardens to the Runway Protection Zone of LaGuardia Airport and JFK International Airport.

Legend



RPZ



Google Earth

Data SIO, NOAA, U.S. Navy, NGA, GEBCO

7 mi

Coastal Barrier Resources

General requirements	Legislation	Regulation
HUD financial assistance may not be used for most activities in units of the Coastal Barrier Resources System (CBRS). See 16 USC 3504 for limitations on federal expenditures affecting the CBRS.	Coastal Barrier Resources Act (CBRA) of 1982, as amended by the Coastal Barrier Improvement Act of 1990 (16 USC 3501)	

1. Is the project located in a CBRS Unit?

No

Document and upload map and documentation below.

Yes

Compliance Determination

As shown in the attached maps, there is only one Coastal Barrier Resource System (CBRS) Unit in New York City (NY-60P Jamaica Bay), which primarily consists of undeveloped land in the Gateway National Recreation Area. Privately-owned developed properties have been excluded from the CBRS Unit; therefore, this project has no potential to impact a CBRS Unit and is in compliance with the Coastal Barrier Resources Act. See attached CBRS figures.

Supporting documentation

[2 - CBRS Map\(4\).pdf](#)

[2 - CBRS Map Zoomed Out.pdf](#)

[2 - CBRS Map Jamaica Bay Map 2.pdf](#)

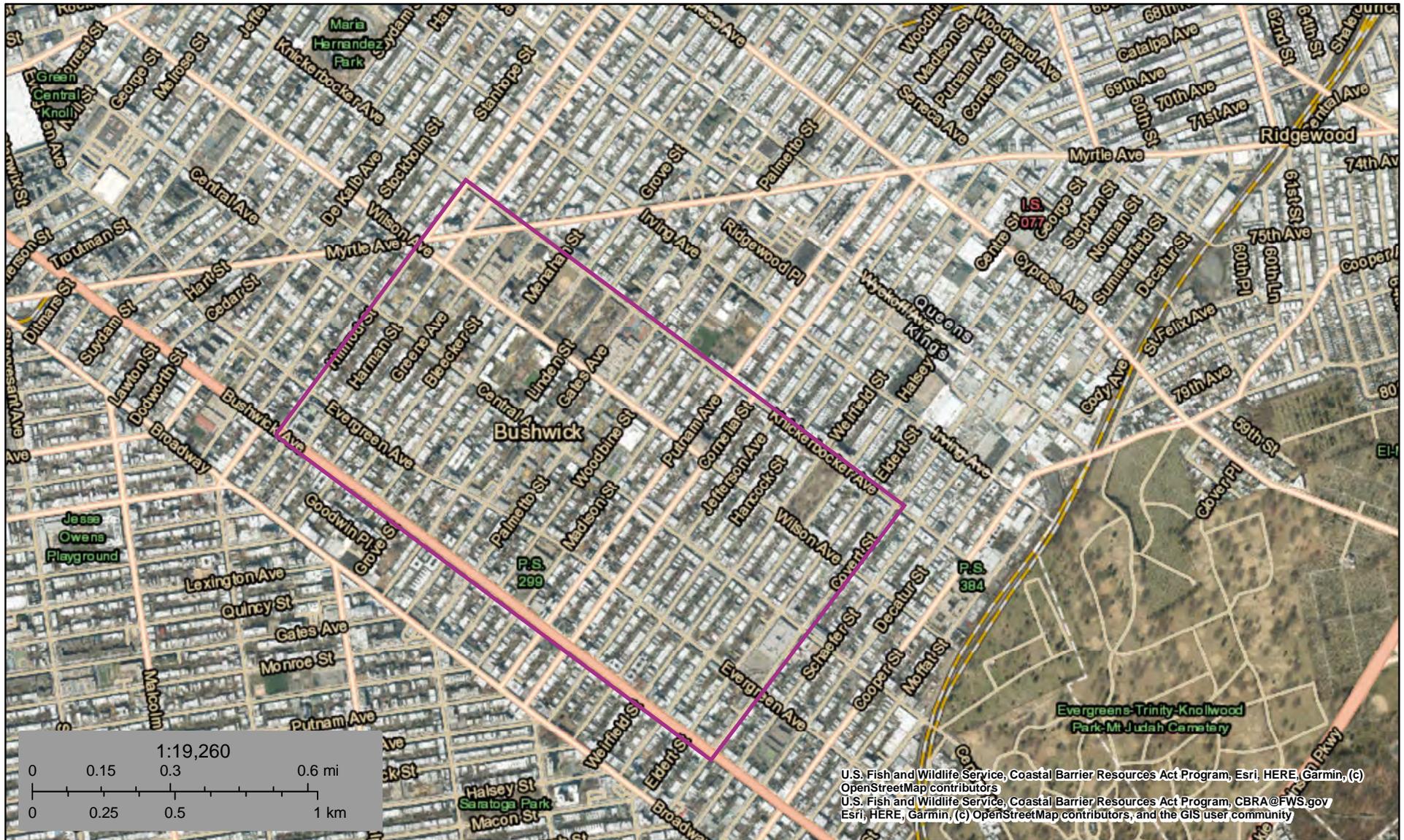
[2 - CBRS Map Jamaica Bay Map 1.pdf](#)

[2 - CBRS Map 2.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No



U.S. Fish and Wildlife Service, Coastal Barrier Resources Act Program, Esri, HERE, Garmin, (c) OpenStreetMap contributors
 U.S. Fish and Wildlife Service, Coastal Barrier Resources Act Program, CBRA@FWS.gov
 Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

July 25, 2023

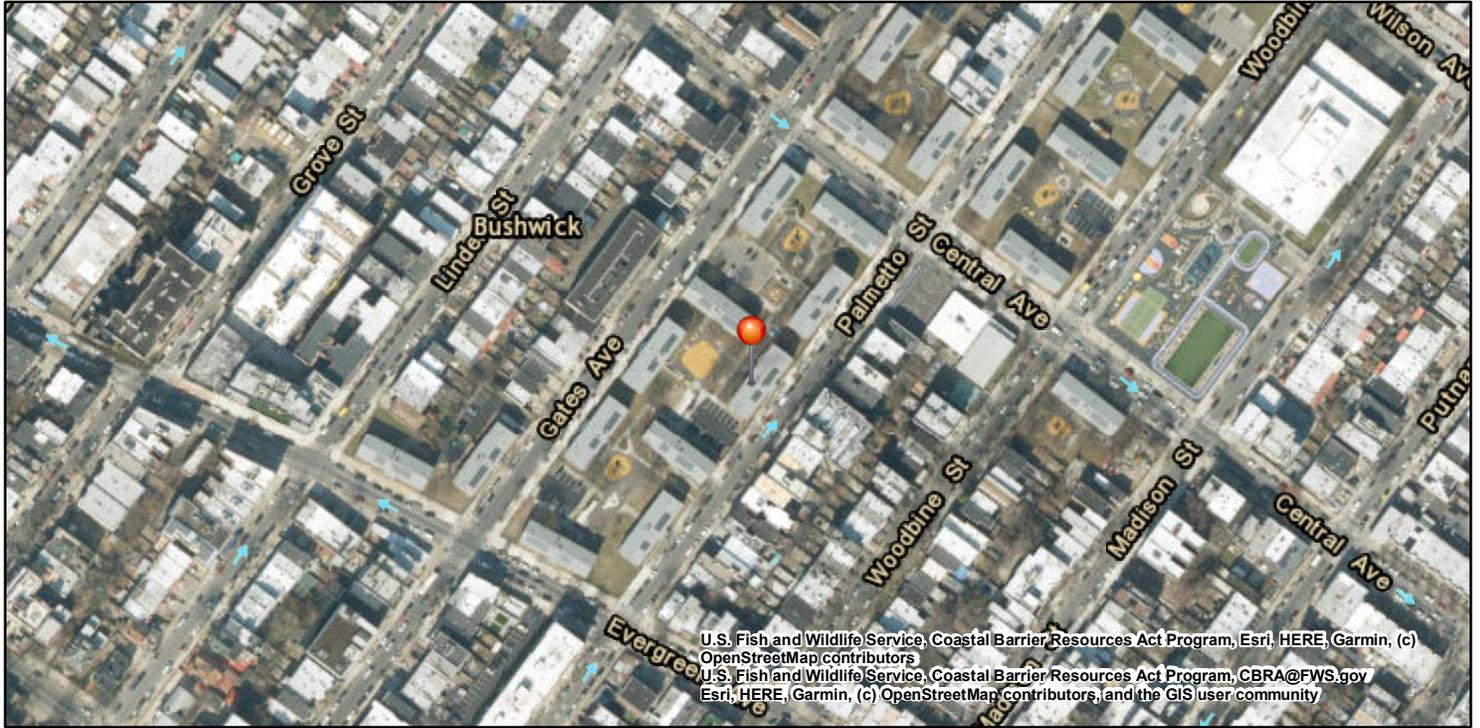
-  CBRS Buffer Zone
-  System Unit
-  Otherwise Protected Area

This map is for general reference only. The Coastal Barrier Resources System (CBRS) boundaries depicted on this map are representations of the controlling CBRS boundaries, which are shown on the official maps, accessible at <https://www.fws.gov/cbra/maps/index.html>. All CBRS related data should be used in accordance with the layer metadata found on the CBRS Mapper website.

The CBRS Buffer Zone represents the area immediately adjacent to the CBRS boundary where users are advised to contact the Service for an official determination (<http://www.fws.gov/cbra/Determinations.html>) as to whether the property or project site is located "in" or "out" of the CBRS.

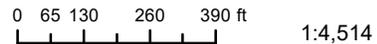
CBRS Units normally extend seaward out to the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS mapper.

Coastal Barrier Resources System Mapper Documentation



CBRS Units

- Otherwise Protected Area
- System Unit
- CBRS Buffer Zone
- 73.917927, 40.692837



The pin location displayed on the map is a point selected by the user. Failure of the user to ensure that the pin location displayed on this map correctly corresponds with the user supplied address/location description may result in an invalid federal flood insurance policy. **The U.S. Fish and Wildlife Service (Service) has not validated the pin location with respect to the user supplied address/location description. The Service recommends that all pin locations be verified by federal agencies prior to use of this map for the provision or denial of federal funding or financial assistance.** Please note that a structure bisected by the Coastal Barrier Resources System (CBRS) boundary (i.e., both "partially in" and "partially out") is within the CBRS and therefore affected by CBRA's restrictions on federal flood insurance. A pin placed on a bisected structure must be placed on the portion of the structure within the unit (including any attached features such as a deck or stairs).

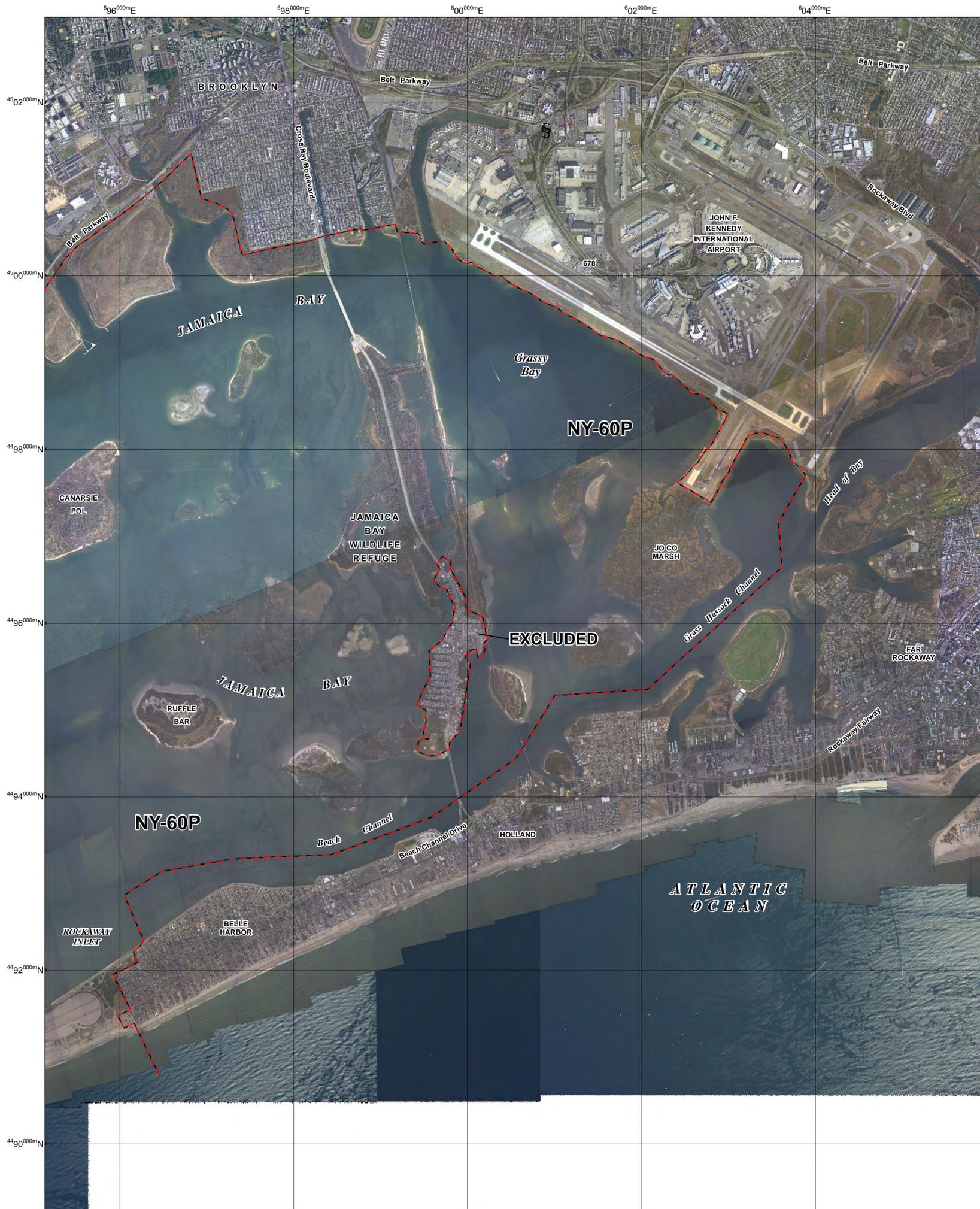
User Name: Julie Freeman
User Organization: NYC Office of Management and Budget
User Supplied Address/Location Description: 125 Palmetto Street, Brooklyn (Hope and Bushwick Gardens Project Center of Facilities)
Pin Location: Outside CBRS
Pin Flood Insurance Prohibition Date: N/A
Pin System Unit Establishment Date: N/A

The user placed pin location is not within the CBRS. The official CBRS maps are accessible at <https://www.fws.gov/library/collections/official-coastal-barrier-resources-system-maps>.

The CBRS information is derived directly from the CBRS web service provided by the Service. This map was exported on 10/19/2023 and does not reflect changes or amendments subsequent to this date. The CBRS boundaries on this map may become superseded by new boundaries over time.

This map image may be void if one or more of the following map elements do not appear: basemap imagery, CBRS unit labels, prohibition date labels, legend, scale bar, map creation date. For additional information about flood insurance and the CBRS, visit: <https://www.fws.gov/node/263838>.





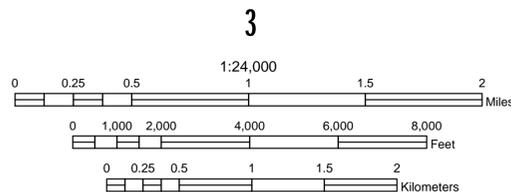
JOHN H. CHAFEE COASTAL BARRIER RESOURCES SYSTEM

Jamaica Bay Unit NY-60P (1 of 2)

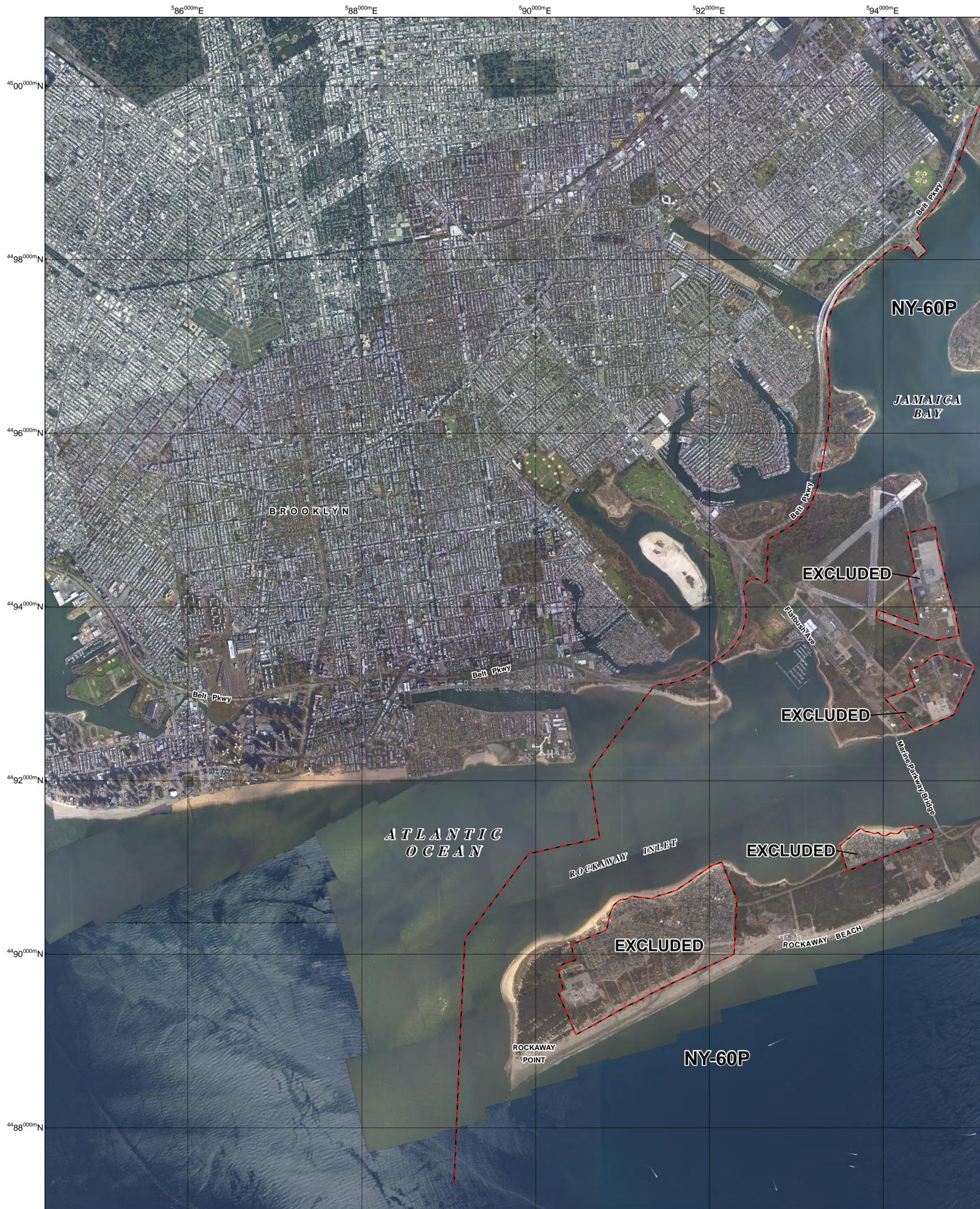
This map has been produced by the U.S. Fish and Wildlife Service as authorized by Section 4(c) of the Coastal Barrier Resources Act (CBRA) of 1982 (Pub. L. 97-348), as amended by the Coastal Barrier Improvement Act of 1990 (Pub. L. 101-591). The CBRA requires the Secretary of the Interior to review the maps of the Coastal Barrier Resources System (CBRS) at least once every 5 years and make any minor and technical modifications to the boundaries of the CBRS units as are necessary solely to reflect changes that have occurred in the size or location of any CBRS unit as a result of natural forces.

The seaward side of the CBRS unit includes the entire sand-sharing system, including the beach and nearshore area. The sand-sharing system of coastal barriers is normally defined by the 30-ft bathymetric contour. In large coastal embayments, the sand-sharing system is defined by the 20-ft bathymetric contour or a line approximately one mile seaward of the shoreline, whichever is nearer the coastal barrier.

For additional information about the CBRA or CBRS, please visit www.fws.gov/cbra.



- System Unit Boundary
- Otherwise Protected Area (OPA) Boundary; OPAs are identified on the map by the letter "P" following the unit number
- - - - - Approximate State/Country Boundary
- $36^{\circ}54^{0000}N$ 2000- meter Universal Transverse Mercator grid Values, Zone 18 North
- Imagery Date: 2011 (NAIP) & 2012 (NOAA)
- Imagery Source: NOAA Hurricane Sandy Rapid Response Imagery
United States Department of Agriculture
National Agriculture Imagery Program
- Coordinate System: North American Datum 1983
Universal Transverse Mercator



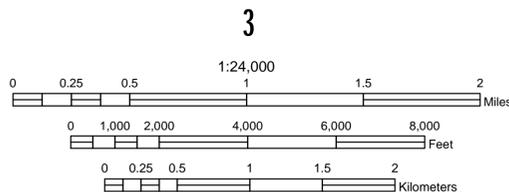
JOHN H. CHAFEE COASTAL BARRIER RESOURCES SYSTEM

Jamaica Bay Unit NY-60P (2 of 2)

This map has been produced by the U.S. Fish and Wildlife Service as authorized by Section 4(c) of the Coastal Barrier Resources Act (CBRA) of 1982 (Pub. L. 97-348), as amended by the Coastal Barrier Improvement Act of 1990 (Pub. L. 101-591). The CBRA requires the Secretary of the Interior to review the maps of the Coastal Barrier Resources System (CBRS) at least once every 5 years and make any minor and technical modifications to the boundaries of the CBRS units as are necessary solely to reflect changes that have occurred in the size or location of any CBRS unit as a result of natural forces.

The seaward side of the CBRS unit includes the entire sand-sharing system, including the beach and nearshore area. The sand-sharing system of coastal barriers is normally defined by the 30-ft bathymetric contour. In large coastal embayments, the sand-sharing system is defined by the 20-ft bathymetric contour or a line approximately one mile seaward of the shoreline, whichever is nearer the coastal barrier.

For additional information about the CBRA or CBRS, please visit www.fws.gov/cbra.



- System Unit Boundary
- - - - Otherwise Protected Area (OPA) Boundary; OPAs are identified on the map by the letter "P" following the unit number
- - - - Approximate State/Country Boundary
- 36°54'00.00\"/>

Imagery Date: 2011 (NAIP) & 2012 (NOAA)
 Imagery Source: NOAA Hurricane Sandy Rapid Response Imagery
 United States Department of Agriculture
 National Agriculture Imagery Program
 Coordinate System: North American Datum 1983
 Universal Transverse Mercator



U.S. Fish and Wildlife Service
Coastal Barrier Resources System

NYC Coastal Barrier Resource System



September 15, 2021

CBRS Units

- Otherwise Protected Area
- System Unit

This map is for general reference only. The Coastal Barrier Resources System (CBRS) boundaries depicted on this map are representations of the controlling CBRS boundaries, which are shown on the official maps, accessible at <https://www.fws.gov/cbra/maps/index.html>. All CBRS related data should be used in accordance with the layer metadata found on the CBRS Mapper website.

The CBRS Buffer Zone represents the area immediately adjacent to the CBRS boundary where users are advised to contact the Service for an official determination (<http://www.fws.gov/cbra/Determinations.html>) as to whether the property or project site is located "in" or "out" of the CBRS.

CBRS Units normally extend seaward out to the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS mapper.

Flood Insurance

General requirements	Legislation	Regulation
Certain types of federal financial assistance may not be used in floodplains unless the community participates in National Flood Insurance Program and flood insurance is both obtained and maintained.	Flood Disaster Protection Act of 1973 as amended (42 USC 4001-4128)	24 CFR 50.4(b)(1) and 24 CFR 58.6(a) and (b); 24 CFR 55.1(b).

1. Does this project involve financial assistance for construction, rehabilitation, or acquisition of a mobile home, building, or insurable personal property?

- No. This project does not require flood insurance or is exempted from flood insurance.

Based on the response, the review is in compliance with this section.

Yes

4. While flood insurance is not mandatory for this project, HUD strongly recommends that all insurable structures maintain flood insurance under the National Flood Insurance Program (NFIP). Will flood insurance be required as a mitigation measure or condition?

Yes

- No

Screen Summary

Compliance Determination

The Project Site is not located within a Special Flood Hazard Area and is in compliance with HUD requirements. See the attached FEMA Floodplain Map. A general insurance policy is carried which provides a \$25 million aggregate limit. This coverage includes loss due to storms.

Supporting documentation

[3 and 8 - Floodmap.pdf](#)

Are formal compliance steps or mitigation required?

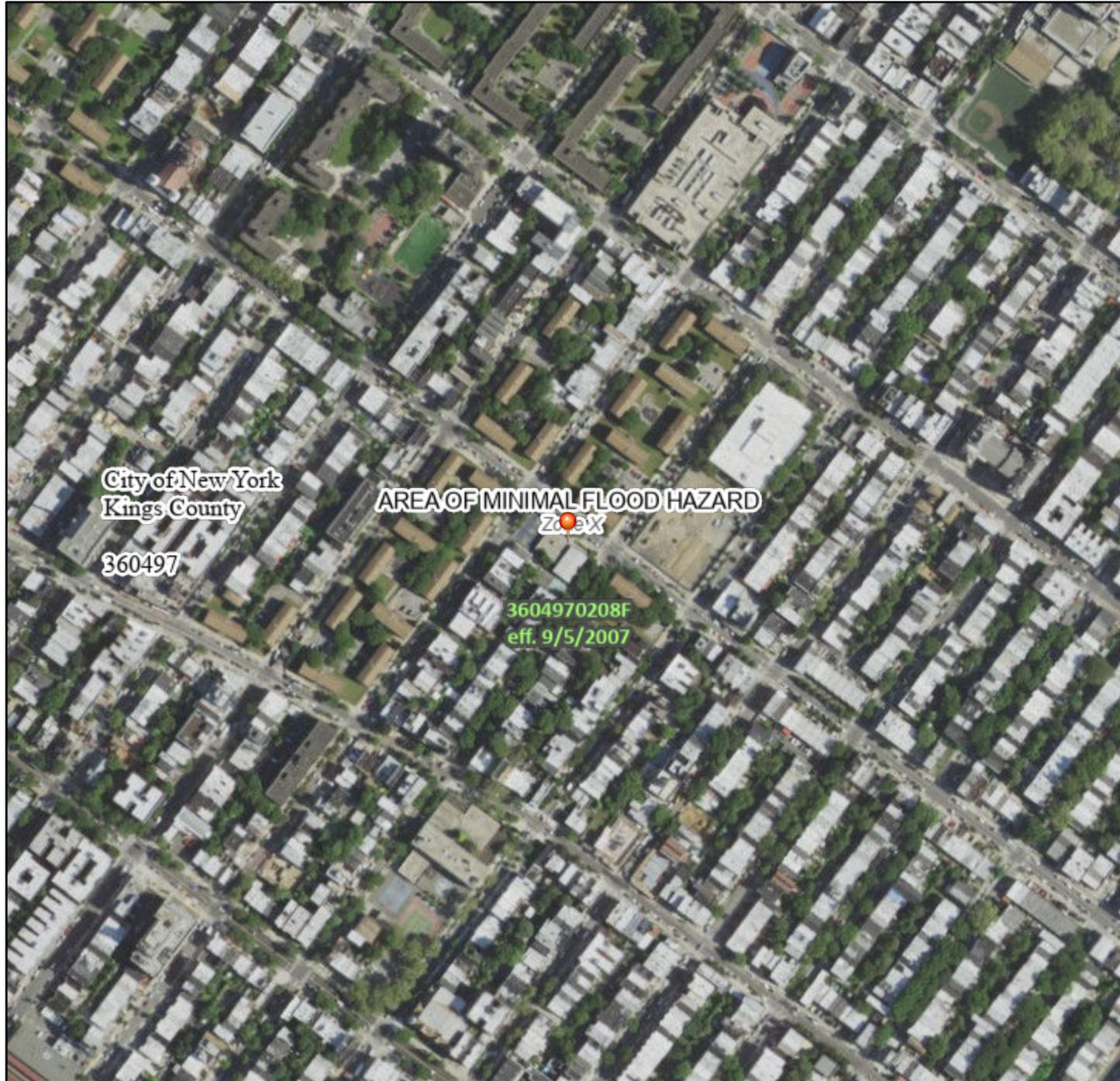
Yes

- No

National Flood Hazard Layer FIRMette



73°55'19"W 40°41'49"N



1:6,000

73°54'41"W 40°41'21"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
MAP PANELS		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **6/30/2023 at 2:44 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Air Quality

General requirements	Legislation	Regulation
The Clean Air Act is administered by the U.S. Environmental Protection Agency (EPA), which sets national standards on ambient pollutants. In addition, the Clean Air Act is administered by States, which must develop State Implementation Plans (SIPs) to regulate their state air quality. Projects funded by HUD must demonstrate that they conform to the appropriate SIP.	Clean Air Act (42 USC 7401 et seq.) as amended particularly Section 176(c) and (d) (42 USC 7506(c) and (d))	40 CFR Parts 6, 51 and 93

1. Does your project include new construction or conversion of land use facilitating the development of public, commercial, or industrial facilities OR five or more dwelling units?

Yes

✓ No

Based on the response, the review is in compliance with this section.

Screen Summary

Compliance Determination

A Review of the USEPA Green Book on Nonattainment Areas Criteria Pollutants indicated the following for the project county (Kings): No excursions from National Ambient Air Quality Standards (NAAQS) listed except for 8-Hour Ozone in 2015 (Moderate excursion) [In 2008 8-Hour Ozone was listed as Serious excursion). Given the nature of the Proposed Project, storm resiliency with no changes anticipated to the Property census, no increase in building emissions is anticipated. Additionally, the Proposed Project would not generate any additional vehicular traffic; therefore, no exceedances of the National Ambient Air Quality Standard ("NAAQS") associated with carbon monoxide ("CO") or particulate matter ("PM") would occur. Furthermore, the Proposed Project does not include a transportation or industrial component; therefore, the Proposed Project would not result in any new stationary source of pollutants. The Proposed Project would not adversely affect the State Implementation Plan ("SIP"). See the attached USEPA Green Book.

Supporting documentation

Hope-Gardens:-Groups-A-
E-CDBG-DR-Storm-
Resiliency-

Brooklyn, NY

900000010361422

[4 - US EPA Greenbook.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No



You are here: EPA Home > Green Book > Current Nonattainment Counties for All Criteria Pollutants

Current Nonattainment Counties for All Criteria Pollutants

Data is current as of June 30, 2023

The 8-hour Ozone (1997) standard was revoked on April 6, 2015 and the 1-hour Ozone (1979) standard was revoked on June 15, 2005.

The asterisk (*) indicates only a portion of the county is included in the designated nonattainment area (NA).

Download National Dataset of all designated areas (currently nonattainment, maintenance, revoked):

[dbf](#) | [xls](#) | [Data dictionary \(PDF\)](#)

Listed by State, County, NAAQS * Part County NA NA Area Name
(Classification, if applicable)

ALASKA

Fairbanks North Star Borough

PM-2.5 (2006) *Fairbanks, AK - (Serious)

ARIZONA

Cochise County

PM-10 (1987) *Cochise County; Paul Spur/Douglas planning area, AZ - (Moderate)

Gila County

Lead (2008) *Hayden, AZ

PM-10 (1987) *Hayden, AZ - (Moderate)

PM-10 (1987) *Miami, AZ - (Moderate)

Sulfur Dioxide (2010) *Hayden, AZ

Sulfur Dioxide (2010) *Miami, AZ

8-Hour Ozone (2015) *Phoenix-Mesa, AZ - (Moderate)

Maricopa County

PM-10 (1987) *Maricopa and Pinal Counties; Phoenix planning area, AZ - (Serious)

8-Hour Ozone (2008) *Phoenix-Mesa, AZ - (Moderate)

8-Hour Ozone (2015) *Phoenix-Mesa, AZ - (Moderate)

Pima County

PM-10 (1987) *Pima County; Rillito planning area, AZ - (Moderate)

Pinal County

Lead (2008) *Hayden, AZ

PM-10 (1987) *Hayden, AZ - (Moderate)

PM-10 (1987) *Maricopa and Pinal Counties; Phoenix planning area, AZ - (Serious)

PM-10 (1987) *Miami, AZ - (Moderate)

PM-10 (1987) *Pinal County (part); West Pinal, AZ - (Serious)

PM-2.5 (2006) *West Central Pinal, AZ - (Moderate)

Sulfur Dioxide (1971) *Hayden (Pinal County), AZ

Sulfur Dioxide (2010) *Hayden, AZ

8-Hour Ozone (2008) *Phoenix-Mesa, AZ - (Moderate)

8-Hour Ozone (2015)	*Phoenix-Mesa, AZ - (Moderate)
Santa Cruz County	
PM-10 (1987)	*Santa Cruz County; Nogales planning area, AZ - (Moderate)
Yuma County	
PM-10 (1987)	*Yuma, AZ - (Moderate)
8-Hour Ozone (2015)	*Yuma, AZ - (Marginal)
CALIFORNIA	
Alameda County	
PM-2.5 (2006)	San Francisco Bay Area, CA - (Moderate)
8-Hour Ozone (2008)	San Francisco Bay Area, CA - (Marginal)
8-Hour Ozone (2015)	San Francisco Bay Area, CA - (Marginal)
Amador County	
8-Hour Ozone (2015)	Amador County, CA - (Marginal)
Butte County	
8-Hour Ozone (2008)	Chico (Butte County), CA - (Marginal)
8-Hour Ozone (2015)	Butte County, CA - (Marginal)
Calaveras County	
8-Hour Ozone (2008)	Calaveras County, CA - (Marginal)
8-Hour Ozone (2015)	Calaveras County, CA - (Marginal)
Contra Costa County	
PM-2.5 (2006)	San Francisco Bay Area, CA - (Moderate)
8-Hour Ozone (2008)	San Francisco Bay Area, CA - (Marginal)
8-Hour Ozone (2015)	San Francisco Bay Area, CA - (Marginal)
El Dorado County	
PM-2.5 (2006)	*Sacramento, CA - (Moderate)
8-Hour Ozone (2008)	*Sacramento Metro, CA - (Severe 15)
8-Hour Ozone (2015)	*Sacramento Metro, CA - (Serious)
Fresno County	
PM-2.5 (1997)	San Joaquin Valley, CA - (Serious)
PM-2.5 (2006)	San Joaquin Valley, CA - (Serious)
PM-2.5 (2012)	San Joaquin Valley, CA - (Serious)
8-Hour Ozone (2008)	San Joaquin Valley, CA - (Extreme)
8-Hour Ozone (2015)	San Joaquin Valley, CA - (Extreme)
Imperial County	
PM-2.5 (2006)	*Imperial County, CA - (Moderate)
PM-2.5 (2012)	*Imperial County, CA - (Moderate)
8-Hour Ozone (2008)	Imperial County, CA - (Moderate)
8-Hour Ozone (2015)	Imperial County, CA - (Marginal)
Inyo County	
PM-10 (1987)	*Inyo County; Owens Valley planning area, CA - (Serious)
Kern County	
PM-10 (1987)	*East Kern County, CA - (Serious)
PM-2.5 (1997)	*San Joaquin Valley, CA - (Serious)
PM-2.5 (2006)	*San Joaquin Valley, CA - (Serious)
PM-2.5 (2012)	*San Joaquin Valley, CA - (Serious)
8-Hour Ozone (2008)	*Kern County (Eastern Kern), CA - (Severe 15)
8-Hour Ozone (2008)	*San Joaquin Valley, CA - (Extreme)
8-Hour Ozone (2015)	*Kern County (Eastern Kern), CA - (Serious)
8-Hour Ozone (2015)	*San Joaquin Valley, CA - (Extreme)
Kings County	
PM-2.5 (1997)	San Joaquin Valley, CA - (Serious)
PM-2.5 (2006)	San Joaquin Valley, CA - (Serious)
PM-2.5 (2012)	San Joaquin Valley, CA - (Serious)
8-Hour Ozone (2008)	San Joaquin Valley, CA - (Extreme)
8-Hour Ozone (2015)	San Joaquin Valley, CA - (Extreme)
Los Angeles County	
Lead (2008)	*Los Angeles County-South Coast Air Basin, CA
PM-2.5 (1997)	*Los Angeles-South Coast Air Basin, CA - (Moderate)

<i>PM-2.5 (2006)</i>	*Los Angeles-South Coast Air Basin, CA - (Serious)
<i>PM-2.5 (2012)</i>	*Los Angeles-South Coast Air Basin, CA - (Serious)
<i>8-Hour Ozone (2008)</i>	*Los Angeles-San Bernardino Counties (West Mojave Desert), CA - (Severe 15)
<i>8-Hour Ozone (2008)</i>	*Los Angeles-South Coast Air Basin, CA - (Extreme)
<i>8-Hour Ozone (2015)</i>	*Los Angeles-San Bernardino Counties (West Mojave Desert), CA - (Severe 15)
<i>8-Hour Ozone (2015)</i>	*Los Angeles-South Coast Air Basin, CA - (Extreme)
Madera County	
<i>PM-2.5 (1997)</i>	San Joaquin Valley, CA - (Serious)
<i>PM-2.5 (2006)</i>	San Joaquin Valley, CA - (Serious)
<i>PM-2.5 (2012)</i>	San Joaquin Valley, CA - (Serious)
<i>8-Hour Ozone (2008)</i>	San Joaquin Valley, CA - (Extreme)
<i>8-Hour Ozone (2015)</i>	San Joaquin Valley, CA - (Extreme)
Marin County	
<i>PM-2.5 (2006)</i>	San Francisco Bay Area, CA - (Moderate)
<i>8-Hour Ozone (2008)</i>	San Francisco Bay Area, CA - (Marginal)
<i>8-Hour Ozone (2015)</i>	San Francisco Bay Area, CA - (Marginal)
Mariposa County	
<i>8-Hour Ozone (2008)</i>	Mariposa County, CA - (Moderate)
<i>8-Hour Ozone (2015)</i>	Mariposa County, CA - (Moderate)
Merced County	
<i>PM-2.5 (1997)</i>	San Joaquin Valley, CA - (Serious)
<i>PM-2.5 (2006)</i>	San Joaquin Valley, CA - (Serious)
<i>PM-2.5 (2012)</i>	San Joaquin Valley, CA - (Serious)
<i>8-Hour Ozone (2008)</i>	San Joaquin Valley, CA - (Extreme)
<i>8-Hour Ozone (2015)</i>	San Joaquin Valley, CA - (Extreme)
Mono County	
<i>PM-10 (1987)</i>	*Mono Basin, CA - (Moderate)
Napa County	
<i>PM-2.5 (2006)</i>	San Francisco Bay Area, CA - (Moderate)
<i>8-Hour Ozone (2008)</i>	San Francisco Bay Area, CA - (Marginal)
<i>8-Hour Ozone (2015)</i>	San Francisco Bay Area, CA - (Marginal)
Nevada County	
<i>8-Hour Ozone (2008)</i>	*Nevada County (Western part), CA - (Serious)
<i>8-Hour Ozone (2015)</i>	*Nevada County (Western part), CA - (Serious)
Orange County	
<i>PM-2.5 (1997)</i>	Los Angeles-South Coast Air Basin, CA - (Moderate)
<i>PM-2.5 (2006)</i>	Los Angeles-South Coast Air Basin, CA - (Serious)
<i>PM-2.5 (2012)</i>	Los Angeles-South Coast Air Basin, CA - (Serious)
<i>8-Hour Ozone (2008)</i>	Los Angeles-South Coast Air Basin, CA - (Extreme)
<i>8-Hour Ozone (2015)</i>	Los Angeles-South Coast Air Basin, CA - (Extreme)
Placer County	
<i>PM-2.5 (2006)</i>	*Sacramento, CA - (Moderate)
<i>8-Hour Ozone (2008)</i>	*Sacramento Metro, CA - (Severe 15)
<i>8-Hour Ozone (2015)</i>	*Sacramento Metro, CA - (Serious)
Plumas County	
<i>PM-2.5 (2012)</i>	*Plumas County, CA - (Serious)
Riverside County	
<i>PM-10 (1987)</i>	*Riverside County; Coachella Valley planning area, CA - (Serious)

<i>PM-2.5 (1997)</i>	*Los Angeles-South Coast Air Basin, CA - (Moderate)
<i>PM-2.5 (2006)</i>	*Los Angeles-South Coast Air Basin, CA - (Serious)
<i>PM-2.5 (2012)</i>	*Los Angeles-South Coast Air Basin, CA - (Serious)
<i>8-Hour Ozone (2008)</i>	*Los Angeles-South Coast Air Basin, CA - (Extreme)
<i>8-Hour Ozone (2008)</i>	*Morongo Band of Mission Indians, CA - (Severe 15)
<i>8-Hour Ozone (2008)</i>	*Pechanga Band of Luiseno Mission Indians of the Pechanga Reservation, CA - (Moderate)
<i>8-Hour Ozone (2008)</i>	*Riverside County (Coachella Valley), CA - (Extreme)
<i>8-Hour Ozone (2015)</i>	*Los Angeles-South Coast Air Basin, CA - (Extreme)
<i>8-Hour Ozone (2015)</i>	*Morongo Band of Mission Indians, CA - (Serious)
<i>8-Hour Ozone (2015)</i>	*Pechanga Band of Luiseno Mission Indians of the Pechanga Reservation, CA - (Moderate)
<i>8-Hour Ozone (2015)</i>	*Riverside County (Coachella Valley), CA - (Severe 15)
Sacramento County	
<i>PM-2.5 (2006)</i>	Sacramento, CA - (Moderate)
<i>8-Hour Ozone (2008)</i>	Sacramento Metro, CA - (Severe 15)
<i>8-Hour Ozone (2015)</i>	Sacramento Metro, CA - (Serious)
San Bernardino County	
<i>PM-10 (1987)</i>	*San Bernardino County, CA - (Moderate)
<i>PM-10 (1987)</i>	*Trona, CA - (Moderate)
<i>PM-2.5 (1997)</i>	*Los Angeles-South Coast Air Basin, CA - (Moderate)
<i>PM-2.5 (2006)</i>	*Los Angeles-South Coast Air Basin, CA - (Serious)
<i>PM-2.5 (2012)</i>	*Los Angeles-South Coast Air Basin, CA - (Serious)
<i>8-Hour Ozone (2008)</i>	*Los Angeles-San Bernardino Counties (West Mojave Desert), CA - (Severe 15)
<i>8-Hour Ozone (2008)</i>	*Los Angeles-South Coast Air Basin, CA - (Extreme)
<i>8-Hour Ozone (2015)</i>	*Los Angeles-San Bernardino Counties (West Mojave Desert), CA - (Severe 15)
<i>8-Hour Ozone (2015)</i>	*Los Angeles-South Coast Air Basin, CA - (Extreme)
San Diego County	
<i>8-Hour Ozone (2008)</i>	*Pechanga Band of Luiseno Mission Indians of the Pechanga Reservation, CA - (Moderate)
<i>8-Hour Ozone (2008)</i>	*San Diego County, CA - (Severe 15)
<i>8-Hour Ozone (2015)</i>	*Pechanga Band of Luiseno Mission Indians of the Pechanga Reservation, CA - (Moderate)
<i>8-Hour Ozone (2015)</i>	*San Diego County, CA - (Severe 15)
San Francisco County	
<i>PM-2.5 (2006)</i>	San Francisco Bay Area, CA - (Moderate)
<i>8-Hour Ozone (2008)</i>	San Francisco Bay Area, CA - (Marginal)
<i>8-Hour Ozone (2015)</i>	San Francisco Bay Area, CA - (Marginal)
San Joaquin County	
<i>PM-2.5 (1997)</i>	San Joaquin Valley, CA - (Serious)
<i>PM-2.5 (2006)</i>	San Joaquin Valley, CA - (Serious)
<i>PM-2.5 (2012)</i>	San Joaquin Valley, CA - (Serious)
<i>8-Hour Ozone (2008)</i>	San Joaquin Valley, CA - (Extreme)
<i>8-Hour Ozone (2015)</i>	San Joaquin Valley, CA - (Extreme)
San Luis Obispo County	

	<i>8-Hour Ozone (2008)</i>	*San Luis Obispo (Eastern San Luis Obispo), CA - (Marginal)
	<i>8-Hour Ozone (2015)</i>	*San Luis Obispo (Eastern part), CA - (Marginal)
San Mateo County		
	<i>PM-2.5 (2006)</i>	San Francisco Bay Area, CA - (Moderate)
	<i>8-Hour Ozone (2008)</i>	San Francisco Bay Area, CA - (Marginal)
	<i>8-Hour Ozone (2015)</i>	San Francisco Bay Area, CA - (Marginal)
Santa Clara County		
	<i>PM-2.5 (2006)</i>	San Francisco Bay Area, CA - (Moderate)
	<i>8-Hour Ozone (2008)</i>	San Francisco Bay Area, CA - (Marginal)
	<i>8-Hour Ozone (2015)</i>	San Francisco Bay Area, CA - (Marginal)
Solano County		
	<i>PM-2.5 (2006)</i>	*Sacramento, CA - (Moderate)
	<i>PM-2.5 (2006)</i>	*San Francisco Bay Area, CA - (Moderate)
	<i>8-Hour Ozone (2008)</i>	*Sacramento Metro, CA - (Severe 15)
	<i>8-Hour Ozone (2008)</i>	*San Francisco Bay Area, CA - (Marginal)
	<i>8-Hour Ozone (2015)</i>	*Sacramento Metro, CA - (Serious)
	<i>8-Hour Ozone (2015)</i>	*San Francisco Bay Area, CA - (Marginal)
Sonoma County		
	<i>PM-2.5 (2006)</i>	*San Francisco Bay Area, CA - (Moderate)
	<i>8-Hour Ozone (2008)</i>	*San Francisco Bay Area, CA - (Marginal)
	<i>8-Hour Ozone (2015)</i>	*San Francisco Bay Area, CA - (Marginal)
Stanislaus County		
	<i>PM-2.5 (1997)</i>	San Joaquin Valley, CA - (Serious)
	<i>PM-2.5 (2006)</i>	San Joaquin Valley, CA - (Serious)
	<i>PM-2.5 (2012)</i>	San Joaquin Valley, CA - (Serious)
	<i>8-Hour Ozone (2008)</i>	San Joaquin Valley, CA - (Extreme)
	<i>8-Hour Ozone (2015)</i>	San Joaquin Valley, CA - (Extreme)
Sutter County		
	<i>8-Hour Ozone (2008)</i>	*Sacramento Metro, CA - (Severe 15)
	<i>8-Hour Ozone (2015)</i>	*Sacramento Metro, CA - (Serious)
	<i>8-Hour Ozone (2015)</i>	*Sutter Buttes, CA - (Marginal)
Tehama County		
	<i>8-Hour Ozone (2008)</i>	*Tuscan Buttes, CA - (Marginal)
	<i>8-Hour Ozone (2015)</i>	*Tuscan Buttes, CA - (Marginal (Rural Transport))
Tulare County		
	<i>PM-2.5 (1997)</i>	San Joaquin Valley, CA - (Serious)
	<i>PM-2.5 (2006)</i>	San Joaquin Valley, CA - (Serious)
	<i>PM-2.5 (2012)</i>	San Joaquin Valley, CA - (Serious)
	<i>8-Hour Ozone (2008)</i>	San Joaquin Valley, CA - (Extreme)
	<i>8-Hour Ozone (2015)</i>	San Joaquin Valley, CA - (Extreme)
Tuolumne County		
	<i>8-Hour Ozone (2015)</i>	Tuolumne County, CA - (Marginal)
Ventura County		
	<i>8-Hour Ozone (2008)</i>	*Ventura County, CA - (Serious)
	<i>8-Hour Ozone (2015)</i>	*Ventura County, CA - (Serious)
Yolo County		
	<i>PM-2.5 (2006)</i>	*Sacramento, CA - (Moderate)
	<i>8-Hour Ozone (2008)</i>	Sacramento Metro, CA - (Severe 15)
	<i>8-Hour Ozone (2015)</i>	Sacramento Metro, CA - (Serious)
COLORADO		
Adams County		
	<i>8-Hour Ozone (2008)</i>	Denver-Boulder-Greeley-Ft. Collins-Loveland, CO - (Severe 15)
	<i>8-Hour Ozone (2015)</i>	Denver Metro/North Front Range, CO - (Moderate)
Arapahoe County		
	<i>8-Hour Ozone (2008)</i>	Denver-Boulder-Greeley-Ft. Collins-Loveland, CO - (Severe 15)
	<i>8-Hour Ozone (2015)</i>	Denver Metro/North Front Range, CO - (Moderate)

Boulder County	
<i>8-Hour Ozone (2008)</i>	Denver-Boulder-Greeley-Ft. Collins-Loveland, CO - (Severe 15)
<i>8-Hour Ozone (2015)</i>	Denver Metro/North Front Range, CO - (Moderate)
Broomfield County	
<i>8-Hour Ozone (2008)</i>	Denver-Boulder-Greeley-Ft. Collins-Loveland, CO - (Severe 15)
<i>8-Hour Ozone (2015)</i>	Denver Metro/North Front Range, CO - (Moderate)
Denver County	
<i>8-Hour Ozone (2008)</i>	Denver-Boulder-Greeley-Ft. Collins-Loveland, CO - (Severe 15)
<i>8-Hour Ozone (2015)</i>	Denver Metro/North Front Range, CO - (Moderate)
Douglas County	
<i>8-Hour Ozone (2008)</i>	Denver-Boulder-Greeley-Ft. Collins-Loveland, CO - (Severe 15)
<i>8-Hour Ozone (2015)</i>	Denver Metro/North Front Range, CO - (Moderate)
Jefferson County	
<i>8-Hour Ozone (2008)</i>	Denver-Boulder-Greeley-Ft. Collins-Loveland, CO - (Severe 15)
<i>8-Hour Ozone (2015)</i>	Denver Metro/North Front Range, CO - (Moderate)
Larimer County	
<i>8-Hour Ozone (2008)</i>	*Denver-Boulder-Greeley-Ft. Collins-Loveland, CO - (Severe 15)
<i>8-Hour Ozone (2015)</i>	*Denver Metro/North Front Range, CO - (Moderate)
Weld County	
<i>8-Hour Ozone (2008)</i>	*Denver-Boulder-Greeley-Ft. Collins-Loveland, CO - (Severe 15)
<i>8-Hour Ozone (2015)</i>	Denver Metro/North Front Range, CO - (Moderate)
CONNECTICUT	
Fairfield County	
<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
Hartford County	
<i>8-Hour Ozone (2008)</i>	Greater Connecticut, CT - (Serious)
<i>8-Hour Ozone (2015)</i>	Greater Connecticut, CT - (Moderate)
Litchfield County	
<i>8-Hour Ozone (2008)</i>	Greater Connecticut, CT - (Serious)
<i>8-Hour Ozone (2015)</i>	Greater Connecticut, CT - (Moderate)
Middlesex County	
<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
New Haven County	
<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
New London County	
<i>8-Hour Ozone (2008)</i>	Greater Connecticut, CT - (Serious)
<i>8-Hour Ozone (2015)</i>	Greater Connecticut, CT - (Moderate)
Tolland County	

8-Hour Ozone (2008) Greater Connecticut, CT - (Serious)
8-Hour Ozone (2015) Greater Connecticut, CT - (Moderate)

Windham County

8-Hour Ozone (2008) Greater Connecticut, CT - (Serious)
8-Hour Ozone (2015) Greater Connecticut, CT - (Moderate)

DELAWARE

New Castle County

8-Hour Ozone (2008) Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Marginal)

8-Hour Ozone (2015) Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Moderate)

Sussex County

8-Hour Ozone (2008) Seaford, DE - (Marginal)

DISTRICT OF COLUMBIA

District of Columbia

8-Hour Ozone (2015) Washington, DC-MD-VA - (Moderate)

GUAM

Guam

*Sulfur Dioxide (1971)*Piti, GU*

*Sulfur Dioxide (1971)*Tanguisson, GU*

*Sulfur Dioxide (2010)*Piti-Cabras, GU*

IDAHO

Bannock County

PM-10 (1987) *Power-Bannock Counties; Fort Hall Indian Reservation, ID - (Moderate)

Power County

PM-10 (1987) *Power-Bannock Counties; Fort Hall Indian Reservation, ID - (Moderate)

ILLINOIS

Cook County

8-Hour Ozone (2015) Chicago, IL-IN-WI - (Moderate)

DuPage County

8-Hour Ozone (2015) Chicago, IL-IN-WI - (Moderate)

Grundy County

8-Hour Ozone (2015) *Chicago, IL-IN-WI - (Moderate)

Kane County

8-Hour Ozone (2015) Chicago, IL-IN-WI - (Moderate)

Kendall County

8-Hour Ozone (2015) *Chicago, IL-IN-WI - (Moderate)

Lake County

8-Hour Ozone (2015) Chicago, IL-IN-WI - (Moderate)

Madison County

*Sulfur Dioxide (2010)*Alton Township, IL*

8-Hour Ozone (2015) St. Louis, MO-IL - (Moderate)

McHenry County

8-Hour Ozone (2015) Chicago, IL-IN-WI - (Moderate)

Monroe County

8-Hour Ozone (2015) St. Louis, MO-IL - (Moderate)

St. Clair County

8-Hour Ozone (2015) St. Louis, MO-IL - (Moderate)

Will County

8-Hour Ozone (2015) Chicago, IL-IN-WI - (Moderate)

INDIANA

Huntington County

*Sulfur Dioxide (2010)*Huntington, IN*

Lake County

8-Hour Ozone (2015) *Chicago, IL-IN-WI - (Moderate)

Porter County

8-Hour Ozone (2015) *Chicago, IL-IN-WI - (Moderate)

IOWA

Muscatine County

*Sulfur Dioxide (2010)*Muscatine, IA*

KANSAS

Saline County
Lead (2008) *Saline County, KS

KENTUCKY

Boone County
8-Hour Ozone (2015) *Cincinnati, OH-KY - (Moderate)

Bullitt County
8-Hour Ozone (2015) Louisville, KY-IN - (Moderate)

Campbell County
8-Hour Ozone (2015) *Cincinnati, OH-KY - (Moderate)

Henderson County
*Sulfur Dioxide (2010)*Henderson-Webster Counties, KY*

Jefferson County
8-Hour Ozone (2015) Louisville, KY-IN - (Moderate)

Kenton County
8-Hour Ozone (2015) *Cincinnati, OH-KY - (Moderate)

Oldham County
8-Hour Ozone (2015) Louisville, KY-IN - (Moderate)

Webster County
*Sulfur Dioxide (2010)*Henderson-Webster Counties, KY*

LOUISIANA

Evangeline Parish
*Sulfur Dioxide (2010)*Evangeline Parish (Partial), LA*

St. Bernard Parish
Sulfur Dioxide (2010) St. Bernard Parish, LA

MARYLAND

Anne Arundel County
*Sulfur Dioxide (2010)*Anne Arundel County and Baltimore County, MD*
8-Hour Ozone (2008) Baltimore, MD - (Moderate)
8-Hour Ozone (2015) Baltimore, MD - (Moderate)

Baltimore County
*Sulfur Dioxide (2010)*Anne Arundel County and Baltimore County, MD*
8-Hour Ozone (2008) Baltimore, MD - (Moderate)
8-Hour Ozone (2015) Baltimore, MD - (Moderate)

Baltimore city
8-Hour Ozone (2008) Baltimore, MD - (Moderate)
8-Hour Ozone (2015) Baltimore, MD - (Moderate)

Calvert County
8-Hour Ozone (2015) Washington, DC-MD-VA - (Moderate)

Carroll County
8-Hour Ozone (2008) Baltimore, MD - (Moderate)
8-Hour Ozone (2015) Baltimore, MD - (Moderate)

Cecil County
8-Hour Ozone (2008) Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Marginal)
8-Hour Ozone (2015) Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Moderate)

Charles County
8-Hour Ozone (2015) Washington, DC-MD-VA - (Moderate)

Frederick County
8-Hour Ozone (2015) Washington, DC-MD-VA - (Moderate)

Harford County
8-Hour Ozone (2008) Baltimore, MD - (Moderate)
8-Hour Ozone (2015) Baltimore, MD - (Moderate)

Howard County
8-Hour Ozone (2008) Baltimore, MD - (Moderate)
8-Hour Ozone (2015) Baltimore, MD - (Moderate)

Montgomery County
8-Hour Ozone (2015) Washington, DC-MD-VA - (Moderate)

Prince George's County

8-Hour Ozone (2015) Washington, DC-MD-VA - (Moderate)

MASSACHUSETTS

Dukes County

8-Hour Ozone (2008) Dukes County, MA - (Marginal)

MICHIGAN

Allegan County

8-Hour Ozone (2015) *Allegan County, MI - (Moderate)

Berrien County

8-Hour Ozone (2015) Berrien County, MI - (Moderate)

Muskegon County

8-Hour Ozone (2015) *Muskegon County, MI - (Moderate)

St. Clair County

*Sulfur Dioxide (2010)**St. Clair, MI

Wayne County

*Sulfur Dioxide (2010)**Detroit, MI

MINNESOTA

Dakota County

Lead (2008) *Eagan, MN

MISSOURI

Dent County

Lead (2008) *Iron, Dent, and Reynolds Counties, MO

Franklin County

8-Hour Ozone (2015) *St. Louis, MO-IL - (Moderate)

Iron County

Lead (2008) *Iron, Dent, and Reynolds Counties, MO

Jefferson County

Lead (1978) *Jefferson County (part); Herculaneum, MO

Lead (2008) *Jefferson County, MO

8-Hour Ozone (2015) St. Louis, MO-IL - (Moderate)

New Madrid County

*Sulfur Dioxide (2010)**New Madrid County, MO

Reynolds County

Lead (2008) *Iron, Dent, and Reynolds Counties, MO

St. Charles County

8-Hour Ozone (2015) St. Louis, MO-IL - (Moderate)

St. Louis County

8-Hour Ozone (2015) St. Louis, MO-IL - (Moderate)

St. Louis city

8-Hour Ozone (2015) St. Louis, MO-IL - (Moderate)

MONTANA

Lake County

PM-10 (1987) *Lake County; Polson, MT - (Moderate)

PM-10 (1987) *Lake County; Ronan, MT - (Moderate)

Lincoln County

PM-2.5 (1997) *Libby, MT - (Moderate)

Rosebud County

PM-10 (1987) *Rosebud County; Lame Deer, MT - (Moderate)

Yellowstone County

*Sulfur Dioxide (1971)**Laurel Area (Yellowstone County), MT

NEVADA

Clark County

8-Hour Ozone (2015) *Las Vegas, NV - (Moderate)

NEW JERSEY

Atlantic County

8-Hour Ozone (2008) Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Marginal)

8-Hour Ozone (2015) Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Moderate)

Bergen County

8-Hour Ozone (2008) New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)

<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
Burlington County	
<i>8-Hour Ozone (2008)</i>	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Marginal)
<i>8-Hour Ozone (2015)</i>	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Moderate)
Camden County	
<i>8-Hour Ozone (2008)</i>	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Marginal)
<i>8-Hour Ozone (2015)</i>	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Moderate)
Cape May County	
<i>8-Hour Ozone (2008)</i>	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Marginal)
<i>8-Hour Ozone (2015)</i>	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Moderate)
Cumberland County	
<i>8-Hour Ozone (2008)</i>	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Marginal)
<i>8-Hour Ozone (2015)</i>	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Moderate)
Essex County	
<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
Gloucester County	
<i>8-Hour Ozone (2008)</i>	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Marginal)
<i>8-Hour Ozone (2015)</i>	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Moderate)
Hudson County	
<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
Hunterdon County	
<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
Mercer County	
<i>8-Hour Ozone (2008)</i>	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Marginal)
<i>8-Hour Ozone (2015)</i>	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Moderate)
Middlesex County	
<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
Monmouth County	
<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
Morris County	
<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)

	<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
Ocean County		
	<i>8-Hour Ozone (2008)</i>	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Marginal)
	<i>8-Hour Ozone (2015)</i>	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Moderate)
Passaic County		
	<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
	<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
Salem County		
	<i>8-Hour Ozone (2008)</i>	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Marginal)
	<i>8-Hour Ozone (2015)</i>	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Moderate)
Somerset County		
	<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
	<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
Sussex County		
	<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
	<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
Union County		
	<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
	<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
Warren County		
	<i>Sulfur Dioxide (1971)</i>	*Warren County, NJ
	<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
	<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
NEW MEXICO		
Dona Ana County		
	<i>PM-10 (1987)</i>	*Dona Ana County; Anthony, NM - (Moderate)
	<i>8-Hour Ozone (2015)</i>	*El Paso-Las Cruces, TX-NM - (Marginal)
NEW YORK		
Bronx County		
	<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
	<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
Chautauqua County		
	<i>8-Hour Ozone (2008)</i>	Jamestown, NY - (Marginal)
Kings County		
	<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
	<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
Nassau County		
	<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
	<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
New York County		

<i>PM-10 (1987)</i>	New York County, NY - (Moderate)
<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
Queens County	
<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
Richmond County	
<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
Rockland County	
<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
St. Lawrence County	
<i>Sulfur Dioxide (2010)</i>	*St. Lawrence County, NY
Suffolk County	
<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)
Westchester County	
<i>8-Hour Ozone (2008)</i>	New York-N. New Jersey-Long Island, NY-NJ-CT - (Severe 15)
<i>8-Hour Ozone (2015)</i>	New York-Northern New Jersey-Long Island, NY-NJ-CT - (Moderate)

OHIO

Cuyahoga County	
<i>8-Hour Ozone (2015)</i>	Cleveland, OH - (Moderate)
Geauga County	
<i>8-Hour Ozone (2015)</i>	Cleveland, OH - (Moderate)
Lake County	
<i>8-Hour Ozone (2015)</i>	Cleveland, OH - (Moderate)
Lorain County	
<i>8-Hour Ozone (2015)</i>	Cleveland, OH - (Moderate)
Medina County	
<i>8-Hour Ozone (2015)</i>	Cleveland, OH - (Moderate)
Morgan County	
<i>Sulfur Dioxide (2010)</i>	*Muskingum River, OH
Portage County	
<i>8-Hour Ozone (2015)</i>	Cleveland, OH - (Moderate)
Stark County	
<i>Lead (2008)</i>	*Canton-Stark County, OH
Summit County	
<i>8-Hour Ozone (2015)</i>	Cleveland, OH - (Moderate)
Washington County	
<i>Sulfur Dioxide (2010)</i>	*Muskingum River, OH

OREGON

Klamath County	
<i>PM-2.5 (2006)</i>	*Klamath Falls, OR - (Moderate)

PENNSYLVANIA

Allegheny County	
<i>PM-2.5 (1997)</i>	*Liberty-Clairton, PA - (Moderate)
<i>PM-2.5 (2006)</i>	*Liberty-Clairton, PA - (Moderate)
<i>PM-2.5 (2012)</i>	Allegheny County, PA - (Moderate)

*Sulfur Dioxide (2010)** Allegheny, PA
8-Hour Ozone (2008) Pittsburgh-Beaver Valley, PA - (Marginal)

Armstrong County
*Sulfur Dioxide (1971)** Armstrong County: Madison, Mahoning, Boggs, Washington, Pine, PA
*Sulfur Dioxide (2010)** Indiana, PA
8-Hour Ozone (2008) Pittsburgh-Beaver Valley, PA - (Marginal)

Beaver County
Lead (2008) *Lower Beaver Valley, PA
*Sulfur Dioxide (2010)** Beaver, PA
8-Hour Ozone (2008) Pittsburgh-Beaver Valley, PA - (Marginal)

Berks County
Lead (2008) *Lyons, PA
Lead (2008) *North Reading, PA
8-Hour Ozone (2008) Reading, PA - (Marginal)

Bucks County
8-Hour Ozone (2008) Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Marginal)
8-Hour Ozone (2015) Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Moderate)

Butler County
8-Hour Ozone (2008) Pittsburgh-Beaver Valley, PA - (Marginal)

Carbon County
8-Hour Ozone (2008) Allentown-Bethlehem-Easton, PA - (Marginal)

Chester County
8-Hour Ozone (2008) Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Marginal)
8-Hour Ozone (2015) Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Moderate)

Delaware County
8-Hour Ozone (2008) Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Marginal)
8-Hour Ozone (2015) Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Moderate)

Fayette County
8-Hour Ozone (2008) Pittsburgh-Beaver Valley, PA - (Marginal)

Indiana County
Sulfur Dioxide (2010) Indiana, PA

Lancaster County
8-Hour Ozone (2008) Lancaster, PA - (Marginal)

Lehigh County
8-Hour Ozone (2008) Allentown-Bethlehem-Easton, PA - (Marginal)

Montgomery County
8-Hour Ozone (2008) Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Marginal)
8-Hour Ozone (2015) Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Moderate)

Northampton County
8-Hour Ozone (2008) Allentown-Bethlehem-Easton, PA - (Marginal)

Philadelphia County
8-Hour Ozone (2008) Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Marginal)
8-Hour Ozone (2015) Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE - (Moderate)

Warren County
*Sulfur Dioxide (2010)** Warren, PA

Washington County
8-Hour Ozone (2008) Pittsburgh-Beaver Valley, PA - (Marginal)

Westmoreland County
8-Hour Ozone (2008) Pittsburgh-Beaver Valley, PA - (Marginal)

PUERTO RICO

Arecibo Municipio

Lead (2008) *Arecibo, PR

Bayamon Municipio

*Sulfur Dioxide (2010)**San Juan, PR

Catano Municipio

Sulfur Dioxide (2010) San Juan, PR

Guaynabo Municipio

*Sulfur Dioxide (2010)**San Juan, PR

Salinas Municipio

*Sulfur Dioxide (2010)**Guayama-Salinas, PR

San Juan Municipio

*Sulfur Dioxide (2010)**San Juan, PR

Toa Baja Municipio

*Sulfur Dioxide (2010)**San Juan, PR**TENNESSEE**

Sullivan County

*Sulfur Dioxide (2010)**Sullivan County, TN**TEXAS**

Anderson County

*Sulfur Dioxide (2010)**Freestone and Anderson Counties, TX

Bexar County

8-Hour Ozone (2015) San Antonio, TX - (Moderate)

Brazoria County

8-Hour Ozone (2008) Houston-Galveston-Brazoria, TX - (Severe 15)*8-Hour Ozone (2015)* Houston-Galveston-Brazoria, TX - (Moderate)

Chambers County

8-Hour Ozone (2008) Houston-Galveston-Brazoria, TX - (Severe 15)*8-Hour Ozone (2015)* Houston-Galveston-Brazoria, TX - (Moderate)

Collin County

8-Hour Ozone (2008) Dallas-Fort Worth, TX - (Severe 15)*8-Hour Ozone (2015)* Dallas-Fort Worth, TX - (Moderate)

Dallas County

8-Hour Ozone (2008) Dallas-Fort Worth, TX - (Severe 15)*8-Hour Ozone (2015)* Dallas-Fort Worth, TX - (Moderate)

Denton County

8-Hour Ozone (2008) Dallas-Fort Worth, TX - (Severe 15)*8-Hour Ozone (2015)* Dallas-Fort Worth, TX - (Moderate)

El Paso County

PM-10 (1987) *El Paso County, TX - (Moderate)*8-Hour Ozone (2015)* El Paso-Las Cruces, TX-NM - (Marginal)

Ellis County

8-Hour Ozone (2008) Dallas-Fort Worth, TX - (Severe 15)*8-Hour Ozone (2015)* Dallas-Fort Worth, TX - (Moderate)

Fort Bend County

8-Hour Ozone (2008) Houston-Galveston-Brazoria, TX - (Severe 15)*8-Hour Ozone (2015)* Houston-Galveston-Brazoria, TX - (Moderate)

Freestone County

*Sulfur Dioxide (2010)**Freestone and Anderson Counties, TX

Galveston County

8-Hour Ozone (2008) Houston-Galveston-Brazoria, TX - (Severe 15)*8-Hour Ozone (2015)* Houston-Galveston-Brazoria, TX - (Moderate)

Harris County

8-Hour Ozone (2008) Houston-Galveston-Brazoria, TX - (Severe 15)*8-Hour Ozone (2015)* Houston-Galveston-Brazoria, TX - (Moderate)

Howard County

*Sulfur Dioxide (2010)**Howard County, TX

Hutchinson County

*Sulfur Dioxide (2010)**Hutchinson County, TX

Johnson County

8-Hour Ozone (2008) Dallas-Fort Worth, TX - (Severe 15)*8-Hour Ozone (2015)* Dallas-Fort Worth, TX - (Moderate)

Kaufman County*8-Hour Ozone (2008)* Dallas-Fort Worth, TX - (Severe 15)*8-Hour Ozone (2015)* Dallas-Fort Worth, TX - (Moderate)**Liberty County***8-Hour Ozone (2008)* Houston-Galveston-Brazoria, TX - (Severe 15)**Montgomery County***8-Hour Ozone (2008)* Houston-Galveston-Brazoria, TX - (Severe 15)*8-Hour Ozone (2015)* Houston-Galveston-Brazoria, TX - (Moderate)**Navarro County***Sulfur Dioxide (2010)**Navarro County, TX**Panola County***Sulfur Dioxide (2010)**Rusk and Panola Counties, TX**Parker County***8-Hour Ozone (2008)* Dallas-Fort Worth, TX - (Severe 15)*8-Hour Ozone (2015)* Dallas-Fort Worth, TX - (Moderate)**Rockwall County***8-Hour Ozone (2008)* Dallas-Fort Worth, TX - (Severe 15)**Rusk County***Sulfur Dioxide (2010)**Rusk and Panola Counties, TX**Tarrant County***8-Hour Ozone (2008)* Dallas-Fort Worth, TX - (Severe 15)*8-Hour Ozone (2015)* Dallas-Fort Worth, TX - (Moderate)**Titus County***Sulfur Dioxide (2010)**Titus County, TX**Waller County***8-Hour Ozone (2008)* Houston-Galveston-Brazoria, TX - (Severe 15)**Wise County***8-Hour Ozone (2008)* Dallas-Fort Worth, TX - (Severe 15)*8-Hour Ozone (2015)* Dallas-Fort Worth, TX - (Moderate)**UTAH****Box Elder County***PM-2.5 (2006)* *Salt Lake City, UT - (Serious)**Davis County***PM-2.5 (2006)* Salt Lake City, UT - (Serious)*8-Hour Ozone (2015)* Northern Wasatch Front, UT - (Moderate)**Duchesne County***8-Hour Ozone (2015)**Uinta Basin, UT - (Marginal)**Salt Lake County***PM-2.5 (2006)* Salt Lake City, UT - (Serious)*Sulfur Dioxide (1971)* Salt Lake County, UT*8-Hour Ozone (2015)* Northern Wasatch Front, UT - (Moderate)**Tooele County***PM-2.5 (2006)* *Salt Lake City, UT - (Serious)*Sulfur Dioxide (1971)**Tooele County, UT*8-Hour Ozone (2015)**Northern Wasatch Front, UT - (Moderate)**Uintah County***8-Hour Ozone (2015)**Uinta Basin, UT - (Marginal)**Utah County***PM-2.5 (2006)* *Provo, UT - (Serious)*8-Hour Ozone (2015)**Southern Wasatch Front, UT - (Marginal)**Weber County***PM-2.5 (2006)* *Salt Lake City, UT - (Serious)*8-Hour Ozone (2015)**Northern Wasatch Front, UT - (Moderate)**VIRGINIA****Alexandria city***8-Hour Ozone (2015)* Washington, DC-MD-VA - (Moderate)**Arlington County***8-Hour Ozone (2015)* Washington, DC-MD-VA - (Moderate)**Fairfax County***8-Hour Ozone (2015)* Washington, DC-MD-VA - (Moderate)**Fairfax city**

8-Hour Ozone (2015) Washington, DC-MD-VA - (Moderate)

Falls Church city

8-Hour Ozone (2015) Washington, DC-MD-VA - (Moderate)

Giles County

*Sulfur Dioxide (2010)**Giles County, VA

Loudoun County

8-Hour Ozone (2015) Washington, DC-MD-VA - (Moderate)

Manassas Park city

8-Hour Ozone (2015) Washington, DC-MD-VA - (Moderate)

Manassas city

8-Hour Ozone (2015) Washington, DC-MD-VA - (Moderate)

Prince William County

8-Hour Ozone (2015) Washington, DC-MD-VA - (Moderate)

WASHINGTON

Whatcom County

*Sulfur Dioxide (2010)**Whatcom County, WA

WISCONSIN

Kenosha County

8-Hour Ozone (2015) *Chicago, IL-IN-WI - (Moderate)

Milwaukee County

8-Hour Ozone (2015) Milwaukee, WI - (Moderate)

Ozaukee County

8-Hour Ozone (2015) Milwaukee, WI - (Moderate)

Racine County

8-Hour Ozone (2015) *Milwaukee, WI - (Moderate)

Sheboygan County

8-Hour Ozone (2015) *Sheboygan County, WI - (Moderate)

Washington County

8-Hour Ozone (2015) *Milwaukee, WI - (Moderate)

Waukesha County

8-Hour Ozone (2015) *Milwaukee, WI - (Moderate)

WYOMING

Lincoln County

8-Hour Ozone (2008) *Upper Green River Basin Area, WY - (Marginal)

Sublette County

8-Hour Ozone (2008) Upper Green River Basin Area, WY - (Marginal)

Sweetwater County

8-Hour Ozone (2008) *Upper Green River Basin Area, WY - (Marginal)

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2023-06-30

Coastal Zone Management Act

General requirements	Legislation	Regulation
Federal assistance to applicant agencies for activities affecting any coastal use or resource is granted only when such activities are consistent with federally approved State Coastal Zone Management Act Plans.	Coastal Zone Management Act (16 USC 1451-1464), particularly section 307(c) and (d) (16 USC 1456(c) and (d))	15 CFR Part 930

1. Is the project located in, or does it affect, a Coastal Zone as defined in your state Coastal Management Plan?

Yes

No

Based on the response, the review is in compliance with this section. Document and upload all documents used to make your determination below.

Screen Summary

Compliance Determination

The Project Site is not located within New York City's designated Coastal Zone Boundary or with Waterfront Revitalization Program boundaries; therefore, the Proposed Project would not violate the Coastal Zone Management Act. See the attached Coastal Zone Boundary Map.

Supporting documentation

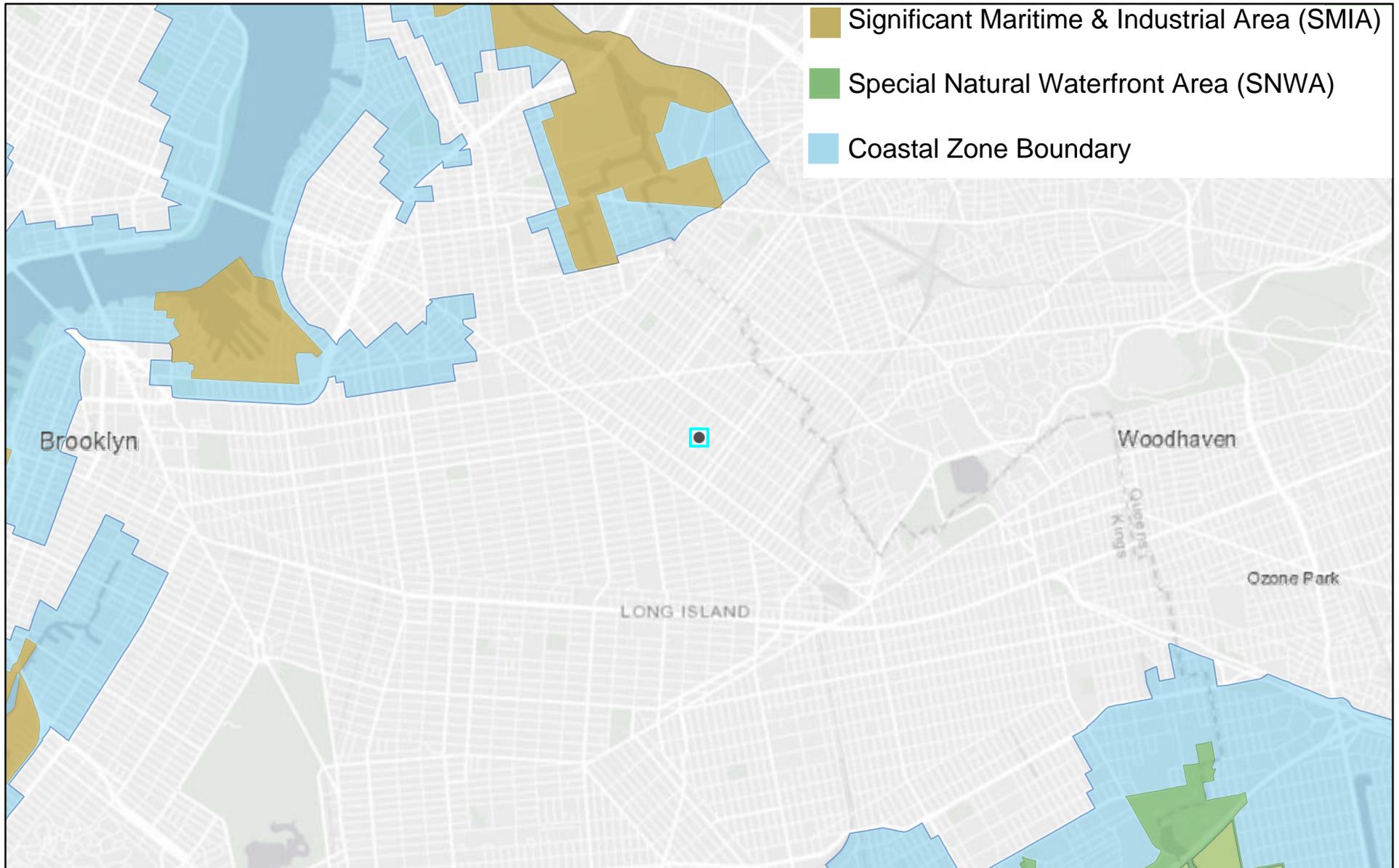
[5 - Coastal Zone Map.pdf](#)

Are formal compliance steps or mitigation required?

Yes

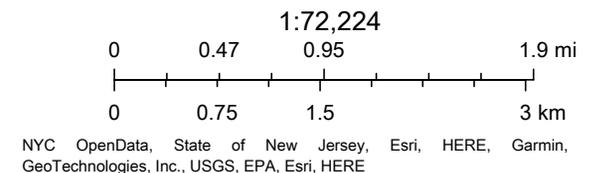
No

NYC Waterfront Revitalization Program - Hope Gardens (CDBG-DR)



October 19, 2023

The WRP is authorized by NYS's Waterfront Revitalization of Coastal Areas and Inland Waterways Act, which was enacted in response to the Federal Coastal Zone Management Act, and allows municipalities to participate in the State's Coastal Management Program by creating their own local Waterfront Revitalization Program.



Contamination and Toxic Substances

General requirements	Legislation	Regulations
It is HUD policy that all properties that are being proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of the occupants or conflict with the intended utilization of the property.		24 CFR 58.5(i)(2) 24 CFR 50.3(i)

1. How was site contamination evaluated? Select all that apply. Document and upload documentation and reports and evaluation explanation of site contamination below.

- American Society for Testing and Materials (ASTM) Phase I Environmental Site Assessment (ESA)
ASTM Phase II ESA
- Remediation or clean-up plan
- ASTM Vapor Encroachment Screening
- None of the Above

2. Were any on-site or nearby toxic, hazardous, or radioactive substances found that could affect the health and safety of project occupants or conflict with the intended use of the property? (Were any recognized environmental conditions or RECs identified in a Phase I ESA and confirmed in a Phase II ESA?)

No

- Yes

3. Mitigation

Document and upload the mitigation needed according to the requirements of the appropriate federal, state, tribal, or local oversight agency. If the adverse environmental effects cannot be mitigated, then HUD assistance may not be used for the project at this site.

Can adverse environmental impacts be mitigated?

Adverse environmental impacts cannot feasibly be mitigated.

- ✓ Yes, adverse environmental impacts can be eliminated through mitigation. Document and upload all mitigation requirements below.

4. Describe how compliance was achieved in the text box below. Include any of the following that apply: State Voluntary Clean-up Program, a No Further Action letter, use of engineering controls, or use of institutional controls.

Phase I ESAs were prepared for the Project Area in 2018 (as required, through the PACT conversion) and in August of 2023 for the purposes of this project. As part of the PACT conversion, multiple contaminants (VOCs, SVOCs, metals, PCBs and Pesticides) were identified in soil, groundwater, and/or soil vapor. Remedial Action Reports (RAR) dated May 2022 (Groups A and E) and August 2021 (Groups B, C, and D) were prepared by HK Engineering & Geology, D.P.C. and detail remedial actions that were taken, which achieved protection of public health and the environment for the intended use of the property. The remedial action consisted of the following tasks: 1. Selection of Restricted-Residential Use (Track 2) Soil Cleanup Objectives (SCOs). 2. Site mobilization involving Site security setup, equipment mobilization, utility mark outs, marking and staking excavation areas. 3. Excavation and removal of soil/fill for new landscaping. Transportation and off-Site disposal of excavated soil/fill material at licensed or permitted facilities in accordance with applicable laws and regulations for handling, transport, and disposal, and this plan. Sampling and analysis of excavated media as required by disposal facilities. Appropriate segregation of excavated media on-Site. 4. Imported materials used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations. 5. As part of development, two feet of clean soil in all newly landscaped areas including in areas identified in the RAWPs. For Groups A & E: 6. Performed all activities required for the remedial action, including acquisition of required permits and attainment of pretreatment requirements, in compliance with applicable laws and regulations. For Group A, a total of 58 cubic yards of soil were excavated and removed. For Group E, a total of 66 cubic yards of soil were excavated and removed. The material was classified as non-hazardous, non-contaminated, and transported to an approved disposal facility. Clean backfill (approximately 180 cubic yards) was imported and was 2 feet in thickness, capping the native soil. For Groups B, C and D 6. A composite cover consisting of a 2.5" thick concrete slab and 20-mil vapor barrier was installed at 1320 Gates Avenue, 1300 Gates Avenue, 200 Palmetto Street, 390 Wilson Avenue, 191 Woodbine Avenue, 440 Central Avenue and 431 Evergreen Avenue. 7. Performed all activities required for the remedial action, including acquisition of required permits and attainment of pretreatment requirements, in compliance with applicable laws and regulations. 8. A

total of 25 cubic yards of soil was excavated, removed, and classified as non-hazardous, non-contaminated material. It was transported to an approved disposal facility. Clean backfill (approx. 60 cubic yards) was imported to the property and was 2 feet in thickness, capping the native soil. NYC DEP approval/concurrence was obtained in letters dated November 3, 2021 and July 19, 2022 (Attachment 6.1). The 2023 Phase I ESAs were conducted as follows: Groups A&E dated August 18, 2023 (Attachment 6.2), and Groups B, C & D, dated August 21, 2023 (Attachment 6.3). No new RECs were identified, and no further investigation was recommended. The Phase I Reports details the Controlled Recognized Environmental Conditions (CRECs) associated with the remedial actions completed at the Project Sites, which are subject to engineering and institutional controls. While no significant excavation/soil disposal is anticipated for the DR-funded project, some digging/trenching is required to connect utility lines from the existing buildings to the pods. Given the level of remediation already achieved at the site, the presence of soil contamination during the project is not anticipated. However, all activities will be in accordance with applicable regulations and the approved Soil Management Plan (Attachment 6.4).

If a remediation plan or clean-up program was necessary, which standard does it follow?

Complete removal

✓ Risk-based corrective action (RBCA)

Screen Summary

Compliance Determination

Site contamination was evaluated as follows: ASTM Phase I ESA, Remediation or clean-up plan, ASTM Vapor Encroachment Screening. On-site or nearby toxic, hazardous, or radioactive substances were found that could affect the health and safety of project occupants or conflict with the intended use of the property. The adverse environmental impacts can be mitigated. With mitigation, identified in the mitigation section of this review, the project will be in compliance with contamination and toxic substances requirements.

Supporting documentation

[6-3 - Phase I Groups B-D.pdf](#)

[6-6 - Remedial Action Reports Groups B-D.pdf](#)

Hope-Gardens:-Groups-A-
E-CDBG-DR-Storm-
Resiliency-

Brooklyn, NY

900000010361422

[6-5 - Remedial Action Reports Groups A-C.pdf](#)

[6-4 - Soil Management Plan Excerpt.pdf](#)

[6-2 - Phase 1 Groups A and E.pdf](#)

[6-1 - Remedial Action Plan.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No



November 3, 2021

Jenelle Gomes
Environmental Planner
New York City Housing Authority
90 Church Street
New York, NY 10007

Vincent Sapienza, P.E.
Commissioner

Angela Licata
*Deputy Commissioner of
Sustainability*

59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
Fax (718) 595-4422
alicata@dep.nyc.gov

Re: NYCHA RAD Bundle 3
Bushwick Groups B, C and D: Block 3332, Lot 1; Block 3332, Lot 1; Block, 3342, Lot 1; Block 3351, Lot 1; Block 3359, Lot 29; Block 3350, Lot 28; Block 3415, Lot 39; Block 3276, Lot 1; Block 3286, Lot 1; Block 3275, Lot 47; Block 3285, Lot 49; Block 3297, Lot 1; and Block 3296, Lot 46
Hope Gardens: Block 3315, Lot 1 and Block 3324, Lot 19
Palmetto Gardens: Block 3340, Lot 20
CEQR # 77CHA002K

Dear Ms. Gomes:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the August 2021 Remedial Action Reports (Remedial Closure Report) prepared by HK Engineering & Geology D.P.C. on behalf of Pennrose, LLC (applicant) for the above referenced project. It is our understanding that the New York City Housing Authority (NYCHA), along with the applicant intends to convert the bundle of Brooklyn NYCHA buildings into the U.S. Department of Housing and Urban Development Rental Assistance Demonstration Program. The proposed action involves an application by NYCHA for a long-term ground lease with a selected development team pursuant to Section 18 of the Housing Act of 1937 (Section 18 disposition), and a conversion to Project-Based Section 8 rental. The proposed action would allow for a public/private partnership between NYCHA and the selected development team, joint venture of Hunt Development Group, LLC, Pennrose Properties, LLC and Acacia Network, for financing, capital rehabilitation, operation, property management, and social service delivery at Bushwick II B & D and Hope Gardens.

Bushwick Groups B, C and D

DEP finds the August 2021 Remedial Closure Report, which summarizes the remedial activities completed; including proper handling, transportation and disposal of 25 cubic yards of soil in accordance with applicable laws and regulations; installation of an active sub-slab depressurization system (SSDS) at 105 Palmetto Street, 210 Palmetto Street, 415 Evergreen Avenue, 422 Central Avenue, and 1201 Gates Avenue; installation of a composite cover system consisting of a concrete slab and 20-mil Stego Industries vapor barrier at

1320 Gates Avenue, 1300 Gates Avenue, 200 Palmetto Street, 390 Wilson Avenue, 191 Woodbine Avenue, 440 Central Avenue and 431 Evergreen Avenue; and installation of 2 feet of clean fill in landscaped areas, acceptable. Therefore, DEP has no objection to the issuance of any remaining permits (i.e., Certificate of Occupancy) by the New York City Department of Buildings that is related to this project.

Hope Gardens

DEP finds the August 2021 Remedial Closure Report, which summarizes the remedial activities completed; including decommissioning the 20,000 gallon No. 2 heating oil tank located at 140 Menahan Street and 15,000 gallon No. 2 heating oil tank located at 330 Wilson Avenue in accordance with New York State Department of Environmental Conservation (NYSDEC) requirements; proper handling, transportation and disposal of 7 cubic yards of soil in accordance with applicable laws and regulations; and installation of 2 feet of clean fill in landscaped areas, acceptable. Therefore, DEP has no objection to the issuance of any remaining permits (i.e., Certificate of Occupancy) by the New York City Department of Buildings that is related to this project.

Palmetto Gardens

DEP finds the August 2021 Remedial Closure Report, which summarizes the remedial activities completed; including decommissioning the 12,000 gallon No. 2 heating oil tank in accordance with applicable laws and regulations; proper handling, transportation and disposal of 6 cubic yards of soil in accordance with applicable laws and regulations; and installation of 2 feet of clean fill in landscaped areas, acceptable. Therefore, DEP has no objection to the issuance of any remaining permits (i.e., Certificate of Occupancy) by the New York City Department of Buildings that is related to this project.

Future correspondence and submittals related to this project should include the following CEQR # **77CHA002K**. If you have any questions, you may contact Scott Davidow, P.G. at (718) 595-7716.

Sincerely,



Wei Yu

Deputy Director, Hazardous Materials

- c: R. Weissbard
- S. Davidow
- T. Estes
- M. Wimbish
- R. Lucas
- D. Abreu - NYCHA



July 19, 2022

Jenelle Gomes
Senior Environmental Planner
New York City Housing Authority
90 Church Street
New York, NY 10007

Rohit T. Aggarwala
Commissioner

Re: NYCHA RAD Bundle 3
Bushwick Group A: Block 3410, Lots 1 and 33; Block 3403, Lot 1; Block 3409, Lot 32; and Block 3415, Lot 39
Bushwick Group E: Block 3316, Lot 1; Block 3325, Lot 1; and Block 3334, Lot 1
CEQR # 77CHA002K

Angela Licata
Deputy Commissioner
Sustainability

59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
alicata@dep.nyc.gov

Dear Ms. Gomes:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the May 2022 Remedial Action Report (Remedial Closure Report) prepared by HK Engineering & Geology D.P.C. on behalf of Pennrose, LLC (applicant) for the above referenced project. It is our understanding that the New York City Housing Authority (NYCHA), along with applicant intends to convert the bundle of Brooklyn NYCHA buildings into the U.S. Department of Housing and Urban Development Rental Assistance Demonstration (RAD) Program. Under the RAD program, NYCHA will convert developments to project-based Section 8 programs. The goal of RAD is to allow NYCHA to leverage public and private debt and equity to reinvest into major repairs and ongoing maintenance in these developments. The proposed project includes rehabilitation and renovation activities to the site building and exterior areas. Exterior work includes landscaping and re-surfacing throughout the site, restoring the parking and surface and/or shallow subsurface disturbance.

DEP finds the May 2022 Remedial Closure Report, which summarizes the remedial activities completed; including proper handling, transportation and disposal of a total of 58 cubic yards of non-hazardous, non-contaminated soil from the Group A properties and a total of 66 cubic yards of non-hazardous, non-contaminated soil from the Group E properties in accordance with applicable laws and regulations; and installation of 2 feet of clean fill in landscaped areas, acceptable. Therefore, DEP has no objection to the issuance of any remaining permits (i.e., Certificate of Occupancy) by the New York City Department of Buildings that is related to this project.

Future correspondence and submittals related to this project should include the following CEQR # **77CHA002K**. If you have any questions, you may contact Scott Davidow, P.G. at (718) 595-7716.

Sincerely,



Wei Yu

Deputy Director, Hazardous Materials

c: R. Weissbard
S. Davidow
T. Estes
M. Wimbish
D. Abreu – NYCHA



HILLMANN
CONSULTING

PHASE I ENVIRONMENTAL SITE ASSESSMENT



MAKING A BETTER FUTURE FOR ALL THE COMMUNITIES WE TOUCH

BUSHWICK GROUPS A & E

Brooklyn, New York

PREPARED FOR:

BUSHWICK GARDENS I LLC
230 WYOMING AVENUE
PHILADELPHIA, PENNSYLVANIA 18704

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HILLMANN PROJECT NUMBER: Z35093.1

AUGUST 18, 2023

Your Property. Our Priority

Environmental Health & Safety | Due Diligence & Remediation Services | Construction Services



August 18, 2023

Mr. Dylan Salmons
Bushwick Gardens I LLC
230 Wyoming Avenue
Philadelphia, Pennsylvania 18704

RE: Phase I Environmental Site Assessment

Bushwick-Groups A & E
Brooklyn, New York
Hillmann Project No: Z35093.1

Dear Mr. Salmons:

Hillmann Consulting, LLC has completed a Phase I Environmental Site Assessment of the above referenced property. This assessment was performed in conformance with our contract agreement and the scope and limitations of ASTM Practice E 1527-21, which is the latest version of the E 1527-21 standard published by the ASTM; and applicable requirements of Section 9.4.1-Phase I Environmental Site Assessment Requirements of the US Department of Housing and Urban Development Multifamily Accelerated Processing Guide-Chapter 9-Environmental Review and Requirements.

We appreciate the opportunity to provide environmental consulting services. If you have any questions concerning this report, or if we can assist you in any other matter, please contact our office at 908-688-7800.

Sincerely,

Hillmann Consulting, LLC

Chris Hirschmann
Environmental Services Director

Dave Rutherford
Technical Director

Your Property. Our Priority

Environmental Health & Safety | Due Diligence & Remediation Services | Construction Services

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List of Acronyms/Abbreviations

Hillmann may use the following abbreviations and acronyms for common terminology described in our report. Not all abbreviations or acronyms may be applicable to this report:

AOC	– Area of Concern
AST	– Aboveground Storage Tank
ASTM	– American Society for Testing Materials
BER	– Business Environmental Risk
CERCLA	– Comprehensive Environmental Response Compensation and Liability Act
CERCLIS	– Comprehensive Environmental Response Compensation and Liability Information System
CESQG	– Conditionally Exempt Small Quantity Generator
COC	– Chemicals of Concern
CORRACTS	– Corrective Action Sites
CREC	– Controlled Recognized Environmental Condition
DEC	– Department of Environmental Conservation
DEP	– Department of Environmental Protection
DHS	– Department of Health Services
DNPL	– Delisted National Priority List
DOB	– Department of Buildings
DOH	– Department of Health
DOT	– Department of Transportation
EPA	– Environmental Protection Agency
ERNS	– Emergency Response Notification System
FD	– Fire Department
FOI/FOIA/FOIL	– Freedom of Information / Freedom of Information Act / Freedom of Information Letter
HVAC	– Heating Ventilation & Air Conditioning
HREC	– Historical Recognized Environmental Condition
IAQ	– Indoor Air Quality
ISRA	– Industrial Site Recovery Act
LBP	– Lead-Based Paint
LCP	– Lead-Containing Paint
LQG	– Large Quantity Generator
LTANK	– Leaking Storage Tank
LUST	– Leaking Underground Storage Tank
SDS/MSDS	– Safety Data Sheet / Material Safety Data Sheet
NA	– Not Applicable
NFA	– No Further Action
NFRAP	– No Further Remedial Actions Planned
NPDES	– National Pollutant Discharge Elimination System
NPL	– National Priority List
OPRA	– Open Public Records Act
PAH	– Polycyclic Aromatic Hydrocarbon
PCE	– Perchloroethylene
RAO	– Response Action Outcome
RCRA	– Resource Conservation and Recovery Act
RCRIS	– Resource Conservation and Recovery Information System
REC	– Recognized Environmental Condition
SDG	– Significant Data Gap
SEMS	– Superfund Enterprise Management System
SRP	– Site Remediation Program
SQG	– Small Quantity Generator
SVOC	– Semi-Volatile Organic Compound
TCE	– Trichloroethylene
TSDF	– Treatment Storage and/or Disposal Facility
UST	– Underground Storage Tank
VEC	– Vapor Encroachment Condition
VOC	– Volatile Organic Compound

1.0 INTRODUCTION

1.1 Executive Summary

Hillmann Consulting, LLC (Hillmann) performed a Phase I Environmental Site Assessment (ESA) of Bushwick-Groups A & E, Brooklyn, New York (the Subject Property) in accordance with the ASTM Standard Practice E 1527-21, and applicable requirements of the US Department of Housing and Urban Development. This section contains a summary of findings, opinions and conclusions made by this assessment. However, this section, alone, does not constitute the complete assessment. The report must be read in its entirety.

Summary of Project Details

Primary Street Addresses:	580 Central Avenue; 605, 615, 670, 690 Evergreen Avenue; 333, 349 & 357 Wilson Avenue				
City:	Brooklyn	County:	Kings	State:	New York
Tax ID/Parcel Number:	Block-Lots: 3410-33, 3403-1, 3410-1, 3409-32, 3415-39, 3316-1, 3316-103, 3325-1, 3334-1				
Property Owner:	NYC Housing Authority				
Zoning Designation:	R6-Residential				
Approx. Property Area:	10.31 acres				
Buildings:	Thirteen 3-story apartment buildings				
Approx. Building Size:	372 units				
Approx. Year Built:	1983 / 1987				
Commercial Occupants:	None				
Current Use:	Multi-family residential				
Inspected By:	Dominick Aponte				
Site Contact/Company:	Bianca Sosa / Penrose				
Site Escort/Company:	Jeff (last name withheld)/Superintendent				
Inspection Date:	July 12, 2023				
Weather Conditions:	Sunny/80 degrees F				

Findings Summary Table

Assessment Subject	No REC	REC	CREC	HREC	SDG	Rpt. Ref.
Property Regulatory Records Review:	X					4.1
Property Historical Records Review:	X					4.2
Bulk Petroleum Storage:	X					6.3
On-Site Operations:	X					6.3
On-Site Haz-Mat Storage/Use/Spills:	X					6.3
Transformers/Hydraulic Systems:	X					6.3
Waste Discharges:	X					6.3
Interviews:	X					5.0
Adjoining & Nearby Properties:	X					4.1 6.2
Prior Env. Reports/User Provided Info:			X			3.0

1.2 Findings, Opinions and Conclusions

Recognized Environmental Conditions & Significant Data Gaps

Hillmann has performed a Phase I Environmental Site Assessment in accordance with the scope and limitations of ASTM Practice E 1527-21 of the Subject Property as described in Section 2.2 of this report. Any additions to, exceptions to, or deletions from this practice are also described in Section 2 of this report. This assessment has revealed the following recognized environmental conditions (RECs), controlled recognized environmental conditions (CRECs) and/or significant data gaps (SDGs) in connection with the Subject Property:

RECOGNIZED ENVIRONMENTAL CONDITIONS
No RECs were identified.
CONTROLLED RECOGNIZED ENVIRONMENTAL CONDITIONS
The subject Property underwent a series of environmental investigations and remediation by AKRF and Hillmann with NYSDEC oversight between 2018 and 2022 to address findings of contaminants in soils related to historic urban fill. As part of the investigations, sampling and analysis of soils, groundwater and soil vapor were conducted to investigate suspected areas of concerns related to historical uses. Other than a finding of contaminants in soils typical of historical urban fill, no significant impacts to the site found. Remedial actions were completed in accordance with a NYSDEC approved Remedial Action Plan, and consisted of the removal and replacement of the top two feet of soils in unpaved areas of the Subject Property. Engineering and institutional control were implemented including the placement of a 2-foot thick clean soil cover, and implementation of a Site Management Plan including procedure for appropriate operation, maintenance and inspection. A July 19, 2022 closure letter issued from NYCDEP approved the

Remedial Action Report and Site Management Plan. Given the completed remediation, subject to engineering and institutional controls, a CREC has been identified.

SIGNIFICANT DATA GAPS

No SDGs were identified.

RECOMMENDATIONS

Hillmann recommends the following:

No additional investigation is warranted. Maintenance and compliance with existing engineering and institutional controls (Site Management Plan) is recommended.

Historical Recognized Environmental Conditions (HRECs)

This assessment has revealed the following *historical recognized environmental conditions* (HRECs) in connection with the Subject Property:

HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITIONS

No HRECs were identified

De Minimis and Other Environmental Conditions

The following *de minimis* and other environmental conditions were identified:

OTHER ENVIRONMENTAL CONDITIONS / DE MINIMIS CONDITIONS

No *de minimis* conditions were identified.

Several adjoining and nearby sites were identified on various environmental databases of environmental concerns. None of these sites are considered likely to have impacted the Subject Property.

Environmental Professional Statement

I/We declare that, to the best of my professional knowledge and belief, I/we meet the definition of *Environmental professional* as defined in § 312.10 of 40 C.F.R. 312. I/we have the specific qualifications based on education, training and experience to assess a *property* of the nature, history and setting of the *subject property*. I/We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 C.F.R. Part 312.



David Rutherford
Environmental Professional



Chris Hirschmann
Environmental Professional

1.3 24 CFR 50.3(i) Compliance

The scope of this report included an assessment for conditions of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property.

24 CFR 50.3(i) Evaluation
No conditions were identified warranting additional investigation or corrective action with regard to compliance with 24 CFR 50.3(i).
24 CFR 50.3(i) Recommendations
Not applicable-no indication of non-compliance with 24 CFR 50.3(i) was identified.

1.4 Business Environmental Risks / Non-ASTM Scope

Hillmann has performed a limited review of the following potential Business Environmental Risks (BER), also known as “Non-ASTM Scope” concerns, in accordance with the contracted scope of work scope for this assessment. BER is defined by ASTM E 1527-21 as *“a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice.”* The following is a summary of findings for the limited review of potential BERs, where applicable, as per the contracted scope of work and limitations outlined in Section 2. For a more detailed discussion of the findings and contracted scope of work, please see the referenced report section.

Subject	Findings	Not Appl.	Rpt. Ref.
Asbestos	Suspected ACM noted within the accessed building areas included gypsum wallboard and ceiling systems, resilient flooring, covebase and associated mastics in good condition.		7.1
Lead Paint	No residential structures built prior to 1978 were identified. Site reconnaissance did not identify evidence of lead paint chips/debris on the exterior grounds of the Subject Property.		7.2
Radon	Property is located in the USEPA radon designation Zone 3 or 'low risk' area for radon.		7.3

Mold / Microbial Damage	Hillmann did not observe evidence of significant problems with moisture intrusion or mold/microbial growth at the Property		7.4
NWI Wetlands	No NWI mapped wetlands areas were identified at the Subject Property.		7.5
Drinking Water	Potable water service at the Property is provided by a utility connection with the New York City Water Supply System. A recently published water quality report from the utility indicated compliance with USEPA water quality standards for lead in drinking water.		7.6

2.0 GENERAL

2.1 Purpose and Scope

This assessment was conducted utilizing generally accepted Phase I ESA industry standards in accordance with the ASTM Standard Practice E 1527-21. The ASTM describes these methodologies as representing good commercial and customary practice for conducting an environmental site assessment of a parcel of commercial real estate with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. § 9601) and petroleum products. This practice is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner or bona fide prospective purchaser limitations on CERCLA liability (“landowner liability protections,” or “LLPs”): that is, the practice that constitutes all appropriate inquiries into the previous ownership and uses of the Subject Property consistent with good commercial and customary practice as defined at 42 U.S.C. §9601(35) (B). The goal of the processes established by ASTM E 1527-21 is to identify *recognized environmental conditions* in connection with the Subject Property.

The term *recognized environmental condition* (REC) is defined by ASTM E 1527-21 as “(1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment.”

The term *controlled recognized environmental condition* (CREC) is a type of recognized environmental condition and defined by ASTM E 1527-21 as a “*recognized environmental condition affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities with hazardous substances or petroleum products allowed to remain in place subject to implementation of required controls (for example, activity and use limitations or other property use limitations).*”

The term *historical recognized environmental condition* (HREC) is defined as a “*previous release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities without subjecting the subject property to any controls (for example, activity and use limitations or other property use limitations).*” The ASTM E 1527-21 standard has clarified that a *historical recognized environmental condition* is not a *recognized environmental condition*.

The term *de minimis condition* is defined by the ASTM, “*...a condition related to a release that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.*” A condition determined to be a *de minimis condition* is not REC nor a CREC.

The chief components of this assessment are generally described as follows:

- A non-invasive visual reconnaissance of the Subject Property and adjoining properties in accordance with ASTM guidelines for evidence of RECs.
- Interviews of past and present owners and occupants and state and local government officials, seeking information related to the potential presence of RECs at the Subject Property.
- A review of standard physical record sources for available topographic, geologic and groundwater data.
- A review of standard historical record sources, such as fire insurance maps, city directories, aerial photographs, prior reports and interviews, etc., to determine prior uses of the Subject Property from the present, back to the Subject Property's first developed use, or back to 1940, whichever is earlier.
- A review of standard environmental record sources including federal and state environmental databases, and additional environmental record sources, to identify potential regulatory concerns with the Subject Property, adjoining properties and properties located within the surrounding area.
- A review of the compiled information and data to assess documentation of compliance with 24 CFR 50.3(i); that all properties proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances under conditions where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property.

An evaluation of environmental or other regulatory compliance matters is excluded from the scope of this assessment.

These methodologies are described as representing good commercial and customary practice for conducting an Environmental Site Assessment of a property for the purpose of identifying recognized environmental conditions.

This assessment has also been completed in conformance with US HUD MAP Guide-Section 9.4.1-Phase I Environmental Site Assessment Requirements.

Compliance with 24 CFR 50.3(i) has been assessed based on review of site observations, records reviewed and interviews conducted as per ASTM E1527-21 standards. Documentation of 24 CFR 50.3(i) compliance in this report is based on the observations made and data collected at the time of the assessment. It is not guarantee that no such hazards exist; nor is it a warrantee against future conditions out of compliance with 24 CFR 50.3(i).

Business Environmental Risks/Non-ASTM Scope Considerations

In accordance with our contract agreement, Hillmann may have addressed the following potential environmental subject matters that are outside of the requirements of the ASTM E 1527-21 standard:

- Asbestos-Containing Materials (ACM): A cursory non-intrusive visual screening for the presence of suspect ACM within the accessed areas of buildings built prior to 1990 on the Subject Property. If the Subject Property contains buildings built in 1990 or later, the contracted scope of work excludes a cursory non-intrusive visual screening or any other level of evaluation for suspect ACM; however, the exclusion for buildings built ≥ 1990 should not be interpreted to suggest that any such buildings are free of ACM or would not warrant evaluation of building materials for ACM prior to disturbance. It is emphasized that this cursory non-intrusive visual screening does not constitute an asbestos survey/inspection of the premises. An asbestos survey/inspection should be sought by the report User(s) if a greater certainty is desired regarding ACM and potential asbestos hazards at the Subject Property. Furthermore, a review of regulatory compliance matters pertaining to asbestos is excluded from the scope of work.
- Lead-Based Paint (LBP): A cursory non-intrusive visual screening of the condition of painted surfaces in the accessed areas of residential buildings/units built prior to 1978 on the Subject Property. If the Subject Property contains buildings built in 1978 or later, the contracted scope of work excludes any cursory non-intrusive visual screening or other level of evaluation for suspect LPB; however, the scope of work exclusion for building built ≥ 1978 should not be interpreted to suggest that any such buildings are free of LPB or other lead hazards. It is emphasized that this cursory non-intrusive visual screening does not constitute a comprehensive survey for LBP or potential lead hazards. A comprehensive inspection should be sought by the report User(s) if more certainty is desired regarding LBP at the Subject Property. Furthermore, a review of regulatory compliance matters pertaining to lead-based paint is excluded from the scope of work.
- USEPA Designated Radon Potential: Review of general non site-specific data published by the USEPA regarding the Radon Zone classification for the area of the Subject Property.
- Mold/Microbial Damage: A cursory non-intrusive visual screening within the accessed areas of buildings on the Subject Property for evidence of systemic microbial problems, including visible mold growth, water damaged building materials or musty odors. It is emphasized that this cursory non-intrusive visual screening does not constitute a comprehensive survey for moisture/mold/microbial damage. A more comprehensive inspection should be sought by the report User(s) if more certainty is desired regarding the potential for moisture/mold/microbial damages at the Subject Property.
- NWI Wetlands: The Subject Property has been reviewed for jurisdictional wetlands using the National Wetlands Inventory-Wetland Mapper to determine whether mapped federal wetlands have been indicated on the Subject Property. Any further evaluation or legal delineation of regulated wetlands areas is excluded from the scope of work. It is also emphasized that a field

delineation of regulated wetlands by a qualified professional would be warranted to more fully determine the presence or absence of regulated wetlands at the Subject Property.

- Lead in Drinking Water: Review of the potential for elevated levels of lead in the drinking water by determining the source of the drinking water supply and a review of available testing or compliance data reports.

The limited evaluation of Business Environmental Risks is not intended to comply with any HUD environmental assessment requirements outside of Section 9.4.1, Chapter 9 of the HUD Multifamily Accelerated Processing (MAP) Guide.

2.2 Property Location/Legal Description

Property location and legal description details are described as follows:

Primary Street Address:	580 Central Avenue; 605, 615, 670, 690 Evergreen Avenue; 333, 349 & 357 Wilson Avenue				
City:	Brooklyn	County:	Kings	State:	New York
Tax ID/Parcel Number:	Block-Lots: 3410-33, 3403-1, 3410-1, 3409-32, 3415-39, 3316-1, 3316-103, 3325-1, 3334-1, 3334-22, 3334-50				
Approx. Land Area:	10.31 acres				
Apprx. Latitude/Longitude:	North 40.6884930 degrees/West 73.9119520 degrees				
Additional Details (if appl.):	NA				
Property Owner:	NYC Housing Authority				
Zoning Designation:	R6-Residential				

2.3 Data Gaps

A *data gap* is defined by the ASTM as a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information. A data gap is only significant if other information and/or professional experience raises reasonable concerns involving the data gap and the ability to determine the presence or absence of recognized environmental conditions. The following table summarizes data gaps encountered during the assessment as well as a discussion of their significance.

Data Gap:	Significant (Yes/No)?	Discussion
Historical records data failure	No	The date and/or type of the first developed use of the Subject Property was not documented.

		Records gaps exceeding five years were encountered; however, no significant site use changes are suspected during these intervals.
Response to agency records requests not received as of date of report.	No	Any additional information indicative of a REC will be forwarded upon receipt.

2.4 ESA Report Component Dates/Viability

The ASTM E 1527-21 standard states that an environmental site assessment (ESA) is presumed to be viable when it is conducted within 180 days prior to the date of acquisition of the Subject Property (or, for transactions not involving an acquisition such as a lease or refinance, the date of the intended transaction). Specifically, all of the following components must be conducted or updated within 180 days prior to the date of acquisition or prior to the date of the transaction. The following table summarizes the component completion dates:

ESA Component	Completion Date
Interviews:	July 12, 2023
Env Lien Search:	(excluded from scope)
Government Records Review:	August 16, 2023
Visual Inspections:	July 12, 2023
Env. Professional Declaration:	August 18, 2023

2.5 User Reliance

This report is for the exclusive use of Bushwick Gardens I LLC, the U.S. Department of Housing and Urban Development (HUD), and additional relying entities, if any, named on the front cover. No additional individuals or entities shall be permitted to rely upon any data, interpretation, reports or other information or documentation contained in this report, without first obtaining the consent of Bushwick Gardens I LLC; and without obtaining written consent from Hillmann in the form of a reliance agreement/letter.

Hillmann may, in its sole discretion, withhold its consent to additional reliance and/or Hillmann may condition consent for reliance upon payment of a fee or other conditions.

2.6 Significant Assumptions

The following significant assumptions are made:

- The site operations at the time of the site visit are assumed to reflect typical site conditions relative to potential environmental conditions and that no concealment of environmental conditions or releases by site owners or occupants has occurred. Likewise, it is assumed that no areas of the Subject Property with potential environmental concerns or RECs were concealed or otherwise not reported, intentionally or unknowingly, by the Subject Property owners/occupants and/or site escort at the time of the site visit.

- For the purpose of estimating the approximate direction of groundwater flow in the absence of site-specific groundwater data, unless indicated otherwise, an assumption has been made that the gradient of groundwater flow follows the surface topography of the Subject Property and immediate surrounding area.

2.7 General Limitations and Exceptions

Limitations

The report turnaround time specified by the contract agreement for this assessment may present a limitation to the availability of pertinent regulatory agency records. Such limitations, if encountered, would be further specified in Section 4.1.

Significant limitations related to the condition or accessibility of the Subject Property at the time of the site reconnaissance, if encountered, are reported in Section 6.1.

Other Exceptions or Deletions

No other exceptions or deletions from the ASTM Standard E 1527-21 are reported.

Special Terms and Conditions

This Phase I Environmental Site Assessment has been prepared using reasonable efforts in each phase of its work to identify recognized environmental conditions associated with hazardous substances, wastes and petroleum products at the Subject Property. Findings within this report are based on information collected from observations made on the day of the site reconnaissance and from reasonably ascertainable information obtained from governing public agencies and private sources.

This report is not definitive and should not be assumed to be a complete or specific definition of the conditions above or below grade. Information in this report is not intended to be used as a construction document and should not be used for demolition, renovation, site development, redevelopment, or other construction purposes. No representation or warranty is made that the past or current operations at the Subject Property are, or have been, in compliance with all applicable federal, state and local laws, regulations and codes.

Findings, conclusions and recommendations presented in this report are based on visual observations of the Subject Property, interviews conducted, the records reviewed, information provided by the Client, and/or a review of readily available and supplied drawings and documents. No warranty or guarantee is made of the accuracy or completeness of information that was obtained from ostensibly knowledgeable individuals, regulatory agency representatives or other secondary sources, including information obtained during the assessment, whether written, graphic or verbal, provided by the Subject Property contact(s) or as shown on any documents reviewed or received from the Subject Property contact, owner or agent, or government agency

source. Independent verification of the accuracy or completeness of all information reviewed or received during the course of this assessment is not made and excluded from the scope of work for this assessment.

Regardless of the findings stated in this report, Hillmann is not responsible for consequences or conditions arising from facts that were concealed, withheld or not fully disclosed at the time the assessment was conducted.

This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated.

The regulatory database report provided is based on an evaluation of the data collected and compiled by a contracted data research company. Hillmann can neither warrant nor guarantee the accuracy or completeness of the information obtained from the regulatory database report provider during the course of this assessment.

Subsurface conditions may differ from the conditions implied by the surface observations and can only be reliably evaluated through intrusive techniques.

Reasonable efforts have been made during this assessment to identify aboveground and underground storage tanks and ancillary equipment. Reasonable efforts are limited to information gained from visual observation of largely unobstructed areas, recorded database information held in public record and available information gathered from interviews. Such methods may not identify surficial and subsurface features that may have been hidden from view due to parked automobiles and other vehicles, snow cover, vegetative growth, pavement, construction or debris pile storage or incorrect information from sources.

No guarantee, explicit or implied, is made that the records pertaining to historical ownership or occupancy which were reviewed represent a comprehensive or precise delineation of past Property ownership or tenancy for legal purposes.

The ASTM E 1527-21 standard states that recommendations are not required to be included in a Phase I ESA report; however, further that recommendations are an additional service that may be useful in the User's analysis of landowner liability protections or business environmental risks; and that the User should consider whether recommendations for additional inquiries or other services are desired.

Recommended response actions offered in Section 1.3, if any, are provided as an option to the Client, and may have taken into account the Client's relation to the Subject Property and/or their intended purpose of this assessment. If included, it is not intended by Hillmann to represent the only course(s) of action, or inaction, to take. Furthermore, it is emphasized that additional response actions may become advisable depending on the outcome of the initial action(s) taken. Hillmann advises that Client and any additional authorized relying parties as specified on the report Cover and Section 2.5, or via letter of reliance extension, undertake consultation with legal counsel familiar with environmental and real estate law would be beneficial to the decision making process

for the type and timing of a response action to identified RECs or Business Environmental Risks, if any.

Due to the limited nature of our review of potential Business Environmental Risks, the User(s) of the report should consider whether to take additional action(s) to further define, properly manage and/or mitigate potential BERs.

The User(s) assumes responsibility for business decisions that it makes utilizing information in the report provided by Hillmann. Hillmann shall not be responsible for any conclusions, interpretations and/or decisions of the User(s).

In the event of any conflict between the terms and conditions of this report and the terms and conditions of the consulting services agreement for this project, the consulting services agreement shall control.

3.0 USER PROVIDED INFORMATION

The term "User" is defined by ASTM as the party seeking to use Practice E 1527-21 to complete an environmental site assessment of the Subject Property; specifically, the entity or entities named on the front cover to which the report has been addressed.

3.1 Prior Environmental Reports/Documentation

The following prior environmental reports/documentation were provided:

Remedial Action Plan, NYCHA Bundle 3 – Bushwick Groups A and C, Brooklyn, New York; prepared by AKRF; dated September 2018. This report covers the Central Avenue and Evergreen Avenue addresses (Group A) of the current Subject Property, plus additional parcels not covered by this assessment. This report included a summary of a June 2018 Phase I Environmental Site Assessment report, as follows:

The Phase I ESA identified the following Recognized Environmental Conditions (RECs)/Vapor Encroachment Conditions (VECs):

"Historical on-site uses noted on Sanborn maps and/or City Directories dated between circa 1888 and 1992 included: a store front manufacturer (in the current location of Building 6), an industrial facility with boiling kettles, an independent electrical plant and a gas engine (in the area of current Building 14), three dry cleaners (in the current locations of Buildings 1, 4, and 15), an upholsterer, a paint/hardware store and stove repair store (in the current location of Building 13), a knitting mill (in the current location of Building 20), paint stores (in the current location of Buildings 12 and 21), and an undertaker (in the current location of Building 25).

"Sanborn maps identified automotive/industrial uses in the vicinity of Group A on maps dated between 1907 and 2007 including an iron sash factory, undertakers, clothing manufacturers, and a food processor to the north; clothing manufacturers and a garage to the east; garages and a machine shop to the south; undertakers and clothing manufacturers to the west; and an auto repair shop to the southwest. In the vicinity of Group C, uses included a brewery (subsequently a filling station), clothing manufacturers and a drycleaner to the north; an auto repair shop, clothing manufacturers and a garage to the east; and an auto body shop, garages, and a used car sales facility to the west.

"Electronic Building Department files dated between 1901 and 1968 indicated multiple oil burner applications (implying associated petroleum storage tanks) associated with former on-site structures.

"The regulatory database review identified five historical auto stations within 200 feet (four within 200 feet of Group A and one within 200 feet of Group C) and one closed status spill within 85 feet of Group A that could have affected area subsurface conditions."

Other On-site Environmental Concern (including items outside the scope of ASTM E1527-13 such as asbestos containing material [ACM], lead-based paint [LBP] and/or polychlorinated biphenyls [PCBs] in building materials or fill/debris):

"Buried demolition debris from former on-site structures could contain ACM, LBP, PCBs and/or underground storage tanks. Although less likely based on the age of the buildings (constructed circa 1987), ACM, PCBs and/or LBP could be present within building components.

"Based on the findings of the Phase I ESA, AKRF recommended that, as part of future renovation or redevelopment activities, a Subsurface (Phase II) Investigation be conducted in accordance with a NYCDEP-approved Subsurface (Phase II) Work Plan. The scope was established in AKRF's June 2018 Work Plan, and was approved by the New York City Department of Environmental Protection (NYCDEP) in a letter dated July 2, 2018."

This report also included the following summary of a September 2018 Subsurface (Phase II) Investigation report:

"AKRF conducted a Subsurface (Phase II) Investigation at the Site in August 2018 based on the findings of the June 2018 Phase I ESA and in general accordance with the NYCDEP-approved Sampling Protocol and Health and Safety Plan (Subsurface Phase II Work Plan). The investigation included a geophysical investigation and the advancement of 11 soil borings at Group A and 13 soil borings at Group C with the collection and laboratory analysis of 24 samples, installation of 1 temporary well at Groups A and C (2 total) with the collection and laboratory analysis of 2 groundwater samples, and the installation of temporary probes for the collection and laboratory analysis of 21 soil vapor samples, 21 indoor air samples, and 7 ambient (outdoor) air samples..."

"...A summary of the analytical results is as follows:

Soil

Ten VOCs, including some petroleum-related compounds [e.g., benzene, ethylbenzene, 2-butanone (MEK), xylenes], presumed laboratory contaminants (e.g., acetone, methylene chloride), and chlorinated solvents [e.g., tetrachloroethene (PCE), trichloroethene (TCE)], were detected in one or more of the soil samples at concentrations ranging from 0.0002 to 0.046 milligrams per kilogram (mg/kg). Acetone was detected in one sample at a concentration of 0.062 mg/kg, slightly above its UUSCO of 0.05 mg/kg.

Seven semivolatile organic compounds (SVOCs) [benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene] were detected at concentrations above the UUSCOs and/or RRSCOs. The detected SVOCs were primarily polycyclic aromatic hydrocarbons (PAHs), a class of SVOCs commonly found in fill material, especially fill containing combustion byproducts such as coal ash.

Seven metals (arsenic, barium, copper, lead, nickel, zinc, and mercury) were detected at concentrations above the UUSCOs and/or RRSCOs.

Total PCBs exceeded the UUSCO for total PCBs in one sample.

The pesticides 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, and dieldrin were detected at concentrations above their UUSCOs, but below RRSCOs.

Groundwater

One VOC (acetone) was detected at a concentration of 51 micrograms per liter ($\mu\text{g/L}$) above its AWQS of 50 $\mu\text{g/L}$.

Five metals (barium, chromium, lead, magnesium, and thallium) exceeded their respective AWQS for the unfiltered (total) metals analysis. Two metals (barium and sodium) were detected above their respective AWQS for the filtered (dissolved) analysis. The metals detected in the unfiltered groundwater samples are likely primarily attributable to entrained sediment from the observed fill material rather than a release or other source area. The metals detected in the filtered samples are likely attributable to background conditions typical of regional groundwater quality, and not to a release or other source area.

No SVOCs, PCBs, or pesticides were detected above AWQS.

Soil Vapor

Thirty-eight VOCs, including petroleum-related compounds [e.g., acetone, benzene, toluene, ethylbenzene, xylenes, trimethylbenzene, 2,2,4-trimethylpentane, 2-hexanone, isopropanol, methyl ethyl ketone (MEK), n-heptane, and n-hexane], and chlorinated solvents [e.g., chloroform, carbon tetrachloride, cis-1,2-dichloroethene, methylene chloride, tetrachloroethene (PCE), and trichloroethene (TCE)], in one or more of the samples ranging from 0.27 to 2,100 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). Based on the soil vapor concentrations, indoor air samples A-IA-2, C-IA-11, CIA-15, and C-IA-17 (corresponding to A-SV-2, C-SV-11, C-SV-15, and C-SV-17) were activated to evaluate indoor air conditions. Based on the sub-slab/soil vapor and indoor air results, the NYSDOH Soil Vapor/Indoor Air Matrices for PCE and TCE are relevant, and indicate "no further action" (e.g., further investigation and/or mitigation) is required."

Remedial Action Plan, NYCHA Bundle 3 – Bushwick II CDA Group E, Brooklyn, New York; prepared by AKRF; dated September 2018. This report covers the Wilson Avenue addresses (Group E) of the current Subject Property. This report included a summary of a June 2018 Phase I Environmental Site Assessment report, as follows:

"The Phase I ESA identified the following Recognized Environmental Conditions (RECs)/Vapor Encroachment Conditions (VECs):"

Historical Sanborn maps identified a dry cleaning facility at 546 Knickerbocker Avenue on the northeastern portion of the Site (in the current location of Building 5) between approximately 1965 and 1982.

Historical industrial/automotive uses from approximately 1933 to 1979 noted on Sanborn Maps and/or City Directories included: a tin shop/metal works on the northeastern portion of the Site (in the current location of Building 5), clothing and toy manufacturers, an auto repair shop, a printer on the southeastern portion of the Site (in the current location of Building 4), a woodworking facility on the eastern portion of the Site (in the current location of Building 3), and a knitting mill and paint shop in the southwestern portion of the Site (Block 3316, in the current location of Building 1).

Electronic Building Department files dated between 1903 and 1968 indicated multiple oil burner applications associated with former on-site structures.

Automotive repair facilities are located at 311 Wilson Avenue (approximately 100 feet west of the Site) and at 577 Knickerbocker Avenue (approximately 185 feet to the east). These facilities were also identified as historical auto stations. No releases were reported for these facilities, but based on proximity to the Site; undocumented releases could have affected subsurface conditions beneath the Site. Similarly, a Fire Department Engine Company Number 277 on the east-adjacent block may well have included fueling and/or repair facilities.

A mirror works was shown south of the eastern portion of the Site, across Wilson Avenue on a historical map dated 1933, but not on the previous map from 1907. As such, though unlikely given its dates, it is possible that this facility at one time used the mercury amalgam process to create mirrored surfaces."

Other On-site Environmental Concern (including items outside the scope of ASTM E1527-13 such as asbestos containing material [ACM], lead-based paint [LBP] and/or polychlorinated biphenyls [PCBs] in building materials or fill/debris):

Minor oil staining was observed on the concrete floors in the vicinity of gasoline canisters in a maintenance storage shed and the trash compacting area, both in the western portion of the Site; however, there was no evidence of a significant release.

Buried demolition debris from former on-site structures could contain ACM, LBP, PCBs and/or underground storage tanks. Although less likely based on the age of the buildings (constructed circa 1987), ACM, PCBs and/or LBP could be present within building components.

This report also included the following summary of a September 2018 Subsurface (Phase II) Investigation report:

"AKRF conducted a Subsurface (Phase II) Investigation at the Site in July 2018 based on the findings of the June 2018 Phase I ESA and in general accordance with the NYCDEP-approved Sampling Protocol and Health and Safety Plan (Subsurface Phase II Work Plan). The investigation included a geophysical investigation and the advancement of 9 soil borings with the collection and laboratory analysis of 18 samples, installation of 4 temporary wells with the collection and laboratory analysis of 4 groundwater samples, and the installation of temporary probes for the collection and laboratory analysis of 7 soil vapor samples, 7 indoor air samples, and 1 ambient (outdoor) air sample...."

"...A summary of the analytical results is as follows:

Soil

Fifteen VOCs, including some petroleum-related compounds [e.g., benzene, methyl tert-butyl ether (MTBE), isopropylbenzene, xylenes], presumed laboratory contaminants (e.g., methylene chloride), and chlorinated solvents [e.g., cis-1,2-dichloroethene, tetrachloroethene (PCE), trichloroethene (TCE)], were detected in one or more samples ranging from 0.00017 to 0.085 milligrams per kilogram (mg/kg). Acetone was detected in one sample at a concentration of 0.085 mg/kg, slightly above its UUSCO of 0.05 mg/lg.

Seven semivolatile organic compounds (SVOCs) [benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene] were detected at concentrations above the UUSCOs and/or RRSCO. The detected SVOCs were primarily polycyclic aromatic hydrocarbons (PAHs), a class of SVOCs commonly found in fill material, especially fill containing combustion byproducts such as coal ash.

Eight metals (arsenic, barium, chromium, copper, lead, nickel, zinc, and mercury) were detected at concentrations above the UUSCOs and/or RRSCO.

PCBs were detected below the UUSCO and RRSCO for total PCBs.

The pesticides 4,4'-DDD, 4,4'-DDT, and dieldrin were detected at concentrations above their UUSCOs, but below RRSCO.

Groundwater

One VOC (1,2-dichloroethane) was detected at a concentration of 22 micrograms per liter ($\mu\text{g/L}$) above its AWQS of 0.6 $\mu\text{g/L}$. The VOC detections could be attributable to historical uses on the Block 3334 portion of the Site (E-TW-4 was located on the southwestern portion of this Block, in the vicinity of historical automotive repair and clothing/toy manufacturing operations).

Three SVOCs (benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene) were detected above their respective AWQS. Given that SVOCs are relatively insoluble in water, the detections are likely attributable to suspended/entrained historical fill material.

Eleven metals (arsenic, barium, beryllium, chromium, copper, lead, magnesium, mercury, nickel, sodium, and thallium) exceeded their respective AWQS for the unfiltered (total) metals analysis. Only two metals (magnesium and sodium) were detected above their respective AWQS for the filtered (dissolved) analysis. The metals detected in the unfiltered groundwater samples are likely primarily attributable to entrained sediment from the observed fill material rather than a release or other source area. The metals detected in the filtered samples are likely attributable to background conditions typical of regional groundwater quality, and not to a release or other source area.

No PCBs or pesticides were detected above AWQS.

Soil Vapor

Thirty-nine of the 74 VOCs analyzed for, including petroleum-related compounds [e.g., acetone, benzene, toluene, ethylbenzene, xylenes, trimethylbenzene, 2,2,4-trimethylpentane, 2-hexanone, isopropanol, methyl ethyl ketone (MEK), n-heptane, and n-hexane], and chlorinated solvents (e.g., chloroform, carbon tetrachloride, cis-1,2-dichloroethene, methylene chloride, PCE, and TCE), were detected in one or more of the samples ranging from 0.27 to 790 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

Based on the soil vapor concentrations, indoor air samples E-IA-4, E-IA-5, and E-IA-7 (corresponding to sub-slab/soil vapor samples E-SV-4, E-SV-5, and E-SV-7, respectively) were activated to evaluate indoor air conditions. Based on the sub-slab/soil vapor and indoor air results, the NYSDOH Soil Vapor / Indoor Air Decision Matrices for PCE and TCE are relevant and indicate 'no further action' (e.g., further investigation and/or mitigation) is required."

Remedial Action Report, Bushwick Groups A & E, Brooklyn, New York; prepared by HK Engineering & Geology, D.P.C.; dated May 2022. This report documented the completion of remedial action plans with NYSDEC oversight. The remedial actions were described as follows:

- "1. Selection of Restricted-Residential Use (Track 2) Soil Cleanup Objectives (SCOs).
2. Site mobilization involving Site security setup, equipment mobilization, utility mark outs, marking and staking excavation areas.
3. Excavation and removal of soil/fill for new landscaping. Transportation and off-Site disposal of excavated soil/fill material at licensed or permitted facilities in accordance with applicable laws and regulations for handling, transport, and disposal, and this plan. Sampling and analysis of excavated media as required by disposal facilities. Appropriate segregation of excavated media on-Site.
4. Imported materials used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations.
5. As part of development, two feet of clean soil in all newly landscaped areas including in areas identified in the RAWPs.

6. Performed all activities required for the remedial action, including acquisition of required permits and attainment of pretreatment requirements, in compliance with applicable laws and regulations.”

The 2022 Remedial Action Report stated that the top 24 inches of soils were removed from landscaped areas (124 cubic yards total) and exported off-site. A total of 180 cubic yards of clean backfill were imported to replace the excavated soils. Engineering and institutional control were implemented including the placement of a 2-foot thick clean soil cover, and implementation of a Site Management Plan including procedure for appropriate operation, maintenance and inspection.

NYCDEP Closure Letter, re: NYCHA Bundle 3, Bushwick Group A & E; dated July 19, 2022. The letter stated the NYCDEPs acceptance of the August 2021 Remedial Action Report for Groups B, C & D.

3.2 User Responsibilities

The User must conduct inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31 to meet their responsibilities to qualify for one of the Landowner Liability Protections (LLPs) offered by federal regulations. The User should provide the following information to the environmental professional (Hillmann). Failure to conduct these inquiries could result in a determination that “all appropriate inquiries” is not complete. To assist the report User to meet these requirements, Hillmann has provided a questionnaire of the required inquiries (User Questionnaire) with instructions to complete and return to Hillmann. A completed questionnaire was not returned to Hillmann.

Question	Yes/No	Detail
1. Search of Land Title and Judicial Records: Has the User performed a search of land title records and judicial records for environmental liens and/or Activity and Use Limitations (AULs) filed or recorded against the Subject Property?		
1.a. If yes to Question 1: Did the search identify any environmental liens or Activity and Use Limitations (AUL), such as engineering controls, land use restrictions or institutional controls that are in place at the Subject Property and/or have been filed or recorded against the Subject Property under federal, tribal, state or local law?		
1.b. If yes to Question 1: Has the User provided the result of the search of land title and judicial records to Hillmann?		
2. Specialized knowledge or experience of the person seeking to qualify for the LLP: Do you have any specialized knowledge or experience related to the Subject Property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the Subject Property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?		
3. Relationship of the purchase price to the fair market value of the Subject Property if it were not contaminated:		

Question	Yes/No	Detail
Does the purchase price being paid for this property reasonably reflect the fair market value of the Subject Property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the Subject Property?		
4. Commonly Known or Reasonably Ascertainable Information: Are you aware of commonly known or reasonably ascertainable information about the Subject Property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example: (respond below)		
4.a. -Do you know the past uses of the Subject Property?		
4.b. -Do you know of specific chemicals that are present or were once present at the Subject Property?		
4.c. -Do you know of spills or other chemical releases that have taken place at the Subject Property?		
4.d. -Do you know of any environmental cleanups that have taken place at the Subject Property?		
5. The degree of obviousness of the presence or likely presence of contamination at the Subject Property, and the ability to detect the contamination by appropriate investigation: Based on your knowledge and experience related to the Subject Property are there any obvious indicators that point to the presence or likely presence of releases at the Subject Property?		
6. Litigation/Administrative Proceedings/Government Notice: As the User of this ESA, do you have knowledge of (1) any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the Subject Property; (2) any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the Subject Property; and (3) any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.		
7. User's Reason/Purpose for Performing Phase I ESA:		The User did not indicate the purpose of the assessment. In accordance with ASTM E1527-21, it is assumed that the Phase I ESA was being performed in order to qualify for landowner liability protection to CERCLA liability.

4.0 RECORDS REVIEW

4.1 Environmental Information

Physical Setting

Source	Discussion
USGS 7.5 minute Topographic Map Data: (EDR Geocheck-Physical Setting Source Addendum)	The Subject Property lies at an elevation of approximately 30 to 40 feet above mean sea level. An interpretation of topographic contour lines as well as a review of the EDR Geocheck-General Topographic Gradient suggested terrain sloping downward towards the north-northwest. The closest down gradient water body is Newtown Creek, located approximately 1.64 miles to the NW.
USDA SCS Soil Data: (EDR Geocheck-Physical Setting Source Addendum)	The soil type at the Subject Property is classified as "Urban Land". The Urban Land designation indicates that a majority of the original soils on the site have been disturbed by development or covered with impervious surfaces, such as buildings or pavement.
Geologic Data: (EDR Geocheck-Physical Setting Source Addendum)	The geologic formation in the vicinity of the Property is described as a stratified sequence of the Mesozoic Era, Cretaceous System, and Upper Cretaceous Series.
Prior Env. Reports: (Section 3.1)	No pertinent data was obtained from the prior environmental reports discussed in Section 3.1.
Additional Sources/Data:	No additional physical setting sources or data was obtained.
Groundwater Flow Discussion:	Based on a review of the above information as well as observation of the site, the direction of shallow groundwater flow at the site is inferred to be towards the north-northwest.

Federal, State and Tribal Environmental Record Sources

Standard government records were obtained and reviewed primarily via a third-party regulatory database report, titled EDR Radius Map™ Report, prepared by Environmental Data Resources of Shelton, CT. The report provided government records from the standard environmental resources and within minimum search distances specified by Section 8.2.2-Table 2 of the ASTM E 1527-21; and were reviewed for the purpose of identifying potential RECs in connection with the Subject Property. Additional detail of the source and significance of the regulatory databases can be found in the regulatory database report in Appendix D. Hillmann has also included discussion of records pertaining to the Subject Property from other government record sources not specifically listed under Table 2, as applicable.

Reported distances for adjoining property listings, if applicable, are approximate and indicative of the presence of a public roadway or right-of-way between the adjoining site and Property.

The reported gradients have been estimated based on a number of factors including but not necessarily limited to field observation, review of topographic maps, database listing details and/or site specific geo-technical data.

Limited analysis of the details of on-site, adjoining and vicinity database sites was conducted to identify potential sources of sub-surface vapor encroachment. This review was based on elements of the ASTM "Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions" (ASTM E 2600-15); and also, on elements of "Methodology for Identifying the Area of Concern Around a Property Potentially Impacted by Vapor Migration from Nearby Contaminated Sources" (Buonicore, 2011-S-103-AWMA). Vicinity database sites pertaining to non-petroleum product releases within 1,760 feet of the Subject Property in the up-gradient direction, 365 feet of the Subject Property in the cross gradient direction and 100 feet of the Subject Property in the down gradient direction; and vicinity database sites pertaining to petroleum product releases within 528 feet of the Subject Property in the up-gradient direction, 165 feet of the Subject Property in the cross gradient direction and 100 feet of the Subject Property in the down gradient direction were reviewed to identify active contamination sites with the potential to affect subsurface vapor conditions at the Subject Property. The potential for vapor encroachment was considered in assessing whether or not a REC exists in connection with the Subject Property when reviewing applicable sites within those distances.

Regulatory database sites with active petroleum or non-petroleum releases that are considered to constitute a vapor encroachment condition (VEC) to the Subject Property, if any, are identified and discussed in this section.

The EDR Radius Map report is attached in Appendix D.

Subject Property Listings

The following listings of the Subject Property were identified:

Name/Address:	(none)
Database(s):	
Data Discussion:	
REC Discussion:	
VEC Discussion:	

Adjoining Property Listings

The following adjoining property listings were identified.

Name/Address:	Con-Ed Service Box/646 Evergreen Street		
Database(s):	RCRA Non-Gen/NLR, Manifests, FINDS, ECHO		
Distance in feet:	0	Direction:	N
		Gradient:	Up/Cross
Data Discussion:	The listing pertains to the handling of wastes generated by utility equipment maintenance. There were no indications of a reported release.		
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.		
VEC Discussion:	Based on the available data, a VEC is not suspected.		

Name/Address:	Con-Ed Service Box/119 Eldert Street		
Database(s):	RCRA Non-Gen/NLR, Manifests, FINDS, ECHO		
Distance in feet:	0	Direction: SE	Gradient: Up
Data Discussion:	The listing pertains to the handling of wastes generated by utility equipment maintenance. There were no indications of a reported release.		
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.		
VEC Discussion:	Based on the available data, a VEC is not suspected.		

Name/Address:	Basement.126 Weirfield Street		
Database(s):	NY Spills		
Distance in feet:	0	Direction: SE	Gradient: Up
Data Discussion:	A leaking oil supply line resulting in a minor spill was reported in 2007. Corrective actions were taken including repair of the line and cleanup of impacted dirt. The spill case was closed on February 2, 2007.		
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.		
VEC Discussion:	Based on the available data, a VEC is not suspected.		

Name/Address:	Res Figure ROA/1074 Halsey Street		
Database(s):	NY Spills		
Distance in feet:	0	Direction: SW	Gradient: Up/Cross
Data Discussion:	One gallon of oil leaked from a tank truck in 1994, impacting soils. Corrective actions were taken and the spill case was closed on June 7, 1994.		
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.		
VEC Discussion:	Based on the available data, a VEC is not suspected.		

Name/Address:	Hope Gardens-NYCHA/330 Wilson Avenue		
Database(s):	LTANKS, UST		
Distance in feet:	80	Direction: SW	Gradient: Up/Cross
Data Discussion:	Four tank test failure incidents were reported from 1990 to 1996. Each incident involved a test failure of 15000-g. fuel oil UST due to manway leak, and has closed regulatory status. The UST listing indicated a 15000-g. heating oil UST was installed in 1981 and removed in 2020.		
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.		
VEC Discussion:	Based on the available data, a VEC is not suspected.		

Name/Address:	Hope Gardens-NYCHA/140 Menahan Street		
Database(s):	LTANKS, UST, NY Spills		
Distance in feet:	80	Direction: SW	Gradient: Up/Cross
Data Discussion:	A tank test failure incident occurred in 1991 involving 20000-g. fuel oil UST due to manway leak, and has closed regulatory status.		

	A spill was reported on April 24, 1998 of a ruptured line on tank with 15-gallon leak impacting boiler room floor. The spill case incident has a closed status.
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.
VEC Discussion:	Based on the available data, a VEC is not suspected.

Name/Address:	Hope Gardens-NYCHA/160 Menahan Street
Database(s):	LTANKS, UST, NY Spills
Distance in feet:	80 Direction: SW Gradient: Up/Cross
Data Discussion:	A spill incident due to discovery of stained soil near a previously close-in-place 20,000-g. heating oil UST was reported in December 2020. Corrective actions including removal of stained soil were conducted and case closure was achieved on February 5, 2021.
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.
VEC Discussion:	Based on the available data, a VEC is not suspected.

Name/Address:	Hope Gardens Houses-NYCHA/120 Menahan Street
Database(s):	RCRA NonGen, Manifest, FINDS, ECHO
Distance in feet:	80 Direction: SW Gradient: Up/Cross
Data Discussion:	Listings are associated with registered hazardous waste handling activities, but with no associated release incidents.
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.
VEC Discussion:	Based on the available data, a VEC is not suspected.

Name/Address:	Con-Ed Service Box/221, 231 and 232 Grove Street
Database(s):	RCRA Non-Gen/NLR, Manifests, FINDS, ECHO
Distance in feet:	0 Direction: SW Gradient: Up
Data Discussion:	Multiple listings pertaining to the handling of wastes generated by utility equipment maintenance. There were no indications of a reported release.
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.
VEC Discussion:	Based on the available data, a VEC is not suspected.

Name/Address:	Con-Ed Service Box/228 Linden Street
Database(s):	RCRA Non-Gen/NLR, Manifests, FINDS, ECHO
Distance in feet:	0 Direction: SW Gradient: Up
Data Discussion:	Multiple listings pertaining to the handling of wastes generated by utility equipment maintenance. There were no indications of a reported release.
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.
VEC Discussion:	Based on the available data, a VEC is not suspected.

Name/Address:	Con-Ed Service Box/528 Knickerbocker Avenue		
Database(s):	RCRA Non-Gen/NLR, Manifests, FINDS, ECHO		
Distance in feet:	0	Direction: N	Gradient: Up
Data Discussion:	Multiple listings pertaining to the handling of wastes generated by utility equipment maintenance. There were no indications of a reported release.		
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.		
VEC Discussion:	Based on the available data, a VEC is not suspected.		

Name/Address:	TM 547/Linden St, & Knickerbocker		
Database(s):	NY Spills		
Distance in feet:	26	Direction: N	Gradient: Up
Data Discussion:	A spill of 165-g. of transformer oil within a utility vault impacting soil and debris was reported in 1999. It was noted that adjoining structures were inspected and found not to have been impacted. Five barrels of contaminated soils were removed and regulatory closure was granted on November 8, 1999.		
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.		
VEC Discussion:	Based on the available data, a VEC is not suspected.		

Name/Address:	NYC Board of Education/515 Knickerbocker Avenue		
Database(s):	AST, LEAD, MANIFEST, RCRA, SQG		
Distance in feet:	91	Direction: NNW	Gradient: Up
Data Discussion:	An active 5,000-g. #4 heating oil AST was indicated, with no listings of spills or leakage. The RCRA-SQG listing indicated no reported violations. The LEAD, RCRA and MANIFEST listings appear to be related to previous lead paint abatement activities.		
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.		

Name/Address:	531 Knickerbocker Avenue		
Database(s):	NY Spills		
Distance in feet:	80	Direction: N	Gradient: Up
Data Discussion:	A spill was reported in 1990 for heavy odors of fuel oil in sewers. No additional detail was provided and regulatory closure occurred on July 29, 2003.		
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.		

Name/Address:	521 Knickerbocker Avenue		
Database(s):	NY Spills		
Distance in feet:	80	Direction: N	Gradient: Up
Data Discussion:	A 5-g. pail of waste oil was found abandoned at this location in 2013. The material was removed and case was closed on August 14, 2013.		
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.		

Name/Address:	Con-Edison Manhole/Wilson Avenue and Gates Avenue		
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Database(s):	RCRA Non-Gen/NLR, Manifests, FINDS, ECHO, NY SPILLS		
Distance in feet:	0	Direction:	N
		Gradient:	Up
Data Discussion:	Multiple listings pertaining to the handling of wastes generated by utility equipment maintenance. A spill incident involving leakage of 1 gallon of oil was reported and clean up with case closure granted in 2001.		
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.		
VEC Discussion:	Based on the available data, a VEC is not suspected.		

Surrounding Area Findings

The following is a discussion of non-adjointing sites identified as located within the ASTM specified search distance surrounding the Subject Property. In order to keep this discussion informative and concise, discussion(s) is/are provided of the listed site(s) for each database category that appears most likely to impact the Subject Property based on distance, area topography and/or regulatory status. Listings of sites within the applicable search distances not specifically discussed below were reviewed and concluded not to be RECs in connection with the Subject Property or VECs based on various factors including distance, area topography, known or inferred groundwater flow direction and/or regulatory status.

Federal NPL		# of sites:	1	Search Distance:	1-mile
Notable Listing:	Wolff-Alport Chemical Company/1125-1139 Irving Avenue				
Distance in feet:	1,998	Direction:	ENE	Gradient:	Up/Cross
Data Discussion:	The Wolff-Alport Chemical Company imported monazite sand and extracted rare earth metals onsite from the early 1920s until 1954. Monazite contains approximately 6-8% thorium. Until 1947, the Wolff-Alport Chemical Company dumped the thorium waste in the sewer and possibly buried the waste on the property. EPA investigations have confirmed that contamination still exists on the property and in or around the sewer lines downstream of the former facility. Hillmann notes that the radiological impacts from this site appear to be localized within the Superfund site boundaries which are nearly 2000 feet away.				
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.				
VEC Discussion:	Based on the available data, a VEC is not suspected.				

Federal Delisted NPL		# of sites:	0	Search Distance:	1/2-mile
Notable Listing:	None				
Distance in feet:		Direction:		Gradient:	
Data Discussion:					
REC Discussion:					
VEC Discussion:					

Federal SEMS		# of sites:	1	Search Distance:	1/2-mile
Notable Listing:	Wolff-Alport Chemical Company/1125-1139 Irving Avenue				
Distance in feet:	1,998	Direction:	ENE	Gradient:	Up/Cross
Data Discussion:	See previous NPL discussion				

REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.
VEC Discussion:	Based on the available data, a VEC is not suspected.

Federal SEMS Archive	# of sites:	0	Search Distance:	½-mile
Notable Listing:	None			
Distance in feet:		Direction:		Gradient:
Data Discussion:				
REC Discussion:				
VEC Discussion:				

Federal CORRACTS	# of sites:	0	Search Distance:	1-mile
Notable Listing:	None			
Distance in feet:		Direction:		Gradient:
Data Discussion:				
REC Discussion:				
VEC Discussion:				

Federal RCRA-TSD	# of sites:	0	Search Distance:	½-mile
Notable Listing:	None			
Distance in feet:		Direction:		Gradient:
Data Discussion:				
REC Discussion:				
VEC Discussion:				

State/Tribal Superfund & Hazardous Waste	# of sites:	5	Search Distance:	1-mile	
Notable Listing:	1282-1294 Willoughby Avenue				
Distance in feet:	2970	Direction:	NNW	Gradient:	Down/Cross
Data Discussion:	The listing indicated that subsurface investigations were conducted in 2022 identified contaminants in soil and groundwater. Considering distance, this site is unlikely to impact the Subject Property.				
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.				
VEC Discussion:	Based on the available data, a VEC is not suspected.				

State/Tribal Landfill / Solid Waste Disposal	# of sites:	3	Search Distance:	½-mile	
Notable Listing:	Affordable Used Auto/900 Wyckoff Ave				
Distance in feet:	2378	Direction:	E	Gradient:	Up
Data Discussion:	This site was indicated to be a vehicle dismantling facility.				
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.				
VEC Discussion:	Based on the available data, a VEC is not suspected.				

State/Tribal Leaking Storage Tanks	# of sites:	70	Search Distance:	½-mile
Notable Listing:	1311-A Bushwick Ave			

Distance in feet:	193	Direction:	SSW	Gradient:	Up/Cross
Data Discussion:	A spill case was reported in 1998 due to a leaking AST in the basement. The case was closed on October 3, 2003.				
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.				
VEC Discussion:	Based on the available data, a VEC is not suspected.				

State/Tribal Voluntary Cleanup Sites		# of sites:	4	Search Distance:	½-mile
Notable Listing:	1601 DeKalb Avenue				
Distance in feet:	2436	Direction:	NNW	Gradient:	Up/Cross
Data Discussion:	The site is enrolled in the VCP with an approved remedial plan. Considering its distance, it unlikely to impact the Subject Property.				
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.				
VEC Discussion:	Based on the available data, a VEC is not suspected.				

State/Tribal Brownfields		# of sites:	10	Search Distance:	½-mile
Notable Listing:	Former Philru Knitting Mills/1626 Madison Street				
Distance in feet:	1972	Direction:	ENE	Gradient:	Up/Cross
Data Discussion:	Soil and groundwater contamination stemming from historical site uses were discovered and remediated completed under the NYSBCP.				
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.				
VEC Discussion:	Based on the available data, a VEC is not suspected.				

UNMAPPED/ORPHAN LIST SITES	
Hillmann has also reviewed a list of unmapped sites (a.k.a. "Orphan List" sites) indicated by the database report. Unmapped sites that were identified as falling within an applicable specific search distance or warranting discussion have either been discussed in the preceding tables or are detailed below:	
Notable Listings:	None

Additional Environmental Record Sources

Requests have been submitted to local, municipal and state agencies for pertinent records pertaining to the Subject Property, particularly with regard to potential environmental concerns such as petroleum storage tanks, storage and usage of hazardous substances and petroleum products, and/or known or suspected environmental contamination. Where applicable, internet research of government environmental regulatory databases was also conducted, as well as a general cursory internet search of the Subject Property address, for information indicative of a REC. The following table summarizes the findings of the research:

Source	Type	Outcome
NYCFD-Public Records Unit / Tank Section	FOI request	No response was received prior to report issuance.
NYS DEC	FOI request	No response was received prior to report issuance.
Local Building/Code Enforcement.	Online search	Hillmann reviewed available online records pertaining to the Property. No information indicative of a REC was identified.
EPA Envirofacts	Online search	Hillmann reviewed available online records pertaining to the Property. No information indicative of a REC was identified.

Copies of obtained records referenced in the above table have been included in Appendix D.

4.2 Historical Research

Historical records have been compiled and analyzed for historical property information and developing a history of previous uses of the Subject Property, adjoining properties and surrounding area. These records were reviewed for the purpose of identifying the likelihood of past uses having led to RECs in connection with the Subject Property.

The historical record sources listed below have been sought with the objective to document past uses of the Subject Property from the present back to the Subject Property's first developed use, or back to 1940, whichever is earlier. The term "developed use" includes agricultural use, placement of fill dirt and other uses that do not involve structures. Hillmann has sought to review historical records in minimum intervals of five years.

Fire Insurance Maps

A Certified Sanborn Map Report was obtained from EDR for a review of published historical fire insurance maps for the Subject Property and surrounding area. The following is a summary of site uses and notable details depicted by the available maps:

Year(s)	Prop/Adj	Depicted Use(s)
1888	Property:	Mostly vacant land; few dwellings and out buildings
	Adjoining:	Mostly vacant land; few dwellings and out buildings
1907	Property:	Mix of residential and retail row structures
	Adjoining:	Mix of residential and retail row structures, public school and a church.
1932/33	Property:	Similar to previous map except for a small toy and dress manufacturing facility at 1373-1375 Gates Street (Block 3334-Lot 1).
	Adjoining:	Mix of residential and retail row structures, public school, a furniture warehouse and a synagogue, and small paint shop.
1951	Property:	Similar to previous map except for a knitting mill at 331 Wilson Avenue, a tin shop at 1399 Gates Streets.
	Adjoining:	No significant change from prior maps.

Year(s)	Prop/Adj	Depicted Use(s)
1962	Property:	Partial coverage only; Group A, south of Evergreen. Similar to previous map except for a storefront manufacturer depicted at 676 Evergreen Avenue.
	Adjoining:	No significant change from prior maps.
1965/1968	Property:	Similar to previous map except for a dry cleaners at 546 Knickerbocker Avenue, dry cleaners at 607 Evergreen Avenue, dry cleaners at 572 Central Avenue, a knitting mill at 1405 Gates, and no longer depicted at 331 Wilson Avenue.
	Adjoining:	No significant change, except a large public school facility now present at 128 Eldert Street and a dry cleaners is present at 561 Knickerbocker Avenue.
1976, 1977, 1980, 1982, 1985	Property:	Increasing amount of vacant lots from mid-1970s to mid-1980s. Dry cleaners no longer depicted at 572 Central Avenue and 607 Evergreen Avenue.
	Adjoining:	No significant change, except a large public school facility now present at 1352 Gates Street.
1986-1995, 2001-2007	Property:	Current multi-family structures are depicted.
	Adjoining:	Consistent with current conditions.

A copy of the Certified Sanborn Map Report is attached in Appendix E.

City Directories

An EDR City Directory Abstract report was reviewed for data of prior occupants of the Subject Property's street address. The following is a generalized summary of the findings of city directory research for past occupants of the Subject Property.

Subject Property	
Use(s) / Occupant(s):	Years
Mix of residential and commercial retail occupants	1928 - 2020
Halsey French Dry Cleaning Tailor-682 Evergreen Avenue	1934
Frias Estela dry clnr-686 Evergreen Avenue	1965

The EDR City Directory Abstract report was also reviewed for listings of prior occupants of the adjoining properties. The following is a generalized summary of the findings of city directory research for past occupants of the adjoining properties:

Adjoining Properties	
Use and/or Occupant(s)	Years
Mix of residential and commercial occupants.	1928 - 2020

A copy of the EDR City Directory report is attached in Appendix E.

Historical Topographic Maps

Due to the availability of alternate historic sources, as well as the likelihood that this source would not provide any significant data, historical topographic maps were not researched for this assessment. In Hillmann's professional opinion, review of historical USGS topographic maps is unlikely to provide data pertinent to the assessment.

Year(s)	Summary	
	Property:	(not reviewed)
	Adjoining:	

Historical Aerial Photographs

Due to the availability of alternate historic sources, as well as the likelihood that this source would not provide any significant data, historical aerial photographs were not researched for this assessment. In Hillmann’s professional opinion, review of historical USGS aerial photographs is unlikely to provide data pertinent to the assessment

Year(s)	Summary of Interpretation	
	Property:	(not reviewed)
	Adjoining:	

EDR High-Risk Historical Records

The EDR Radius Map™ report, which is discussed in greater detail in Section 4.1 and attached in Appendix D, provided a search of proprietary databases of potential historical high-risk uses at or in the vicinity of the Subject Property. These databases include EDR Hist Cleaner – a database of property addresses with records of historical occupancy by suspected cleaners businesses; EDR Hist Auto – a database of property addresses with records of historical occupancy by potential automotive gas/filling stations and repair facilities; and EDR MGP- a proprietary database of sites historically occupied by manufactured gas plants and related facilities.

EDR Database	On-site Listings:	Adjoining/Off-Site Listings
EDR Hist Cleaner: (on-site/adjoining only)	Nobile French Cleaners-607 Evergreen; is listed for years 1969 and 1970 as a dry cleaning plant.	Linda’s Cleaners-561 Knickerbocker Ave is listed for years 1969-1974 as a dry cleaning plant and to 1975/6 as a cleaners agent.
EDR Hist Auto: (on-site/adjoining only)	None	None
EDR MGP: (1-mile distance)	None	None

Petroleum/Natural Gas Well Review

The historical record sources were reviewed for records of historical petroleum and/or natural gas wells at the Subject Property. No record of any historical petroleum/natural gas wells at or adjoining the Property was identified.

Additional Historical Data

Where applicable, the following additional pertinent historical data was obtained:

Interviews/Anecdotal:	No additional pertinent historical data was obtained.
Local Gov't Records:	No additional pertinent historical data was obtained.
Prior Env. Reports: (Section 3.1)	Prior environmental reports reviewed as part of this assessment, as detailed in Section 3.1, did not provide additional pertinent detail of historical site usage.
Site Observations:	Indications of historic uses of the Property or adjoining properties were not observed during the site reconnaissance.
Other Sources:	No additional pertinent historical data was obtained.

Summary of Historical Subject Property Uses

The following table presents a summary of the types and approximate date ranges of identified prior uses of the Subject Property:

Date Range	Use
1880s to 1900	Mostly vacant lot, some residential
1920s to 1980s	Mostly residential; some commercial retail
Mid-1960s	Dry cleaners on 546 Knickerbocker Avenue, 607 Evergreen Avenue, 572 Central Avenue
1980s to present	NYCHA – public housing facilities

Summary of Historical Adjoining Property Uses

The following table presents a summary of the types of identified prior uses of the adjoining properties:

Date Range	Use
1880s to 1900s	Mostly residential and vacant
1920s to 2020s	Mix of commercial, residential, educational institutions and houses of worship.

Historical Records Data Failure

The ASTM E 1527-21 standard defines data failure as failure to achieve the historical research objective even after reviewing the standard historical sources that are reasonably ascertainable and likely to be useful. The objective is to identify all obvious uses of the Subject Property from the present, back to the Subject Property's first developed use, or back to 1940, whichever is earlier. Furthermore, records of historical use/conditions were sought in intervals no less than approximately five years, unless the Subject Property conditions appear unchanged over a longer interval. In encountered, data failure and its significance as a data gap is discussed below:

Objective	Met?	Detail	Significant?
First developed use/date determined?	No	The earliest documented use of the Property was residential circa 1888	No
Record sources at 5-year intervals back to 1940 or first developed use?	No	Historical record gaps exceeding five years were encountered. However, significant site-use changes or undiscovered site uses appear unlikely to have occurred during the record gaps.	No
All obvious prior uses identified?	Yes	See Summary of Identified Past Uses of this section.	NA

Please refer to Section 2.3 for additional discussion of data gaps and their significance to the findings of the assessment.

Historical Uses REC Discussion

Historical research via fire insurance maps identified three dry cleaning facilities previously existed in the Subject Property, at 546 Knickerbocker Avenue, 607 Evergreen Avenue, 572 Central Avenue in the 1960s to 1970s. In addition, city directory records indicated a cleaners occupied 682 Evergreen Avenue in 1934 and at 686 Evergreen Avenue in 1986. It is noted that the Subject Property underwent remedial investigations and cleanup between 2018 and 2022 with NYSDEC oversight. Subsurface investigations conducted during this process did not identify contamination at the Subject Property due to historical cleaners.

The review of historical records did not indicate evidence of a REC in connection with the Subject Property.

5.0 INTERVIEWS

5.1 Interviews with Owners, Operators and Occupants

Current Owner

Name	Company/Title	Yrs @ Site	Interview Type
NYCHA	NYCHA	40	Email/questionnaire
Interview Date:			
Interview Outcome/Findings:			
Attempts were made via telephone and email (environmental questionnaire); however, no response was received.			

Key Site Manager/Operator

Name	Company/Title	Yrs @ Site	Interview Type
Jeff (last name withheld)	NYCHA	3	In person
Interview Date:			
July 12, 2023			
Interview Outcome/Findings:			
An interview was conducted via phone. Pertinent information, where applicable, is referenced in the appropriate sections of this report.			

Occupant(s)

Name	Company/Title	Yrs @ Site	Interview Type
N/A			
Interview Date:			
Interview Outcome/Findings:			
No non-residential occupants are present			

Prior Owners/Operators/Occupants

Name	Company/Title	Yrs @ Site	Interview Type
------	---------------	------------	----------------

N/A			
Interview Date:			
Interview Outcome/Findings:			
No prior owners or occupants were interviewed.			

Neighboring Property Owner/Occupants

Name	Company/Title	Yrs @ Site	Interview Type
N/A			
Interview Date:			
Interview Outcome/Findings:			
The Subject Property was not an abandoned property with evidence of unauthorized uses or uncontrolled access; therefore, interviews with adjoining or nearby property owners or occupants were not conducted.			

5.2 Interviews with State and/or Local Government Officials

State and/or local governmental officials have been interviewed to obtain information of potential RECs in connection with the Subject Property. Many government agencies and their officials require submittal of written request for records in order to respond. The details in Section 4.1 list the various state and local government agencies contacted as part of this assessment, and the outcome of each inquiry. In addition, the details of regulatory database research in Section 4.1 may have included detail of interviews with officials pertinent to government records review and identification of RECs.

Additional interview of government officials not previously detailed in Sections 4.1 are discussed below, if applicable.

Name	Agency Name/Title	Interview Type
Interview Outcome/Findings:		
No additional local/state government officials were interviewed.		

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

A site reconnaissance was conducted to collect information and make observations to help identify RECs in connection with the Subject Property. This included visual and/or physical observations of the Subject Property and its structures, adjoining properties as viewed from the Subject Property boundaries and the surrounding area based on visual observations from adjoining public thoroughfares and accessed Subject Property structures. Subject property building exteriors were observed at ground level, unless otherwise indicated. Where applicable, building interiors were accessed and observed to the extent they were made safely accessible with the cooperation of the site escort.

Site Inspection Personnel:	Dominick Aponte
Escort Name/Company:	Jeff (last name withheld)
Inspection Date:	July 12, 2023
Weather Conditions:	Sunny; 80 degrees F

Significant Inaccessible Areas

No significant areas of the Property inaccessible at the time of the inspection were noted.

Significant Limiting Site Conditions

No significant limiting site conditions were noted at the time of the site reconnaissance.

6.2 General Site Setting

Site and Vicinity Characteristics

Abutting Roadways:	Evergreen Avenue, Central Avenue, Halsey Street, Eldert Street, Covert Street, Weirfield Street, Knickerbocker Avenue, Wilson Avenue, Menehan Street, Grove Street, Linden Street, Gates Street
Current Property Use:	NYCHA public housing facilities
Evidence of Past Property Uses:	None observed.
Evidence of Past Adjoining Property Uses:	None observed.
Surrounding Area Uses:	Commercial, residential, schools

Current Adjoining Property Uses

The adjoining properties were noted to consist of primarily of residential structures and public school facilities.

No visual observations indicative of a potential environmental concern were noted on the adjoining properties.

Topographic Characteristics

Terrain:	Flat to gently sloping
Direction of Downward Slope:	No noticeable slope was observed at the Subject Property.
On-site Water Bodies:	None observed
Other Significant Features:	None observed

General Description of Structures and Improvements

Buildings:	Thirteen 3-story multifamily residential buildings
Approx. Building Size:	372 units
Approx. Year Built:	1980s
Number of Stories:	3
Basement/Subgrade Levels:	Some of the buildings had a basement level
Exterior Ground Cover:	Grass lawn/landscaping, paved areas, playgrounds
Ancillary Structures:	None
Sources of Heating & Cooling:	Natural gas and electric powered systems
Potable Water/Sewage Disposal:	Municipal utility connections

6.3 Site Features and Conditions

Storage/Usage of Hazardous Substances and Petroleum Products

No significant storage/usage of hazardous substances was noted at the Subject Property.

Bulk Petroleum/Hazardous Material Storage Tanks

The following storage tanks for bulk petroleum or hazardous material storage were identified or reported to be present; or are suspected to be present based on visual observations:

AST/UST	Product	Capacity	Construction	Year Installed	Status	Location/Notes
(none)						

While no visual evidence of a UST was noted, considering the history of development, the potential presence of abandoned USTs and/or associated buried piping at the Subject Property cannot be ruled out.

Strong, Pungent or Noxious Odors and their Sources

No strong, pungent or noxious odors were noted at the Subject Property.

Standing Surface Water/ Pools & Sumps

No standing water, pools or sumps containing liquids likely to be hazardous substances or petroleum products were noted.

Drums, Totes and Intermediate Bulk Containers

No hazardous substance or petroleum product drums, totes or intermediate bulk containers were noted.

Unidentified Substance Containers

No unidentified substance containers suspected of containing hazardous substance or petroleum product were noted.

PCBs in Oil Filled Electrical/Hydraulic Equipment

No oil-filled electrical or hydraulic equipment was identified at the Subject Property.

It is noted that identification of PCB containing fluorescent light ballasts, caulk, paint, or other materials located inside and are part of the building or structure is outside of the scope of the ASTM E 1527-21 standard and this assessment.

Stains or Corrosion on Floors, Walls or Ceilings

No stains or corrosion of floors, walls or ceilings, excluding any staining from water, were noted.

Drains and Sumps

Floor drains and a basement sump designed for the purpose of managing sanitary sewage were noted. No conditions indicative of a REC were observed.

Pits/Ponds/Lagoons

No pits, ponds or lagoons were identified in connection with waste treatment or disposal.

Stained Soil, Pavement/Stressed Vegetation

No stained soil, pavement or stressed vegetation was observed.

On-Site Solid Waste Disposal/Fill Material

No evidence of on-site disposal of trash, construction debris, demolition debris or other solid waste was observed.

Based on the history of previous site development, historical fill material may be present in the subsurface at areas of previous site grading or building structures.

Waste Water

Sanitary sewage generated at the Subject Property is discharged via a connection to the local public sewer system.

Storm water runoff at the Subject Property is discharged off-site to local streams/drainage systems via overland flow and catch basins.

No additional waste water discharges were identified at the Subject Property.

Septic Systems/Cesspools

No septic systems or cesspools were identified at the Subject Property.

Wells

No wells (including any dry wells, irrigation wells, injection wells, abandoned wells, or other wells) were identified at the Subject Property.

Railroad Spurs

No railroad spurs were identified on the Subject Property.

Paint Chips Outside of Pre-1978 Building Structure

Hillmann did not observe evidence of paint chips on the exterior of the Property.

7.0 24 CFR 50.3(i) COMPLIANCE

HUD Phase I ESA protocol requires documentation of compliance with 24 CFR 50.3(i), which states that all properties proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property.

7.1 24 CFR 50.3(i) Evaluation

No conditions were identified warranting additional investigation or corrective action with regard to compliance with 24 CFR 50.3(i).

8.0 BUSINESS ENVIRONMENTAL RISKS

In accordance with the contract agreement for this assessment, Hillmann has performed cursory reviews of several potential Business Environmental Risks (also known as "Non-Scope Considerations"). The ASTM E 1527-21 standard defines the term business environmental risk (BER) as, *"a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice."*

8.1 Asbestos-Containing Material (ACM)

The contracted scope of work included a cursory visual screening of the accessed portions of buildings at the Subject Property built prior to 1990 for suspect asbestos containing materials (ACM). The information provided in this section, where applicable, is limited to identification of potential suspect materials in the readily accessible and observed areas of the building, and their general condition. This is not intended to be a comprehensive survey for the presence of ACM, and no testing has been conducted.

Suspected ACM noted within the accessed building areas included gypsum wallboard and ceiling systems, resilient flooring, covebase and associated mastics in good condition.

8.2 Lead-Based Paint

The contracted scope of work included a cursory visual screening of the condition of painted surfaces in the accessed areas of residential buildings/units built prior to 1978. This is not intended to constitute a comprehensive survey for LBP or potential lead hazards, and no testing has been conducted.

No residential buildings built prior to 1978 were present at the Property.

8.3 Radon

Data compiled by the USEPA, as summarized by the regulatory database report, indicated that the Subject Property is located in an area classified as Zone 3 or 'low risk' area for radon. Radon testing was not included in the scope of this assessment.

8.4 Mold/Microbial Damage

The contracted scope of work included a cursory visual screening of the accessed areas of the building for evidence of significant damage to building materials and finishes as result of moisture intrusion and/or mold/microbial growth. Hillmann did not observe evidence of significant problems with moisture intrusion or mold/microbial growth at the Property.

8.5 NWI Mapped Wetlands

The US Fish and Wildlife National Wetlands Inventory Wetland Mapper fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/ was reviewed for indications of jurisdictional wetlands at or immediately adjoining the Subject Property. The scope of work for this assessment excluded a visual determination of regulated wetlands at the Subject Property. It is emphasized that, regardless of the data reviewed via the NWI Wetlands Mapper, a field delineation of regulated wetlands by a qualified professional would be warranted to determine the presence or absence of regulated wetlands at the Subject Property.

The review did not indicate regulated wetland areas on the Property.

8.6 Drinking Water

The scope of work for this assessment included a review of the quality of potable water service to the Subject Property by determining the source of the drinking water supply and a review of available compliance or testing data.

Potable water service at the Property is provided by a utility connection with the New York City Water Supply System. A recently published water quality report from the utility indicated compliance with USEPA water quality standards for lead in drinking water. A copy of the report has been attached in Appendix F.

9.0 REFERENCES

- ASTM International, "Designation E 1527-21 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process"; ASTM, West Conshohocken, PA, 2021.
- STM International, "Designation E2600-15-Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transaction", ASTM, West Conshohocken, PA, 2015.
- United States Environmental Protection Agency (USEPA), "EPA Map of Radon Zones by U.S. County, EPA 402/F19/004", www.epa.gov/radon/epa-map-radon-zones, 2019
- U.S. Fish and Wildlife Service – National Wetlands Inventory, "Wetlands Mapper", fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/ 2022
- Environmental Data Resources Inc. (EDR), "The EDR Radius Map™ Report with GeoCheck®", EDR, Sheldon, CT, 2023.
- EDR, "The EDR-City Directory Abstract", EDR, Sheldon, CT, 2023.
- EDR, "The EDR Aerial Photo Decade Package", EDR, Sheldon, CT, 2023.
- EDR, "Certified Sanborn Map Report", EDR, Sheldon, CT, 2023.
- EDR, "EDR Historical Topo Map Report with QuadMatch™", EDR, Sheldon, CT, 2023.
- Buonicore A., "Methodology for Identifying the Area of Concern Around a Property Potentially Impacted by Vapor Migration from Nearby Contaminated Sources, Paper 2011-A301-AWMA", The Buonicore Group, Milford, CT, 2011.

10.0 APPENDICES

Appendix A	Site Diagram / Vicinity Map
Appendix B	Site Photographs
Appendix C	Questionnaires / User Provided Information
Appendix D	Regulatory Records
Appendix E	Historical Records
Appendix F	Other Documents / Lab Results
Appendix G	Project Personnel Qualifications



HILLMANN
CONSULTING

PHASE I ENVIRONMENTAL SITE ASSESSMENT



MAKING A BETTER FUTURE FOR ALL THE COMMUNITIES WE TOUCH

HOPE GARDENS GROUPS B, C & D

Brooklyn, New York

PREPARED FOR:

HOPE GARDENS I LLC
230 WYOMING AVENUE
PHILADELPHIA, PENNSYLVANIA 18704

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HILLMANN PROJECT NUMBER: Z35093.2

AUGUST 21, 2023

Your Property. Our Priority

Environmental Health & Safety | Due Diligence & Remediation Services | Construction Services



August 21, 2023

Mr. Dylan Salmons
Hope Gardens I LLC
230 Wyoming Avenue
Philadelphia, Pennsylvania 18704

RE: Phase I Environmental Site Assessment

Hope Gardens I-Groups B, C & D
Brooklyn, New York
Hillmann Project No: Z35093.2

Dear Mr. Salmons:

Hillmann Consulting, LLC has completed a Phase I Environmental Site Assessment of the above referenced property. This assessment was performed in conformance with our contract agreement and the scope and limitations of ASTM Practice E 1527-21, which is the latest version of the E 1527-21 standard published by the ASTM; and applicable requirements of Section 9.4.1-Phase I Environmental Site Assessment Requirements of the US Department of Housing and Urban Development Multifamily Accelerated Processing Guide-Chapter 9-Environmental Review and Requirements.

We appreciate the opportunity to provide environmental consulting services. If you have any questions concerning this report, or if we can assist you in any other matter, please contact our office at 908-688-7800.

Sincerely,

Hillmann Consulting, LLC

Chris Hirschmann
Environmental Services Director

Dave Rutherford
Technical Director

Your Property. Our Priority

Environmental Health & Safety | Due Diligence & Remediation Services | Construction Services

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List of Acronyms/Abbreviations

Hillmann may use the following abbreviations and acronyms for common terminology described in our report. Not all abbreviations or acronyms may be applicable to this report:

AOC	– Area of Concern
AST	– Aboveground Storage Tank
ASTM	– American Society for Testing Materials
BER	– Business Environmental Risk
CERCLA	– Comprehensive Environmental Response Compensation and Liability Act
CERCLIS	– Comprehensive Environmental Response Compensation and Liability Information System
CESQG	– Conditionally Exempt Small Quantity Generator
COC	– Chemicals of Concern
CORRACTS	– Corrective Action Sites
CREC	– Controlled Recognized Environmental Condition
DEC	– Department of Environmental Conservation
DEP	– Department of Environmental Protection
DHS	– Department of Health Services
DNPL	– Delisted National Priority List
DOB	– Department of Buildings
DOH	– Department of Health
DOT	– Department of Transportation
EPA	– Environmental Protection Agency
ERNS	– Emergency Response Notification System
FD	– Fire Department
FOI/FOIA/FOIL	– Freedom of Information / Freedom of Information Act / Freedom of Information Letter
HVAC	– Heating Ventilation & Air Conditioning
HREC	– Historical Recognized Environmental Condition
IAQ	– Indoor Air Quality
ISRA	– Industrial Site Recovery Act
LBP	– Lead-Based Paint
LCP	– Lead-Containing Paint
LQG	– Large Quantity Generator
LTANK	– Leaking Storage Tank
LUST	– Leaking Underground Storage Tank
SDS/MSDS	– Safety Data Sheet / Material Safety Data Sheet
NA	– Not Applicable
NFA	– No Further Action
NFRAP	– No Further Remedial Actions Planned
NPDES	– National Pollutant Discharge Elimination System
NPL	– National Priority List
OPRA	– Open Public Records Act
PAH	– Polycyclic Aromatic Hydrocarbon
PCE	– Perchloroethylene
RAO	– Response Action Outcome
RCRA	– Resource Conservation and Recovery Act
RCRIS	– Resource Conservation and Recovery Information System
REC	– Recognized Environmental Condition
SDG	– Significant Data Gap
SEMS	– Superfund Enterprise Management System
SRP	– Site Remediation Program
SQG	– Small Quantity Generator
SVOC	– Semi-Volatile Organic Compound
TCE	– Trichloroethylene
TSDF	– Treatment Storage and/or Disposal Facility
UST	– Underground Storage Tank
VEC	– Vapor Encroachment Condition
VOC	– Volatile Organic Compound

1.0 INTRODUCTION

1.1 Executive Summary

Hillmann Consulting, LLC (Hillmann) performed a Phase I Environmental Site Assessment (ESA) of Hope Gardens I-Groups B, C, and D, Brooklyn, New York (the Subject Property) in accordance with the ASTM Standard Practice E 1527-21, and applicable requirements of the US Department of Housing and Urban Development. This section contains a summary of findings, opinions and conclusions made by this assessment. However, this section, alone, does not constitute the complete assessment. The report must be read in its entirety.

Summary of Project Details

Primary Street Addresses:	251, 269, 291, 375, 400, 422 & 440 Central Avenue; 95, 105, 125, 143 & 200 Palmetto Street, 415 & 431 Evergreen Avenue				
City:	Brooklyn	County:	Kings	State:	New York
Tax ID/Parcel Number:	Block-Lots: 3341-1; 3359-29, 3350-28, 3332-1, 3276-1, 3286-1, 3297-1, 3351-1, 3342-1				
Property Owner:	NYC Housing Authority				
Zoning Designation:	R6-Residential				
Approx. Property Area:	14.94 acres				
Buildings:	Thirty-nine 3-story apartment buildings; one single-story Community Center building				
Approx. Building Size:	468 units				
Approx. Year Built:	1983				
Commercial Occupants:	None				
Current Use:	Multi-family residential; community center				
Inspected By:	Dominick Aponte				
Site Contact/Company:	Bianca Sosa / Penrose				
Site Escort/Company:	Jeff (last name withheld)/Superintendent				
Inspection Date:	July 12, 2023				
Weather Conditions:	Sunny/80 degrees F				

Findings Summary Table

Assessment Subject	No REC	REC	CREC	HREC	SDG	Rpt. Ref.
Property Regulatory Records Review:	X					4.1
Property Historical Records Review:	X					4.2
Bulk Petroleum Storage:	X					6.3
On-Site Operations:	X					6.3
On-Site Haz-Mat Storage/Use/Spills:	X					6.3
Transformers/Hydraulic Systems:	X					6.3
Waste Discharges:	X					6.3
Interviews:	X					5.0
Adjoining & Nearby Properties:	X					4.1 6.2
Prior Env. Reports/User Provided Info:			X			3.0

1.2 Findings, Opinions and Conclusions

Recognized Environmental Conditions & Significant Data Gaps

Hillmann has performed a Phase I Environmental Site Assessment in accordance with the scope and limitations of ASTM Practice E 1527-21 of the Subject Property as described in Section 2.2 of this report. Any additions to, exceptions to, or deletions from this practice are also described in Section 2 of this report. This assessment has revealed the following recognized environmental conditions (RECs), controlled recognized environmental conditions (CRECs) and/or significant data gaps (SDGs) in connection with the Subject Property:

RECOGNIZED ENVIRONMENTAL CONDITIONS
No RECs were identified.
CONTROLLED RECOGNIZED ENVIRONMENTAL CONDITIONS
The subject Property underwent a series of environmental investigations and remediation by AKRF and Hillmann with NYSDEC oversight between 2018 and 2022 to address findings of contaminants in the subsurface related to historic urban fill and prior commercial uses. As part of the investigations, sampling and analysis of soils, groundwater and soil vapor were conducted to investigate suspected areas of concerns related to historical uses. Remedial actions were completed in accordance with a NYSDEC approved Remedial Action Plan, and consisted of the removal and replacement of the top two feet of soils in unpaved areas of the Subject Property, the installation of sub-slab depressurization system (SSDS) at 105 Palmetto Street, 210 Palmetto Street, 415 Evergreen Avenue, 422 Central Avenue, and 1201 Gates Avenue, and the installation of a 2.5" thick concrete slab and 20-mil vapor barrier will also be installed throughout the basement and sub-grade crawl space sidewalls at 1320 Gates Avenue, 1300 Gates Avenue,

200 Palmetto Street, 390 Wilson Avenue, 191 Woodbine Avenue, 440 Central Avenue and 431 Evergreen Avenue. The remedial action included the implementation of a Site Management Plan including procedure for appropriate operation, maintenance and inspection. A November 3, 2021 closure letter issued from NYCDEP approved the Remedial Action Report and Site Management Plan. Given the completed remediation subject to engineering and institutional controls, a CREC has been identified.

SIGNIFICANT DATA GAPS

No SDGs were identified.

RECOMMENDATIONS

Hillmann recommends the following:

No additional investigation is warranted. Maintenance and compliance with existing engineering and institutional controls (Site Management Plan) is recommended.

Historical Recognized Environmental Conditions (HRECs)

This assessment has revealed the following *historical recognized environmental conditions* (HRECs) in connection with the Subject Property:

HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITIONS

No HRECs were identified

De Minimis and Other Environmental Conditions

The following *de minimis* and other environmental conditions were identified:

OTHER ENVIRONMENTAL CONDITIONS / DE MINIMIS CONDITIONS

No *de minimis* conditions were identified.

Several adjoining and nearby sites were identified on various environmental databases of environmental concerns. None of these sites are considered likely to have impacted the Subject Property.

Environmental Professional Statement

I/We declare that, to the best of my professional knowledge and belief, I/we meet the definition of *Environmental professional* as defined in § 312.10 of 40 C.F.R. 312. I/we have the specific qualifications based on education, training and experience to assess a *property* of the nature, history and setting of the *subject property*. I/We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 C.F.R. Part 312.



David Rutherford
Environmental Professional



Chris Hirschmann
Environmental Professional

1.3 24 CFR 50.3(i) Compliance

The scope of this report included an assessment for conditions of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property.

24 CFR 50.3(i) Evaluation
No conditions were identified warranting additional investigation or corrective action with regard to compliance with 24 CFR 50.3(i).
24 CFR 50.3(i) Recommendations
Not applicable-no indication of non-compliance with 24 CFR 50.3(i) was identified.

1.4 Business Environmental Risks / Non-ASTM Scope

Hillmann has performed a limited review of the following potential Business Environmental Risks (BER), also known as “Non-ASTM Scope” concerns, in accordance with the contracted scope of work scope for this assessment. BER is defined by ASTM E 1527-21 as *“a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice.”* The following is a summary of findings for the limited review of potential BERs, where applicable, as per the contracted scope of work and limitations outlined in Section 2. For a more detailed discussion of the findings and contracted scope of work, please see the referenced report section.

Subject	Findings	Not Appl.	Rpt. Ref.
Asbestos	Suspected ACM noted within the accessed building areas included gypsum wallboard and ceiling systems, resilient flooring, covebase and associated mastics in good condition.		7.1
Lead Paint	No residential structures built prior to 1978 were identified. Site reconnaissance did not identify evidence of lead paint chips/debris on the exterior grounds of the Subject Property.		7.2
Radon	Property is located in the USEPA radon designation Zone 3 or 'low risk' area for radon.		7.3
Mold / Microbial Damage	Hillmann did not observe evidence of significant problems with moisture intrusion or mold/microbial growth at the Property		7.4

NWI Wetlands	No NWI mapped wetlands areas were identified at the Subject Property.		7.5
Drinking Water	Potable water service at the Property is provided by a utility connection with the New York City Water Supply System. A recently published water quality report from the utility indicated compliance with USEPA water quality standards for lead in drinking water.		7.6

2.0 GENERAL

2.1 Purpose and Scope

This assessment was conducted utilizing generally accepted Phase I ESA industry standards in accordance with the ASTM Standard Practice E 1527-21. The ASTM describes these methodologies as representing good commercial and customary practice for conducting an environmental site assessment of a parcel of commercial real estate with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. § 9601) and petroleum products. This practice is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner or bona fide prospective purchaser limitations on CERCLA liability (“landowner liability protections,” or “LLPs”): that is, the practice that constitutes all appropriate inquiries into the previous ownership and uses of the Subject Property consistent with good commercial and customary practice as defined at 42 U.S.C. §9601(35) (B). The goal of the processes established by ASTM E 1527-21 is to identify *recognized environmental conditions* in connection with the Subject Property.

The term *recognized environmental condition* (REC) is defined by ASTM E 1527-21 as “(1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment.”

The term *controlled recognized environmental condition* (CREC) is a type of recognized environmental condition and defined by ASTM E 1527-21 as a “*recognized environmental condition affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities with hazardous substances or petroleum products allowed to remain in place subject to implementation of required controls (for example, activity and use limitations or other property use limitations).*”

The term *historical recognized environmental condition* (HREC) is defined as a “*previous release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities without subjecting the subject property to any controls (for example, activity and use limitations or other property use limitations).*” The ASTM E 1527-21 standard has clarified that a *historical recognized environmental condition* is not a *recognized environmental condition*.

The term *de minimis condition* is defined by the ASTM, “*...a condition related to a release that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.*” A condition determined to be a *de minimis condition* is not REC nor a CREC.

The chief components of this assessment are generally described as follows:

- A non-invasive visual reconnaissance of the Subject Property and adjoining properties in accordance with ASTM guidelines for evidence of RECs.
- Interviews of past and present owners and occupants and state and local government officials, seeking information related to the potential presence of RECs at the Subject Property.
- A review of standard physical record sources for available topographic, geologic and groundwater data.
- A review of standard historical record sources, such as fire insurance maps, city directories, aerial photographs, prior reports and interviews, etc., to determine prior uses of the Subject Property from the present, back to the Subject Property's first developed use, or back to 1940, whichever is earlier.
- A review of standard environmental record sources including federal and state environmental databases, and additional environmental record sources, to identify potential regulatory concerns with the Subject Property, adjoining properties and properties located within the surrounding area.
- A review of the compiled information and data to assess documentation of compliance with 24 CFR 50.3(i); that all properties proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances under conditions where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property.

An evaluation of environmental or other regulatory compliance matters is excluded from the scope of this assessment.

These methodologies are described as representing good commercial and customary practice for conducting an Environmental Site Assessment of a property for the purpose of identifying recognized environmental conditions.

This assessment has also been completed in conformance with US HUD MAP Guide-Section 9.4.1-Phase I Environmental Site Assessment Requirements.

Compliance with 24 CFR 50.3(i) has been assessed based on review of site observations, records reviewed and interviews conducted as per ASTM E1527-21 standards. Documentation of 24 CFR 50.3(i) compliance in this report is based on the observations made and data collected at the time of the assessment. It is not guarantee that no such hazards exist; nor is it a warrantee against future conditions out of compliance with 24 CFR 50.3(i).

Business Environmental Risks/Non-ASTM Scope Considerations

In accordance with our contract agreement, Hillmann may have addressed the following potential environmental subject matters that are outside of the requirements of the ASTM E 1527-21 standard:

- Asbestos-Containing Materials (ACM): A cursory non-intrusive visual screening for the presence of suspect ACM within the accessed areas of buildings built prior to 1990 on the Subject Property. If the Subject Property contains buildings built in 1990 or later, the contracted scope of work excludes a cursory non-intrusive visual screening or any other level of evaluation for suspect ACM; however, the exclusion for buildings built ≥ 1990 should not be interpreted to suggest that any such buildings are free of ACM or would not warrant evaluation of building materials for ACM prior to disturbance. It is emphasized that this cursory non-intrusive visual screening does not constitute an asbestos survey/inspection of the premises. An asbestos survey/inspection should be sought by the report User(s) if a greater certainty is desired regarding ACM and potential asbestos hazards at the Subject Property. Furthermore, a review of regulatory compliance matters pertaining to asbestos is excluded from the scope of work.
- Lead-Based Paint (LBP): A cursory non-intrusive visual screening of the condition of painted surfaces in the accessed areas of residential buildings/units built prior to 1978 on the Subject Property. If the Subject Property contains buildings built in 1978 or later, the contracted scope of work excludes any cursory non-intrusive visual screening or other level of evaluation for suspect LPB; however, the scope of work exclusion for building built ≥ 1978 should not be interpreted to suggest that any such buildings are free of LPB or other lead hazards. It is emphasized that this cursory non-intrusive visual screening does not constitute a comprehensive survey for LBP or potential lead hazards. A comprehensive inspection should be sought by the report User(s) if more certainty is desired regarding LBP at the Subject Property. Furthermore, a review of regulatory compliance matters pertaining to lead-based paint is excluded from the scope of work.
- USEPA Designated Radon Potential: Review of general non site-specific data published by the USEPA regarding the Radon Zone classification for the area of the Subject Property.
- Mold/Microbial Damage: A cursory non-intrusive visual screening within the accessed areas of buildings on the Subject Property for evidence of systemic microbial problems, including visible mold growth, water damaged building materials or musty odors. It is emphasized that this cursory non-intrusive visual screening does not constitute a comprehensive survey for moisture/mold/microbial damage. A more comprehensive inspection should be sought by the report User(s) if more certainty is desired regarding the potential for moisture/mold/microbial damages at the Subject Property.
- NWI Wetlands: The Subject Property has been reviewed for jurisdictional wetlands using the National Wetlands Inventory-Wetland Mapper to determine whether mapped federal wetlands have been indicated on the Subject Property. Any further evaluation or legal delineation of regulated wetlands areas is excluded from the scope of work. It is also emphasized that a field

delineation of regulated wetlands by a qualified professional would be warranted to more fully determine the presence or absence of regulated wetlands at the Subject Property.

- Lead in Drinking Water: Review of the potential for elevated levels of lead in the drinking water by determining the source of the drinking water supply and a review of available testing or compliance data reports.

The limited evaluation of Business Environmental Risks is not intended to comply with any HUD environmental assessment requirements outside of Section 9.4.1, Chapter 9 of the HUD Multifamily Accelerated Processing (MAP) Guide.

2.2 Property Location/Legal Description

Property location and legal description details are described as follows:

Primary Street Address:	251, 269, 291, 375, 400, 422 & 440 Central Avenue; 95, 105, 125, 143 & 200 Palmetto Street, 415 & 431 Evergreen Avenue				
City:	Brooklyn	County:	Kings	State:	New York
Tax ID/Parcel Number:	Block-Lots: 3341-1; 3359-29, 3350-28, 3332-1, 3276-1, 3286-1, 3297-1, 3351-1, 3342-1 , 3334-22, 3334-50				
Approx. Land Area:	14.94 acres				
Apprx. Latitude/Longitude:	North 40.6969450 degrees/West 73.9211580 degrees				
Additional Details (if appl.):	NA				
Property Owner:	NYC Housing Authority				
Zoning Designation:	R6-Residential				

2.3 Data Gaps

A *data gap* is defined by the ASTM as a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information. A data gap is only significant if other information and/or professional experience raises reasonable concerns involving the data gap and the ability to determine the presence or absence of recognized environmental conditions. The following table summarizes data gaps encountered during the assessment as well as a discussion of their significance.

Data Gap:	Significant (Yes/No)?	Discussion
Historical records data failure	No	The date and/or type of the first developed use of the Subject Property was not documented.

		Records gaps exceeding five years were encountered; however, no significant site use changes are suspected during these intervals.
Response to agency records requests not received as of date of report.	No	Any additional information indicative of a REC will be forwarded upon receipt.

2.4 ESA Report Component Dates/Viability

The ASTM E 1527-21 standard states that an environmental site assessment (ESA) is presumed to be viable when it is conducted within 180 days prior to the date of acquisition of the Subject Property (or, for transactions not involving an acquisition such as a lease or refinance, the date of the intended transaction). Specifically, all of the following components must be conducted or updated within 180 days prior to the date of acquisition or prior to the date of the transaction. The following table summarizes the component completion dates:

ESA Component	Completion Date
Interviews:	July 12, 2023
Env Lien Search:	(excluded from scope)
Government Records Review:	August 16, 2023
Visual Inspections:	July 12, 2023
Env. Professional Declaration:	August 21, 2023

2.5 User Reliance

This report is for the exclusive use of Hope Gardens I LLC, the U.S. Department of Housing and Urban Development (HUD), and additional relying entities, if any, named on the front cover. No additional individuals or entities shall be permitted to rely upon any data, interpretation, reports or other information or documentation contained in this report, without first obtaining the consent of Hope Gardens I LLC; and without obtaining written consent from Hillmann in the form of a reliance agreement/letter.

Hillmann may, in its sole discretion, withhold its consent to additional reliance and/or Hillmann may condition consent for reliance upon payment of a fee or other conditions.

2.6 Significant Assumptions

The following significant assumptions are made:

- The site operations at the time of the site visit are assumed to reflect typical site conditions relative to potential environmental conditions and that no concealment of environmental conditions or releases by site owners or occupants has occurred. Likewise, it is assumed that no areas of the Subject Property with potential environmental concerns or RECs were concealed or otherwise not reported, intentionally or unknowingly, by the Subject Property owners/occupants and/or site escort at the time of the site visit.

- For the purpose of estimating the approximate direction of groundwater flow in the absence of site-specific groundwater data, unless indicated otherwise, an assumption has been made that the gradient of groundwater flow follows the surface topography of the Subject Property and immediate surrounding area.

2.7 General Limitations and Exceptions

Limitations

The report turnaround time specified by the contract agreement for this assessment may present a limitation to the availability of pertinent regulatory agency records. Such limitations, if encountered, would be further specified in Section 4.1.

Significant limitations related to the condition or accessibility of the Subject Property at the time of the site reconnaissance, if encountered, are reported in Section 6.1.

Other Exceptions or Deletions

No other exceptions or deletions from the ASTM Standard E 1527-21 are reported.

Special Terms and Conditions

This Phase I Environmental Site Assessment has been prepared using reasonable efforts in each phase of its work to identify recognized environmental conditions associated with hazardous substances, wastes and petroleum products at the Subject Property. Findings within this report are based on information collected from observations made on the day of the site reconnaissance and from reasonably ascertainable information obtained from governing public agencies and private sources.

This report is not definitive and should not be assumed to be a complete or specific definition of the conditions above or below grade. Information in this report is not intended to be used as a construction document and should not be used for demolition, renovation, site development, redevelopment, or other construction purposes. No representation or warranty is made that the past or current operations at the Subject Property are, or have been, in compliance with all applicable federal, state and local laws, regulations and codes.

Findings, conclusions and recommendations presented in this report are based on visual observations of the Subject Property, interviews conducted, the records reviewed, information provided by the Client, and/or a review of readily available and supplied drawings and documents. No warranty or guarantee is made of the accuracy or completeness of information that was obtained from ostensibly knowledgeable individuals, regulatory agency representatives or other secondary sources, including information obtained during the assessment, whether written, graphic or verbal, provided by the Subject Property contact(s) or as shown on any documents reviewed or received from the Subject Property contact, owner or agent, or government agency

source. Independent verification of the accuracy or completeness of all information reviewed or received during the course of this assessment is not made and excluded from the scope of work for this assessment.

Regardless of the findings stated in this report, Hillmann is not responsible for consequences or conditions arising from facts that were concealed, withheld or not fully disclosed at the time the assessment was conducted.

This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated.

The regulatory database report provided is based on an evaluation of the data collected and compiled by a contracted data research company. Hillmann can neither warrant nor guarantee the accuracy or completeness of the information obtained from the regulatory database report provider during the course of this assessment.

Subsurface conditions may differ from the conditions implied by the surface observations and can only be reliably evaluated through intrusive techniques.

Reasonable efforts have been made during this assessment to identify aboveground and underground storage tanks and ancillary equipment. Reasonable efforts are limited to information gained from visual observation of largely unobstructed areas, recorded database information held in public record and available information gathered from interviews. Such methods may not identify surficial and subsurface features that may have been hidden from view due to parked automobiles and other vehicles, snow cover, vegetative growth, pavement, construction or debris pile storage or incorrect information from sources.

No guarantee, explicit or implied, is made that the records pertaining to historical ownership or occupancy which were reviewed represent a comprehensive or precise delineation of past Property ownership or tenancy for legal purposes.

The ASTM E 1527-21 standard states that recommendations are not required to be included in a Phase I ESA report; however, further that recommendations are an additional service that may be useful in the User's analysis of landowner liability protections or business environmental risks; and that the User should consider whether recommendations for additional inquiries or other services are desired.

Recommended response actions offered in Section 1.3, if any, are provided as an option to the Client, and may have taken into account the Client's relation to the Subject Property and/or their intended purpose of this assessment. If included, it is not intended by Hillmann to represent the only course(s) of action, or inaction, to take. Furthermore, it is emphasized that additional response actions may become advisable depending on the outcome of the initial action(s) taken. Hillmann advises that Client and any additional authorized relying parties as specified on the report Cover and Section 2.5, or via letter of reliance extension, undertake consultation with legal counsel familiar with environmental and real estate law would be beneficial to the decision making process

for the type and timing of a response action to identified RECs or Business Environmental Risks, if any.

Due to the limited nature of our review of potential Business Environmental Risks, the User(s) of the report should consider whether to take additional action(s) to further define, properly manage and/or mitigate potential BERs.

The User(s) assumes responsibility for business decisions that it makes utilizing information in the report provided by Hillmann. Hillmann shall not be responsible for any conclusions, interpretations and/or decisions of the User(s).

In the event of any conflict between the terms and conditions of this report and the terms and conditions of the consulting services agreement for this project, the consulting services agreement shall control.

3.0 USER PROVIDED INFORMATION

The term "User" is defined by ASTM as the party seeking to use Practice E 1527-21 to complete an environmental site assessment of the Subject Property; specifically, the entity or entities named on the front cover to which the report has been addressed.

3.1 Prior Environmental Reports/Documentation

The following prior environmental reports/documentation were provided:

Phase I Environmental Site Assessment, Bushwick Houses II Groups B & D, 1201, 1210-1320 Gates Avenue, 415-431 Evergreen Avenue, 375-399, 400-440 Central Avenue, 95-161, 170-210 Palmetto Street, 191 Woodbine Street and 390 Wilson Avenue Block 3332, Lot 1, Block 3341, Lot 1, Block 3342, Lot 1, Block 3351, Lot 1, Block 3350, Lot 28 and Block 3359, Lot 29, Brooklyn, New York 11221; prepared by Hillmann Consulting LLC, dated June 15, 2018. This report covered the parcels of Groups B & D but did not cover the three parcels of Group C. The report concluded the following regarding RECs in connection with the Subject Property:

"This assessment has revealed no evidence of recognized environmental conditions in connection with the Property, except for the following:

"REC #1: Sanborn maps identified dry cleaning in three locations on the Property prior to construction of the existing improvements. The locations are Block 3332 (part of Group D) in the vicinity of 1193 Gates Avenue from 1951 to 1977; Block 3351 (part of Group D) in the vicinity of 389 Central Avenue from 1965 to 1977; and Block 3359 (part of Group B) in the vicinity of 434 Central Avenue from 1965 to 1968. The potential for historical on-site dry cleaning use is identified as a REC.

"REC #2: Sanborn maps identified auto repair in three locations on the Property prior to construction of the existing improvements. The locations are Block 3342 (part of Group D) in the vicinity of 383 Central Avenue from 1951 to 1968; Block 3350 (part of Group B) in the vicinity of 428 Central Avenue from 1951 to 1968; and Block 3359 (part of Group B) in the vicinity of 152 Woodbine Street Avenue from 1951 to 1981. The potential for historical on-site petroleum-related waste is identified as a REC

"REC #3: City directories identified an undertaker on the Property prior to construction of the existing improvements. The location is Block 3350 (part of Group B) in the vicinity of 422 Central Avenue from 1928 to 1960. The potential for historical on-site embalming fluid use is identified as a REC.

"HREC #1: The USEPA Envirofacts online database identified NYCHA - Hope Gardens Houses, 143 Palmetto Street, in the Integrated Compliance Information System (ICIS) as National Pollutant Discharge Elimination System (NPDES) NYU200721 and indicated that it is a minor unpermitted facility. One administrative formal case # NY-R200671185 for non-compliance with the Clean Water Act (CWA) was listed in the last 5 years. A penalty of \$12,500 was settled on June 16, 2016. The current compliance status was listed as "no violation" as of December 31, 2017. Based on the current status, the prior violation is identified as a HREC for the Property; however, no further action or investigation is recommended at this time.

"No CRECs were identified."

Remedial Action Plan, NYCHA Bundle 3 – Bushwick Groups A and C, Brooklyn, New York; prepared by AKRF; dated September 2018. This report covers the three parcels of Group C (251, 269 & 291 Central Avenue), plus additional parcels not covered by this assessment. This report included a summary of a June 2018 Phase I Environmental Site Assessment report, as follows:

The Phase I ESA identified the following Recognized Environmental Conditions (RECs)/Vapor Encroachment Conditions (VECs):

“Historical on-site uses noted on Sanborn maps and/or City Directories dated between circa 1888 and 1992 included: a store front manufacturer (in the current location of Building 6), an industrial facility with boiling kettles, an independent electrical plant and a gas engine (in the area of current Building 14), three dry cleaners (in the current locations of Buildings 1, 4, and 15), an upholsterer, a paint/hardware store and stove repair store (in the current location of Building 13), a knitting mill (in the current location of Building 20), paint stores (in the current location of Buildings 12 and 21), and an undertaker (in the current location of Building 25).

“Sanborn maps identified automotive/industrial uses in the vicinity of Group A on maps dated between 1907 and 2007 including an iron sash factory, undertakers, clothing manufacturers, and a food processor to the north; clothing manufacturers and a garage to the east; garages and a machine shop to the south; undertakers and clothing manufacturers to the west; and an auto repair shop to the southwest. In the vicinity of Group C, uses included a brewery (subsequently a filling station), clothing manufacturers and a drycleaner to the north; an auto repair shop, clothing manufacturers and a garage to the east; and an auto body shop, garages, and a used car sales facility to the west.

“Electronic Building Department files dated between 1901 and 1968 indicated multiple oil burner applications (implying associated petroleum storage tanks) associated with former on-site structures.

“The regulatory database review identified five historical auto stations within 200 feet (four within 200 feet of Group A and one within 200 feet of Group C) and one closed status spill within 85 feet of Group A that could have affected area subsurface conditions.”

Other On-site Environmental Concern (including items outside the scope of ASTM E1527-13 such as asbestos containing material [ACM], lead-based paint [LBP] and/or polychlorinated biphenyls [PCBs] in building materials or fill/debris):

“Buried demolition debris from former on-site structures could contain ACM, LBP, PCBs and/or underground storage tanks. Although less likely based on the age of the buildings (constructed circa 1987), ACM, PCBs and/or LBP could be present within building components.

“Based on the findings of the Phase I ESA, AKRF recommended that, as part of future renovation or redevelopment activities, a Subsurface (Phase II) Investigation be conducted in accordance with a NYCDEP-approved Subsurface (Phase II) Work Plan. The scope was established in AKRF’s June 2018 Work Plan, and was approved by the New York City Department of Environmental Protection (NYCDEP) in a letter dated July 2, 2018.”

This report also included the following summary of a September 2018 Subsurface (Phase II) Investigation report:

"AKRF conducted a Subsurface (Phase II) Investigation at the Site in August 2018 based on the findings of the June 2018 Phase I ESA and in general accordance with the NYCDEP-approved Sampling Protocol and Health and Safety Plan (Subsurface Phase II Work Plan). The investigation included a geophysical investigation and the advancement of 11 soil borings at Group A and 13 soil borings at Group C with the collection and laboratory analysis of 24 samples, installation of 1 temporary well at Groups A and C (2 total) with the collection and laboratory analysis of 2 groundwater samples, and the installation of temporary probes for the collection and laboratory analysis of 21 soil vapor samples, 21 indoor air samples, and 7 ambient (outdoor) air samples..."

"...A summary of the analytical results is as follows:

Soil

Ten VOCs, including some petroleum-related compounds [e.g., benzene, ethylbenzene, 2-butanone (MEK), xylenes], presumed laboratory contaminants (e.g., acetone, methylene chloride), and chlorinated solvents [e.g., tetrachloroethene (PCE), trichloroethene (TCE)], were detected in one or more of the soil samples at concentrations ranging from 0.0002 to 0.046 milligrams per kilogram (mg/kg). Acetone was detected in one sample at a concentration of 0.062 mg/kg, slightly above its UUSCO of 0.05 mg/kg.

Seven semivolatile organic compounds (SVOCs) [benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene] were detected at concentrations above the UUSCOs and/or RRSCOs. The detected SVOCs were primarily polycyclic aromatic hydrocarbons (PAHs), a class of SVOCs commonly found in fill material, especially fill containing combustion byproducts such as coal ash.

Seven metals (arsenic, barium, copper, lead, nickel, zinc, and mercury) were detected at concentrations above the UUSCOs and/or RRSCOs.

Total PCBs exceeded the UUSCO for total PCBs in one sample.

The pesticides 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, and dieldrin were detected at concentrations above their UUSCOs, but below RRSCOs.

Groundwater

One VOC (acetone) was detected at a concentration of 51 micrograms per liter ($\mu\text{g/L}$) above its AWQS of 50 $\mu\text{g/L}$.

Five metals (barium, chromium, lead, magnesium, and thallium) exceeded their respective AWQS for the unfiltered (total) metals analysis. Two metals (barium and sodium) were detected above their respective AWQS for the filtered (dissolved) analysis. The metals detected in the unfiltered groundwater samples are likely primarily attributable to entrained sediment from the observed fill material rather than a release or other source area. The metals detected in the filtered samples are likely attributable to background conditions typical of regional groundwater quality, and not to a release or other source area.

No SVOCs, PCBs, or pesticides were detected above AWQS.

Soil Vapor

Thirty-eight VOCs, including petroleum-related compounds [e.g., acetone, benzene, toluene, ethylbenzene, xylenes, trimethylbenzene, 2,2,4-trimethylpentane, 2-hexanone, isopropanol, methyl ethyl ketone (MEK), n-

heptane, and n-hexane], and chlorinated solvents [e.g., chloroform, carbon tetrachloride, cis-1,2-dichloroethene, methylene chloride, tetrachloroethene (PCE), and trichloroethene (TCE)], in one or more of the samples ranging from 0.27 to 2,100 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). Based on the soil vapor concentrations, indoor air samples A-IA-2, C-IA-11, CIA-15, and C-IA-17 (corresponding to A-SV-2, C-SV-11, C-SV-15, and C-SV-17) were activated to evaluate indoor air conditions. Based on the sub-slab/soil vapor and indoor air results, the NYSDOH Soil Vapor/Indoor Air Matrices for PCE and TCE are relevant, and indicate "no further action" (e.g., further investigation and/or mitigation) is required."

Remedial Action Work Plan, Bushwick Houses Groups B & D, Brooklyn, New York; prepared by Hillmann Consulting, LLC; dated December 2018. This report covered the parcels of Groups B & D but did not cover the three parcels of Group C. The report summarized the findings of remedial investigations and proposed the following remedial actions:

"The proposed remedial action will consist of:

"1. Construction and maintenance of a cover consisting of 24-inches (2 feet) of imported clean fill/topsoil in in any proposed new uncapped/landscaped areas including in the vicinity of sample SB-1, S-D and S-E to prevent human exposure to soil/fill.

"2. Groundwater in the vicinity is non-potable and not used for drinking; there is no pathway for human contact of onsite groundwater. Corresponding soil results did not indicate source(s) of groundwater contamination in the vicinity of the groundwater samples. All surrounding buildings were evaluated for potential vapor intrusion; occupants of buildings with identified potential VOC vapor intrusion concerns will be protected from vapor intrusion through an SSDS and vapor barrier (detailed below). Based on the above reference information, no additional remedial activities are necessary regarding the exceedances of VOCs in GW-B and PAH compounds in GWB, GW-C and GW-H. The exceedances are expected to naturally degrade in the environmental over time.

"3. Installation of an active sub-slab depressurization system (SSDS) at 105 Palmetto Street, 210 Palmetto Street, 415 Evergreen Avenue, 422 Central Avenue, and 1201 Gates Avenue. The SSDS will consist of a network of horizontal pipe set in the middle of a gas permeable layer immediately beneath the building slab and vapor barrier system. The horizontal piping will consist of fabric wrapped, perforated schedule 40 2 inch PVC pipe connected to a steel riser pipe that penetrates the slab and travels through the building to the roof. The gas permeable layer will consist of a 2-inch thick layer of clean stone surrounding the sub-grade pipe. The pipe will be finished at the roof line with a goose neck pipe to prevent rain infiltration. The active SSDS will be hardwired and will include a blower installed in an accessible area. The active SSDS is an Engineering Control for the remedial action. A composite cover consisting of a 2.5" thick concrete slab and 20 mil vapor barrier will be installed throughout the basement and sub-grade crawl space sidewalls. A composite cover consisting of a 2.5" thick concrete slab and 20-mil vapor barrier will also be installed throughout the basement and sub-grade crawl space sidewalls at 1320 Gates Avenue, 1300 Gates Avenue, 200 Palmetto Street, 390 Wilson Avenue, 191 Woodbine Avenue, 440 Central Avenue and 431 Evergreen Avenue. Specs for the vapor barrier are included in Appendix D.

"4. Submission of a RAR that describes the remedial activities, certifies that the remedial requirements have been achieved, defines the Site boundaries, lists any changes from this RAWP, and describes all Engineering and Institutional Controls to be implemented at the Site."

Remedial Action Report, Bushwick Groups B, C & D, Brooklyn, New York; prepared by HK Engineering & Geology, D.P.C.; dated August 2021. This report documented the completion of remedial action plans with NYSDEC oversight. The remedial actions were described as follows:

- 1. Selection of Restricted-Residential Use (Track 2) Soil Cleanup Objectives (SCOs).*
- 2. Site mobilization involving Site security setup, equipment mobilization, utility mark outs, marking and staking excavation areas.*
- 3. Excavation and removal of soil/fill for new landscaping. Transportation and off-Site disposal of excavated soil/fill material at licensed or permitted facilities in accordance with applicable laws and regulations for handling, transport, and disposal, and this plan. Sampling and analysis of excavated media as required by disposal facilities. Appropriate segregation of excavated media on-Site.*
- 4. Imported materials used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations.*
- 5. As part of development, two feet of clean soil in all newly landscaped areas including in areas identified in the RAWP (S-B1, S-D and S-E).*
- 6. Installation of an active sub-slab depressurization system (SSDS) at 105 Palmetto Street, 210 Palmetto Street, 415 Evergreen Avenue, 422 Central Avenue, and 1201 Gates Avenue. The SSDS will consist of a network of horizontal pipe set in the middle of a gas permeable layer immediately beneath the building slab and vapor barrier system. The horizontal piping will consist of fabric wrapped, perforated schedule 40 2-inch PVC pipe connected to a steel riser pipe that penetrates the slab and travels through the building to the roof. The gas permeable layer will consist of a 2-inch thick layer of clean stone surrounding the sub-grade pipe. The pipe will be finished at the roof line with a goose neck pipe to prevent rain infiltration. The active SSDS will be hardwired and will include a blower installed in an accessible area. A composite cover consisting of a 2.5" thick concrete slab and 20 mil vapor barrier will be installed throughout the basement. The active SSDS is an Engineering Control for the remedial action.*
- 7. A composite cover consisting of a 2.5" thick concrete slab and 20-mil vapor barrier will also be installed at 1320 Gates Avenue, 1300 Gates Avenue, 200 Palmetto Street, 390 Wilson Avenue, 191 Woodbine Avenue, 440 Central Avenue and 431 Evergreen Avenue.*
- 8. Performed all activities required for the remedial action, including acquisition of required permits and attainment of pretreatment requirements, in compliance with applicable laws and regulations.*

The 2022 Remedial Action Report stated that the top 24 inches of soils were removed from landscaped areas (25 cubic yards total) and exported off-site. A total of 60 cubic yards of clean backfill were imported to replace the excavated soils.

The report also documented the installation of sub-slab depressurization systems (SSDS) at 105 Palmetto Street, 210 Palmetto Street, 415 Evergreen Street, 422 Central Avenue and 1201 Gates Avenue; and the installation of vapor barrier to 1320 Gates Avenue, 1300 Gates Avenue, 390 Wilson Avenue, 191 Woodbine Avenue, 440 Central Avenue and 431 Evergreen Avenue.

Engineering and institutional control were implemented including the SSDS and vapor barrier installations, the placement of a 2-foot thick clean soil cover, and implementation of a Site Management Plan including procedure for appropriate operation, maintenance and inspection.

NYCDEP Closure Letter, re: NYCHA Bundle 3, Bushwick Groups B, C and D; dated November 3, 2021. The letter stated the NYCDEPs acceptance of the August 2021 Remedial Action Report for Groups B, C & D.

3.2 User Responsibilities

The User must conduct inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31 to meet their responsibilities to qualify for one of the Landowner Liability Protections (LLPs) offered by federal regulations. The User should provide the following information to the environmental professional (Hillmann). Failure to conduct these inquiries could result in a determination that “all appropriate inquiries” is not complete. To assist the report User to meet these requirements, Hillmann has provided a questionnaire of the required inquiries (User Questionnaire) with instructions to complete and return to Hillmann. A completed questionnaire was not returned to Hillmann.

Question	Yes/No	Detail
1. Search of Land Title and Judicial Records: Has the User performed a search of land title records and judicial records for environmental liens and/or Activity and Use Limitations (AULs) filed or recorded against the Subject Property?		
1.a. If yes to Question 1: Did the search identify any environmental liens or Activity and Use Limitations (AUL), such as engineering controls, land use restrictions or institutional controls that are in place at the Subject Property and/or have been filed or recorded against the Subject Property under federal, tribal, state or local law?		
1.b. If yes to Question 1: Has the User provided the result of the search of land title and judicial records to Hillmann?		
2. Specialized knowledge or experience of the person seeking to qualify for the LLP: Do you have any specialized knowledge or experience related to the Subject Property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the Subject Property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?		
3. Relationship of the purchase price to the fair market value of the Subject Property if it were not contaminated: Does the purchase price being paid for this property reasonably reflect the fair market value of the Subject Property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the Subject Property?		
4. Commonly Known or Reasonably Ascertainable Information: Are you aware of commonly known or reasonably ascertainable information about the Subject Property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example: (respond below)		
4.a. -Do you know the past uses of the Subject Property?		
4.b. -Do you know of specific chemicals that are present or were once present at the Subject Property?		
4.c. -Do you know of spills or other chemical releases that have taken place at the Subject Property?		

Question	Yes/No	Detail
<p>4.d. -Do you know of any environmental cleanups that have taken place at the Subject Property?</p>		
<p>5. The degree of obviousness of the presence or likely presence of contamination at the Subject Property, and the ability to detect the contamination by appropriate investigation: Based on your knowledge and experience related to the Subject Property are there any obvious indicators that point to the presence or likely presence of releases at the Subject Property?</p>		
<p>6. Litigation/Administrative Proceedings/Government Notice: As the User of this ESA, do you have knowledge of (1) any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the Subject Property; (2) any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the Subject Property; and (3) any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.</p>		
<p>7. User's Reason/Purpose for Performing Phase I ESA:</p>		<p>The User did not indicate the purpose of the assessment. In accordance with ASTM E1527-21, it is assumed that the Phase I ESA was being performed in order to qualify for landowner liability protection to CERCLA liability.</p>

4.0 RECORDS REVIEW

4.1 Environmental Information

Physical Setting

Source	Discussion
USGS 7.5 minute Topographic Map Data: (EDR Geocheck-Physical Setting Source Addendum)	The Subject Property lies at an elevation of approximately 40 to 50 feet above mean sea level. An interpretation of topographic contour lines as well as a review of the EDR Geocheck-General Topographic Gradient suggested terrain sloping downward towards the northeast. The closest down gradient water body is Newtown Creek, located approximately 4600 feet to the NW.
USDA SCS Soil Data: (EDR Geocheck-Physical Setting Source Addendum)	The soil type at the Subject Property is classified as "Urban Land". The Urban Land designation indicates that a majority of the original soils on the site have been disturbed by development or covered with impervious surfaces, such as buildings or pavement.
Geologic Data: (EDR Geocheck-Physical Setting Source Addendum)	The geologic formation in the vicinity of the Property is described as a stratified sequence of the Mesozoic Era, Cretaceous System, and Upper Cretaceous Series.
Prior Env. Reports: (Section 3.1)	No pertinent data was obtained from the prior environmental reports discussed in Section 3.1.
Additional Sources/Data:	No additional physical setting sources or data was obtained.
Groundwater Flow Discussion:	Based on a review of the above information as well as observation of the site, the direction of shallow groundwater flow at the site is inferred to be towards the northeast.

Federal, State and Tribal Environmental Record Sources

Standard government records were obtained and reviewed primarily via a third-party regulatory database report, titled EDR Radius Map™ Report, prepared by Environmental Data Resources of Shelton, CT. The report provided government records from the standard environmental resources and within minimum search distances specified by Section 8.2.2-Table 2 of the ASTM E 1527-21; and were reviewed for the purpose of identifying potential RECs in connection with the Subject Property. Additional detail of the source and significance of the regulatory databases can be found in the regulatory database report in Appendix D. Hillmann has also included discussion of records pertaining to the Subject Property from other government record sources not specifically listed under Table 2, as applicable.

Reported distances for adjoining property listings, if applicable, are approximate and indicative of the presence of a public roadway or right-of-way between the adjoining site and Property.

The reported gradients have been estimated based on a number of factors including but not necessarily limited to field observation, review of topographic maps, database listing details and/or site specific geo-technical data.

Limited analysis of the details of on-site, adjoining and vicinity database sites was conducted to identify potential sources of sub-surface vapor encroachment. This review was based on elements of the ASTM "Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions" (ASTM E 2600-15); and also, on elements of "Methodology for Identifying the Area of Concern Around a Property Potentially Impacted by Vapor Migration from Nearby Contaminated Sources" (Buonicore, 2011-S-103-AWMA). Vicinity database sites pertaining to non-petroleum product releases within 1,760 feet of the Subject Property in the up-gradient direction, 365 feet of the Subject Property in the cross gradient direction and 100 feet of the Subject Property in the down gradient direction; and vicinity database sites pertaining to petroleum product releases within 528 feet of the Subject Property in the up-gradient direction, 165 feet of the Subject Property in the cross gradient direction and 100 feet of the Subject Property in the down gradient direction were reviewed to identify active contamination sites with the potential to affect subsurface vapor conditions at the Subject Property. The potential for vapor encroachment was considered in assessing whether or not a REC exists in connection with the Subject Property when reviewing applicable sites within those distances.

Regulatory database sites with active petroleum or non-petroleum releases that are considered to constitute a vapor encroachment condition (VEC) to the Subject Property, if any, are identified and discussed in this section.

The EDR Radius Map report is attached in Appendix D.

Subject Property Listings

The following listings of the Subject Property were identified:

Name/Address:	(none)
Database(s):	
Data Discussion:	
REC Discussion:	
VEC Discussion:	

Adjoining Property Listings

The following adjoining property listings were identified.

Name/Address:	Con-Ed/Verizon-numerous listings/locations		
Database(s):	RCRA Non-Gen/NLR, Manifests, FINDS, ECHO		
Distance in feet:	0	Direction:	W
		Gradient:	Up/Cross
Data Discussion:	Multiple listings pertaining to the handling of wastes generated by utility equipment maintenance. There were no indications of a reported release.		
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.		
VEC Discussion:	Based on the available data, a VEC is not suspected.		

Name/Address:	296 Center Avenue		
Database(s):	LTANKS		
Distance in feet:	80	Direction: S	Gradient: Up
Data Discussion:	This listing appears to have been erroneously plotted by EDR. A southern adjoining property is 282-290 Central (not Center) Avenue. The incident involved the 1994 reporting of strong odors in "Ralph's basement" reported to be next door to Luck's Gas Station. It is noted that the structure at 282 Central Avenue consisted of multi-family public housing and there was no filling station in the vicinity of this location in 1994.		
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.		
VEC Discussion:	Based on the available data, a VEC is not suspected.		

Name/Address:	129 Bleecker Street		
Database(s):	NY Spills		
Distance in feet:	0	Direction: SE	Gradient: Up/Cross
Data Discussion:	The listing indicated a 2004 reporting of "tank stored in garage: unsure of cleanup". The DEC investigated and found no there were no oil tanks at the address. The regulatory case was closed in 2006.		
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.		
VEC Discussion:	Based on the available data, a VEC is not suspected.		

Name/Address:	Between Henrod and Harman,228 Wilson Avenue		
Database(s):	NY Spills		
Distance in feet:	35	Direction: E	Gradient: Up/Cross
Data Discussion:	The listing stated that a drum containing 15 gallons of gasoline was left in the middle of the block following motor vehicle spill		
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.		
VEC Discussion:	Based on the available data, a VEC is not suspected.		

Name/Address:	Central Avenue and Bleecker Street		
Database(s):	NY Spills		
Distance in feet:	80	Direction: S	Gradient: Up/Cross
Data Discussion:	The listing indicated a 2-gallon leak of gasoline onto the road from a motor vehicle in 2003. The spill case incident has a closed status.		
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.		
VEC Discussion:	Based on the available data, a VEC is not suspected.		

Name/Address:	On Street/180 Palmetto Street		
Database(s):	NY Spills		
Distance in feet:	80	Direction: S	Gradient: Up/Cross
Data Discussion:	The listing indicated 1 cup of mercury was found on the street and recovered in 2007. The spill case incident has a closed status.		

REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.
VEC Discussion:	Based on the available data, a VEC is not suspected.

Name/Address:	Drum Run-PS 377 School/191 Woodbine Street
Database(s):	NY Spills
Distance in feet:	50 Direction: E Gradient: Up/Cross
Data Discussion:	The listing indicated a 2007 reporting of an abandoned 55-gallon drum. Upon investigation, no drum was found. It is noted that the spiller address was erroneously reported as 191 Woodbine; while PS 377 is located at 200 Woodbine Street. The regulatory case is closed.
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.
VEC Discussion:	Based on the available data, a VEC is not suspected.

Name/Address:	Auto Shop/403-405 Wilson Ave
Database(s):	NY Spills
Distance in feet:	0 Direction: SE Gradient: Up/Cross
Data Discussion:	The listing indicated a 2002 reporting of oil on the sidewalk in front of the business. The regulatory case is closed.
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.
VEC Discussion:	Based on the available data, a VEC is not suspected.

Name/Address:	Public School 377/200 Woodbine Street
Database(s):	AST, RCRA-SQG
Distance in feet:	60 Direction: E Gradient: Up/Cross
Data Discussion:	The listing indicated two 7500-g. #6 fuel oil ASTs with status "closed-removed" are registered to Public School #377. The RCRA-SQG listing reflected hazardous waste handling activities with no RCRA violations indicated.
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.
VEC Discussion:	Based on the available data, a VEC is not suspected.

Name/Address:	Montana Cleaners /271 Wilson Avenue
Database(s):	RCRA-NonGen, MANIFESTS, FINDS, ECHO
Distance in feet:	70 Direction: N Gradient: Up/Cross
Data Discussion:	Listings are associated with registered hazardous waste handling activities, but with no associated release incidents.
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.
VEC Discussion:	Based on the available data, a VEC is not suspected.

Name/Address:	Spill Number 9901022/181 Harmon Street
Database(s):	NY Spills
Distance in feet:	80 Direction: SW Gradient: Up/Cross

Data Discussion:	The listing indicated a reported housekeeping complaint from 1999, for dumping of automotive wastes on the ground. The spill case was closed in 2003.
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.
VEC Discussion:	Based on the available data, a VEC is not suspected.

Surrounding Area Findings

The following is a discussion of non-adjointing sites identified as located within the ASTM specified search distance surrounding the Subject Property. In order to keep this discussion informative and concise, discussion(s) is/are provided of the listed site(s) for each database category that appears most likely to impact the Subject Property based on distance, area topography and/or regulatory status. Listings of sites within the applicable search distances not specifically discussed below were reviewed and concluded not to be RECs in connection with the Subject Property or VECs based on various factors including distance, area topography, known or inferred groundwater flow direction and/or regulatory status.

Federal NPL		# of sites:	2	Search Distance:	1-mile
Notable Listing:	Wolff-Alport Chemical Company/1125-1139 Irving Avenue				
Distance in feet:	2,335	Direction:	E	Gradient:	Up/Cross
Data Discussion:	The Wolff-Alport Chemical Company imported monazite sand and extracted rare earth metals onsite from the early 1920s until 1954. Monazite contains approximately 6-8% thorium. Until 1947, the Wolff-Alport Chemical Company dumped the thorium waste in the sewer and possibly buried the waste on the property. EPA investigations have confirmed that contamination still exists on the property and in or around the sewer lines downstream of the former facility. Hillmann notes that the radiological impacts from this site appear to be localized within the Superfund site boundaries which are over 2000 feet away.				
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.				
VEC Discussion:	Based on the available data, a VEC is not suspected.				

Federal Delisted NPL		# of sites:	0	Search Distance:	½-mile
Notable Listing:	None				
Distance in feet:		Direction:		Gradient:	
Data Discussion:					
REC Discussion:					
VEC Discussion:					

Federal SEMS		# of sites:	1	Search Distance:	½-mile
Notable Listing:	Wolff-Alport Chemical Company/1125-1139 Irving Avenue				
Distance in feet:	2,335	Direction:	ENE	Gradient:	Up/Cross
Data Discussion:	See previous NPL discussion				
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.				
VEC Discussion:	Based on the available data, a VEC is not suspected.				

Federal SEMS Archive		# of sites:	0	Search Distance:	½-mile
Notable Listing:	None				
Distance in feet:		Direction:		Gradient:	
Data Discussion:					
REC Discussion:					
VEC Discussion:					

Federal CORRACTS		# of sites:	0	Search Distance:	1-mile
Notable Listing:	None				
Distance in feet:		Direction:		Gradient:	
Data Discussion:					
REC Discussion:					
VEC Discussion:					

Federal RCRA-TSD		# of sites:	0	Search Distance:	½-mile
Notable Listing:	None				
Distance in feet:		Direction:		Gradient:	
Data Discussion:					
REC Discussion:					
VEC Discussion:					

State/Tribal Superfund & Hazardous Waste		# of sites:	5	Search Distance:	1-mile
Notable Listing:	192 Ralph Avenue				
Distance in feet:	3450	Direction:	SSW	Gradient:	Up/Cross
Data Discussion:	The listing indicated that soil and groundwater impacted by dry cleaning operations was discovered in 2002. The site is indicated to have been properly closed and subject to continued management. Considering distance, this site is unlikely to impact the Subject Property.				
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.				
VEC Discussion:	Based on the available data, a VEC is not suspected.				

State/Tribal Landfill / Solid Waste Disposal		# of sites:	3	Search Distance:	½-mile
Notable Listing:	Affordable Used Auto/900 Wyckoff Ave				
Distance in feet:	2478	Direction:	ENE	Gradient:	Up
Data Discussion:	This site was indicated to be a vehicle dismantling facility.				
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.				
VEC Discussion:	Based on the available data, a VEC is not suspected.				

State/Tribal Leaking Storage Tanks		# of sites:	44	Search Distance:	½-mile
Notable Listing:	119 Linden Street				
Distance in feet:	210	Direction:	NW	Gradient:	Up/Cross

Data Discussion:	Two closed spill cases were listed as occurring in 1989 due to leaking above ground storage tank in the basement.
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.
VEC Discussion:	Based on the available data, a VEC is not suspected.

State/Tribal Voluntary Cleanup Sites		# of sites:	10	Search Distance:	½-mile
Notable Listing:	6 Howard Avenue				
Distance in feet:	1427	Direction:	SSW	Gradient:	Up/Cross
Data Discussion:	The site is enrolled in the VCP with an approved remedial plan. Considering its distance, it unlikely to impact the Subject Property.				
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.				
VEC Discussion:	Based on the available data, a VEC is not suspected.				

State/Tribal Brownfields		# of sites:	10	Search Distance:	½-mile
Notable Listing:	Lexington/Ralph Redevelopment/842-850 Lexington Avenue				
Distance in feet:	1551	Direction:	WSW	Gradient:	Up/Cross
Data Discussion:	The site is participating in the NYSDEC brownfields cleanup program to facilitate redevelopment. Considering its distance, it unlikely to impact the Subject Property.				
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Subject Property.				
VEC Discussion:	Based on the available data, a VEC is not suspected.				

UNMAPPED/ORPHAN LIST SITES	
Hillmann has also reviewed a list of unmapped sites (a.k.a. "Orphan List" sites) indicated by the database report. Unmapped sites that were identified as falling within an applicable specific search distance or warranting discussion have either been discussed in the preceding tables or are detailed below:	
Notable Listings:	None

Additional Environmental Record Sources

Requests have been submitted to local, municipal and state agencies for pertinent records pertaining to the Subject Property, particularly with regard to potential environmental concerns such as petroleum storage tanks, storage and usage of hazardous substances and petroleum products, and/or known or suspected environmental contamination. Where applicable, internet research of government environmental regulatory databases was also conducted, as well as a general cursory internet search of the Subject Property address, for information indicative of a REC. The following table summarizes the findings of the research:

Source	Type	Outcome
NYCFD-Public Records Unit / Tank Section	FOI request	No response was received prior to report issuance.

Source	Type	Outcome
NYS DEC	FOI request	No response was received prior to report issuance.
Local Building/Code Enforcement.	Online search	Hillmann reviewed available online records pertaining to the Property. No information indicative of a REC was identified.
EPA Envirofacts	Online search	Hillmann reviewed available online records pertaining to the Property. No information indicative of a REC was identified.

Copies of obtained records referenced in the above table have been included in Appendix D.

4.2 Historical Research

Historical records have been compiled and analyzed for historical property information and developing a history of previous uses of the Subject Property, adjoining properties and surrounding area. These records were reviewed for the purpose of identifying the likelihood of past uses having led to RECs in connection with the Subject Property.

The historical record sources listed below have been sought with the objective to document past uses of the Subject Property from the present back to the Subject Property's first developed use, or back to 1940, whichever is earlier. The term "developed use" includes agricultural use, placement of fill dirt and other uses that do not involve structures. Hillmann has sought to review historical records in minimum intervals of five years.

Fire Insurance Maps

A Certified Sanborn Map Report was obtained from EDR for a review of published historical fire insurance maps for the Subject Property and surrounding area. The following is a summary of site uses and notable details depicted by the available maps:

Year(s)	Prop/Adj	Depicted Use(s)
1888	Property:	Mix of vacant lots and row structures occupied as dwellings and stores.
	Adjoining:	Mostly vacant lots and row structures occupied as dwellings and stores. A florists with numerous greenhouses is depicted NW of Himrod Street.
1907	Property:	Mix of residential and retail row structures
	Adjoining:	Mix of residential and retail row structures, and two breweries.
1932/33, 1951	Property:	Mix of residential/retail row structures, a small clothing factory, a lumber storage facility, several knitting mills, tire services (428 Central Ave and 383 Central Ave), a dry cleaner (423 Evergreen Avenue).
	Adjoining:	Mix of residential/retail row structures, light industrial facilities, auto repair garage, a house of worship.
1965, 1968	Property:	Similar to previous map, except additional dry cleaning facilities now depicted at 434 Central Ave and 389 Central Ave. Also, paint store at 367 Central Ave.
	Adjoining:	Dry cleaning facilities are depicted at 300 Central Ave and 271 Wilson Ave. A filling station is depicted at 295 Wilson Ave. No additional significant changes from prior maps.

Year(s)	Prop/Adj	Depicted Use(s)
1977, 1980, 1981, 1982	Property:	Increasing amount of vacant lots from mid-1970s to mid-1980s. Dry cleaning facilities no longer depicted after 1977.
	Adjoining:	No significant change, except a large public school facilities now present at 200 Woodbine Avenue and 295 Wilson Avenue.
1986-1995, 2001-2007	Property:	Current multi-family structures are depicted.
	Adjoining:	Consistent with current conditions.

A copy of the Certified Sanborn Map Report is attached in Appendix E.

City Directories

An EDR City Directory Abstract report was reviewed for data of prior occupants of the Subject Property's street address. The following is a generalized summary of the findings of city directory research for past occupants of the Subject Property.

Subject Property	
Use(s) / Occupant(s):	Years
Various residential, commercial and office uses. Notable findings listed below:	1928 - 2005
Central laundromat (400 Central Ave)	1970
Undertaker (422 Central Ave)	1928 - 1960
Brooklyn Hand Laundry (415 Evergreen Ave)	1928 - 1934
Giordano F Tile Marble Wks, Guarino Carpnr & Bldr (1201 Gates Ave)	1928

The EDR City Directory Abstract report was also reviewed for listings of prior occupants of the adjoining properties. The following is a generalized summary of the findings of city directory research for past occupants of the adjoining properties:

Adjoining Properties	
Use and/or Occupant(s)	Years
Mix of residential and commercial occupants.	1928 - 2020
Harman Cleaners (280 Central)	1949
P&M Cleaners (292 Central)	1949
Tiana Cleaners (300 Central)	1965 - 1970
Panorama Cleaners (282 Central)	1976

A copy of the EDR City Directory report is attached in Appendix E.

Historical Topographic Maps

Due to the availability of alternate historic sources, as well as the likelihood that this source would not provide any significant data, historical topographic maps were not researched for this assessment. In Hillmann's professional opinion, review of historical USGS topographic maps is unlikely to provide data pertinent to the assessment.

Year(s)	Summary	
	Property:	(not reviewed)
	Adjoining:	

Historical Aerial Photographs

Due to the availability of alternate historic sources, as well as the likelihood that this source would not provide any significant data, historical aerial photographs were not researched for this assessment. In Hillmann's professional opinion, review of historical USGS aerial photographs is unlikely to provide data pertinent to the assessment

Year(s)	Summary of Interpretation	
	Property:	(not reviewed)
	Adjoining:	

EDR High-Risk Historical Records

The EDR Radius Map™ report, which is discussed in greater detail in Section 4.1 and attached in Appendix D, provided a search of proprietary databases of potential historical high-risk uses at or in the vicinity of the Subject Property. These databases include EDR Hist Cleaner – a database of property addresses with records of historical occupancy by suspected cleaners businesses; EDR Hist Auto – a database of property addresses with records of historical occupancy by potential automotive gas/filling stations and repair facilities; and EDR MGP- a proprietary database of sites historically occupied by manufactured gas plants and related facilities.

EDR Database	On-site Listings:	Adjoining/Off-Site Listings
EDR Hist Cleaner: (on-site/adjoining only)		J C Cleaners & Dyers-322 Central Avenue is listed for years 1972-1976 as a dry cleaning plant. Rms French Cleaners is listed for the years 1987 to 1994 as a dry cleaning plant. Robert Michael Benvenuto Corp-1305 Gates is listed for years 1991 to 1993 as a dry cleaning plant.
EDR Hist Auto: (on-site/adjoining only)	None	G&M Service Station is listed for years 1969 and 1970 as a gasoline service station.
EDR MGP: (1-mile distance)	None	None

Petroleum/Natural Gas Well Review

The historical record sources were reviewed for records of historical petroleum and/or natural gas wells at the Subject Property. No record of any historical petroleum/natural gas wells at or adjoining the Property was identified.

Additional Historical Data

Where applicable, the following additional pertinent historical data was obtained:

Interviews/Anecdotal:	No additional pertinent historical data was obtained.
Local Gov't Records:	No additional pertinent historical data was obtained.
Prior Env. Reports: (Section 3.1)	Prior environmental reports reviewed as part of this assessment, as detailed in Section 3.1, did not provide additional pertinent detail of historical site usage.
Site Observations:	Indications of historic uses of the Property or adjoining properties were not observed during the site reconnaissance.
Other Sources:	No additional pertinent historical data was obtained.

Summary of Historical Subject Property Uses

The following table presents a summary of the types and approximate date ranges of identified prior uses of the Subject Property:

Date Range	Use
1880s to 1920s	Mostly residential; some commercial retail
1920s to 1980s	Mix of residential and commercially occupied row structures
1950s-1960s	Dry cleaners at 434 Central Ave, 389 Central Ave, 423 Evergreen Ave
1980s to present	NYCHA – public housing facilities

Summary of Historical Adjoining Property Uses

The following table presents a summary of the types of identified prior uses of the adjoining properties:

Date Range	Use
1880s to 1900s	Mostly residential and vacant
1920s to 2020s	Mix of commercial, residential, educational institutions and houses of worship.

Historical Records Data Failure

The ASTM E 1527-21 standard defines data failure as failure to achieve the historical research objective even after reviewing the standard historical sources that are reasonably ascertainable and

likely to be useful. The objective is to identify all obvious uses of the Subject Property from the present, back to the Subject Property's first developed use, or back to 1940, whichever is earlier. Furthermore, records of historical use/conditions were sought in intervals no less than approximately five years, unless the Subject Property conditions appear unchanged over a longer interval. In encountered, data failure and its significance as a data gap is discussed below:

Objective	Met?	Detail	Significant?
First developed use/date determined?	No	The earliest documented use of the Property was residential circa 1888	No
Record sources at 5-year intervals back to 1940 or first developed use?	No	Historical record gaps exceeding five years were encountered. However, significant site-use changes or undiscovered site uses appear unlikely to have occurred during the record gaps.	No
All obvious prior uses identified?	Yes	See Summary of Identified Past Uses of this section.	NA

Please refer to Section 2.3 for additional discussion of data gaps and their significance to the findings of the assessment.

Historical Uses REC Discussion

Historical research identified three dry cleaning facilities previously existed in the Subject Property, at 434 Central Avenue, 389 Central Avenue, 423 Evergreen Avenue in the 1950s to 1960s. It is noted that the Subject Property underwent remedial investigations and cleanup between 2018 and 2022 with NYSDEC oversight. Subsurface investigations conducted during this process did not identify contamination at the Subject Property due to historical cleaners.

The review of historical records did not indicate evidence of a REC in connection with the Subject Property.

5.0 INTERVIEWS

5.1 Interviews with Owners, Operators and Occupants

Current Owner

Name	Company/Title	Yrs @ Site	Interview Type
NYCHA	NYCHA	40	Email/questionnaire
Interview Date:			
Interview Outcome/Findings:			
Attempts were made via telephone and email (environmental questionnaire); however, no response was received.			

Key Site Manager/Operator

Name	Company/Title	Yrs @ Site	Interview Type
Jeff (last name withheld)	NYCHA	3	In person
Interview Date:			
July 12, 2023			
Interview Outcome/Findings:			
An interview was conducted via phone. Pertinent information, where applicable, is referenced in the appropriate sections of this report.			

Occupant(s)

Name	Company/Title	Yrs @ Site	Interview Type
N/A			
Interview Date:			
Interview Outcome/Findings:			
No non-residential occupants are present			

Prior Owners/Operators/Occupants

Name	Company/Title	Yrs @ Site	Interview Type
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N/A			
Interview Date:			
Interview Outcome/Findings:			
No prior owners or occupants were interviewed.			

Neighboring Property Owner/Occupants

Name	Company/Title	Yrs @ Site	Interview Type
N/A			
Interview Date:			
Interview Outcome/Findings:			
The Subject Property was not an abandoned property with evidence of unauthorized uses or uncontrolled access; therefore, interviews with adjoining or nearby property owners or occupants were not conducted.			

5.2 Interviews with State and/or Local Government Officials

State and/or local governmental officials have been interviewed to obtain information of potential RECs in connection with the Subject Property. Many government agencies and their officials require submittal of written request for records in order to respond. The details in Section 4.1 list the various state and local government agencies contacted as part of this assessment, and the outcome of each inquiry. In addition, the details of regulatory database research in Section 4.1 may have included detail of interviews with officials pertinent to government records review and identification of RECs.

Additional interview of government officials not previously detailed in Sections 4.1 are discussed below, if applicable.

Name	Agency Name/Title	Interview Type
Interview Outcome/Findings:		
No additional local/state government officials were interviewed.		

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

A site reconnaissance was conducted to collect information and make observations to help identify RECs in connection with the Subject Property. This included visual and/or physical observations of the Subject Property and its structures, adjoining properties as viewed from the Subject Property boundaries and the surrounding area based on visual observations from adjoining public thoroughfares and accessed Subject Property structures. Subject property building exteriors were observed at ground level, unless otherwise indicated. Where applicable, building interiors were accessed and observed to the extent they were made safely accessible with the cooperation of the site escort.

Site Inspection Personnel:	Dominick Aponte
Escort Name/Company:	Jeff (last name withheld)
Inspection Date:	July 12, 2023
Weather Conditions:	Sunny; 80 degrees F

Significant Inaccessible Areas

No significant areas of the Property inaccessible at the time of the inspection were noted.

Significant Limiting Site Conditions

No significant limiting site conditions were noted at the time of the site reconnaissance.

6.2 General Site Setting

Site and Vicinity Characteristics

Abutting Roadways:	Gates Avenue, Palmetto Street, Evergreen Avenue, Central Avenue, Wilson Avenue, Woodbine Street, Linden Street, Himrod Street, Harman Street, Greene Avenue, Bleecker Street,
Current Property Use:	NYCHA public housing facilities
Evidence of Past Property Uses:	None observed.
Evidence of Past Adjoining Property Uses:	None observed.
Surrounding Area Uses:	Commercial, residential, schools

Current Adjoining Property Uses

The adjoining properties were noted to consist of primarily of residential structures, small commercial stores and businesses, and public school facilities.

No visual observations indicative of a potential environmental concern were noted on the adjoining properties.

Topographic Characteristics

Terrain:	Flat to gently sloping
Direction of Downward Slope:	No noticeable slope was observed at the Subject Property.
On-site Water Bodies:	None observed
Other Significant Features:	None observed

General Description of Structures and Improvements

Buildings:	Thirty-nine 3-story apartment buildings; one single-story Community Center building
Approx. Building Size:	468 units
Approx. Year Built:	1983
Number of Stories:	3
Basement/Subgrade Levels:	One basement level
Exterior Ground Cover:	Grass lawn/landscaping, paved areas, playgrounds
Ancillary Structures:	None
Sources of Heating & Cooling:	Natural gas and electric powered systems
Potable Water/Sewage Disposal:	Municipal utility connections

6.3 Site Features and Conditions

Storage/Usage of Hazardous Substances and Petroleum Products

No significant storage/usage of hazardous substances was noted at the Subject Property.

Bulk Petroleum/Hazardous Material Storage Tanks

The following storage tanks for bulk petroleum or hazardous material storage were identified or reported to be present; or are suspected to be present based on visual observations:

AST/UST	Product	Capacity	Construction	Year Installed	Status	Location/Notes
(none)						

While no visual evidence of a UST was noted, considering the history of development, the potential presence of abandoned USTs and/or associated buried piping at the Subject Property cannot be ruled out.

Strong, Pungent or Noxious Odors and their Sources

No strong, pungent or noxious odors were noted at the Subject Property.

Standing Surface Water/ Pools & Sumps

No standing water, pools or sumps containing liquids likely to be hazardous substances or petroleum products were noted.

Drums, Totes and Intermediate Bulk Containers

No hazardous substance or petroleum product drums, totes or intermediate bulk containers were noted.

Unidentified Substance Containers

No unidentified substance containers suspected of containing hazardous substance or petroleum product were noted.

PCBs in Oil Filled Electrical/Hydraulic Equipment

No oil-filled electrical or hydraulic equipment was identified at the Subject Property.

It is noted that identification of PCB containing fluorescent light ballasts, caulk, paint, or other materials located inside and are part of the building or structure is outside of the scope of the ASTM E 1527-21 standard and this assessment.

Stains or Corrosion on Floors, Walls or Ceilings

No stains or corrosion of floors, walls or ceilings, excluding any staining from water, were noted.

Drains and Sumps

Floor drains and a basement sump designed for the purpose of managing sanitary sewage were noted. No conditions indicative of a REC were observed.

Pits/Ponds/Lagoons

No pits, ponds or lagoons were identified in connection with waste treatment or disposal.

Stained Soil, Pavement/Stressed Vegetation

No stained soil, pavement or stressed vegetation was observed.

On-Site Solid Waste Disposal/Fill Material

No evidence of on-site disposal of trash, construction debris, demolition debris or other solid waste was observed.

Based on the history of previous site development, historical fill material may be present in the subsurface at areas of previous site grading or building structures.

Waste Water

Sanitary sewage generated at the Subject Property is discharged via a connection to the local public sewer system.

Storm water runoff at the Subject Property is discharged off-site to local streams/drainage systems via overland flow and catch basins.

No additional waste water discharges were identified at the Subject Property.

Septic Systems/Cesspools

No septic systems or cesspools were identified at the Subject Property.

Wells

No wells (including any dry wells, irrigation wells, injection wells, abandoned wells, or other wells) were identified at the Subject Property.

Railroad Spurs

No railroad spurs were identified on the Subject Property.

Paint Chips Outside of Pre-1978 Building Structure

Hillmann did not observe evidence of paint chips on the exterior of the Property.

7.0 24 CFR 50.3(i) COMPLIANCE

HUD Phase I ESA protocol requires documentation of compliance with 24 CFR 50.3(i), which states that all properties proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property.

7.1 24 CFR 50.3(i) Evaluation

No conditions were identified warranting additional investigation or corrective action with regard to compliance with 24 CFR 50.3(i).

8.0 BUSINESS ENVIRONMENTAL RISKS

In accordance with the contract agreement for this assessment, Hillmann has performed cursory reviews of several potential Business Environmental Risks (also known as "Non-Scope Considerations"). The ASTM E 1527-21 standard defines the term business environmental risk (BER) as, *"a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice."*

8.1 Asbestos-Containing Material (ACM)

The contracted scope of work included a cursory visual screening of the accessed portions of buildings at the Subject Property built prior to 1990 for suspect asbestos containing materials (ACM). The information provided in this section, where applicable, is limited to identification of potential suspect materials in the readily accessible and observed areas of the building, and their general condition. This is not intended to be a comprehensive survey for the presence of ACM, and no testing has been conducted.

Suspected ACM noted within the accessed building areas included gypsum wallboard and ceiling systems, resilient flooring, covebase and associated mastics in good condition.

8.2 Lead-Based Paint

The contracted scope of work included a cursory visual screening of the condition of painted surfaces in the accessed areas of residential buildings/units built prior to 1978. This is not intended to constitute a comprehensive survey for LBP or potential lead hazards, and no testing has been conducted.

No residential buildings built prior to 1978 were present at the Property.

8.3 Radon

Data compiled by the USEPA, as summarized by the regulatory database report, indicated that the Subject Property is located in an area classified as Zone 3 or 'low risk' area for radon. Radon testing was not included in the scope of this assessment.

8.4 Mold/Microbial Damage

The contracted scope of work included a cursory visual screening of the accessed areas of the building for evidence of significant damage to building materials and finishes as result of moisture intrusion and/or mold/microbial growth. Hillmann did not observe evidence of significant problems with moisture intrusion or mold/microbial growth at the Property.

8.5 NWI Mapped Wetlands

The US Fish and Wildlife National Wetlands Inventory Wetland Mapper fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/ was reviewed for indications of jurisdictional wetlands at or immediately adjoining the Subject Property. The scope of work for this assessment excluded a visual determination of regulated wetlands at the Subject Property. It is emphasized that, regardless of the data reviewed via the NWI Wetlands Mapper, a field delineation of regulated wetlands by a qualified professional would be warranted to determine the presence or absence of regulated wetlands at the Subject Property.

The review did not indicate regulated wetland areas on the Property.

8.6 Drinking Water

The scope of work for this assessment included a review of the quality of potable water service to the Subject Property by determining the source of the drinking water supply and a review of available compliance or testing data.

Potable water service at the Property is provided by a utility connection with the New York City Water Supply System. A recently published water quality report from the utility indicated compliance with USEPA water quality standards for lead in drinking water. A copy of the report has been attached in Appendix F.

9.0 REFERENCES

- ASTM International, "Designation E 1527-21 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process"; ASTM, West Conshohocken, PA, 2021.
- STM International, "Designation E2600-15-Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transaction", ASTM, West Conshohocken, PA, 2015.
- United States Environmental Protection Agency (USEPA), "EPA Map of Radon Zones by U.S. County, EPA 402/F19/004", www.epa.gov/radon/epa-map-radon-zones, 2019
- U.S. Fish and Wildlife Service – National Wetlands Inventory, "Wetlands Mapper", fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/ 2022
- Environmental Data Resources Inc. (EDR), "The EDR Radius Map™ Report with GeoCheck®", EDR, Sheldon, CT, 2023.
- EDR, "The EDR-City Directory Abstract", EDR, Sheldon, CT, 2023.
- EDR, "The EDR Aerial Photo Decade Package", EDR, Sheldon, CT, 2023.
- EDR, "Certified Sanborn Map Report", EDR, Sheldon, CT, 2023.
- EDR, "EDR Historical Topo Map Report with QuadMatch™", EDR, Sheldon, CT, 2023.
- Buonicore A., "Methodology for Identifying the Area of Concern Around a Property Potentially Impacted by Vapor Migration from Nearby Contaminated Sources, Paper 2011-A301-AWMA", The Buonicore Group, Milford, CT, 2011.

10.0 APPENDICES

Appendix A	Site Diagram / Vicinity Map
Appendix B	Site Photographs
Appendix C	Questionnaires / User Provided Information
Appendix D	Regulatory Records
Appendix E	Historical Records
Appendix F	Other Documents / Lab Results
Appendix G	Project Personnel Qualifications

Soil Vapor/Indoor Air Matrices for PCE and TCE are relevant, and indicate “no further action” (e.g., further investigation and/or mitigation) is required.

Phase II soil, groundwater, and soil vapor sample locations are indicated on Figure 2.

3.0 CONSTRUCTION MEASURES

The proposed project is not finalized, but is anticipated to include improvements to the building envelope, residential units, common spaces and mechanical spaces, as well as include limited subsurface disturbance for trenching for underground utilities, landscaping, parking improvements, pavement replacement, and potentially renovating or creating new playgrounds. Exterior work would be limited to surface and/or shallow subsurface disturbance; no deep excavation or substantive soil removal is anticipated. Based on the proposed redevelopment program, dewatering is not anticipated to be required for the proposed scope of work.

Soil containing VOCs, SVOCs, metals, and pesticides above 6 NYCRR Part 375 Soil Cleanup Objectives were identified and will presumably be encountered during soil disturbance for the proposed project. Soil handling procedures are provided in Sections 3.2 and 3.3. Although dewatering is not anticipated, a groundwater management plan is provided in Section 3.7.

A contingency plan for the removal of any unexpectedly on-site encountered petroleum storage tanks is provided in Section 3.4. In the event that contaminated soil (e.g., petroleum-contaminated soil) is encountered, a contingency plan is provided in Section 3.2 for appropriate handling, testing, and disposal of these materials during general excavation.

The project design will incorporate measures to minimize potential impacts after construction, as described in Section 4.0. Following completion of subsurface work and implementation of the NYCDEP-approved RAP, a New York State licensed Professional Engineer (P.E.)-certified closure report will be submitted to the NYCDEP for review and approval. The report will include a description of completed construction activities and any deviations from this RAP, copies of manifests/bills of lading associated with off-site disposal of material, photographs of the work, and any laboratory results received for additional sampling during construction including waste characterization, off-site disposal purposes, and imported soil, if applicable.

3.1 Pre-Demolition Surveys

Prior to the onset of any demolition activities, surveys shall be conducted in all proposed demolition areas to identify all potential ACM, LBP, and PCBs, or other hazardous materials. All suspect materials identified in the surveys shall be managed, removed, and disposed of off-site in accordance with all federal, state, and local requirements.

3.2 Soil Disposal

If sludges, soil, or sediment known to be contaminated or showing evidence of potential contamination, such as discoloration, staining, or odors are encountered during excavation activities, the following procedures will be implemented:

1. Spill reporting to the NYSDEC Spill Hotline (800-457-7362) will be conducted, as necessary.
2. The suspect soil will be sampled for laboratory analyses. Soil samples will be analyzed, at a minimum, for parameters required by the intended disposal facility. Additional analytical requirements may be required based on the nature of the contamination.

3. If the suspect soil is determined to be significantly contaminated according to analytical results, it will be excavated and removed in accordance with the stockpiling and/or direct-loading procedures presented in Section 3.2.2 and 3.2.3, respectively.
4. The excavation will continue vertically until no evidence of contamination is noted in the base of the excavation or until groundwater or bedrock is encountered. The excavation will continue horizontally until no evidence of contamination is noted in the sidewalls of the excavation. Post-excavation endpoint samples will be collected from the sides and bottom of the excavated area and analyzed in accordance with the NYSDEC Division of Environmental Remediation (DER) Commissioner Policy (CP)-51 or NYSDEC DER-10, based on the nature of the identified contamination. If post-excavation samples exceed action levels, then additional excavation will be performed, as warranted.
5. Soils intended for off-site disposal will be tested in accordance with the requirements of the receiving facility (as discussed further in Section 3.2.1), and disposed of in accordance with applicable federal, state and local requirements. If additional sample analyses are required by alternative disposal facilities, additional analysis may be run on existing sample material at the laboratory as long as all holding time and preservation requirements have not been exceeded.
6. All analytical results, including endpoint sample and excavated soil characterization sampling results, must be received, reviewed, and discussed by the project team before the soil excavation can be backfilled, and before the excavated material can be disposed of off-site, as additional samples may need to be collected.
7. The excavated soil will then be disposed of in accordance with all applicable federal, state and local regulations.
8. Copies of correspondence with disposal facilities concerning classification of materials, testing results, and permits/approvals will be maintained by the project manager and will be submitted to NYSDEC in a Spill Closure Report, as necessary.

When applicable, hazardous waste manifest forms and/or non-hazardous waste records will be completed as required by the appropriate regulatory agencies for verifying the material and quantity of each load in units of volume and weight.

3.2.1 Off-site Disposal and On-Site Soil Reuse Criteria

Existing soil intended to be excavated (if any) during the construction activities will be characterized at a rate of one representative sample for every 800 cubic yards of soil or other frequency if required by the intended disposal facility. Waste characterization sampling will likely be conducted in-situ (i.e., in advance of excavation) using a grid-based system.

Each sample will be analyzed for NYSDEC Part 375 VOCs, SVOCs, pesticides, PCBs and target analyte list (TAL) metals, and other parameters required by the intended disposal facilities. This data may also be utilized to evaluate appropriate disposal facility options and the potential suitability for reuse on-site, based on the following criteria:

- Soil that meets the Part 375 RRSCOs may be reused on-site as part of the Site cap, as defined in Section 4.1.

In addition to these criteria, reuse procedures in Section 3.2.2 of this RAP shall be followed. Off-site disposal analytical thresholds will be determined by the individual disposal facilities.

3.2.2 Stockpiling Procedures

No petroleum-contaminated soil excavated from the Site will be re-used on-site for any purposes. Contaminated material intended for off-site disposal may be stockpiled temporarily or loaded directly onto trucks for off-site disposal, if pre-approved by the receiving facility.

Soil with contamination established by laboratory analytical data or exhibiting field-screening evidence of contamination will be stockpiled on polyethylene sheeting following excavation. If the soil is expected to remain on-site overnight or longer, the stockpile will be covered with similar polyethylene sheeting, which will be secured with large rocks or other appropriate weights, such as sand bags, to protect against leaching or runoff of contaminants into groundwater or stormwater. Stockpiles will be managed to minimize particulate generation, and run-off and erosion using water, plastic covers, silt fences, and/or hay bales, as necessary.

Silt fencing and/or hay bales will also be used as needed near catch basins, and other discharge points to serve as a stormwater pollution prevention measure.

Soil will be segregated and stockpiled based on its known or anticipated type and/or level of contamination (based on analytical data, PID readings, odor, staining, etc.). Stockpiles will be separated by a sufficient distance or by physical barriers to ensure that mixing of dissimilar or potentially dissimilar materials does not occur. The location and classification of stockpiles will be tracked on Site drawings and updated, if necessary, at the end of each workday according to the following categories:

- Soil intended and approved by NYCDEP for reuse on-site (reuse criteria specified in Section 3.2.1);
- Non-petroleum-contaminated, non-hazardous soil for off-site disposal;
- Non-petroleum-contaminated, hazardous soil for off-site disposal;
- Petroleum-contaminated soil for off-site disposal; and
- Soil pending analysis, if in-situ testing is infeasible.

Copies of Site drawings will be kept in the field log book. Stockpiles intended for off-site disposal may be mixed with other compatible stockpiles on-site (compatibility will be determined by the requirements of the receiving disposal facility), but hazardous or petroleum-contaminated wastes will not be mixed with other non-hazardous wastes.

3.2.3 Alternatives to Stockpiling

Alternative procedures to stockpiling could include, but are not limited to, agreement(s) from the intended disposal or treatment facilities to accept boring data and/or analytical data previously obtained so that materials may be directly loaded into trucks for shipment to the disposal facility.

3.3 Waste Management and Transportation

Transportation of all material leaving the Site for off-site disposal will be in accordance with federal, state and local requirements (including, as applicable, 6 NYCRR Part 364 and U.S. DOT regulations) covering licensing of haulers and trucks, placarding, truck routes, manifesting, etc.

The schedule for truck arrival will be coordinated to meet the approved project schedule. The schedule will be compatible with the availability of equipment and personnel for material handling operations at the job site. Trucks will be protected against contamination by properly covering and lining truck beds with compatible material (such as polyethylene) or by decontaminating them prior to any use other than hauling contaminated materials.

All vehicles leaving the Site will be inspected to ensure that soil adhering to the wheels or under carriage is removed prior to the vehicle leaving the Site. Any situations involving material spilled in transit or mud and dust tracked off-site will be remedied. The truck access routes will be evaluated for road conditions, overhead clearance, and weight restrictions.

Contaminated materials from other projects will not be combined with material from the construction area. The transporter will not deliver waste to any facility other than the facility(s) listed on the shipping manifest.

3.4 Petroleum Tank Closure and Removal

In the event that petroleum storage tanks are identified or encountered at the Site, the tanks and any appurtenances will be cleaned, removed and disposed of in accordance with accepted industry standards and applicable federal, state, and local regulatory agency requirements. Tank closure and any soil removal from the vicinity of any discovered USTs will be conducted in accordance with the NYSDEC Divisions of Spills and Response Memorandum on Permanent Closure of Petroleum Storage Tanks, dated July 1998, and updated in December 2003, and NYSDEC DER CP-51, "Soil Cleanup Guidance," dated October 21, 2012. Laboratory testing of both characterization samples and of samples obtained from the excavation areas will include NYSDEC CP-51 VOCs and SVOCs.

Any unregistered tanks encountered at the Site will be registered with NYSDEC's PBS database. Tank closure activities and any associated petroleum-contaminated soil removal will be documented in a separate Tank/Spill Closure Report, which will be submitted to NYSDEC to document all activity related to the formerly unregistered tanks.

Typical tank removal procedures are summarized below:

1. Open fill cap or vent pipe and measure for product. If measurable product exists, collect a sample of the product. Tank contents will be sampled in accordance with applicable federal, state and local requirements and tested in accordance with the requirements of the receiving facility. Proper disposal of tank contents at an approved facility will be dictated by sample results.
2. Vacuum liquid tank contents and pumpable tank bottom residue.
3. Excavate around the tank with care to avoid release of any residual tank and piping contents. Hand excavation around the tank may be necessary. The sidewalls of all excavated areas will be properly stabilized in accordance with Occupational Safety and Health Administration (OSHA) regulations. Continuously monitor the excavated areas in the worker breathing zone for the presence of flammable, toxic, or oxygen-deficient atmosphere with a PID, a combustible gas indicator (CGI), and an oxygen meter.

4. Inert the tank of flammable vapors using dry ice and verify inertness using an oxygen meter (less than 7 percent). An access hole will be cut in the tank and the tank will be thoroughly cleaned of residual liquids and sludges.
5. Entry of the tank, if necessary, will be conducted in conformance with OSHA confined space requirements.
6. Remaining fuels, loose slurry, sludge materials and wastewater will be collected in Department of Transportation (DOT)-approved drums, sampled and analyzed for disposal characterization. After disposal characterization, waste material will be removed and disposed of in accordance with applicable regulations.
7. Remove the tank and all associated piping from the ground and clean the outside of the tank. The tank and piping will be rendered "not reusable," removed from the Site and disposed of according to applicable regulations with proper documentation. If present, remove and dispose of all concrete tank support structures or vaults, as encountered.
8. After tank removal, examine for evidence of petroleum releases in accordance with the NYSDEC Memorandum on Permanent Closure of Petroleum Storage Tanks. If there is evidence of a petroleum release, follow procedures for Soil Disposal provided in Section 3.2, in addition to the procedures below.
9. If the tank cannot be physically removed due to structural concerns, it will be cleaned following the procedures described in Items 1, 2, 4, 5, and 6 above. Following cleaning, the tank will be permanently closed by filling the tank with a solid, inert material such as cement slurry or foam in accordance with NYSDEC guidance and regulations.
10. Spill reporting to the NYSDEC Spill Hotline (800-457-7362) will be conducted, if deemed necessary in consultation with the project team.
11. All excavated materials will be field-screened with a PID. If soil contamination is present, excavate and remove contaminated soil from the tank areas in accordance with the stockpiling and/or direct-loading procedures presented in Sections 3.2.2 and 3.2.3, respectively. Material will be excavated, to the extent practicable, until field screening with a PID yields concentrations of less than 20 parts per million (ppm) and until there are no remaining visible signs of contamination or odors. After contaminated soil removal, collect endpoint samples at each sidewall and at the bottom of the excavation for analytical testing as specified in NYSDEC CP-51.
12. Photo-document all procedures and record all procedures in a bound field notebook.
13. Copies of all testing results, correspondence with disposal facilities concerning classification of materials, and permits/approvals will be maintained by the project manager and will be submitted to the NYSDEC in a Tank Closure Report, as warranted.
14. A signed affidavit will be prepared by the licensed tank installation (removal) contractor and submitted to the New York City Fire Department certifying proper removal of the tank(s).

3.5 Dust Control

To prevent the potential migration of dust that may contain above-background levels of contaminants, the following measures will be implemented during all earth-disturbing operations:

- Water will be available (and used) for sprinkling/wetting to suppress dust in dry weather or as necessary.

- All haul trucks will have tarp covers.
- Stabilized construction entrances (e.g., gravel pads) and wash stations will be placed at access points to prevent tracking out of or dispersion of dust.

All work that involves soil disturbance or otherwise generates dust will be performed utilizing methods to minimize dust generation to the extent practicable. Particulate air monitoring requirements will be conducted as discussed in Section 3.6 of this RAP.

3.6 Work Zone Air Monitoring

If petroleum-contaminated soil or hazardous waste is encountered (hazardous waste to be confirmed with laboratory analytical results), a PID and particulate monitor will be used to monitor the work zone during intrusive activities. Measurements will be taken prior to commencement of work and continuously during the work as outlined in the following table. Measurements will be made as close to the workers as practicable. Particulate and PID measurements will be collected at the breathing height of the workers. The Site Safety Officer (SSO) shall set up the equipment and confirm that it is working properly. His/her designee may oversee the air measurements during the day. The initial measurement for the day will be performed before the start of work and will establish the background level for that day. The final measurement for the day will be performed after the end of work. The action levels and required responses are listed in the following table:

Instrument	Action Level	Response Action
PID	Less than 5 ppm in breathing zone	Level D or D-Modified
	Between 5 ppm and 50 ppm	Level C
	More than 50 ppm	Stop work. Resume work when readings are less than 50 ppm.
Dust Trak	Less than 0.125 mg/m ³ above background in breathing zone	Level D or D-Modified
	Between 0.125 mg/m ³ and 0.15 mg/m ³ above background in breathing zone	Apply dust suppression measures in work zone (i.e., minimum of spraying down work areas with water, other measures to be determined based on particulate-generating activity).
	Greater than 0.15 mg/m ³ above background in breathing zone	Stop work. Apply additional dust suppression measures. Resume work when readings are less than 0.15 mg/m ³ above background.
mg/m ³ = milligrams per cubic meter ppm = parts per million		

Field personnel will be trained in the proper operation of all field instruments at the start of the field program. The equipment will be calibrated according to manufacturer specifications at the start of each day of fieldwork. If an instrument fails calibration, the project manager will be contacted immediately to obtain a replacement instrument and arrange for repairs. The PID will be calibrated each day using 100 ppm isobutylene standard gas.

3.7 Groundwater Management Plan

Based on the proposed redevelopment plans and observed depth to groundwater, dewatering is not anticipated during the proposed construction. Any dewatering activities would be conducted in accordance with a NYCDEP Bureau of Wastewater Treatment (BWT) Wastewater Quality Control Permit. Prior to initiating any dewatering, a groundwater sample must be collected and analyzed to ensure it meets the NYCDEP criteria for effluent to municipal sewers. Pre-treatment (dependent upon the testing results), may be necessary to comply with NYCDEP regulations.

4.0 PROJECT DESIGN MEASURES

4.1 Site Cap and Importation of Fill

A majority of the Site is and will be covered with paved walkways, buildings, and impervious surfaces, including concrete and asphalt. In any proposed new uncapped/landscaped areas, a minimum 2-foot thick clean soil cover will be placed on top of the existing on-site soil. A demarcation barrier such as orange snow fence will be laid underneath the 2-foot clean fill layer. Clean fill/soil will be tested at the source facility prior to importation at a frequency of one sample per 250 cubic yards for 6 NYCRR Part 375 VOCs, SVOCs, pesticides, PCBs, and metals and must meet the Part 375 RRSCOs. A report will be prepared and submitted to the NYCDEP for review and approval of the proposed clean fill/soil prior to importation to the Site. Each report will include an executive summary, narrative of field activities, laboratory data, and a comparison of analytical results to the NYSDEC Part 375 RRSCOs. The construction schedule and sequencing should consider the time necessary to coordinate testing with source facilities, prepare the necessary report(s), and allow for up to 30 days for NYCDEP to review each submission prior to import and restoration.

Recycled concrete aggregate (RCA) for use as backfill will only be allowed for import from facilities permitted or registered by NYSDEC. RCA material is not acceptable for, and will not be used as cover material. Facilities will be identified in the Remedial Closure Report (RCR) as described in Section 6.0. A PE or Qualified Environmental Professional (QEP) is responsible to ensure that the facility is compliant with 6NYCRR Part 360 registration and permitting requirements for the period of acquisition of RCA. RCA imported from compliant facilities will not require additional testing, unless required by NYSDEC under its terms for operation of the facility.

5.0 QUALITY ASSURANCE/QUALITY CONTROL

All necessary analyses will be performed by a laboratory that has received approval from the New York State Department of Health's ELAP for the methods that require analysis.

5.1 Sample Collection

Samples will be collected in accordance with the following procedures:

- Record sample observations (evidence of contamination, PID readings, soil classification) in field log book.
- Collect an aliquot of soil or groundwater using a dedicated and disposable plastic sample spoon or sample bailer and place in laboratory-supplied sample jars. One grab sample will be

collected for volatile organic compound analysis, if applicable. One composite sample will be collected for all other analyses.

- Seal and label the sample jars as described in Sections 5.3 and 5.4 below and place in a chilled cooler.

5.2 Decontamination Procedures

To avoid contamination and cross-contamination of samples, only dedicated or disposable sampling equipment may be used to collect these samples. All non-disposable equipment involved in field sampling must be decontaminated before being brought to the sampling location, and must be properly decontaminated after use.

5.3 Sample Identification

All samples will be consistently identified in all field documentation, chain-of-custody documents and laboratory reports using an alpha-numeric or alpha-alpha code. For stockpiled soil, the alpha prefix will be “SP” and the numbers following the alpha prefix will correspond to excavated stockpiles, beginning with “1, 2, 3...etc.” For example, the first sample collected from the first stockpile will be labeled “SP-1-1” and the first sample collected from the second stockpile will be labeled “SP-2-1.”

For groundwater samples, the alpha prefix will be “GW” and the number following the prefix will correspond to the sample number. For example, the first groundwater sample collected for sample analysis will be labeled “GW-1” and the second sample will be “GW-2.”

5.4 Sample Labeling and Shipping

All sample containers will be labeled with the following information:

- Site identification
- Sample identification
- Date and time of collection
- Analysis(es) to be performed
- Sampler’s initials

Once the samples are collected and labeled, they will be placed in chilled coolers and stored in a cool area away from direct sunlight to await shipment to the laboratory. Soil samples will be shipped to the laboratory at a frequency that will not result in an exceedance of applicable holding times for sample methods. At the start and end of each workday, field personnel will add ice to the coolers as needed.

The samples will be prepared for shipment by placing each sample jar in a sealable plastic bag, then wrapping each bag in bubble wrap to prevent breakage, adding freezer packs and/or fresh ice in sealable plastic bags and the chain-of-custody form. Samples will be shipped overnight (e.g., Federal Express) or transported by a laboratory courier. All coolers shipped to the laboratory will be sealed with mailing tape and a chain-of-custody (COC) seal to ensure that the coolers remain sealed during delivery.

5.5 Sample Custody

Field personnel will be responsible for maintaining the sample coolers in a secured location until they are picked up and/or sent to the laboratory. The record of possession of samples from the

time they are obtained in the field to the time they are delivered to the laboratory or shipped off-site will be documented on COC forms. The COC forms will contain the following information: project name; names of sampling personnel; sample number; date and time of collection and matrix; and signatures of individuals involved in sample transfer, and the dates and times of transfers. Laboratory personnel will note the condition of the custody seal and sample containers at sample check-in.

5.6 Documentation

A sample log book will be maintained. The following information, as a minimum will be recorded to the log.

- Sample identification number
- Sample location
- Field Observations
- Sample Type
- Analyses
- Date/Time of collection
- Collector's name
- Sample procedures and equipment utilized
- Date sent to laboratory/name of laboratory
- Copies of Site drawings indicating stockpile numbers and locations

6.0 CLOSURE REPORT AND DOCUMENTATION

Upon completion of all NYCDEP-approved remedial requirements outlined in this RAP, a P.E.-certified Remedial Closure Report will be submitted to NYCDEP. This report will demonstrate that all remedial activities have been properly implemented. At a minimum, the report will include all transportation manifests, soil disposal/recycling certificates, proof of importing and grading certified clean fill/top soil for any new landscaped areas and all pre-approved soil analytical testing results for the imported fill/top soil (if applicable). Any pertinent NYSDEC documentation/reports, etc., will also be included. If applicable, copies of all pertinent NYSDEC correspondences, investigative/remedial work plans, reports, tank closure reports, No Further Action letters, etc. will be submitted to NYCDEP. Once the P.E.-certified Remedial Closure Report is received and approved by the NYCDEP, a Notice of Satisfaction letter would be forwarded to the NYCDOB.

Endangered Species

General requirements	ESA Legislation	Regulations
Section 7 of the Endangered Species Act (ESA) mandates that federal agencies ensure that actions that they authorize, fund, or carry out shall not jeopardize the continued existence of federally listed plants and animals or result in the adverse modification or destruction of designated critical habitat. Where their actions may affect resources protected by the ESA, agencies must consult with the Fish and Wildlife Service and/or the National Marine Fisheries Service (“FWS” and “NMFS” or “the Services”).	The Endangered Species Act of 1973 (16 U.S.C. 1531 <i>et seq.</i>); particularly section 7 (16 USC 1536).	50 CFR Part 402

1. Does the project involve any activities that have the potential to affect species or habitats?

No, the project will have No Effect due to the nature of the activities involved in the project.

- ✓ No, the project will have No Effect based on a letter of understanding, memorandum of agreement, programmatic agreement, or checklist provided by local HUD office

Explain your determination:

The Project Site is located in a substantially developed urban area in Brooklyn. According to information obtained through the U.S. Fish and Wildlife Service's Information for Planning and Consultation (IPaC) website, the Federally Listed Endangered and Threatened Species and Candidate Species located near the Project Site are the Northern Long-eared Bat (endangered), the Piping Plover and Red Knot (threatened), and the Monarch Butterfly (candidate). There are no critical habitats at the Project Site for these species. Given the scope of work, none of the endangered species identified through the IPaC online tool are anticipated to be impacted. The proposed project does not anticipate any impact on trees, including removal or pruning of limbs. If it is determined that tree removal is required post-project closing, the Developer will replace mature trees in a 6:1 ratio. To ensure no adverse effect on the Northern Long-eared Bat, the City reviewed winter hibernacula locations and the NYS Department of Environmental

Conservation's listing of towns with recorded summer roosts, none of which are in New York City. Accordingly, no impacts on the Northern Long-eared Bats are anticipated. See attached IPaC results.

Based on the response, the review is in compliance with this section. Document and upload all documents used to make your determination below.

Yes, the activities involved in the project have the potential to affect species and/or habitats.

Screen Summary

Compliance Determination

This project will have No Effect on listed species based on a letter of understanding, memorandum of agreement, programmatic agreement, or checklist provided by local HUD office. This project is in compliance with the Endangered Species Act.

Supporting documentation

[7 - ESA Species List.pdf](#)

[7 - ESA Consistency Letter Northern Long-eared Bat.pdf](#)

[7 - ESA Consistency Letter Northeast Species.pdf](#)

Are formal compliance steps or mitigation required?

Yes

✓ No



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Long Island Ecological Services Field Office
340 Smith Road
Shirley, NY 11967-2258
Phone: (631) 286-0485 Fax: (631) 286-4003

In Reply Refer To:
Project Code: 2024-0006601
Project Name: Hope Gardens Groups A-E CDBG-DR Storm Resiliency

October 26, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Long Island Ecological Services Field Office

340 Smith Road

Shirley, NY 11967-2258

(631) 286-0485

PROJECT SUMMARY

Project Code: 2024-0006601
Project Name: Hope Gardens Groups A-E CDBG-DR Storm Resiliency
Project Type: Residential Construction
Project Description: Hope Gardens is a community of former public housing buildings converted through NYCHA’s Permanent Affordability Commitment Together (“PACT”) program in 2019 to a public/private partnership between NYCHA and Pennrose LLC and Acacia Network (collectively, the “Developer”) pursuant to with a 99-year ground lease between NYCHA and, Hope Gardens I LLC, and Bushwick Gardens I LLC (entities formed by the Developer). Following the conversion, the Hope Gardens portfolio included 60 individual buildings that were part of five separate former NYCHA developments: Hope Gardens, Palmetto Gardens, Bushwick II “Groups A & C,” Bushwick II “Groups B & D,” and Bushwick II CDA “Group E.”

This CDBG-DR-funded project is limited to Bushwick II Groups A & C, Bushwick II Groups B & D, and Bushwick II CDA Group E, respectively (“Groups A – E”), which are comprised of 55 separate buildings, with 876 affordable housing units spread throughout a square mile of the Bushwick neighborhood of Brooklyn, New York (“the Project Area” or “Project Site”). The properties are multi-story, multi-family residential buildings with basements and community facility spaces. Additional site features include asphalt paved parking lots, concrete/asphalt recreation yards, and landscaping, including grass yards, shrubs, and trees. Groups A and E are owned by Bushwick Gardens I LLC. Groups B, C, and D are owned by Hope Gardens I LLC.

Groups A & C include an existing 25-building, 300-unit public housing development. The development spans three adjacent city blocks, and a portion of three city blocks to the north. Generally, the development is bound by Wilson Avenue to the north, Bleeker Street to the east, Central Avenue to the south, and Himrod Street to the west.

Group B & D is a 25-building development with 300 units in total. Generally, the site is bound by Wilson Avenue to the north, Madison Avenue to the east, Evergreen Avenue to the South, and Linden Street to the West.

Lastly, Group E features five residential public housing buildings with 276 units. The site is generally bound by Knickerbocker Avenue to the north, Gates Avenue to the east, Wilson Avenue to the south, and Menahan Street to the west.

The Proposed Project seeks to introduce much need storm resiliency to the existing housing development through relocation of the building's vulnerable critical infrastructure above flood elevations. The proposal encompasses the design, engineering, permitting, and construction of seventeen (17) new exterior mechanical facilities across Groups A-D and relocating the utilities to the roof at five sites in Group E. All flood-prone equipment in the basements would be removed and all building-critical infrastructure would be moved to the new centralized mechanical facilities allowing the properties to stay on-line in future extreme flooding event. The 17 new mechanical facilities would be placed throughout the property with many servicing multiple residential buildings, protecting from storm events and critical redundancy in case of equipment failure.

The Proposed Project will receive \$51 million in federal Community Development Block Grant - Disaster Recovery (CDBG-DR) funding from the U.S. Department of Housing and Urban Development (HUD) as allocated by the City of New York. HUD allocates CDBG-DR funds following Presidentially-declared disasters. Funds must be used to address unmet needs related to “disaster relief, long-term recovery, restoration of infrastructure and housing, economic revitalization, and mitigation in the most impacted and distressed areas.”

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.6934369,-73.91570010145418,14z>



Counties: Kings County, New York

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered

BIRDS

NAME	STATUS
Piping Plover <i>Charadrius melodus</i> Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Rufa Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: New York city
Name: Julie Freeman
Address: 255 Greenwich Street
Address Line 2: 8th Floor
City: New York
State: NY
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LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Housing and Urban Development



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Long Island Ecological Services Field Office
340 Smith Road
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Phone: (631) 286-0485 Fax: (631) 286-4003

In Reply Refer To:
Project code: 2024-0006601
Project Name: Hope Gardens Groups A-E CDBG-DR Storm Resiliency

October 26, 2023

Federal Nexus: yes
Federal Action Agency (if applicable): Department of Housing and Urban Development

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for 'Hope Gardens Groups A-E CDBG-DR Storm Resiliency'

Dear Julie Freeman:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on October 26, 2023, for “Hope Gardens Groups A-E CDBG-DR Storm Resiliency” (here forward, Project). This project has been assigned Project Code 2024-0006601 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species’ determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (DKey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is

required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Piping Plover (<i>Charadrius melodus</i>)	Threatened	No effect
Rufa Red Knot (<i>Calidris canutus rufa</i>)	Threatened	No effect

Conclusion If there are no updates on listed species, no further consultation/coordination for this project is required for the species identified above. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project implements any changes which are final or commits additional resources.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the Long Island Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

Hope Gardens Groups A-E CDBG-DR Storm Resiliency

2. Description

The following description was provided for the project 'Hope Gardens Groups A-E CDBG-DR Storm Resiliency':

Hope Gardens is a community of former public housing buildings converted through NYCHA's Permanent Affordability Commitment Together ("PACT") program in 2019 to a public/private partnership between NYCHA and Pennrose LLC and Acacia Network (collectively, the "Developer") pursuant to with a 99-year ground lease between NYCHA and, Hope Gardens I LLC, and Bushwick Gardens I LLC (entities formed by the Developer). Following the conversion, the Hope Gardens portfolio included 60 individual buildings that were part of five separate former NYCHA developments: Hope Gardens, Palmetto Gardens, Bushwick II "Groups A & C," Bushwick II "Groups B & D," and Bushwick II CDA "Group E."

This CDBG-DR-funded project is limited to Bushwick II Groups A & C, Bushwick II Groups B & D, and Bushwick II CDA Group E, respectively ("Groups A – E"), which are comprised of 55 separate buildings, with 876 affordable housing units spread throughout a square mile of the Bushwick neighborhood of Brooklyn, New York ("the Project Area" or "Project Site"). The properties are multi-story, multi-family residential buildings with basements and community facility spaces. Additional site features include asphalt paved parking lots, concrete/asphalt recreation yards, and landscaping, including grass yards, shrubs, and trees. Groups A and E are owned by Bushwick Gardens I LLC. Groups B, C, and D are owned by Hope Gardens I LLC.

Groups A & C include an existing 25-building, 300-unit public housing development. The development spans three adjacent city blocks, and a portion of three city blocks to the north. Generally, the development is bound by Wilson Avenue to the north, Bleeker Street to the east, Central Avenue to the south, and Himrod Street to the west.

Group B & D is a 25-building development with 300 units in total. Generally, the site is bound by Wilson Avenue to the north, Madison Avenue to the east, Evergreen Avenue to the South, and Linden Street to the West.

Lastly, Group E features five residential public housing buildings with 276 units. The site is generally bound by Knickerbocker Avenue to the north, Gates Avenue to the east, Wilson Avenue to the south, and Menahan Street to the west.

The Proposed Project seeks to introduce much need storm resiliency to the existing housing development through relocation of the building's vulnerable critical infrastructure above flood elevations. The proposal encompasses the design, engineering, permitting, and construction of seventeen (17) new exterior mechanical facilities across Groups A-D and relocating the utilities to the roof at five sites in Group E. All flood-prone equipment in the basements would be removed and all building-critical infrastructure would be moved to the new centralized mechanical facilities allowing the properties to stay on-line in future extreme flooding event. The 17 new mechanical facilities would be placed throughout the property with many servicing multiple residential buildings, protecting from storm events and critical redundancy in case of equipment failure. The Proposed Project will receive \$51 million in federal Community Development Block Grant - Disaster Recovery (CDBG-DR) funding from the U.S. Department of Housing and Urban Development (HUD) as allocated by the City of New York. HUD allocates CDBG-DR funds following Presidentially-declared disasters. Funds must be used to address unmet needs related to "disaster relief, long-term recovery, restoration of infrastructure and housing, economic revitalization, and mitigation in the most impacted and distressed areas."

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.6934369,-73.91570010145418,14z>



QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

Yes

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Will the proposed project involve the use of herbicide where listed species are present?

No

10. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

No

11. Does any component of the project associated with this action include structures that may pose a collision risk to **birds** (e.g., land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

12. Does any component of the project associated with this action include structures that may pose a collision risk to **bats** (e.g., land-based wind turbines)?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

13. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

No

14. Will the proposed project affect wetlands where listed species are present?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

No

15. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

No

16. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

No

17. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

No

18. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

No

19. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

No

20. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

No

21. Will the proposed project involve perennial stream loss, in a stream or tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

No

22. Will the proposed project involve blasting where listed species may be present?

No

23. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage)?

No

24. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

No

25. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

No

26. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

No

27. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

No

28. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

29. Will the proposed project result in changes to beach dynamics that may modify formation of habitat over time?

Note: Examples of projects that result in changes to beach dynamics include 1) construction of offshore breakwaters and groins; 2) mining of sand from an updrift ebb tidal delta; 3) removing or adding beach sands; and 4) projects that stabilize dunes (including placement of sand fences or planting vegetation).

No

30. [Hidden Semantic] Is the project area located within the piping plover AOI?

Automatically answered

Yes

31. If you have determined that the piping plover is unlikely to occur within your project's action area or that your project is unlikely to have any potential effects on the piping plover, you may wish to make a "no effect" determination for the piping plover. Additional guidance on how to make this decision can be found in the project review section of your local Ecological Services Field Office's website. CBFO: <https://www.fws.gov/office/chesapeake-bay-ecological-services/project-review> ; MEFO: <https://www.fws.gov/office/maine-ecological-services> ; NJFO: <https://www.fws.gov/office/new-jersey-ecological-services/new-jersey-field-office-project-review-guide> ; NEFO: <https://www.fws.gov/office/new-england-ecological-services/endangered-species-project-review#Step5> ; WVFO: <https://www.fws.gov/office/west-virginia-ecological-services/project-planning>. If you are unsure, answer "No" and continue through the key.

Would you like to make a no effect determination for the piping plover?

Yes

32. [Hidden Semantic] Is the project area located within the piping plover AOI?

Automatically answered

Yes

33. [Hidden Semantic] Is the project area located within the red knot AOI?

Automatically answered

Yes

34. If you have determined that the red knot is unlikely to occur within your project's action area or that your project is unlikely to have any potential effects on the red knot, you may wish to make a "no effect" determination for the red knot. Additional guidance on how to make this decision can be found in the project review section of your local Ecological Services Field Office's website. CBFO: <https://www.fws.gov/office/chesapeake-bay-ecological-services/project-review> ; MEFO: <https://www.fws.gov/office/maine-ecological-services> ; NJFO: <https://www.fws.gov/office/new-jersey-ecological-services/new-jersey-field-office-project-review-guide> ; NEFO: <https://www.fws.gov/office/new-england-ecological-services/angered-species-project-review#Step5> ; WVFO: <https://www.fws.gov/office/west-virginia-ecological-services/project-planning>. If you are unsure, answer "No" and continue through the key.

Would you like to make a no effect determination for the red knot?

Yes

35. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

Automatically answered

No

36. [Semantic] Does the project intersect the Indiana bat critical habitat?

Automatically answered

No

37. [Semantic] Does the project intersect the candy darter critical habitat?

Automatically answered

No

38. [Semantic] Does the project intersect the diamond darter critical habitat?

Automatically answered

No

39. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

Automatically answered

No

40. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

Automatically answered

No

41. Do you have any other documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?
0
 2. Approximately how many total acres of disturbance are within the disturbance/
construction limits of the proposed project?
.20
 3. Briefly describe the habitat within the construction/disturbance limits of the project site.
Project site includes asphalt paved parking lots, concrete/asphalt recreation yards, and landscaping comprised of grass yards, shrubs, and some trees.
-

IPAC USER CONTACT INFORMATION

Agency: New York city
Name: Julie Freeman
Address: 255 Greenwich Street
Address Line 2: 8th Floor
City: New York
State: NY
Zip: 10007
Email: freemanj@omb.nyc.gov
Phone: 2127886130

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Housing and Urban Development



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Long Island Ecological Services Field Office
340 Smith Road
Shirley, NY 11967-2258
Phone: (631) 286-0485 Fax: (631) 286-4003

In Reply Refer To:
Project code: 2024-0006601
Project Name: Hope Gardens Groups A-E CDBG-DR Storm Resiliency

October 26, 2023

Federal Nexus: yes
Federal Action Agency (if applicable): Department of Housing and Urban Development

Subject: Record of project representative's no effect determination for 'Hope Gardens Groups A-E CDBG-DR Storm Resiliency'

Dear Julie Freeman:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on October 26, 2023, for 'Hope Gardens Groups A-E CDBG-DR Storm Resiliency' (here forward, Project). This project has been assigned Project Code 2024-0006601 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed

action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate
- Piping Plover *Charadrius melodus* Threatened
- Rufa Red Knot *Calidris canutus rufa* Threatened

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of “No Effect” on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the Long Island Ecological Services Field Office and reference Project Code 2024-0006601 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

Hope Gardens Groups A-E CDBG-DR Storm Resiliency

2. Description

The following description was provided for the project 'Hope Gardens Groups A-E CDBG-DR Storm Resiliency':

Hope Gardens is a community of former public housing buildings converted through NYCHA's Permanent Affordability Commitment Together ("PACT") program in 2019 to a public/private partnership between NYCHA and Pennrose LLC and Acacia Network (collectively, the "Developer") pursuant to with a 99-year ground lease between NYCHA and, Hope Gardens I LLC, and Bushwick Gardens I LLC (entities formed by the Developer). Following the conversion, the Hope Gardens portfolio included 60 individual buildings that were part of five separate former NYCHA developments: Hope Gardens, Palmetto Gardens, Bushwick II "Groups A & C," Bushwick II "Groups B & D," and Bushwick II CDA "Group E."

This CDBG-DR-funded project is limited to Bushwick II Groups A & C, Bushwick II Groups B & D, and Bushwick II CDA Group E, respectively ("Groups A – E"), which are comprised of 55 separate buildings, with 876 affordable housing units spread throughout a square mile of the Bushwick neighborhood of Brooklyn, New York ("the Project Area" or "Project Site"). The properties are multi-story, multi-family residential buildings with basements and community facility spaces. Additional site features include asphalt paved parking lots, concrete/asphalt recreation yards, and landscaping, including grass yards, shrubs, and trees. Groups A and E are owned by Bushwick Gardens I LLC. Groups B, C, and D are owned by Hope Gardens I LLC.

Groups A & C include an existing 25-building, 300-unit public housing development. The development spans three adjacent city blocks, and a portion of three city blocks to the north. Generally, the development is bound by Wilson Avenue to the north, Bleeker Street to the east, Central Avenue to the south, and Himrod Street to the west.

Group B & D is a 25-building development with 300 units in total. Generally, the site is bound by Wilson Avenue to the north, Madison Avenue to the east, Evergreen Avenue to the South, and Linden Street to the West.

Lastly, Group E features five residential public housing buildings with 276 units. The site is generally bound by Knickerbocker Avenue to the north, Gates Avenue to the east, Wilson Avenue to the south, and Menahan Street to the west.

The Proposed Project seeks to introduce much need storm resiliency to the existing housing development through relocation of the building's vulnerable critical infrastructure above flood elevations. The proposal encompasses the design, engineering, permitting, and construction of seventeen (17) new exterior mechanical facilities across Groups A-D and relocating the utilities to the roof at five sites in Group E. All flood-prone equipment in the basements would be removed and all building-critical infrastructure would be moved to the new centralized mechanical facilities allowing the properties to stay on-line in future extreme flooding event. The 17 new mechanical facilities would be placed throughout the property with many servicing multiple residential buildings, protecting from storm events and critical redundancy in case of equipment failure. The Proposed Project will receive \$51 million in federal Community Development Block Grant - Disaster Recovery (CDBG-DR) funding from the U.S. Department of Housing and Urban Development (HUD) as allocated by the City of New York. HUD allocates CDBG-DR funds following Presidentially-declared disasters. Funds must be used to address unmet needs related to "disaster relief, long-term recovery, restoration of infrastructure and housing, economic revitalization, and mitigation in the most impacted and distressed areas."

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.6934369,-73.91570010145418,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. The action area does not overlap with an area for which U.S. Fish and Wildlife Service currently has data to support the presumption that the northern long-eared bat is present. Are you aware of other data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed NLEB acoustic detections. Data on captures, roost tree use, and acoustic detections should post-date the year when white-nose syndrome was detected in the relevant state. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

No

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: New York city
Name: Julie Freeman
Address: 255 Greenwich Street
Address Line 2: 8th Floor
City: New York
State: NY
Zip: 10007
Email: freemanj@omb.nyc.gov
Phone: 2127886130

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Housing and Urban Development

Explosive and Flammable Hazards

General requirements	Legislation	Regulation
HUD-assisted projects must meet Acceptable Separation Distance (ASD) requirements to protect them from explosive and flammable hazards.	N/A	24 CFR Part 51 Subpart C

1. Is the proposed HUD-assisted project itself the development of a hazardous facility (a facility that mainly stores, handles or processes flammable or combustible chemicals such as bulk fuel storage facilities and refineries)?

No

Yes

2. Does this project include any of the following activities: development, construction, rehabilitation that will increase residential densities, or conversion?

No

Based on the response, the review is in compliance with this section.

Yes

Screen Summary

Compliance Determination

The proposed project does not include development, construction, rehabilitation that will increase residential densities, or conversion of properties from non-residential to residential. No significant explosive and flammable hazards were identified within proximity of potential effect on the Proposed Project and no further analysis is required.

Supporting documentation

Are formal compliance steps or mitigation required?

Yes

Hope-Gardens:-Groups-A-
E-CDBG-DR-Storm-
Resiliency-

Brooklyn, NY

900000010361422

✓ No

Farmlands Protection

General requirements	Legislation	Regulation
The Farmland Protection Policy Act (FPPA) discourages federal activities that would convert farmland to nonagricultural purposes.	Farmland Protection Policy Act of 1981 (7 U.S.C. 4201 et seq.)	7 CFR Part 658

1. Does your project include any activities, including new construction, acquisition of undeveloped land or conversion, that could convert agricultural land to a non-agricultural use?

Yes

No

If your project includes new construction, acquisition of undeveloped land or conversion, explain how you determined that agricultural land would not be converted:

The Proposed Project would not cause disturbance of Prime, Unique, or Statewide Important Farmland, nor would the Proposed Project involve the conversion of farmland to non-agricultural use. See photos of existing site conditions in the attached EA. Therefore, the Proposed Project would not violate the Farmland Protection Policy Act. No land-use conversion is included in the Proposed Project and no farmland-protected property is impacted by the proposed action.

Based on the response, the review is in compliance with this section. Document and upload all documents used to make your determination below.

Screen Summary

Compliance Determination

This project does not include any activities that could potentially convert agricultural land to a non-agricultural use. The project is in compliance with the Farmland Protection Policy Act.

Supporting documentation

Are formal compliance steps or mitigation required?

Yes

Hope-Gardens:-Groups-A-
E-CDBG-DR-Storm-
Resiliency-

Brooklyn, NY

900000010361422

✓ No

Floodplain Management

General Requirements	Legislation	Regulation
Executive Order 11988, Floodplain Management, requires federal activities to avoid impacts to floodplains and to avoid direct and indirect support of floodplain development to the extent practicable.	Executive Order 11988	24 CFR 55

1. Do any of the following exemptions apply? Select the applicable citation? [only one selection possible]

55.12(c)(3)

55.12(c)(4)

55.12(c)(5)

55.12(c)(6)

55.12(c)(7)

55.12(c)(8)

55.12(c)(9)

55.12(c)(10)

55.12(c)(11)

None of the above

2. Upload a FEMA/FIRM map showing the site here:

[3 and 8 - Floodmap\(1\).pdf](#)

The Federal Emergency Management Agency (FEMA) designates floodplains. The FEMA Map Service Center provides this information in the form of FEMA Flood Insurance Rate Maps (FIRMs). For projects in areas not mapped by FEMA, use **the best available information** to determine floodplain information. Include documentation, including a discussion of why this is the best available information for the site.

Does your project occur in a floodplain?

No

Based on the response, the review is in compliance with this section.

Yes

Hope-Gardens:-Groups-A-
E-CDBG-DR-Storm-
Resiliency-

Brooklyn, NY

900000010361422

Screen Summary

Compliance Determination

This project does not occur in a floodplain. The project is in compliance with Executive Order 11988.

Supporting documentation

Are formal compliance steps or mitigation required?

Yes

✓ No

Historic Preservation

General requirements	Legislation	Regulation
Regulations under Section 106 of the National Historic Preservation Act (NHPA) require a consultative process to identify historic properties, assess project impacts on them, and avoid, minimize, or mitigate adverse effects	Section 106 of the National Historic Preservation Act (16 U.S.C. 470f)	36 CFR 800 "Protection of Historic Properties" https://www.govinfo.gov/content/pkg/CFR-2012-title36-vol3/pdf/CFR-2012-title36-vol3-part800.pdf

Threshold

Is Section 106 review required for your project?

No, because the project consists solely of activities listed as exempt in a Programmatic Agreement (PA). (See the PA Database to find applicable PAs.)

No, because the project consists solely of activities included in a No Potential to Cause Effects memo or other determination [36 CFR 800.3(a)(1)].

- ✓ Yes, because the project includes activities with potential to cause effects (direct or indirect).

Step 1 – Initiate Consultation

Select all consulting parties below (check all that apply):

- ✓ State Historic Preservation Offer (SHPO) Completed

Indian Tribes, including Tribal Historic Preservation Officers (THPOs) or Native Hawaiian Organizations (NHOs)

Other Consulting Parties

Describe the process of selecting consulting parties and initiating consultation here:

Consultation with the New York State Historic Preservation Office (NY SHPO) was conducted pursuant to a Section 106 Programmatic Agreement between the New York City Housing Authority, NYC Department of Housing Preservation and Development, and the NY SHPO. Please note, when the PA was developed, HPD and NYCHA invited the Stockbridge-Munsee Mohican Tribal Historic Preservation New York Office, the Shinnecock Indian Nation Tribal Office, Delaware Tribe Historic Preservation Representative, and the Delaware Nation to consult on the development of the PA and did not receive comments. The Advisory Council also elected not to participate in the consultation process.

Document and upload all correspondence, notices and notes (including comments and objections received below).

Was the Section 106 Lender Delegation Memo used for Section 106 consultation?

- Yes
- No

Step 2 – Identify and Evaluate Historic Properties

- 1. Define the Area of Potential Effect (APE), either by entering the address(es) or uploading a map depicting the APE below:**

See attachments for maps showing the location, spatial extent, and block/lot of each group collectively. The addresses of each group and proposed pod location are included in the "Site List" attachment.

In the chart below, list historic properties identified and evaluated in the APE. Every historic property that may be affected by the project should be included in the chart.

Upload the documentation (survey forms, Register nominations, concurrence(s) and/or objection(s), notes, and photos) that justify your National Register Status determination below.

Address / Location / District	National Register Status	SHPO Concurrence	Sensitive Information
--	-------------------------------------	-------------------------	----------------------------------

Additional Notes:

2. Was a survey of historic buildings and/or archeological sites done as part of the project?

Yes

✓ No

Step 3 –Assess Effects of the Project on Historic Properties

Only properties that are listed on or eligible for the National Register of Historic Places receive further consideration under Section 106. Assess the effect(s) of the project by applying the Criteria of Adverse Effect. (36 CFR 800.5)] Consider direct and indirect effects as applicable as per guidance on direct and indirect effects.

Choose one of the findings below - No Historic Properties Affected, No Adverse Effect, or Adverse Effect; and seek concurrence from consulting parties.

No Historic Properties Affected

✓ No Adverse Effect

Based on the response, the review is in compliance with this section.

Document reason for finding:

Based upon the NY SHPO's review, no historic properties, including archaeological and/or historic resources, will be affected by this undertaking.

Does the No Adverse Effect finding contain conditions?

Yes (check all that apply)

✓ No

Based on the response, the review is in compliance with this section. Document and upload

concurrency(ies) or objection(ies) below.

Adverse Effect

Screen Summary

Compliance Determination

Based on Section 106 consultation the project will have No Adverse Effect on historic properties. Conditions: None. Upon satisfactory implementation of the conditions, which should be monitored, the project is in compliance with Section 106.

Supporting documentation

[9 - SHPO Response.pdf](#)

[9 - Section 106 Programmatic Agreement.pdf](#)

[0 - Site List.xlsx](#)

[Area of Potential Effect Maps.pdf](#)

Are formal compliance steps or mitigation required?

Yes

✓ No

SECTION 106 PROGRAMMATIC AGREEMENT

AMONG

THE NEW YORK STATE HISTORIC PRESERVATION OFFICER,

**THE CITY OF NEW YORK DEPARTMENT OF HOUSING
PRESERVATION AND DEVELOPMENT,**

AND

THE NEW YORK CITY HOUSING AUTHORITY

REGARDING

**NEW YORK CITY HOUSING AUTHORITY PROGRAMS AND
ACTIVITIES FUNDED BY THE UNITED STATES DEPARTMENT OF
HOUSING AND URBAN DEVELOPMENT**

2018-048894

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PREAMBLE

WHEREAS, the United States Department of Housing and Urban Development (hereinafter “**HUD**”) provides grant funding through the Capital Fund Grant Program, Operating Fund, HOPE VI, Rental Assistance Demonstration, and other HUD grant programs to the New York City Housing Authority (hereinafter “**NYCHA**”); and

WHEREAS, NYCHA proposes to commit HUD funds provided through these grant programs to Undertakings such as repair, rehabilitation, construction, demolition, acquisition, financing, and disposition of NYCHA’s public housing developments, and management of their operations; and

WHEREAS, pursuant to 24 CFR Part 58- “Environmental Review Procedures for Entities Assuming HUD Environmental Responsibilities”, the City of New York (“**NYC**”) Department of Housing Preservation and Development (hereinafter “**HPD**”) assumes environmental review responsibility for these HUD-assisted Undertakings and as such must ensure NYCHA’s compliance with the National Historic Preservation Act (hereinafter “**NHPA**”), 54 U.S.C. § 300101, and its implementing regulations for the “Protection of Historic Properties” at 36 CFR Part 800 (hereinafter “**Section 106**”) as part of its environmental review responsibilities; and

WHEREAS, NYCHA and the New York State Historic Preservation Officer (hereinafter “**SHPO**”) has performed a Historic Resources Survey and the SHPO determined that thirty-seven (37) NYCHA properties are listed or eligible for listing in the National Register of Historic Places (hereinafter “**NYCHA Historic Properties**”), identified in Appendix A- “NYCHA National Register Listed and Eligible Properties”; and

WHEREAS, HPD has consulted with the NYC Landmarks Preservation Commission (hereinafter “**LPC**”) regarding the effects of this Programmatic Agreement (hereinafter “**PA**”) on NYCHA landmark properties, and has invited the LPC to sign this PA as a concurring party; and

WHEREAS, on August 24, 2017 a public notice was placed on the HPD website notifying and inviting the public to participate in the development of this PA to which HPD did not receive responses; and

WHEREAS, on January 12, 2018 representatives from the LPC, the Municipal Art Society of New York, the Historic Districts Council, and DOCOMOMO U.S- New York/Tri-State participated on a conference call with HPD, SHPO and NYCHA to provide comments and feedback on this PA; and

WHEREAS, HPD invited Tribal Historic Preservation Officers (hereinafter “**THPO**”) from Stockbridge-Munsee Mohican Tribal Historic Preservation New York Office, the Shinnecock Indian Nation Tribal Office, Delaware Tribe Historic Preservation Representative, and the Delaware Nation to consult on the development of this PA and did not receive comments; and

HPD-NYCHA- NY SHPO Section 106 Programmatic Agreement

WHEREAS, HPD notified the Advisory Council on Historic Preservation (hereinafter "**ACHP**") of the development of this PA and the ACHP has elected not to participate in the consultation process; and

WHEREAS, NYCHA and its Responsible Entity, HPD, have determined that some HUD-assisted Undertakings may have an effect on these thirty-seven (37) NYCHA historic properties and has consulted with the SHPO pursuant to Section 106;

NOW, THEREFORE, NYCHA, HPD, the SHPO, and LPC agree that these HUD-assisted Undertakings shall be implemented in accordance with the stipulations provided in this PA in order to take into account the effect of these Undertakings on NYCHA's historic resources.

The Parties acknowledge and agree that the recitals included in the Preamble above are incorporated by reference herein, and any obligation, term, condition, representation, or warranty set forth therein shall be binding on the Parties, as applicable.

STIPULATIONS

NYCHA, under the oversight of its Responsible Entity, HPD, shall ensure that the following measures are carried out to satisfy NYCHA's Section 106 responsibilities for all applicable HUD- assisted Undertakings.

I. General

A. Purpose

This PA establishes procedures that NYCHA and HPD shall implement to fulfill its Section 106 responsibilities as outlined under 24 CFR Part 58- "Environmental Review Procedures for Entities Assuming HUD Environmental Review Responsibilities". The PA streamlines the Section 106 review process of the NHPA and reduces case by case consultation with the SHPO for every proposed HUD-assisted Undertaking or Undertakings occurring at HUD-assisted sites.

B. Applicability

1. This PA applies to NYCHA's HUD-funded programs, initiatives, assistance, actions or decisions subject to the environmental review procedures outlined in 24 CFR Part 58 that require compliance with Section 106. Applicable programs include, but are not limited to, the Capital Fund Grant Program, Operating Fund, HOPE VI, Section 18, and the Rental Assistance Demonstration ("**RAD**") program.
2. Disaster recovery Undertakings funded by the Federal Emergency Management Agency ("**FEMA**") are not covered by this Programmatic Agreement. These FEMA-funded disaster recovery Undertakings are covered under a separate statewide Programmatic Agreement.
3. This Programmatic Agreement does not supersede permitting or regulatory procedures for any local landmarks or historic districts.

II. Definitions

A. Adverse Effect

An adverse effect means an Undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the

Undertaking that may occur later in time, be farther removed in distance or be cumulative. [36 CFR 800.5 (a) (1)]

B. Contiguous/Adjacent

NYCHA must consider whether there could be adverse effects within a 400-foot radius from project site for potential visual impact, and 90-foot radius from a project site for potential physical impact. This is based on the NYC Environmental Quality Review Technical Manual (2014) (“**CEQR**”) and the NYC Department of Buildings (“**DOB**”) Technical Policy and Procedure Notice (“**TPPN**”) #10/88

C. Days

Any reference to “days” within this Agreement refers to calendar days.

D. Demolition

Demolition refers to any partial, full demolition, and/or removal of any building or structure.

E. Emergency Undertaking

An Emergency Undertaking is any Undertaking that is as an essential and immediate response to a natural disaster or emergency declared by the President, a tribal government, the Governor of the State, New York City’s chief executive officer or legislative body; or in response to an imminent threat to public health or safety as a result of a natural disaster or emergency declared by the appropriate authority. Such Emergency Undertakings are those that will be implemented within thirty (30) days after the disaster or emergency has been formally declared.

F. Historic Artwork

Any NYCHA-owned artistic property at least 50 years of age including figurative or abstract sculptures (free-standing or bas relief), designed playground equipment, monuments, fountains, environmental design (such as outdoor seating), and murals (painted or mosaic) that are historically related to and located within a NYCHA development (interior or exterior). This includes Federal WPA art projects and other artwork, found at both NYCHA Historic Properties and NYCHA Non-Historic Properties. A list of NYCHA Historic Artwork as of 2017 may be found in Appendix C of this PA.

G. NYCHA Historic Property

Any NYCHA development included in, or eligible for inclusion in, the National Register of Historic Places. A list of NYCHA Historic Properties identified as of 2017 may be found in Appendix A of this PA. This list may be updated as

properties are re-evaluated for eligibility upon reaching 50 years of age. See Section VI. A and C.

H. NYCHA Non-Historic Property

Any NYCHA development not included in, or eligible for inclusion in the National Register of Historic Places maintained by the Secretary of the Interior. If a property is not listed in Appendix A of this PA, it has been determined that it is non-historic.

I. In-Kind Repair

In-Kind Repair means an action to restore the mechanical, structural, or aesthetic function of an element of an historic resource using materials and methods compatible with the original nature and function of that element.

J. In-Kind Replacement

In-Kind Replacement means the removal of any element and the insertion of a new element with the same material matching the same design, form, dimension, color and texture as that being replaced.

K. New Construction/Addition

Any new, permanent construction or addition erected on NYCHA Historic Properties, and/or new, permanent construction or addition attached to a building located on a NYCHA Historic Property.

L. Responsible Entity

For public housing agencies [this is] the unit of general local government within which the project is located that exercises land use responsibility. HPD serves as NYCHA's Responsible Entity for the HUD programs subject to 24 CFR Part 58, with the exception of Community Development Block Grants.

M. Significant Ground Disturbance

This means ground disturbance greater than eighteen (18) inches below an existing surface.

N. Undertaking

This means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency (e.g. HUD), including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; and those requiring a federal permit, license, or approval.

III. Activities Requiring Consultation with SHPO

NYCHA shall consult with SHPO in the manner described in Stipulation VIII of this PA for the following Undertakings:

A. NYCHA Historic Properties

All Undertakings that will occur at a NYCHA Historic property require consultation with SHPO, with the exception of Undertakings that are limited solely to activities in Appendix B of this PA.

B. NYCHA Non-Historic Properties

While consultation with SHPO is not required for the majority of projects occurring at Non-Historic Properties, consultation is required for Undertakings involving any of the following activities:

1. New construction
2. Demolition of buildings and/or structures (other than roof top communications equipment). This only applies to NYCHA properties that are at least fifty years of age.
3. Any other Significant Ground-Disturbing activities (work in or around any known and unknown archaeological site).
4. Work in, on or around, or associated with, existing Historic Artwork.

IV. Activities Exempt from SHPO Consultation

Undertakings that meet the criteria listed under this Stipulation IV and/or Appendix B- "Activities Exempt from Review by SHPO" will not require submission to SHPO for consultation. However, approval from the LPC may be required for historic properties with NYC landmark status.

Determinations of whether an Undertaking is exempt or requires SHPO consultation must be made by, or under the supervision of a NYCHA and/ or HPD personnel who is authorized to make this determination and meet the qualifications stated in section VII. Personnel determining whether an Undertaking is exempt shall take into account the following criteria:

A. NYCHA Historic Properties

If an Undertaking will occur at a NYCHA Historic Property but the activities of the Undertaking are limited solely to the exempt activities listed in Appendix B of this PA, consultation with SHPO is not required. Consultation is required for all other activities.

B. Non-Historic NYCHA Properties

Undertakings occurring at sites not listed in Appendix A of this PA (NYCHA Historic Properties) do not require consultation with SHPO **unless** the Undertaking involves activities outlined above in Stipulation III.B.

V. **Archaeological Resources**

- A. Prior to performing activities involving significant ground disturbance (except for the activities and criteria listed as exempt in Appendix B- NYCHA Activities Exempt from Review by the New York State Historic Preservation Officer), NYCHA shall consult with the SHPO and LPC to determine if the area of Ground Disturbance has the potential to contain significant archaeological resources.
- B. If the affected area is deemed to have high archaeological potential by the SHPO and/or LPC, NYCHA shall retain the services of a qualified archaeologist to perform an archaeological survey of the affected site. The archaeologist must meet the *National Park Service's Professional Qualification Standards for Archaeology*. The scope of services to be performed shall be developed by the archaeologist in consultation with the SHPO. NYCHA shall submit a report detailing findings of the survey to the SHPO and LPC for review,

VI. **Responsibilities**

- A. New York City Housing Authority
1. NYCHA agrees to comply with the stipulations of this agreement, to consult with the SHPO where required in accordance with their provisions, and to the extent practicable, to ensure that all work performed at NYCHA Historic Properties conforms with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (hereinafter "**the Standards**").
 2. For all activities requiring consultation, NYCHA agrees to initiate and conclude the review process before beginning or permitting any work.
 3. NYCHA shall report to SHPO and HPD on an annual basis all Undertakings that require compliance with Section 106 but were exempted from consultation based on stipulations within this Agreement.
 4. At the five-year point of this PA, NYCHA shall provide current images to the SHPO of those properties not currently on the NYCHA Historic Property List (Appendix A) that have reached 50 years of age so that the SHPO may re-evaluate these properties for eligibility. The list in Appendix A-NYCHA National Register Listed/Eligible & LPC Properties, shall be amended should any new properties be determined eligible.

5. NYCHA shall update Appendix C- NYCHA List of Identified Historic Artwork on an annual basis as artistic works reach 50 years of age; and shall provide a copy of the revised list to SHPO annually.

B. NYC Department of Housing Preservation and Development

1. HPD, as NYCHA's Responsible Entity, shall ensure that the Section 106 process, as stipulated within this Agreement, is completed prior to the approval of a release, or request for release of funds for HUD assisted Undertakings as stipulated within this PA.
2. HPD shall make available for public inspection NYCHA's Environmental Review Records which includes documentation of Section 106 compliance and information on the types of activities undertaken with HUD assistance at NYCHA historic properties.

C. New York State Historic Preservation Officer

1. The New York SHPO shall review all of NYCHA's project submissions or documentation and shall either:
 - a. Request additional information and/or provide recommendations;
 - b. Provide a project effect finding to complete the review process;
 - c. Provide a project effect finding that requires continued consultation with the SHPO;
 - d. Establish conditions for project approval which may require continued consultation with the SHPO or require that NYCHA agree in writing to meet specified conditions and/or provide revised project materials (e.g. revised plans and specifications) which incorporate the SHPO's conditions.
2. Five years from the execution of this PA, the SHPO shall re-evaluate NYCHA properties not currently included on the NYCHA Historic Property List (Appendix A) that have reached 50 years of age to determine if any meet the National Register criteria. Eligibility determinations shall be prepared should any of these properties be determined eligible for the National Register. Any new determinations of National Register eligibility shall be shared with the consulting parties.

D. NYC Landmarks Preservation Commission

1. LPC shall review NYCHA Undertakings that have the potential to adversely affect an LPC designated property, or one calendared for designation and notify NYCHA if an LPC property may be affected by the Undertaking and will require an LPC permit.

2. Five years from the execution of this PA, NYCHA shall provide current images to LPC of those properties not currently on the NYCHA Historic Property list (Appendix A) that have reached 30 years of age so that the LPC may re-evaluate these properties for eligibility. The list in Appendix A-NYCHA National Register listed/eligible & LPC properties shall be amended should any new properties be determined LPC eligible. Any new determinations of LPC eligibility shall be shared with the consulting parties.

VII. Qualifications of Personnel

NYCHA and HPD shall ensure that all activities, reviews, and determinations carried out pursuant to this agreement are implemented by or under the supervision of a person(s) qualified in accordance with *The Secretary of the Interior's Professional Qualifications Standards* at 36 CFR Part 61. NYCHA's Deputy Director of Design or other qualified designee may supervise and/or authorize staff in the implementation of this PA.

VIII. Section 106 Review Process

NYCHA shall afford the SHPO the opportunity to review Undertakings that do not meet the exempt criteria set forth in Stipulation IV, comment and issue findings in the manner described below.

A. Requesting SHPO Review

NYCHA shall submit the following project documentation to the SHPO for review:

1. Scope of work
2. Current photographs of the affected property/properties, facilitie(s), structure(s) or object(s)
3. Property location
4. Site plans and/or drawings

If the SHPO determines that the project information/documentation is incomplete, the SHPO shall advise NYCHA of any additional information that is required within 30 days of submission as outlined in VIII. B.

B. SHPO Review Timeframes

The SHPO shall provide written comments or request for more information on a project within thirty (30) days after receipt of a request for consultation. If SHPO does not provide written comments within the mandated 30-day period, HPD/NYCHA can assume SHPO's concurrence that an Undertaking will have no adverse effect and proceed with the Undertaking.

C. SHPO's Comments

The SHPO's comments may include recommendations for modifying a proposed project's plans to be consistent with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* ("Standards"); a determination that a proposed project constitutes no adverse effect; that a - proposed project constitutes an adverse effect, or any other recommendations that the SHPO believes are necessary to complete Section 106 Review of a proposed project.

D. Incorporation of Comments

Upon receipt of comments from the SHPO, NYCHA shall evaluate the comments and provide a written response to the SHPO within 30 days, unless the SHPO's finding is "No Adverse Effect", in which case a written response to the SHPO is not required.

E. Section 106 Review Process for LPC Designated Properties

Additionally, when NYCHA is required to submit an Undertaking for Section 106 review to the SHPO, as outlined in Section VIII. A of this Agreement NYCHA must also contemporaneously consult with the LPC on Undertakings that have the potential to adversely affect an LPC property.

1. NYCHA will submit the documents that it provided to SHPO to LPC so that LPC may notify NYCHA as to whether an LPC property may be affected by the Undertaking and will require an LPC permit.
2. LPC will review NYCHA Undertakings that have the potential to adversely affect an LPC designated property, or one calendared for designation.
3. LPC understands that if it does not respond to NYCHA's submittal of Undertakings to them within the timeframe outlined in Section VIII, Part B, "SHPO Review Timeframes", NYCHA will assume that none of the Undertakings are subject to LPC review and permitting and will proceed with the Undertaking.

F. Resolution of Adverse Effects

1. For Undertakings that the SHPO and NYCHA agree will constitute an adverse effect on historic properties, NYCHA shall continue consultation with the SHPO in accordance with 36 CFR Part 800.6 to resolve the adverse effect.
2. If after consulting to resolve adverse effects, the SHPO or NYCHA determines that further consultation will not be productive either party shall follow the applicable procedures as outlined in 36 CFR Part 800.7.
3. If after consulting to resolve adverse effects LPC, SHPO and NYCHA do not

agree, if permit issuance is required, LPC will make the final determination based on permit issuance approval.

IX. Expedited Reviews

- A. NYCHA Undertakings that do not meet the definition of an Emergency Undertaking as outlined above but require urgent action may be submitted to SHPO along with an email requesting expedited review. Upon request from HPD or NYCHA, SHPO shall make a good faith effort to expedite its review of these Undertakings.
- B. NYCHA Undertakings that do not meet the definition of an Emergency Undertaking as outlined above and are LPC designated or calendared for designation, but require urgent action, may be submitted to LPC along with an email requesting expedited review. Upon request from HPD or NYCHA, LPC shall make a good faith effort to expedite its review of these Undertakings.

X. Post Review Discoveries/Unanticipated Effects

If during an Undertaking additional historic properties, structures or objects are discovered, or unanticipated effects on historic properties are found NYCHA shall cease the work until it can be evaluated in accordance with 36 C.F.R Part 800.13 (b) and immediately notify the SHPO. NYCHA shall follow SHPO's protocol for post review/unanticipated discoveries as outlined in Appendix E of this Agreement.

XI. Discovery of Human Remains

If human remains are encountered during an Undertaking or archaeological investigation, local law enforcement and the New York City Chief Medical Examiner must be notified immediately. The New York State Office of Parks, Recreation and Historic Preservation (OPRHP) has developed a Human Remains Discovery Protocol. The treatment of any human remains encountered during an Undertaking will be guided by this protocol outlined in Appendix D- "New York State Office of Parks, Recreation and Historic Preservation Human Remains Discovery Protocol".

XII. Duration/ Effective Dates

This agreement shall continue in full force and effect for ten (10) years from the date of the last signature on this Agreement. No extension of the term will be effective unless all parties to the Agreement have agreed to it in writing.

XIII. Documentation and Recordkeeping

NYCHA and HPD shall maintain documentation of all Undertakings that have

been reviewed by SHPO or exempted from review pursuant to this Agreement. These documents shall be maintained for seven (7) years

XIV. Monitoring and Reporting

Each year, following the date that this PA is executed, until it expires or is terminated, NYCHA shall provide all signatories to this PA with a summary report. The report shall include:

- A. Overview of PA effectiveness and suggested improvements.
- B. A list of exempted projects in which no further consultation was required
- C. Any problems encountered disputes or objections in the efforts to carry out the terms of the PA.
- D. Names and qualifications of those persons supporting the cultural resource professions as required in section VII.
- E. Any post-review discoveries.
- F. Any Memorandum of Agreements executed.

XV. Dispute Resolution

Should any signatory to this Agreement object at any time to any actions proposed or the manner in which the terms of this Agreement are implemented, the objecting party shall consult with the other parties to resolve the objection. If any party determines that the objection cannot be resolved, HPD in consultation with NYCHA shall request comments of the Advisory Council on Historic Preservation ("ACHP") pursuant to 36 CFR 800.5 (c)(3) as follows:

- A. Forward all documentation relevant to the dispute, including proposed resolution(s), to the ACHP. The ACHP shall provide HPD and NYCHA with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, HPD in consultation with NYCHA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. NYCHA will then proceed according to HPD's final decision.
- B. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, HPD may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, HPD shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the Agreement, and provide them and the ACHP with a copy of such written response.

- C. Notwithstanding the foregoing in this Article XV, If after consulting to resolve adverse effects in accordance with Article VIII of this Agreement, LPC, SHPO and NYCHA do not agree, if permit issuance is required, LPC will make the final determination based on permit issuance approval.

SHPO, NYCHA and HPD's responsibility to carry out all other actions subject to the terms of this Agreement that are not subject of the dispute remain unchanged.

XVI. Amendments

Any party to this Agreement may request that it be amended, whereupon the parties will consult pursuant to 36 CFR 800.6(c) (7). No modification shall be effective unless HPD, NYCHA, and SHPO have agreed to it in writing. The amendment will become effective on the date a copy is signed by all signatories.

Additionally, two years after execution of this Agreement the parties shall review program performance to determine effectiveness of the agreement and shall consult to consider amendment of the Agreement.

XVII. Emergency Undertakings

This Programmatic Agreement will follow procedures for handling Emergency Undertakings as outlined in 36 CFR Part 800.12.

XVIII. Public Involvement and Outreach

- A. HPD shall notify the public of the nature and scope of proposed HUD-assisted Undertakings that may have an adverse affect and/or new construction within historic properties and/or sites, and provide a reasonable opportunity for members of the public to express their views on these Undertakings.
- B. Additionally, HPD shall inform the public of the existence of this PA and plans for meeting the stipulations outlined in the PA. Copies of this agreement and relevant documentation prepared pursuant to the terms of this PA shall be made available for public inspection via Environmental Review Records and online publication on HPD's website.
- C. If at any time during the implementation of the measures stipulated in this Agreement, should an objection to any measure or its implementation be raised by a member of the public, HPD shall take the objection into account and consult as needed with NYCHA and the SHPO to resolve the objection.

XIX. Technical Assistance

Nothing in this Agreement shall be construed to mean that NYCHA or HPD cannot request advice, counsel, or assistance from the SHPO at any given time on any project.

XX. Termination

Any party to this Programmatic Agreement may terminate it by providing thirty (30) days notice to the other parties, provided that the parties will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination.

In the event that this Agreement is terminated, NYCHA and its Responsible Entity, HPD, shall comply with 36 CFR Part 800 with regard to individual Undertakings covered by this Agreement.

XXI. Failure to Comply with Agreement

In the event that NYCHA or HPD fails to carry out the terms of this Agreement, NYCHA and HPD shall comply with the Section 106 Process as outlined in 36 CFR 800 for any Undertaking covered by this Agreement.

XXII. Execution and Implementation

Executing and implementation of the terms of this Programmatic Agreement provides evidence that NYCHA has and will take into account the effects of its Undertakings on historic properties and that it has provided and will provide the State Historic Preservation Officer an opportunity to comment.

SIGNATORIES

New York City Department of Housing Preservation and Development



Molly Park
Deputy Commissioner

9/18/18

Date

The New York City Housing Authority



Deborah Goddard
Executive Vice President, Capital Projects Division

8/22/18

Date

New York State Office of Parks, Recreation and Historic Preservation



R. Daniel Mackay
Deputy Commissioner

9/30/2018

Date

Concurring Parties

New York City Landmarks Preservation Commission

FRIEDERICK BLAND

Print name:
Print title: Vice Chair



Date

9.13.2018

-End of Programmatic Agreement-

APPROVED AS TO FORM

NYC HISTORIC PRESERVATION COMMISSION

8/15/2018

APPENDIX A
NYCHA National Register Listed/Eligible Properties &
NYCHA NYC Landmark Properties

As of March 2018

Borough	Property	SHPO Determination	LPC Designation
<i>Brooklyn</i>			
	Albany I and II	NR eligible	N/A
	Bayview Houses	NR eligible	N/A
	Boulevard Houses	NR eligible	N/A
	Brownsville Houses	NR eligible	N/A
	Ingersoll Houses	entire complex NR eligible	N/A
	Marcus Garvey Group A	NR eligible	N/A
	Marlboro Houses	NR eligible	N/A
	Pennsylvania Ave-Wortman Ave	NR eligible	N/A
	Red Hook Houses	NR eligible	N/A
	Whitman Houses	entire complex NR eligible	N/A
	Williamsburg Houses	NR eligible	Individual Landmark
<i>Bronx</i>			
	Boston Road Plaza	NR eligible	N/A
	Bronx River Houses	NR eligible	N/A
	Clason Point Gardens	NR eligible	N/A
	Davidson Houses	NR eligible	N/A
	Eastchester Gardens	NR eligible	N/A
	Gun Hill Houses	NR eligible	N/A
	Sedgwick Houses	NR eligible	N/A
<i>Manhattan</i>			
	Amsterdam Houses	NR eligible	N/A
	Baruch Houses	NR eligible	N/A
	Carver Houses	NR eligible	N/A
	Douglas Rehabs (241 West 101st St, 229 and 251 West 103rd St, 244 West 104th St)	NR eligible	LPC Riverside West End Historic District II
	East River Houses	NR eligible	N/A
	First Houses	NR listed	Individual Landmark
	Harlem River Houses	NR listed	N/A

Borough	Property	SHPO Determination	LPC Designation
<i>Manhattan</i> (Continued)			
	Jacob Riis I and II	NR eligible	N/A
	King Towers	NR eligible	N/A
	Randolph Houses	NR listed	N/A
	Smith Houses	NR eligible	N/A
	Taft Rehabs	NR listed	N/A
	Vladeck Houses and Vladeck II	NR listed	N/A
	Wise Rehab	NR eligible (54 West 94th St)	Upper West Side/Central Park West Historic District
	W.S.U.R.A. Brownstones (47 West 89th St, 15 and 38 West 90th St, 22 and 64 West 91st St)	NR eligible	Upper West Side/Central Park West Historic District
<i>Queens</i>			
	Forest Hills Co-Op	NR eligible	N/A
	Queensbridge North & South	entire complex NR eligible	N/A
	South Jamaica I	NR eligible	N/A
<i>Staten Island</i>			N/A
	Berry Houses	NR eligible	N/A
Division for Historic Preservation			
P.O. Box 189, Waterford, New York 12188-0189 • (518) 237-8643 • www.nysparks.com			

APPENDIX B
NYCHA Activities Exempt from Review by the
New York State Historic Preservation Officer (“SHPO”)

The following Undertakings have no or limited potential to affect NYCHA's historic properties and do not require further review or consultation with the SHPO. LPC designated properties require LPC approval and issuance of an LPC permit for the NYCHA activities indicated below.

For purposes of this agreement, the term “in-kind repair” means an action to restore the mechanical, structural or aesthetic function of an element of an historic resource using materials and methods compatible with the original function of that element. “In-kind replacement” means the removal of any element and the insertion of a new element with the same material matching the same design, form, dimension, color and texture as that being replaced.

1. Site Work

- a. Streets, driveways, sidewalks, and alleys- Repair and restriping of existing concrete or asphalt surfaces provided that no changes are made in width, surface, vertical alignment, or drainage.
- b. Parking Areas- Repair and restriping of existing parking lots, provided that no changes are made in width, surface or vertical alignment. Parking layout changes to accommodate upgrades to meet ADA requirements, including adding curb cuts and associated signage.
- c. Park and playground equipment- In-kind repair or in-kind replacement of existing non-original park and playground equipment, excluding buildings, with minimal ground disturbance (i.e. ground disturbance that is less than eighteen (18) inches below the existing surface).
- d. Basketball courts and other paved recreational areas- Repair and repaving of existing concrete or asphalt surfaces provided that no changes are made in width, surface, vertical alignment, or drainage.
- e. Curbs, gutters, sidewalks, retaining walls- Repair of existing concrete or asphalt surfaces or in-kind replacement of brick, rock, or stone materials for curbs, gutters, sidewalks, and retaining walls, including adding curb cuts in conformance with NYC Department of Transportation and LPC historic district guidelines.
- f. Site improvements -Repair or in-kind repair/replacement of site improvements, including, but not limited to fences, landscaping, and steps provided that no changes are made in alignment/configuration.
- g. Temporary structures- Installation of temporary construction-related structures (with minimal ground disturbance no greater than eighteen (18) inches below the existing ground surface) including scaffolding, barriers, screening, fences, protective walkways,

signage, office trailers or restrooms.

- h. Generators- Temporary installation of generators, and permanent installation of generators that are placed inside existing buildings or that occupy an area under fifty (50) square feet behind the building they serve, provided that there is minimal ground disturbance no greater than eighteen (18) inches below the existing ground surface
- i. Non-historic retaining walls, driveways, curbs and gutters, and parking areas; Removal and installation of these site elements; and repair in-kind using like materials, techniques and design of historic retaining walls driveways, curbs and gutters, and parking areas. New ground disturbance must be no deeper than existing disturbance.
- j. Brick or stone sidewalks and alleys- In-kind repair or in-kind replacement of brick or stone sidewalks and alleys. New ground disturbance must be no deeper than existing disturbance
- k. Masonry steps- Maintenance, in-kind repair or in-kind replacement of masonry steps not attached to any building. New ground disturbance must be no deeper than existing disturbance
- l. Landscaping- Installation of landscaping when no grading is required and when excavation of holes for new individual plantings is no more than eighteen (18) inches deep or for replacement of individual plantings the ground disturbance must be no deeper than the existing disturbance.
- m. Temporary barriers- Installation of temporary, reversible barriers such as fencing and construction of pedestrian tunnels and sidewalk bridges. New ground disturbance must be no deeper than eighteen (18) inches or existing disturbance, whichever is less.

2. Lighting

- a. Exterior lighting upgrades. - Installation of lighting fixtures and lighting upgrades to improve illumination throughout development open spaces such as at walkways, building entrances, play areas, sports courts, parking lots, maintenance areas, etc. Lighting fixture upgrades include cobra heads, floodlights, pedestrian post top lights, wall packs, etc.

LPC Sites: Any exterior lighting fixture that is located on an LPC designated property, or is individually designated as a LPC landmark requires an LPC permit.

- b. Repair or replacement of existing exterior lighting fixtures. This includes

non-historic lamp posts, recreational area lighting such as flood lights, canopy lighting and any other site lighting. Re-wiring and re-lamping.

3. Exterior Building Rehabilitation

- a. NYC Local Law 11 work- Inspection and repair of building facades for any unsafe conditions. Repairs include “stitching” new matching brick into the existing brick facades, repairs to or in-kind replacement of window lintels and sills, and repairs to existing expansion joints.
- b. Sidewalk sheds/scaffolding- Installation of scaffolding/sidewalk sheds.
- c. Roof work- Maintenance, in-kind repair or in-kind replacement of roof cladding and sheeting, flashing, gutters, soffits, and downspouts with no change in roof pitch or configuration. Installation of new roofing or reflective roof coatings on a flat-roofed building with a parapet, such that the roofing material is not visible from any public right-of-way.

LPC Sites: Flat, built up asphalt roofs do not require an LPC permit. Any other type of roof maintenance requires an LPC permit.

- d. Solar Panels- New installations that are not visible or will be minimally visible (defined as a level of visibility of one foot above parapets or roofline).
- e. Masonry parapets- In-kind repair and/or in-kind replacement of masonry parapets
- f. Roof tanks- Repair and replacement of roof tank vessels only, excludes tank screening.
- g. Exterior maintenance and repair made with in-kind materials that do not affect the external appearance and building fabric, including but not limited to the following:
 - (1) Repointing of mortar joints- Use of mortar similar in composition, joint profile, color, and texture. The mortar used in the tuck pointing shall be no harder than the existing mortar and brickwork.
 - (2) Floor and Ceiling Joists- Repair and in-kind replacement of floor joists, and ceiling joists
 - (3) Removal of exterior paint or graffiti- Use of non-destructive means, limited to hand scraping, low-pressure water wash of less than 500 psi, heat plates, hot air guns, chemical paint removal, provided that the removal is consistent with provisions in 24 CFR Part 35, “Lead-based Poisoning Prevention in Certain Residential Structures,” and National Park Service Brief #37- Appropriate Methods for Reducing

Lead-Paint Hazards in Historic Housing.

- (4) Exterior painting- Application of exterior paint to previously painted masonry.
- (5) Lead-based paint ("LBP") abatement- All LBP abatement that does not involve removal or alteration of exterior features and/or window fenestration.
- (6) Canopies- In-kind repair of entrance canopies.
- (7) Window repair- Including caulking and weather stripping of existing window frames, installation of new clear glass in existing sashes, and replacement of glazing.

LPC Sites: Removal of exterior paint requires an LPC permit. Application of exterior paint to previously painted masonry does not require an LPC permit if the color matches exactly. An LPC permit is required for all window repairs including those described above.

- h. Accessibility improvements and ramps- Maintenance, in-kind repair, or in-kind replacement of handicapped accessible improvements such as wheelchair ramps and Graded ground paths that provide access to a building, repair of existing ramps, and installation of temporary ramps that do not irreversibly impact entrance areas.
- i. Non-historic window replacement- Replacement with new windows sized to fit the original window openings. A non-historic window shall mean any window that is not original to the initial date of construction of the building.

LPC Sites: An LPC permit is required for non-historic window replacement.

- j. Foundations- Below-grade repair of brick or stone foundations that may include appropriate application of weatherproofing or sealers, and repairs to all other types of foundations.

LPC Sites: An LPC permit is required for below-grade repair of brick or stone foundations that may include appropriate application of weatherproofing or sealers, and repairs to all other types of foundations.

- k. Mothballing- Securing or "mothballing" a property by boarding over window and door openings, making temporary roof repairs, and/or ventilating the building in accordance with the National Park Service's Preservation Brief 31, *Mothballing Historic Structures*.

4. Interior Rehabilitation

All interior work is exempt except for:

- a. Proposed changes affecting the historic circulation plan (lobbies, corridors, stair and elevator cores).
- b. Proposed changes affecting the exterior appearance of the buildings (for example, partitions or dropped ceilings in front of windows).
- c. Work proposed for community centers and other common non-residential buildings within the residential complex.

5. Security and Fire Safety Systems

- a. Closed Circuit Television Cameras ("CCTV"): Replacement or installation of CCTV equipment, security cameras and conduits.
- b. Security enhancements at entrance areas, such as Layered Access Control Systems ("LAC").
- b. Fire safety system work- Upgrade of fire alarm systems, fire suppression systems, etc.

6. Utilities and Mechanical, Electrical and Plumbing Systems

- a. Underground Utility Lines. Repair or replacement of existing water, sewer, natural gas, electric, or telecommunication lines if it occurs within the same horizontal and vertical dimensions within existing ground disturbance, or within eighteen (18) inches of the existing ground surface.
- b. Above-Ground Utilities. Repair or replacement of existing wires, anchors, cross arms, and other miscellaneous hardware on existing overhead lines; not including pole replacement or installation outside of city limits.
- c. Boiler replacements/repairs
- d. Garbage Disposal- Exterior/interior compactor replacements or repairs and bulk crusher replacement and installations.
- e. Electrical work (includes information technology)
- f. Plumbing system Includes repairs and rehabilitation
- g. HVAC- Includes heating and cooling system repairs or replacement, including pipes, radiators, duct work and all other HVAC equipment that does not require significant alteration/destruction of historic fabric

or introduce highly visible, non-historic elements such as chases and conduits and associated enclosures. Placement and installation of exterior HVAC mechanical units and vents not on the main entrance elevation.

7. Hazard Mitigation and Abatement/Emergency Repairs

Note: The NYS Disaster Recovery Programmatic Agreement covers FEMA-funded disaster recovery Undertakings. These exempt activities apply only to non-FEMA-funded Undertakings

- a. Temporary stabilization that causes no permanent damage to the building or site, including installation of temporary bracing, shoring, and tarps.
- b. Emergency repair of masonry cracks and/or failing masonry elements.
- c. Emergency repair of concrete cracks and/or failing concrete elements.
- d. Emergency repair of falling plaster or other building elements that pose an immediate and imminent health and safety hazard.
- e. Asbestos Abatement- Removal of asbestos containing materials (ACM), e.g. floor tile, plaster, insulation, glazing putty, roofing and flashing mastic.
- f. Lead abatement- All lead-based paint abatement that does not involve removal or alteration of exterior features and/or windows.

8. Other Activities

- a. Rehabilitation of properties less than 50 years old (with the exception of National Register listed/eligible sites).
- b. Architectural and engineering fees
- c. Purchase and acquisition of real property
- d. Leasing, without demolition, repair, rehabilitation, or construction.

APPENDIX C
List of Identified Historic NYCHA Artwork
 As of December 2017

#	Development Name	Borough	Type	Artist	Year Installed	Description
1	KINGSBOROUGH	BROOKLYN	sculpture	Richmond Barthé		Image of men taking various poses in profile view, stylized similarly to an Egyptian aesthetic.
2	RED HOOK EAST	BROOKLYN	mural	Marian Greenwood	ca. 1940	Painted mural in the style of social realism, depicting community building
3	WILLIAMSBURG	BROOKLYN	mural	Ilya Bolotowsky	ca. 1937	Abstract mural painting, on canvas. Restored in 1990's; ensconced at Brooklyn Museum. Ilya Bolotowsky's Williamsburg mural was, in his words, "designed to improve proportions in a very shallow day room." He achieved this with a light-colored background against which vibrantly colored geometric and biomorphic shapes hover in the air in tension with one another. The horizontal emphasis, punctuated by strong diagonals, suggests an expansive space not limited by the actual proportions of the room.
4	WILLIAMSBURG	BROOKLYN	mural	Paul Kelpé	ca. 1937	Abstract mural painting, on canvas. Restored in 1990's; ensconced at Brooklyn Museum. Paul Kelpé's Williamsburg murals were conceived as entirely non-objective compositions. However, they reveal a distinctly different approach to abstraction. Kelpé is unique for his strikingly unusual color combinations, his decorative patterning of selected fields of color, and his sculptural forms suggesting axial rotation.
5	WILLIAMSBURG	BROOKLYN	mural	Paul Kelpé	ca. 1937	Abstract mural painting, on canvas. Restored in 1990's; ensconced at Brooklyn Museum. Paul Kelpé's Williamsburg murals were conceived as entirely nonobjective compositions. However, they reveal a distinctly different approach to abstraction. Kelpé is unique for his strikingly unusual color combinations, his decorative patterning of selected fields of color, and his sculptural forms suggesting axial rotation.
6	WILLIAMSBURG	BROOKLYN	mural	Albert Swinden	ca. 1937	Abstract mural painting, on canvas. Restored in 1990's; ensconced at Brooklyn Museum. This abstract mural painting features balanced and disciplined composition of rectangular shapes punctuated by occasional biomorphic forms. Swinden seldom wrote about his art, but his brief essay "On Simplification," published in the 1938 American Abstract Artists Yearbook, provides a succinct comment on the aesthetic concerns embodied in this mural. "We are moved not only by particular, or individual forms," he wrote, "but by the relationships between the particular forms and their significance as a unity."
7	WILLIAMSBURG	BROOKLYN	mural	Balcomb Greene	ca. 1937	Abstract mural painting, on canvas. Restored in 1990's; ensconced at Brooklyn Museum.

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#	Development Name	Borough	Type	Artist	Year Installed	Description
8	CARVER	MANHATTAN	Sculpture 1	Robert Amendola	1965	The bronze sculpture depicts George Washington Carver as a boy sitting on a rock. Carver was a famous American botanist and inventor born into slavery in the mid 1960s. (His exact birthdate is unknown and he died on January 5, 1943.) He was known for his promotion of alternative crops to cotton such as sweet potatoes and peanuts, which allowed soil to recover from the nutrient depleting cotton crop. He taught agriculture at the Tuskegee Institute in Alabama. His work was significant because it created solutions for how, mainly black, farmers could get out of debt.
9	CARVER	MANHATTAN	Sculpture 2	Joseph Kiselewski	1956	Bronze on marble base of bears.
10	CARVER	MANHATTAN	Fountain with Sculptures 1	Joseph Kiselewski		The Vincent Astor Foundation Amphitheater at Carver Houses is decorated with fountains and frog sculptures.
11	CARVER	MANHATTAN	Fountain with Sculptures 2			A play fountain decorated with seal sculptures
12	EAST RIVER	MANHATTAN	Decorative terra cotta medallions and other details.	Voorhees, Gmelin and Walker	1941	Decorative terra cotta medallions and other details.
13	FIRST HOUSES	MANHATTAN	Dog	Hugo Robus	1936	Cast Stone of a dog. Originally was painted. First Houses was the first public housing development built in the United States. It was built by the Work Progress Administration in 1935 and landmarked by the New York City Landmarks Preservation Foundation in 1989.
14	FIRST HOUSES	MANHATTAN	Bear	Bernard Walsh or Edna Guck	1936	Cast Stone of a bear. Originally was painted. First Houses was the first public housing development built in the United States. It was built by the Work Progress Administration in 1935 and landmarked by the New York City Landmarks Preservation Foundation in 1989.
15	FIRST HOUSES	MANHATTAN	Seal	Adolf Wolff	1936	Cast Stone of a seal. Originally was painted. Likely made with the same mold as the one used to make three seals at Vladeck Houses. First Houses was the first public housing development built in the United States. It was built by the Work Progress Administration in 1935 and landmarked by the New York City Landmarks Preservation Foundation in 1989.
16	FIRST HOUSES	MANHATTAN	Four Trojan horses: all cast stone approx. 2' high	Artist Unknown	1936	Four Trojan horses: all cast stone, approximately 2-feet tall. First Houses was the first public housing development built in the United States. It was built by the Work Progress Administration in 1935 and landmarked by the New York City Landmarks Preservation Foundation in 1989.

#	Development Name	Borough	Type	Artist	Year Installed	Description
	FIRST HOUSES	MANHATTAN	Sculptural Reliefs in Masonry Walls: All Cast Stone Rondelles, 17" diameter			Cast stone rondelles, affixed to masonry walls of building, 17- inch in diameter -- depicting different animals and birds, as noted below. First Houses was the first public housing development built in the United States. It was built by the Work Progress Administration in 1935 and landmarked by the New York City Landmarks Preservation Foundation in 1989.
17	FIRST HOUSES	MANHATTAN	Doves	Gino Ficini	1936	" "
18	FIRST HOUSES	MANHATTAN	Cat	Gino Ficini	1936	" "
19	FIRST HOUSES	MANHATTAN	Rabbit	Gino Ficini	1936	" "
20	FIRST HOUSES	MANHATTAN	Bear	Gino Ficini	1936	" "
21	FIRST HOUSES	MANHATTAN	Turkey	Gino Ficini	1936	" "
22	FIRST HOUSES	MANHATTAN	Duck	George Girolami	1936	" "
23	FIRST HOUSES	MANHATTAN	Fox	Fortunato Duci	1936	" "
24	FIRST HOUSES	MANHATTAN	Goats (2 different rondelles)	Muriel Brennecke	1936	" "
25	FIRST HOUSES	MANHATTAN	Planters	Unknown		Three, octagonally shaped, concrete planters, dating from the 1970's.
26	HARLEM RIVER	MANHATTAN	Sculpture 1	Heinz Warneke assisted by T. Barbarossa, R. Barthé and F. Steinberger	1937	Cast stone sculpture, incorporated into the facade, of a man kneeling.
27	HARLEM RIVER	MANHATTAN	Sculpture 2	Heinz Warneke assisted by T. Barbarossa, R. Barthé and F. Steinberger	1937	Cast stone sculpture of a woman.
28	HARLEM RIVER	MANHATTAN	Sculpture 3	Heinz Warneke assisted by T. Barbarossa, R. Barthé and	1938	Bronze sculpture of two bears playing.
29	JOHNSON	MANHATTAN	Sculpture 1	Richmond Barthé	1947	"Father and Son"- Bronze sculpture depicting a man with child on his shoulder. Original sculpture also included a dog on the figure's' left-hand side. Reference material: https://books.google.com/books?id=Xh7afWYQzAgC&pg=PA123&ots=3tRdWB8jid&dq=richmond%20barthe%20%2B%20johnson%20houses&pg=PA123#v=onepage&q=richmond%20barthe%20+%20johnson%20houses&f=false
30	JOHNSON	MANHATTAN	Sculpture 2	Oronzio Maldarelli	1947	Bronze Sculpture depicting two girls dancing with a ball.
31	JOHNSON	MANHATTAN	sculpture	Unknown		Two concrete elephants

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#	Development Name	Borough	Type	Artist	Year Installed	Description
32	JOHNSON	MANHATTAN	sculpture	Unknown		Four concrete columns with a decorative overhang
33	LINCOLN	MANHATTAN	Sculpture	Charles Keck	1949	Bronze sculpture depicting a portrait of Abraham Lincoln with a child.
34	RIIS	MANHATTAN	Sculptures	William Tarr	1966	Concrete, Brutalist-style "Totems", tall sculptures on pedestals which serve as an homage to Jacob A. Riis. The pedestals double as planters.
35	SMITH	MANHATTAN	Sculpture	Hera	1989	"Orbital Connector" was dedicated in the gardens of Smith Houses on June 26, 1989. It indicates the route of a circle connecting New York, China, and the Caribbean, three places of origin well represented at the Governor Alfred E.
36	VLADECK	MANHATTAN	Cast Stone Play Sculptures: Three "Seals"	Possibly by Adolf Wolff	c. 1940	Cast cement play sculptures of three seals.
37	WISE TOWERS	MANHATTAN	concrete mural	Costantino Nivola	1964	Abstract mural painted in cement and sand in Nivola's signature style.
38	WISE TOWERS	MANHATTAN	Sculpture 1	Costantino Nivola	1964	Abstract concrete sculptures in various geometric forms consistent with the signature sculptural style for which Nivola is known.
39	WISE TOWERS	MANHATTAN	Sculpture 2	Costantino Nivola	1964	" "
40	WISE TOWERS	MANHATTAN	Sculpture 3	Costantino Nivola	1964	" "
41	WISE TOWERS	MANHATTAN	Sculpture 4	Costantino Nivola	1964	Group of concrete horses, stylized according to Nivola's typical horse depictions.
42	QUEENSBRIDGE NORTH	QUEENS	Sculpture		1939	Frieze on façade, above doorway
43	QUEENSBRIDGE NORTH	QUEENS	Mural	Philip Guston/WPA	1939	This mural highlights themes of work, recreation, and family life in a muted color palette.

APPENDIX D

Human Remains Discovery Protocol

New York State Office of Parks, Recreation and Historic Preservation Human Remains Discovery Protocol (October 2016)

In the event that human remains are encountered during construction or archaeological investigations, the New York State Historic Preservation Officer (SHPO) recommends that the following protocol be implemented:

- Human remains must be treated with the utmost dignity and respect at all times. Should human remains or *suspected* human remains be encountered, work in the general area of the discovery will stop immediately and the location will be secured and protected from damage and disturbance.
- Notify local law enforcement and the New York City Chief Medical Examiner's Office immediately.
- If skeletal remains are identified and the archaeologist is not able to conclusively determine whether they are human, the remains and any associated materials must be left in place. A qualified forensic anthropologist, bio archaeologist or physical anthropologist will assess the remains *in situ* to help determine if they are human.
- No skeletal remains or associated materials will be collected or removed until appropriate consultation has taken place and a plan of action has been developed.
- The SHPO, the appropriate Indian Nations, the involved state and federal agencies, the coroner, and local law enforcement will be notified immediately. Requirements of the coroner and local law enforcement will be adhered to. A qualified forensic anthropologist, bioarchaeologist or physical anthropologist will assess the remains *in situ* to help determine if the remains are Native American or non-Native American.
- If human remains are determined to be Native American, they will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Please note that avoidance is the preferred option of the SHPO and the Indian Nations. The involved agency will consult SHPO and the appropriate Indian Nations to develop a plan of action that is consistent with the Native American Graves Protection and Repatriation Act (NAGPRA) guidance. Photographs of Native American human remains and associated funerary objects should not be taken without consulting with the involved Indian Nations.
- If human remains are determined to be non-Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Please note that avoidance is the preferred option

of the SHPO. Consultation with the SHPO and other appropriate parties will be required to determine a plan of action.

- To protect human remains from possible damage, the SHPO recommends that burial information not be released to the public

APPENDIX E

Unanticipated Discoveries Protocol

Unanticipated Discoveries Protocol for the New York City Housing Authority

To assist HPD and NYCHA in meeting the requirements of Section 106 of the National Historic Preservation Act as defined in the Advisory Council on Historic Preservation (Council) regulations “Protection of Historic Properties” (36 CFR Part 800), HPD and NYCHA will implement the following Unanticipated Discovery Protocol should new or additional historic properties [cultural resources] be found after construction has begun on [PROJECT NAME]. This protocol has been developed through reference to the regulations embodied in “Protection of Historic Properties” issued by the Council (revised August 2004, www.achp.gov/regs-rev04.pdf) and consultation with the New York State Historic Preservation Officer (SHPO) [New York Office of Parks, Recreation, and Historic Preservation (OPRHP)].

Termed “unanticipated discovery” or “post-review discovery,” the identification of new or additional historic properties [cultural resources] during implementation of an Undertaking can occur in the case of projects that involve excavation or ground-disturbing activities. This Protocol will be implemented by NYCHA if previously undiscovered archaeological resources and/or human remains are identified. Archaeological resources include man-made objects (pre-contact and historic period artifacts such as stone tools, pottery, glass, nails, bones, etc.) and features (e.g. stone or brick walls or pavements, pits, fireplaces, other evidence of burning, or other remnants of human activity).

Environmental inspectors and construction contractors and subcontractors will receive training regarding the identification and preliminary treatment of unanticipated discoveries and their responsibilities for protecting discoveries and initiating implementation of the Protocol. Training will occur as part of the pre-construction on-site training program for foremen, company inspectors, and construction supervisors and will be given by a qualified cultural resource specialist. During construction, the Environmental Inspectors (EI) will be responsible for advising construction contractor personnel on the procedure to follow in the event that an unanticipated discovery is made. The EI will advise all operators of equipment involved in grading, stripping, or trenching activities to stop work immediately if they observe any indications of the presence of cultural materials, contact the EI as soon as possible, comply with the unanticipated discovery procedures (outlined below), and treat human remains with dignity and respect (see Human Remains Discovery Protocol).

Procedure When Cultural Materials Are Observed

The following measures will be implemented should an unanticipated historic property / cultural resource discovery be made by an inspector, a contractor, or subcontractor during construction of the proposed Undertaking:

- 1) Construction activities within the immediate area of an unanticipated discovery will be halted (“immediate area” is a context-specific measure, however 30 to 50

feet is generally adequate, although special attention should be given to the possible extension of a new find beyond this buffer zone), and the discovery protected from further disturbance;

- 2) NYCHA will notify by telephone HPD and SHPO / OPRHP and, local law enforcement and the Office of the Chief Examiner (the latter parties will be notified only in case of a finding of human remains). These notifications will take place within 24 hours of an unanticipated discovery;
- 3) HPD and SHPO / OPRHP instructions concerning an unanticipated discovery resulting from the notification as described above will be followed and may require, archaeological work be performed on the unanticipated discovery location to stabilize deposits, protect deposits from scavengers or looters, and to collect readily available samples (e.g. for radiocarbon dating) which may help pinpoint the age of deposits; and
- 4) NYCHA will further consult HPD and SHPO / OPRHP to determine and implement any additional measures necessary subsequent to the initial archaeological work. This may involve further archaeological study or consultation with Native American nations or other parties with established cultural affiliation. Construction activities will remain halted until HPD and SHPO / OPRHP indicate to NYCHA that it may proceed in the area of a specified unanticipated discovery.

In the case of an unanticipated discovery of human remains, NYCHA will follow all relevant state and federal law and recommendations regarding treatment of human remains. NYCHA recognizes the importance of providing careful and respectful treatment of human remains recovered as an unanticipated discovery or as part of an archaeological investigation. In the event of an unanticipated discovery of human remains, NYCHA will notify local law enforcement and the New York City Chief Medical Examiner and follow the *Human Remains Discovery Protocol* developed by the NY OPRHP.



**New York State
Parks, Recreation and
Historic Preservation**

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

September 21, 2023

Jenelle Gomes
Sr. Environmental Planner
NYCHA
90 Church Street
New York, NY 10007

Re: HUD
PACT Hope/Bushwick Gardens – CDBG-DR Storm Resiliency
Brooklyn, NY
23PR07660

Dear Jenelle Gomes:

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

Based upon this review, it is the opinion of the New York SHPO that no historic properties, including archaeological and/or historic resources, will be affected by this undertaking.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

R. Daniel Mackay

Deputy State Historic Preservation Officer
Division for Historic Preservation

rev: K. Howe

Noise Abatement and Control

General requirements	Legislation	Regulation
HUD's noise regulations protect residential properties from excessive noise exposure. HUD encourages mitigation as appropriate.	Noise Control Act of 1972 General Services Administration Federal Management Circular 75-2: "Compatible Land Uses at Federal Airfields"	Title 24 CFR 51 Subpart B

1. What activities does your project involve? Check all that apply:

New construction for residential use

Rehabilitation of an existing residential property

A research demonstration project which does not result in new construction or reconstruction

An interstate land sales registration

Any timely emergency assistance under disaster assistance provision or appropriations which are provided to save lives, protect property, protect public health and safety, remove debris and wreckage, or assistance that has the effect of restoring facilities substantially as they existed prior to the disaster

None of the above

Screen Summary

Compliance Determination

The proposed Project does not involve the development of noise sensitive uses. The funds are exclusively sought for the resilience of the mechanical systems previously housed within basement mechanical rooms subject to flooding from extreme weather events. No change to the Property building census is proposed or anticipated.

Supporting documentation

[10 - Noise Acoustical Tables.pdf](#)

Hope-Gardens:-Groups-A-
E-CDBG-DR-Storm-
Resiliency-

Brooklyn, NY

900000010361422

Are formal compliance steps or mitigation required?

Yes

✓ No

**TABLE I -- TYPICAL ACOUSTIC PERFORMANCE
OF STD. BALDOR ODP MOTORS**
(Cast Iron Where Available)
ALL VALUES LISTED ARE dBA

FRAME SIZE		PWL				SPL @ 3'				SPL @ 5'			
BALDOR	NEMA	3600 RPM	1800 RPM	1200 RPM	900 RPM	3600 RPM	1800 RPM	1200 RPM	900 RPM	3600 RPM	1800 RPM	1200 RPM	900 RPM
34	48, 56	77		54		70		47		66		43	
35	56, 140	78	67	62	60	70	59	54	52	66	55	53	48
36	180	81	69	65	63	73	61	57	55	69	57	53	51
37	210	85	74	69	66	77	66	61	58	73	62	57	54
39, 309	250	82	78	73	70	73	69	64	61	69	65	60	58
40, 310	280	82	79	77	74	73	70	68	65	70	67	65	62
42, 312	320	88	86	85	76	79	77	76	67	76	74	73	64
314	360	91	87	86	78	81	72	76	68	78	74	73	65
316	400	92	87	87	81	82	77	77	71	79	74	74	68
318	440	94	90	88	84	84	80	68	74	81	77	75	71

NOTES: PWL (SOUND POWER LEVEL) REF. 10^{-12} watts
SPL (SOUND PRESSURE LEVEL) REF. $.0002 \mu$ bar or 20×10^{-6} Pa or 20×10^{-6} N/m²
REF DOCUMENTS: MG1-1998, Rev 1, 9.4.1, 9.4.2

	For JM,JP,TC Motors	Frame Size TEFC	Frame Size ODP
POD A	2HP	143,145	143,145
	3HP	143,182	145,182
POD F	5HP	184	182
POD B	7.5HP	184,213	184,213
POD C, D, E	10HP	215	213,215

**TABLE II -- TYPICAL ACOUSTIC PERFORMANCE
OF TEFC/EPACT MOTORS**

ALL VALUES LISTED ARE dBA

FRAME SIZE		PWL NOM SOUND [NEMA SOUND] (FAN OD)				SPL @ 3'				SPL @ 5'			
BALDOR	NEMA	3600 RPM	1800 RPM	1200 RPM	900 RPM	3600 RPM	1800 RPM	1200 RPM	900 RPM	3600 RPM	1800 RPM	1200 RPM	900 RPM
33	42												
34	48												
35, 305	56	76 [85] (5.00)	70 [70] (6.38)	55 [70] (6.38)		68	62	47		64	58	43	
35, 306	140	76 [85] (5.00)	70 [70] (6.38)	55 [70] (6.38)		68	62	47		64	58	43	
36, 306	180	78 [88] (5.25)	74 [74] (6.38)	58 [67] (6.38)		68	66	50		64	62	46	
37, 307	210	79 [91] (6.00)	79 [79] (7.00)	60 [71]		71	71	52		67	67	48	
39, 309	250	81 [94] (6.00)	82 [84] (8.50)	66 [78] (9.00)		72	73	57		69	69	54	
40, 310	280	84 [94] (7.75)	83 [88] (8.50)	70 [84] (9.00)		75	74	61		72	71	58	
42, 312	320	88 [100] (8.50)	85 [89] (10.75)	71 [83] (10.75)		79	76	62		76	73	59	
44, 314	360	91 [101] (8.50)	87 [95] (12.00)	74 [86] (13.75)		81	77	64		78	74	61	
316	400	94 [102] (8.50)	88 [98] (12.00)	79 [90] (13.75)		84	78	69		81	75	66	
318	440	99 [104] (7.75)	91 [103] (10.00)	82 [98] (15.75)		89	81	72		86	78	69	
318	449	103 [107] (9.62)	92 [105] (12.00)	89 [100] (17.50)		93	82	79		90	79	76	
318	449	113 [110] (12.00)	94 [105] (17.50)	99 [100] (17.50)		103	84	89		100	81	86	
5000	500	(12.00)	(17.50)	99 (19.50)				89				86	
5800	580												

NOTES: PWL (SOUND POWER LEVEL) REF. 10^{-12} watts
 SPL (SOUND PRESSURE LEVEL) REF. $.0002 \mu$ bar or 20×10^{-6} Pa or 20×10^{-6} N/m²
 REF DOCUMENTS: MG1-1998, Rev 1, 9.4.1, 9.4.2
 Baldor Sound Level [Nema Sound Level] (Fan Dia.)

For JM,JP,TC Motors	Frame Size TEFC	Frame Size ODP
2HP	143,145	143,145
3HP	143,182	145,182
5HP	184	182
7.5HP	184,213	184,213
10HP	215	213,215

**TABLE III -- TYPICAL ACOUSTIC PERFORMANCE
TEFC/SUPER-E LOW NOISE MOTORS**

ALL VALUES LISTED ARE dBA

FRAME SIZE		PWL				SPL @ 3'				SPL @ 5'			
BALDOR	NEMA	3600 RPM	1800 RPM	1200 RPM	900 RPM	3600 RPM	1800 RPM	1200 RPM	900 RPM	3600 RPM	1800 RPM	1200 RPM	900 RPM
33	42												
34	48												
35, 305	56	70	67	52		62	59	44		59	56	41	
35, 306	140	70	67	52		62	59	44		59	56	41	
36, 306	180	70	67	54		62	59	46		59	56	43	
37, 307	210	70 (5.25)	70	60		62	62	52		59	59	49	
39, 309	250	76 (6.00)	70	67		67	61	52		64	58	49	
40, 310	280	79 (6.00)	75	64		70	66	55		67	63	52	
42, 312	320	84 (6.00)	75	68		75	66	58		72	63	55	
44, 314	360	87 (7.50)	78	71		77	68	61		74	65	58	
316	400	89 (7.75)	79	76		79	69	66		76	66	63	
318	445	93 (8.50)	84	82		83	73	70		80	70	67	
318	449	97 (12.00)	90	89		87	80	79		84	77	76	
318	449	97 (12.00)	98	97		86	87	86		83	84	83	
500	5000	104	104	97		93	93	86		90	90	85	
580	5800	104	111	112		93	100	101		89	97	97	

NOTES: PWL (SOUND POWER LEVEL) REF. 10^{-12} watts
 SPL (SOUND PRESSURE LEVEL) REF. $.0002 \mu$ bar or 20×10^{-6} Pa or 20×10^{-6} N/m²
 REF DOCUMENTS: MG1-1998, Rev 1, 9.4.1, 9.4.2
 (Fan Size)

For JM,JP,TC Motors	Frame Size TEFC	Frame Size ODP
2HP	143,145	143,145
3HP	143,182	145,182
5HP	184	182
7.5HP	184,213	184,213
10HP	215	213,215

**TABLE IV -- TYPICAL ACOUSTIC PERFORMANCE
OF STD. BALDOR TENV MOTORS**

ALL VALUES LISTED ARE dBA

FRAME SIZE		PWL				SPL @ 3'				SPL @ 5'			
BALDOR	NEMA	3600 RPM	1800 RPM	1200 RPM	900 RPM	3600 RPM	1800 RPM	1200 RPM	900 RPM	3600 RPM	1800 RPM	1200 RPM	900 RPM
34	48, 56												
35	56, 140		55				47				43		
36	180		60				52				48		
37	210		64				56				52		
39, 309	250		68				59				55		
40, 310	280		72				63				60		
42, 312	320		76*				67				64		
314	360												
316	400												
318	440												

NOTES: PWL (SOUND POWER LEVEL) REF. 10^{-12} watts
 SPL (SOUND PRESSURE LEVEL) REF. $.0002 \mu$ bar or 20×10^{-6} Pa or 20×10^{-6} N/m²
 REF DOCUMENTS: MG1-1998, Rev 1, 9.4.1, 9.4.2 * PROJECTED

For JM,JP,TC Motors	Frame Size TEFC	Frame Size ODP
2HP	143,145	143,145
3HP	143,182	145,182
5HP	184	182
7.5HP	184,213	184,213
10HP	215	213,215

Sole Source Aquifers

General requirements	Legislation	Regulation
The Safe Drinking Water Act of 1974 protects drinking water systems which are the sole or principal drinking water source for an area and which, if contaminated, would create a significant hazard to public health.	Safe Drinking Water Act of 1974 (42 U.S.C. 201, 300f et seq., and 21 U.S.C. 349)	40 CFR Part 149

1. Does the project consist solely of acquisition, leasing, or rehabilitation of an existing building(s)?

Yes

No

2. Is the project located on a sole source aquifer (SSA)?

A sole source aquifer is defined as an aquifer that supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer. This includes streamflow source areas, which are upstream areas of losing streams that flow into the recharge area.

No

Yes

3. Does your region have a memorandum of understanding (MOU) or other working agreement with Environmental Protection Agency (EPA) for HUD projects impacting a sole source aquifer?

Yes

Document and upload MOU or Agreement below.

No

4. For the project to be brought into compliance with this section, all adverse impacts must be mitigated. Explain in detail the exact measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation. This information will be automatically included in the Mitigation summary for the environmental review. If negative effects cannot be mitigated, cancel the project using the button at the bottom of this screen

✓ Yes

Document and upload where your project fits within the MOU or working agreement below. Based on the response, the review is in compliance with this section.

No

Screen Summary

Compliance Determination

As shown in the attached map from the U.S. Environmental Protection Agency's (EPA) interactive Sole Source Aquifer (SSA) mapper, the Project is located within the boundaries of the recharge area of the Brooklyn-Queens Aquifer System. However, properties in these areas are primarily connected to the NYC municipal water supply and sewer system maintained by the NYC Department of Environmental Protection. Per the Memorandum of Understanding for Region II between the U.S. Environmental Protection Agency and the U.S. Department of Housing and Urban Development, attached is a completed Initial Screen for Non-Housing Projects (while Hope and Bushwick Gardens are residential properties, the new mechanical facilities will not be habitable sites). Based on the work scope and the attached maps from the New York State Department of Environmental Conservation, the screening resulted in no affirmative responses. Thus, no further compliance steps or mitigation is required.

Supporting documentation

[11 - Sole Source Aquifer Map.pdf](#)

[11 - Sole Source Aquifer Initial Screen.pdf](#)

[11 - Proximity to Nearest Active Well.pdf](#)

Are formal compliance steps or mitigation required?

Yes

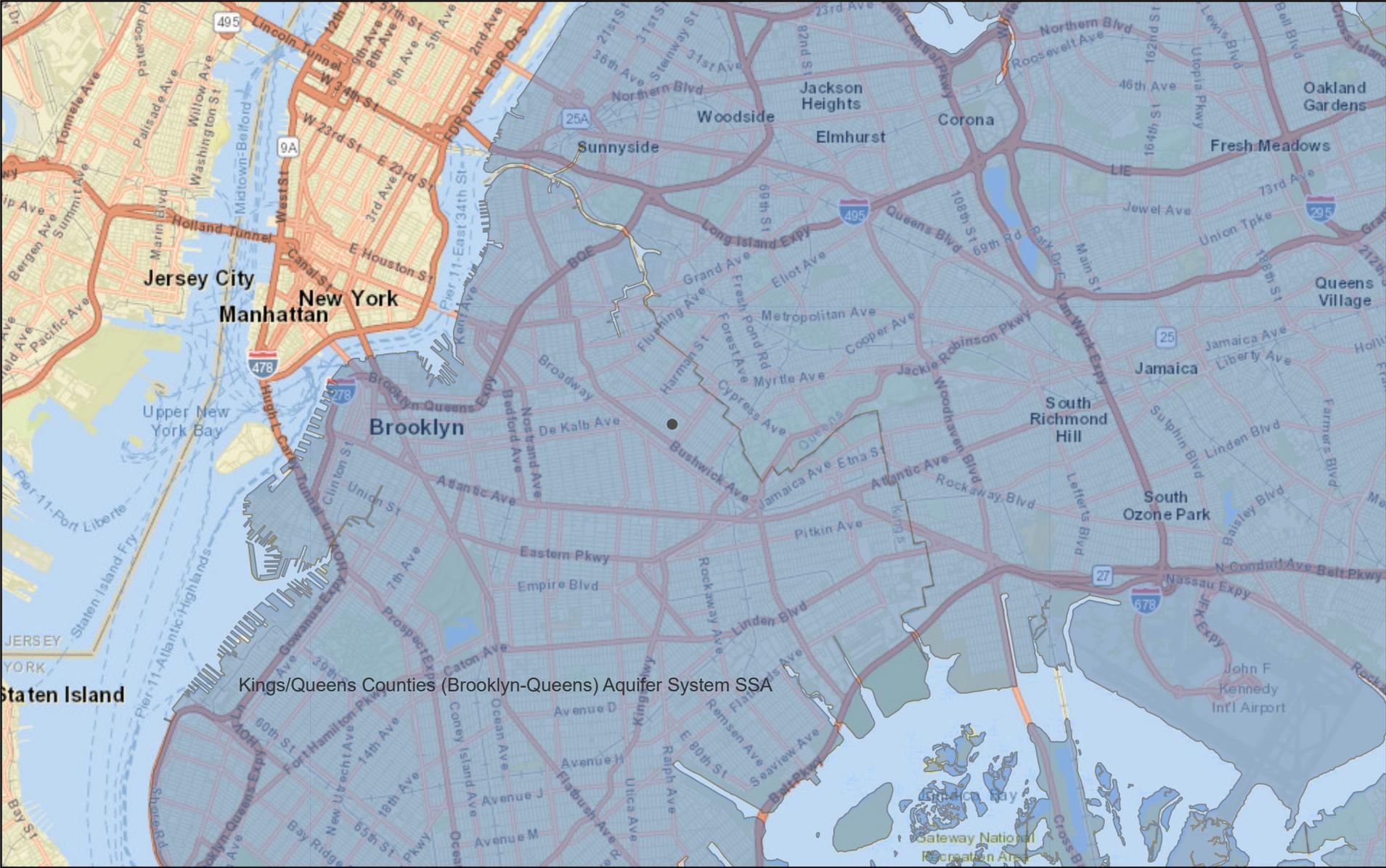
Hope-Gardens:-Groups-A-
E-CDBG-DR-Storm-
Resiliency-

Brooklyn, NY

900000010361422

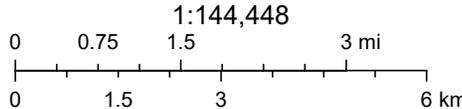
✓ No

Hope Gardens CDBG-DR Storm Resiliency Project - Sole Source Aquifer Map



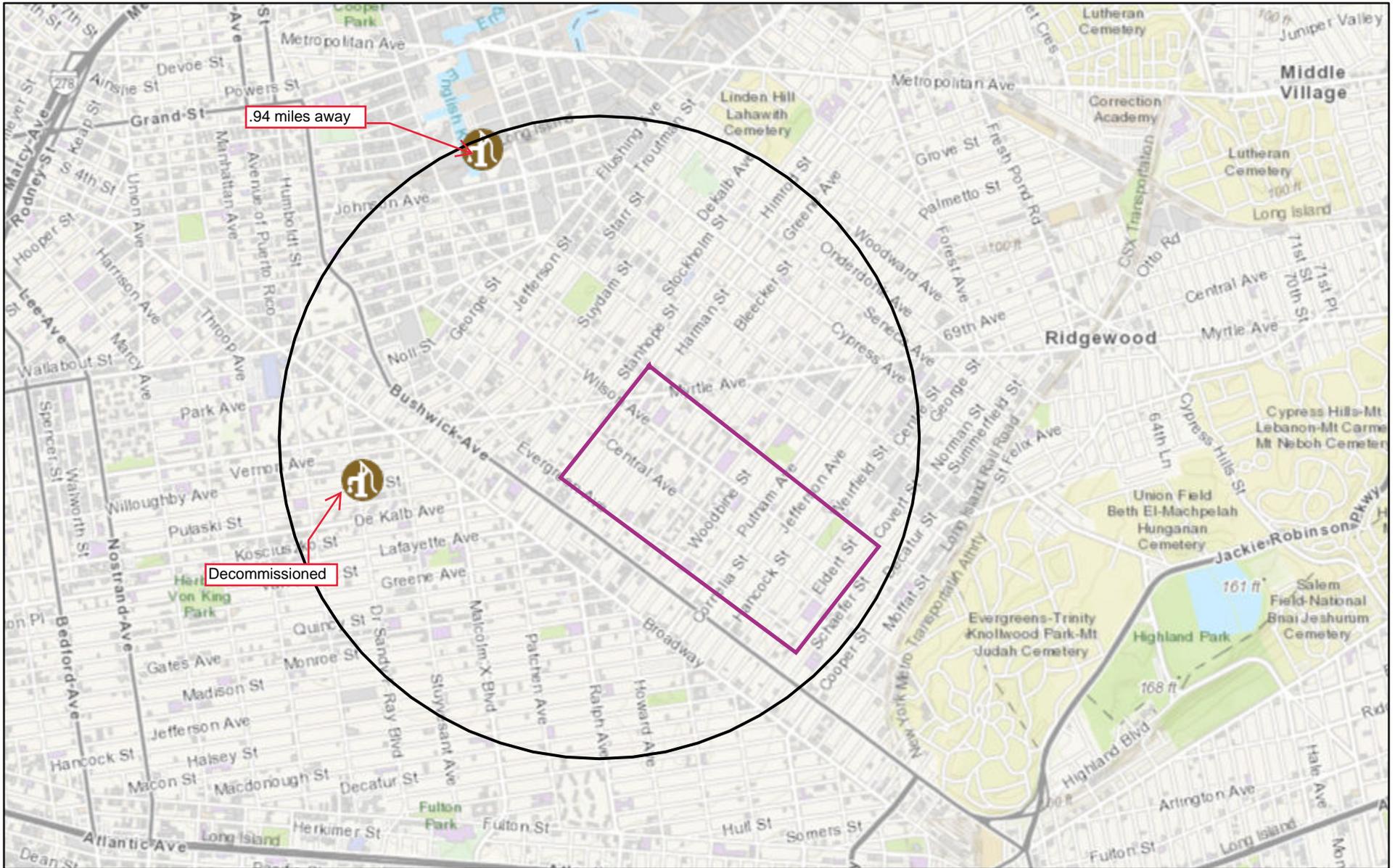
10/19/2023, 10:56:26 AM

 Sole_Source_Aquifers

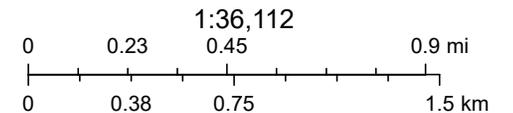


Esri, HERE, Garmin, NGA, USGS, NPS

Hope and Bushwick Gardens Western Edge Proximity to Nearest Well



October 19, 2023



NYC OpenData, State of New Jersey, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

Source: NYS DECInfo Locator Map (<https://gisservices.dec.ny.gov/gis/dil/>)

Author: Julie Freeman
Not a legal document

ATTACHMENT 2.A

NON-HOUSING PROJECT/ACTIVITY INITIAL SCREEN CRITERIA
(For projects in a designated Sole Source Aquifer area)

The following list of criteria questions are to be used as an initial screen to determine which **non-housing** projects/activities should be forwarded to the Environmental Protection Agency (EPA) for Preliminary Sole Source Aquifer (SSA) Review. (For housing projects/activities see Attachment 2.B) If any of the questions are answered affirmatively, Attachment 3, SSA Preliminary Review Requirements, should also be completed. The application/final statement, this Attachment, Attachment 3, and any other pertinent information should than be forwarded to EPA at the address below.

Any project/activity not meeting the criteria in this Attachment, but suspected of having a potential adverse effect on the Sole Source Aquifer should also be forwarded. Contact EPA if you have any questions.

Chief, Environmental Impacts Branch	Chief, Environmental Review Section
USEPA Region II	USEPA Region 2
26 Federal Plaza, Room 500	290 Broadway, 25th floor
New York, New York 10078	New York, NY 10007
(212) 264-1840	212-637-3738

CRITERIA QUESTIONS

YES NO N/A

1. Is the project/activity located within a currently designated or proposed groundwater sensitive area such as a special Ground Water Protection Area, Critical Supply Area, Wellhead Protection Area etc.? [This information can be obtained from the County or Regional planning board, the local health department, the State health department or the State environmental agency.]

___ X ___

2. Is the project/activity located within a one half mile radius (2640 feet) of a current or proposed public water supply well or wellfield? [This information can be obtained from the local health department, the State health department or the State environmental agency.]

___ X ___

3. Will the project/activity include or directly cause: (check appropriate items)

- construction or expansion of solid waste disposal, recycling or conversion facilities
- construction or expansion or closure of landfills
- construction or expansion of water supply facilities (i.e., treatment plant, pump house, etc.)
- construction or expansion of on-site wastewater treatment plants or sewage trunk lines, greater than 1/4 mile
- construction or expansion of gas or petroleum trunk lines, greater than 1200 feet
- construction or expansion of railroad spurs or similar extensions
- construction or expansion of municipal sewage treatment plants

4. Will the project/activity include storage or handling of any hazardous constituents as listed in Attachment 4, Hazardous Constituents?

If these constituents are used during the construction phase of the project, than an assurance statement must be provided indicating that chemicals will be used in a safe and proper manner, and that they will be promptly removed after construction is completed.

5. Will the project/activity include bulk storage of petroleum in underground or above ground tanks in excess of 1100 gallons?

6. Will the project/activity require a federal or state discharge elimination permit or modification of an existing permit?

This attachment was completed by:

Name: Julie Freeman

Title: Director of Community Development

Address: NYC Office of Management and Budget

255 Greenwich Street, 8th Floor

New York, New York 10007

Telephone number: 212-788-6130

Date: 10/19/23

Wetlands Protection

General requirements	Legislation	Regulation
Executive Order 11990 discourages direct or indirect support of new construction impacting wetlands wherever there is a practicable alternative. The Fish and Wildlife Service's National Wetlands Inventory can be used as a primary screening tool, but observed or known wetlands not indicated on NWI maps must also be processed. Off-site impacts that result in draining, impounding, or destroying wetlands must also be processed.	Executive Order 11990	24 CFR 55.20 can be used for general guidance regarding the 8 Step Process.

1. Does this project involve new construction as defined in Executive Order 11990, expansion of a building's footprint, or ground disturbance? The term "new construction" shall include draining, dredging, channelizing, filling, diking, impounding, and related activities and any structures or facilities begun or authorized after the effective date of the Order

No

Yes

2. Will the new construction or other ground disturbance impact an on- or off-site wetland? The term "wetlands" means those areas that are inundated by surface or ground water with a frequency sufficient to support, and under normal circumstances does or would support, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds.

"Wetlands under E.O. 11990 include isolated and non-jurisdictional wetlands."

No, a wetland will not be impacted in terms of E.O. 11990's definition of new construction.

Based on the response, the review is in compliance with this section. Document and upload a map or any other relevant documentation below which explains your determination

Yes, there is a wetland that be impacted in terms of E.O. 11990's definition of new construction.

Screen Summary

Compliance Determination

No wetlands were identified within or adjacent to the Proposed Project using the FWS.Gov Wetlands mapper. The nearest wetland, an PEM1Fh Freshwater Emergent Wetland is located approximately 1.5-miles east of the Project. See the attached FWS.gov figure.

Supporting documentation

[12 - Wetland Map.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

Hope and Bushwick Gardens CDBG-DR Storm Resiliency Project Wetlands Map



U.S. Fish and Wildlife Service, National Standards and Support Team,
wetlands_team@fws.gov

October 19, 2023

Wetlands

- | | | |
|--|---|--|
|  Estuarine and Marine Deepwater |  Freshwater Emergent Wetland |  Lake |
|  Estuarine and Marine Wetland |  Freshwater Forested/Shrub Wetland |  Other |
| |  Freshwater Pond |  Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Wild and Scenic Rivers Act

General requirements	Legislation	Regulation
The Wild and Scenic Rivers Act provides federal protection for certain free-flowing, wild, scenic and recreational rivers designated as components or potential components of the National Wild and Scenic Rivers System (NWSRS) from the effects of construction or development.	The Wild and Scenic Rivers Act (16 U.S.C. 1271-1287), particularly section 7(b) and (c) (16 U.S.C. 1278(b) and (c))	36 CFR Part 297

1. Is your project within proximity of a NWSRS river?

No

Yes, the project is in proximity of a Designated Wild and Scenic River or Study Wild and Scenic River.

Yes, the project is in proximity of a Nationwide Rivers Inventory (NRI) River.

Screen Summary

Compliance Determination

The Proposed Project does not contain and is not in close proximity to Designated or Study Wild and Scenic Rivers as mapped by Rivers.gov. The nearest Wild and Scenic designated river is approximately 65 miles to the west at the NJ-PA border - the Delaware Wild and Scenic River. The nearest Recreational River is the Hackensack River in New Jersey. See the attached Rivers.gov map.

Supporting documentation

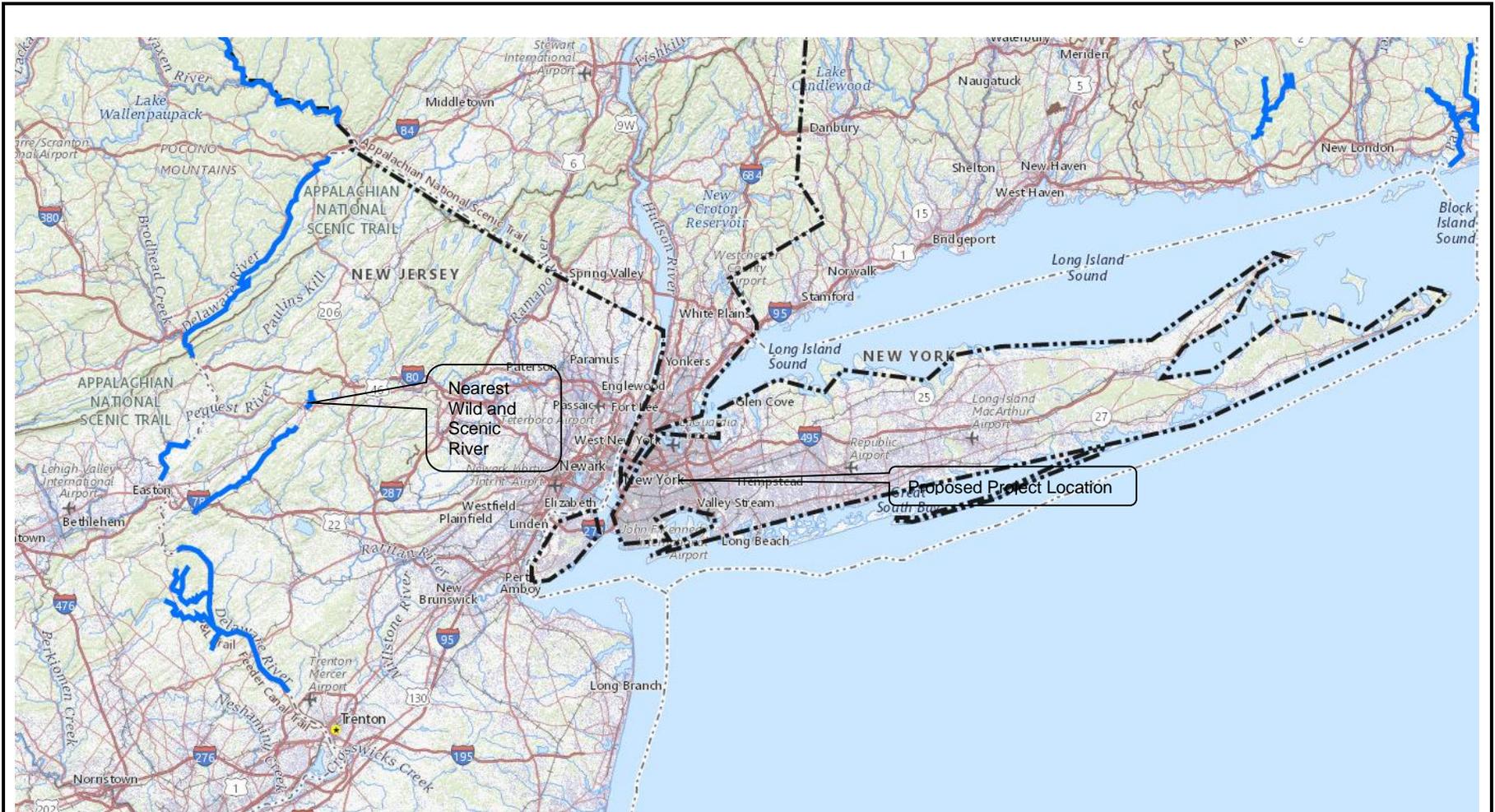
[13 - Wild and Scenic Rivers Map.pdf](#)

[13 - Nationwide Rivers Inventory Map.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

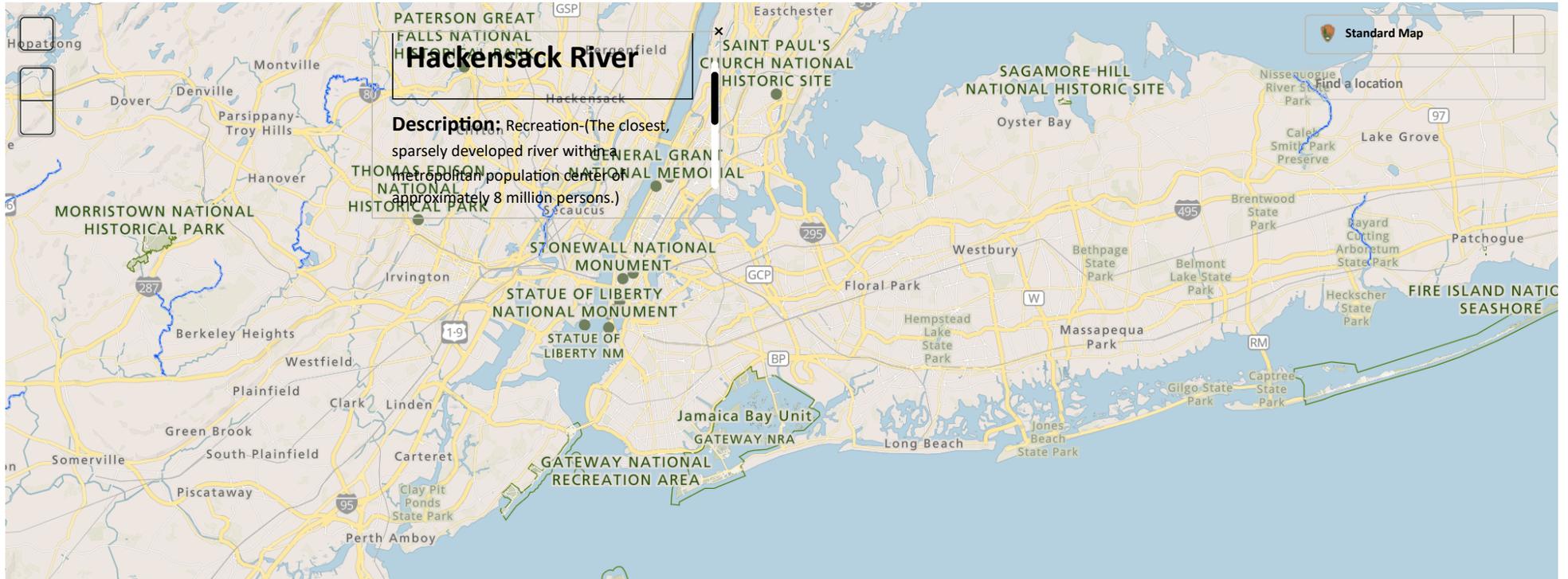


<p>Wild and Scenic Rivers</p>		<p>N ↑</p>
	<p>Project Location: Hope / Bushwick Gardens Bronx, NY</p> <p>Project No.: Z35093</p>	<p>KEY WSRs:</p> 

Nationwide Rivers Inventory

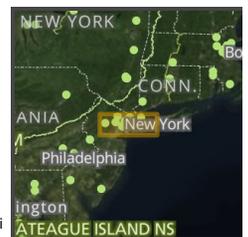
National Park Service
U.S. Department of the Interior

This is a listing of more than 3,200 free-flowing river segments in the U.S. that are believed to possess one or more "outstandingly remarkable" values.



5 mi

National Park Service (<https://www.nps.gov>) | © Mapbox (<https://www.mapbox.com/about/maps/>) | © OpenStreetMap (<https://www.openstreetmap.org/copyright>) contributors | Geocoding by Esri



Environmental Justice

General requirements	Legislation	Regulation
Determine if the project creates adverse environmental impacts upon a low-income or minority community. If it does, engage the community in meaningful participation about mitigating the impacts or move the project.	Executive Order 12898	

HUD strongly encourages starting the Environmental Justice analysis only after all other laws and authorities, including Environmental Assessment factors if necessary, have been completed.

1. Were any adverse environmental impacts identified in any other compliance review portion of this project's total environmental review?

Yes

✓ No

Based on the response, the review is in compliance with this section.

Screen Summary

Compliance Determination

The Proposed Project does not create adverse environmental impacts (no proposed change to Project Site use, no significant ground disturbance, and no change to anticipated Proposed Project residential units count or future Project census/occupancy) and no adverse impacts are anticipated to impact occupants. The Proposed Project will ensure the mechanical systems that serve the associated buildings will remain in service during future extreme weather events. The Proposed Project would not result in any unmitigated adverse environmental impacts. See the attached USEPA EJScreen Report. Please note the Developer and NYCHA have worked, and will continue to work, to ensure the surrounding communities been involved in the planning process of the project. The Developer has presented plans to and consulted with relevant stakeholders as further described in the Public Outreach section found later in this assessment.

Supporting documentation

Hope-Gardens:-Groups-A-
E-CDBG-DR-Storm-
Resiliency-

Brooklyn, NY

900000010361422

[14 - EJ Screen Report.pdf](#)

Are formal compliance steps or mitigation required?

Yes

No

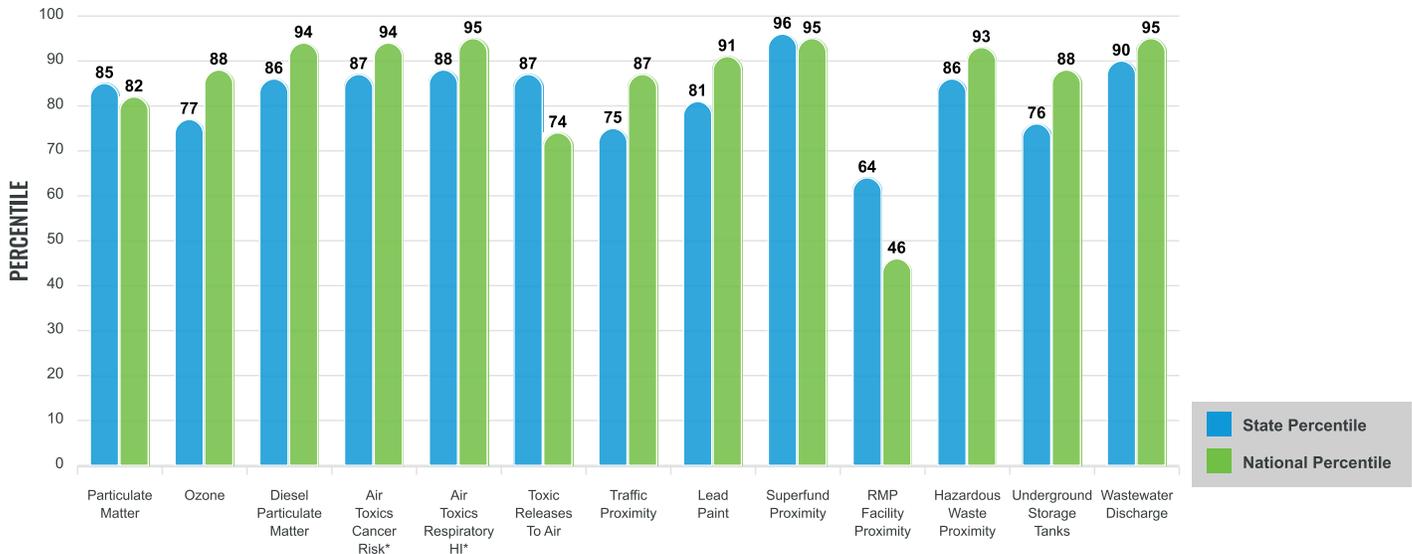
Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the [EJScreen website](#).

EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

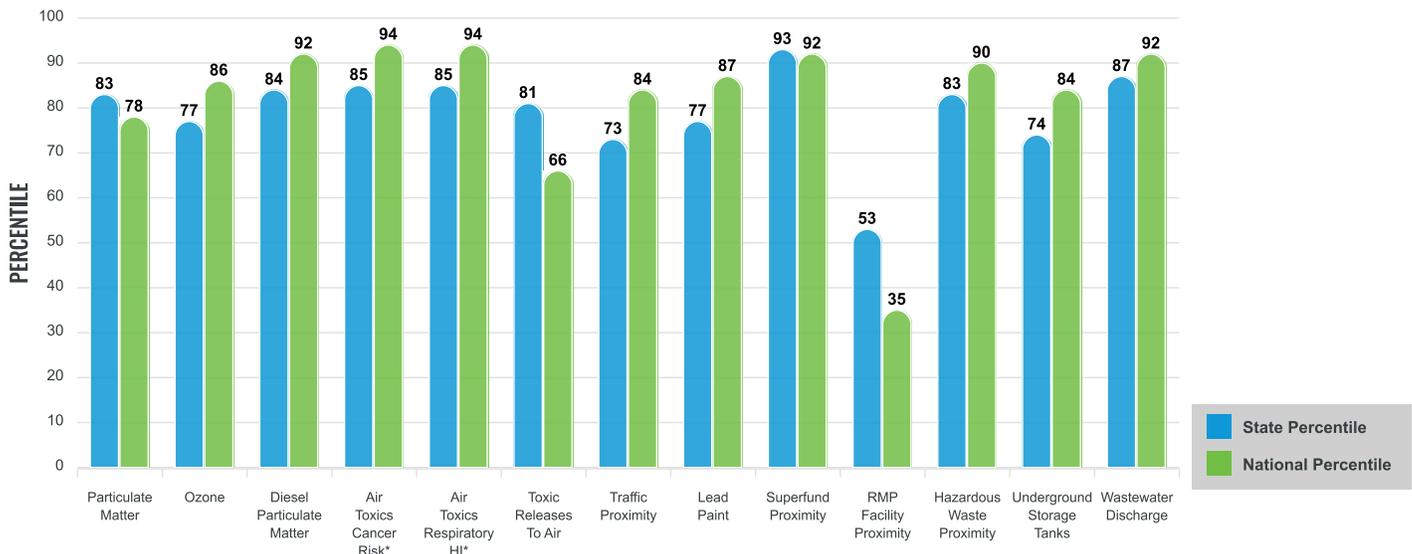
EJ INDEXES FOR THE SELECTED LOCATION



SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

Report for 1 mile Ring Centered at 40.692483,-73.919277

EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES					
Particulate Matter (µg/m ³)	8.51	7.71	75	8.08	58
Ozone (ppb)	64.6	62.6	57	61.6	73
Diesel Particulate Matter (µg/m ³)	1.02	0.525	81	0.261	98
Air Toxics Cancer Risk* (lifetime risk per million)	40	29	68	28	84
Air Toxics Respiratory HI*	0.5	0.33	73	0.31	92
Toxic Releases to Air	380	450	70	4,600	42
Traffic Proximity (daily traffic count/distance to road)	260	430	60	210	80
Lead Paint (% Pre-1960 Housing)	0.69	0.55	61	0.3	85
Superfund Proximity (site count/km distance)	1.4	0.24	98	0.13	99
RMP Facility Proximity (facility count/km distance)	0.071	0.21	30	0.43	18
Hazardous Waste Proximity (facility count/km distance)	7.4	4.3	81	1.9	93
Underground Storage Tanks (count/km ²)	7.9	7.7	65	3.9	85
Wastewater Discharge (toxicity-weighted concentration/m distance)	7	5	86	22	96
SOCIOECONOMIC INDICATORS					
Demographic Index	59%	35%	80	35%	82
Supplemental Demographic Index	19%	14%	76	14%	75
People of Color	80%	42%	77	39%	83
Low Income	39%	28%	73	31%	67
Unemployment Rate	6%	6%	64	6%	67
Limited English Speaking Households	11%	7%	77	5%	86
Less Than High School Education	18%	12%	76	12%	78
Under Age 5	5%	5%	56	6%	53
Over Age 64	10%	17%	24	17%	25
Low Life Expectancy	19%	17%	71	20%	48

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

Sites reporting to EPA within defined area:

Superfund	1
Hazardous Waste, Treatment, Storage, and Disposal Facilities	1
Water Dischargers	5
Air Pollution	51
Brownfields	8
Toxic Release Inventory	3

Other community features within defined area:

Schools	60
Hospitals	3
Places of Worship	55

Other environmental data:

Air Non-attainment	Yes
Impaired Waters	No

Selected location contains American Indian Reservation Lands* No
 Selected location contains a "Justice40 (CEJST)" disadvantaged community Yes
 Selected location contains an EPA IRA disadvantaged community N/A

Report for 1 mile Ring Centered at 40.692483,-73.919277

EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	19%	17%	70	20%	48
Heart Disease	4.3	5.6	13	6.1	16
Asthma	10.4	10	65	10	66
Cancer	3.8	6	10	6.1	9
Persons with Disabilities	9%	11.8%	34	13.4%	25

CLIMATE INDICATORS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	9%	11%	65	12%	64
Wildfire Risk	0%	1%	0	14%	0

CRITICAL SERVICE GAPS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	15%	13%	66	14%	62
Lack of Health Insurance	10%	5%	88	9%	68
Housing Burden	Yes	N/A	N/A	N/A	N/A
Transportation Access	Yes	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Footnotes

Report for 1 mile Ring Centered at 40.692483,-73.919277

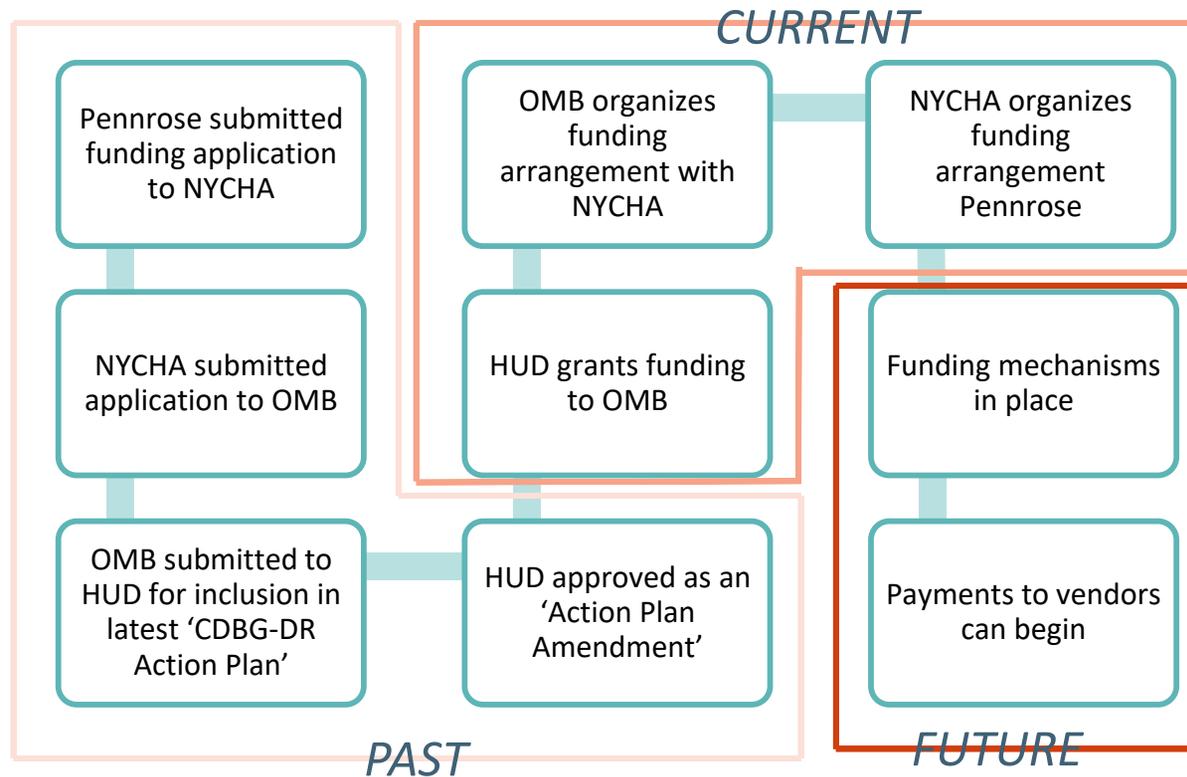
Hope and Bushwick Gardens CDBG-DR Project Overview

September 20, 2023



CDBG-DR Funding Background

- Federal funding is pursuant to the HUD Community Development Block Grant Disaster Recovery (CDBG-DR)
- NYC has been receiving CDBG-DR funds since Hurricane Sandy
- Hope & Bushwick project included in Hurricane Ida funding round



CDBG-DR Timeline Update

	2022		2023												2024												2025			
	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	
CDBG-DR Application	█	█	█	█	█	█	█	█	█	█	█																			
Environmental Review							█	█	█	█	█	█	█																	
Funding Approvals							█	█	█	█	█	█	█																	
Design							█	█	█	█	█	█	█																	
Construction														█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█



Scope of Resiliency Project

- Replace below-grade mechanical and electrical equipment for 52 buildings
 - Groups A-D: 17 above grade boiler pods to serve 1-4 buildings each
 - Group E: 5 boiler pods on roof tops
 - Pod sizes are 200-300SF
- Electrical equipment at risk of flooding to be moved; trenching to connect utilities
- Backwater valves to be installed at high-risk buildings to mitigate flooding
- Will not impact any parking spaces or playgrounds; primarily placed on open grass
- Maintain lighting and visibility around pods
- Will result in more stable hot water heating



Sample boiler pod



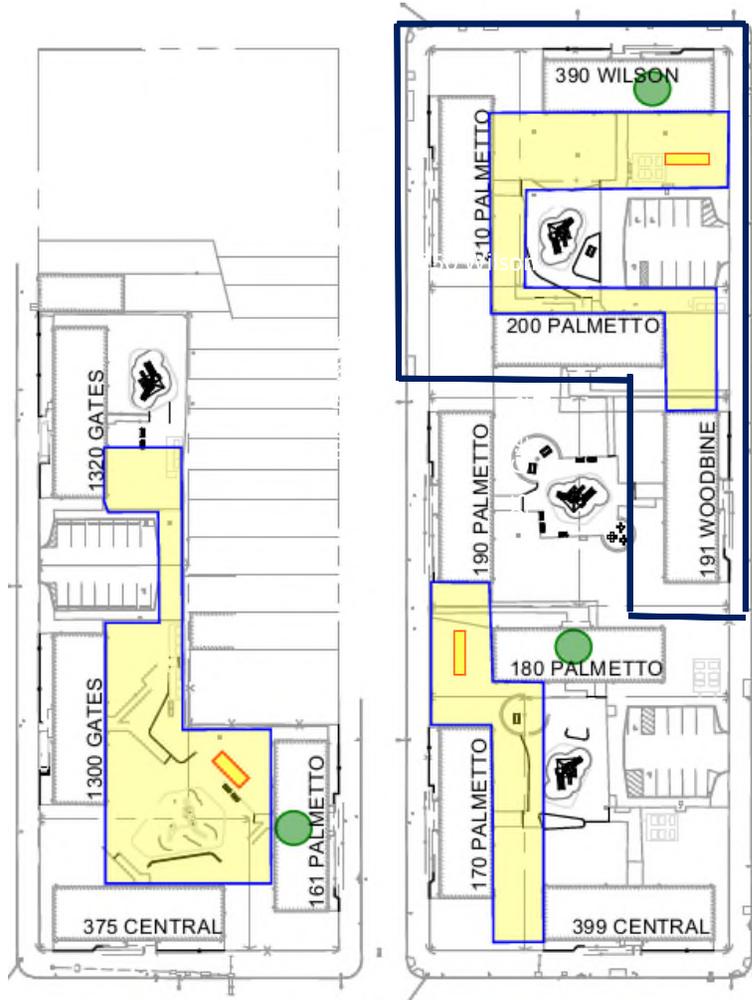
Sample boiler pod



PENNROSE
Bricks & Mortar | Heart & Soul



Proposed Pod Location at Group D

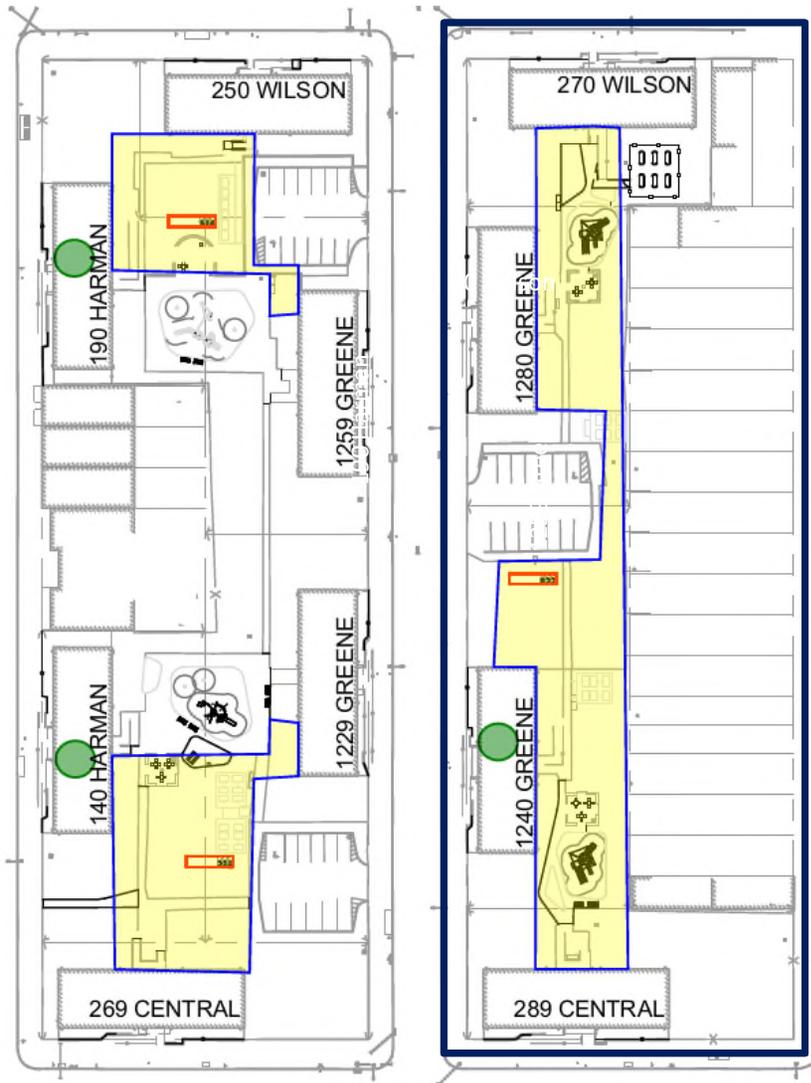


Approximate proposed pod location to serve 4 buildings:
390 Wilson, 210 Palmetto, 200 Palmetto, 191 Woodbine



Not to scale – for illustrative purposes only

Proposed Pod Location at Group C



Approximate proposed pod location to serve 4 buildings:
270 Wilson, 1280 Greene, 1240 Greene, 289 Central



Not to scale – for illustrative purposes only

Employment Opportunities Overview

- PACT conversion project achieved 2x original projections of Section 3 hires
 - Two residents continue to remain employed at property from PACT project
- The Procida Construction Corp (PCC) Team will work closely with NYCHA-REES and Community Board Leaders, local community & workforce development organizations to provide required Occupational Safety and Health Administration Card – **40 hours OSHA SST Safety Training** to Local Section 3 eligible and interested candidates.
- The PCC Team will attend Local Community Board Career Fairs and Outreach Events to identify qualified individuals and firms for employment and M/WBE subcontracting opportunities.



Employment Opportunities Overview

- 8 new positions for Section 3 general labor projected for project
- **Experience Requirements for New Local Hires:**
 - 40 hours OSHA SST Safety Training Card –SST *



- Valid NYS or NYC Identification Card or US Valid Government ID
- Employment Eligibility Verification (Compliant with I-9 requirements)
- Must be at least 18 years or older
- Able to perform 8 hours of physical work each day
- Must have proper construction work attire & construction work boots
- PPE will be provided
- Resume with any prior construction work related experience

Employment Opportunities Overview

Apply for a job opportunity by submitting your resume to:

nycharadjobs@procidacompanies.com

Annette Gonzalez

Director of Compliance

P: 718-299-7000 **x218**

E:compliance@procidacompanies.com

Tanya Wiltshire

Project Manager

P: 917-769-6316

E:compliance@procidacompanies.com



Next Steps

- Design: finalize equipment and locations of pods, utility requirements, security cameras, lighting, aesthetics
- Continue environmental review & funding coordination
- Work with NYCHA REES regarding employment opportunities & begin construction



THE CITY OF
NEW YORK



Brooklyn Community Board No. 4

1420 Bushwick Avenue, Suite 370
Brooklyn, New York, 11207-1422

Telephone: 718-628-8400

Email: bk04@cb.nyc.gov

Website: www.nyc.gov/brooklyn4

Robert Camacho - Chairperson
Celestina León - District Manager

BUSHWICK

ELECTED OFFICIALS

HON. ANTONIO REYNOSO
Borough President

HON. JENNIFER GUTIERREZ
34th Council District

HON. SANDY NURSE
37th Council District

**2023-24 EXECUTIVE
BOARD OFFICERS**

ROBERT CAMACHO
Chairperson

JOSHUA BROWN
1st Vice Chairperson

RAUL RUBIO
2nd Vice Chairperson

FELIX CEBALLOS
Recording Secretary

ELISEO RUIZ
Financial Secretary

JERRY VALENTIN
Treasurer

ELVENA DAVIS
Correspondence Secretary

JO-ENA BENNETT
Parliamentarian

September 21, 2023

Julie Freeman
Senior Assistant Director
CDBG Entitlement and Disaster Recovery
NYC Office of Management and Budget
255 Greenwich Street
New York, NY 10007

RE: Hope and Bushwick Gardens – Letter of Support for Approval and Release of CDBG-DR Funds

Dear Director Freeman,

At the September 20th Public Hearing and Regular Monthly Meeting of Brooklyn Community Board 4, the full board voted unanimously in favor of the recommendation to write a letter of support for the approval and release of funding for the Community Development Block Grant Disaster Recovery (CDBG-DR) Application for Hope and Bushwick Gardens in Brooklyn, New York submitted by Pennrose Properties, LLC (Pennrose).

The board recognizes the urgency and importance in installing flood mitigation measures at Hope and Bushwick Gardens, as well as securing the funding required to facilitate the work. As you are aware, following Hurricane Ida in September 2021 and two flash flood events in 2022, the property suffered over \$42 million in damage to new mechanical equipment that provided heat and hot water to residents. The property continues to remain highly susceptible to flash flood events and heavy rainfall often accumulating water in basements at the most high-risk buildings after storm events. This can cause additional equipment damage and failure, and ultimately lead to service disruption for residents.

We respectfully request you prioritize approval and disbursement of the CDBG-DR funds for Pennrose to complete these much-needed resiliency measures as swiftly as possible and minimize the ongoing risk of additional storm-related damage. Community Board 4 continues to advocate for and support projects that improve the quality of life for all. Should you have any questions, please do not hesitate to contact the district manager.

Sincerely,

Robert Camacho
Chairperson

Celestina León
District Manager

Cc: Council Member Jennifer Gutierrez, 34th District
Council Member Sandy Nurse, 37th District

Assemblymember Maritza Davila, 53rd District
Assemblymember Erik Dilan, 54th District
State Senator Julia Salazar, 18th District
Congresswoman Nydia Velazquez, 7th District



DISTRICT OFFICE
244 UNION AVENUE
BROOKLYN, NY 11211
TEL: (718) 963-3141
FAX: (347) 223-4347

CITY HALL OFFICE
250 BROADWAY, SUITE 1740
NEW YORK, NY 10007
TEL: (212) 788-7095
E-MAIL: jgutierrez@council.nyc.gov

THE COUNCIL
OF
THE CITY OF NEW YORK

JENNIFER GUTIÉRREZ

COUNCIL MEMBER, 34th DISTRICT, BROOKLYN

CHAIR
TECHNOLOGY

COMMITTEE
ECONOMIC DEVELOPMENT
EDUCATION
ENVIRONMENTAL PROTECTION
HOSPITALS
STATE AND FEDERAL LEGISLATION
WOMEN AND GENDER EQUITY

July 26th, 2023

RE: Hope and Bushwick Gardens – Letter of Support for Approval and Release of CDBG-DR Funds

To HUD, OMB & NYCHA:

On January 30th, 2023, I wrote in support of Pennrose Properties, LLC (Pennrose) in its application for the Community Development Block Grant Disaster Recovery (CDBG-DR) for Hope and Bushwick Gardens in Brooklyn, New York.

As the Council Member for New York City's 34th District, I am once again writing in support of the final approval and release of the CDBG-DR funds to Pennrose from HUD, OMB & NYCHA. As hurricane season continues, the release of this grant would allow Pennrose to begin doing their much-needed work in installing flood mitigation measures at their residences in Hope and Bushwick Gardens.

Following Hurricane Ida in September 2021 and two flash flooding events in 2022, the property suffered over \$42 million in damage to their mechanical equipment that provided heat and hot water to residents. Since then, the property continues to remain highly susceptible to flash flood events and heavy rainfall, often accumulating water in basements at the most high-risk buildings after storm events. This occurrence has caused additional equipment damage and ultimately led to extended service disruptions for residents.

The CDBG-DR funds will be used to replace the basement mechanical equipment with new above-grade mechanical and electrical facilities and provide additional flood mitigation measures to further protect and ensure the safety of residents at Hope and Bushwick Gardens. Successful execution of this project is of the utmost importance for the protection and well-being of my constituents. I ask that you prioritize approval and distribution of the CDBG-DR funds so that Pennrose may complete these much-needed resiliency measures as swiftly as possible and minimize the ongoing risk of additional storm-related damage at the property.

Thank you for your attention to this matter and any support you can provide for the timely dispersal of the CDBG-DR funds.

If you have any questions, please don't hesitate to contact my office.

Sincerely,

A handwritten signature in black ink that reads "Jennifer Gutiérrez". The script is cursive and fluid, with the first letter of each name being capitalized and prominent.

Jennifer Gutiérrez

Council Member, 34th District

NEW YORK
STATE
SENATE



SENATOR JULIA C. SALAZAR
18TH SENATE DISTRICT

July 24, 2023

RE: Hope and Bushwick Gardens – Letter of Support for Approval and Release of CDBG-DR Funds

To whom it may concern,

My office has written previously to support Pennrose Properties, LLC (Pennrose) in its application for the Community Development Block Grant Disaster Recover (CDBG-DR) Application for Hope and Bushwick Gardens in Brooklyn, New York. As the New York State Senator for the 18th District, I am writing to you again to demonstrate our support for the approval and release of the CDBG-DR funds to Pennrose so that they may begin to install the much-needed flood mitigation measures at Hope and Bushwick Gardens.

Following Hurricane Ida in September 2021 and two flash flooding events in 2022, the property suffered over \$42 million in damage to the then-new mechanical equipment that provided heat and hot water to residents. Since then, the property continues to remain highly susceptible to flash flood events and heavy rainfall, often accumulating water in basements at the most high-risk buildings after storm events, which can cause additional equipment damage and failure and ultimately lead to service disruption for residents.

The CDBG-DR funds will be used to replace the basement mechanical equipment with new above-grade mechanical and electrical facilities and provide additional flood mitigation measures to further protect and ensure the safety of residents at Hope and Bushwick Gardens. Successful execution of this project is of the utmost importance for the protection and well-being of the residents at Hope and Bushwick Gardens. We ask that you prioritize approval and disbursement of the CDBG-DR funds so that Pennrose may complete these much-needed resiliency measures as swiftly as possible and minimize the ongoing risk of additional storm-related damage at the property.

Thank you for your attention to this matter and any support you can provide for the timely dispersal of the CDBG-DR funds. We look forward to working together to ultimately improve the quality of life for residents at Hope and Bushwick Gardens. If you require any additional information, please contact our office at (718) 573-1726 or by email at salazar@nysenate.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Julia Salazar", with a long horizontal flourish extending to the right.

Senator Julia Salazar, 18th Senate District

July 19, 2023

RE: Hope and Bushwick Gardens – Letter of Support for Approval and Release of CDBG-DR Funds

To whom it may concern,

I am writing to express my support for the approval and subsequent release of funding for the Community Development Block Grant Disaster Recovery (CDBG-DR) Application for Hope and Bushwick Gardens in Brooklyn, New York submitted by Pennrose Properties, LLC (Pennrose). As the President of the Tenants Association at Hope and Bushwick Gardens, I know firsthand how important the installation of the much-needed flood mitigation measures is at Hope and Bushwick Gardens and associated funding to facilitate the work. Pennrose has been a great partner in working through the PACT conversion at Hope and Bushwick Gardens and is working diligently to prioritize these much needed infrastructure upgrades for the community.

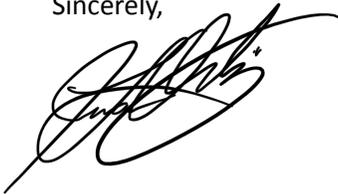
As you are aware, following Hurricane Ida in September 2021 and two flash flooding events in 2022, the property suffered over \$42 million in damage to the then-new mechanical equipment that provided heat and hot water to residents. Since then, the property continues to remain highly susceptible to flash flood events and heavy rainfall, often accumulating water in basements at the most high-risk buildings after storm events, which can cause additional equipment damage and failure and ultimately lead to service disruption for residents.

The CDBG-DR funds will be used to replace the basement mechanical equipment with new above-grade mechanical and electrical facilities and provide additional flood mitigation measures to further protect and ensure the safety of residents at Hope and Bushwick Gardens. Successful execution of this project is of the utmost importance for the protection and well-being of the residents at the community. We ask that you prioritize approval and disbursement of the CDBG-DR funds so that Pennrose may complete these much-needed resiliency measures as swiftly as possible and minimize the ongoing risk of additional storm-related damage at the property.

Thank you for your attention to this matter and any support you can provide for the timely dispersal of the CDBG-DR funds. We look forward to working together to ultimately improve the quality-of-life for residents at Hope and Bushwick Gardens.

If you require any additional information, please contact our office at (646) 391-1364 or email JuanLOrtizBK@gmail.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Juan L. Ortiz', written in a cursive style.

Juan L. Ortiz
President,
Hope Gardens Tenants Association.