

**REVISED  
ENVIRONMENTAL ASSESSMENT STATEMENT**

**GREENPOINT LANDING**

Supersedes EAS issued July 19, 2013

CEQR No. 14DCP004K

ULURP Nos. 140019HAK, N140020ZAK,  
N140021ZAK, N140022ZAK,  
N140023ZAK, N140024ZCK,  
N140025ZCK, N140026ZCK,  
N140027ZCK, and N140028ZRK

Lead Agency: NYC Planning Commission

Applicants:  
Greenpoint Landing Associates  
NYC Department of City Planning  
NYC Department of Housing Preservation and Development

Prepared by:  
Philip Habib & Associates  
Sandstone Environmental Associates  
AKRF, Inc.

November 6, 2013

# Greenpoint Landing Disposition EAS

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## City Environmental Quality Review

### ENVIRONMENTAL ASSESSMENT STATEMENT (EAS) FULL FORM

Please fill out and submit to the appropriate agency ([see instructions](#))

#### Part I: GENERAL INFORMATION

**PROJECT NAME** Greenpoint Landing Disposition

#### 1. Reference Numbers

CEQR REFERENCE NUMBER (to be assigned by lead agency)  
14DCP004K

BSA REFERENCE NUMBER (if applicable)

ULURP REFERENCE NUMBER (if applicable)  
See attached

OTHER REFERENCE NUMBER(S) (if applicable)  
(e.g., legislative intro, CAPA)

#### 2a. Lead Agency Information

NAME OF LEAD AGENCY  
NYC City Planning Commission

NAME OF LEAD AGENCY CONTACT PERSON  
Robert Dobruskin, AICP

ADDRESS 22 Reade Street, Room 4E

CITY New York

STATE NY

ZIP 10007

TELEPHONE +1.212.720.3425

EMAIL  
rdobrus@planning.nyc.gov

#### 2b. Applicant Information

NAME OF APPLICANT  
Joint Application by HPD, DCP, and GLA (see attached)

NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON

ADDRESS

CITY

STATE

ZIP

TELEPHONE

EMAIL

#### 3. Action Classification and Type

##### SEQRA Classification

UNLISTED  TYPE I: Specify Category (see 6 NYCRR 617.4 and NYC Executive Order 91 of 1977, as amended): 6 NYCRR 617.4(b)(10)

**Action Type** (refer to [Chapter 2](#), "Establishing the Analysis Framework" for guidance)

LOCALIZED ACTION, SITE SPECIFIC  LOCALIZED ACTION, SMALL AREA  GENERIC ACTION

#### 4. Project Description

The proposed action consists of several discretionary actions including: (1) Disposition/UDAAP Designation of City-owned properties; (2) zoning text amendments; (3) Acquisition and Site Selection by SCA of a school site; (4) waterfront zoning authorizations; (5) Amendment to a Restrictive Declaration. The proposed action would facilitate the redevelopment of underutilized, partially vacant waterfront property in Greenpoint, Brooklyn with a mixed-use, primarily residential development. The project increment would include approximately 707 dwelling units (DUs), of which approximately 431 would be affordable housing DUs, approximately 4,900 gsf of local retail space, approximately 120,000 gsf of community facility space housing a 640-seat public elementary/intermediate school, approximately 28,353 sf of public open space, and approximately 253 accessory parking spaces. This would be in addition to as-of-right development by GLA as part of a larger development project that (including the project increment) would result in a total of approximately 1,476 DUs by 2020, when the proposed project would be completed. \* See attached.

#### Project Location

BOROUGH Brooklyn COMMUNITY DISTRICT(S) 1 STREET ADDRESS 219 West St., et al. (refer to Attachment A)

TAX BLOCK(S) AND LOT(S) Refer to Attachment A

ZIP CODE 11222

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Refer to Attachment A

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY R6, R6/C2-4, R8, R8/C2-4

ZONING SECTIONAL MAP NUMBER 12c

#### 5. Required Actions or Approvals (check all that apply)

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

CITY MAP AMENDMENT

ZONING CERTIFICATION

CONCESSION

ZONING MAP AMENDMENT

ZONING AUTHORIZATION

UDAAP

ZONING TEXT AMENDMENT

ACQUISITION—REAL PROPERTY

REVOCABLE CONSENT

SITE SELECTION—PUBLIC FACILITY

DISPOSITION—REAL PROPERTY

FRANCHISE

HOUSING PLAN & PROJECT

OTHER, explain: Modification of RD

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

VARIANCE (use)

VARIANCE (bulk)

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

**EAS Form: Greenpoint Landing Disposition**  
**Part I: General Information**  
**1. ULURP Reference Numbers**

- \* 140019HAK
- \* N140020ZAK,
- \* N140021ZAK
- \* N140022ZAK,
- \* N140023ZAK
- \* N140024ZCK
- \* N140025ZCK
- \* N140026ZCK
- \* N140027ZCK
- \* N140028ZRK

**EAS Form: Greenpoint Landing Disposition**

**Part I: General Information**

**2b. Application Information**

1. GLA

NAME OF APPLICANT

Greenpoint Landing Associates (GLA), c/o Park Tower Group

NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON

Melanie Meyers, Esq., Fried Frank Harris Shriver Jacobson LLP

Richard Leland, Esq., Fried Frank Harris Shriver Jacobson LLP

ADDRESS	CITY	STATE	ZIP
One New York Plaza, Floor 22	New York	NY	10004

TELEPHONE	EMAIL
+1.212.859.8785 (Meyers)	Melanie.Meyers@friedfrank.com
+1.212.859.8978 (Leland)	Richard.Leland@friedfrank.com

2. HPD

NAME OF APPLICANT

New York City Department of Housing Preservation and Development (HPD)

NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON

Jack Hammer, Director, Brooklyn Planning

ADDRESS	CITY	STATE	ZIP
100 Gold Street	New York	NY	10038

TELEPHONE	EMAIL
+1.212.863.5056	hammerj@hpd.nyc.gov

3. DCP

NAME OF APPLICANT

New York City Department of City Planning

NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON

Purnima Kapur, Director, Brooklyn Office

ADDRESS	CITY	STATE	ZIP
16 Court Street, Floor 7	Brooklyn	NY	11241

TELEPHONE	EMAIL
+1.718.780.8280	pkapur@planning.nyc.gov

Attachment to EAS Form Part I, 4. "Project Description."

**\* This Revised EAS, which supersedes the original EAS issued on July 19, 2013, has been issued to reflect refinements to the applicant's proposal, related to certain aspects of the development facilitated by the proposed action. The refinements resulted in updates to the following impact categories: Hazardous Materials, Air Quality, Community Facilities, Construction and Noise. As a result of these revised analyses the proposed project components related to the environment (PCRE) pertaining to Community Facilities, Construction and Noise have changed, and the Hazardous Materials, Noise and Air Quality (E) designation requirements have been updated, in order to reflect the development as refined in the revised EAS. The analysis concludes that the proposed refinements would not result in any significant adverse environmental impacts, as was the case in the EAS filed on July 19, 2013 for the proposed project.**

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION	
<b>Department of Environmental Protection:</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If "yes," specify:	
<b>Other City Approvals Subject to CEQR</b> (check all that apply)	
<input type="checkbox"/> LEGISLATION	<input checked="" type="checkbox"/> FUNDING OF CONSTRUCTION, specify: Possible HPD & HDC financing
<input type="checkbox"/> RULEMAKING	<input type="checkbox"/> POLICY OR PLAN, specify:
<input checked="" type="checkbox"/> CONSTRUCTION OF PUBLIC FACILITIES	<input type="checkbox"/> FUNDING OF PROGRAMS, specify:
<input type="checkbox"/> 384(b)(4) APPROVAL	<input type="checkbox"/> PERMITS, specify:
<input checked="" type="checkbox"/> OTHER, explain: 1) SCA site selection and acquisition	
<b>Other City Approvals Not Subject to CEQR</b> (check all that apply)	
<input checked="" type="checkbox"/> PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC)	<input type="checkbox"/> LANDMARKS PRESERVATION COMMISSION APPROVAL
	<input type="checkbox"/> OTHER, explain:
<b>State or Federal Actions/Approvals/Funding:</b> <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If "yes," specify: Possible DEC permits for bulkhead repairs	
<b>6. Site Description:</b> <i>The directly affected area consists of the project site and the area subject to any change in regulatory controls. Except where otherwise indicated, provide the following information with regard to the directly affected area.</i>	
<b>Graphics:</b> <i>The following graphics must be attached and each box must be checked off before the EAS is complete. Each map must clearly depict the boundaries of the directly affected area or areas and indicate a 400-foot radius drawn from the outer boundaries of the project site. Maps may not exceed 11 x 17 inches in size and, for paper filings, must be folded to 8.5 x 11 inches.</i>	
<input checked="" type="checkbox"/> SITE LOCATION MAP	<input checked="" type="checkbox"/> ZONING MAP
<input checked="" type="checkbox"/> TAX MAP	<input type="checkbox"/> FOR LARGE AREAS OR MULTIPLE SITES, A GIS SHAPE FILE THAT DEFINES THE PROJECT SITE(S)
<input checked="" type="checkbox"/> PHOTOGRAPHS OF THE PROJECT SITE TAKEN WITHIN 6 MONTHS OF EAS SUBMISSION AND KEYED TO THE SITE LOCATION MAP	<input checked="" type="checkbox"/> SANBORN OR OTHER LAND USE MAP
<b>Physical Setting</b> (both developed and undeveloped areas)	
Total directly affected area (sq. ft.): 233,326 sf (area of the 5 projected development sites)	Waterbody area (sq. ft.) and type: 0
Roads, buildings, and other paved surfaces (sq. ft.): 233,326 sf	Other, describe (sq. ft.):
<b>7. Physical Dimensions and Scale of Project</b> (if the project affects multiple sites, provide the total development facilitated by the action)	
SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 5 developments, total building area: approximately 1,538,004 gsf; incremental building area: approximately 787,952 gsf	
NUMBER OF BUILDINGS: 5 (on Projected Development Sites 1-5)	GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): Site 1: 442,324 gsf (total/incremental); Site 2: 437,425 gsf (total/incremental); Site 3: 109,675 gsf (total), -216,291 gsf (incremental); Site 4: 428,580 gsf (total), 4,494 gsf (incremental); Site 5: 120,000 gsf (total/incremental)
HEIGHT OF EACH BUILDING (ft.): Site 1: 300'; Site 2: 400'; Site 3: 75'; Site 4: 300'; Site 5: 100'	NUMBER OF STORIES OF EACH BUILDING: Site 1: 30; Site 2: 39; Site 3: 6; Site 4: 30; Site 5: 6
Does the proposed project involve changes in zoning on one or more sites? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
If "yes," specify: The total square feet owned or controlled by the applicant: The total square feet non-applicant owned area:	
Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
If "yes," indicate the estimated area and volume dimensions of subsurface disturbance (if known):	
AREA OF TEMPORARY DISTURBANCE: 127,000 sq. ft. (width x length)	VOLUME OF DISTURBANCE: 357,840 cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 127,000 sq. ft. (width x length)	
<b>8. Analysis Year</b> <a href="#">CEQR Technical Manual Chapter 2</a>	
ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2020	
ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: Refer to Attachment K, Construction	
WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF MULTIPLE PHASES, HOW MANY? 4	
BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Approx. 23 months per building; total construction period approximately 6.75 years	
<b>9. Predominant Land Use in the Vicinity of the Project</b> (check all that apply)	
<input checked="" type="checkbox"/> RESIDENTIAL	<input checked="" type="checkbox"/> MANUFACTURING
<input checked="" type="checkbox"/> COMMERCIAL	<input checked="" type="checkbox"/> PARK/FOREST/OPEN SPACE
	<input checked="" type="checkbox"/> OTHER, specify: Vacant



Legend:

- Projected Development Sites
- Greenpoint Landing as-of-right development sites not affected by proposed action
- Boundary of City Parcel

0' 200'  
(Scale is approximate)





# ZONING MAP

THE NEW YORK CITY PLANNING COMMISSION

## Major Zoning Classifications:

The number(s) and/or letter(s) that follows an R, C or M District designation indicates use, bulk and other controls as described in the text of the Zoning Resolution.

- R – RESIDENTIAL DISTRICT
- C – COMMERCIAL DISTRICT
- M – MANUFACTURING DISTRICT
-  SPECIAL PURPOSE DISTRICT  
The letter(s) within the shaded area designates the special purpose district as described in the text of the Zoning Resolution.

 AREA(S) REZONED

## Effective Date(s) of Rezoning:

10-11-2012 C 120226 ZMM

## Special Requirements:

For a list of lots subject to CEQR environmental requirements, see APPENDIX C.

For a list of lots subject to "D" restrictive declarations, see APPENDIX D.

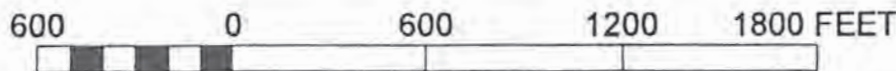
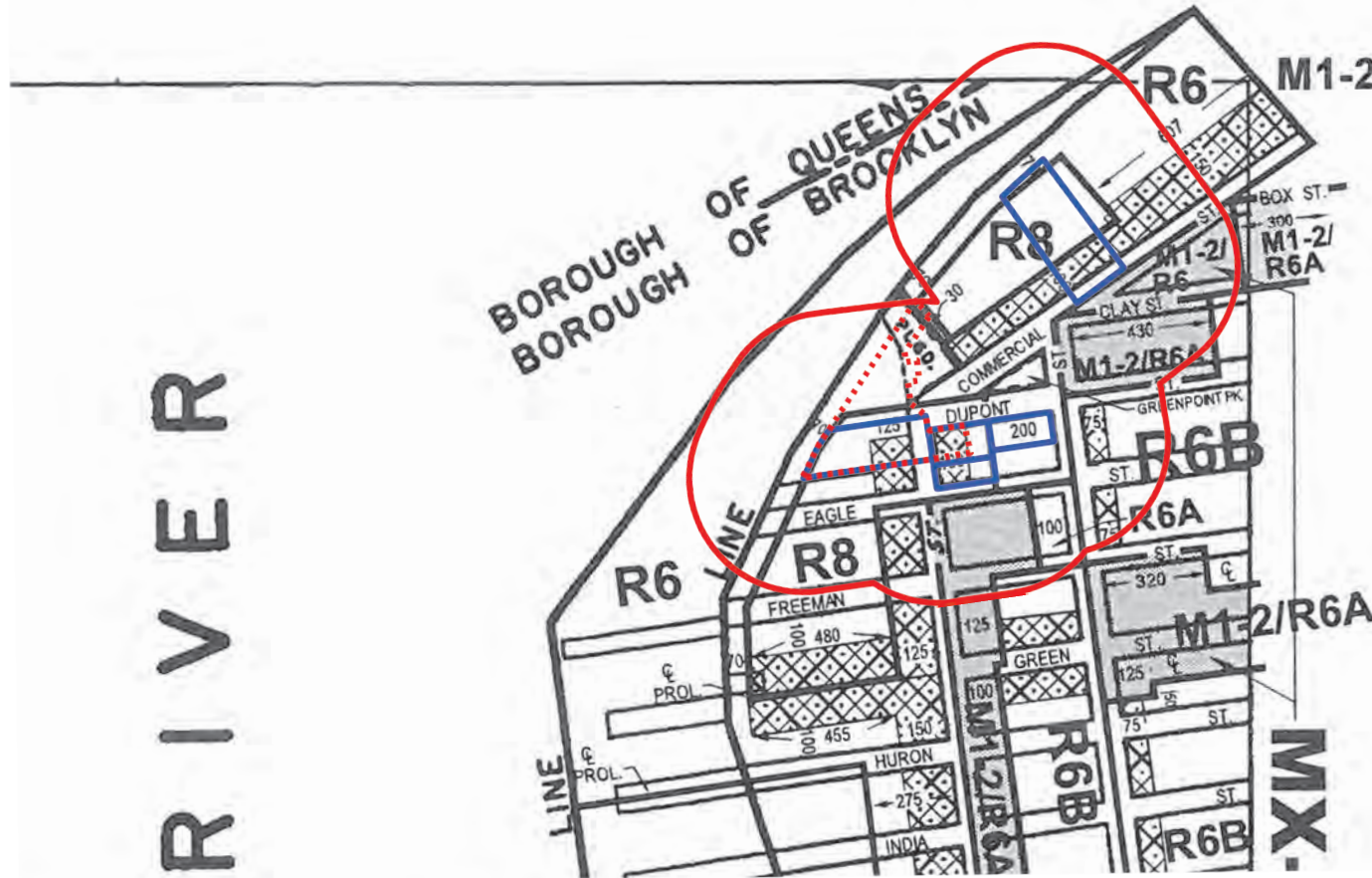
For Inclusionary Housing designated areas on this map, see APPENDIX F.

## MAP KEY

8b	8d	9b
12a	<b>12c</b>	13a
12b	12d	13b

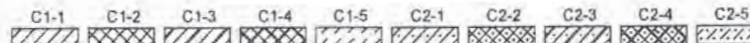
© Copyrighted by the City of New York

NOTE: Zoning information as shown on this map is subject to change. For the most up-to-date zoning information for this map, visit the Zoning section of the Department of City Planning website: [www.nyc.gov/planning](http://www.nyc.gov/planning) or contact the Zoning Information Desk at (212) 720-3291.



# NOTE: STREETS FOR THE STREET MAP CHANGE C 120077 MMM ARE SHOWN ON THIS MAP PRIOR TO BECOMING EFFECTIVE IN ORDER TO LOCATE ZONING DISTRICT BOUNDARIES.

## NOTE: STREETS FOR THE STREET MAP CHANGE C 120156 MMM ARE SHOWN ON THIS MAP PRIOR TO BECOMING EFFECTIVE IN ORDER TO LOCATE ZONING DISTRICT BOUNDARIES.

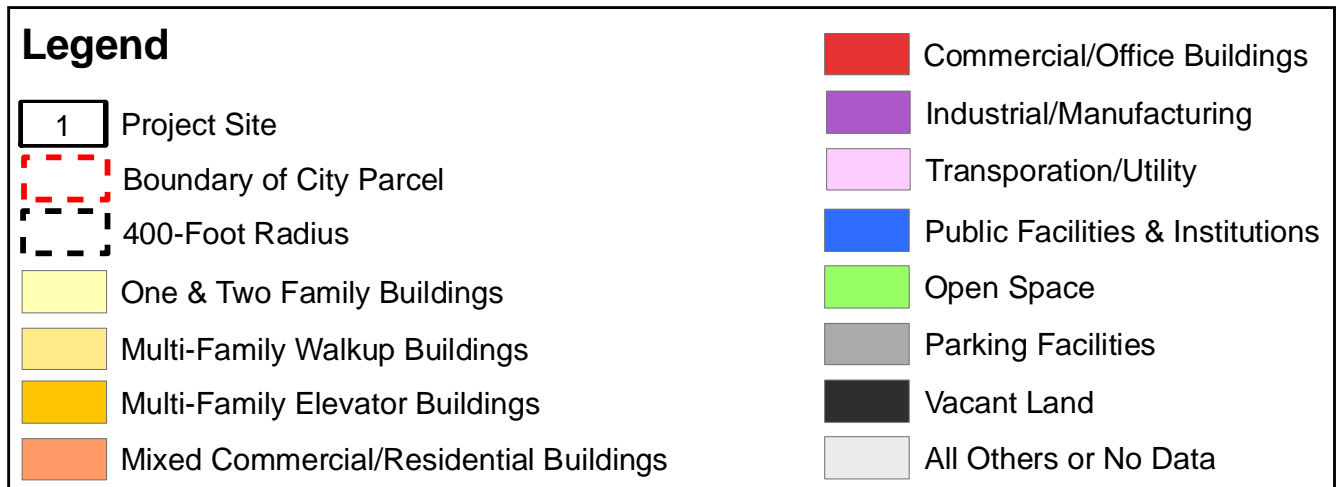
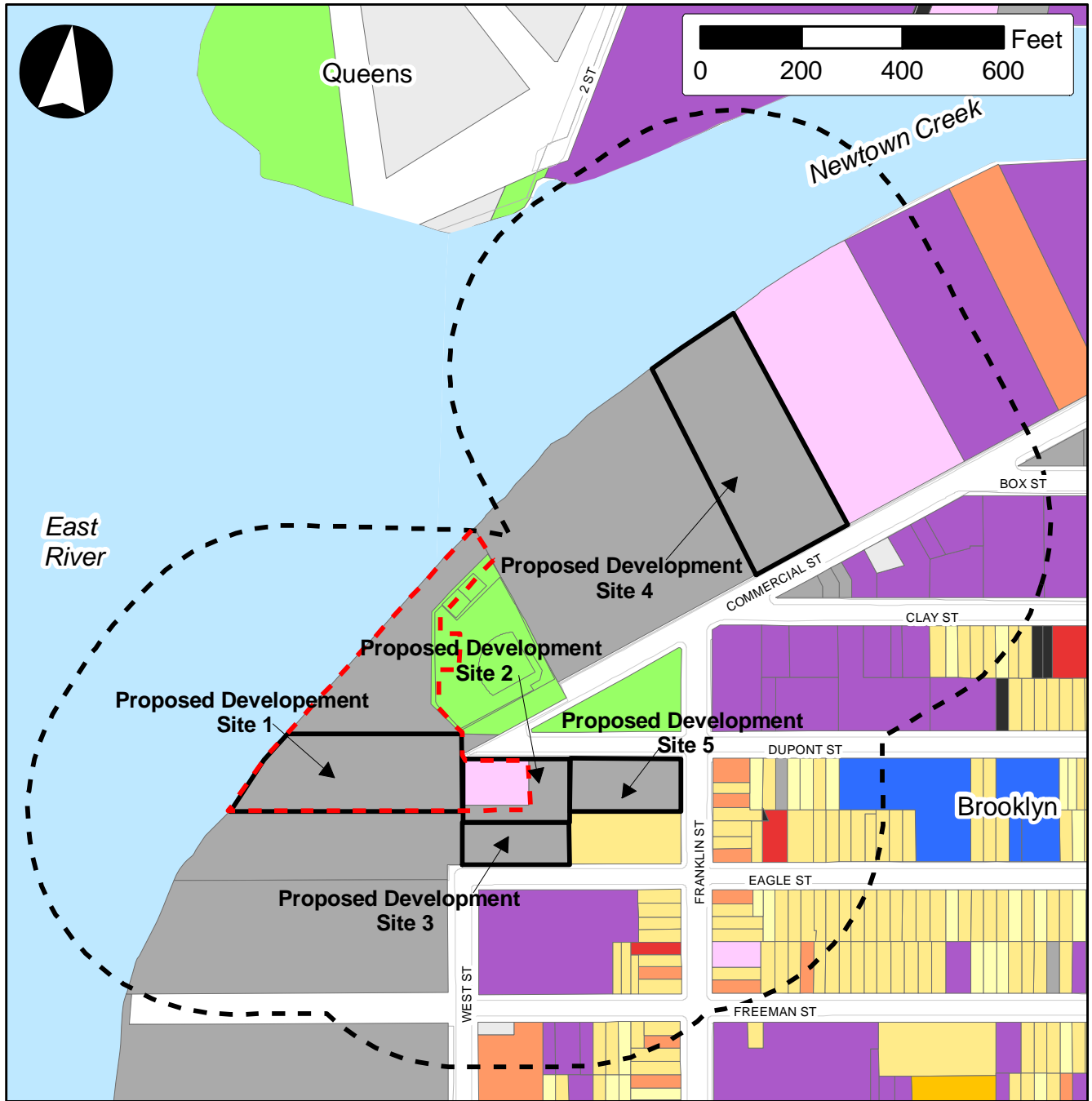


NOTE: Where no dimensions for zoning district boundaries appear on the zoning maps, such dimensions are determined in Article VII, Chapter 6 (Location of District Boundaries) of the Zoning Resolution.

 400-Foot Radius

 Project Site

 City Parcel





NYC Digital Tax Map

Effective Date : 10-29-2009 09:37:16  
End Date : Current  
Brooklyn Block: 2472

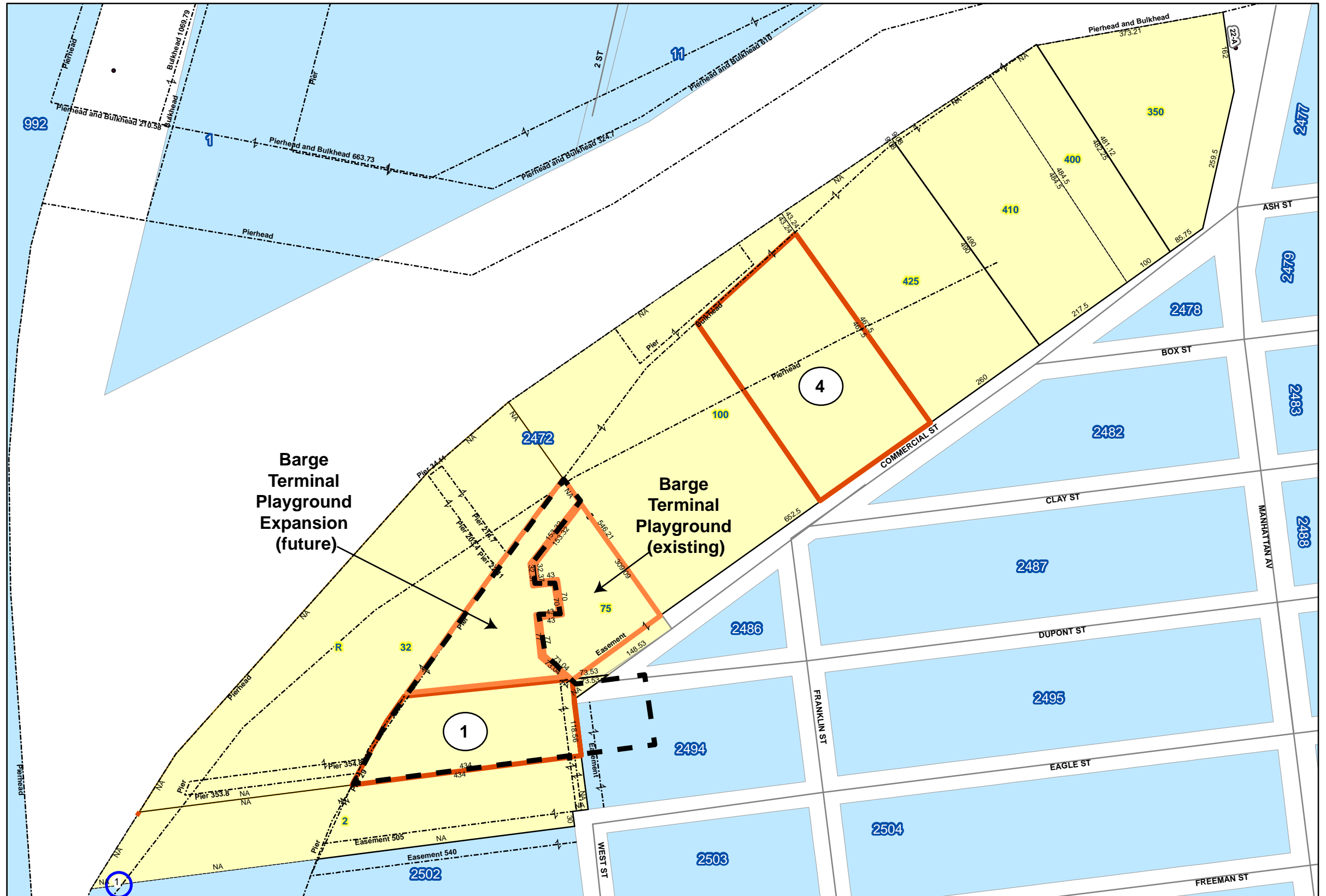


Legend

- Streets
- Miscellaneous Text
- ↕ Possession Hooks
- - - Boundary Lines
- ↕ Lot Face Possession Hooks
- Regular
- Underwater
- Yellow Tax Lot Polygon
- Blue Tax Block Polygon

**1** Projected Development Sites

**---** Boundary of City Parcel





NYC Digital Tax Map

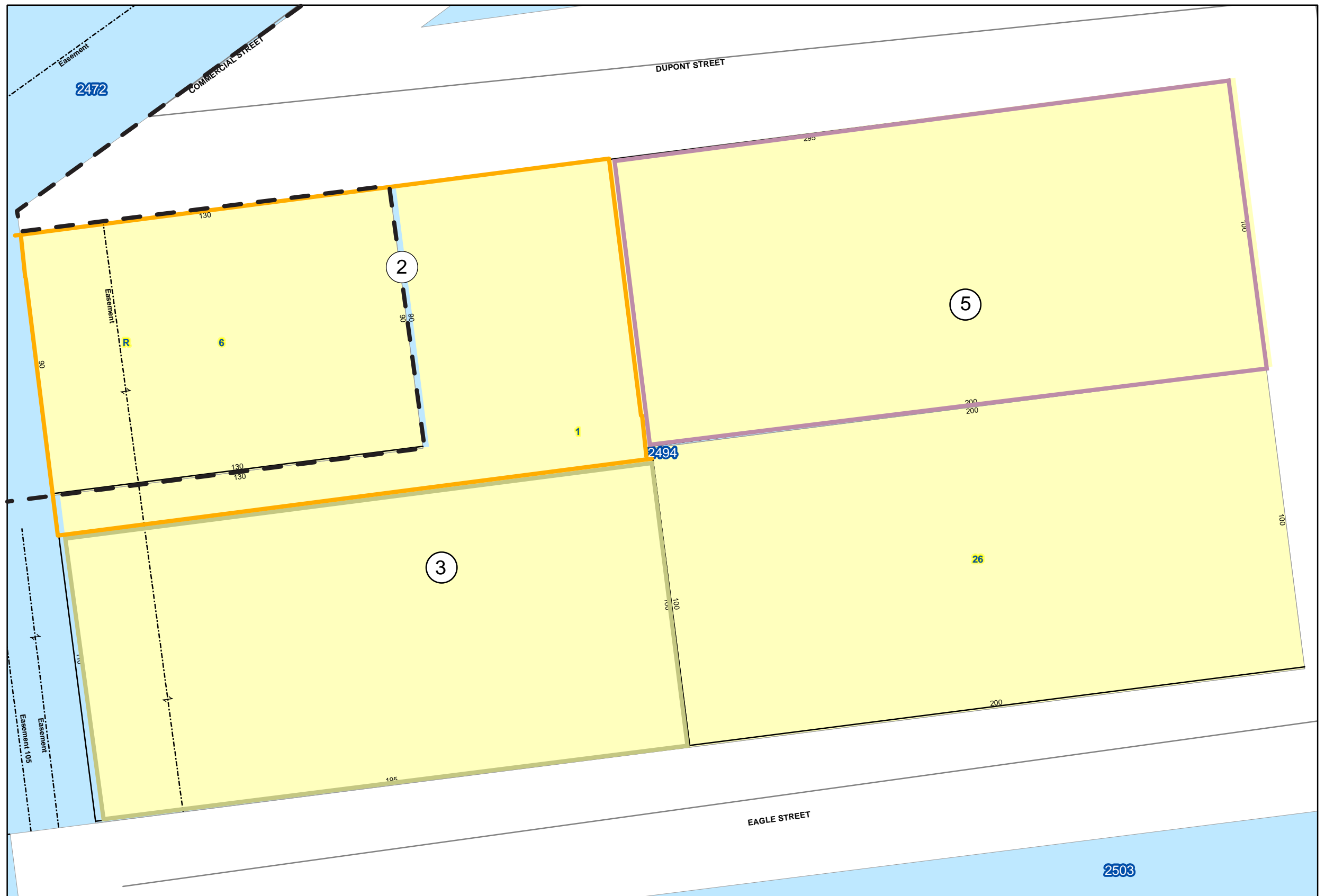
Effective Date : 06-14-2012 09:28:04  
End Date : Current  
Brooklyn Block: 2494

Legend

- Streets
- Miscellaneous Text
- Possession Hooks
- Boundary Lines
- Lot Face Possession Hooks
- Regular
- Underwater
- Tax Lot Polygon
- Condo Number
- Tax Block Polygon

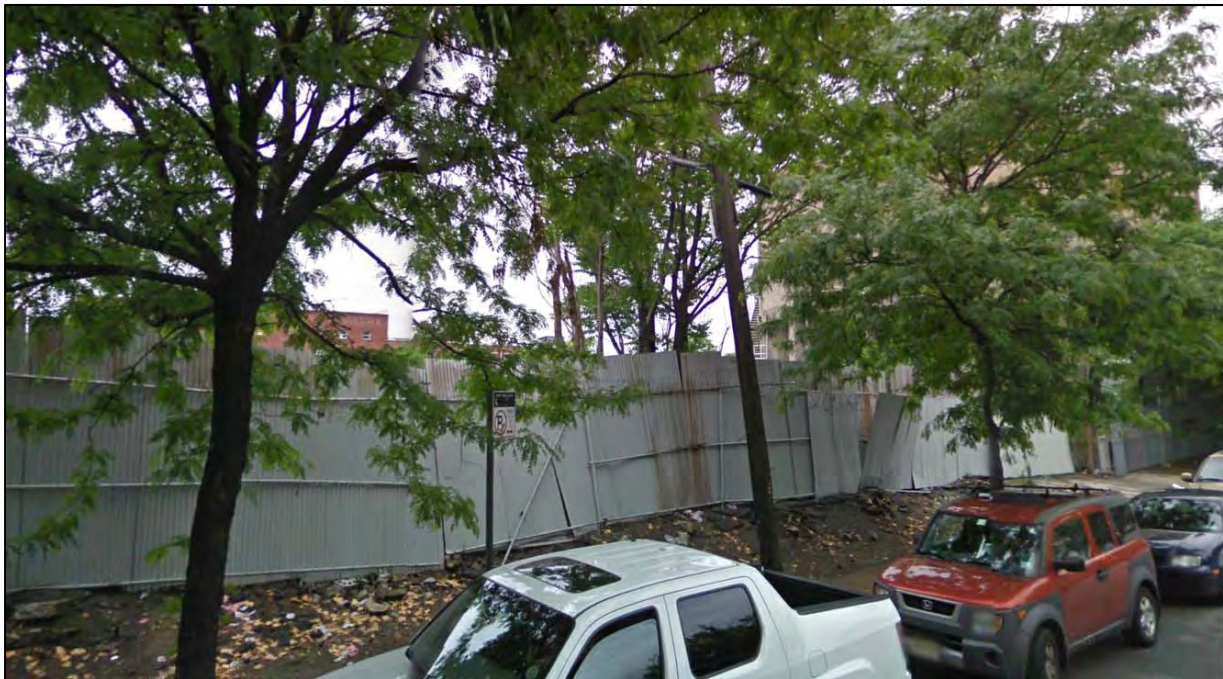
**3** Projected Development Sites

--- Boundary of City Parcel





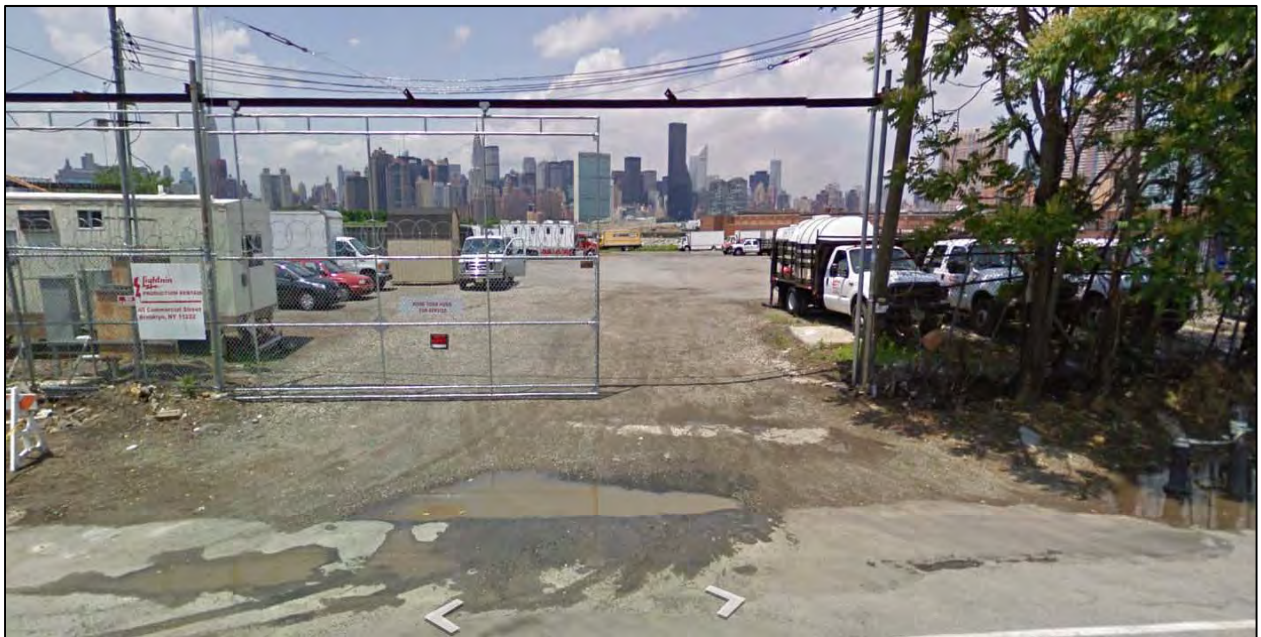
1: View of Projected Development Site 1 looking west from DuPont St.



2: View of Projected Development Site 2 looking south from DuPont St.



3: View of Projected Development Site 3 looking north from Eagle St.



4: View of Projected Development Site 4a/b looking northwest from Commercial St.



5: View of Projected Development Site 5 looking south from DuPont St.

**DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS**

The information requested in this table applies to the directly affected area. The directly affected area consists of the project site and the area subject to any change in regulatory control. The increment is the difference between the No-Action and the With-Action conditions.

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
<b>LAND USE</b>				
<b>Residential</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
If "yes," specify the following:				
Describe type of residential structures		Multi-family elevator apartments	Multi-family elevator apartments	
No. of dwelling units		769	1,476	707
No. of low- to moderate-income units		154	585	431
Gross floor area (sq. ft.)		660,202	1,266,284	606,082
<b>Commercial</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
If "yes," specify the following:				
Describe type (retail, office, other)		Ground floor retail	Ground floor retail	
Gross floor area (sq. ft.)		1,800	6,700	4,900
<b>Manufacturing/Industrial</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
If "yes," specify the following:				
Type of use	Open storage			
Gross floor area (sq. ft.)				
Open storage area (sq. ft.)	117,372 (est.)			
If any unenclosed activities, specify:				
<b>Community Facility</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
If "yes," specify the following:				
Type			School (PS/IS)	School (PS/IS)
Gross floor area (sq. ft.)			120,000 gsf	120,000 gsf
<b>Vacant Land</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
If "yes," describe:	Refer to Attachment A	Refer to Attachment A		
<b>Publicly Accessible Open Space</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
If "yes," specify type (mapped City, State, or Federal parkland, wetland—mapped or otherwise known, other):		waterfront publicly accessible open space (19,290 sf)	waterfront publicly accessible open (47,643 sf)	Increased waterfront publicly accessible open space (28,353 sf)
<b>Other Land Uses</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
If "yes," describe:	Refer to Attachment A			
<b>PARKING</b>				
<b>Garages</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces		323	576	253
Operating hours		24 hours	24 hours	
Attended or non-attended		Attended	Attended	
<b>Lots</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces				
Operating hours				
<b>Other</b> (includes street parking)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
If "yes," describe:				
<b>POPULATION</b>				
<b>Residents</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
If "yes," specify number:		2,007	3,852	1,845



	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
Briefly explain how the number of residents was calculated:	2.61 residents per unit, which is average household size for CD1 (2010 Census)			
<b>Businesses</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
If "yes," specify the following:				
No. and type	Refer to Attachment A	Local retail (1 or more establishment)	Local retail (3 or more establishments)	
No. and type of workers by business	Not available	5	20	15
No. and type of non-residents who are not workers		Patrons (non-residents), number not available	Patrons (non-residents), number not available	Not available
Briefly explain how the number of businesses was calculated:	No-Action: 1 projected development site with 1,800 gsf of local retail; With-Action: 3 projected development sites with 6,700 gsf of local retail			
<b>Students (non-resident)</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
If any, specify number:			640 elementary and intermediate students	640 elementary and intermediate students
Briefly explain how the number of students was calculated:	Based on information provided by NYC School Construction Authority for this project			

**ZONING**

Zoning classification	R6 and R8, with C2-4 overlay along sites' West Street and Commercial Street frontages	R6 and R8, with C2-4 overlay along sites' West Street and Commercial Street frontages	R6 and R8, with C2-4 overlay along sites' West Street and Commercial Street frontages	No zoning map change
Maximum amount of floor area that can be developed	Mixed residential/ community facility: 600,254 zsf; 749,845 zsf for com fac if no res. (for City Parcel; refer to Attachment A)	Mixed residential/ community facility: 600,254 zsf; 749,845 zsf for com fac if no res. (for City Parcel; refer to Attachment A)	Mixed residential/ community facility: 600,254 zsf; 749,845 zsf for com fac if no res. (for City Parcel; refer to Attachment A)	No change (refer to Attachment A for further details)
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	The area includes a mix of uses, including multi-unit residential, light industrial, commercial, two public parks, and land owned by GLA that is used by interim commercial and industrial tenants. Several properties are only partially occupied or used for low intensity uses such as storage. Zoning districts include R6, R8, R6A, R6B, M1-2/R6, and M1-2/R6A. C2-4 overlays mapped on R districts along West Street, Commercial Street, and Franklin Street.	GLA would redevelop 2 of the projected development sites with apartment buildings. GLA would also develop 2 other apartment buildings on adjoining properties, with waterfront open space. To the northeast, a waterfront site would be redeveloped with an apartment building and waterfront open space by another developer and to the east an upland site will also be redeveloped into a mixed-use development by another developer. The City would develop 2 new parks. There are no zoning map change applications pending.	As discussed in Attachment A, GLA would develop apartment buildings on 4 sites and, in partnership with SCA, would develop a public elementary-intermediate school on a 5th site. 2 of the 4 sites would be developed with affordable housing projects using development rights from the City Parcel. There would be no zoning map changes, although the proposed action would include zoning text amendments (refer to Attachment A for details).	Increasing trend toward residential, predominantly residential mixed-use, and public open space developments in place of industrial, commercial, and vacant properties, while some non-residential uses remain

Attach any additional information that may be needed to describe the project.

If your project involves changes that affect one or more sites not associated with a specific development, it is generally appropriate to include total development projections in the above table and attach separate tables outlining the reasonable development scenarios for each site.

**Part II: TECHNICAL ANALYSIS**

**INSTRUCTIONS:** For each of the analysis categories listed in this section, assess the proposed project’s impacts based on the thresholds and criteria presented in the CEQR Technical Manual. Check each box that applies.

- If the proposed project can be demonstrated not to meet or exceed the threshold, check the “no” box.
- If the proposed project will meet or exceed the threshold, or if this cannot be determined, check the “yes” box.
- For each “yes” response, provide additional analyses (and attach supporting information, if needed) based on guidance in the CEQR Technical Manual to determine whether the potential for significant impacts exists. Please note that a “yes” answer does not mean that an EIS must be prepared—it means that more information may be required for the lead agency to make a determination of significance.
- The lead agency, upon reviewing Part II, may require an applicant to provide additional information to support the Full EAS Form. For example, if a question is answered “no,” an agency may request a short explanation for this response.

	YES	NO
<b>1. LAND USE, ZONING, AND PUBLIC POLICY:</b> <a href="#">CEQR Technical Manual Chapter 4</a>		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Is there the potential to affect an applicable public policy?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) If “yes,” to (a), (b), and/or (c), complete a preliminary assessment and attach.		
(e) Is the project a large, publicly sponsored project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If “yes,” complete a PlaNYC assessment and attach.		
(f) Is any part of the directly affected area within the City’s Waterfront Revitalization Program boundaries?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o If “yes,” complete the <a href="#">Consistency Assessment Form</a> .		
<b>2. SOCIOECONOMIC CONDITIONS:</b> <a href="#">CEQR Technical Manual Chapter 5</a>		
(a) Would the proposed project:		
o Generate a net increase of more than 200 residential units or 200,000 square feet of commercial space?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ If “yes,” answer questions 2(b)(ii) and 2(b)(iv) below.		
o Directly displace 500 or more residents?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
▪ If “yes,” answer questions 2(b)(i), 2(b)(ii), and 2(b)(iv) below.		
o Directly displace more than 100 employees?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
▪ If “yes,” answer questions under 2(b)(iii) and 2(b)(iv) below.		
o Affect conditions in a specific industry?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
▪ If “yes,” answer question 2(b)(v) below.		
(b) If “yes” to any of the above, attach supporting information to answer the relevant questions below. If “no” was checked for each category above, the remaining questions in this technical area do not need to be answered.		
<b>i. Direct Residential Displacement</b>		
o If more than 500 residents would be displaced, would these residents represent more than 5% of the primary study area population?	<input type="checkbox"/>	<input type="checkbox"/>
o If “yes,” is the average income of the directly displaced population markedly lower than the average income of the rest of the study area population?	<input type="checkbox"/>	<input type="checkbox"/>
<b>ii. Indirect Residential Displacement</b>		
o Would expected average incomes of the new population exceed the average incomes of study area populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If “yes:”		
▪ Would the population of the primary study area increase by more than 10 percent?	<input type="checkbox"/>	<input type="checkbox"/>
▪ Would the population of the primary study area increase by more than 5 percent in an area where there is the potential to accelerate trends toward increasing rents?	<input type="checkbox"/>	<input type="checkbox"/>
o If “yes” to either of the preceding questions, would more than 5 percent of all housing units be renter-occupied and unprotected?	<input type="checkbox"/>	<input type="checkbox"/>
<b>iii. Direct Business Displacement</b>		
o Do any of the displaced businesses provide goods or services that otherwise would not be found within the trade area,	<input type="checkbox"/>	<input type="checkbox"/>

	YES	NO
either under existing conditions or in the future with the proposed project?	<input type="checkbox"/>	<input type="checkbox"/>
o Is any category of business to be displaced the subject of other regulations or publicly adopted plans to preserve, enhance, or otherwise protect it?	<input type="checkbox"/>	<input type="checkbox"/>
<b>iv. Indirect Business Displacement</b>		
o Would the project potentially introduce trends that make it difficult for businesses to remain in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Would the project capture retail sales in a particular category of goods to the extent that the market for such goods would become saturated, potentially resulting in vacancies and disinvestment on neighborhood commercial streets?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>v. Affects on Industry</b>		
o Would the project significantly affect business conditions in any industry or any category of businesses within or outside the study area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Would the project indirectly substantially reduce employment or impair the economic viability in the industry or category of businesses?	<input type="checkbox"/>	<input type="checkbox"/>
<b>3. COMMUNITY FACILITIES:</b> <a href="#">CEQR Technical Manual Chapter 6</a>		
<b>(a) Direct Effects</b>		
o Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, health care facilities, day care centers, police stations, or fire stations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>(b) Indirect Effects</b>		
<b>i. Child Care Centers</b>		
o Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in <a href="#">Chapter 6</a> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o If "yes," would the project result in a collective utilization rate of the group child care/Head Start centers in the study area that is greater than 100 percent?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o If "yes," would the project increase the collective utilization rate by 5 percent or more from the No-Action scenario?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>ii. Libraries</b>		
o Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in <a href="#">Chapter 6</a> )	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," would the project increase the study area population by 5 percent or more from the No-Action levels?	<input type="checkbox"/>	<input type="checkbox"/>
o If "yes," would the additional population impair the delivery of library services in the study area?	<input type="checkbox"/>	<input type="checkbox"/>
<b>iii. Public Schools</b>		
o Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in <a href="#">Chapter 6</a> )	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o If "yes," would the project result in a collective utilization rate of the elementary and/or intermediate schools in the study area that is equal to or greater than 100 percent?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o If "yes," would the project increase this collective utilization rate by 5 percent or more from the No-Action scenario?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>iv. Health Care Facilities</b>		
o Would the project result in the introduction of a sizeable new neighborhood?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," would the project affect the operation of health care facilities in the area?	<input type="checkbox"/>	<input type="checkbox"/>
<b>v. Fire and Police Protection</b>		
o Would the project result in the introduction of a sizeable new neighborhood?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," would the project affect the operation of fire or police protection in the area?	<input type="checkbox"/>	<input type="checkbox"/>
<b>4. OPEN SPACE:</b> <a href="#">CEQR Technical Manual Chapter 7</a>		
<b>(a)</b> Would the project change or eliminate existing open space?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>(b)</b> Is the project located within an under-served area in the <a href="#">Bronx</a> , <a href="#">Brooklyn</a> , <a href="#">Manhattan</a> , <a href="#">Queens</a> , or <a href="#">Staten Island</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>(c)</b> If "yes," would the project generate more than 50 additional residents or 125 additional employees?	<input type="checkbox"/>	<input type="checkbox"/>
<b>(d)</b> Is the project located within a well-served area in the <a href="#">Bronx</a> , <a href="#">Brooklyn</a> , <a href="#">Manhattan</a> , <a href="#">Queens</a> , or <a href="#">Staten Island</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>(e)</b> If "yes," would the project generate more than 350 additional residents or 750 additional employees?	<input type="checkbox"/>	<input type="checkbox"/>
<b>(f)</b> If the project is located in an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>(g)</b> If "yes" to questions (c), (e), or (f) above, attach supporting information to answer the following:		

	YES	NO
o If in an under-served area, would the project result in a decrease in the open space ratio by more than 1 percent?	<input type="checkbox"/>	<input type="checkbox"/>
o If in an area that is not under-served, would the project result in a decrease in the open space ratio by more than 5 percent?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," are there qualitative considerations, such as the quality of open space, that need to be considered? Please specify:	<input type="checkbox"/>	<input type="checkbox"/>
<b>5. SHADOWS:</b> <a href="#">CEQR Technical Manual Chapter 8</a>		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) If "yes" to either of the above questions, attach supporting information explaining whether the project's shadow would reach any sunlight-sensitive resource at any time of the year.		
<b>6. HISTORIC AND CULTURAL RESOURCES:</b> <a href="#">CEQR Technical Manual Chapter 9</a>		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the <a href="#">GIS System for Archaeology and National Register</a> to confirm)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources.		
<b>7. URBAN DESIGN AND VISUAL RESOURCES:</b> <a href="#">CEQR Technical Manual Chapter 10</a>		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) If "yes" to either of the above, please provide the information requested in <a href="#">Chapter 10</a> .		
<b>8. NATURAL RESOURCES:</b> <a href="#">CEQR Technical Manual Chapter 11</a>		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of <a href="#">Chapter 11</a> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o If "yes," list the resources and attach supporting information on whether the proposed project would affect any of these resources.		
(b) Is any part of the directly affected area within the <a href="#">Jamaica Bay Watershed</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," complete the <a href="#">Jamaica Bay Watershed Form</a> and submit according to its <a href="#">instructions</a> .		
<b>9. HAZARDOUS MATERIALS:</b> <a href="#">CEQR Technical Manual Chapter 12</a>		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Does the proposed project site have existing institutional controls (e.g., (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in <a href="#">Appendix 1</a> (including nonconforming uses)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (e.g., gas stations, oil storage facilities, heating oil storage)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(h) Has a Phase I Environmental Site Assessment been performed for the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: Refer to Attachment B	<input type="checkbox"/>	<input type="checkbox"/>
(i) Based on the Phase I Assessment, is a Phase II Investigation needed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>10. WATER AND SEWER INFRASTRUCTURE:</b> <a href="#">CEQR Technical Manual Chapter 13</a>		
(a) Would the project result in water demand of more than one million gallons per day?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	YES	NO
square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?		
(c) If the proposed project located in a <a href="#">separately sewered area</a> , would it result in the same or greater development than that listed in Table 13-1 in <a href="#">Chapter 13</a> ?	<input type="checkbox"/>	<input type="checkbox"/>
(d) Would the project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) If the project is located within the <a href="#">Jamaica Bay Watershed</a> or in certain <a href="#">specific drainage areas</a> , including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or contribute contaminated stormwater to a separate storm sewer system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(i) If "yes" to any of the above, conduct the appropriate preliminary analyses and attach supporting documentation.		
<b>11. SOLID WASTE AND SANITATION SERVICES:</b> <a href="#">CEQR Technical Manual Chapter 14</a>		
(a) Using Table 14-1 in <a href="#">Chapter 14</a> , the project's projected operational solid waste generation is estimated to be (pounds per week): 34,663		
o Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," would the proposed project comply with the City's Solid Waste Management Plan?	<input type="checkbox"/>	<input type="checkbox"/>
<b>12. ENERGY:</b> <a href="#">CEQR Technical Manual Chapter 15</a>		
(a) Using energy modeling or Table 15-1 in <a href="#">Chapter 15</a> , the project's projected energy use is estimated to be (annual BTUs): 101,331,479		
(b) Would the proposed project affect the transmission or generation of energy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>13. TRANSPORTATION:</b> <a href="#">CEQR Technical Manual Chapter 16</a>		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in <a href="#">Chapter 16</a> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) If "yes," conduct the appropriate screening analyses, attach back up data as needed for each stage, and answer the following questions:		
o Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? **It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of <a href="#">Chapter 16</a> for more information.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway/rail trips per station or line?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o Would the proposed project result in more than 200 pedestrian trips per project peak hour?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>14. AIR QUALITY:</b> <a href="#">CEQR Technical Manual Chapter 17</a>		
(a) <i>Mobile Sources:</i> Would the proposed project result in the conditions outlined in Section 210 in <a href="#">Chapter 17</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) <i>Stationary Sources:</i> Would the proposed project result in the conditions outlined in Section 220 in <a href="#">Chapter 17</a> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in <a href="#">Chapter 17</a> ? (Attach graph as needed)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Does the proposed project involve multiple buildings on the project site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Does the proposed project site have existing institutional controls (e.g., (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation.		
<b>15. GREENHOUSE GAS EMISSIONS:</b> <a href="#">CEQR Technical Manual Chapter 18</a>		
(a) Is the proposed project a city capital project or a power generation plant?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the proposed project fundamentally change the City's solid waste management system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Would the proposed project result in the development of 350,000 square feet or more?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	YES	NO
(d) If "yes" to any of the above, would the project require a GHG emissions assessment based on guidance in <a href="#">Chapter 18</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," would the project result in inconsistencies with the City's GHG reduction goal? (See <a href="#">Local Law 22 of 2008</a> ; § 24-803 of the Administrative Code of the City of New York). Please attach supporting documentation.	<input type="checkbox"/>	<input type="checkbox"/>

**16. NOISE:** [CEQR Technical Manual Chapter 19](#)

(a) Would the proposed project generate or reroute vehicular traffic?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Would the proposed project introduce new or additional receptors (see Section 124 in <a href="#">Chapter 19</a> ) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Does the proposed project site have existing institutional controls (e.g., (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation.		

**17. PUBLIC HEALTH:** [CEQR Technical Manual Chapter 20](#)

(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in <a href="#">Chapter 20</a> , "Public Health." Attach a preliminary analysis, if necessary.		

**18. NEIGHBORHOOD CHARACTER:** [CEQR Technical Manual Chapter 21](#)

(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in <a href="#">Chapter 21</a> , "Neighborhood Character." Attach a preliminary analysis, if necessary. Refer to Attachment B, Supplemental Screening for preliminary assessment		

**19. CONSTRUCTION:** [CEQR Technical Manual Chapter 22](#)

(a) Would the project's construction activities involve:		
o Construction activities lasting longer than two years?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o The operation of several pieces of diesel equipment in a single location at peak construction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o Closure of a community facility or disruption in its services?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Activities within 400 feet of a historic or cultural resource?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Disturbance of a site containing or adjacent to a site containing natural resources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in <a href="#">Chapter 22</a> , "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination. Refer to Attachment I, Construction		

**20. APPLICANT'S CERTIFICATION**

I swear or affirm under oath and subject to the penalties for perjury that the information provided in this Environmental Assessment Statement (EAS) is true and accurate to the best of my knowledge and belief, based upon my personal knowledge and familiarity with the information described herein and after examination of the pertinent books and records and/or after inquiry of persons who have personal knowledge of such information or who have examined pertinent books and records.


Still under oath, I further swear or affirm that I make this statement in my capacity as the applicant or representative of the entity that seeks the permits, approvals, funding, or other governmental action(s) described in this EAS.

APPLICANT/REPRESENTATIVE NAME Greenpoint Landing Assocs/Philip Habib, PE	SIGNATURE 	DATE 11/6/13
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**PLEASE NOTE THAT APPLICANTS MAY BE REQUIRED TO SUBSTANTIATE RESPONSES IN THIS FORM AT THE DISCRETION OF THE LEAD AGENCY SO THAT IT MAY SUPPORT ITS DETERMINATION OF SIGNIFICANCE.**

**Part III: DETERMINATION OF SIGNIFICANCE (To Be Completed by Lead Agency)**

**INSTRUCTIONS:** In completing Part III, the lead agency should consult 6 NYCRR 617.7 and 43 RCNY § 6-06 (Executive Order 91 or 1977, as amended), which contain the State and City criteria for determining significance.

<p>1. For each of the impact categories listed below, consider whether the project may have a significant adverse effect on the environment, taking into account its (a) location; (b) probability of occurring; (c) duration; (d) irreversibility; (e) geographic scope; and (f) magnitude.</p>		<p><b>Potentially Significant Adverse Impact</b></p>	
<p><b>IMPACT CATEGORY</b></p>		<p><b>YES</b></p>	<p><b>NO</b></p>
Land Use, Zoning, and Public Policy		<input type="checkbox"/>	<input type="checkbox"/>
Socioeconomic Conditions		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Community Facilities and Services		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Open Space		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Shadows		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Historic and Cultural Resources		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Urban Design/Visual Resources		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Natural Resources		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hazardous Materials		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Water and Sewer Infrastructure		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Solid Waste and Sanitation Services		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Energy		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Transportation		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Air Quality		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Greenhouse Gas Emissions		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Noise		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Public Health		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Neighborhood Character		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Construction		<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>2. Are there any aspects of the project relevant to the determination of whether the project may have a significant impact on the environment, such as combined or cumulative impacts, that were not fully covered by other responses and supporting materials?</p> <p>If there are such impacts, attach an explanation stating whether, as a result of them, the project may have a significant impact on the environment.</p>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>3. Check determination to be issued by the lead agency:</p> <p><input type="checkbox"/> <b>Positive Declaration:</b> If the lead agency has determined that the project may have a significant impact on the environment, and if a Conditional Negative Declaration is not appropriate, then the lead agency issues a <i>Positive Declaration</i> and prepares a draft Scope of Work for the Environmental Impact Statement (EIS).</p> <p><input type="checkbox"/> <b>Conditional Negative Declaration:</b> A <i>Conditional Negative Declaration</i> (CND) may be appropriate if there is a private applicant for an Unlisted action AND when conditions imposed by the lead agency will modify the proposed project so that no significant adverse environmental impacts would result. The CND is prepared as a separate document and is subject to the requirements of 6 NYCRR Part 617.</p> <p><input checked="" type="checkbox"/> <b>Negative Declaration:</b> If the lead agency has determined that the project would not result in potentially significant adverse environmental impacts, then the lead agency issues a <i>Negative Declaration</i>. The <i>Negative Declaration</i> may be prepared as a separate document (see <a href="#">template</a>) or using the embedded Negative Declaration on the next page.</p>			
<p><b>4. LEAD AGENCY'S CERTIFICATION</b></p>			
TITLE		LEAD AGENCY	
Director, Environmental Assessment and Review Division		NYC Department of City Planning	
NAME		DATE	
Robert Dobruskin, AICP		November 6, 2013	
SIGNATURE			
			

**Statement of No Significant Effect**

Pursuant to Executive Order 91 of 1977, as amended, and the Rules of Procedure for City Environmental Quality Review, found at Title 62, Chapter 5 of the Rules of the City of New York and 6 NYCRR, Part 617, State Environmental Quality Review, [ ] assumed the role of lead agency for the environmental review of the proposed project. Based on a review of information about the project contained in this environmental assessment statement and any attachments hereto, which are incorporated by reference herein, the lead agency has determined that the proposed project would not have a significant adverse impact on the environment.

**Reasons Supporting this Determination**

The above determination is based on information contained in this EAS, which that finds the proposed project:

No other significant effects upon the environment that would require the preparation of a Draft Environmental Impact Statement are foreseeable. This Negative Declaration has been prepared in accordance with Article 8 of the New York State Environmental Conservation Law (SEQRA).

TITLE	LEAD AGENCY	
NAME	SIGNATURE	DATE



**ATTACHMENT A  
PROJECT DESCRIPTION**

## **A. INTRODUCTION**

This Environmental Assessment Statement (EAS) has been prepared in support of a Land Use Review Application jointly filed with the NYC Department of City Planning (DCP) by Greenpoint Landing Associates, LLC (GLA), NYC Department of Housing Preservation and Development (HPD), and DCP for several actions collectively referred to as the “proposed action.”<sup>1</sup> The City Planning Commission (CPC) is serving as the lead agency for environmental review.

GLA is developing Greenpoint Landing, an as-of-right development project on property it owns on the Greenpoint waterfront in Brooklyn Community District 1. In addition to the as-of-right development, GLA and the City of New York (“the City”) are submitting an application for the disposition of approximately 73,389 square feet (sf) of City-owned property adjoining sites controlled by GLA and the conveyance of development rights generated by an additional approximately 59,676 sf of City-owned land not being acquired by GLA. In addition, GLA is applying for additional discretionary actions to facilitate related development that would be integrated into the Greenpoint Landing development. For the purposes of environmental review, the “Proposed Project” consists of the development that would occur as a consequence of the proposed actions; it does not include the as-of-right development of other parcels owned by GLA.

The actions, if approved, will allow for the redevelopment of underutilized, partially vacant waterfront property currently containing open vehicle and equipment storage and a sludge tank with a mixed-use, primarily residential development including four apartment buildings, affordable housing, a new public school building, and new publicly accessible open space. The development rights associated with the Proposed Project amount to approximately 600,000 square feet, and would generate at least 431 affordable housing units and up to 276 market rate

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<sup>1</sup> This Revised EAS, which supersedes the original EAS issued on July 19, 2013, has been issued to reflect refinements to the applicant’s proposal, related to certain aspects of the development facilitated by the proposed action. The refinements resulted in updates to the following impact categories: Hazardous Materials, Air Quality, Community Facilities, Construction and Noise. As a result of these revised analyses the proposed project components related to the environment (PCRE) pertaining to Community Facilities, Construction and Noise have changed, and the Hazardous Materials, Noise and Air Quality (E) designation requirements have been updated, in order to reflect the development as refined in the revised EAS. The analysis concludes that the proposed refinements would not result in any significant adverse environmental impacts, as was the case in the EAS filed on July 19, 2013 for the proposed project.

units, for a total of 707 dwelling units.<sup>2</sup> In addition, the Proposed Project would include the opening of a one block, 200-foot long section of West Street between DuPont Street and Eagle Street (this is currently a mapped street but is not built). This proposed new street segment is referred to as the “West Street Extension.”

The development sites affected by the proposed action are referred to as *Projected Development Sites 1 - 5* and collectively are also referred to as the “Project Site”. These are:

- (1) City-owned property to be developed by the applicant – *Projected Development Sites 1 (Block 2472, p/o 32) and 2 (B 2494, p/o L 1, 6)* (the latter includes a mix of City-owned and applicant-owned property);
- (2) Properties currently owned by the applicant that would be allowed to utilize development rights acquired from the City for affordable housing projects – *Projected Development Sites 3 (B 2494, p/o L 1) and 4 (B 2472, p/o L 100)*; and
- (3) Property currently owned by the applicant that would be acquired by the School Construction Authority (SCA) on which a public school would be developed – *Projected Development Site 5 (B 2494, p/o L 1)*.

**Table A-1, Projected Development Sites**

Projected Dev. Site	Block & Lot(s)	Address	Total Site Area (SF)	Existing Use	Zoning District	WAP Parcel	Present Owner
1	B 2472, p/o L 32	219 West St.	61,675	Storage, DEP dock	R6 (13,775 sf) R8 (47,900 sf) C2-4 (125' on West St)	Existing: 5b ----- Proposed: 5b	City
2	B 2494, p/o L 1, 6	16-20 DuPont St.	24,941	DEP sludge tank, storage	R8 (all) C2-4 (100' on West St)	Existing: 5b/5c ----- Proposed: 5b/5d	GLA, City <sup>1</sup>
3	B 2494, p/o L 1	31 Eagle St.	20,268	Storage	R8 (all) C2-4 (100' on West St)	Existing: 5c ----- Proposed: 5d	GLA
4	B 2472, p/o L 100	45 Commercial St.	106,417	Storage	R6 (49,642 sf) R8 (56,775 sf)	Existing: 5a ----- Proposed: 5a	GLA
5	B 2494, p/o L 1	237-241 Franklin St.	20,025	Storage	R6 (all)	Existing: 5c ----- Proposed: 5d	GLA

<sup>1</sup> Projected Development Site 2 includes 11,714 sf of currently City-owned property (Block 2494, Lot 6) and 13,227 sf of currently GLA-owned property (Block 2494, part of Lot 1).

<sup>2</sup> Recent surveys of the City Parcel demonstrate that the portion of Lot 32 not already improved as part of the street system is somewhat smaller than originally assumed for this EAS, and as a result would generate approximately 589,481 square feet of floor area and would allow for an increment of approximately 694 dwelling units (including the 431 POA affordable housing units) rather than the 707 analyzed in this EAS. Because the addition of 707 dwelling units reflects a more conservative reasonable worst case scenario, this EAS reflects an increment of 707 dwelling units in the analyses.

The as-of-right development on other properties owned by GLA near the Project Site is not the subject of this EAS or the proposed action.

Part of the Project Site is currently owned by the City (Projected Development Site 1 and part of Projected Development Site 2) and part of the Project Site is currently owned by GLA (Projected Development Sites 3, 4, and 5, and part of Projected Development Site 2). The portions of the Project Site currently owned by the City (i.e., Projected Development Site 1 and a portion of Projected Development Site 2) would not be redeveloped in the absence of the disposition of those sites to GLA and the proposed action. The portion of the Project Site currently owned by GLA could be developed by GLA on an as-of-right basis in the absence of the transfer of development rights from Projected Development Site 1, the portion of Lot 32 in Block 2472 that would be retained by the City and the City-owned portion of Projected Development Site 2 that is part of the proposed action. For the purpose of this environmental review, the Proposed Project consists of the maximum development that would occur as a result of the actions proposed in the application as compared to what GLA may develop on an as-of-right basis on the property it owns. This increase in development is sometimes referred to as the “project increment.”

The Project Site is located in two underlying zoning districts: R6 and R8, with C2-4 overlay districts along some street frontages. In addition to these mapped zoning districts, development on these sites is regulated by special regulations for the Waterfront Access Plan BK-1 in Article VI, Chapter 2 of the Zoning Resolution, including an Inclusionary Housing Program zoning bonus (refer to Attachment C, “Land Use, Zoning, and Public Policy”).

It is expected that by 2020 GLA would complete all of the incremental development generated by the proposed action as well as a portion of the development allowed on as-of-right basis and that after 2020 the rest of the Greenpoint Landing project on other sites would be completed on an as-of-right basis.

### Project Components Related to the Environment

In addition to the Proposed Project, several improvements that would eliminate the potential for significant adverse impacts are proposed by GLA, also referred to as project components related to the environment (PCRE). The first PCRE concerns the provision of child care for children from eligible households. In accordance with the terms of legal documents recorded on the sites of the 431 affordable units constructed pursuant to the disposition of City-owned property, GLA would provide funding for publicly-funded child care to the extent determined to be required by the Administration for Children's Services (ACS) after an assessment to be conducted at the time of application for a building permit for construction which would result in occupancy of 126 affordable housing units for residents whose incomes are at or below 80 percent of area median income (AMI). The second PCRE is an additional high entry/exit turnstile that would be added to the fare array located at the India Street entrance to the northbound platform of the Greenpoint Avenue subway station to increase fare array capacity at that location. This would be installed by MTA NYC Transit and paid for by GLA. This obligation would be fulfilled when MTA NYC Transit advises that the level of construction of the project is such that implementation is required. Additional improvements to prevent potential impacts include construction noise

barriers (referenced in Table J-9, Summary of Recommended Construction Barriers on page J-25 of Attachment J, “Construction”), implementation of diesel particulate matter (DPM) emissions and utilization of best available technologies and Tier 3 or newer equipment during construction.

Additionally, to avoid the potential for significant adverse impacts related to hazardous materials, air quality and noise, an (E) designation (E-317), has been incorporated into the Proposed Project as described below. This new (E) designation supersedes an (E) designation (E-138) previously assigned to the affected area pursuant to the prior Greenpoint Williamsburg rezoning (CEQR No. 04DCP003K). Because Projected Development Site 5 is subject to acquisition by the SCA, a Memorandum of Understanding will be entered into with SCA to implement any necessary environmental controls. Refer to the “hazardous materials” and “noise” sections of Attachment B, “Supplemental Screening” and Attachment I, “Air Quality,” for the applicable (E) designation text.

## **B. PROJECT AREA EXISTING CONDITIONS**

Greenpoint is located at the northwestern tip of Brooklyn, directly south of Long Island City, Queens on the other side of Newtown Creek. The East River and Newtown Creek form the neighborhood’s western, northern, and eastern boundaries. Greenpoint is served by the G subway line, connecting to Kensington in Brooklyn and points in Queens, the B24, B32, B43, and B62 bus routes connecting Greenpoint with other Brooklyn neighborhoods and Long Island City, Queens, and the East River Ferry, which provides service to midtown and downtown Manhattan, Long Island City, and other neighborhoods along the river in Brooklyn.

The blocks immediately surrounding the Project Site along the waterfront and north of Box Street were developed with industrial uses in the nineteenth century. These industries included ship building, metal and glass production, and oil and sugar refining. Industry in this area declined steadily throughout the twentieth century, though there are still some general commercial and light industrial uses remaining today.

Among the historic uses on the Project Site were lumber yards, iron works, and porcelain factories in the nineteenth century and barge terminal and coal storage in the twentieth century. Its recent uses have included a lumber yard, vehicle and open storage and use as a television filming set.

The Project Site was rezoned from manufacturing districts to residential districts with commercial overlays along certain street frontages as part of the City-initiated Greenpoint Williamsburg Rezoning adopted in 2005. In addition, the Project Site formed part of the Greenpoint-Williamsburg Waterfront Access Plan, also designated WAP BK-1, which identified special regulations for height, bulk, floor area distribution, streetscape, and waterfront access. The WAP BK-1 also includes an Inclusionary Housing floor area bonus. (Refer to Attachment C, “Land Use, Zoning, and Public Policy,” for further information.)

## City Parcel

The City Parcel consists of 133,065 sf of City-owned property including Block 2472, Lot 32, consisting of an approximately 121,351-sf property located at 219 West Street and Block 2494, Lot 6, an approximately 11,714-sf property located at 16 DuPont Street. The boundary of the City Parcel is shown in Figure A-1. As discussed below in Section C, “Proposed Action,” the City Parcel consists of two areas:

- A. A 73,389-sf area that would be allowed to be disposed by the City to GLA. This area is discussed below in the description of the Project Site as Projected Development Site 1 and a portion of Projected Development Site 2.
- B. A 59,676-sf area that would be retained by the City. The development rights generated by this area would be transferred to GLA for use in the Greenpoint Landing development. This area is discussed below in the description of the Newtown Barge Playground Expansion Area.

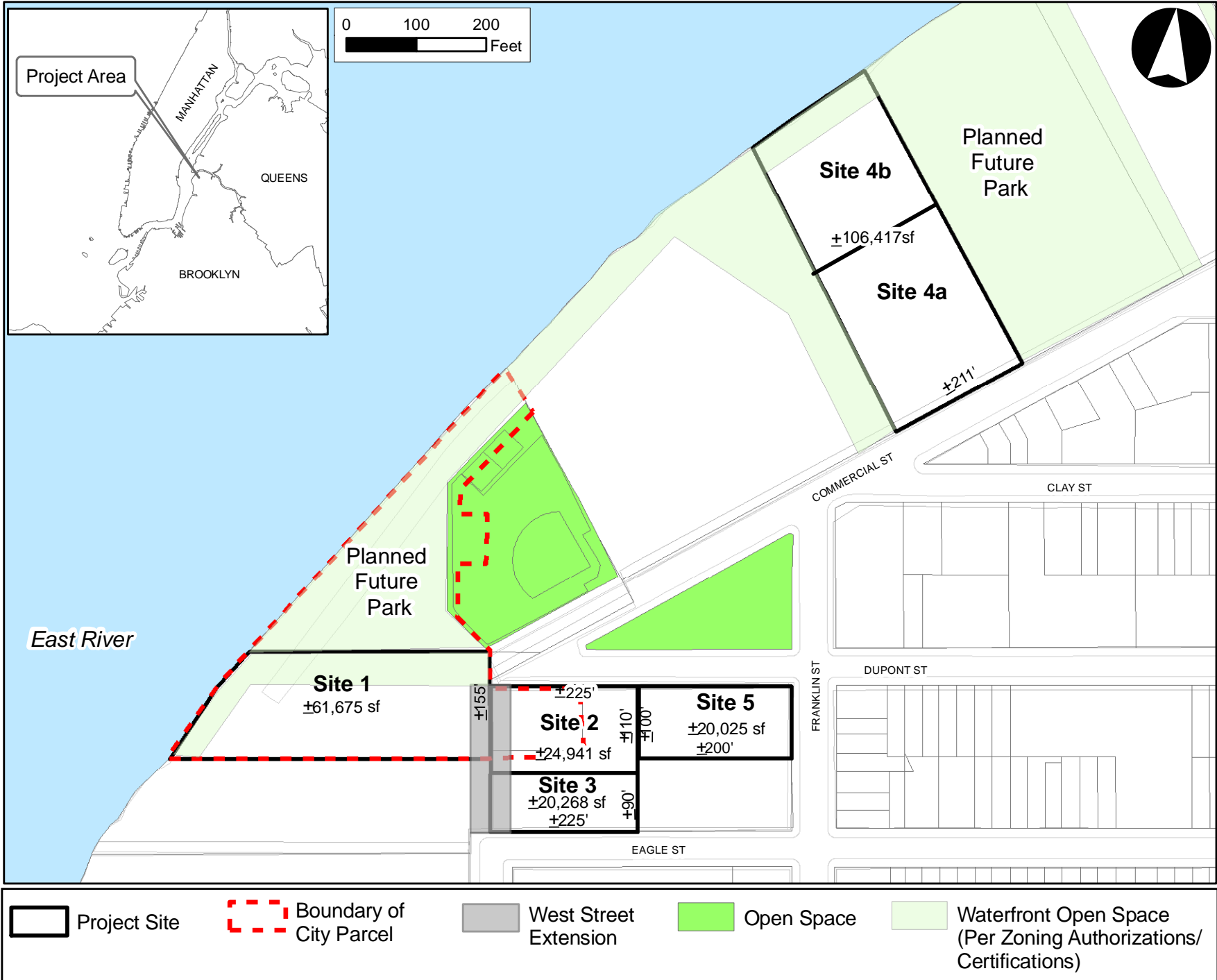
It should be noted the boundary of the City Parcel is currently coextensive with the boundary of Parcel 5b designated in the WAP BK-1.

## Project Site

The Project Site consists of five projected development sites. Information on these sites is summarized in Table A-1 in Section A, “Introduction,” and their location is shown in Figure A-1. Photographs of these sites are provided in Figure 5 attached to the EAS Form. Figure 1 attached to the EAS Form shows an annotated aerial photograph of the Project Site and vicinity.

### Projected Development Site 1

Projected Development Site 1 is roughly rectangular-shaped, has a lot area of approximately 61,675 sf, and is located at 219 West Street (Block 2472, part of Lot 32). It is City-owned and is currently vacant apart from some equipment storage. On the north it is bounded by City-owned land currently used to support DEP barging facilities along the waterfront and is slated as the Newtown Barge Playground Expansion Area. On the east it is bounded by Projected Development Sites 2 and 3 and the eastern boundary coincides with the centerline of the mapped, but unbuilt West Street. On the south it is bounded by a GLA-owned property (Block 2472, Lot 2). On the west it is bounded by the East River. Currently its only frontage on a built public street is located at the intersection of DuPont Street and Commercial Street, but under With-Action conditions with the opening of the West Street Extension, it would have frontage on West Street. As with the rest of the projected development sites, historically this site has been used for a variety of industrial uses since the nineteenth century. These past uses include being part of a New York State Barge Canal Terminal facility in the early twentieth century, which is commemorated by the nearby Newtown Barge Playground, a public park located immediately northeast of the site (Block 2472, Lot 75). A loading dock for DEP sludge vessels lines a portion of the shoreline adjacent to the site and extends further north along the adjoining Newtown Barge Playground Expansion Area.



Projected Development Site 1 is located in an R6 zoning district, covering 13,775 sf, and an R8 zoning district, covering 47,900 sf. There is a C2-4 commercial overlay along the site's West Street frontage to a depth of 125 feet.

Projected Development Site 2

Projected Development Site 2 (Block 2494, Lot 6 and part of Lot 1) is rectangular-shaped, approximately 225 feet long and 110 feet wide, with a lot area of approximately 24,941 sf. Its address is 16-20 DuPont Street. On the north, it is bounded by DuPont Street, with approximately 195 feet of street frontage. On the east and south it is bounded by the GLA-owned Projected Development Sites 5 and 3, respectively. On the west it is bounded by City-owned Projected Development Site 1. The western boundary coincides with the centerline of the mapped, but unbuilt West Street. Projected Development Site 2 currently includes a mix of City-owned and GLA-owned property. The 11,714-sf City-owned portion of Projected Development Site 2 is occupied by an approximately 65-foot tall NYC Department of Environmental Protection (DEP) holding tank for sludge. Sludge held in the tank is conveyed to it from the Newtown Creek Water Pollution Control Plant (WPCP) via a sludge force main. Sludge held in the tank is then conveyed via the sludge force main to a nearby loading dock along the City Parcel (Projected Development Site 1 and the Newtown Barge Playground Expansion Area) where it is loaded onto sludge vessels for transport to other WPCPs for dewatering and further treatment. The 13,227-sf GLA-owned portion of Projected Development Site 2 is vacant, apart from some storage use.

Projected Development Site 2 is zoned R8, with a C2-4 overlay along the site's West Street frontage to a depth of 100 feet.

Projected Development Site 3

Projected Development Site 3 (Block 2494, part of Lot 1), is owned by GLA. It is rectangular-shaped, approximately 225 feet long and approximately 90 feet wide, with a lot area of approximately 20,268 sf. Its address is 31 Eagle Street. On the north it is bounded by Projected Development Site 2. On the east it is bounded by 231-233 Franklin Street (Block 2494, Lot 26), a 20-DU, 3-story apartment building. On the south it is bounded by Eagle Street, with approximately 195 feet of street frontage. On the west it is bounded by GLA-owned property (Block 2472, Lot 2). The western boundary coincides with the centerline of the mapped, but unbuilt West Street. The site is vacant, apart from some storage use.

Projected Development Site 3 is zoned R8, with a C2-4 overlay along the site's West Street frontage to a depth of 100 feet.

Projected Development Site 4 (4a/4b)

Projected Development Site 4 (Block 2472, part of Lot 100) is also owned by GLA. It is roughly rectangular shaped, has a lot area of approximately 106,417 sf. Its address is 45 Commercial Street. On the north it is bounded by Newtown Creek. On the east it is bounded by 65



Commercial Street, which is City-owned and currently used as a storage lot for Metropolitan Transportation Authority (MTA) Access-a-Ride vehicles and NYC Transit’s Emergency Response Unit. On the south it is bounded by Commercial Street, with approximately 211 feet of street frontage. On the west it is bounded by 37 Commercial Street (Block 2472, part of Lot 100), which is also owned by GLA. It is used as a storage area by Lightnin Production Rentals, Inc., a GLA tenant which rents mobile vehicles and equipment to the motion picture industry.

Projected Development Site 4 is located in an R6 zoning district, covering 49,642 sf, and an R8 zoning district, covering 56,775 sf. There is a C2-4 commercial overlay along the site’s Commercial Street frontage to a depth of 100 feet.

For purposes of describing the proposed action, Projected Development Site 4 is divided into two parts: 4a and 4b. As discussed below in Section D, “Proposed Project/Reasonable Worst Case Development Scenario,” Projected Development Site 4 would be developed with three adjacent buildings. Two of the buildings would have frontage along Commercial Street and the area occupied by these buildings and adjoining opens areas is identified as Site 4a. The third building would be located north of the other two buildings and would be adjacent to the site’s shore public walkway. The footprint and adjoining open areas occupied by the third building is identified as Site 4b, which is an as-of-right GLA building.

Projected Development Site 5

Projected Development Site 5 (Block 2494, part of Lot 1) is also owned by GLA. It is rectangular-shaped, approximately 200 feet by 100 feet, with a lot area of approximately 20,025 sf. Its address is 237-241 Franklin Street. On the north it is bounded by DuPont Street, with 200 feet of street frontage. On the east it is bounded by Franklin Street, with 100 feet of street frontage. On the south it is bounded by the 231-233 Franklin Street. On the west it is bounded by Projected Development Site 2. The site is vacant, apart from some storage use. In the recent past it has housed a towing company.

Projected Development Site 5 is zoned R6.

West Street Extension

The approximately 12,000-sf West Street Extension consists of the existing 60-foot wide mapped segment of West Street, which extends for one block from Eagle Street to DuPont Street, a distance of 200 feet. Although it appears on the City Map, it is not built and physically it is incorporated into the adjoining properties. This environmental analysis conservatively assumes that the floor area generated by the West Street Extension would be available to GLA for use on the Project Site under With-Action conditions. Consistent with this assumption, the eastern boundary of Projected Development Site 1 and Block 2472, Lot 1 encompasses the western 6,000-sf half of the West Street Extension and the western boundaries of Projected Development Sites 2 and 3 encompasses the eastern 6,000-sf half of the Western Street Extension. The West Street Extension is shown in Figure A-1.

### **Newtown Barge Playground Expansion Area**

The 59,676-sf portion of the City Parcel that would remain under City ownership as part of the proposed action is currently a mostly vacant area, although there is some storage use. In addition, as discussed above, NYC DEP operates a dock along the shoreline of this property and the adjoining Projected Development Site 1. A below-grade sludge force main extends from the nearby sludge tank (on Projected Development Site 2) through this property to the dock where sludge is loaded into sludge vessels. In addition, an approximately 3,010-sf rectangular (43 feet by 70 feet) portion of this property is functionally part of an existing park as it is located inside the fence-line of the Newtown Barge Playground and is primarily occupied by a basketball court. As discussed below in Section C, “Proposed Action,” with the proposed action the development rights generated by this property would be transferred to GLA. The City has committed to convert this property into an expansion of the adjoining Newtown Barge Playground independent of the proposed action (therefore this park expansion is considered a No-Action development for the environmental review purposes). With this addition, the existing park would be expanded from approximately 0.98 acres to approximately 2.27 acres. Refer to Figure 1 attached to the EAS Form for an aerial view of this area.

### **Greenpoint Landing As-of-Right Property Not Directly Affected by the Proposed Action**

In addition to the five projected development sites, GLA owns and plans to develop other adjoining parcels on an as-of-right basis. These additional parcels, referred to as the “As-of-right Properties” consist of two separate contiguous areas. These include: (1) parcels immediately west of Projected Development Site 4, which are expected to be developed on an as-of-right basis by 2020, i.e., by the same time as the projected developments sites; and (2) parcels located south of Projected Development Site 1, which are also expected to be developed on an as-of-right basis after 2020, i.e., after the projected development sites. As such, GLA plans to develop these parcels over a period of 10 to 12 years. This environmental review focuses on the incremental changes in conditions that would be generated by the proposed action on the five projected development sites and not on the as-of-right development that would occur on these other sites either with or without the proposed action but includes this additional development as part of the 2020 No-Action condition.

Although these sites are not part of the Project Site and they would not be affected by the proposed action, some basic information is provided regarding the As-of-right Properties. The locations of the As-of-right Properties are also shown in Figure 1 attached to the EAS Form.

#### As-of-right Property to be Developed by 2020

The As-of-right Property to be developed by 2020 is located at 37 Commercial Street (Block 2472, part of Lot 100). On the north it is bounded by Newtown Creek/East River. On the east it is bounded by Projected Development Site 4. On the south it is bounded by Commercial Street, with approximately 441 feet of street frontage. On the west it is bounded by Newtown Barge Playground and a small panhandle of the Newtown Barge Playground Expansion Area. This property has a lot area of approximately 159,633 sf and is currently vacant apart from some

storage and short-term commercial tenants. It is located in R6 and R8 zoning districts with a C2-4 overlay along Commercial Street to a depth of 100 feet.

Refer to Attachment C, “Land Use, Zoning, and Public Policy,” for a detailed description of the No-Build developments on this property expected by 2020 at 37 Commercial Street, located immediately west of Projected Development Site 4 and immediately east of Newtown Barge Playground. They would include a total of approximately 898 market rate DUs, 189 affordable housing DUs, for a total of approximately 1,087 DUs, approximately 3,300 gsf of local retail space, approximately 461 accessory parking spaces, and approximately 35,336 sf of publicly accessible open space.

#### As-of-Right Property to be Developed After 2020

The As-of-Right Property to be developed after 2020 is located at 171 West Street (Block 2472, Lot 2; Block 2502, Lot 1; Block 2510, Lot 1; and Block 2520, Lot 57). On the north it is bounded by Projected Development Site 1. On the east it is bounded by West Street, with approximately 780 feet of street frontage. On the south it is bounded by 161 West Street (Block 2520, Lot 1). On the west it is bounded by the East River. The property includes the Green Street Pier. This property has a lot area of approximately 498,805 sf and is currently vacant apart from some storage and short-term commercial tenants. It is located in R6 and R8 zoning districts with a C2-4 overlay along West Street with varying depths. This area is located in Parcel 5c of the WAP BK-1.

GLA plans several as-of-right developments on this property, however all are expected to occur after the completion of the Proposed Project.

### **C. PROPOSED ACTION**

The applicants are seeking several discretionary approvals that collectively form the proposed action. These include: (1) Urban Development Action Area Project (UDAAP) designation and disposition of City-owned property, Brooklyn Block 2494, Lot 6 (part of Projected Development Site 2) and Block 2472 p/o Lot 32 (Projected Development Site 1) and conveyance of development rights attributable to the remainder of Lot 32; (2) zoning text amendments: (i) to establish the permitted building envelope for the proposed public school use and to allow floor space used by schools within an upland GLA property to be exempt from the definition of floor area, (ii) to create within the WAP (a) a new Parcel 5d from a portion of the existing WAP Parcel 5c, comprising Block 2494, Lot 1 (the GLA-owned portion of Projected Development Site 2, Projected Development Site 3 and Projected Development Site 5) to allow the parcel to be developed as an affordable housing project and public school prior to certification of a waterfront access plan for the remainder of WAP Parcel 5c and (b) a new Parcel 5e from a portion of the existing WAP Parcel 5b, comprising the portion of Lot 32 of Block 2472 that would be retained by the City to enable the remainder of WAP Parcel 5b (Projected Development Site 1 and the City-owned portion of Projected Development Site 2) to receive a waterfront certification without designing the waterfront access areas on new Parcel 5e; and (iii) to allow park use on new Parcel 5e to generate floor area notwithstanding its intended future use as publicly

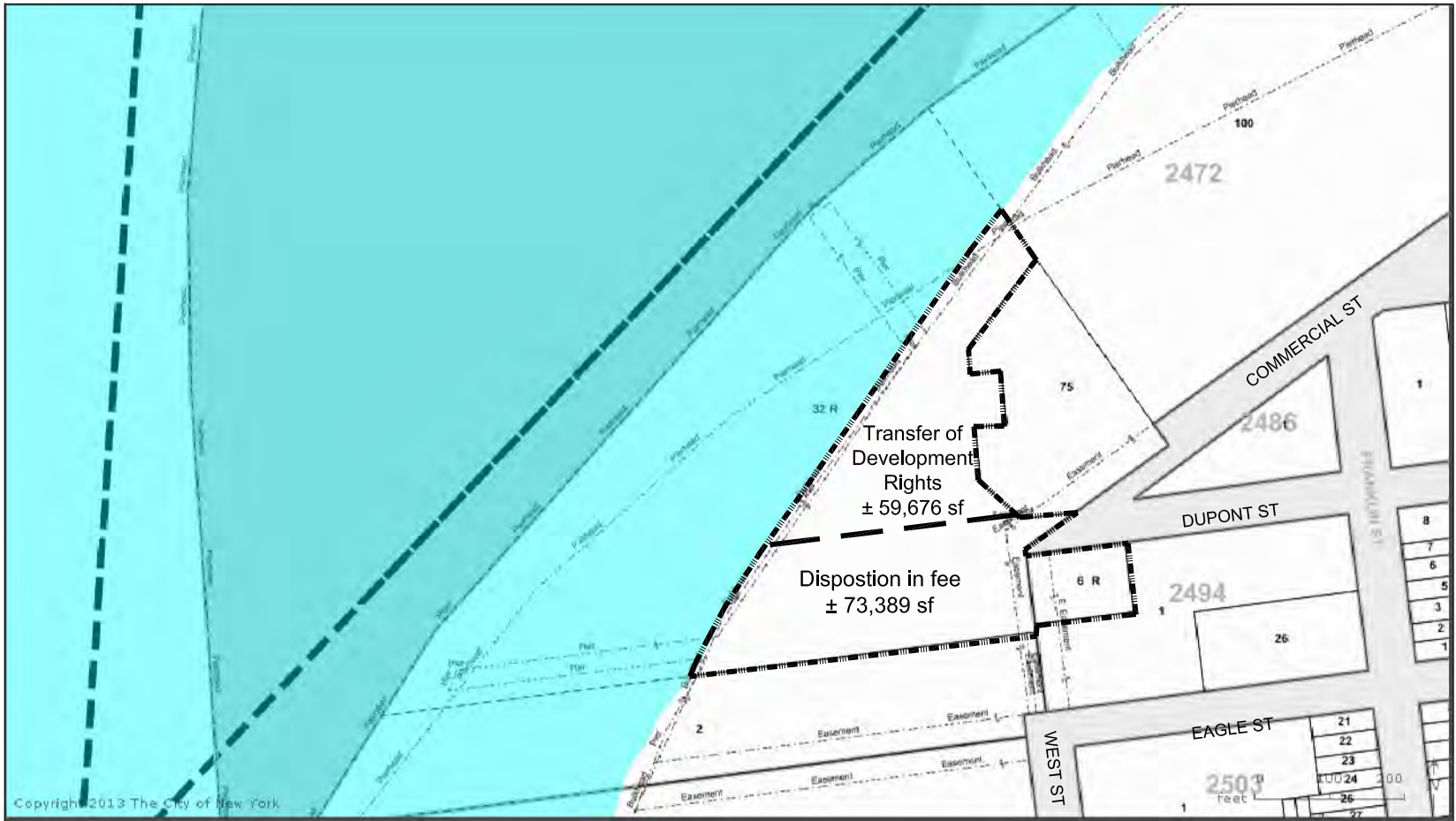
accessible open space, (3) site selection and acquisition by the NYC School Construction Authority (SCA) for the proposed public school; (4) amendment of a Restrictive Declaration (RD); (5) two waterfront zoning certifications for Parcels 5a (Projected Development Site 4 and the remainder of Lot 100 in Block 2472), one waterfront certification for WAP Parcel 5b (Projected Development Site 1 and the City-owned portion of Projected Development Site 2), and one waterfront certification for WAP Parcel 5d (the GLA-owned portion of Projected Development Site 2, Projected Development Site 3 and Projected Development Site 5) pursuant to Zoning Resolution Section (ZR §) 62-811; and for WAP Parcels 5a (Projected Development Site 4 and the remainder of Lot 100 in Block 2472) and 5b (Projected Development Site 1 and the City-owned portion of Projected Development Site 2), waterfront zoning authorizations pursuant to ZR §62-822(a) and (b); and (6) possible New York City Department of Housing Preservation and Development or New York City Housing Development Corporation financing. The disposition and UDAAP approvals are discretionary actions subject to the City Uniform Land Use Review Procedure (ULURP) and to City Environmental Quality Review (CEQR). The zoning text amendments, RD amendment, and SCA site selection and acquisition are not ULURP actions but are subject to a similar public review which will occur concurrently with the ULURP process and are also subject to CEQR. The waterfront zoning certifications are ministerial actions and not subject to ULURP or CEQR. The use of HPD or HDC financing is subject to a review procedure conducted by the respective agency and is a discretionary action also subject to CEQR environmental review.

CEQR is a process by which agencies review discretionary actions for the purpose of identifying the effects those actions may have on the environment. ULURP is a process that allows public review of proposed actions at four levels: the Community Board, the Borough President, the City Planning Commission, and if applicable, the City Council. The procedure has mandated time limits for review at each stage to ensure a maximum review period of approximately seven months.

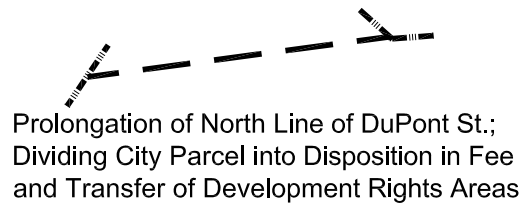
### **Disposition and UDAAP Designation**

This action includes the designation of City-owned property as an Urban Development Action Area and approval of an Urban Development Action Area Project (UDAAP). The disposition includes the sale in fee of 73,389 sf of City-owned property (Block 2472, part of Lot 32 (Projected Development Site 1) and Block 2494, Lot 6 (part of Projected Development Site 2)) and the transfer of development rights attributable to an additional 59,676-sf City-owned parcel (Block 2472, part of Lot 32). The area to be disposed consists of the portion of Lot 32 located south of the prolongation of the northern line of DuPont Street (Projected Development Site 1) and all of Block 2494, Lot 6 (part of Projected Development Site 2). The area to be retained by the City but which would have its development rights transferred consists of the portion of Lot 32 located north of the prolongation of the northern line of DuPont Street. These are shown in Figure A-2.

This UDAAP approval would authorize disposition of land and development rights to a private owner and will facilitate the deliverance of 431 affordable housing units under a “Points of



**Legend:**



Agreement” commitment (“POA”) made by the City in 2005<sup>3</sup> on the land currently owned by GLA. While the UDAAP approval is not limited exclusively to GLA, as the current private owner of the property, GLA is anticipated to be the recipient of the proposed disposition, subject to HPD’s designation, in its sole discretion, of GLA as the Developer.

As shown in Table A-2, this action would facilitate GLA acquiring 589,481 square feet of floor area, also known as zoning square feet (zsf) along with a portion of the City Parcel and building 431 POA affordable housing units on Projected Development Sites 3 and 4a with a portion of these development rights. The portion of the City Development Rights not required for the 431 POA affordable housing units, estimated at approximately 235,000 zsf, may be used by GLA for any use allowed by the New York City Zoning Resolution (the “Zoning Resolution”), including for market rate housing. Information on the City Parcel disposition is summarized in Table A-2. It is anticipated that the City Parcel would be disposed of in three closings and that in connection with each closing GLA would agree to build an affordable housing parcel containing POA affordable housing units.

**Table A-2, City Parcel Disposition**

	<b>Lot Area SF</b>	<b>Zoning District, Lot Area, FAR</b>	<b>Development Rights (Floor Area) ZSF</b>
<b>Disposition in Fee Area</b>	73,389	R6: 13,775 sf 2.75 R8: 59,614 sf 6.5 Total: 73,389 sf 4.76 (ave)	425,372 zsf
<b>Transfer of Development Rights Area</b>	59,676	R6: 59,676 sf 2.75 R8: 0 sf 6.5 Total: 59,676 sf 2.75 (ave)	164,109 zsf
<b>Total Area</b>	133,065	R6: 73,451 sf 2.75 R8: 59,614 sf 6.5 Total: 133,065 sf 4.43 (ave)	589,481 zsf

In order to facilitate this disposition, a UDAAP designation would be necessary. The UDAAP designation would be pursuant to Article 16 to General Municipal Law of New York State and the disposition of the City-owned property to a developer selected by HPD would be pursuant to Section 197-c of the New York City Charter.

### **Zoning Text Amendments**

The proposed action includes three zoning text amendments to facilitate GLA’s use of the land and development rights subject to the disposition/UDAAP designation.

#### Establish New Parcels 5d and 5e in WAP BK-1

A zoning text amendment to ZR §62-931 and Map BK-1a in ZR 62-931(f) would create a new Parcel 5d, comprising Block 2494, Lot 1 (the GLA-owned portion of Projected Development

<sup>3</sup> These are the 431 affordable housing units that under the 2005 Points of Agreement were intended to be developed on Projected Development Site 1 and the City-owned portion of Projected Development Site 2.

Site 2, Projected Development Site 3 and Projected Development Site 5) and new Parcel 5e, comprising the portion of Lot 32 of Block 2472 that would be retained in City ownership. The former is currently part of BK-1 WAP Parcel 5c and the latter is currently part of WAP Parcel 5b. The creation of Parcel 5d would allow Block 2494, Lot 1 to be developed as an affordable housing project and public school prior to certification of a waterfront access plan for Parcel 5c. The smaller Parcel 5c that would be created by this action would comprise the GLA properties south of the Project Site that, as discussed above, GLA does not plan to redevelop until after the completion of the Proposed Project. As these properties will not be developed for several years, waterfront access plans required for certification have not yet been prepared. Unlike every other tax lot in the existing Parcel 5c, Block 2494, Lot 1 is located east of West Street and does not front on the waterfront. The proposed amendment to Map BK-1a is shown in Figure A-3.<sup>4</sup> The text amendment would specify that waterfront public access area requirements generated by the new Parcel 5d would continue to be required at such time as the smaller Parcel 5c is developed. The new Parcel 5e would be treated as a separate zoning lot for the purposes of the waterfront public access and visual corridor provisions of ZR §62-50 through 62-90 enabling the remaining smaller WAP Parcel 5b (Projected Development Site 1 and the City-owned portion of Projected Development Site 2) to be developed by GLA without designing the waterfront access areas on new Parcel 5e, which would be developed separately by the City as a public open space.

#### Use of Development Rights from Publicly-accessible Open Space in New WAP BK-1 Parcel 5e

A zoning text amendment to ZR §11-13 and 62-351 would allow property with park use in new WAP BK-1 Parcel 5e (Block 2472, part of Lot 32) to generate floor area notwithstanding its intended future use as a publicly accessible open space. This would apply to the portion of the City Parcel that would be retained by the City but would have its development rights transferred to GLA (refer to Figure A-2).

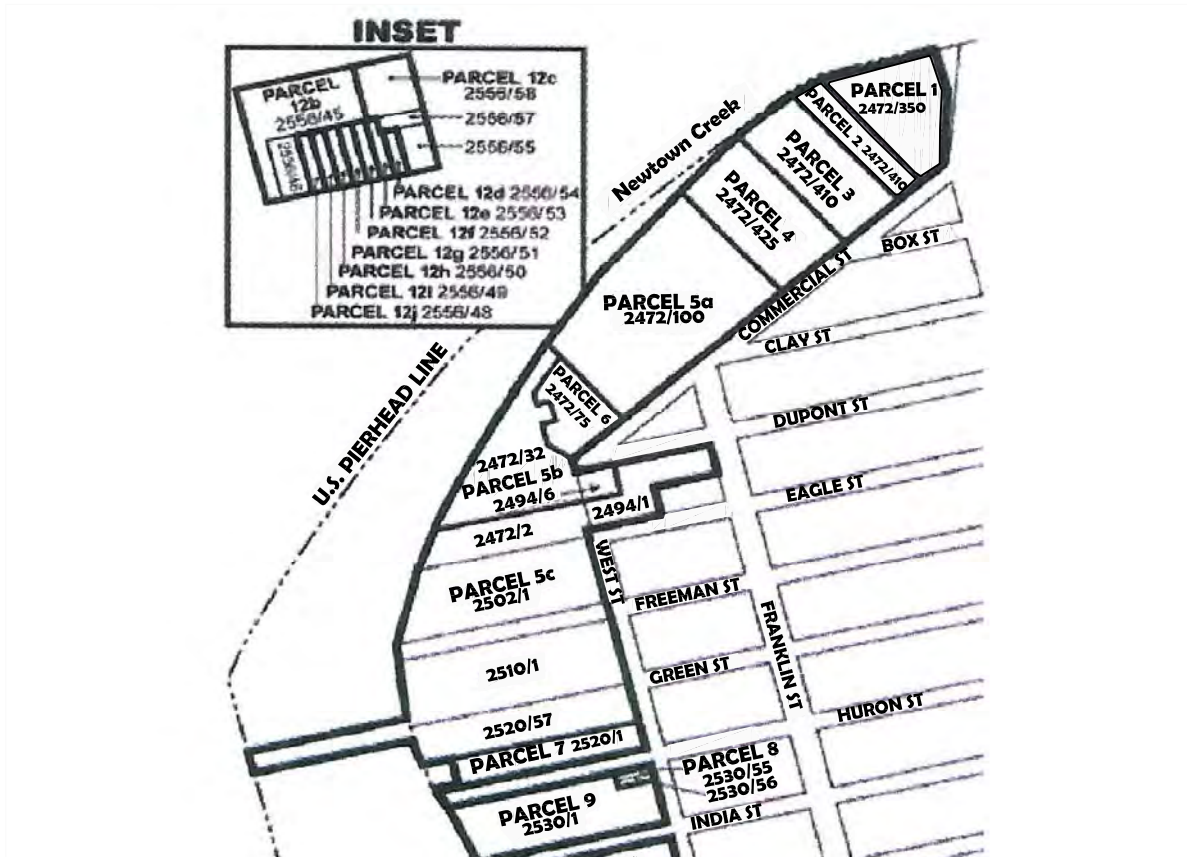
#### School Use Floor Area Exemption and Establish Permitted Building Envelope for School Use in New Parcel 5d in WAP BK-1

A zoning text amendment in Article VI, Chapter 2 of the ZR, including ZR §62-351(d), 62-354, and 62-355, would modify height and setback, lot coverage, and yard controls for a public school in new Parcel 5d of the WAP BK-1 (Block 2494, Lot 1, i.e., the GLA-owned portion of Projected Development Site 2, Projected Development Site 3 and Projected Development Site 5) and would allow for floor space used by schools up to a maximum of 120,000 sf of floor space within the newly designated Parcel 5d to be exempt from the definition of floor area. Per ZR §62-354, the existing bulk regulations applicable to this site limit both the maximum base height and maximum building height to 65 feet or 6 stories, whichever is less. With this zoning text amendment, this section of the ZR would be modified to permit school uses in the new Parcel 5d of WAP BK-1 to have a maximum height of 100 feet without a setback. In addition, the applicable yard and lot coverage requirements applicable would be modified to permit a building that entirely covers Projected Development Site 5. These modifications are necessary in order for the site to accommodate the proposed floor area and use program that the SCA has identified for the proposed public school. The public school is proposed to fully cover the approximately

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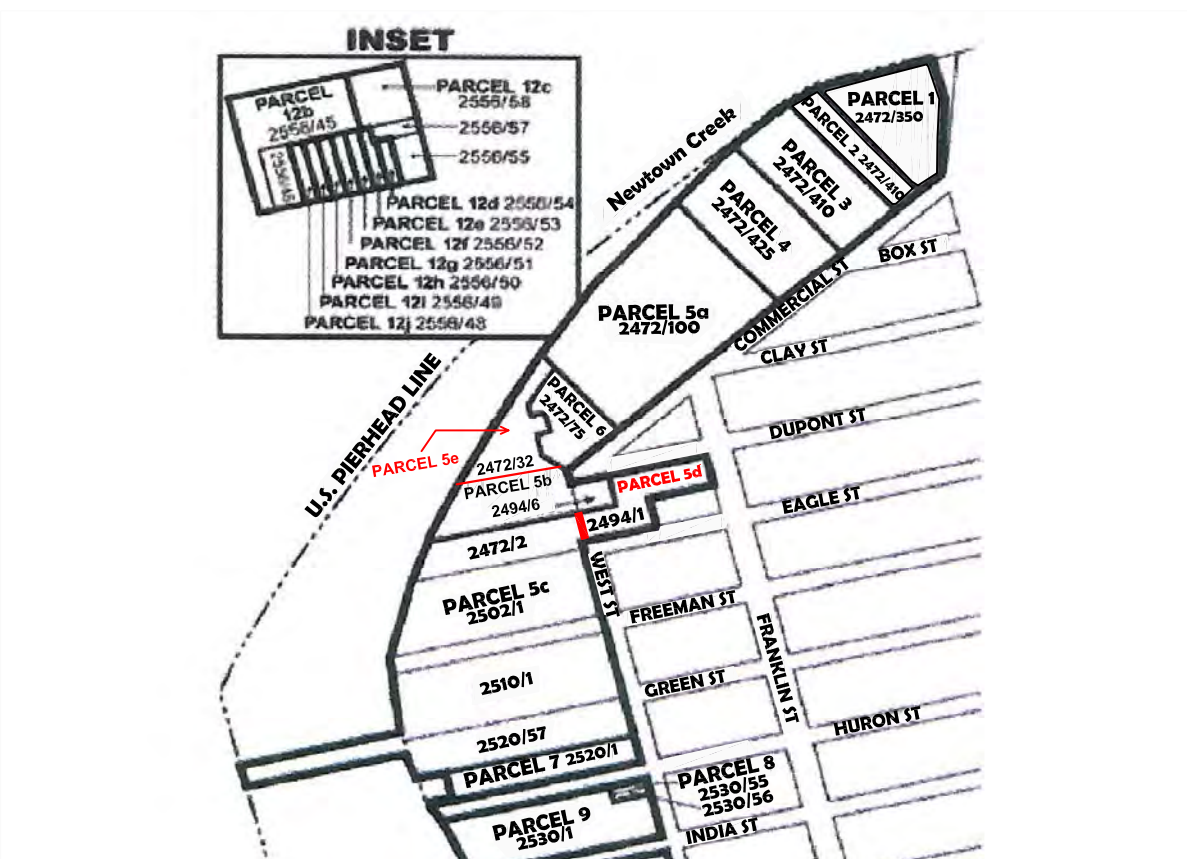
<sup>4</sup> It should be noted that with the proposed change, the boundary of the amended WAP BK-1 Parcel 5c would be coextensive with the tax lots identified above as the “As-of-right Property to be Developed After 2020.”

Proposed New Parcels 5d and 5e in WAP BK-1



Above: Existing Map BK-1a (Enlarged to Show Northern Greenpoint Area)

Below: Proposed Map BK-1a with New Parcels 5d and 5e; Proposed Change Shown in Red





20,025-sf Projected Development Site 5 and to have streetwalls up to a height of 100 feet with rooftop mechanical equipment and play areas. As discussed in the 2005 *Greenpoint-Williamsburg Rezoning FEIS*, the City's rezoning initiative was expected to result in significant adverse impacts on elementary schools, which would be mitigated by several measures including additional school capacity in Greenpoint. Refer to Figure A-4. As a result of the floor area exemption, the proposed 120,000 gsf elementary/intermediate public school on Projected Development Site 5 would not affect the maximum permitted floor area that could be developed on the Project Site. Under current zoning, community facility uses are allowed to an FAR of 4.8 in R6 zones if located on a zoning lot without residential use but is limited to an FAR of 2.75 if located on a zoning lot also containing residential use. The text amendment would allow for needed public school space in the area being provided for this purpose without penalizing GLA with a loss of floor area for permitted residential development.

### **SCA Site Selection and Acquisition**

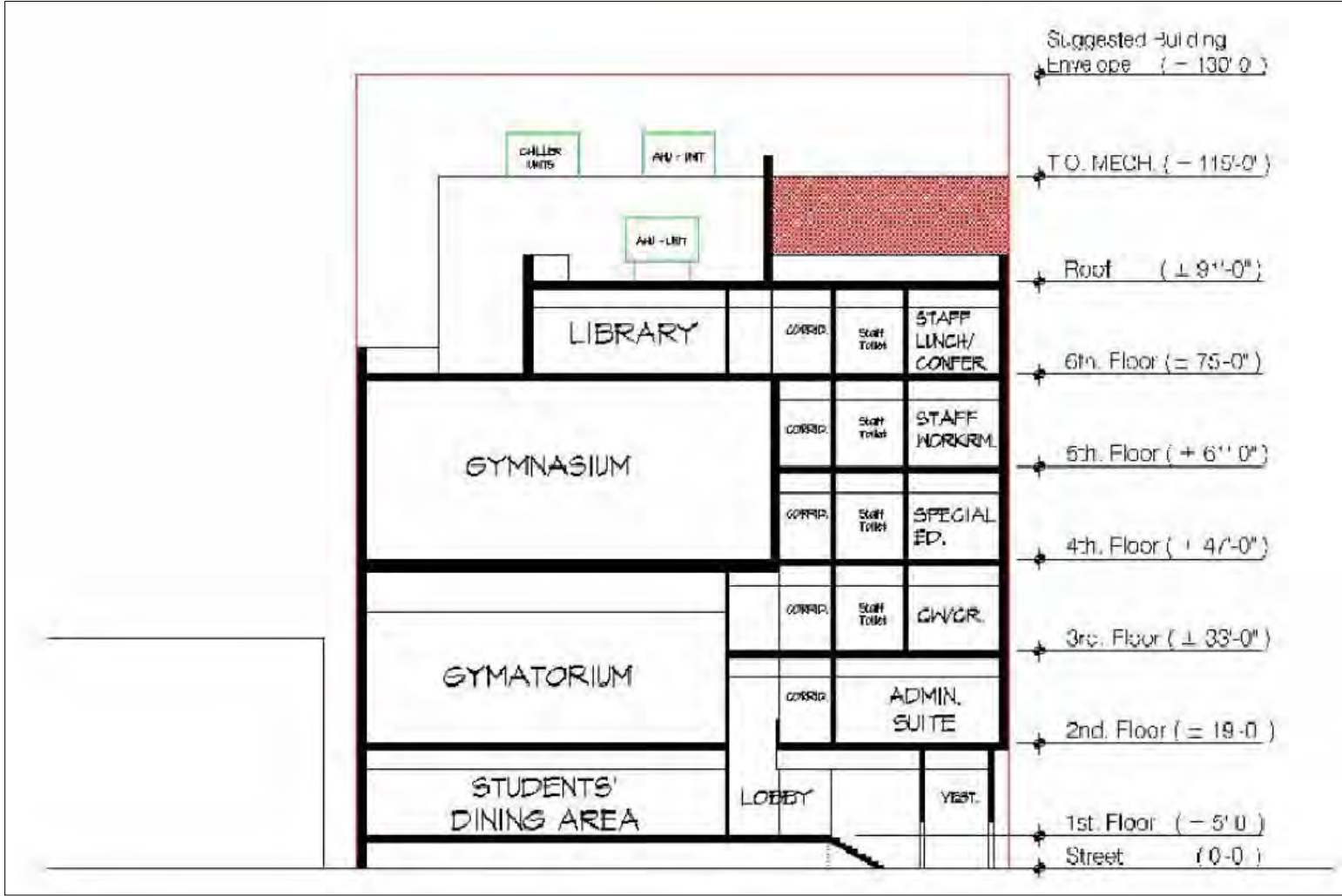
This action would facilitate the site selection and acquisition of Projected Development Site 5 (Block 2494, part of Lot 1), i.e., the public school site, by SCA. GLA would lease the land to the SCA for a nominal amount to enable the SCA to build a new school on the site. GLA would retain the development rights generated by this land. The area to be acquired is shown in Figure A-5.

### **Restrictive Declaration Amendment**

A Restrictive Declaration between the City and GLA dated May 27, 2005 and recorded on September 13, 2005 governing development on the GLA-owned and City-owned properties currently limits the location rights among the GLA properties and prohibits any use of the development rights attributable to the City Parcel. The Restrictive Declaration would be amended to allow siting of development rights in a manner not presently permitted by the RD. This amendment is needed to allow for the use of City development rights by GLA between Parcels 5a, 5b, 5c, and 5d. Upon approval of the disposition application, GLA and the City would enter into an amendment to the RD. The reasonable worst case development scenario described in this EAS is consistent with the proposed RD Amendment.

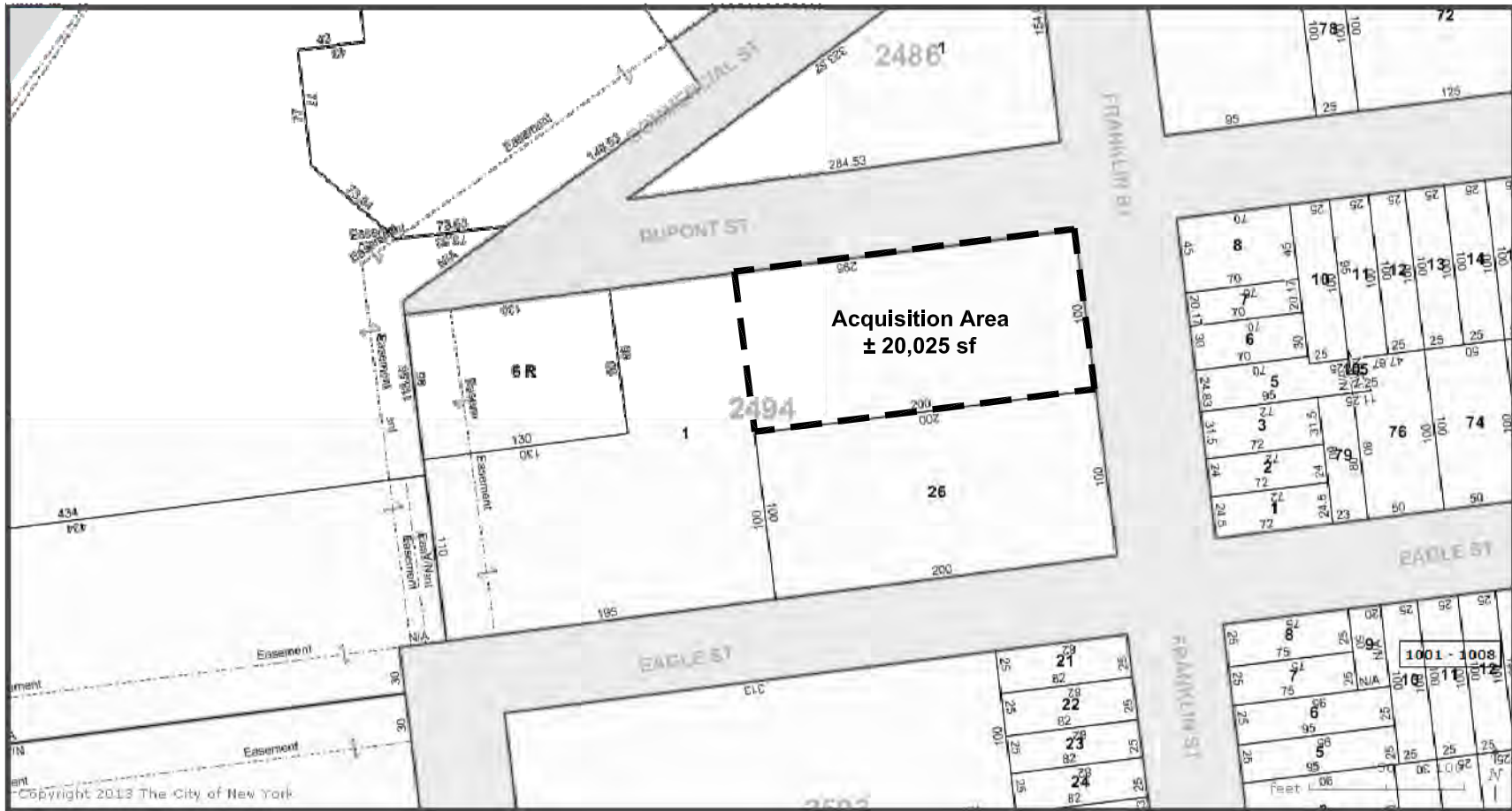
### **Waterfront Zoning Authorizations and Certifications**

All of the projected development sites are located within the WAP BK-1 and therefore subject to waterfront zoning requirements. Projected Development Site 1 is located within Parcel 5b; Projected Development Site 2 is partly located in Parcel 5b (Block 2494, Lot 6) and partly located in the proposed new Parcel 5d (Block 2494, part of Lot 1). Projected Development Sites 3 and 5 are entirely located within the proposed new Parcel 5d. Projected Development Site 4 is located in Parcel 5a. Development of these sites requires waterfront zoning certifications (ministerial actions) to demonstrate compliance with applicable requirements of the WAP BK-1 and for Parcel 5a for the build out of the waterfront public access area in four phases and waterfront zoning authorizations (discretionary actions) are required to permit any modifications to WAP requirements.

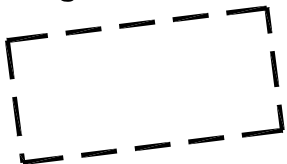


Greenpoint Landing Disposition EAS

Figure A-4  
Proposed School on Site 5: Preliminary Building Section



**Legend:**



Area to be acquired by SCA from  
GLA (Block 2494, part of Lot 1)

Waterfront zoning authorizations pursuant to ZR §62-822(a) and (b) are required to facilitate development of WAP BK-1 Parcels 5a and 5b. These authorizations would request modifications to otherwise applicable requirements of the ZR in order to address flooding concerns, newly mandated flood elevation regulations, respond to the unique geography of the Project Site, and create a superior design for the waterfront. Refer to Appendix A, for a complete technical listing of the proposed modifications that would be permitted by the proposed zoning authorizations.

Apart from the changes that would be authorized, the waterfront zoning certifications will demonstrate compliance with all other applicable requirements of the WAP BK-1.

### **Possible Financing**

In order to construct the 431 POA affordable housing units it is anticipated that City subsidies would be provided to make them financially feasible under commercially reasonable terms. This could come in the form of financing from HPD or the NYC Housing Development Corporation (HDC).

Table A-3 summarizes the required approvals that comprise the proposed action.

### **D. PROPOSED PROJECT/REASONABLE WORST-CASE DEVELOPMENT SCENARIO**

A reasonable worst-case development scenario (RWCDS) for the Project Site has been identified in order to assess the environmental effects of development that could occur as a result of the proposed action. This includes the amount, type, and location of development that is expected to occur in both Build and No-Build conditions. The net incremental difference between the Build and No-Build conditions serves as the basis for the environmental impact analyses. It should be noted for both No-Action and With-Action scenario conditions, the number of dwelling units has been determined based on building conditions with an average unit size of approximately 850 gsf per unit.

#### **2020 Future Without the Proposed Action (No-Action Conditions)**

Under 2020 No-Action Scenario conditions, the City Parcel would remain City-owned and development rights associated with the City Parcel would not be used. By 2020 under No-Action Scenario conditions, it is expected that GLA would develop buildings as-of-right on Projected Development Sites 3 and 4, including high rise residential development, but those sites would not include any of the POA affordable housing units. There would be no development on Projected Development Site 1, as it would remain City-owned. There would be no development on the City-owned portion of Projected Development Site 2. It is possible that a portion of the expected No-Action development on Projected Development Site 3 will extend onto the GLA-owned portion of Projected Development Site 2. While residential development on Projected Development Site 5 could occur, as a conservative measure it is assumed that no development would occur. Refer to Table A-4, which presents the No-Action development scenario.

**Table A-3, Summary of Required Approvals**

<b>TYPE OF ACTION</b>	<b>APPLICANT</b>	<b>AREA AFFECTED</b>	<b>BRIEF DESCRIPTION</b>
Disposition and UDAAP Designation	HPD	Block 2472, Lot 32; Block 2494, Lot 6 (“City Parcel”) <i>Refer to Table A-2 and Figure A-2</i>	City would dispose to GLA: (1) 73,389 sf and (2) transfer the development rights from a 59,676 sf of City-owned property to be retained to facilitate creation of affordable housing on Projected Development Sites 3 & 4a
Zoning Text Amendments	DCP	1) Block 2494, Lot 1 <i>Refer to Figure A-3</i>	1) Amend ZR §62-931 to establish new Parcels 5d and 5e in WAP BK-1; 5d split from the existing Parcel 5c, enabling development of this area as an affordable housing project and public school before waterfront access plan is certified for the reduced Parcel 5c; 5e would split from 5b enabling development of 5b without certification of waterfront access plans for 5e which will be designed and developed separately by the City (with financial contribution from GLA)
		2) Block 2472, part of Lot 32 (in WAP BK-1 Parcel 5b)	2) Amend ZR §11-31 and 62-351 to allow property within new WAP Parcel 5e to generate floor area notwithstanding its intended future use as public open space
		3) Block 2494, Lot 1 <i>Refer to Figure A-4</i>	3) Amend ZR §62-351, 62-354, & 62-355, in new Parcel 5d to exempt school to be exempt from the definition of floor area and to establish new bulk envelope controls for school buildings, facilitating proposed school
Acquisition	SCA	Block 2494, part of Lot 1 (“Projected Development Site 5”) <i>Refer to Figure A-5</i>	City would acquire site from GLA for a nominal amount to facilitate proposed school development
Restrictive Declaration Amendment	DCP & GLA	Parcels 5a, 5b, 5c, (new) 5d, and (new) 5e	Amend RD to facilitate proposed project, including use of City development rights by GLA
Zoning Certifications: Waterfront Access Plans Pursuant to ZR §62-811 (ministerial approval)	GLA	Block 2472, Lot 100 & p/o Lot 32; Block 2494, Lots 1 & 6 (WAP BK-1 Parcels 5a, 5b, and 5d)	Certify that GLA’s waterfront public access and visual corridors are provided in accordance with the WAP BK-1 and certifying that phasing for 5a complies with zoning requirements
Zoning Authorizations	GLA	Block 2472, Lot 100, & p/o Lot 32 (WAP BK-1 Parcels 5a & 5b)	Modifications to otherwise applicable requirements of the ZR in order to address flooding concerns, newly mandated, flood elevation regulations, and to respond to the unique geography of the Project Site (refer to Appendix A)
HPD or HDC Financing	HPD or HDC on behalf of GLA	Projected Development Sites 3 & 4a <i>Refer to Table A-1</i>	HPD or HDC construction financing may be provided for POA housing developments

As shown in the table, under 2020 No-Action Scenario conditions, the Project Site would include one or more new buildings with a total of 750,052 gsf of building space that would include approximately 615 market rate DUs, 154 affordable housing DUs, and 769 total DUs; 1,800 gsf of retail; 323 accessory parking spaces; and 19,290 sf of publicly accessible open space. There would be no community facility space developed on the Project Site under No-Action Scenario conditions.

**Table A-4, 2020 No-Action Conditions on the Project Site**

Projected Development Site	Dwelling Units			Retail GSF	Accessory Parking Spaces	Publicly Accessible Open Space SF	Total Building Area GSF	Building Height ft (max)
	Market Rate	Affordable	Total					
1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0
3	249	63	312	1,800	131	0	325,966	400'
4	366	91	457	0	192	19,290	424,086	300'
5	0	0	0	0	0	0	0	0
<b>Total</b>	<b>615</b>	<b>154</b>	<b>769</b>	<b>1,800</b>	<b>323</b>	<b>19,290</b>	<b>750,052</b>	<b>N/A</b>

#### Projected Development Site 2: Expected Removal of the DEP Sludge Tank

Although no new development is expected on the City-owned portion of Projected Development Site 2 under 2020 No-Action conditions, there is expected to be a significant physical alteration to the site: removal of the DEP sludge tank and environmental remediation of the property by DEP. The removal of the sludge tank is not part of the proposed action.<sup>5</sup>

The City is developing a new sludge loading dock at 1 Kingsland Avenue (Block 2508, part of Lot 1) approximately three-quarters of a mile east of the project site on Whale Creek Canal adjacent to the Newtown Creek WPCP. This project involves the building of a new dock, new sludge vessels, and dredging of Newtown Creek and Whale Creek Canal to accommodate the new vessels. The new dock construction began in 2012 and is expected to be completed in the second half of 2013. Sludge tank demolition is expected to begin in late 2013 once the new facilities at Whale Creek Canal are in operation, with completion of demolition by mid-2014. As such, the sludge tank demolition is occurring independent of the proposed action and while the City-owned portion of Projected Development Site 2 would not be redeveloped under 2020 No-Action conditions the DEP sludge tank will no longer be on the site. The City has committed to completing any necessary environmental remediation of the site before it is disposed to GLA as part of the terms of the proposed disposition.

#### Other Greenpoint Landing As-of-right Development by 2020

As discussed in Section B, "Project Area Existing Conditions" in addition to the No-Action development expected on the projected development sites, under No-Action Conditions by 2020

<sup>5</sup> The new sludge loading facility was reviewed pursuant to SEQRA/CEQR (CEQR No. 06DEP23K); after a study of the potential environmental impact of the action, a negative declaration was issued on March 19, 2007.

it is expected that GLA will proceed with as-of-right development on its property at 37 Commercial Street. On this property, by 2020 GLA expects to develop one or more buildings with approximately 1,087 DUs, including 898 market rate DUs and 189 affordable housing DUs; 3,300 gsf of retail space; 461 accessory parking spaces; and 35,336 sf of publicly accessible open space. These developments would be accounted for in the technical analyses provided in the EAS as study area No-Build sites. With the building(s) at 37 Commercial and the No-Action development on Projected Development Site 4, the area identified as Parcel 5a in the WAP BK-1 would be fully developed and would require a waterfront certification, under both No-Action and With-Action conditions. Refer to Figure 1 attached to the EAS Form which shows two sites labeled “New As-of-Right Building Planned by 2020” and also refer to Attachment C, “Land Use, Zoning, and Public Policy,” for further information about the development of 37 Commercial Street.

### Newtown Barge Playground Expansion

As also mentioned above in Section B, the City is expected to create 59,676 sf of additional public open space on the portion of the City Parcel located north of Projected Development Site 1 (although the City’s commitment to create 431 POA affordable housing units using the City Parcel’s development rights would not be realized in the No-Action Scenario). This open space will be an expansion of the adjoining Newtown Barge Playground.

### **2020 Future With the Proposed Action (With-Action Conditions)**

By 2020 under With-Action Scenario conditions, it is expected that GLA would develop the five projected development sites and utilize all development rights associated with the City Parcel, including new buildings on the portion of the City Parcel that would be disposed by the City to GLA. GLA would be permitted to use approximately 235,000 zsf of the 589,481 zsf of floor area generated by the City Parcel for the development of approximately 276 market rate DUs, with the remainder of the floor area used to develop 431 affordable housing DUs.<sup>6</sup> On Projected Development Sites 1 to 4 the six apartment developments would be built in compliance with the maximum permitted building envelopes, lot coverage, waterfront open space requirements, and other applicable existing regulations and consistent with design criteria for apartment developments in terms of building configuration. Based on discussions with the NYC School Construction Authority, it is expected that the proposed public school on Projected Development Site 5 would have up to approximately 120,000 gsf of space. The school space (up to 120,000 sf) would be exempt from the definition of floor area and the building would be developed pursuant to the proposed zoning text amendment establishing new bulk controls. As such, the Proposed Project represents a reasonable worst case development scenario for the proposed action.

In addition to the proposed development, related to the development of these properties, the West Street Extension would be built and opened from Eagle Street to DuPont Street. This street

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<sup>6</sup> While the development rights generated by the proposed action would be formally defined in terms of zoning square feet of floor area, consistent with CEQR methodologies, the environmental review of the proposed action will focus on gross square feet (gsf) for assessing the density-related effects of the proposed action. See also footnote 1 on page A-1.

segment, which is currently mapped but is not built, is 60 feet wide and 200 feet long. It would operate one-way northbound, similar to the existing block to the south. It is expected to remain unbuilt if the proposed action is not adopted.

Refer to Table A-5, which presents the 2020 With-Action development scenario. Table 5a provides a breakout of the programs for the 4a and 4b portions of Projected Development Site 4. Figure A-6 shows a roof plan for the Project Site 2020 With-Action conditions.

### Development Program

As shown in Table A-5, by 2020 under the With-Action Scenario, the Project Site would include six new apartment developments and one new community facility development. These buildings would include a total of approximately 1,518,004 gsf of building space. These developments would include approximately 1,476 DUs, with 891 market rate DUs and 585 affordable housing DUs; 6,700 gsf of retail space; a 120,000 gsf community facility that would house a 640-seat public elementary/intermediate school; and approximately 576 accessory parking spaces.

**Table A-5, 2020 With-Action Conditions on the Project Site**

Projected Dev. Site	Dwelling Units			Retail GSF	Public School GSF / Seats	Accessory Parking Spaces	Publicly Accessible Open Space SF	Total Bldg GSF	Bldg Height ft (max)
	Market Rate	Affordable	Total						
1	382	62	444	2,100	0	191	28,353	442,324	300'
2	418	68	486	0	0	208	0	437,425	400'
3	0	98	98	1,200	0	29	0	109,675	75'
4	91	357	448	3,400	0	148	19,290	428,580	300'
5	0	0	0	0	120,000 / 640 seats	0	0	120,000	100'
<b>Total</b>	<b>891</b>	<b>585</b>	<b>1,476</b>	<b>6,700</b>	<b>120,000 / 640 seats</b>	<b>576</b>	<b>47,643</b>	<b>1,538,004</b>	<b>N/A</b>

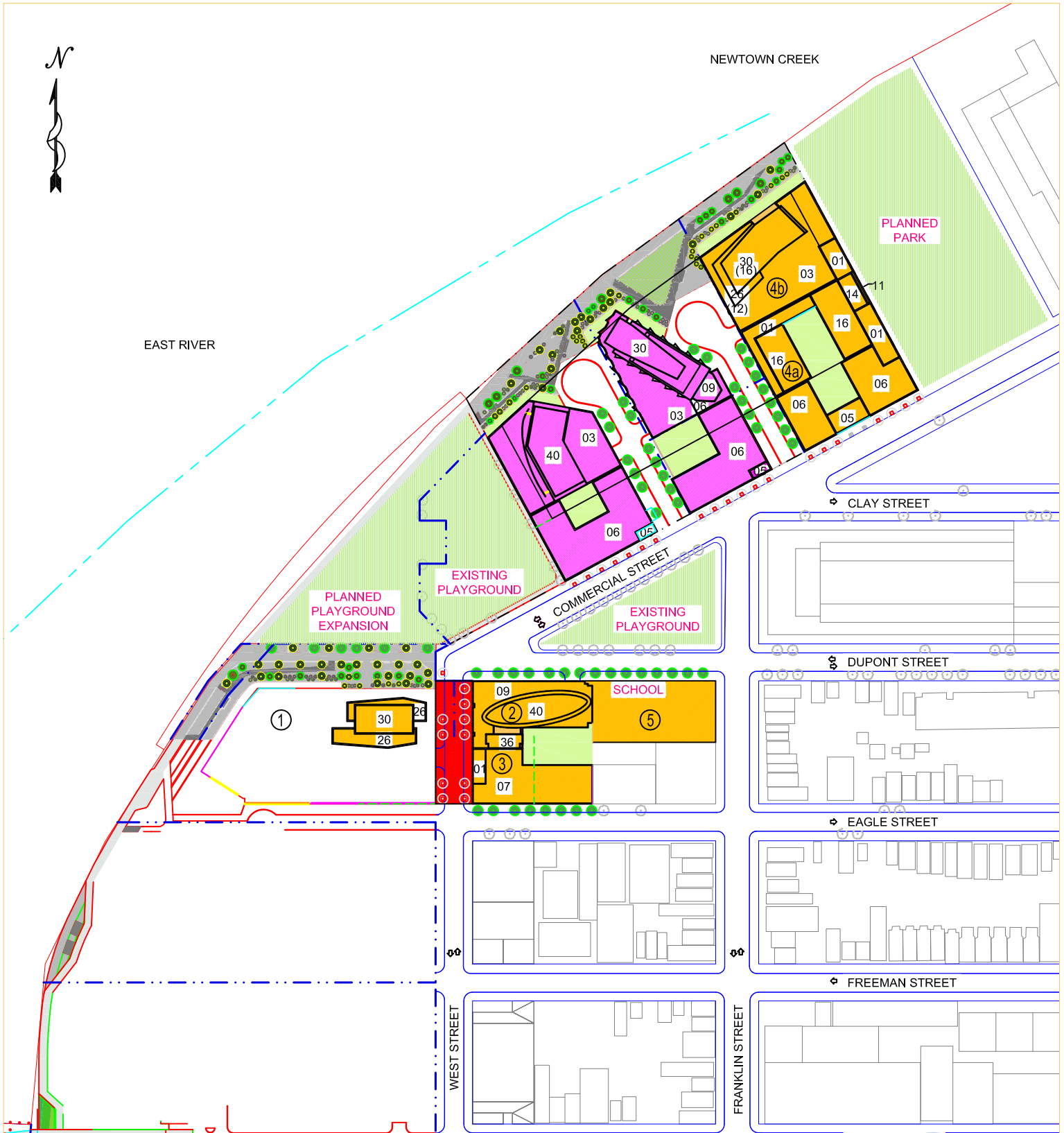
**Table A-5a, 2020 With-Action Conditions for Project Development Site 4 (4a/4b)**

	Dwelling Units			Retail GSF	Public School GSF / Seats	Accessory Parking Spaces	Publicly Accessible Open Space SF	Total Bldg GSF	Bldg Height ft (max)
	Market Rate	Affordable	Total						
4a	0	333	333	3,400	0	0	N/A	297,174	156'
4b	91	24	115	0	0	148		131,406	300'
4 (total)	91	357	448	3,400	0	148	19,290	428,580	300

With the proposed action, GLA would develop Projected Development Sites 1 and 2 with apartment buildings containing “80-20” market rate and affordable housing units plus additional market rate units generated by the City Parcel. Projected Development Site 3 would be developed with affordable housing units generated by the City Parcel (“POA Units”). Projected Development Site 4 would consist of two parts, 4a and 4b: 4a would be developed with two buildings housing the remainder of the affordable POA Units and 4b would be developed with an as-of-right apartment building containing an 80-20 mix of market rate and affordable housing



Projected Development Preliminary Site Plan 2020  
With-Action Conditions



Legend

- Projected Development Sites
- As-of-Right GLA Developments by 2020
- West Street Extension

N.T.S.

(non-POA) units.<sup>7</sup> Projected Development Site 5 would be developed by SCA with a 640-seat public elementary/intermediate school. Table A-6 provides a summary of dwelling units by site for 2020 With-Action conditions, indicating which units would use development rights generated by existing GLA-owned properties and which would use development rights generated by the City Parcel.

### Building Design

In terms of building volumes, the Proposed Project would include apartment buildings, with elements up to 300 feet tall or 400 feet tall (the maximum permitted building heights of the R6 and R8 districts, respectively), with towers rising above bases and with additional setbacks. These buildings would feature much lower heights along West Street and Commercial Street. They would comply with existing zoning bulk envelope controls and waterfront zoning requirements except for limited requirements regarding elevations. In addition, the Proposed Project would include an approximately 100-foot tall public school building per the proposed zoning text amendment establishing controls for this site. Additional information on building design is presented in Attachment C, “Land Use, Zoning, and Public Policy,” and Attachment G, “Urban Design and Visual Resources.”

**Table A-6, 2020 With-Action Dwelling Unit Types on the Projected Development Sites**

Projected Development Site	GLA-site Generated 80-20 Units <sup>1</sup>		City Parcel Generated Units		Total	
	Market Rate DUs	Affordable DUs	Market Rate DUs	“POA” Affordable DUs	Market Rate DUs	Affordable DUs
1	250	62	132	0	382	62
2	274	68	144	0	418	68
3	0	0	0	98	0	98
4	91	24	0	333	91	357
5	0	0	0	0	0	0
<b>Total</b>	<b>615</b>	<b>154</b>	<b>276</b>	<b>431</b>	<b>891</b>	<b>585</b>

<sup>1</sup> 80-20 units would also be developed under 2020 No-Action conditions on existing GLA-owned Projected Development Sites 3 and 4 (refer to Table A-4).

### *Design Guidelines*

As part of the transaction between the City and GLA, Projected Development Sites 1, 2, 3 and 4a would be subject to design guidelines established by DCP. The Design Guidelines apply to the building bases and at the street level of the buildings subject to the controls, including transparency and articulation requirements to achieve a more varied streetscape with multiple residential entries, retail or windows on the ground floor and a variety of façade segments along the upper bases. The proposed urban design guidelines are intended to ensure a high quality pedestrian experience and an active streetscape along the proposed building frontages along streets, public parks, and waterfront public access areas. The proposed design guidelines would include both street level and building base controls. The proposed street level controls would

<sup>7</sup> Although 4a and 4b would house different types of units, for the purposes of most CEQR technical areas, *Projected Development Site 4* can be considered one development site as the site’s buildings would be adjacent.

ensure: (1) frequent ground floor residential entries and openings; (2) continuous base expression and increased architectural detail; (3) flood elevation mitigation; and (4) street level transparency. The proposed building base controls would require: (1) modulating the scale of block massings; (2) enhancing the facade segment expression; (3) defining the top of the proposed buildings' upper bases; and (4) providing visual interest along the facade of the building on Projected Development Site 4a that would be abutting the adjacent MTA parcel (65 Commercial Street).

### **Net Incremental Development**

Based on the RWCDs for 2020 No-Action Scenario and 2020 With-Action Scenario conditions identified above, the net incremental change in development that would occur as a result of the proposed action is identified below in Table A-7.

As shown in the Table A-7, in the 2020 Build year, the proposed action would result in a net incremental increase in development of approximately 276 market rate units and approximately 431 affordable housing units, for a total of approximately 707 DUs. This reflects the utilization of all the City Parcel development rights and the development of properties to be disposed to GLA by 2020 including the completion of all the POA Units by 2020.

As also shown in Table A-7, other incremental changes in development between 2020 With-Action conditions and 2020 No-Action conditions would include incremental increases of 28,353 sf of public open space; 253 accessory parking spaces; and 767,952 gsf of total building area. The public open space increment reflects the requirement for Projected Development Site 1 under the WAP BK-1, as that site would remain undeveloped under No-Action Scenario conditions.

### **E. PURPOSE AND NEED**

The proposed action would enable the City to fulfill its commitment to facilitate the development of a substantial number of affordable housing units from the development rights generated by the City Parcel and allow for the improvement of the remainder of the City Parcel as open space. These units would be in addition to the 20% affordable housing that would be generated by the floor area associated with GLA's as-of-right development sites. Other benefits for the City would be the construction of a new public school building in a neighborhood with a growing residential population and the development of waterfront public open space on Projected Development Site 1 that would not otherwise be provided and an aggregate increase in public open space over No-Action conditions. The proposed action would be developed in conformity with existing plans for the area including the Greenpoint-Williamsburg Rezoning and the WAP-BK-1, apart from the proposed zoning bulk changes to accommodate the school design and limited changes to the design and grading controls for the waterfront access areas. Section C, "Proposed Action," provides purpose and need information for each individual approval being sought.

Table A-7, 2020 Incremental Development on the Project Site

	Projected Development Sites					Project Site Total
	1	2	3	4	5	
<b>No-Action</b>						
Market Rate DUs	0	0	249	366	0	615
Affordable DUs	0	0	63	91	0	154
<b>Total DUs</b>	0	0	312	457	0	769
Retail GSF	0	0	1,800	0	0	1,800
School GSF	0	0	0	0	0	0
School Seats	0	0	0	0	0	0
Acc. Parking Spaces	0	0	131	192	0	323
<b>Total GSF</b>	0	0	325,966	424,086	0	750,052
Bldg Height (max) ft	0	0	400'	300'	0	Up to 400'
Public Open Space SF	-	-	-	19,290	-	19,290
<b>With-Action</b>						
Market Rate DUs	382	418	0	91	0	891
Affordable DUs	62	68	98	357	0	585
<b>Total DUs</b>	444	486	98	448	0	1,476
Retail GSF	2,100	0	1,200	3,400	0	6,700
School GSF	0	0	0	0	120,000	120,000
School Seats	0	0	0	0	640	640
Acc. Parking Spaces	191	208	29	148	0	576
<b>Total GSF</b>	442,324	437,425	109,675	428,580	120,000	1,538,004
Bldg Height (max)	300'	400'	75'	300'	100'	Up to 400'
Public Open Space	28,353	0	0	19,290	0	47,643
<b>Increment</b>						
Market Rate DUs	+382	+418	-249	-275	0	+276
Affordable DUs	+62	+68	+35	+266	0	+431
<b>Total DUs</b>	+444	+486	-214	-9	0	+707
Retail GSF	+2,100	0	-600	+3,400	0	+4,900
School GSF	0	0	0	0	+120,000	+120,000
School Seats	0	0	0	0	+640	+640
Acc. Parking Spaces	+191	+208	-102	-38	0	+253
<b>Total GSF</b>	+442,324	+437,425	-216,291	+4,494	+120,000	+787,952
Bldg Height (max)	+300'	+400'	-325'	No change	+100'	No change
Public Open Space	+28,353	0	0	0	0	+28,353

The proposed action would also enable GLA to develop a more cohesive development plan that better links the northern and southern portions of Greenpoint Landing. Otherwise, there would remain vacant, unutilized properties interrupting the new continuity of development along the Greenpoint waterfront.

**ATTACHMENT B**  
**SUPPLEMENTAL SCREENING**

## **A. INTRODUCTION**

This Environmental Assessment Statement (EAS) has been prepared in accordance with the guidelines and methodologies presented in the 2012 *City Environmental Quality Review (CEQR) Technical Manual*. For each technical area, thresholds are defined, which if met or exceeded, require that a detailed technical analysis be undertaken. Using these guidelines, preliminary screening assessments were conducted for the proposed action to determine whether detailed analysis of any technical area may be appropriate. Part II of the EAS Form identifies those technical areas that warrant additional assessment. For those technical areas that warranted a “Yes” answer in Part II of the EAS Form, including Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Community Facilities and Services; Open Space; Shadows; Urban Design and Visual Resources; Hazardous Materials; Water and Sewer Infrastructure; Transportation; Air Quality (Stationary Sources); Noise; Neighborhood Character; Natural Resources and Construction; supplemental screening assessments are provided in this attachment. While the answers respecting Historic and Cultural Resources in Part II was “No,” screening information is provided in this attachment to support a determination that no analysis of Historic and Cultural Resources is needed. Remaining technical areas detailed in the 2012 *CEQR Technical Manual*, i.e., Solid Waste and Sanitation Services; Energy; Air Quality (Mobile Sources); Greenhouse Gas Emissions; and Public Health did not require supplemental screening because they do not trigger initial *CEQR* thresholds and/or are unlikely to result in significant adverse impacts.

The supplemental screening assessments contained herein identified that detailed analyses are required in the areas of Land Use, Zoning, and Public Policy; Community Facilities and Services; Open Space; Shadows; Urban Design and Visual Resources; Transportation; Air Quality (stationary sources); and Construction. These analyses are provided in Attachments C, D, E, F, G, H, I, and J, respectively. Per the screening assessments provided in this attachment, more detailed analyses of the following technical areas are not required: Socioeconomic Conditions; Hazardous Materials; Water and Sewer Infrastructure; Historic and Cultural Resources and Neighborhood Character. Table B-1 presents a summary of analysis screening information for the proposed action.

As described in Attachment A, “Project Description,” the “proposed action” involves five development sites that are part of or adjacent to a larger development site that GLA controls and anticipates developing on an as-of-right basis. Therefore, this EAS analyzes only the increment between development that GLA could undertake as-of-right and development permitted by the approvals that are the subject of this application. Those required approvals that constitute the “proposed action” are an Urban Development Action Area Project (UDAAP) designation and disposition of City-owned property and conveyance of development rights from City-owned property; zoning text amendments; site selection and acquisition of a public school site by SCA;

amendment of a Restrictive Declaration (RD); waterfront zoning authorizations per ZR 62-822(a) and (b); waterfront zoning certifications per ZR 62-811; and possible NYC Department of Housing Preservation and Development or NYC Housing Development Corporation financing.

As also discussed in Attachment A, the Proposed Project would allow for an incremental increase in development on five projected development sites. The project increment would consist of approximately 707 dwelling units (DUs), comprised of approximately 431 affordable housing DUs and approximately 276 market rate DUs, approximately 4,900 gsf of local retail space, approximately 120,000 sf of community facility space housing a 640-seat public elementary/intermediate school, approximately 28,353 sf of public open space, and approximately 253 accessory parking spaces. Refer to Attachment A for details.

**Table B-1. Summary of CEQR Technical Areas Screening**

<b>CEQR TECHNICAL AREA</b>	<b>SCREENED OUT PER EAS FORM</b>	<b>SCREENED OUT PER SUPPLEMENTAL SCREENING</b>	<b>DETAILED ANALYSIS REQUIRED</b>
Land Use, Zoning, & Public Policy			X
Socioeconomic Conditions		X	
Community Facilities and Services			X
Open Space			X
Shadows			X
Historic & Cultural Resources <sup>1</sup>		X	
Urban Design & Visual Resources			X
Natural Resources <sup>1</sup>		X	
Hazardous Materials		X	
Water and Sewer Infrastructure <sup>2</sup>		X	
Solid Waste & Sanitation Services	X		
Energy	X		
Transportation - Traffic & Parking - Transit - Pedestrians			X X X
Air Quality - Mobile Sources - Stationary Sources	X		X
Greenhouse Gas Emissions	X		
Noise		X	
Public Health	X		
Neighborhood Character		X	
Construction			X

<sup>1</sup> The Proposed Project does not exceed any screening threshold for both natural resources and for historic and cultural resources, and no further analyses are warranted per the 2012 *CEQR Technical Manual*. A discussion of the information used to make the screening assessment determination is provided herein for informational purposes and for use in the Shadows assessment.

The application of screening thresholds and, where warranted, detailed analyses, is based on this net incremental development, which represents the reasonable worst-case development scenario for the proposed action.



### Previous Environmental Review: *Greenpoint-Williamsburg Rezoning FEIS (2005)*

The *Greenpoint-Williamsburg Rezoning FEIS (2005)* analyzed the consequences of development on 76 projected development sites spread across an approximately 184-block rezoning area for density-based and site-based CEQR technical areas. The *FEIS* also analyzed the effects of development on 264 additional potential development sites in the rezoning area for site-based effects only. The site identified as, Projected Development Site 1 in this EAS and, the City-owned portion of the site identified as Projected Development Site 2 in this EAS, and the City’s planned Newtown Barge Playground Expansion, i.e., the properties comprising the “City Parcel”, were identified in the *FEIS* as Site 3.1, a potential development site. The GLA-owned portion of what is described in this EAS as Projected Development Site 2, and all of what are described as Projected Development Sites 3 and 5 in this EAS were identified as part of Site 3 in the *FEIS*, a projected development site. The site described as Projected Development Site 4 in this EAS was identified as part of Site 3.2 a potential development in the *FEIS*. This information is summarized in Table B-2. Figure B-1 identifies Projected Development Sites 1 to 5 on a figure from the *FEIS* showing the *FEIS*’ projected and potential development sites.

**Table B-2, Projected Developments Sites: Comparison to Greenpoint-Williamsburg Rezoning FEIS Sites**

Site ID in this EAS	Tax Lot	Site ID in FEIS	Notes on FEIS
Projected Development Site 1	B 2472, L p/o 32	Part of Site 3.1	Site 3.1 was a potential development site; but analyzed as a projected development site in Technical Memo <sup>1</sup>
Projected Development Site 2 (City-owned part)	B 2494, L 6	Part of Site 3.1	
Projected Development Site 2 (GLA-owned part)	B 2494, L p/o 1	Part of Site 3	Site 3 was a projected development site <sup>2</sup>
Projected Development Site 3	B 2494, L p/o 1	Part of Site 3	
Projected Development Site 5	B 2494, L p/o 1	Part of Site 3	
Projected Development Site 4a/4b	B 2472, L p/o 100	Part of Site 3.2	Site 3.2 was a potential development site

<sup>1</sup> Site 3.1 also included the area now planned for an expansion of Newtown Barge Playground. Site 3.1 has the same boundary as the *City Parcel* as defined in this EAS.

<sup>2</sup> Site 3 also included all GLA-owned property south of DuPont Street (co-extensive with the boundary of the existing Parcel 5c of the WAP BK-1).

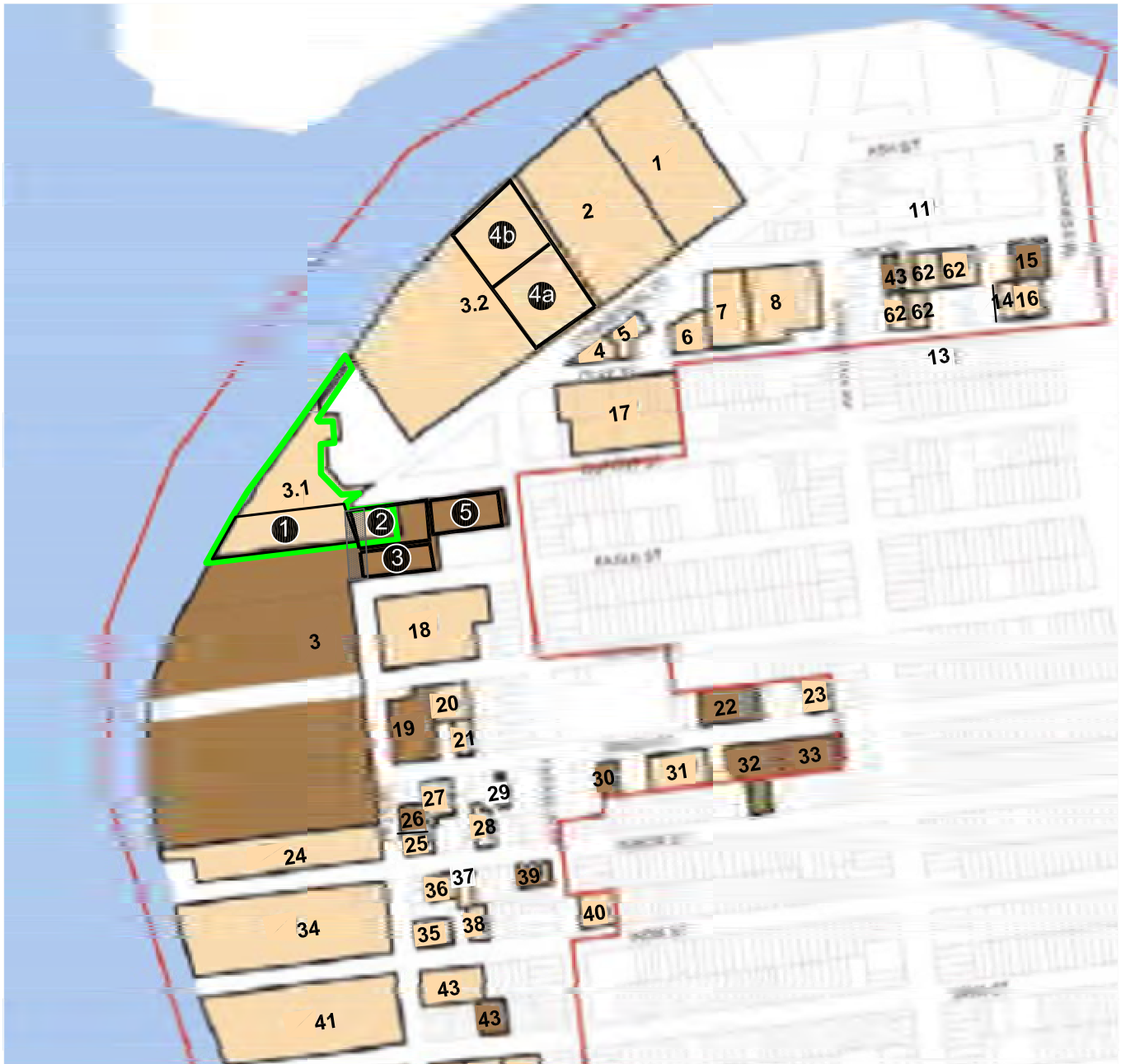
<sup>3</sup> Site 3.2 also included all GLA-owned property north of DuPont Street (co-extensive with the boundary of Parcel 5a of the WAP BK-1).

In addition to the original proposed action, the *FEIS* also analyzed the effects of the Revised Affordable Housing Bonus and Incentives (AHBI) Alternative, which reflected the changes to the application that were adopted with approval of the rezoning actions.

A Technical Memorandum provided as Appendix J of the *FEIS* analyzed the effects of development if three of the potential development sites were considered projected development sites. This analysis included Site 3.1, with a projected development scenario of approximately 550 affordable housing dwelling units, along with two other smaller development sites located in other portions of the Greenpoint-Williamsburg rezoning area.

As development site boundaries differ between the *FEIS* and this EAS, direct comparisons of development programs cannot be made between the two documents. However, for informational

Projected Development Sites: Relationship to the Greenpoint-Williamsburg Rezoning EIS



**Legend** Greenpoint-Williamsburg EIS from Figure 1-6c

Potential Development Sites	Projected Development Sites
Projected Development Sites	Projected Development Sites
Greenpoint-Williamsburg EIS Proposed Action Area Boundary	Boundary of City Parcel
West Street Extension	

Source: NYC Department of City Planning / Brooklyn Office (March 2004)

N.T.S.

purposes, Table B-3 provides information on the development programs for Build conditions in the *FEIS* for the sites affected by the proposed action.

**Table B-3, Development Programs for Project Site in the Greenpoint-Williamsburg Rezoning FEIS (2005)**

<b>Tax Lot</b>	<b>FEIS Development Site</b>	<b>Development Program</b>
B 2472, L 32	Part of FEIS Site 3.1 (potential in FEIS; projected in Tech Memo)	518 DUs <sup>2</sup>
B 2472, L 100 <sup>1</sup>	Part of FEIS Site 3.2 (potential)	1,121 DUs
B 2494, L 1	Part of FEIS Site 3 (projected)	229 DUs
B 2494, L 6	Part of FEIS Site 3.1 (potential development in FEIS; projected development in Tech Memo)	48 DUs <sup>2</sup>

<sup>1</sup> Block 2472, Lot 100 also includes 37 Commercial Street, where GLA plans to develop one or more apartment buildings on an as-of-right basis by the 2020 Build year (refer to Attachment A).

<sup>2</sup> The Tech Memo analyzed the effects of Block 2472, Lots 1 & 6 being a projected development site instead of a potential development site; the development program for the site was 550 DUs.

Throughout the technical areas analysis provided in this EAS, information on the analyses conducted in the 2005 *FEIS* is provided as background information.

## **B. SUPPLEMENTAL SCREENING AND SUMMARY OF DETAILED ANALYSES**

### **Land Use, Zoning, and Public Policy**

According to the 2012 *CEQR Technical Manual*, a detailed assessment of land use, zoning and public policy is appropriate if an action would result in a significant change in land use or would substantially affect regulations or policies governing land use. A zoning analysis is typically performed in conjunction with a land use analysis when an action would change the zoning on the site or result in the loss of a particular use. Land use analyses are required when an action would substantially affect land use regulation.

As the proposed action would include zoning text amendments, waterfront zoning authorizations, and other discretionary actions, a detailed land use, zoning, and public policy assessment is provided in Attachment C, “Land Use, Zoning, and Public Policy.” As discussed therein, the proposed action would not result in any significant adverse land use, zoning, or public policy impacts.

### **Socioeconomic Conditions**

The 2012 *CEQR Technical Manual* states that a socioeconomic assessment should be conducted if a project may be reasonably expected to create socioeconomic changes within the area affected by the project that would not be expected to occur without the project. In accordance with 2012 *CEQR Technical Manual* guidelines, socioeconomic analysis considers five specific elements that can result in significant adverse socioeconomic impacts: (1) direct displacement of residential population on a project site; (2) direct displacement of existing businesses or institutions on a project site; (3) indirect displacement of residential population in a study area;

(4) indirect displacement of businesses or institutions in a study area; and (5) adverse effects on specific industries.

Per the EAS Form, further analyses of direct residential displacement, direct business displacement, and affects on specific industries have been screened out in accordance with 2012 *CEQR Technical Manual* assessment screening thresholds. However, per the EAS Form, further screening of indirect residential and indirect business displacement is warranted.

Regarding the screening of direct business displacement, as noted in Attachment A, some portions of the GLA-owned projected developments sites are occupied by private business tenants, primarily for storage uses. Some of these businesses would not be present under 2020 No-Action conditions as portions of GLA's property would be redeveloped, though some existing businesses could remain or be replaced by similar establishments. Under 2020 With-Action conditions, none of the existing businesses or similar establishments would be present. Any such tenants would be required to move from the Project Site, consistent with the terms of their existing leases or under new terms mutually agreed upon with the property owner. This would not be considered a direct displacement under CEQR as it would not be involuntary or involve a public action such as eminent domain. Such businesses could relocate to properties in other parts of the City as there are no unique locational advantages provided by the Project Site (for example, no existing tenants use the sites for waterfront-dependent business activities). As such the proposed action would not have the potential to result in significant adverse direct business displacement and no assessment is warranted.

### ***Indirect Residential Displacement***

#### **Greenpoint-Williamsburg Rezoning FEIS**

The 2012 *CEQR Technical Manual* states that the objective of the indirect residential displacement analysis is to determine whether the proposed project may either introduce a trend or accelerate a trend of changing socioeconomic conditions that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change. The 2012 *Manual* further states that if a project results in a population increase of less than 5 percent in the study area as compared to No-Action conditions further analysis is not necessary as this change would not be expected to affect real estate market conditions. (There is similar text in the 2001 *CEQR Technical Manual* which was in effect at the time the 2005 *FEIS* was prepared.)

The *FEIS* found that the rezoning had the potential to result in a significant adverse indirect residential displacement impacts. The *FEIS* further stated that the Revised AHBI alternative would reduce and partially mitigate this impact by generating approximately 1,398 affordable housing DUs among the 8,800 total DUs expected to be developed. The Technical Memorandum in Appendix J of the *FEIS* found that with increased projected development on three sites (including Site 3.1, which is equivalent to what is described as Projected Development Site 1 and the City-owned portion of Projected Development Site 2 in this EAS), would also contribute to partially mitigating this impact by resulting in additional affordable housing.

## Assessment

The proposed action analyzed in this EAS would facilitate the creation of approximately 707 additional housing units over 2020 No-Action conditions, with 431 affordable housing units for a range of qualifying income bands (representing approximately 60 percent of the total units created). As compared to 2020 No-Action conditions the proposed action would result in greater than a 5 percent increase in the population of the surrounding area.<sup>1</sup> However, with its substantial number of affordable housing units, this EAS' proposed action would reduce the indirect residential displacement impact disclosed in the *FEIS*, particularly as compared to the 2020 No-Action scenario. As discussed in Attachment A of this EAS, the proposed action would also enable the City to develop affordable housing identified in the "Points of Agreement" that the City issued in 2005 in response to community concerns addressed during the public review of the rezoning. Absent the proposed action analyzed in this EAS, under 2020 No-Action conditions there would be 431 fewer affordable housing units created while the trends identified in the *FEIS* that could result in indirect residential displacement of vulnerable populations would still be present. As such, implementation of the proposed action analyzed in this EAS would represent the realization of a significant portion of the mitigation identified in the *FEIS*.

Since 2005, NYC DCP estimates that approximately 763 affordable housing DUs and approximately 4,000 market rate units have been created in the Greenpoint-Williamsburg rezoning area. The 431 affordable housing units that would be allowed to be developed by the proposed action analyzed in this EAS would contribute substantially toward meeting and exceeding the City's 1,398-DU goal identified in the *FEIS* for affordable housing in the rezoning area. Along with the approximately 154 affordable housing units that would be created on the projected development sites under No-Build conditions and 189 affordable housing units planned by GLA on adjoining property at 37 Commercial Street, under 2020 With-Action conditions there would be over 1,500 units of affordable housing in the rezoning area. (Additionally, as discussed in Attachment C of this EAS, other development projects such as 77 Commercial Street, 131 West Street, and 155 West Street would also create affordable housing in the rezoning area in the coming years.) As such, with the proposed action in this EAS adding a substantial amount of affordable housing, it is expected to have beneficial effects related to ongoing indirect residential displacement trends identified in the *FEIS*. Accordingly, the proposed action would not result in any significant adverse indirect residential displacement impacts and no further assessment is necessary.

### ***Indirect Business Displacement***

The 2012 *CEQR Technical Manual* states that in most cases, the issue for indirect displacement of businesses is that a project would markedly increase property values and rents throughout the study area, making it difficult for some categories of businesses to remain in the area. (This was also stated in the 2001 *CEQR Technical Manual*.)

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<sup>1</sup> As discussed in Attachment E, "Open Space," the proposed action would increase the population within an approximately half-mile radius of the project site by approximately 1,845 residents from the 2020 No-Action population of 24,189, an increase of approximately 7.6 percent.

The *FEIS* found that the rezoning's projected development would not result in significant adverse impacts regarding indirect business displacement. Similarly, the Technical Memorandum in Appendix J of the *FEIS* found that with increased projected development on three sites (including Site 3.1, which is equivalent to Projected Development Site 1 and the City-owned portion of Projected Development Site 2 in this EAS) the analysis conclusions would not change.

### Assessment

While the proposed action analyzed in this EAS would result in additional residential development, including on Projected Development Site 4 (a potential development site in the *FEIS*), it would represent the same type of development projected in the *FEIS* for the Greenpoint-Williamsburg Rezoning Area. It is unlikely that this additional development would result in a change in conditions as compared to those analyzed in the *FEIS*. Furthermore, real estate market conditions under 2020 No-Action conditions likely would be similar to 2020 With-Action conditions given that substantial new development is expected in the area independent of the proposed action. The school development on Projected Development Site 5 in this EAS was not analyzed in the *FEIS*; however it is also unlikely that a school would create a change in conditions that would result in indirect business displacement. Accordingly, the findings of the *FEIS* would remain applicable; no significant adverse impacts regarding indirect business displacement would occur as a result of the proposed action in this EAS and no further assessment is warranted.

### **Community Facilities and Services**

The *2012 CEQR Technical Manual* defines community facilities as public or publicly funded facilities, including schools, health care, day care, libraries, and fire and police protection services. A community facilities analysis is needed if there would be potential direct or indirect effects on a subject facility. As there are no direct effects to existing community facilities resulting from the proposed action, the assessment concentrates on the potential for indirect effects. The *2012 CEQR Technical Manual* provides guidelines or thresholds that can be used to make an initial determination of whether a detailed study is necessary to determine potential impacts. The projected development by 2020 under the proposed action exceeds the *2012 CEQR Technical Manual* threshold for public elementary and intermediate schools and publicly funded day care centers, and, therefore, detailed analyses of these services are provided in Attachment D, "Community Facilities and Services." As discussed therein, the proposed action would not result in any significant adverse community facility and services impacts. It should be noted that the proposed action includes the provision of child care for children from eligible households (refer to Attachments A and D for details).

### **Open Space**

Per the *2012 CEQR Technical Manual*, open space is defined as publicly- or privately-owned land that is publicly accessible and has been designated for leisure, play or sport, or conservation land set aside for protection and/or enhancement of the natural environment. An open space assessment may be necessary if a proposed action could potentially have a direct or indirect

effect on open space resources in the project area. A direct impact would “encroach on, or cause a loss of, open space,” affect the facilities within an open space so that the open space no longer serves the same user population, or limit public access to an open space. Other direct affects include the imposition of noise, air pollutant emissions, odors, or shadows on public open space that may alter its usability. Because the proposed project would not directly affect any existing public open space or recreational resources, it would not have any direct effects on open space resources.

An indirect effect may occur when the population generated by a proposed action would be sufficient to noticeably diminish the ability of an area’s open space to serve the existing or future population. According to the guidelines established in the 2012 *CEQR Technical Manual*, in areas of the city that are identified as being neither underserved or well-served by open space, an action that would add fewer than 200 residents or 500 employees, or a similar number of other users to an area is typically not considered to have indirect effects on open space. As the proposed action would exceed this screening threshold such, further assessment is required based on the 2012 *CEQR Technical Manual’s* guidelines. A detailed analysis of open space is therefore provided in Attachment E, “Open Space.” As discussed therein, the proposed action would not result in any significant adverse open space impacts.

## **Shadows**

A shadow assessment considers actions that result in new shadows long enough to reach a publicly accessible open space or historic resource (except within an hour and a half of sunrise or sunset). For actions resulting in structures less than 50 feet high, a shadow assessment is generally not necessary unless the site is adjacent to a park, historic resource, or important natural feature (if the features that make the structure significant depend on sunlight). According to the 2012 *CEQR Technical Manual*, some open spaces contain facilities that are not sunlight sensitive, and do not require a shadow analysis including paved areas (such as handball or basketball courts) and areas without vegetation.

As the Proposed Project would result in new buildings located adjacent to public open space, a screening assessment per the 2012 *CEQR Technical Manual* guidelines is necessary to determine if detailed shadows analysis is warranted. Attachment F, “Shadows,” provides a detailed shadow assessment. The shadows assessment concludes that the proposed action would not have significant adverse shadows impacts on sunlight sensitive resources in the surrounding area.

## **Historic and Cultural Resources**

Historic resources are defined as districts, buildings, structures, sites and objects of historical, aesthetic, cultural and archaeological importance. This includes properties that have been designated or are under consideration as New York City Landmarks or Scenic Landmarks or are eligible for such designation; properties within New York City Historic Districts; properties listed for the State and/or National Register of Historic Places (S/NR); and National Historic Landmarks. According to the 2012 *CEQR Technical Manual* guidelines, a study area defined by a radius of 400 feet from the boundaries of the project site is typically adequate to assess

potential impacts on historic/architectural resources. Archaeological resources are assessed only for areas proposed for development, as they would entail in-ground disturbance.

### Greenpoint Williamsburg Rezoning FEIS

The projected development sites analyzed in this EAS were reviewed for potential effects on architectural and archaeological resources in the *Greenpoint-Williamsburg Rezoning FEIS*. The *FEIS* determined that the projected development sites analyzed in this EAS do not have the potential to affect any such resources, as there are no architectural resources located on the projected development sites or within a 400-foot radius and the projected development sites are not archaeologically sensitive.

### *Archaeological Resources*

Based on a review of archaeological sensitivity models and historic maps by the NYC Landmarks Preservation Commission (LPC) and a subsequent Phase IA Archaeological Assessment Report, the *FEIS* concluded that the sites comprising the projected development sites analyzed under this EAS are not archaeologically sensitive (refer to Figure B-2 and *FEIS* Chapter 7, Table 7-1 on page 7-12). As this conclusion is based on a study of site histories, this remains a valid finding for the site today.

Accordingly, the proposed action in this EAS would not be expected to result in any significant adverse impacts on archaeological resources and no further analysis is warranted.

### *Architectural Resources*

For the projected development sites analyzed in this EAS, the *FEIS* found that there are no historic architectural resources on or within 400 feet of the projected development sites. Historic architectural resources are defined as sites that are listed on the State/National Register of Historic Places (S/NR), designated NYC Landmarks, or that appear to be eligible for such designations. The closest architectural resource to the Project Site identified in the *FEIS* is the Astral Apartments, a designated NYC Landmark and S/NR-listed property located approximately 1,000 feet to the south on Franklin Street between India Street and Java Street. Refer to Figure B-3. As such, the *FEIS* found that new developments on the projected development sites analyzed in this EAS would not have the potential to directly or indirectly affect any architectural resources.

### Update of Architectural Resources Assessment

As the *FEIS* was completed in 2005, the list of S/NR-listed properties and designated NYC Landmarks was reviewed to determine if any properties on or within 400 feet of the projected development sites analyzed under this EAS have been designated or listed since the *FEIS* was prepared. There have been no such actions and therefore the *FEIS*' findings remain valid. Accordingly, the proposed project in this EAS would not have the potential to result in any significant adverse architectural resources impacts and no further assessment is warranted.



Projected Development Sites: Relationship to Historic Resources\*



N.T.S.

-  West Street Extension
-  Boundary of City Parcel
-  Projected Development Sites

\*Base Map is Figure 7-2 from Greenpoint Williamsburg Rezoning FEIS (2005)

Projected Development Sites: Relationship to Potential Archaeological Sensitivity\*



\* Base Map is Figure 7-1 from Greenpoint Williamsburg Rezoning FEIS (2005)

N.T.S.

## Urban Design and Visual Resources

An area's urban components and visual resources together define the look and character of the neighborhood. The urban design characteristics of a neighborhood encompass the various components of buildings and streets in the area. These include building bulk, use and type; building arrangement; block form and street pattern; streetscape elements; street hierarchy; and natural features. An area's visual resources are its unique or important public view corridors, vistas, or natural or built features. For the *CEQR* analysis purposes, this includes only views from public and publicly-accessible locations and does not include private residences or places of business.

An analysis of urban design and visual resources is appropriate if a proposed project would (a) result in buildings that have substantially different height, bulk, form, setbacks, size, scale, use or arrangement than exists in an area; (b) change block form, demap an active street or map a new street, or affect the street hierarchy, street wall, curb cuts, pedestrian activity or streetscape elements; or (c) would result in above-ground development in an area that includes significant visual resources.

As the proposed action would result in new developments, including a public school developed pursuant to a zoning text amendment permitting modifications to building bulk, and waterfront zoning authorizations to allow modifications of certain waterfront zoning requirements, a detailed urban design and visual resources analysis is warranted. This analysis is provided in Attachment G, "Urban Design and Visual Resources." As discussed therein, there would be no significant adverse impacts to these technical areas as a result of the proposed action.

## Natural Resources

The 2012 *CEQR Technical Manual* defines natural resources as (1) the City's biodiversity (plants, wildlife and other organisms); (2) any aquatic or terrestrial areas capable of providing suitable habitat to sustain the life processes of plants, wildlife, and other organisms; and (3) any areas capable of functioning in support of the ecological systems that maintain the City's environmental stability. Two possibilities determine whether a significant adverse impact on a natural resource might occur, and therefore, whether an assessment may be appropriate: (1) the presence of a natural resource on or near the site of the project; and (2) disturbance of that resource caused by the project.

### Greenpoint-Williamsburg Rezoning FEIS

The 2005 *FEIS* provided a detailed natural resources analysis. The *FEIS* stated that the effects of the rezoning on upland sites would not be considered significant due to the minimal natural vegetative coverage and low habitat value.

For the waterfront sites, assuming a reasonable worst case development scenario for the projected and potential development sites, the *FEIS* concluded that the rezoning would not be expected to result in significant adverse natural resources impacts. The reasons for this conclusion included: (1) no high quality wetlands would be impacted; (2) any impacts to

wetlands and water quality would be temporary and confined, as there would be no fill placed in the river or building over the river and the projected and potential developments would provide repair and replacement of existing shoreline protection structures and piers if warranted; (3) any impacts to existing aquatic resources would be limited due to the generally degraded quality of the existing habitats and in addition, the types of species that would be impacted are likely to quickly recolonize the area; (4) fish species of the East River would not be significantly impacted.

### Assessment

As the Project Site consists of land that is vacant or used for low-intensity storage which is covered by impervious surfaces, it does not contain any natural resources. There are no wetlands or other natural resources features on the projected development sites.

Projected Development Sites 1 and 4a/b in this EAS are located adjacent to the East River/Newtown Creek, which is a degraded natural resource. As noted in the *FEIS*, “the strong hydrodynamic features of the East River, coupled with the numerous municipal and industrial discharges that have occurred in the river over many years, make this river a physically harsh environment.” Similarly, the US EPA states that “Newtown Creek is one of the nation’s most polluted waterways.”<sup>2</sup> According to the *FEIS*, there is no reported presence of submerged aquatic vegetation (SAV) along the rezoning study area.<sup>3</sup> Contaminants are present in these waters and these water bodies provide limited opacity. Any wildlife present in the area is tolerant of urban conditions and low-quality habitat.

In addition, as noted in Attachment F, “Shadows,” of this EAS the East River/Newtown Creek adjacent to the Project Site is not considered a natural feature sensitive to the effects of shadowing cast from structures given its degraded condition.

The assumptions in the *FEIS* regarding the development of waterfront sites are applicable to the proposed action analyzed in this EAS. The proposed action in this EAS would result in no filling or dredging in the water, no structures over the water, and any construction along waterfront would be limited to repair and replacement of bulkhead. The Proposed Project would not involve any construction beyond the bulkhead.

As discussed in the “Water and Sewer Infrastructure” assessment provided in this attachment, the proposed action has the potential to result in incremental increases in CSOs due to increased sanitary volume to the combined sewer system. However, the stormwater release rate to the combined sewer from the proposed area of new construction should be reduced to the greatest extent practicable and in all events be in compliance with DEP’s requirements for stormwater-release rates at the time of filing for the permit. Green infrastructure, as part of the Proposed Project, would help to minimize the effects of new development on the combined sewer conveyance system and to receiving water bodies.

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<sup>2</sup> <http://www.epa.gov/region2/superfund/npl/newtowncreek/> <accessed May 2013>

<sup>3</sup> If present, SAV can provide nursery and refuge habitat for fish.

In summary, the *FEIS* provided a detailed analysis which found that the rezoning would not result in significant adverse natural resources impacts. The proposed action analyzed in this EAS would result in new buildings on sites identified in the *FEIS* as projected and potential development sites, with generally similar densities and characteristics. These sites are bereft of natural resources and any effects on existing aquatic resources adjacent to the waterfront sites would be limited because: (1) the proposed action will be required to comply with all applicable environmental regulations and permitting processes designed to protect the natural environment; and (2) the degraded quality of the adjoining aquatic habitats. Accordingly, the proposed action would not have the potential to result in significant adverse natural resources impacts and no further assessment is warranted.

## **Hazardous Materials**

As defined in the 2012 *CEQR Technical Manual*, a hazardous material is any substance that poses a threat to human health or the environment. Substances that can be of concern include, but are not limited to, heavy metals, volatile and semivolatile organic compounds, methane, polychlorinated biphenyls and hazardous wastes (defined as substances that are chemically reactive, ignitable, corrosive, or toxic). According to the 2012 *CEQR Technical Manual*, the potential for significant adverse impacts from hazardous materials can occur when: (a) hazardous materials exist on a site, and (b) an action would increase pathways to their exposure; or (c) an action would introduce new activities or processes using hazardous materials.

### Greenpoint Williamsburg Rezoning FEIS

The *Greenpoint-Williamsburg Rezoning FEIS* includes a detailed review of environmental database listings for the Greenpoint area. Searches of the history of sites uses were conducted for all the projected and potential development sites identified in the *FEIS*. The environmental review performed for the hazardous materials chapter of the *FEIS* revealed that the tax lots that are fully or partially located within the five projected development sites affected by the proposed action in this EAS have the potential for hazardous materials contamination. As a result, (E) designations for hazardous materials were put in place for all of these tax lots.

#### (E) Designations

(E) designations for hazardous materials provide notice of the presence of an environmental requirement pertaining to potential hazardous materials contamination on a particular tax lot. They are established in connection with a change in zoning or an action pursuant to a provision of the Zoning Resolution that would allow additional development to occur on property, or would permit uses not currently allowed. For new developments, enlargements of existing buildings, or changes in use, the NYC Department of Buildings will not issue a building permit for grading, excavation, foundation, alteration, building, or any other permit for the site which permits soil disruption, or issue a temporary or permanent Certificate of Occupancy that reflects a change in Use Group until the environmental requirements of the (E) designation are satisfied. For hazardous materials (E) designations, the environmental requirements are that a testing and sampling protocol be conducted, and a remediation plan be developed and implementation where appropriate, to the satisfaction of the NYC Mayor's Office of Environmental Remediation

(OER). OER administers the (E) Designation Environmental Review Program, which was formerly administered by the NYC Department of Environmental Protection (DEP), including at the time of the 2005 *FEIS*. Per the City rules regulating (E) designations, related to these activities, Phase I Environmental Site Assessments, Remedial Investigation Work Plans (aka, Phase II Work Plans), Remedial Investigation Reports, mandatory health and safety plans (HASPs) Remedial Action Plans (RAPs), and Remedial Closure Reports consistent with the applicable standards of the American Society for Testing and Materials (ASTM) must be prepared, reviewed and approved by OER, and implemented to OER's satisfaction during investigation and remediation of (E)-designated sites in order to assure protection of public health and the environment. DOB may issue permits allowing for certain activities consistent with a RAP upon receiving a Notice to Proceed from OER.

The (E) designations for the tax lots located fully or partly in the projected development are included in the official list maintained in the NYC *Zoning Resolution*, "Appendix C: City Environmental Quality Review Environmental Requirements." They are listed under (E) Designation Number 138, which contains the following standard description for hazardous materials: "Underground Gasoline Storage Tanks\* Testing Protocol. (\* Underground gasoline storage tanks included in category of hazardous materials contamination as of 6/16/94.)"

#### Geographic Scope of Work for the Proposed Action

Table B-4 provides a cross-reference between the five projected development sites analyzed in this EAS and the relevant tax lots listed in Appendix C of the ZR.

GLA will be responsible for any repairs to the portion of the bulkhead located on Projected Development Sites 1 and 4, as well as other sites being developed by GLA on an as-of-right basis. This could include repairs required or necessary to maintain the integrity of the bulkhead or allow for GLA to fulfill its waterfront obligations under the Zoning Resolution. The Proposed Project would not involve in-water disturbance, excavation, filling, or any other activities beyond the existing bulkhead or shoreline at Projected Development Sites 1 through 5.

**Table B-4,  
Hazardous Materials (E) Designation Tax Lots Cross-referenced to the Projected Development Sites**

<b>(E) Designation Number<sup>1</sup></b>	<b>Tax Lots (Block, Lot)</b>	<b>Projected Developments Sites<sup>2</sup></b>	<b>Existing Owner</b>
E-138 Effective: 5/11/2005  Source: Appendix C of the NYC <i>Zoning Resolution</i>	B 2472, L 32	Projected Development Site 1	City of New York
	B 2472, L 100	Projected Development Site 4a	GLA
	B 2494, L 1	Projected Development Site 2 (part)	GLA
		Projected Development Site 3 Projected Development Site 5	
B 2494, L 6	Projected Development Site 2 (part)	City of New York	

<sup>1</sup> This table lists only the tax lots in E-138 that are fully or partially within one of the five projected development sites.

<sup>2</sup> As discussed in Attachment A "Project Description," Projected Development Site 2 includes a mix of City-owned land (B 2494, L 6) and GLA-owned land (a portion of B 2494, L 1). In addition to Projected Development Site 4a, Projected Development Site 4b and B 2472, p/o L 100 will be developed with one or more as-of-right buildings by the 2020 Build year. The (E) designation for that lot must be satisfied before any development may be issued a building permit.

Assessment

As discussed in the “Noise” section of this attachment and in Attachment I, "Air Quality," the proposed action requires measures to preclude the potential for significant adverse impacts related to air quality and noise. Therefore, for Projected Development Sites 1 to 5 a new (E) designation (expected to be (E) designation E-317) would be recorded against these properties. This new (E) designation would supersede the existing (E) designation, E-138, which requires hazardous materials testing, sampling and, if necessary, remediation. The new (E) designation would retain the existing hazardous materials requirements, with updates to the language to be consistent with current (E) designation rules and procedures, thereby ensuring that significant adverse hazardous materials impacts would be avoided.

The updated (E) designation text related to hazardous materials is as follows:

**Projected Development Site 1 (Block 2472, Lot p/o 32)**

**Projected Development Site 2 (Block 2494, Lots p/o 1, 6)**

**Projected Development Site 3 (Block 2494, Lot p/o 1)**

**Projected Development Site 4a (Block 2472, p/o Lot 100)**

**Projected Development Site 5 (Block 2494, Lot p/o 1)**

**Task 1**

**The applicant must submit to the NYC Office of Environmental Remediation (OER), for review and approval, a Phase I Environmental Site Assessment , any other previous environmental studies, and a soil, groundwater and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented.**

**If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of sample sites should be selected to adequately characterize site, the specific source of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination) and the remainder of the site’s condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of the sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.**

**Task 2**

**A written report with findings and a summary of the data must be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.**

**If remediation is indicated from the test results, a proposed remediation plan must be submitted to OER for review and approval. Such remediation as determined**

**necessary by OER must be completed and then proper documentation provided that the work has been satisfactorily completed.**

**A construction-related health and safety plan (CHASP) and Community Air Monitoring Program (CAMP) would be submitted to OER together with the RAP and would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil and/or groundwater.**

With the abovementioned institutional controls in place, any development or change in use on the projected development sites will require OER-approved site investigation and remediation to ensure protection of public health and the environment during project construction and site occupancy. Accordingly, no significant adverse impacts related to hazardous materials would result from the proposed action.

### **Water and Sewer Infrastructure**

New York City's water and sewer network is fundamental to the operation, health, safety, and quality of life of the City and its surrounding environment, and it must be sized to fit the users and the surface conditions in order to function adequately. Therefore, a preliminary assessment pursuant to the 2012 *CEQR Technical Manual* identifies whether a proposed project may adversely affect the City's water distribution or sewer system, and if so, assesses the effects of such projects in a detailed assessment in order to determine whether their impact is significant.

Per the EAS Form, further analysis of water supply has been screened out in accordance with 2012 *CEQR Technical Manual* assessment screening thresholds. However, per the 2012 *CEQR Technical Manual* guidance, a preliminary assessment of wastewater and stormwater conveyance and treatment is warranted as the Project Site is located in a combined sewer area in Brooklyn and the Proposed Project would generate an increment greater than 400 DUs.

### ***Wastewater and Stormwater Conveyance and Treatment***

#### **Greenpoint-Williamsburg Rezoning FEIS**

The *FEIS* found that under the Revised AHBI the rezoning would generate a net increased water usage of approximately 2.51 million gallons per day (mgd). As the municipal services are expected to have adequate capacity to meet these increases in demand for water and the treatment of sewage, no significant adverse impacts are expected to result to these services.

The *FEIS* also found that the increased dry weather sewage resulting from the Revised AHBI Alternative would increase the frequency and volume of CSO discharges. An assessment was conducted to predict the increased frequency and volume of CSOs within the entire Newtown Creek drainage area resulting from the additional dry weather sanitary flows, and the associated changes in pollutant mass loadings. Results of the predictions showed that increased CSO frequency, volume, and pollutant mass loadings resulting from the increased dry weather sewage flows were insignificant. Those predictions were conservative due to the fact that no credit was



taken for the additional open space created under the rezoning or the additional on-site stormwater detention. Accordingly, the *FEIS* found the rezoning application as reflected in the Revised AHBI Alternative would not create significant adverse impacts upon the City's sanitary sewage and wastewater management system.

The Technical Memorandum in Appendix J of the *FEIS* found that with increased projected development on three sites (including Site 3.1, which is equivalent to what is described as Projected Development Site 1 and the City-owned portion of Projected Development Site 2 in this EAS) the analysis conclusions for infrastructure would not change.

#### Preliminary Assessment: Overview

A preliminary assessment typically focuses on the effects of increased sanitary and stormwater flows on the City's infrastructure serving the project site.

#### *Newtown Creek Wastewater Treatment Plant*

The Newtown Creek WWTP, which is located on Newtown Creek and its tributary Whale Creek Canal approximately two-thirds of a mile east of the Project Site, serves the Project Site. The Newtown Creek WWTP has a total dry weather design and permitted capacity of 310 million gallons per day (mgd), per its New York State Pollution Discharge Elimination System permit flow limit. According to DEP, upgrade work, which began in 1998 and is expected to be completed by 2014, will eventually raise plant capacity to 700 mgd during wet weather storms. The Plant provides wastewater treatment for approximately 1 million people in a 15,656-acre drainage area encompassing south and eastern Midtown sections of Manhattan, the northwest section of Brooklyn, and the western section of Queens.<sup>4</sup> The Newtown Creek WWTP is presently fed by two interceptor sewers, one in Kent Avenue with the other in Morgan Avenue. Wastewater generated in the proposed site area flows via the Kent Avenue interceptor into the City's sewer system and is treated at the Newtown Creek WWTP, which then outlets to the East River.

#### *Combined Sewers*

The Project Site is located in an area served by combined sewers. However, given Projected Development Sites 1 and 4's location along the waterfront and generally flat topography which has a gentle slope upland, it is likely that a portion of the stormwater runoff from these sites is discharged directly to the East River by overland flow and is not treated.

According to the 2012 *CEQR Technical Manual*, combined sewer systems collect both "dry-weather" wastewater (primarily sanitary sewage as well as wastewater from industries) and stormwater. During dry weather, combined sewers function as sanitary sewers, conveying all flows to the WWTPs for treatment. During wet weather, however, large volumes of rainfall

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<sup>4</sup> Information about the Newtown Creek Wastewater Treatment Plant was derived from the New York City Department of Environmental Protection's website:  
[http://www.nyc.gov/html/dep/html/dep\\_projects/cp\\_newtown\\_creek\\_plant.shtml](http://www.nyc.gov/html/dep/html/dep_projects/cp_newtown_creek_plant.shtml)

runoff can enter the system from building connections and through catch basins along the City's streets. If all of this water were conveyed to the treatment plants, it could exceed their design capacity as the plants are designed to handle only twice their average design dry-weather flow. To avoid flooding the plants during storms, the excess is directed to outfalls into the nearest waterway, i.e., the East River/Newtown Creek for the Project Site. During such overflow periods, a portion of the sanitary sewage entering, or already in, the combined sewers discharges untreated into the waterway along with stormwater and debris washed from streets. This untreated overflow is known as a combined sewer overflow (CSO).

### Wastewater Preliminary Assessment

#### *Existing Sanitary Wastewater Flows*

As the projected development sites are primarily vacant or used for storage, it is assumed that any wastewater generated by the sites is minimal.

#### *2020 No-Action Sanitary Wastewater Flows*

As discussed in Attachment A, "Project Description," under 2020 No-Action conditions, as-of-right development on GLA-owned portions of the projected development sites is expected to include 769 DUs and 1,800 gsf of retail space. With an average household size of 2.61 persons, this would result in approximately 2,007 residents. As shown in Table B-5, this would generate approximately 201,132 gpd of wastewater flows.

**Table B-5, No-Action and With-Action Sanitary Wastewater Flows**

	Unit	Generation Rate	Sewage Generation (gpd)
<b>NO-ACTION CONDITION</b>			
<b>Residential</b>	2,007 residents	100 gpd/resident	200,700 gpd
<b>Retail (gsf)</b>	1,800 gsf	0.24 gpd/gsf	432 gpd
<b>Total</b>			<b>201,132 gpd</b>
<b>WITH-ACTION CONDITION</b>			
<b>Residential (residents)</b>	3,852 residents	100 gpd/resident	385,200 gpd
<b>Retail (gsf)</b>	6,700 gsf	0.24 gpd/gsf	1,608 gpd
<b>School</b>	640 seats	10 gpd/seat	6,400 gpd
<b>Total</b>			<b>393,208 gpd</b>
<b>Increment of No-Action /With-Action Conditions</b>			<b>192,076 gpd</b>

Sewage generation rates from Table 13-2 of the 2012 *CEQR Technical Manual*.

#### *2020 With-Action Sanitary Wastewater Flows*

As discussed in Attachment A, "Project Description," under 2020 With-Action conditions, the proposed action would allow for the development of approximately 1,476 DUs, 6,700 gsf of retail space, and a 640-seat public school for elementary and intermediate students. As shown in Table B-5, this would generate approximately 393,208 gpd of wastewater flows.

### *Project Increment Wastewater Flows*

As also shown in Table B-5, the incremental increase in wastewater flows generated as a result of the proposed action would be approximately 192,076 gpd. This would represent less than 0.1 percent of the Newtown Creek WWTP's 310-mgd dry weather capacity and would not cause the plant to exceed its capacity. Therefore, the proposed action would not have a significant adverse impact on wastewater treatment.

### Stormwater Conveyance and Treatment Preliminary Assessment

Stormwater runoff is generated by rainwater that collects on the surfaces of land or built structures. The volume of runoff generated by these surfaces varies depending on the type of land cover, which can be pervious (soil or landscaped surfaces that allow more percolation to the ground below, generating less runoff) or impervious (surfaces such as roads and building rooftops, that impede percolation and generate greater runoff).

#### *2013 Existing Conditions*

As described in Attachment A, "Project Description," the Project Site includes vacant areas, storage, and a DEP sludge tank (which will be removed in 2014). These sites are covered by impermeable surfaces from past industrial uses, with 99 percent of the surface area covered by asphalt and other pavement and 1 percent covered by a building roof (a small 1-story building on Projected Development Site 5). There are no known stormwater management measures, such as detention, infiltration, or reuse measures, to reduce runoff.

Total combined flows to the combined sewer system were estimated for the Project Site under existing conditions using the NYCDEP flow calculations matrix. Total volumes of combined flows for different rainfall events are shown in Table B-6. It should be noted that this does not include any calculation of direct discharge of stormwater runoff into the East River/Newtown Creek from overland flow from Projected Development Sites 1 and 4.

As shown in the table, depending on the rainfall volume and duration, the total volume to the combined sewer system could be between 0.05 and 0.31 MG. As noted above, the only uses on the Project Site under existing conditions are storage activities, which are assumed to not generate any wastewater flows.

#### *2020 No-Action Conditions*

Under 2020 No-Action conditions, there would be development on portions of the Project Site. As discussed in Attachment A, "Project Description," there is expected to be new development as-of-right on Projected Development Site 3, which could also extend into the adjoining GLA-owned portion of Projected Development Site 2, and on Projected Development Site 4. The development on Projected Development Site 4 would include waterfront open space, a portion of which would be covered by grass or softscape surfaces. Projected Development Sites 1 and 5 would not be redeveloped and would remain in their current condition covered by asphalt and a

small existing building on Projected Development Site 5. The City-owned portion of Projected Development Site 2 would not be redeveloped but DEP will remove the existing sludge tank.

**Table B-6, Project Site Stormwater and Sanitary Sewage Flow Volumes – Existing Conditions**

Rainfall Volume (inches)	Rainfall Duration (hours)	Area = 233,326 sf (5.4 acres)		
		Stormwater Runoff Volume to Combined Sewer System (MG)	Sanitary Volume to Combined Sewer System (MG)	Total Volume to Combined Sewer System (MG)
0.00	3.80	0.00	0.00	0.00
0.40	3.80	0.05	0.00	0.05
1.20	11.30	0.15	0.00	0.15
2.50	19.50	0.31	0.00	0.31

**Notes:**

MG = Million Gallons

Per the 2012 *CEQR Technical Manual*, data calculated using “NYC DEP Volumes Calculation Matrix.”

*2020 With-Action Conditions*

Under 2020 With-Action conditions, the proposed action would facilitate the development of the five projected developments sites. Projected Development Sites 1 and 4 would be developed with new buildings and waterfront open space. Based on preliminary waterfront zoning plans for these sites, it is expected that grass and softscape areas would comprise a minimum of 23 percent of the area of these sites and 16 percent of the total area of the five projected development sites combined. For Projected Development Sites 2, 3, and 5, which are upland properties, it is assumed as a worst case that no portion of the sites would be covered by grass or softscape, although such areas may be provided.

With the substantial increase in pervious surface under 2020 With-Action conditions as compared to both existing and 2020 No-Action conditions, the proposed action would result in a decrease in the rate and volume of surface runoff entering the East River/Newtown Creek and the combined sewer system. In addition, stormwater best management practices (BMPs) for the Proposed Project could result in reductions to the estimated generation rates for stormwater runoff.

Per 2012 *CEQR Technical Manual* guidelines, Table B-7 provides a comparison of the Project Site’s surface areas under the existing condition and 2020 With-Action condition. As shown in the table, in the With-Action condition, the RWCDs for the proposed action would increase the amount of roof and grass and softscape areas, while decreasing the amount of area covered by pavement and walks. Based on runoff coefficient values provided in the 2012 *CEQR Technical Manual*, the Project Site’s weighted runoff coefficient is expected to decrease from 0.85 under existing conditions to 0.82 under With-Action conditions.

Table B-8 estimates the total combined flow volume (stormwater runoff and sanitary flows) to the combined sewer system under With-Action conditions. Depending on the rainfall volume and duration, the total volume to the combined sewer system could be between 0.06 and 0.62 MG.

**Table B-7, Project Site Stormwater Runoff – Existing and 2020 With-Action Conditions**

Surface Type	2013 Existing Conditions					2020 With-Action Conditions				
	Roof	Pavement & Walks	Other	Grass & Softscape	Total	Roof	Pavement & Walks	Other	Grass & Softscape	Total
Area (%)	1%	99%	0%	0%	100%	53%	31%	0%	16%	100%
Surface Area (sf)	1,451	231,857	0	0	233,326	123,849	71,045	0	38,432	233,326
Runoff Coefficient*	1.00	0.85	0.85	0.20	0.85	1.00	0.85	0.85	0.20	0.82

\* Runoff Coefficient per NYC DEP; total is a weighted average.

**Table B-8, Project Site Stormwater and Sanitary Sewage Flow Volumes – 2020 With-Action Conditions**

Rainfall Volume (inches)	Rainfall Duration (hours)	Area = 233,326 sf (5.4 acres)		
		Stormwater Runoff Volume to Combined Sewer System (MG)	Sanitary Volume to Combined Sewer System (MG)	Total Volume to Combined Sewer System (MG)
0.00	3.80	0.00	0.06	0.06
0.40	3.80	0.05	0.06	0.11
1.20	11.30	0.14	0.19	0.33
2.50	19.50	0.30	0.32	0.62

**Notes:**

MG = Million Gallons

Per the 2012 *CEQR Technical Manual*, data calculated using “NYC DEP Volumes Calculation Matrix.”

Due to rounding totals may not appear to sum correctly.

The incremental increase over existing conditions, shown below in Table B-9, indicates that the proposed action has the potential to result in incremental increases in CSOs due to increased sanitary volume to the combined sewer system as compared to existing conditions in which there are assumed to be no wastewater generated. As the matrix indicates, as a result of the proposed action, CSOs originating from the Project Site and discharged to the East River/Newtown Creek would increase between 0.06 and 0.31 MG dependent on duration of the storm event.

To be issued a permit to connect to a City sewer, an applicant proposing a new development or expansion of an existing development may be required to submit a site-specific hydraulic analysis to DEP for review and approval. The site-specific hydraulic analysis would establish the adequacy of the existing combined sewer system that would serve the development lot.

**Table B-9, Incremental Increase in Project Site Combined Stormwater and Sanitary Sewage Flow Volumes to the Combined Sewer System – Future With-Action Condition**

Rainfall Volume (inches)*	Rainfall Duration (hours)*	Total Volume to Combined Sewer System (MG)			Percent Change (%)
		Existing Conditions	With-Action Conditions	Increment	
0.00	3.80	0.00	0.06	0.06	N/A
0.40	3.80	0.05	0.11	0.06	55%
1.20	11.30	0.15	0.33	0.18	55%
2.50	19.50	0.31	0.62	0.31	50%

**Notes:**

MG = Million Gallons

Per the 2012 *CEQR Technical Manual*, data calculated using “NYC DEP Volumes Calculation Matrix.”

For projects such as the Proposed Project with increased sanitary flows to the City's combined sewer system, DEP has requirements for stormwater-release rates to the combined sewer that must be complied with as part of the sewer connection permit process. Projected Development Sites 1, 2, 3 and 4a are committed to utilizing green infrastructure and would be required by DEP to demonstrate the use of BMPs, to be finalized later, in order to comply with these requirements. The design of these technologies would be based on engineering assessments of the site plan and building design. Accordingly, green infrastructure for Projected Development Sites 1, 2, 3 and 4a, as part of the Proposed Project, will help to minimize the effects of new development on the combined sewer conveyance system.

Based on the analysis described above, conducted pursuant to 2012 *CEQR Technical Manual* methodologies, and consistent with the analysis provided in the *FEIS*, the proposed action would not result in significant adverse impacts to local water supply or wastewater and stormwater conveyance and treatment infrastructure.

### **Transportation**

The objective of transportation analysis is to determine whether a proposed action may have a potentially significant adverse impact on traffic operations and mobility, public transportation facilities and services, pedestrian elements and flow, safety of all roadway users (pedestrians, bicyclists, and vehicles), on- and off-street parking or goods movement.

The 2012 *CEQR Technical Manual* identifies minimum development densities that potentially require transportation analysis. Development at less than the development densities shown in Table 16-1 of the 2012 *CEQR Technical Manual* generally result in fewer than 50 peak-hour vehicle trips, 200 peak-hour subway/rail or bus transit riders, and 200 peak-hour pedestrian trips, where significant adverse impacts are considered unlikely. The proposed action exceeds this initial screening threshold and therefore further screening was necessary to determine if detailed analysis of traffic, parking, transit, and pedestrians.

According to the 2012 *CEQR Technical Manual*, if an action would result in development greater than the minimum development density thresholds in Table 16-1, a Level 1 (Project Trip Generation) Screening Assessment should be prepared. In most areas of the City, including the project area, if the proposed actions are projected to result in fewer than 50 peak-hour vehicle trips, 200 peak-hour subway/rail or bus transit riders, or 200 peak-hour pedestrian trips, it is unlikely that further analysis would be necessary. If these trip-generation screening thresholds are exceeded, a Level 2 (Project-generated Trip Assignment) Screening Assessment should be prepared to determine if the proposed action would generate or divert 50 peak-hour vehicle trips through any intersection, 200 peak-hour subway trips through a single station, 50 peak-hour bus trips on a single bus route in the peak direction, or 200 peak-hour pedestrian trips through a single pedestrian element. If any of these Level 2 screening thresholds are met or exceeded, detailed analysis for the respective mode is required.

Attachment H, "Transportation," provides screening analyses and, as warranted, detailed analysis of traffic, transit, and pedestrians. As discussed therein, the proposed action would not result in

any significant adverse transportation impacts. It should be noted that the proposed action includes an improvement related to subway service. As discussed in Attachment A, “Project Description,” as part of the proposed action an additional high entry/exit turnstile would be added to the fare array located at the India Street entrance to the northbound platform of the Greenpoint Avenue subway station to increase fare array capacity at that location (refer to Attachment H, “Transportation,” for details). This would be installed by MTA NYC Transit and paid for by GLA as a condition of project implementation. This obligation would be made part of the transactional documents between GLA and the City would be enacted when MTA NYC Transit advises that the level of construction of the project is such that implementation is required.

### **Air Quality (Stationary Sources)**

According to the guidelines provided in the *2012 CEQR Technical Manual* (as updated through revisions effective June 18, 2012), air quality analyses are conducted in order to assess the effect of an action on ambient air quality (i.e., the quality of the surrounding air), or effects on the project because of ambient air quality. Air quality can be affected by “mobile sources,” pollutants produced by motor vehicles, and by pollutants produced by fixed facilities, i.e., “stationary sources.” As per the *2012 CEQR Technical Manual*, an air quality assessment should be carried out for actions that can result in either significant adverse mobile source or stationary source air quality impacts. Per the EAS Form, further analysis of air quality mobile sources has been screened out in accordance with *2012 CEQR Technical Manual* assessment screening thresholds. However, per the EAS Form, further analysis of air quality stationary sources is warranted. The proposed action would introduce new residential and community facility development in areas formerly zoned manufacturing and with building envelopes different in certain respects from those assumed for analysis in the *2005 Greenpoint-Williamsburg Rezoning FEIS*. Therefore, detailed analysis is warranted and provided in Attachment I, “Air Quality.” As discussed therein, the proposed action would not result in any significant adverse air quality impacts. The proposed action would include air quality (E) designations specifying certain HVAC system parameters (refer to Attachment I for (E) designation text relating to air quality).

### **Noise**

The principal types of noise sources affecting the New York City environment are mobile sources (primarily motor vehicles), stationary sources (typically machinery or mechanical equipment associated with manufacturing operations or building heating, ventilating and air conditioning systems) and construction noise.

#### *Greenpoint Williamsburg Rezoning FEIS*

The *Greenpoint-Williamsburg Rezoning FEIS* included a detailed noise analysis which identified required window/wall attenuation values to achieve acceptable indoor noise levels for all of the rezoning area’s projected and potential development sites, including the tax lots affected by the proposed action. This analysis accounted for noise generated by existing stationary source noise sources and the potential for increased noise levels due to mobile sources (traffic) generated by the rezoning’s projected development. The *FEIS* found that a noise attenuation of 30 dBA, with alternate means of ventilation, would be required to achieve an acceptable interior noise level (45

dBA) for residential/commercial buildings on these tax lots. As the noise exposure guidelines provided in the 2012 *CEQR Technical Manual* state that the acceptable general external exposure for schools is the same as for residences from 7 AM to 10 PM, by definition, attenuation values required for residential uses are also sufficient to meet the attenuation requirements for a school.

Two of the monitoring sites in the *FEIS* are pertinent to the proposed action analyzed in this EAS as shown in Table B-11.

**Table B-11**  
**Monitored Noise Levels (dBA)**

FEIS Noise Monitoring ID	Location	Time of Day	L <sub>10</sub>
1	Clay Street btw Franklin St. and Manhattan Ave. (approximately 1 block from Site 4)	AM	64.3
2	Eagle Street btw West Street and Franklin Street (adjacent to Site 3; approximately half-block from Sites 1, 2, & 5)	AM	67.3

Source: *Greenpoint-Williamsburg Rezoning FEIS*

Based on those monitoring sites, especially Site 2, the blocks that would be developed pursuant to the Proposed Action received E designations for the following required minimum building attenuation:

- Block 2472, p/o Lot 32      30 dBA
- Block 2472, p/o Lot 100      30 dBA
- Block 2494, Lot 1      30 dBA
- Block 2494, Lot 6      30 dBA

### Supplemental Information

Because the anticipated No Action and With-Action Conditions have changed since the *FEIS*, an updated analysis is required. The updated analysis focuses on ambient noise levels and noise levels associated with the West Street extension.

Noise monitoring was carried out at three locations near the Project Site. These locations were chosen to establish existing noise levels. The three locations are:

- Franklin and Dupont Streets
- West Street and Commercial Street
- West Street and Eagle Street

These locations were chosen to establish existing noise levels in the vicinity of the Project Site. Table B-12 shows the noise monitoring data, and Figure B-4 shows the three monitoring site locations. Sources of background noise included helicopter flyovers, noisy pedestrians (especially children), and cars honking.



**Table B-12**  
**Monitored Noise Levels (dBA)**

ID	Site	Time of Day	L <sub>eq</sub>	L <sub>10</sub>	L <sub>Min</sub>	L <sub>Max</sub>	L <sub>01</sub>	L <sub>50</sub>	L <sub>90</sub>
1	West and Eagle Streets	AM	60.8	63.3	56.7	71.3	68.6	59.1	57.4
		MID	63.5	<b>66.3</b>	56.7	77.3	72.6	61.0	57.8
		PM	64.1	65.3	57.6	79.1	76.0	59.7	58.2
2	Commercial and Dupont Streets	AM	64.8	62.6	54.1	85.8	77.0	57.1	55.0
		MID	59.9	60.6	53.5	80.4	70.0	56.4	54.5
		PM	72.5	<b>75.4</b>	59.1	92.8	81.6	67.9	61.7
3	Dupont and Franklin Streets	AM	62.8	65.6	54.3	78.6	72.4	59.6	56.1
		MID	63.7	65.7	54.6	81.4	75.1	58.6	56.2
		PM	66.9	<b>68.9</b>	55.3	84.9	78.9	61.0	56.9

Note: Numbers in bold type show the highest results for that site.

Source: Philip Habib & Associates

Figure B-4, Noise Monitoring Locations



★ Noise Monitoring Locations

To determine future noise levels from project-generated traffic, and to determine noise levels associated with the extension of West Street, the FHWA’s TNM model was run with traffic for existing, No Action, and With-Action Conditions for the three monitored sites. Only the peak

AM period was run because that would be a worst-case for traffic increments due to the proposed school. Table B-13 shows the resulting  $L_{eq}$ s. TNM does not calculate an  $L_{10}$ .

**Table B-13 TNM Traffic Noise Leq<sub>s</sub> (dBA) for AM Peak Hour**

PHA Site ID	Location	Existing	No Action	Action	Difference (Action – No Action)
1	West and Eagle Streets	54.6	54.7	58.1	3.4
2	Commercial and Dupont Streets	50.0	50.2	55.2	5.0
3	Dupont and Franklin Streets	57.4	59.4	61.4	2.0

All of the modeled noise levels are lower than the monitored values shown in Table B-12. Therefore, the apparent differences shown in Table B-13 are misleading because they do not account for background noise levels. The modeled noise levels for existing Conditions were logarithmically subtracted from the total noise levels obtained during noise monitoring. Table B-14 shows the results. In this table the incremental noise increases for the AM peak hour have also been applied to the Midday and PM peak hours, since traffic data was not available for TNM modeling of the midday and PM peak hours. This approach is a worst case analysis because the peak AM period has the highest traffic volumes, and the incremental traffic increases for the AM peak hour will be far higher than for the midday and PM peak hours. Based on this table, no impacts would occur to the projected development sites. Additional analyses comparing traffic volumes at intersections within the study area showed that no sensitive receptors would experience project-generated noise level increases of 3 dBA or more.

**Table B-14 TNM Traffic Noise Leq<sub>s</sub> (dBA) for Peak AM**

PHA Site ID	Location	Back-ground	Modeled No Action	Total No Action	Modeled Action	Total Action	Difference (Action – No Action)
<b>Peak AM Period</b>							
1	West and Eagle Streets	59.6	54.7	60.8	58.1	61.9	1.1
2	Commercial and Dupont Streets	64.7	50.2	64.8	55.2	65.1	0.3
3	Dupont and Franklin Streets	61.3	59.4	63.5	61.4	64.4	0.9
<b>Peak Midday Period</b>							
1	West and Eagle Streets	62.9	54.7	63.5	58.1	64.1	0.6
2	Commercial and Dupont Streets	59.4	50.2	59.9	55.2	60.8	0.9
3	Dupont and Franklin Streets	62.5	59.4	64.3	61.4	65.0	0.8
<b>Peak PM Period</b>							
1	West and Eagle Streets	63.6	54.7	64.1	58.1	64.7	0.6
2	Commercial and Dupont Streets	75.5	50.2	72.5	55.2	72.6	0.1
3	Dupont and Franklin Streets	66.4	59.4	67.2	61.4	67.6	0.4

Source: Sandstone Environmental Associates, Inc.

Table B-15 shows a comparison of the  $L_{10S}$  for the *FEIS* and the highest  $L_{10S}$  for the proposed action analyzed under this EAS. The  $L_{10S}$  for the current noise monitoring sites were estimated based on the difference between the  $L_{10}$  and  $L_{eq}$  during noise monitoring.

**Table B-15 Comparison of Noise Leq<sub>s</sub> (dBA)**

PHA Site ID	Location	FEIS Site ID	FEIS Action L10	E Designation	EAS Action Leq	EAS Action L10	Required Attenuation (2012 CEQR Technical Manual)
1	West and Eagle Streets	2	67.3	30	64.1	66.9	25
2	Commercial and Dupont Streets	2	67.3	30	72.6	75.5	31
3	Dupont and Franklin Streets	2	67.3	30	67.6	69.6	25

Based on the table above, as a conservative approach the E designations established in the *Greenpoint-Williamsburg Rezoning FEIS* should be increased to 31 dBA for the Projected Development Sites 1, 2, 3, 4a and 5 analyzed in this EAS.

The *FEIS* states:

To achieve 30/35 dBA of building attenuation, double glazed windows with good sealing properties would be used as well as alternate means of ventilation such as well sealed through-the-wall air conditioning or central air conditioning. In addition, mechanical equipment such as heating, ventilation, and air conditioning (HVAC) and elevator motors would utilize sufficient noise reduction devices to comply with applicable noise regulations and standards. There are two levels of required noise attenuation depending upon the ambient noise levels. One level of attenuation is 30 dBA and the higher level of attenuation is 35 dBA. The text for the (E) Designation for sites requiring 30 dBA of attenuation would be as follows:

**“In order to ensure an acceptable interior noise environment, future residential/ commercial uses must provide a closed window condition with a minimum of 31 dBA window/wall attenuation on all façades in order to maintain an interior noise level of 45 dBA. In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to central air conditioning or air conditioning sleeves containing air conditioners or HUD approved fans.”**

- *Greenpoint-Williamsburg Rezoning FEIS*, page 19-17

The Technical Memorandum provided in Appendix J of the *FEIS*, described above in Section A, “Introduction,” found that the required Noise attenuation values identified in the *FEIS* would still be sufficient in the event three of the potential development sites were considered projected developments sites (including *FEIS* Site 3.1 which is equivalent to Projected Development Site 1 and the City-owned portion of Projected Development Site 2 in this EAS).

As a result, (E) designations for noise adopted as part of the rezoning were put in place for all of the tax lots comprising the projected development sites analyzed in this EAS.

(E) Designations

(E) designations for noise provide notice of the presence of an environmental requirement pertaining to high ambient noise levels on a particular tax lot. If an area is proposed to be rezoned, and the accompanying environmental analysis indicates that development on a property may be adversely affected by noise, then an (E) designation for window/wall attenuation and alternate means of ventilation may be placed on the property by the lead agency in order to address such issues in conjunction with any new development or new use of the property. For new developments, enlargements of existing buildings, or changes in use, the NYC Department of Buildings will not issue a building permit until the environmental requirements of the (E) designation are satisfied. OER administers the (E) Designation Environmental Review Program, which was formerly administered by the NYC Department of Environmental Protection (DEP), including at the time of the 2005 *FEIS*.

The (E) designations for the sites located fully or partly in the Project Site are included in the official list maintained in the NYC *Zoning Resolution*, “Appendix C: City Environmental Quality Review Environmental Requirements.” They are listed under (E) Designation Number 138, which contains the following standard description for noise: “window wall attenuation & alternate means of ventilation.”

Table B-16 summarizes the required noise attenuation information applicable to the projected developments sites.

**Table B-16, Projected Development Sites (E) Designation for Noise**

<b>Tax Lot (Block, Lot)</b>	<b>EAS Site No.<sup>1</sup></b>	<b>FEIS Site No.<sup>2</sup></b>	<b>(E) Designation/Required Attenuation</b>
B 2472, p/o L 32	Projected Development Site 1	Site 3.1	For All Tax Lots: Window wall attenuation of 31dBA and alternate means of ventilation
B 2472, p/o L 100	Projected Development Site 4a	Site 3.2	
B 2494, L 1	Projected Development Site 2 Projected Development Site 3 Projected Development Site 5	Site 3	
B 2494, L 6	Projected Development Site 2	Site 3.1	

<sup>1</sup> Refer to Table B-2

<sup>2</sup> Refer to Table B-3

The (E) designation text related to noise is as follows:

**Projected Development Site 1 (Block 2472, Lot p/o 32)**

**Projected Development Site 2 (Block 2494, Lots p/o 1, 6)**

**Projected Development Site 3 (Block 2494, Lot p/o 1)**

**Projected Development Site 4a (Block 2472, p/o Lot 100)**

**Projected Development Site 5 (Block 2494, Lot p/o 1)**

**In order to ensure an acceptable interior noise environment, future residential/ commercial uses must provide a closed window condition with a**

**minimum of 31 dBA window/wall attenuation on all façades in order to maintain an interior noise level of 45 dBA. In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to central air conditioning or air conditioning sleeves containing air conditioners.**

With the abovementioned institutional controls in place, no significant adverse impacts related to noise would result from the proposed action.

### **Neighborhood Character**

As the Proposed Project requires detailed analyses of Land Use, Zoning, and Public Policy (Attachment C); Community Facilities and Services (Attachment D); Open Space (Attachment E); Shadows (Attachment F); Urban Design and Visual Resources (Attachment G); and Transportation (Attachment H); a supplemental screening analysis is necessary to determine if a detailed neighborhood character analysis is warranted.

Neighborhood character is an amalgam of various elements that give neighborhoods their distinct “personality.” According to the 2012 *CEQR Technical Manual*, a preliminary assessment may be appropriate if a project has the potential to result in any significant adverse impacts on any of the following technical areas: land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; transportation; or noise. Per the analyses provided in this EAS, although the Proposed Project required supplemental screening or detailed analyses of several of these technical areas, there would be no project-generated significant adverse impacts.

The 2012 *CEQR Technical Manual* also states that for projects not resulting in significant adverse impacts to any technical areas related to neighborhood character, additional analyses may be required to determine if the proposed project would result in a combination of moderate effects to several elements that cumulatively may affect neighborhood character. However, the 2012 *CEQR Technical Manual* indicates that neighborhood character impacts are rare and it would be unusual that, in the absence of a significant adverse impact in any of the relevant technical areas, a combination of moderate effects in the neighborhood would result in any significant adverse impact to neighborhood character.

As the Proposed Project would not be considered to have moderate effects on any of the technical areas relating to neighborhood character, a neighborhood character assessment can be screened out, and no significant adverse neighborhood character impacts would occur.

### **Construction**

The Proposed Project would facilitate the development of in the construction of six developments on the Project Site and the completion of a one-block street extension. While project construction for each building is expected to have a duration of less than two years, it is expected that the buildings would be constructed in multiple phases with some overlapping over

an approximately six year period. Accordingly, Attachment J, "Construction," provides a detailed construction analysis. As discussed therein, the Proposed Project would not result in any significant adverse construction impacts.

**ATTACHMENT C**  
**LAND USE, ZONING AND PUBLIC POLICY**

## **A. INTRODUCTION**

The purpose of this analysis is to examine the effects of the proposed action and determine whether or not it would result in any significant adverse impacts on land use, zoning, or public policy.

As described in Attachment A, “Project Description,” the “proposed action” involves five development sites that are part of or adjacent to a larger development site that GLA controls and anticipates developing on an as-of-right basis. Therefore, this EAS analyzes only the increment between development that GLA could undertake as-of-right and development permitted by the approvals that are the subject of this application. Those required approvals that constitute the “proposed action” are an Urban Development Action Area Project (UDAAP) designation and disposition of City-owned property and conveyance of development rights from City-owned property; zoning text amendments; site selection and acquisition of a public school site by SCA; amendment of a Restrictive Declaration (RD); waterfront zoning authorizations per ZR 62-822(a) and (b); waterfront zoning certifications per ZR 62-811; and possible NYC Department of Housing Preservation and Development or NYC Housing Development Corporation financing.

### **Projected Development**

As discussed in Attachment A, “Project Description,” the proposed action would allow for a net incremental development of approximately 707 dwelling units (DUs), of which 431 DUs would be affordable housing units; approximately 4,900 gsf of local retail space; approximately 120,000 sf of school space containing a 640-seat public elementary/intermediate school; approximately 253 accessory parking spaces; and approximately 28,353 sf of publicly accessible open space.

Under 2020 With-Action conditions, on Block 2472, the proposed action would facilitate development of Projected Development Sites 1 and 4. On Projected Development Site 1, the proposed development would be 30 stories tall and would include: approximately 444 dwelling units (DUs), of which approximately 62 would be affordable DUs and 382 would be market-rate DUs; approximately 2,100 gsf of retail space; approximately 191 accessory parking spaces; and approximately 28,353 sf of publicly accessible open space. On Projected Development Site 4, the tallest development would be 30 stories tall and would include: approximately 448 DUs, of which 357 DUs would be affordable and 91 would be market-rate; approximately 3,400 gsf of retail space; approximately 148 accessory parking spaces; and approximately 19,290 sf of publicly accessible open space. On Block 2494, the proposed action would facilitate development of Projected Development Sites 2, 3, and 5. On Projected Development Site 2, the proposed development would be 40 stories tall and would include: approximately 486 DUs, of which 68 DUs would be affordable and 418 DUs would be



market-rate; and approximately 208 accessory parking spaces. On Projected Development Site 3, the proposed development would be approximately 7 stories tall and would include: approximately 98 DUs, all of which would be affordable; approximately 1,200 gsf of retail space; and approximately 29 accessory parking spaces. On Projected Development Site 5, the proposed development would be up to 100 feet tall, with an approximately 120,000-sf public elementary/intermediate school, which would house 640 seats.

Under 2020 No-Action conditions, it is expected that the projected development sites would include one or more new developments consisting of approximately 769 dwelling units, including approximately 154 affordable housing DUs and approximately 615 market-rate DUs; approximately 1,800 gsf of retail space, and approximately 323 accessory parking spaces; and approximately 19,290 sf of publicly accessible open space. These No-Build conditions represent the baseline against which the effects of the Proposed Project will be compared. The effect of the proposed action, therefore, represents the incremental effect on conditions that would result as the net change in development between No-Build conditions and the future with the proposed action (also referred to as “Build” conditions).

## **B. PRINCIPAL CONCLUSION**

No significant adverse impacts on land use, zoning, or public policy, as defined by the guidelines for determining impact significance set forth in the 2012 *CEQR Technical Manual*, are anticipated in the future with the Proposed Action in the primary and secondary study areas. The proposed action would not directly displace any land uses so as to adversely affect surrounding land uses, nor would it generate land uses that would be incompatible with land uses, zoning, or public policy in the secondary study area. The proposed action would not create land uses or structures that would be incompatible with the underlying zoning, nor would it cause a substantial number of existing structures to become non-conforming. The proposed action would not result in land uses that conflict with public policies applicable to the primary or secondary study areas.

The proposed action would result in an overall increase in residential use throughout the primary study area, when compared to conditions in the future without the proposed action. The proposed zoning text amendments would facilitate GLA’s use of the land and development rights subject to the disposition/UDAAP designation at a scale and density that is compatible with the existing zoning designations of the Project Site. The affected area contains underutilized and vacant lots used for vehicle/open storage; the proposed action would provide opportunities for new affordable and market rate residential development consistent with the 2005 rezoning, and a new public elementary/intermediate school on those underutilized lots.

The proposed action would also enhance and upgrade a currently inaccessible waterfront area to provide waterfront access. The Proposed Project includes approximately 47,643 sf of publicly accessible open space which would include a waterfront esplanade and upland connections to public streets and sidewalks, providing recreation space physically integrated with nearby parks.

## C. GREENPOINT-WILLIAMSBURG REZONING FEIS

### Land Use, Zoning, and Public Policy

The *Greenpoint-Williamsburg Rezoning FEIS* analyzed the land use, zoning, and public policy effects of the City's 2005 rezoning proposal, including the Revised Affordable Housing Bonus and Incentives (AHBI) Alternative which reflected the rezoning as adopted. The *FEIS* concluded that there would be no significant adverse impacts anticipated for land use, zoning, or public policy. The *FEIS* stated that the rezoning would provide a framework that would accommodate existing trends by facilitating the expansion of residential and local commercial land use and addressing continuing demand for light industrial and mixed-use areas. Of particular relevance to the project analyzed in this EAS, the *FEIS* noted that "new residential uses anticipated under the proposed action would replace underutilized uses and would dramatically improve public access to the waterfront... ..On waterfront blocks, R6 and R8 districts and zoning text changes would require development to provide a transition from the scale of the adjoining upland neighborhood to areas closer to the shoreline, where taller buildings could be located."

The Technical Memorandum provided in Appendix J of the *FEIS* analyzed the effects of development if three of the potential development sites were considered projected development sites included Site 3.1, which is identified in this EAS as Projected Development Site 1, the City-owned portion of Projected Development Site 2, and Newtown Barge Playground Expansion Area (Block 2472, Lot 32 and Block 2494, Lot 6). The analysis of Site 3.1 in the Technical Memorandum of the *FEIS* consisted of a projected development scenario of approximately 550 affordable housing dwelling units, along with two other smaller development sites located in other portions of the Greenpoint-Williamsburg rezoning area. The Technical Memorandum concluded that there would be no change in land use, zoning, and public policy effects and this technical area did not warrant further assessment.

### Waterfront Revitalization Program

The *FEIS* found that the rezoning would be generally consistent with all local WRP policies and therefore would not result in any significant adverse impacts related to WRP.<sup>1</sup>

## D. METHODOLOGY

The analysis methodology is based on the guidelines of the 2012 *CEQR Technical Manual* and examines the proposed action's consistency with land use patterns and development trends, zoning regulations, and other applicable public policies.

According to the 2012 *CEQR Technical Manual*, a detailed assessment of land use, zoning and public policy may be appropriate when needed to sufficiently inform other technical reviews and determine whether changes in land use could affect conditions analyzed in those

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<sup>1</sup> Coastal zone assessments required under the City's Waterfront Revitalization Program (WRP) are analyzed as part of the Land Use, Zoning, and Public Policy under 2012 *CEQR Technical Manual* guidelines. However, for the 2005 *FEIS* the WRP analysis was a separate section pursuant to the guidelines of the 2001 *CEQR Technical Manual* in effect at the time.

technical areas. Therefore, this attachment includes a detailed analysis of existing land uses within the directly affected area and the broader study area. Following the guidelines of the 2012 *CEQR Technical Manual*, the detailed analysis describes existing and anticipated future conditions to a level necessary to understand the relationship of the proposed project to such conditions, assesses the nature of any changes on these conditions that would be created by the proposed project, and identifies those changes, if any, that could be significant or adverse. Existing land uses were identified through review of a combination of sources including field surveys and secondary sources such as the *Greenpoint-Williamsburg Rezoning FEIS (ULURP No. N050110ZRK et al.)*, *Greenpoint-Williamsburg Contextual Rezoning EAS (ULURP No. 090334ZMK)*, as well as the City's Primary Land Use Tax Lot Output (PLUTO™) data files for 2012, and websites such as NYC Zoning and Land Use <<http://gis.nyc.gov/doitt/nycitymap/template?applicationName=ZOLA>>. New York City Zoning Maps and the Zoning Resolution of the City of New York were consulted to describe existing zoning districts in the study areas, and provided the basis for the zoning evaluation of the Future No-Action and Future With-Action conditions. Relevant public policy documents, recognized by DCP and other city agencies, were utilized to describe existing public policies pertaining to the study areas.

### **Analysis Year**






The analysis year is the proposed action's anticipated completion date of 2020. Therefore the future No-Action condition accounts for land use and development projects, initiatives, and proposals that are expected to be completed by 2020.

### **Study Area Definition**

According to the 2012 *CEQR Technical Manual*, the appropriate study area for land use, zoning and public policy is related to the type and size of the proposed project, as well as the location and context of the area that could be affected by the project. Study area radii vary according to these factors, with suggested study areas ranging from 400 feet for a small project to 0.5 miles for a large project. In accordance with the 2012 *CEQR Technical Manual* guidelines, land use, zoning, and public policy are addressed and analyzed for two geographical areas: (1) the project site also referred to as the primary study area, and (2) a secondary study area. The secondary study area extends an approximate half-mile from the boundary of the project site, but is extended to include entire blocks and encompasses areas that have the potential to experience indirect impacts as a result of the proposed action. For the proposed action, the secondary study area is bounded on the north by Newtown Creek, which separates Brooklyn from Queens, on the south by Oak and Calyer Streets, on the east by Eckford and Provost Streets, and on the west by the East River. The primary and secondary study areas are shown in Figure C-1.



**Legend**

-  Project Site/Primary Land Use Study Area
-  Secondary Land Use Study Area
-  Half-Mile Radius
-  2494 Block Number
-  West Street Extension

## E. PRELIMINARY ASSESSMENT

### Land Use and Zoning

A preliminary assessment, which includes a basic description of existing and future land uses and zoning, should be provided for all projects that would affect land use or would change the zoning on a site, regardless of the project's anticipated effects. In addition, under CEQR guidelines, if a detailed assessment is required in the technical analyses of socioeconomic conditions, neighborhood character, transportation, air quality, noise, infrastructure, or hazardous materials, a detailed land use assessment is appropriate. This EAS provides a detailed assessment of transportation; therefore a detailed assessment of land use and zoning is warranted. As a detailed assessment is warranted for the proposed action, the information that would typically be included in a preliminary assessment (e.g., physical setting, present land use, zoning information, etc.) has been incorporated into the detailed assessment below. As discussed in the detailed assessment, the proposed action is not expected to adversely affect land use, zoning, or public policy.

### Public Policy

According to the 2012 *CEQR Technical Manual*, a project that would be located within areas governed by public policies controlling land use, or that has the potential to substantially affect land use regulation or policy controlling land use, requires an analysis of public policy. A preliminary assessment of public policy should identify and describe any public policies, including formal plans or published reports, which pertain to the study area. If the proposed action could potentially alter or conflict with identified policies, a detailed assessment should be conducted; otherwise, no further analysis of public policy is necessary.

Besides zoning, other public policies applicable to portions of the primary and secondary study areas include the Greenpoint 197-a Plan, NYC Waterfront Revitalization Program (WRP), Eberhard Faber Pencil Company and Greenpoint Historic Districts that are designated by the New York City Landmarks Preservation Commission (LPC), Urban Renewal Areas, and North Brooklyn Industrial Business Zones.

### Primary Study Area

#### *Greenpoint 197-a Plan*

Section 197-a Plan of the New York City Charter grants community boards and other entities the power to sponsor plans for the “development, growth, and improvement” of their communities. Pursuant to the power given to them by the City Charter, the Greenpoint community prepared and issued a 197-a Plan, which was adopted in January 2002 by the New York City Council.

The Greenpoint 197-a Plan is the result of over a decade of effort by residents, community organizations, business leaders, and Community Board 1 to create a blueprint for future development in Greenpoint, to facilitate quality of life improvements in the community and to maximize Greenpoint's potential. The guiding principles of this 197-a Plan are to establish

zoning districts that would foster market rate housing, affordable housing, and commercial redevelopment. The plan's recommendations for improving access to the waterfront and redeveloping industrial land into mixed-use residential, manufacturing, and parks have largely been addressed in the 2005 Greenpoint-Williamsburg Rezoning project. In addition to waterfront recommendations, the 197-a Plan also calls for expanded availability of affordable housing, as well as neighborhood-scale retail development along community corridors to serve the local (but not regional) population. The 2005 Greenpoint-Williamsburg Rezoning, and the 2009 Greenpoint-Williamsburg Contextual Rezoning adopted many of these suggestions.

#### *Local Waterfront Revitalization Program (WRP)*

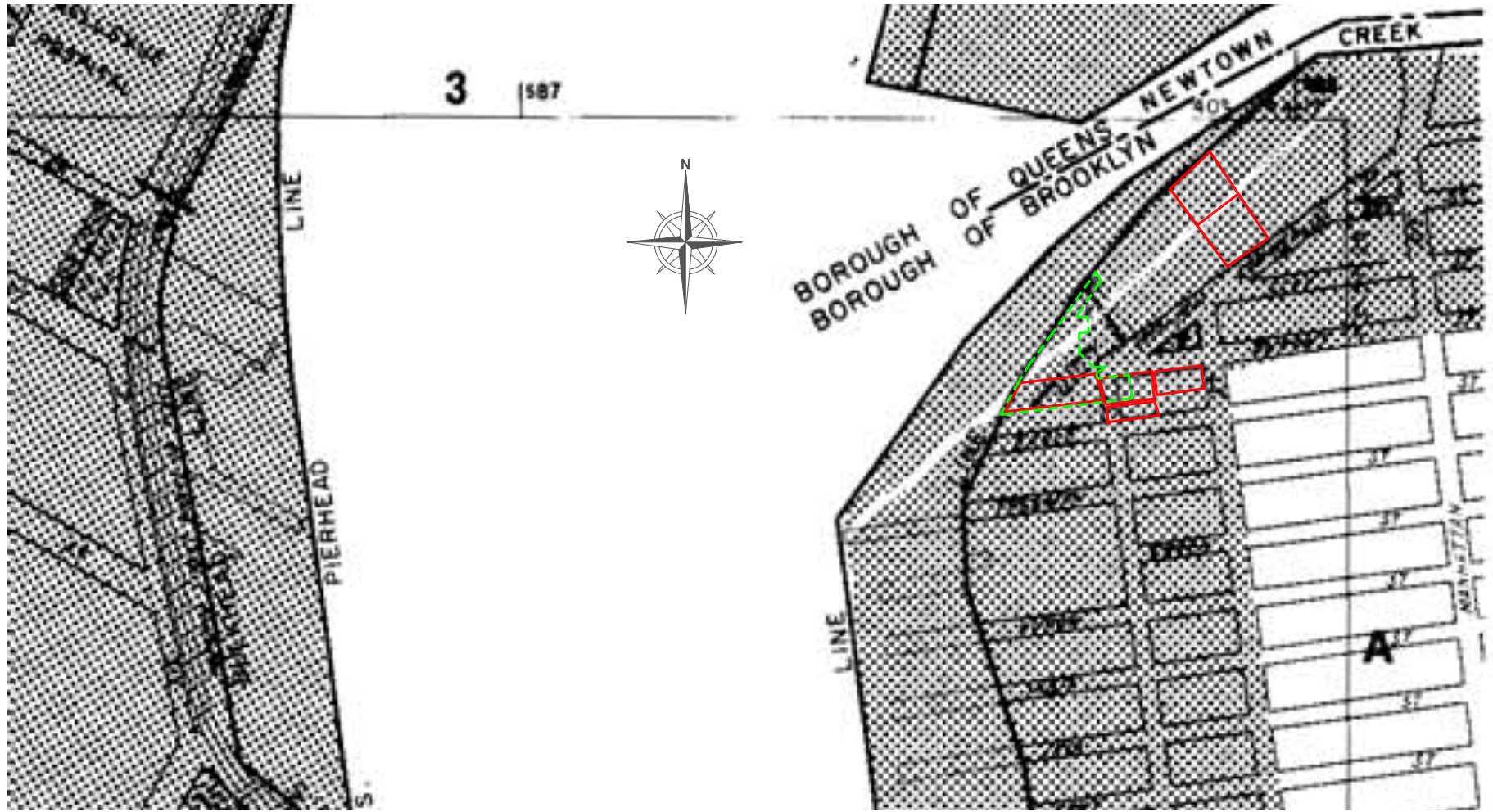
Proposed projects that are located within the designated boundaries of New York City's Coastal Zone must be assessed for their consistency with the City's Waterfront Revitalization Program (WRP). The federal Coastal Zone Management Act (CZMA) of 1972 was enacted to support and protect the distinctive character of the waterfront and to set forth standard policies for reviewing proposed development projects along coastlines. The program responded to City, State, and federal concerns about the deterioration and inappropriate use of the waterfront. In accordance with the CZMA, New York State adopted its own Coastal Management Program (CMP), which provides for local implementation when a municipality adopts a local waterfront revitalization program, as is the case in New York City. The New York City Waterfront Revitalization Program (WRP) is the City's principal coastal zone management tool. The WRP was originally adopted in 1982 and approved by the New York State Department of State (NYS DOS) for inclusion in the New York State CMP. The WRP encourages coordination among all levels of government to promote sound waterfront planning and requires consideration of the program's goals in making land use decisions. NYSDOS administers the program at the State level, and DCP administers it in the City. The WRP was revised and approved by the City Council in October 1999. In August 2002, NYSDOS and federal authorities (i.e., the U.S. Army Corps of Engineers USACE and the U.S. Fish and Wildlife Service (USFWS) adopted the City's 10 WRP policies for most of the properties located within its boundaries.

As illustrated in Figure C-2, the Project Site falls within the City's designated coastal zone, and accordingly the proposed action must be assessed for its consistency with the policies of the City's Local Waterfront Revitalization Program (LWRP). An assessment is provided in the appendix and summarized below under "Future With the Proposed Action".

#### Secondary Study Area

##### *Eberhard Faber Pencil Company and Greenpoint Historic Districts*

The Eberhard Faber Pencil Company Historic District, located on portions of two blocks (Blocks 2549 and 2557) in Greenpoint, is comprised of eight buildings and one freestanding wall which incorporate the remaining portions of three facades of three largely-demolished nineteenth-century buildings. The historic district was designated in 2007. The district compliments the adjacent Greenpoint Historic District on its east. Designated in 1991, the



**Legend:**



Projected  
Development  
Sites



City  
Parcel  
Boundary



Coastal Zone

Greenpoint Historic District, roughly bounded by Kent, Calyer, Noble, and Franklin Streets, protects residential and commercial buildings built between the years of 1850 and 1900.

As the Eberhard Faber Pencil Company and Greenpoint Historic Districts fall outside the primary study area, they would not be directly affected by the proposed action. As the proposed action would not alter or conflict with this policy, no further analysis is warranted.

### *Urban Renewal Areas (URAs)*

Urban renewal is the legal authority granted to municipalities to redevelop entire neighborhoods through planned and coordinated actions provided by Section 504 of Article 15 (“Urban Renewal Law”) of the General Municipal Law of the State of New York. Currently, there are approximately 150 URAs in New York City, which are planned and administered by HPD, the agency designated to carry out the provisions of Urban Renewal Law pursuant to Section 502(5) of the Urban Renewal Law and Section 1802(6)(e) of the City Charter. Urban renewal plans designate urban renewal areas (URAs), areas in which HPD can undertake various actions, including: development of residential, commercial, or industrial land use, condemnation for property acquisition, property sales for redevelopment, and relocation of residents and businesses. HPD coordinates urban renewal plans with approvals from Community Boards, Borough Presidents, the City Planning Commission (CPC), the City Council, and the Mayor.<sup>2</sup> Each plan lasts 40 years from its date of issuance and can also provide specific guidelines for involved parties, such as developers, for demolition, relocation, and parking provision. Urban design elements, such as signage and roof enclosures, can also be regulated in these plans in order to maintain a uniform look and feel to the designated areas.

Urban renewal areas are generally established in blighted areas to re-create them into areas more suited to residential use. The planning document for each URA sets forth those goals that legitimize its development, such as: the removal of structurally substandard and/or unsanitary buildings, negative environmental conditions, impediments to land redevelopment, and inefficient street size and organization. In addition, URA plans generally aim to provide low- and moderate- income housing units in new and converted structures, locally-accessible retail commercial areas, sufficient off-street parking, community facilities, and increased local employment through the retention of structurally sound non-residential buildings.

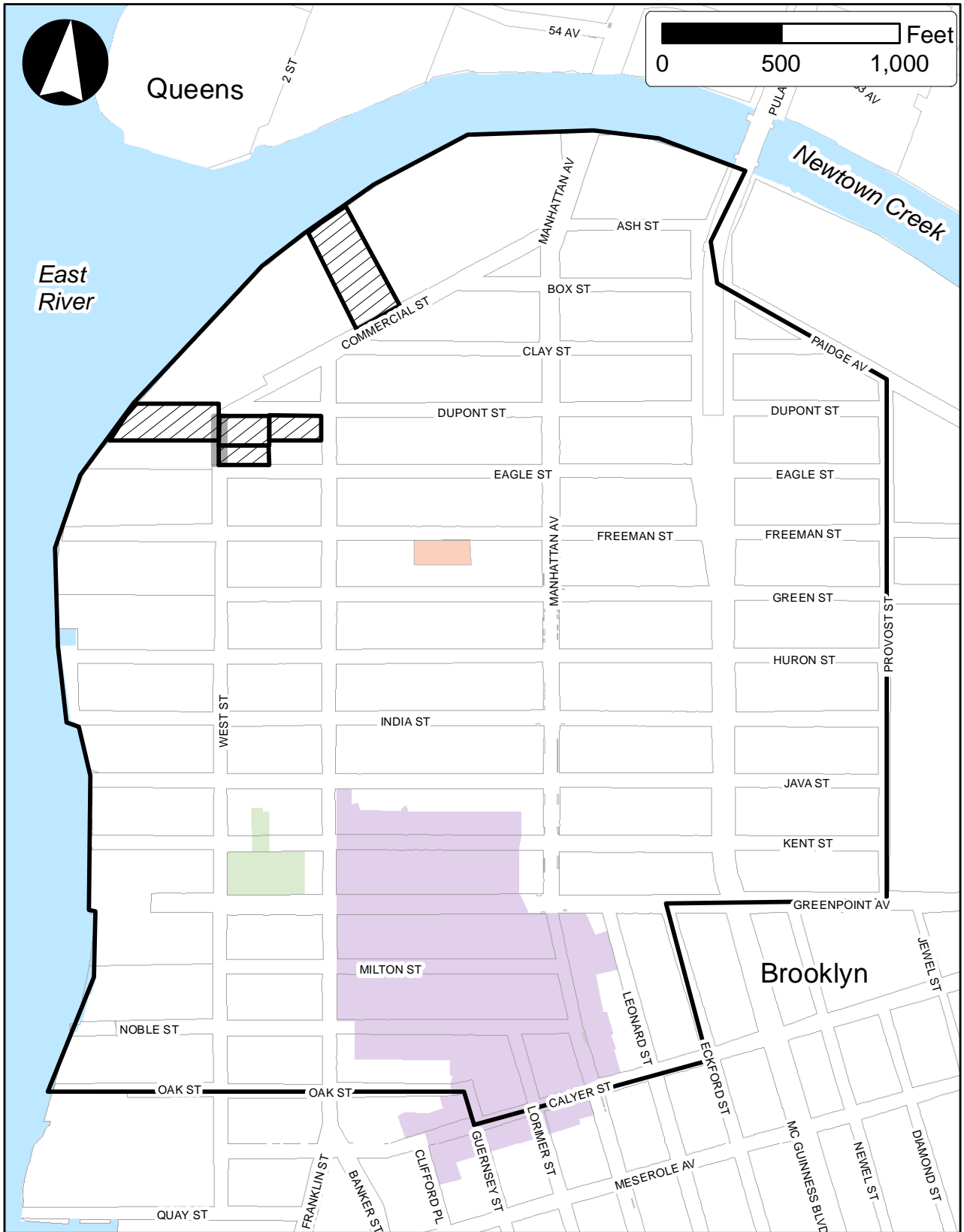
One urban renewal area currently exists within the secondary study area, the Freeman Street Urban Renewal Area, whose location is shown in Figure C-3. The Freeman Street URA was established in 1987 and comprises part of the block bounded by Freeman Street to the north, Manhattan Avenue to the east, Greene Street to the south, and Franklin Street to the west. Permitted land uses in this URA include new residential and community facility uses as permitted in the NYC Zoning Resolution for an R6 General Residence District.

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


<sup>2</sup> “Neighborhood-Wide Redevelopment (Urban Renewal)”, NYC Department of Housing, Preservation, and Development <http://home2.nyc.gov/html/hpd/html/developers/urban-renewal.shtml>



Urban Renewal Areas & Historic Districts



Legend

-  Project Site/Primary Land Use Study Area
-  Secondary Land Use Study Area
-  West Street Extension
-  Eberhard Faber Historic District
-  Greenpoint Historic District
-  Freeman Street Urban Renewal Area

*North Brooklyn Industrial Business Zone (IBZs)*

The secondary study area includes portions of the North Brooklyn Industrial Business Zones. In 2006, the Mayor's Office for Industrial and Manufacturing Businesses ratified the establishment of 18 NYC Industrial Business Zones in the City. Industrial Business Zones (IBZs) are areas in which the City provides expanded assistance services to industrial firms in partnership with local development groups. Usually built upon pre-existing In-Place Industrial Parks, they offer various incentives to prevent industrial uses from relocating outside of the City and represent a commitment by the City not to rezone the area for residential use. In addition, some IBZs include adjacent Industrial Ombudsman Areas, which include a greater mix of uses. Business assistance services will be provided in both types of areas. However, Ombudsman Areas will not receive the tax credits nor be subject to the same commitments on rezoning.<sup>3</sup>

Within an IBZ, Industrial Business Solutions Providers offer industrial firms guidance accessing appropriate financial and business assistance programs, navigating and complying with regulatory requirements, developing workforces and ensuring the neighborhood is well maintained. Additionally, planning studies are performed to determine changes that can be made to improve business efficiency within the City's 18 IBZs; these changes can include traffic and parking monitoring, clustering of similar businesses, and IBZ specific marketing. Higher regulation and steeper penalties for illegal conversions as well as a guarantee not to rezone to residential districts help to alleviate real estate uncertainty and tax incentives encourage new industrial uses to move to these areas of the City.

As discussed above, while business assistance services are offered in Ombudsman areas, tax credits are not provided nor are they subject to the same commitments on zoning. The North Brooklyn Industrial Business Zone is located in the eastern portion of the secondary study area, and encompasses the area formerly designated as the East Williamsburg In-Place Industrial Park. This IBZ occupies much of the area along Newtown Creek, which forms its northern and eastern boundaries, and extends to Flushing Avenue to the south. The Industrial Business Solutions Provider for the North Brooklyn IBZs is the East Williamsburg Valley Industrial Development Corporation (EWVIDCO).

As the North Brooklyn Industrial Business Zone falls outside the primary study area, it would not be directly affected by the proposed action. As the proposed action would not alter or conflict with this policy, no further analysis is warranted.

Conclusion

The proposed action would not result in any significant adverse public policy impacts. The proposed action would facilitate the creation of an incremental increase of up to approximately 431 additional units of affordable housing, above the 154 affordable housing units that would be constructed on the projected development sites without the proposed action. The proposed action would also introduce new local retail space, and would result in

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<sup>3</sup> The Mayor's Office for Industrial & Manufacturing Business – IBZ website:  
<http://www.nyc.gov/html/imb/html/ibz/ibz/shtml>.

the creation of up to 47,643 sf of waterfront open space. Therefore, the land use changes anticipated as a result of the proposed action are expected to be consistent with the known public policies in the study area, as described above, and a detailed analysis is not warranted.

## F. EXISTING CONDITIONS

### Land Use

#### Primary Study Area

The primary study area is located in the Greenpoint neighborhood of Brooklyn, which historically was dominated by industrial uses in the nineteenth century, along the waterfront and north of Box Street, due to active waterfront piers. Today there are very few residences west of Commercial and West Streets and east of McGuinness Boulevard, while most blocks located east of West Street and west of McGuinness Boulevard are predominantly residential with ground floor retail uses along Manhattan and Greenpoint Avenues and Franklin Street. Commercial uses are spread sporadically throughout the study area, but cluster along McGuinness Boulevard south of Greenpoint Avenue. There are also several institutional uses serving the local community. Figure C-4 shows the existing land uses in the primary study area, land use study area, and surrounding area.

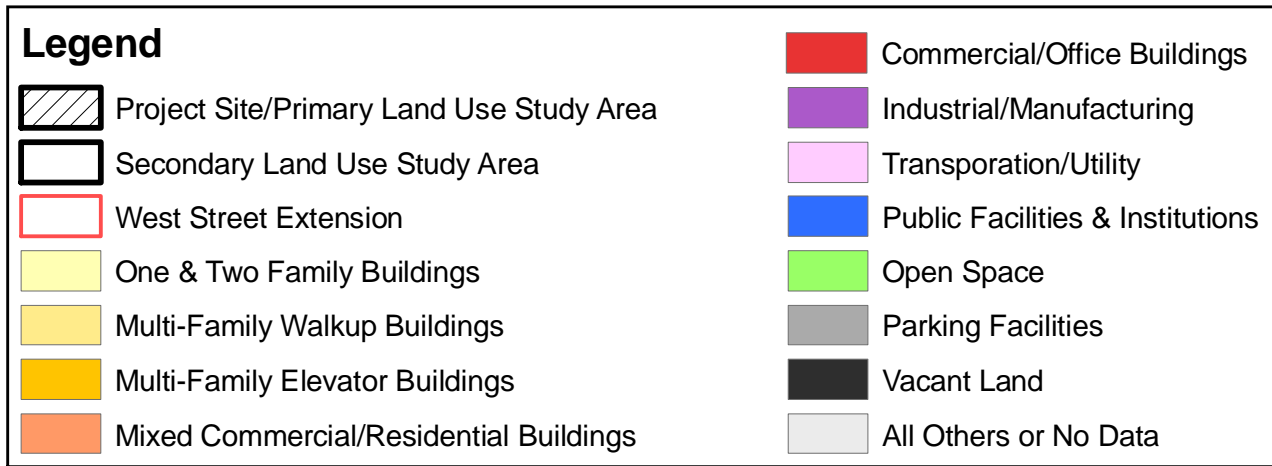
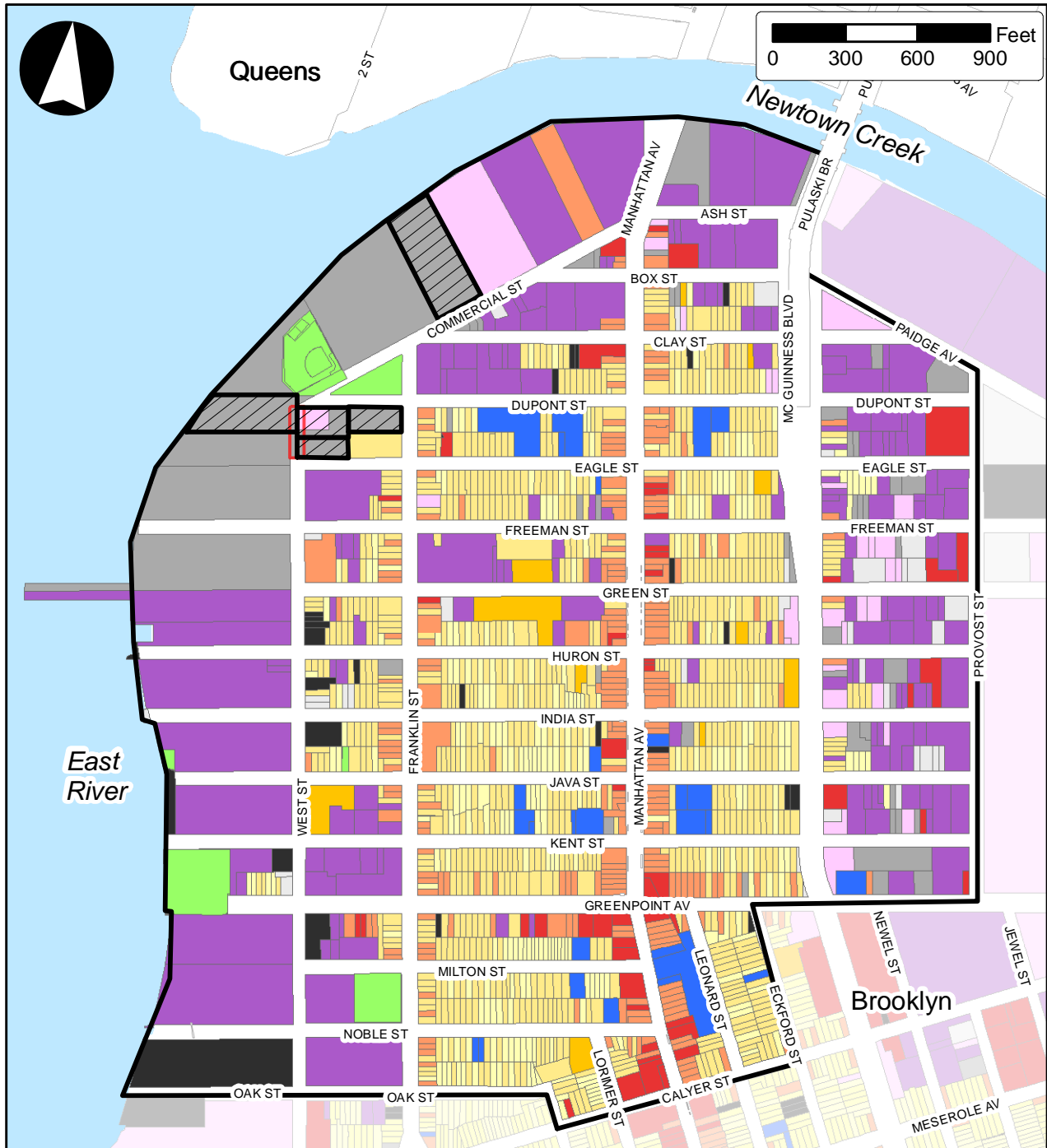
Attachment A (Section B, “Project Area Existing Conditions”) provides a detailed description of existing land uses in the project area, which consists of the Project Site. The primary study area is predominantly made up of open lots used for vehicle and equipment storage; it also includes one lot with a DEP sludge tank. Refer to Attachment A for details.

**Table C-1, Existing Uses in the Primary Study Area**

Projected Development Sites	Block/Lot	Lot Area (sf)	Land Use
Site 1	2472/ p/o 32	61,675	Storage, DEP dock
Site 2	2494/ p/o 1, and 6	24,941	DEP sludge tank, storage
Site 3	2494/ p/o 1	20,268	Storage
Site 4	2472/ p/o 100	106,417	Storage
Site 5	2494/ p/o 1	20,025	Storage

#### Secondary Study Area

Table C-2, Land Use within a half mile of Project Site, summarizes the existing generalized land uses within the land use study area by tax lots and land area. Overall, as reflected in the table and in Figure C-4, Existing Land Uses, the secondary land use study area contains a mix of uses, with the predominant land uses being residential and light manufacturing. Residential and mixed-use properties (residential buildings with commercial and/or community facility uses on the lower floors) collectively occupy approximately 33 percent of the total land area. Of the lots with residential use only, approximately 17 percent are developed as one and two family buildings; and 45 percent are multi-family walkup buildings. Mixed commercial/residential buildings occupy approximately 15 percent of the lots. The most prevalent non-residential uses include low-intensity industrial/manufacturing, approximately



10 percent of the tax lots but over 32 percent of the land area; commercial, approximately 3 percent of the tax lots and 3 percent of the land area; and parking facility, approximately 3 percent of the tax lots but 17 percent of the land area. The remainder consists of other uses, including (in descending order) transportation and utility, public facilities and institutions, vacant land, and open space.

The secondary study area's waterfront blocks north of DuPont Street contain industrial and parking facility use, predominantly vacant lots used for vehicle and equipment storage. The 0.98-acre Newtown Barge Playground is located northeast of Projected Development Site 1, and currently features active recreational facilities, including a paved baseball field and handball courts. The secondary study area's waterfront blocks south of DuPont Street include predominantly industrial and vacant uses. Located on Block 2556 Lot 41, the 2.2-acre WNYC Transmitter Park was opened to the public in 2012 and includes a large, open lawn with a separate children's play area featuring a nautical theme, spray shower, and nature gardens; in April 2013 the concrete Transmitter Park pier was opened to the public.

**Table C-2, Land Use within the Secondary Study Area**

Land Use	Lots	% of Total Lots	Area sq ft	% of Total Land Area
Residential	1,274	76.4%	3,235,459	33.1%
One and Two Family	276	16.6%	604,487	6.2%
Multi-Family Walkup	745	44.7%	1,853,041	19.0%
Multi-Family Elevator Buildings	11	0.7%	110,472	1.1%
Mixed Residential and Commercial	242	14.5%	667,459	6.8%
Commercial and Office	52	3.1%	267,341	2.7%
Industrial and Manufacturing	168	10.1%	3,166,725	32.4%
Transportation and Utility	30	1.8%	300,308	3.1%
Public Facilities and Institutions	27	1.6%	240,834	2.5%
Open Space	4	0.2%	182,349	1.9%
Parking Facilities	50	3.0%	1,614,788	16.5%
Vacant Land	29	1.7%	595,233	6.1%
All Others or No Data	33	2.0%	171,062	1.8%
<b>Total</b>	<b>1,667</b>	<b>100.0%</b>	<b>9,774,099</b>	<b>100.0%</b>

The secondary study area's northeastern blocks located east of McGuinness Boulevard include a range of uses, including industrial, transportation/utility, commercial, and parking facilities, with multi-family walkup buildings and mixed commercial/residential uses spread out along McGuinness Boulevard. The 53-acre Newtown Creek Wastewater Treatment Plant is a major land use located just outside of the land use study area. The Newtown Creek plant is the largest of New York City's 14 wastewater treatment plants. The plant serves approximately 1 million residents in a drainage area of more than 15,000 acres (25 square miles).<sup>4</sup>

The secondary study area's central blocks east of Commercial and West Streets and west of McGuinness Boulevard are predominantly residential, with institutional and industrial uses spread out sporadically. The residential uses include predominantly one and two family

<sup>4</sup> NYC Department of Environmental Protection, [http://www.nyc.gov/html/dep/html/press\\_releases/08-14pr.shtml](http://www.nyc.gov/html/dep/html/press_releases/08-14pr.shtml)

buildings and multi-family walkup buildings. Mostly retail commercial and mixed commercial-residential uses are clustered along Manhattan and Greenpoint Avenues and Franklin Street. The southwestern area south of Java Street between West and Franklin Street has a high concentration of industrial uses, and vacant lots are spread among the blocks south of Green Street between West and Franklin Streets. Located on Block 2565 Lot 14, is the 0.90-acre American Playground which features basketball and handball courts, while the 0.50-acre Greenpoint Playground is located on Block 2486.

## Zoning

The description of the study area zoning is provided in two parts. First, information on the location of study area districts is provided for the primary study area and the secondary study area. Second, is a description of key use, density, and bulk controls. Refer to Figure C-5, Existing Zoning Districts.

### Primary Study Area

The Block 2472 portions of the primary study area are zoned R6/R8/C2-4, having been rezoned from M3-1 to R6 and R8 with a commercial overlay as part of the 2005 Greenpoint-Williamsburg rezoning. The Block 2494 portion of the primary study area is zoned R8/C2-4 and R6, having been rezoned from M1-1 in 2005.

### *Waterfront Access Plan BK1(BK1 WAP): Greenpoint-Williamsburg*

As shown in Figure C-6, the Project Site is located within the boundaries of the Greenpoint-Williamsburg Waterfront Access Plan (WAP). WAPs, which are part of the Zoning Resolution, modify the general public access requirements of waterfront zoning within specified areas. The Greenpoint-Williamsburg WAP, also called WAP BK-1, identifies specific locations for required waterfront public access areas on private development parcels; establishes requirements for widened shore public walkways, parks, and plazas; allows flexibility for different shore treatments and quality landscape design, and establishes parameters for consistency of design along this waterfront.<sup>5</sup> It also specifies the locations of upland connections and visual corridors to be established as waterfront sites are developed. Refer to Figures C-7 and C-8, showing the relationship of the projected development sites to the WAP BK-1's required public access elements and visual corridors, respectively. As with most developments on waterfront blocks, properties in the WAP BK-1 require certifications from the Chair of the CPC to confirm new developments comply with applicable WAP BK-1 requirements. Modifications to these requirements may be permitted for projects by means of a zoning authorization from the CPC, provided the CPC can make certain findings specified in the Zoning Resolution.




WAP BK-1 also includes special regulations for bulk and Inclusionary Housing. The Inclusionary Housing regulations permit FAR bonuses for developments that provide optional affordable housing units. Figure C-9 shows the waterfront and upland portions of the

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



<sup>5</sup> NYC Department of City Planning, the Greenpoint-Williamsburg Waterfront Access Plan, <http://www.nyc.gov/html/dcp/html/greenpointwill/greenwateraccess2.shtml>



**Legend**

-  Project Site/Primary Land Use Study Area
-  Secondary Land Use Study Area
-  Zoning Districts

**Commercial Overlays**

- |  |  |  |
|--|--|--|
|  C1-2 |  C1-5 |  C2-4 |
|  C1-3 |  C2-2 |  C2-5 |
|  C1-4 |  C2-3 |  |

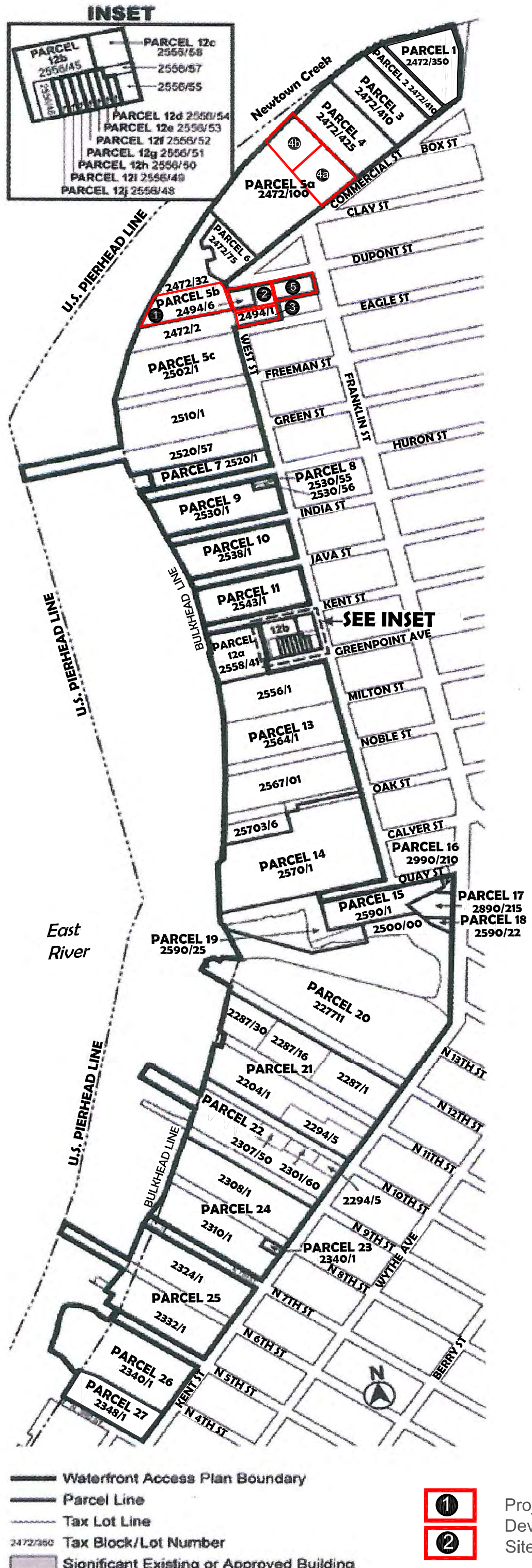
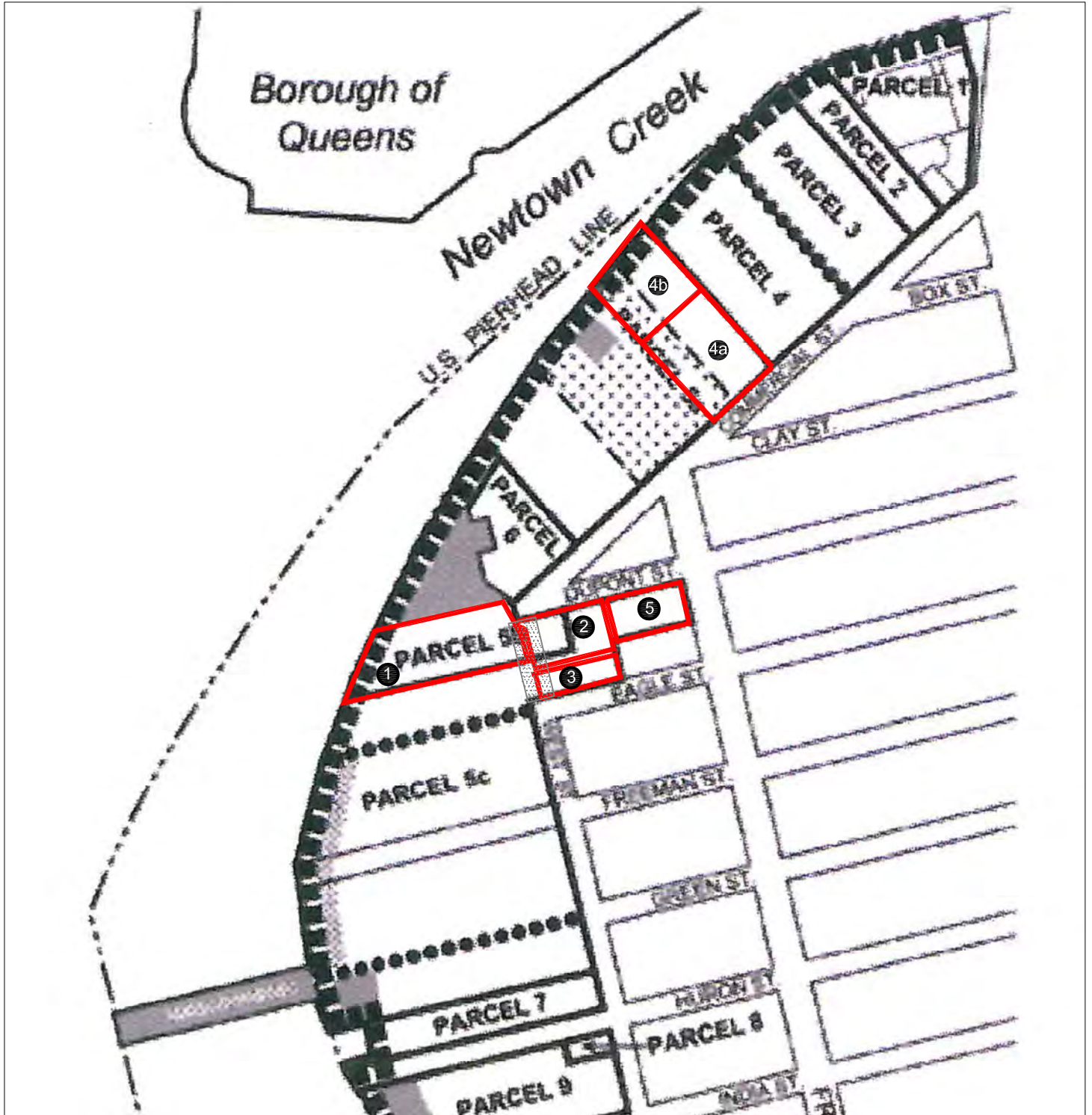


Figure C-6  
 Projected Development Sites: Relationship to WAP BK-1

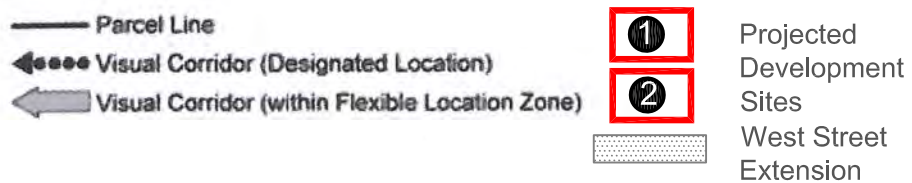
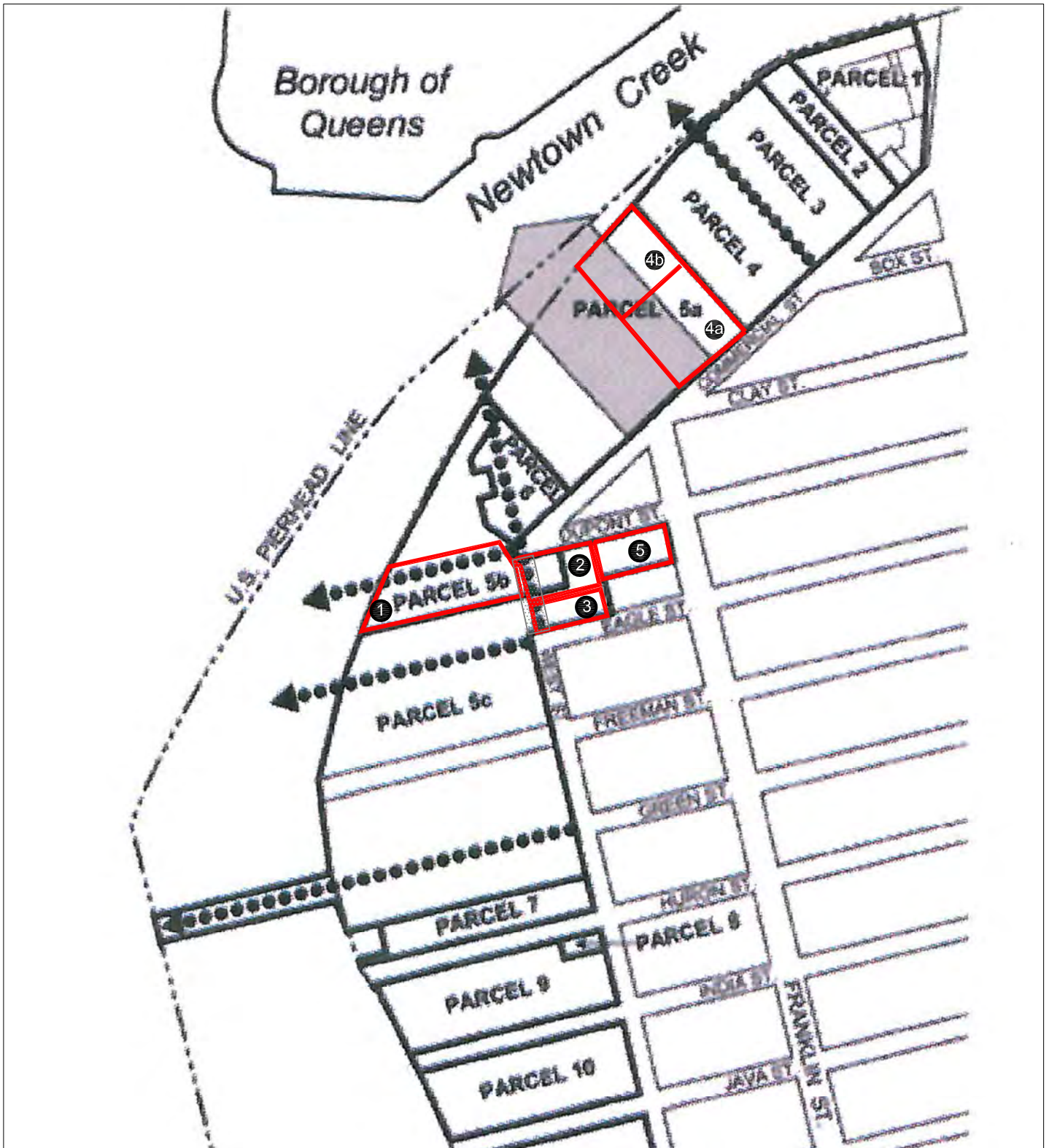


Projected Development Sites: Relationship to Public Access Elements

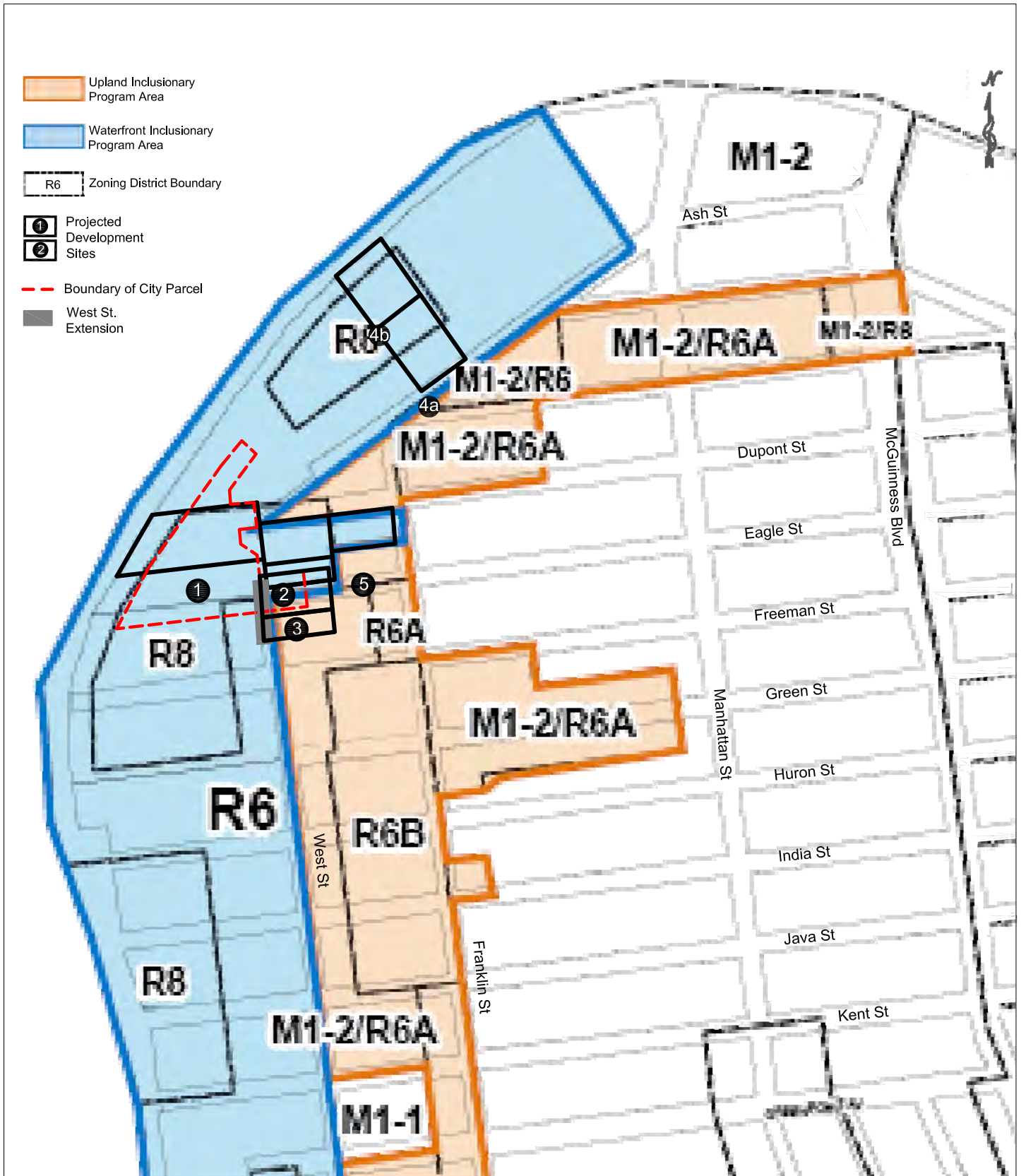


- Parcel Line
- ■ ■ ■ Shore Public Walkway/ Waterfront Yard
- ■ ■ ■ Shore Public Walkway in Park
- □ □ □ Upland Connection (Within Flexible Location Zone)
- ● ● ● Upland Connection (Designated Location)
- Supplemental Public Access Area (Designated Location)
- Supplemental Public Access Area (Alternate Location)
- West Street Extension
- ① Projected Development Sites
- ② Projected Development Sites

Projected Development Sites: Relationship to Designated Visual Corridors



Projected Development Sites: Relationship to Inclusionary Housing Program



Source: Inclusionary Housing base map from "Greenpoint-Williamsburg Inclusionary Housing Program" November 2005, accessed at [http://www.nyc.gov/html/dcp/greenpointwill/incl\\_housing\\_web.pdf](http://www.nyc.gov/html/dcp/greenpointwill/incl_housing_web.pdf)

Note: The base map is provided for informational purposes and was current in November 2005. It does not reflect revisions adopted since then.

Greenpoint-Williamsburg Inclusionary Housing Program Area for the primary study area and surrounding blocks. All of the projected development sites are within the designated waterfront Inclusionary Housing program area. These regulations are identified below in the description of density and bulk controls.

### Secondary Study Area

In addition to being mapped in the primary study area, R6 and R8 zoning districts are also mapped in the secondary study area. R8 and R6 zoning districts are mapped over parts of most of the blocks west and northwest of the primary study area where vacant and industrial uses are prevalent. R6 and R8 zoning districts with a C2-4 overlay are mapped on the western frontages of West and Commercial Streets on properties with vacant and industrial uses. C2-4 overlays are also mapped along Manhattan Avenue between Clay and Kent Streets, portions of Greenpoint Avenue between West Street and McGuinness Boulevard, on portions of the eastern frontage of Franklin Street between DuPont and Oak Streets, and on portions of two blocks along Green Street between Franklin and West Streets.

Other zoning districts in the study area include M1-1, M1-2, M3-1, R6A, R6B, R7A, C4-3A and Special Mixed Use District MX-8 which includes M1-2/R6, M1-2/R6A, M1-2/R6B. M1-1 covers the western portions of the blocks east of McGuinness Boulevard between Clay Street and Greenpoint Avenue, and the majority of Block 2557. M1-2 covers the three blocks north of Box Street and the northeastern end of Block 2472. M3-1 covers the eastern portions of the blocks east of McGuinness Boulevard and Block 2484. R6A and R6B are mapped over the majority of the central blocks of the study area. R7A covers Manhattan Avenue between Clay and Kent Streets, and C4-3A covers Manhattan Avenue south of Kent Street. Mixed use zoning districts M1-2/R6, M1-2/R6A, and M1-2/R6B are mapped on blocks along the eastern frontage of Franklin Street, and on blocks between Box, DuPont, and Commercial Streets and McGuinness Boulevard.

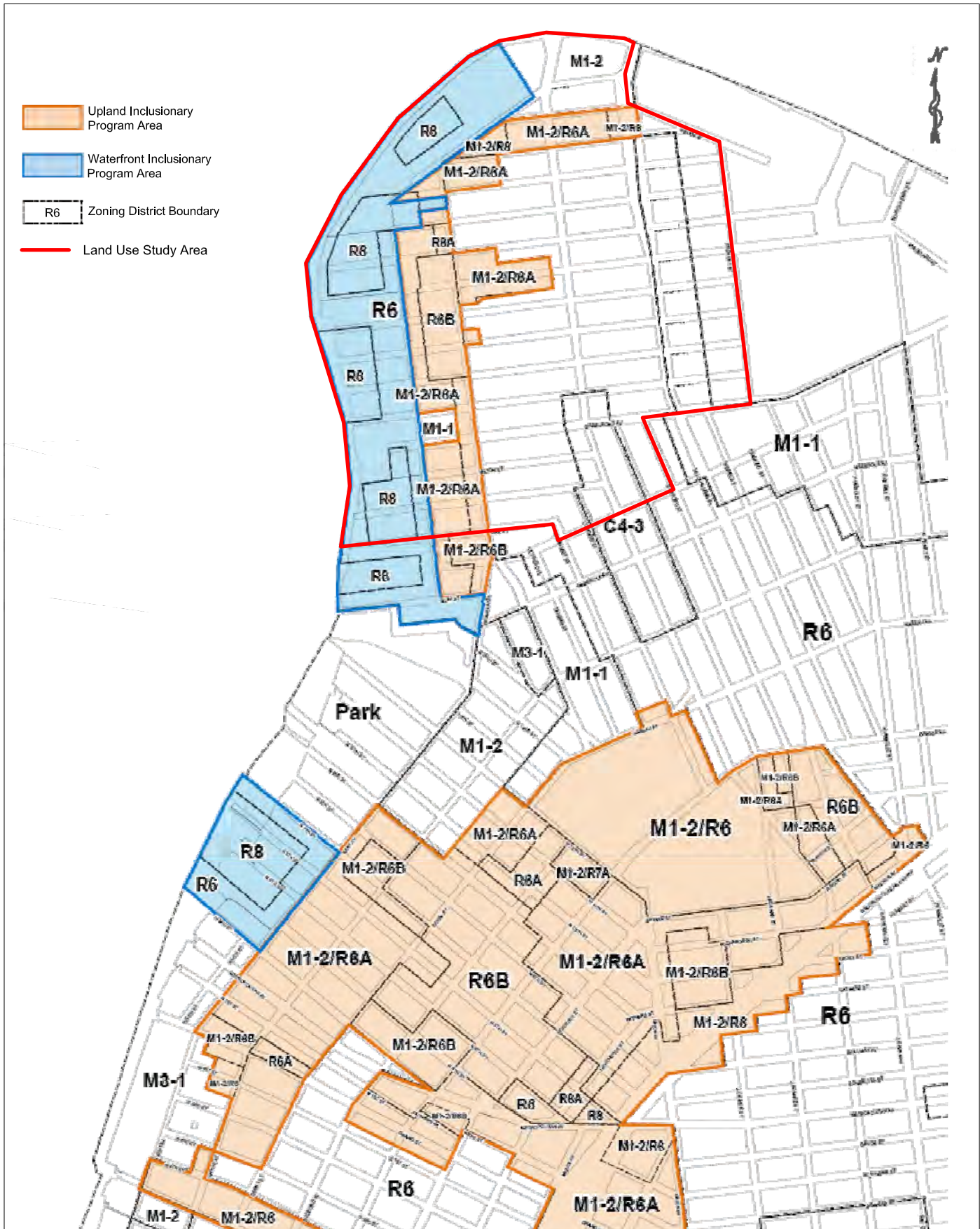
Portions of the secondary study area are located within the WAP BK-1 and are designated Inclusionary Housing program areas, as shown in Figure C-10.

### Zoning District Characteristics

#### *R8 and R6 Districts*

R8 zoning districts are high-density residential districts mapped in much of the Bronx and Brooklyn. Within the study areas, portions of the waterfront area in the WAP BK-1 are mapped with R8 districts. Floor area ratio (FAR) in typical R8 districts ranges from 0.94 to 6.02 for residential uses. However, in the WAP BK-1's waterfront Inclusionary Housing program area, the maximum base FAR is 4.88 and the maximum FAR with Inclusionary Housing bonus is 6.5. While bulk in typical R8 districts is regulated by sky exposure plane regulations, in the WAP BK-1 R8 districts buildings are allowed heights up to 400 feet. Off-street parking is required for 40 percent of a building's market rate dwelling units in an R8 district, and 25 percent for affordable housing units that are government assisted housing.

Land Use Study Area: Relationship to Greenpoint-Williamsburg Inclusory Housing Program



Source: Inclusory Housing base map from "Greenpoint-Williamsburg Inclusory Housing Program" November 2005, accessed at [http://www.nyc.gov/html/dcp/greenpointwill/incl\\_housing\\_web.pdf](http://www.nyc.gov/html/dcp/greenpointwill/incl_housing_web.pdf) N.T.S.

Note: The base map is provided for informational purposes and was current in November 2005. It does not reflect revisions adopted since then.

R6 districts are medium-density residential districts mapped in much of Brooklyn, Queens and the Bronx. In the secondary study area, R6 is mapped in portions of the waterfront and upland portions of the WAP BK-1. There is also a M1-2/R6 district in the secondary study area outside the WAP BK-1 (see discussion below of MX districts). Floor area ratio (FAR) in typical R6 districts ranges from 0.78 to 2.43 for residential uses. However, in the WAP BK-1's waterfront Inclusionary Housing program area, the maximum base FAR is 2.43 and the maximum FAR with Inclusionary Housing bonus is 2.75. While bulk in typical R6 districts is regulated by sky exposure plane regulations in the WAP BK-1's waterfront area, R6 districts are allowed heights up to 150 feet. However, there are additional regulations regarding the heights of buildings within R6 and R8 districts; for example within 100 feet of Commercial Street, Franklin Street, DuPont Street, West Street and Kent Avenue the maximum building height in R6 districts is 65 feet. Off-street parking is required for 70 percent of a building's dwelling units in a typical R6 district, but in Quality Housing Program residences the off-street parking requirement is 50 percent for market rate housing and 35 percent for affordable housing units that are government assisted housing. The optional Quality Housing regulations in typical R6 districts produce lower, high lot coverage buildings set on or near the street line. Under the optional Quality Housing regulations the maximum FAR is 3.0 for residential uses and the maximum building height is 70 feet (on a wide street).

#### *C2-4 and C4-3A Districts*

C2-4 districts are commercial overlays mapped within residential districts along streets that serve local retail needs predominantly in lower and medium density areas. When C2-4 commercial overlays are mapped in R6 through R10 residential districts, the maximum commercial FAR is 2.0. C2-4 commercial overlays permits uses in Use Groups 1 through 9 and 14.

C4-3A districts are contextual commercial districts mapped in regional commercial centers that are located outside of the central business district. The commercial and residential FAR in the C4-3A district is 3.0, and has the residential district equivalent to R6A. Use Groups 5, 6, 8, 9, 10, and 12 are permitted in C4 districts.

#### *M1-1, M1-2, and M3-1 Districts*

M1 zoning districts are light manufacturing/industrial districts that have stringent performance standards, and may serve as industrial buffers to adjacent residential or commercial zoning districts. High performance industrial uses are allowed, as well as a range of commercial uses. Additionally, Use Group 4 community facilities are allowed in M1 zones by special permit. Residential development is generally not allowed in M1 districts. M1-1 districts allow a maximum floor area ratio (FAR) of 1.0, and M1-2 districts allow a maximum FAR of 2.0.

M3 zoning districts are heavy manufacturing/industrial districts that have minimum performance standards. Low performance industrial uses area allowed, as well as a range of commercial uses. Community facility and residential uses are not allowed in M3 districts. M3-1 districts allow a maximum commercial and manufacturing FAR of 2.0.

*R6A, R6B, and R7A Districts*

R6A, R6B, and R7A are contextual medium-density residential zoning districts. Contextual districts are designed to maintain the scale and form of the City's traditional moderate- and higher-density neighborhoods. These districts, which have an A, B, D, or X letter suffix are mapped where buildings of similar size and shape form a strong neighborhood context, or where redevelopment would create a uniform context. The bulk regulations for these districts are known as Quality Housing regulations. The Quality Housing Program was established in the 1980s to provide an optional set of contextual bulk regulations for residential development in non-contextual moderate- and higher-density (R6-R10) districts. The bulk regulations (e.g., height and setback, floor area, lot coverage) promote building forms in keeping with specific neighborhood characteristics. The program also sets certain quality standards for building safety, landscaping, recreation space and other amenities. In contextual zoning districts the Quality Housing Program is mandatory while it is optional in non-contextual districts.

Typically, for standard R6A and R6B districts the maximum permitted FAR is 3.0 and 2.0. However, for Inclusionary Housing designated areas, which include portions of the study area's R6A and R6B districts along the eastern side of West and Commercial Streets, the maximum permitted base FAR is 3.6 for R6A districts and 2.2 for R6B districts.

R7A districts maximum allowable FAR is 4.0 for residential uses and the maximum building height is 80 feet. However, all R7A districts within the study area are designated Inclusionary Housing areas, with a permitted base FAR of 3.45 and a maximum bonus FAR of 4.6. Under the Quality Housing regulations, parking is required for 50% of the dwelling units.

*Mixed Use District MX-8*

The Special Greenpoint-Williamsburg Mixed-Use District MX-8 was established in 2005 to help preserve and protect existing manufacturing facilities in the neighborhood while providing the framework and guidelines for meeting residential demand and rehabilitating underutilized or abandoned lots. Residential uses are generally subject to the bulk controls of the governing residence district; commercial, industrial and community facility uses are subject to the M1 district bulk controls, except that community facilities are subject to residential FAR limits.

Table C-3 identifies the principal zoning requirements applicable to the five projected development sites. Table C-4 provides a summary of zoning district information for the secondary study area.

**Table C-3, Projected Development Sites Zoning Summary**

Projected Development Site	Zoning Districts <sup>1</sup>	Floor Area Ratio (FAR) <sup>2</sup>	Use Groups	Bulk Regulations
1	R6, R8, R8/C2-4	R6: 2.43 (base)	R6 & R8: 1 to 4; C2-4: 1 to 9 & 14	Maximum height: 150' / 300' / 400'
2	R8, R8/C2-4	2.75 (IH bonus)		Maximum height: 300' / 400'
3	R8, R8/C2-4	R8: 4.88 (base)		Maximum height: 300' / 400'
4	R6, R6/C2-4, R8	6.5 (IH bonus)		Maximum height: 150' / 300' / 400'
5	R6	C2-4: 2.0		Maximum height: 65'

**Notes:**

Abbreviations: C = commercial; M = manufacturing; CF = community facility; R = residential

<sup>1</sup> All five of the projected development sites are located in the Waterfront Inclusionary Housing Program Area portion of the WAP-BK1.

<sup>2</sup> FARs shown are for zoning lots containing residential uses. Community facility maximum FARs apply to zoning lots entirely occupied by community facility uses; R6: 4.8; R8: 6.5

**Table C-4, Secondary Study Area Existing Zoning Districts and Regulations**

District	Definition/General Use	Maximum FAR
<b>Typical (Non-waterfront blocks)</b>		
R6A	Contextual medium density residential	R: 3.0, 3.6 with Inclusionary Housing Bonus; CF: 3.0; C: 2.0 as overlay
R6B	Contextual medium density residential	R: 2.0, 2.2 with Inclusionary Housing Bonus; CF: 2.0; C: 2.0 as overlay
R7A	Contextual medium density residential	R: 3.45, 4.6 with Inclusionary Housing Bonus; CF: 4.0; C: 2.0 as overlay
C2-4	C2 is a commercial overlay mapped in residential districts. They permit local retail and service establishments. Regulations limit commercial use to one or two floors. C2 districts permit a slightly wider range of uses, such as funeral homes and repair services.	R: Same as underlying R zone C: 1.0 in R1- R5 Districts 2.0 in R6 – R10 Districts CF: Same as underlying R zone M: Not permitted
C4-3A	C4 is a commercial district mapped in regional commercial centers that are located outside of the central commercial districts. Contextual C4 commercial district's floor area may be increased with inclusionary housing program bonus.	R:3.0 ; CF:3.0 ; C:3.0 ; M: Not permitted Residential District Equivalent: R6A
M1-1	Light manufacturing – high performance district. M1 districts are often buffers between M2 or M3 districts and adjacent residential or commercial districts. Building heights are governed by sky exposure planes. Parking requirements vary with use.	R: Not permitted; C:1.0 CF: 2.4 (use group 4 only); M:1.0
M1-2		R: Not permitted; C: 2.0 CF: 4.8 (use group 4 only); M: 2.0
M3-1	Heavy manufacturing- low performance district. M3 districts are designed to accommodate the heavy industrial uses which involve more objectionable influences and hazards. Building heights are governed by sky exposure planes. Parking requirements vary with use.	R: Not permitted C: 2.0 CF: Not permitted M: 2.0
M1-2/R6	These districts are paired in the Greenpoint-Williamsburg Special Mixed Use District MX-8, to allow a range of uses as-of-right. Mixed-use buildings in these districts shall have a maximum FAR not exceeding the maximum FAR for residential, commercial or manufacturing uses, whichever is greatest.	R:2.2 on narrow street, 3.0 on wide street; M:2.0; C:2.0; CF:4.8
M1-2/R6A		R:3.0; M:2.0; C:2.0; CF:3.0
M1-2/R6B		R:2.0; M:2.0; C:2.0; CF:2.0
<b>WAP BK-1 Zoning Districts</b>		
R6, R6/C2-4	Medium density residential	R: 2.75 (max with IH bonus in waterfront area); R: 3.6 (max. with IH bonus in upland area: wide st.) CF: 4.8 (only applies if zoning lot has no R); C: 2.0 (for C2-4 overlay)
R8, R8/C2-4	High density residential	R: 6.5; (max with IH bonus in waterfront area); CF: 6.5 (only applies if zoning lot has no R) C 2.0 (for C2-4 overlay)

**Notes:** CF: community facility, R: residential, C: commercial, M: manufacturing

**Source:** New York City Zoning Resolution



## G. FUTURE WITHOUT THE PROPOSED ACTION

### Land Use

#### Primary Study Area

As discussed in Attachment A and summarized in Table A-3, in the future without the proposed action, there are expected to be some changes in conditions on the five projected development sites. The expected uses on these sites under 2020 No-Action conditions include approximately 769 total dwelling units, approximately 1,800 gsf of retail space, approximately 323 accessory parking spaces, and approximately 19,290 sf of publicly accessible open space. As discussed in Attachment A, under No-Action conditions by 2020 it is expected that GLA would develop one or more buildings as-of-right on Projected Development Site 4 and on Projected Development Site 3 that would extend into the GLA-owned part of Projected Development Site 2. Projected Development Sites 1, 5, and the City-owned part of Projected Development Site 2 would not be redeveloped.

In addition, the NYC Department of Environmental Protection will remove the sludge tank from the City-owned part of Projected Development Site 2.

#### Secondary Study Area

There are several changes within the secondary land use study area expected by the project build year of 2020.



As shown in Table C-4, and Figure C-11, there are 15 anticipated No-Build developments within the secondary land use study area. These No-Build development sites would introduce a combined total of approximately 4,122 additional residential units (including approximately 904 affordable DUs); approximately 302,700 gsf of retail space; approximately 10,000 gsf of community facility space, approximately 305,336 sf of open space, and approximately 1,502 accessory parking spaces.



Besides the No-Action developments on the projected development sites described above and identified as No-Build Development B in Table C-5, GLA will proceed with as-of-right development on its property at 37 Commercial Street (No-Build Development A). On this property, by 2020 GLA expects to develop one or more buildings with approximately 1,087 DUs, including 898 market rate DUs and 189 affordable housing DUs; approximately 3,300 gsf of retail space; approximately 461 accessory parking spaces; and approximately 35,336 sf (0.81-acres) of publicly accessible open space.

There are three mixed-use developments along the waterfront, independent of GLA, anticipated to be developed within the study area by 2020. Directly adjacent to the Project Site, on Block 2472 Lot 410, the proposed development, 77 Commercial Street (No-Build Development E), is expected to include approximately 720 DUs, 20,600 gsf of retail space, 0.89-acres of open space, and 330 accessory parking spaces by 2016. The anticipated developments, 155 West Street (No-Build Development F) and 131 West Street (No-Build Development G), are located to the south of the Project Site on the western edge of the study



**Legend**

-  Project Site/Primary Land
-  Secondary Land Use

-  No-Build Sites
-  West Street Extension

area, adjacent to one another. The 155 West Street development is expected to include 640 DUs, 19,000 gsf of retail space, 3,800 gsf of community facility space, 256 accessory parking spaces, and 0.51-acres of publicly accessible open space by 2015. The 131 West Street development is expected to include 512 DUs and 0.76-acres of publicly accessible open space by 2018.

As also shown in Table C-5, there are several other residential and commercial No-Build developments in the secondary study area expected by 2020. These other developments are smaller and/or located further from the Project Site than No-Build Developments A, B, E, F, and G.

Table C-5, No-Build Developments within the Land Use Study Areas

Map Key	Project Name	Location	Program	Year
A	Greenpoint Landing Development As-of-Right	37 Commercial Street	1,087 dwelling units (189 affordable DUs); 3300 gsf of retail space; 35,336 sf of open space; and 461 accessory parking space	2020
B	Greenpoint Landing Disposition No-Build condition	Projected Development Sites 3 and 4 (includes GLA-owned part of site 2)	769 dwelling units (154 affordable DUs); 1,800 gsf of retail space; 19,290 sf of open space, and 323 accessory parking spaces	2020
C	1133 Manhattan Ave	Block 2482, Lot 26	210 dwelling units (105 affordable DUs, inc. 63 middle income DUs, i.e., >80% of AMI); 8000 gsf of retail space; and 132 accessory parking spaces	2014
D	186 Greenpoint Ave	Block 2575, Lot 5	6 dwelling units	2014
E	77 Commercial Street	Block 2472, Lot 410	720 dwelling units (200 affordable DUs, inc. 128 middle income DUs, i.e., >80% of AMI); 20,600 gsf of retail space; 6,200 gsf of community facility space; 38,616 sf of open space, and 330 accessory parking spaces	2016
F	155 West Street	Block 2530, Lots 1, 55, 60	640 dwelling units (140 affordable DUs); 19,000 gsf of retail space; 3,800 gsf of community facility; 22,000 sf of open space; and 256 accessory parking spaces.	2016
G	131 West Street	Block 2538, Lots 1	512 dwelling units (102 affordable DUs); and 32,997 sf of open space	2018
H	Greenpoint Terminal Market Conversions 37 West St	Block 2567, Lot 1	50 dwelling units; and 250,000 gsf of retail space	2016
I	Kickstarter (58 Kent St)	Block 2557, Lot 7	30,000 gsf of office space	2015
J	74 Kent Street	Block 2557, Lot 13	20 dwelling units	2015
K	13 Greenpoint Ave	Block 2556, Lot 45	50 dwelling units (4 affordable DUs)	2017
L	105 West Street	Block 2556, Lots 55, 57, 58	48 dwelling units (10 affordable DUs)	2017
M	65 Commercial St (MTA Site)	Block 2472, Lot 425	133,575 sf of open space	?
N	West Street Greenway	West Street between Eagle and Quay Streets	2,370 linear feet (0.54 acres) two-way, class 1 physically separated bike path along the west side of the street	2015
<b>TOTAL</b>			4,122 additional residential units (inc. 904 affordable DUs); 302,700 gsf of retail space; 30,000 gsf of office space; 10,000 gsf of community facility space, 305,336 sf of open space, and 1,502 accessory parking spaces.	
<b>No-Build Sites not included in the Quantitative Analysis</b>				
O	209 McGuinness Blvd	Block 2576, Lots 20, 23	140 dwelling units (28 affordable DUs); 23,000 gsf of retail space; and 91 accessory parking spaces	2015

In addition to these developments, as described in Attachment E, "Open Space," independent of GLA, the City is expected to create three additional public open spaces on City-owned property. On Block 2472, part of Lot 32, adjacent to the Project Site, the Newtown Barge Playground Expansion would include approximately 1.29 acres of public open space. On Block 2472, Lot 425, the City is also expected to create approximately 2.81 acres of additional public open space adjacent to Projected Development Site 4 by 2016. By 2015, the City anticipates reconstructing West Street, between Eagle and Quay Streets, to accommodate an approximately 3,150 linear foot (0.72 acres) two-way, class 1 physically separated bike path

along the west side of the street, approximately 2,370 linear feet (0.54 acres) of which will be within the study area (construction project FMS ID HWK1048A). It would also include a planted buffer, speed tables and improved pavement markings at intersections, and the underground relocation of existing above-ground utilities (see Figure G-10).

## ***Zoning***

### **Primary Study Area**

There are no anticipated zoning changes in the primary study area in the future without the proposed action.

### **Secondary Study Area**

Under 2020 No-Action conditions, the secondary study area will continue to experience an increase in as-of-right residential and commercial development as a result of the Greenpoint-Williamsburg rezoning and contextual rezoning. The anticipated No-Build development at 77 Commercial Street is expected to require zoning-related discretionary approvals, although a zoning map amendment is not anticipated as of the time this EAS was prepared.

## **G. THE FUTURE WITH THE PROPOSED ACTION (WITH-ACTION)**

This section describes the land use and zoning conditions that would result from the proposed action by 2020, and assesses the potential for the proposed action to result in significant adverse impacts.

As described in Attachment A, “Project Description,” the proposed action includes several approvals. In terms of land use and zoning related approvals, these include zoning text amendments, waterfront zoning authorizations per ZR 62-822(a) and (b); waterfront zoning certifications per ZR 62-811. The UDAAP disposition and designation actions would allow for the increase of the Greenpoint Landing development project area by approximately 73,389 sf of lot area and provide GLA with approximately 589,481 sf of zoning floor area. These development rights could be utilized, along with GLA’s existing as-of-right development rights to develop new apartment buildings on four projected development sites (Projected Development Sites 1 through 4). In addition, other project approvals, including an acquisition and site selection by SCA, would facilitate a new public elementary/intermediate school on a fifth projected development site (Projected Development Site 5). Collectively, the five projected development sites encompass an area of approximately 233,326 sf (5.4 acres) in northern Greenpoint in Brooklyn Community District 1.

An additional consequence of the proposed action would be that the one-block segment of West Street between DuPont Street and Eagle Street, which is mapped but is not built, would be built and opened.

### **Land Use**

The 2012 *CEQR Technical Manual* states that although changes in land use could lead to impacts in other technical areas, significant adverse land use impacts are extraordinarily rare in the absence of an impact in another technical area. Also, according to the *Manual*, many land use changes may be significant, but not adverse.

In the future with the proposed action, the primary study area is expected to be redeveloped with residential, retail, community facility, and open space uses, with a greater amount of development than would occur under 2020 No-Action conditions. While as-of-right development could occur on the GLA-owned properties under the existing zoning, in the absence of the proposed action development on the City-owned portion of the Project Site could not occur without discretionary actions such as a disposition.

### Primary Study Area

Under 2020 With-Action conditions in the primary study area, on Projected Development Sites 1 through 5, there would be approximately 891 market rate DUs and approximately 585 affordable housing DUs for a total of approximately 1,476 DUs, approximately 6,700 gsf of local retail, approximately 120,000 sf of community facility space housing an approximately 640-seat public elementary/intermediate school, approximately 576 accessory parking spaces, and approximately 47,643 sf of publicly accessible open space. The six apartment developments on Projected Development Sites 1 through 4 would include elements up to 300 feet tall or 400 feet tall (the maximum permitted building heights of the R6 and R8 districts, respectively), with towers rising above bases and with additional setbacks. As compared to 2020 No-Action conditions on the projected development sites, the 2020 With-Action conditions would represent incremental increases of 276 market rate DUs and 431 affordable housing DUs for a total of approximately 707 DUs, approximately 4,900 gsf of local retail space, the approximately 120,000 sf 640-seat public school, approximately 253 accessory parking spaces, and approximately 28,353 sf of publicly accessible open space. As opposed to 2020 No-Action conditions, there would be two additional apartment developments on Projected Development Sites 1 and 2 and a new community facility on Projected Development Site 5. The incremental residential units generated by this action would facilitate the creation of 431 POA affordable housing units and approximately 276 market rate dwelling units associated with the City Parcel disposition and UDAAP designation (refer to Attachment A).

While the proposed action would generate increased development rights and facilitate a public school that would not be built under No-Action conditions, the proposed action would not introduce any new uses that are not currently permitted as-of-right.

### *Assessment*

The proposed action's incremental land use changes would be consistent with development trends that are expected to occur as-of-right under 2020 No-Action conditions pursuant to the City's 2005 rezoning. As compared to No-Action conditions in which the City-owned portion of the projected developments sites would not be redeveloped, with the proposed action the projected development sites would be fully developed, thereby creating a more cohesive project area. The incremental residential units generated by the proposed action would

provide a mix of affordable housing and market rate units. As compared to No-Action conditions, the proportion of affordable housing units would be significantly higher, which would advance the City's efforts to establish a vibrant mixed-income community on the Greenpoint waterfront.

The public school would serve the local community . This community facility would be a complimentary land use, serving as an important institution for the new residential areas being developed along the Greenpoint waterfront in SD 14. Similarly, the action-generated local retail would provide goods and services to residents of the area.

The open space provided would be complementary to and an enhancement to the residential uses developed in the primary study area. The public open space would be a significant addition to the area, providing high quality facilities on the waterfront with views to the water and Manhattan and Queens skylines, with upland connections and visual corridors linking to the upland street network.

The one-block section of West Street that is currently mapped but unbuilt would be built as a consequence of the proposed action and would provide an enhancement for the primary study area. It would provide a full block frontage for Projected Development Site 1 and add additional frontage for Projected Development Sites 2 and 3. As with the development of Projected Development Site 1, the West Street Extension would improve neighborhood connectivity and better link the primary study area with the surrounding blocks to the south.

### Secondary Study Area

#### *Assessment*

The proposed action is not expected to generate significant adverse land use impacts in the secondary study area. The new development generated by the proposed action would be at a density and building scale compatible with other new development occurring along the waterfront pursuant to the City's 2005 rezoning. Substantial new development in the secondary study area is expected by 2020 and is expected to continue after 2020 with or without the proposed action.

As noted in the discussion of the primary study area, the proposed action would create a more cohesive development pattern by eliminating a gap in the redeveloping waterfront. Furthermore, without the proposed action, the waterfront shore public walkway would be discontinuous to the north and south of Projected Development Site 1, there would continue to be a gap in the street grid without the West Street Extension, and as such the benefits of new development in the area would not be fully realized. Similarly, the public school facilitated by the proposed action, and the benefits it would provide throughout the secondary study area community in northern Greenpoint, would not be provided without the proposed action.

As the proposed action would result in residential and retail land uses with publicly accessible open space projected in the 2005 *FEIS*, the *FEIS* conclusions regarding land use effects remain applicable. While the school use on Projected Development Site 5 in this EAS was not a projected use in the *FEIS*, the *FEIS* did identify new school capacity as a need for the

area as development generated by the rezoning. A neighborhood school is a use compatible with the residential uses present in the secondary study area and therefore no significant adverse land use impacts would occur as a result of the introduction of the school use on Projected Development Site 5.

Overall, the proposed action would not adversely affect existing land use patterns and trends. Similar to other future study area development, the proposed action is consistent with the framework for new land uses established by the City's 2005 rezoning. The uses generated by the proposed action under 2020 With-Action conditions would not result in a substantial change to the study area as compared to 2020 No-Action conditions. Many of the changes associated with the proposed action would be considered beneficial, including redeveloping vacant City-owned land, the provision of affordable housing, public open space, and a new public school in an area experiencing substantial new residential growth.

Accordingly, the proposed action would not result in significant adverse land use impacts.

## **Zoning**

In the future with the proposed action, the existing zoning districts mapped in the primary study area would not change. While the proposed action would not include any zoning map amendments and the primary study area would continue to be located in the waterfront part of the WAP BK-1 Inclusionary Housing program area, there would be zoning text amendments related to bulk, density, and waterfront zoning compliance. The proposed zoning text amendments are summarized in Attachment A, including Table A-3.

### Zoning Text Amendments

#### *Assessment*

Collectively, the proposed zoning text amendments would help to facilitate the Proposed Project. These zoning text changes would only affect the primary study area and therefore a conceptual analysis of these changes is not required as no other sites would be affected.

In terms of each zoning text amendment, a discrete assessment is provided.

Zoning Text Amendment to allow lot area in new WAP Parcel 5e to generate floor area notwithstanding its intended future use as public open space – Mapped parkland does not usually generate floor area, in part because it is exempt from zoning. While the proposed action does not include an action to map the proposed Newtown Barge Playground Expansion area as parkland on the City Map, it is intended that this approximately 59,676-sf City-owned property would be under the jurisdiction of the NYC Department of Parks and Recreation and it would function as an expansion of the existing Newtown Barge Playground which is mapped parkland. This zoning text amendment would ensure that the development rights generated by this currently vacant property would remain available to create new housing, including a substantial number of affordable housing units. At the same time, the vacant property would be converted into an approximately 1.3-acre park expansion in an area where there is limited public open space and the demand for it will increase with new residential



development. This amendment would be consistent with the City's goals for this area, as reflected in the "Points of Agreement" mentioned in Attachment A. This would also be consistent with the projected development scenario for this site as analyzed in the Technical Memorandum provided in Appendix J of the *FEIS*.

Without this amendment, the City would not be assured that it could achieve both its affordable housing and public open space goals for this site and possibly would only be able to achieve one of these goals for this site. In other words, if the 59,676-sf area remained vacant it would be permissible to transfer development rights but a park expansion would not be provided. Conversely, without this amendment, if the 59,676-sf area were developed as parkland then it may not be permissible to transfer the development rights to facilitate the creation of new affordable and market rate housing.

Zoning Text Amendment to establish new Parcels 5d and 5e in WAP BK-1, split from the existing Parcels 5c and 5b, respectively – This amendment would create a new Parcel 5d, comprising Block 2494, Lot 1 (the GLA-owned portion of Projected Development Site 2, Projected Development Site 3 and Projected Development Site 5) and new Parcel 5e, comprising the portion of Lot 32 of Block 2472 that would be retained in City ownership. The former is currently part of BK-1 WAP Parcel 5c and the latter is currently part of WAP Parcel 5b. The creation of Parcel 5d would allow Block 2494, Lot 1 to be developed as an affordable housing project (on Projected Development Site 3) and public school (on Projected Development Site 5) prior to certification of a waterfront access plan for Parcel 5c. The smaller Parcel 5c that would be created by this action would comprise the GLA properties south of the Project Site that GLA does not plan to redevelop until after the completion of the Proposed Project. As these properties will not be developed for several years, waterfront access plans required for certification have not yet been prepared. Unlike every other tax lot in the existing Parcel 5c, Block 2494, Lot 1 is located east of West Street and does not front on the waterfront. This amendment would specify that waterfront public access area requirements generated by the new Parcel 5d would continue to be required at such time as the smaller Parcel 5c is developed. The new Parcel 5e would be treated as a separate zoning lot for the purposes of the waterfront public access and visual corridor provisions of ZR §62-50 through 62-90 enabling the remaining smaller WAP Parcel 5b (Projected Development Site 1 and the City-owned portion of Projected Development Site 2) to be developed by GLA without designing the waterfront access areas on new Parcel 5e, which would be developed separately by the City as a public open space.

As such this amendment would not change the amount of required public open space to be provided, although it would change the timing of approvals.

This amendment is generally consistent with one of the key purposes of WAPs, i.e., to allow large waterfront properties to be developed in a series of phases while also ensuring that waterfront public open space is provided in compliance with waterfront zoning as properties are developed.

Zoning Text Amendment for School Use Floor Area Exemption and to Establish Permitted Building Envelope for School Use in New Parcel 5d in WAP BK-1 – This amendment would modify height and setback, lot coverage, and yard controls for a public school in new Parcel 5d of the WAP BK-1 (Block 2494, Lot 1, i.e., the GLA-owned portion of Projected

Development Site 2, Projected Development Site 3 and Projected Development Site 5) and would allow for floor space used by schools up to a maximum of 120,000 sf of floor space within the newly designated Parcel 5d to be exempt from the definition of floor area. Per ZR §62-354, the existing bulk regulations applicable to this site limit both the maximum base height and maximum building height to 65 feet or 6 stories, whichever is less. With this zoning text amendment, this section of the ZR would be modified to permit school uses in the new Parcel 5d of WAP BK-1 to have a maximum height of 100 feet without a setback. In addition, the applicable yard and lot coverage requirements applicable would be modified to permit a building that entirely covers Projected Development Site 5. These modifications are necessary in order for the site to accommodate the proposed floor area and use program that the SCA has identified for the proposed school. The school is proposed to fully cover the approximately 20,025-sf Projected Development Site 5 and to have streetwalls up to a height of 100 feet with rooftop mechanical equipment and play areas. As discussed in the 2005 *Greenpoint-Williamsburg Rezoning FEIS*, the City's rezoning initiative was expected to result in significant adverse impacts on elementary schools, which would be mitigated by several measures including additional school capacity in Greenpoint. As a result of the floor area exemption, the proposed 120,000 sf elementary/intermediate school on Projected Development Site 5 would not affect the maximum permitted floor area that could be developed on the Project Site. Under current zoning, community facility uses are allowed to an FAR of 4.8 in R6 zones if located on a zoning lot without residential use but is limited to an FAR of 2.75 if located on a zoning lot also containing residential use. This amendment would allow for needed school space in the area being provided for this purpose without penalizing GLA with a loss of floor area for permitted residential development.

While the proposed school requires this zoning text amendment, it should be noted that school uses are permitted by the site's R6 zoning and school buildings of similar capacity and size are present throughout many neighborhoods of the City with similar or even lower built and permitted residential densities.

Zoning Text Amendment Summary -- These proposed zoning text amendments are being drafted to narrowly address special concerns under the existing zoning in order to facilitate the Proposed Project and enable the City and GLA to collaboratively fulfill commitments made by the City in the "Points of Agreement." These amendments would not apply to other sites and would not increase the overall permitted potential residential development identified in the *FEIS*. Although the school's density-related and its site-based effects were not analyzed in the *FEIS*, they are being evaluated in this EAS. Accordingly, the proposed action would not result in significant adverse zoning impacts.

#### Waterfront Zoning Authorizations and Certifications

All of the projected development sites are located within the WAP BK-1 and therefore subject to waterfront zoning requirements. Projected Development Site 1 is located within Parcel 5b; Projected Development Site 2 is partly located in Parcel 5b (Block 2494, Lot 6) and partly located in the proposed new Parcel 5d (Block 2494, part of Lot 1). Projected Development Sites 3 and 5 are entirely located within the proposed new Parcel 5d. Projected Development Site 4 is located in Parcel 5a. Development of these sites requires waterfront zoning certifications (ministerial actions) to demonstrate compliance with applicable requirements of

the WAP BK-1 and waterfront zoning authorizations (discretionary actions) are required to permit any modifications to WAP requirements.

As described in Attachment A, “Proposed Project”, waterfront zoning authorizations pursuant to ZR §62-822(a) and (b) are required to facilitate development of WAP BK-1 Parcels 5a and 5b. These authorizations would request modifications to otherwise applicable requirements of the ZR in order to address flooding concerns, newly mandated flood elevation regulations, respond to the unique geography of the Project Site, and create a superior design for the waterfront. Refer to Appendix A, for a complete technical listing of the proposed modifications that would be permitted by the proposed zoning authorizations.

Apart from the changes that would be authorized, the waterfront zoning certifications will demonstrate compliance with all other applicable requirements of the WAP BK-1. It should be noted that the Proposed Project would provide all required upland connections and visual corridors and would provide waterfront public access areas in excess of the amount required by zoning.

These modifications are required to provide better site conditions in the event of flooding that cannot be achieved under strict compliance with the WAP BK-1 regulations. As these modifications are limited to measures that would improve the Project Site’s ability to withstand flooding and problems related thereto, and would be designed to minimize any adverse affects on waterfront public access areas and visual corridors, these authorizations would not result in any significant adverse zoning impacts.

### **WRP Assessment**

A separate WRP consistency assessment has been completed for the proposed action and is provided in the appendix. As indicated therein, the proposed action would comply with all applicable WRP policies and therefore the proposed action would not result in any significant adverse WRP impacts.

**ATTACHMENT D**  
**COMMUNITY FACILITIES AND SERVICES**

**A. INTRODUCTION**

The 2012 *City Environmental Quality Review (CEQR) Technical Manual* defines community facilities as public or publicly-funded facilities, including schools, health care, child care, libraries, and fire and police protection services. This attachment examines the potential effects of the Proposed Project on the capacity and provision of services by those community facilities in the 2020 future. CEQR methodology focuses on direct impacts on community facilities and services and on increased demand for community facilities and services generated by increases in population. If a project would physically alter a community facility, whether by displacement of the facility or other physical change, this “direct” effect triggers the need to assess the service delivery of the facility and the potential effect that the physical change may have on that service delivery. New population added to an area as a result of a project would use existing services, which may result in potential “indirect” effects on service delivery. The CEQR analysis examines potential impacts on existing facilities and generally focuses in detail on those services that the City is obligated to provide to any member of the community. The CEQR analysis is not a needs assessment for new or additional services. Service providers like schools or libraries conduct their own needs assessments on a continuing basis.

Although the Proposed Project would not have a direct effect on existing community facilities in the study area, the Proposed Project would allow for a net incremental increase in development of approximately 707 DUs (approximately 431 affordable DU and approximately 276 market rate units). Assuming 2.61 residents per DU<sup>1</sup>, these 707 DUs would generate an increment of 1,845 residents over the 2020 No-Action condition. In addition, the Proposed Project would include an approximately 120,000 gsf public elementary/intermediate (PS/IS) school with a capacity of approximately 640 seats. As discussed in Attachment A the Proposed Project also includes an improvement relating to the provision of funding for child care; for analysis purposes it is expected that 19 child care slots for children who are eligible for publicly-funded child care would be created under With-Action conditions.

**B. PRINCIPAL CONCLUSIONS**

The Proposed Project was assessed for its potential effects on community facilities and services. A screening analysis found that the proposed development would exceed screening thresholds related to elementary and intermediate schools, as well as publicly-funded child care centers, thereby requiring a detailed analysis. However, the Proposed Project did not exceed the thresholds for detailed analyses of high schools, libraries, hospitals and health facilities, fire protection services, or police protection services.

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<sup>1</sup> 2010 Census average household size for Brooklyn Community District 1.

Based on a detailed analysis of public elementary and intermediate schools within the study area, no significant adverse impacts for elementary or intermediate schools were identified as a result of the Proposed Project. The analysis found that both elementary school and intermediate school demand would exceed capacity in both the No-Action and With-Action conditions. However, as a result of the introduction of a 640-seat PS/IS school as part of the proposed development, the With-Action utilization rate for elementary schools would decrease by 8.7 percentage points and the With-Action utilization rate for intermediate schools would decrease by 16.6 percentage points. Therefore, the Proposed Project would not exceed the CEQR impact threshold, and no significant adverse impacts for elementary and intermediate schools are expected as a result of the Proposed Project.

Similarly, the analysis of publicly-funded child care facilities found that demand would exceed 100 percent in both the No-Action and With-Action conditions. However, with the supply of publicly-funded child care slots expected to increase by 19 under With-Action conditions, the change in enrollment as a result of the Proposed Project is expected to increase the collective utilization rate of publicly-funded child care in the study area by 4.9 percentage points over the utilization rate in the No-Action condition, and as such the Proposed Project would not exceed the CEQR impact threshold. As such, the Proposed Project would not result in a significant adverse impact to area child care facilities. As discussed in Attachment A, in accordance with the terms of legal documents recorded on the sites of the 431 affordable units constructed pursuant to the disposition of City-owned property, GLA would provide funding for publicly-funded child care to the extent determined to be required by the Administration for Children's Services (ACS) after an assessment to be conducted at the time of application for a building permit for construction which would result in occupancy of 126 affordable housing units for residents whose incomes are at or below 80 percent of area median income (AMI).

### **C. SCREENING LEVEL ASSESSMENT**

As per the 2012 *CEQR Technical Manual*, a community facilities analysis is needed if there would be potential direct or indirect effects on a subject facility. The Proposed Project would not result in the direct displacement of any existing community facilities or services, nor would it affect the physical operations or access to and from any police or fire stations. As there are no direct effects to existing community facilities resulting from the Proposed Project, this analysis concentrates on the potential for indirect effects. Analyses were conducted to identify the potential effect that the Projected Project could have on community facilities and the provision of services to the surrounding community. In general, size, income characteristics, and the age distribution of a new population are factors that could affect the delivery of services. The 2012 *CEQR Technical Manual* provides guidelines or thresholds that can be used to make an initial determination of whether a detailed study is necessary to determine potential impacts. The Proposed Project exceeds the 2012 *CEQR Technical Manual* threshold for public elementary and intermediate schools and publicly-funded child care centers, and, therefore, detailed analyses of these services follow. The Proposed Project would not, however, trigger detailed analyses of potential impacts on libraries or police/fire protection services and health care facilities.

## D. PUBLIC ELEMENTARY AND INTERMEDIATE SCHOOLS

This analysis assesses the potential effects of the Proposed Project on public elementary and intermediate schools serving the project area. According to the guidelines presented in the 2012 *CEQR Technical Manual*, CEQR analyzes potential impacts only on public schools operated by the New York City Department of Education (DOE).<sup>2</sup> Therefore, private and parochial schools within the study area are not included in the analysis of schools presented in this attachment.

The demand for community facilities and services is directly related to the type and size of the new population generated by development resulting from the Proposed Project. As stated above, the Proposed Project would allow for a net increment of approximately 707 DUs, of which approximately 431 units would be affordable.

Based on the multipliers presented in Table 6-1a of the 2012 *CEQR Technical Manual*, the Proposed Project would result in a net increase of approximately 290 new elementary and intermediate school students, as compared to the No-Action condition, which exceeds the CEQR screening threshold for detailed analysis. The Proposed Project would also add an estimated 99 new high school students compared to No-Action condition, which would not exceed the CEQR screening threshold for detailed analysis of high schools. Moreover, because high school students travel throughout the City and high schools have a borough- or City-wide base, demand for high school seats does not have to be accommodated locally. Therefore, the following schools analysis focuses on the elementary and intermediate school levels only.

### METHODOLOGY

Following methodologies in the 2012 *CEQR Technical Manual*, the study area for the analysis of elementary and intermediate schools is the school district's "Sub-district" ("region" or "school planning zone") in which the Project Site is located. The Proposed Project is located within the boundaries of Sub-district 3 of Community School District (CSD) 14, which includes the Brooklyn neighborhoods of Greenpoint and Williamsburg and is generally bounded by the Brooklyn-Queens Expressway (BQE) to the east, Division Avenue to the south, and the East River and Newtown Creek to the west and north, respectively. Children residing within the Proposed Project would most likely attend the elementary and intermediate schools in the defined study area.

A schools analysis presents the most recent capacity, enrollment, and utilization rates for elementary and intermediate schools in the study area. Future conditions are then predicted based on enrollment projections and proposed development projects—the future utilization rate for school facilities is calculated by adding the estimated enrollment from proposed residential developments in the schools study area to DOE's projected enrollment, and then comparing that number with projected school capacity. DOE's enrollment projections for years 2009 through 2018, the most recent data currently available, are posted on the School Construction Authority (SCA) website.<sup>3</sup> These DOE enrollment projections are based on broad demographic trends and do not explicitly account for discrete new residential developments planned for the study area.

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<sup>2</sup> Pursuant to CEQR guidelines the schools analysis does not consider charter schools.

<sup>3</sup> Enrollment projections by the Grier Partnership were used: <http://www.nycsca.org>.

To ensure a more conservative prediction of future enrollment and utilization, projected future study area enrollment numbers were obtained from the New York City Department of City Planning's (DCP) Planning Coordination Division. These future enrollment numbers are derived from the SCA's Projected New Housing Starts to account for new residential development planned in the study area. In addition, any new school projects identified in the DOE Five-Year Capital Plan are included if construction has begun.

The effect of the new students introduced by the Proposed Project on the capacity of schools within the study area is then evaluated. According to the 2012 *CEQR Technical Manual*, a significant adverse impact may occur if the Proposed Project would result in:

1. A collective utilization rate of the elementary or intermediate schools that is equal to or greater than 100 percent in the With-Action Condition; and
2. An increase of five percent or more in the collective utilization rate between the No-Action and With-Action conditions.

## **BACKGROUND**

### *Greenpoint-Williamsburg Rezoning FEIS*

The 2005 *Greenpoint-Williamsburg Rezoning FEIS* and subsequent Technical Memorandum (discussed in Attachment B, "Supplemental Screening") concluded that development facilitated by the rezoning would result in significant adverse impacts to elementary schools in the Greenpoint study area; no significant adverse impacts to intermediate and high schools were anticipated. Accounting for the estimated 550 DUs that were expected to be developed on the southern portion of the Greenpoint Landing Disposition Project Site (*Greenpoint-Williamsburg Rezoning FEIS* Site 3.1) as a result of the rezoning, the 2005 *FEIS* estimated that Greenpoint study area elementary schools would operate with a 143 percent utilization rate, representing a shortfall of 965 elementary school seats. Under the Revised Affordable Housing Bonus and Incentives (AHBI) Alternative, the Technical Memorandum concluded that Greenpoint study area would experience a shortfall of 1,152 elementary school seats.

Both the 2005 *Greenpoint-Williamsburg Rezoning FEIS* and subsequent Technical Memorandum concluded that the significant adverse impact to Greenpoint elementary schools would be mitigated by creating additional capacity in Greenpoint by constructing a new elementary school or building additional capacity at existing schools; adjusting school catchment areas (attendance zones) within the school district to relieve overcrowding in the affected schools; and adjusting grade levels within the schools to better utilize available space in elementary and intermediate schools. Funding for such mitigation measures would be reflected in amendments to the DOE's Five-Year Educational Capital Facilities Plan.



## **INDIRECT EFFECTS ON PUBLIC SCHOOLS**

### **Existing Conditions**

As described above, elementary and intermediate schools in New York City are located in geographically defined school districts. Figure D-1 shows the Project Site, the study area boundaries (Sub-district 3 of CSD 14) in addition to the elementary and intermediate schools located within the study area. Elementary schools are defined as pre-kindergarten or kindergarten through fifth grades; intermediate schools serve grades 6 through 8. Existing capacity and enrollment information for elementary and intermediate schools in Sub-district 3 of CSD 14 are provided in Table D-1 and described below.

#### ***Elementary Schools***

As shown in Figure D-1, there are a total of five elementary schools in Sub-district 3 of CSD 14. Combined, in the 2012-2013 school year the five elementary schools had a total enrollment of 2,340 (915 seats under the target capacity) for a total utilization of approximately 71.9 percent (refer to Table D-1).

#### ***Intermediate Schools***

There are a total of three schools serving grades 6 through 8 within the study area. As shown in Table D-1, 1,086 students were enrolled in the three intermediate schools during the 2012-2013 school year, 442 seats below the target capacity, for a utilization rate of approximately 74.0 percent.

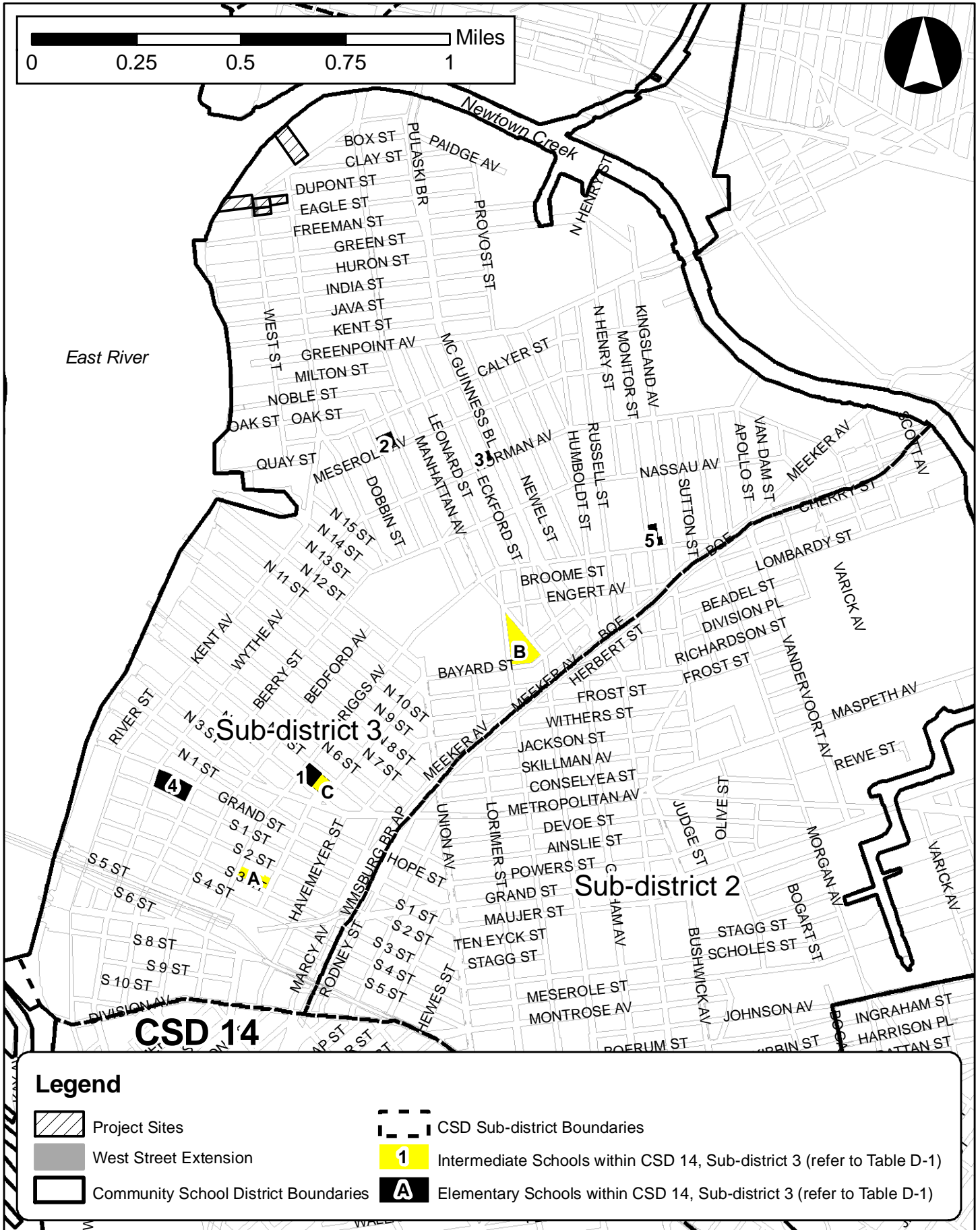
### **Future Without the Proposed Action (No-Action)**

Without the Proposed Project, future utilization of public elementary and intermediate schools serving the Project Site and the surrounding study area would be affected by changes in enrollment mainly due to aging of the existing student body and new arrivals born in the area or moving to it. As described below, no changes in CSD 14, Sub-district 3 elementary and intermediate school capacity is anticipated in the analysis of the 2020 No-Action future as no schools are presently under construction.

#### ***Enrollment Changes***

Estimates of future enrollment are derived from the latest available DOE enrollment projection data for CSD 14, Sub-district 3 for 2020 (Actual 2011, Projected 2012-2021). According to recent Sub-district information from SCA, 26.37 percent of CSD 14's projected 2020 elementary school enrollment is estimated to be within Sub-district 3, while 28.96 percent of CSD 14's projected 2020 intermediate enrollment is estimated to be within Sub-district 3. As such, in the 2020 future without the proposed project, DOE projections show that demand for public elementary schools in CSD 14, Sub-district 3 is expected to increase by approximately 6.3

Elementary and Intermediate Schools within CSD 14, Sub-district 3



percent (from 2,314 to 2,460). Intermediate school enrollment is forecasted to increase slightly in the study area, by approximately 0.5 percent (from 1,215 to 1,221 by 2020).<sup>4</sup>

**Table D-1, 2012-2013 CSD 14, Sub-district 3 Elementary and Intermediate School Enrollment and Capacity**

Map No. <sup>1</sup>	School Name and Address	Grades Served	Enrollment	Target Capacity <sup>2</sup>	Available Seats	Utilization (%)
1	P.S. 17–Henry D. Woodworth (208 North 5th Street)	PK-5	369	399	30	92.5
2	P.S. 31–Samuel F. Dupont (75 Meserole Avenue)	PK-5	584	698	114	83.7
3	P.S. 34–Oliver H. Perry (131 Norman Avenue)	PK-5	543	416	-127	130.5
4	P.S. 84–Jose De Diego (250 Berry Street)	PK-5	498	1,049	551	47.5
5	P.S. 110–The Monitor (124 Monitor Street)	PK-5	346	693	347	49.9
<b>Total for Elementary Schools in CSD 14, Sub-district 3</b>			<b>2,340</b>	<b>3,255</b>	<b>915</b>	<b>71.9</b>
6	J.H.S. 50–John D. Wells (183 South 3rd Street)	6-8	339	567	228	59.8
7	J.H.S. 126–John Ericsson Middle School (424 Leonard Street)	6-8	262	632	370	41.5
8	I.S. 577–Conselyea Preparatory School (208 North 5th Street)	6-8	485	329	-156	147.4
<b>Total for Intermediate Schools in CSD 14, Sub-district 3</b>			<b>1,086</b>	<b>1,528</b>	<b>442</b>	<b>71.1</b>

Source: New York City Department of Education (DOE), *Enrollment—Capacity—Utilization Report, 2012-2013 School Year*.

**Notes:**

<sup>1</sup> Refer to Figure D-1.

<sup>2</sup> Target capacity sets a goal of a reduced class-size of 20 for grades K-3 and 28 for grades 4-8 and is used by the NYCDOE for capital planning purposes.

However, a considerable amount of new residential development is planned in the study area by the analysis year of 2020. Using numbers derived from the SCA's Projected New Housing Starts for Sub-district 3 of CSD 14, approximately 1,380 new elementary school students and 220 new intermediate school students are expected to be added to the study area by the 2020 build year.<sup>5</sup>

Therefore, based on the DOE enrollment projections and SCA's Projected New Housing Starts, both elementary and intermediate school enrollment in Sub-district 3 of CSD 14 are expected to

<sup>4</sup> Grier enrollment projections were used for analysis purposes (Actual 2011, Projected 2012-2021). Projections include Special Education students who are integrated into regular classrooms.

<sup>5</sup> The number of students generated by the No-Action Scenario for the Sub-district study area were obtained from DCP. These numbers are derived from SCA's Projected New Housing Generation Pipeline.

increase. 2020 CSD 14, Sub-district 3 elementary school enrollment is expected to increase by 65.9 percent (from 2,314 to 3,840); intermediate school enrollment is expected to increase by 18.6 percent (from 1,215 to 1,441) by the 2020 analysis year.

### ***Projected Capacity Changes***

There are no new elementary or intermediate schools under construction in Sub-district 3 of CSD 14. However, based on approved “Proposals for Significant Changes in Utilization”, there are expected to be changes in capacity at two of the intermediate schools in Sub-district 3 of CSD 14. With new charter schools to be co-located in JHS 50 John D. Wells and JHS 126 John Ericsson, according to their “Building Utilization Plans” the capacity of the schools would be reduced by 192 and 342 seats, respectively. As a result the overall intermediate school capacity in the sub-district would decrease from 1,528 seats to 989 seats, a reduction of 539 seats.

There are no anticipated changes to elementary school capacity in the sub-district.

### ***Analysis***

#### ***Elementary Schools***

The utilization rate for public school facilities in the future without the Proposed Project is calculated by adding SCA’s estimated enrollment from known future proposed residential developments within Sub-district 3 to the projected enrollment from DOE, and then comparing that number to projected capacity. As shown in Table D-2, in the future No-Action condition, public elementary schools in CSD 14, Sub-district 3 will operate over capacity; public elementary school enrollment in Sub-district 3 will total 3,840 students, representing 118.0 percent utilization with a shortfall of 585 seats.

#### ***Intermediate Schools***

As shown in Table D-2, while CSD 14, Sub-district 3 intermediate school enrollment is expected to increase in the 2020 No-Action condition to 1,441 students, study area intermediate school capacity is expected to decrease to 989 seats. As a result, public intermediate schools in CSD 14, Sub-district 3 will operate over capacity with a utilization rate of 145.7 percent.

### **Future With the Proposed Action (With-Action)**

The Proposed Project would facilitate the construction of approximately 1,463 DUs, representing a net incremental increase in development over No-Action conditions on the Project Site of approximately 707 DUs. In addition, the Proposed Project would include an approximately 120,000 gsf public elementary/intermediate (PS/IS) school with a capacity of 640 seats.

**Table D-2, 2020 Future Without the Proposed Project: Projected Enrollment in CSD 14, Sub-district 3 Public Schools**

	2020 Projected Enrollment <sup>1</sup>	Students Generated from Development	Total Projected Enrollment	Capacity	Available Seats	Utilization (%)
<b>Elementary Schools</b>	2,460	1,380	3,840	3,255	-585	118.0%
<b>Intermediate Schools</b>	1,221	220	1,441	989	-452	145.7%

Sources: DOE enrollment projection data (Actual 2008, Projected 2009-2018); DOE 2010-2014 Five-Year Capital Plan, Proposed February 2012 Amendment

**Notes:**

<sup>1</sup> Projected 2020 Sub-district 3 school enrollment was calculated by applying Sub-district enrollment percentages obtained from DCP. Approximately 26.37 percent of CSD 14's projected 2020 elementary school enrollment and 28.96 percent of its intermediate school enrollment is estimated to be within Sub-district 3 (i.e., the study area).

***Enrollment Changes***

Based on the multipliers presented in Table 6-1a of the 2012 *CEQR Technical Manual*, the net 707 residential units facilitated by the Proposed Project would result in a net increase of approximately 205 public elementary students and 85 public intermediate school students over the No-Action condition (see Table D-3).

**Table D-3, 2020 Future With the Proposed Project: Estimated Number of Students Introduced**

Total New Housing Units	Elementary Students <sup>1</sup>	Intermediate Students <sup>1</sup>	Total Elementary and Intermediate Students
707	205	85	290

**Notes:**

<sup>1</sup> Based on student generation rates from Table 6-1a of the 2012 *CEQR Technical Manual* (0.29 for elementary and 0.12 for intermediate).

***Projected Capacity Changes***

As noted above, the Proposed Project would facilitate the construction of an approximately 120,000 gsf public PS/IS school with a total capacity of approximately 640 seats. The proposed school would include approximately 447 elementary school seats and approximately 193 intermediate school seats.<sup>6</sup> The proposed school would be developed on Projected Development Site 5 (241 Franklin Street), which occupies the eastern portion of the block bounded by DuPont and Eagle Streets to the north and south, and Franklin Street to the east, and would serve both project-generated students and existing and future students of CSD 14, Sub-district 3.

<sup>6</sup> Includes a total of approximately 84 special education (SE) seats. Pursuant to 2012 CEQR methodology, these SE seats are added proportionately to the capacity for elementary and intermediate seats.

## Analysis

### Elementary Schools

In 2020, the Proposed Project would introduce approximately 205 elementary students to the school study area. As shown in Table D-4, combined with the 2020 No-Action total projected enrollment, the new students would result in a total enrollment of 4,045 elementary students. Due to the increase in public elementary school capacity resulting from the Proposed Project's 640-seat PS/IS school, utilization (while still exceeding 100 percent) would be significantly less than in the No-Action condition. Total utilization is expected to be approximately 109.3 percent, 8.7 percentage points less than in the No-Action condition. There would be a shortage of approximately 343 public elementary seats in the With-Action future, 242 seats less than the shortage of 585 elementary seats anticipated in the No-Action condition.

### Intermediate Schools

As shown in Table D-4, the Proposed Project would introduce approximately 85 intermediate students to the study area, increasing enrollment in CSD 14, Sub-district 3 to 1,526. Due to the increase in public intermediate school capacity created by the proposed development's PS/IS school, public intermediate school utilization (while still exceeding 100 percent) would be significantly less than in the No-Action condition. Total utilization is expected to be approximately 129.1 percent, 16.6 percentage points less than in the No-Action condition. There would be a shortage of approximately 344 public intermediate seats in the With-Action future, 108 seats less than the shortage of 452 intermediate seats anticipated in the No-Action condition.

**Table D-4, 2020 Future With the Proposed Project: Projected Enrollment in CSD 14, Sub-district 3 Public Schools**

	2020 No-Action Total Projected Enrollment	Students Generated by the Proposed Project <sup>1</sup>	Total Projected With-Action Enrollment	Capacity	Available Seats	Utilization (%)	Increase in Utilization (%) from No-Action Condition
<b>Elementary Schools</b>	3,840	205	4,045	3,702	-343	109.3%	-8.7%
<b>Intermediate Schools</b>	1,441	85	1,526	1,182	-344	129.1%	-16.6%

**Notes:**

<sup>1</sup> See Table D-3

## IMPACT SIGNIFICANCE

As noted above, for the purposes of CEQR analysis, a utilization rate of 100 percent is the utilization threshold for overcrowding. Additionally, CEQR defines a significant adverse impact as an increase of five percent or more in the collective utilization rate between the No-Action and With-Action conditions. In determining impact significance, elementary and intermediate schools are handled separately.

## **Elementary Schools**

In the future with the Proposed Project, elementary school utilization would exceed the 100 percent utilization threshold. However, as a result of the approximately 447 additional elementary school seats that would be introduced as a result of the Proposed Project, the utilization rate would be 8.7 percentage points lower compared to the No-Action condition, decreasing from 118.0 percent to 109.3 percent. Therefore, pursuant to CEQR methodology, the Proposed Project would not result in a significant adverse impact to study area public elementary schools.

## **Intermediate Schools**

In the future with the Proposed Project, intermediate school utilization would exceed the 100 percent utilization threshold. However, as a result of the approximately 193 additional intermediate school seats that would be introduced as a result of the Proposed Project, the utilization rate would be 16.6 percentage points lower compared to the No-Action condition, decreasing from 145.7 percent to 129.1 percent. Therefore, pursuant to CEQR methodology, the Proposed Project would not result in a significant adverse impact to study area public intermediate schools.

Measures utilized by DOE to address increased elementary and intermediate school enrollment and capacity shortfalls could include: relocating administrative functions to other sites, thereby freeing up space for classrooms; making space within the study area available to DOE; restructuring or reprogramming existing school space within the district; or providing for new capacity by constructing a new school or an addition to an existing school.

## **E. CHILD CARE**

This analysis assesses the potential effects of the Proposed Project on publicly-funded child care centers. The New York City Administration for Children's Services (ACS) provides subsidized child care in center-based group child care, including Head Start programs, family child care, and informal child care. Publicly-funded child care services are available for income-eligible children up to the age of 12. In order for a family to receive subsidized child care services, the family must meet specific financial and social eligibility criteria that are determined by federal, state, and local regulations. In general, children in families that have incomes at or below 200 percent Federal Poverty Level (FPL), depending on family size, are financially eligible, although in some cases eligibility can go up to 275 percent FPL (per ACS guidelines). The family must also have an approved "reason for care," such as involvement in a child welfare case or participation in a "welfare-to-work" program.

Publicly-funded child care centers, under the auspice of the ACS's Division of Child Care and Head Start, provide care for the children of income-eligible household. A space for one child in a child care center is called a "slot." Slots may also be in private homes licensed to provide child care services to small numbers of unrelated children. While publicly-funded child care services

are available for income-eligible children through the age of 12, as per the 2012 *CEQR Technical Manual*, this analysis focuses on services for children under age 6.

The demand for community facilities and services is directly related to the type and size of the new population generated by development resulting from the proposed project. Pursuant to CEQR methodology, only the number of housing units expected to be subsidized and targeted for incomes at or below 80 percent AMI should be used as a proxy for subsidized child care eligibility. The Proposed Project would facilitate a net increment of approximately 707 residential units, of which 431 units would be affordable. As described in Attachment A, "Project Description," the affordable units developed with the Proposed Project would be divided into four income bands, ranging from under 40 percent of Area Median Income (AMI) to under 120 percent of AMI. Of the 431 proposed affordable units, 75 percent (or 323) would be targeted for incomes below 80 percent AMI. The Proposed Project also includes an improvement relating to the provision of funding for child care; for analysis purposes it is expected that 19 child care slots for children who are eligible for publicly-funded child care would be created under With-Action conditions.

Pursuant to CEQR, if a project would generate 20 or more eligible children under age 6, further analysis may be appropriate. Based on the multiplier for Brooklyn presented in Table 6-1b of the 2012 *CEQR Technical Manual*, the Proposed Project would result in a net increase of approximately 57 children eligible for publicly-funded child care, as compared to the No-Action condition, which exceeds the CEQR threshold of 20 children required for detailed analysis. As such, a detailed analysis of child care centers is provided below.

## **METHODOLOGY**

Since there are no locational requirements for enrollment in child care facilities, and some parents or guardians choose a child care center close to their employment rather than their residence, the service areas of these facilities can be quite large. Nevertheless, as stated in the 2012 *CEQR Technical Manual*, the centers closest to the project site are more likely to be subject to increased demand. CEQR methodology therefore recommends a study area of 1.5 miles or more, dependent upon a project site's location relative to transit, amongst other factors. The child care study area used for this analysis encompasses all portions of Brooklyn and Queens within a 1.5-mile radius of the projected development sites. However, portions of Manhattan that lie within the 1.5-mile radius were not included in the study area given that the East River forms a significant natural boundary and, unlike Newtown Creek separating Brooklyn and Queens, there are no vehicular, pedestrian, or public transit connections across the river in this area.

A child care analysis presents the most recent capacity (slots) and utilization (enrollment) data for publicly-funded group child care facilities (including Head Start facilities) within the study area, obtained from ACS's Division of Child Care and Head Start. Future conditions are then predicted by multiplying the number of new low-income and low- to moderate-income family housing units expected in the study area by the applicable 2012 CEQR multiplier to estimate the number of children under age 6 eligible for publicly-funded child care services. For Brooklyn, the multiplier is 0.178. Since enrollment projections for child care facilities are not available,



CEQR analysis assumes that the existing enrollment and capacity would stay the same for the build year. However, any changes planned for child care program or facilities in the area of the proposed project, including closing or expanding existing facilities and establishing new facilities that would affect capacity by the build year are accounted for in the future conditions.

The effect of the new publicly-funded child care-eligible children introduced by the proposed project on the capacity of child care centers within the study area is then evaluated. According to the 2012 *CEQR Technical Manual*, a significant adverse impact may occur if the proposed project would result in:

1. A collective utilization rate of the group child care/Head Start centers in the study area that is greater than 100 percent in the With-Action Scenario; and
2. An increase of five percent or more in the collective utilization rate of the child care/Head Start centers in the study area between the No-Action and With-Action Scenarios.

## **BACKGROUND**

### **Greenpoint-Williamsburg Rezoning FEIS**

The Technical Memorandum to the 2005 *Greenpoint-Williamsburg Rezoning FEIS* estimated that the additional development anticipated on Potential Development Sites 3.1 (the southern portion of the Greenpoint Landing Disposition project site), 222 and 327 would result in the introduction of an estimated 662 low- to moderate-income units; 550 of these units were expected to be developed on the Greenpoint Landing Disposition project site. These estimated 662 units were expected to generate approximately 225 children eligible for publicly-financed child care, resulting in a significant adverse impact on area child care. Development facilitated by the rezoning was expected to result in a 7.7 percent increase and 20.5 percent increase over the No-Action condition under both the proposed action and Revised AHBI Alternative.

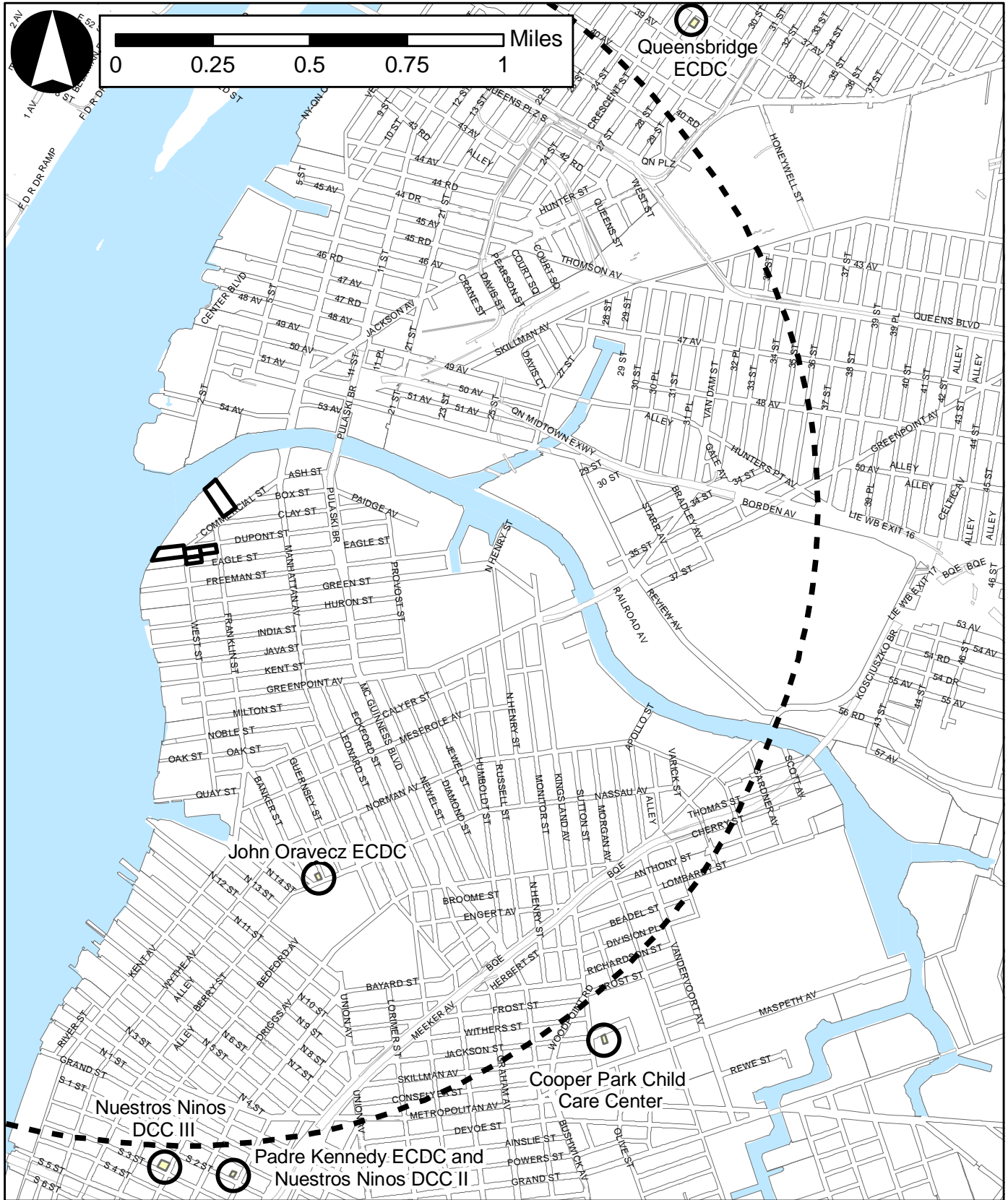
Mitigation measures identified in the 2005 *Greenpoint-Williamsburg Rezoning FEIS* and subsequent Technical Memorandum included adding capacity to existing facilities or providing a new child care facility within or near the rezoning area. However, at the time of writing it was stated that it was not possible to know exactly which type of mitigation would be most appropriate and when, because the demand for publicly-funded child care depends not only on the amount of residential development in the area, but the proportion of new residents who are children of low-income families. As such, it was concluded that ACS would monitor development in the rezoning area and respond accordingly to provide additional capacity when needed.

## **INDIRECT EFFECTS ON CHILD CARE CENTERS**

### **Existing Conditions**

There are six publicly-funded group child care facilities within the study area (see Figure D-2). The 451 group child care facility slots provided at these facilities are currently operating at 100 percent utilization with no available slots. Additional capacity likely could be provided by family

Publicly-Funded Child Care and Head Start Facilities within the Study Area



**Legend**

- Project Site
- Child Care Study Area (1.5 Mile Radius)
- Child Care Sites

Refer to Table D-5

and private child care centers, but these facilities are not included in this analysis per 2012 *CEQR Technical Manual* guidance.

**Table D-5, Publicly-Funded Child Care Facilities within the Study Area (1.5-mile Radius)**

Map No. <sup>1</sup>	Program Name <sup>2</sup>	Address <sup>3</sup>	Capacity	Enrollment	Available Slots	Utilization
1	John Oravec ECDC	25 Nassau Av.	92	92	0	100.0%
2	Cooper Park Child Care Center	292 Frost St.	45	45	0	100.0%
3	Padre Kennedy ECDC	243 S. 2nd St.	55	55	0	100.0%
4	Nuestros Niños II	243 S. 2nd St.	70	70	0	100.0%
5	Nuestros Niños III	161 S. 3rd St.	35	35	0	100.0%
6	Queensbridge ECDC	38-11 27th St., Queens	154	154	0	100.0%
<b>TOTAL</b>			<b>451</b>	<b>451</b>	<b>0</b>	<b>100.0%</b>

Source: ACS, June 2013.

**Notes:**

<sup>1</sup> Refer to Figure D-2.

<sup>2</sup> Includes Head Start programs (all of which are center-based per ACS)

<sup>3</sup> Addresses are in Brooklyn unless otherwise noted.

### Future Without the Proposed Action (No-Action)

As described in Attachment A, “Project Description,” in the absence of the Proposed Project, it is expected that the applicant, Greenpoint Landing Associates LLC (GLA), will develop two buildings on the Project Site (Projected Development Sites 3 and 4 with the development on Projected Development Site 3 potentially extending onto the GLA-owned portion of Projected Development Site 2) on an as-of-right basis. It is anticipated that this No-Action development will introduce approximately 769 DUs, of which 154 would be affordable. These units will be developed under the Housing Finance Agency (HFA) 80/20 program. As such, all of the affordable units would be targeted to incomes below 80 percent of AMI.

Inclusive of the 154 affordable housing units on the projected development sites developed under 2020 No-Action conditions, planned or proposed development projects in the 1.5-mile study area will introduce approximately 1,936 units which are expected to be occupied by low- to moderate-income households eligible for publicly-funded child care.<sup>7</sup> (These 1, 936 low-to-moderate income units also include approximately 189 low-moderate income units developed on an as-of-right basis on other Greenpoint Landing sites not affected by the proposed action; refer to Attachment C, “Land Use, Zoning and Public Policy” for details.) Based on Table 6-1b of the 2012 *CEQR Technical Manual*, this amount of development is anticipated to introduce 324 children under the age of 6 who would be eligible for publicly-funded child care programs (0.178 child care-eligible children under age 6 per unit in Brooklyn; 0.140 child care-eligible children under age 6 per unit in Queens).

It should be noted that the expected number of new eligible children generated by study area No-Action developments increased between the issuance of the original EAS in July 2013 and this

<sup>7</sup> As per the 2012 *CEQR Technical Manual*, housing units expected to be subsidized and targeted for incomes of below 80 percent AMI are used for a proxy of publicly-funded child care eligibility.

revised EAS in November 2013. It is expected that the proposed 77 Commercial Street development project, previously expected to include up to 72 DUs for households with incomes below 80 percent of AMI is now expected to include up to 200 DUs for such households. In addition, as a result of that development, the study area's supply of child care is expected to increase by 11 slots, from 451 to 462.

Based on these assumptions, in the future without the Proposed Project, the number of children eligible for publicly-funded child care will exceed available slots in the future without the Proposed Project. As described above, there are currently 451 slots operating at 100.0 percent utilization. As shown in Table D-6, with the addition of the estimated 324 eligible children introduced by planned development projects on the Project Site and in the study area and an increase of 11 study area child care slots, there will be a shortage of 313 slots in publicly-funded child care programs in the study area (167.7 percent utilization) in 2020 under No-Action conditions.

**Table D-6, Projected Publicly-Funded Child Care Enrollment and Capacity in the 2020 Future Without the Proposed Project**

Capacity <sup>1</sup>	Projected Enrollment <sup>2</sup>	Available Slots	Utilization
462	775	-370	167.7%

**Notes:**

<sup>1</sup> No capacity changes are anticipated in the No-Action Scenario.

<sup>2</sup> Projected enrollment is calculated by adding the projected new publicly-funded child care-eligible children to the existing enrollment from Table D-5.

### **Future With the Proposed Action (With-Action)**

As described in Attachment A, "Project Description," the Proposed Project would allow for a net increase of approximately 707 residential units of which 431 units would be affordable; 323 DUs (75 percent of the affordable units) would be targeted to incomes below 80 percent of AMI. Therefore, based on Table 6-1b of the 2012 *CEQR Technical Manual*, the development of these 323 affordable units would generate approximately 57 publicly-funded child care-eligible children over the No-Action condition. As shown in Table D-7, in the 2020 With-Action condition, these estimated 57 children would increase the projected enrollment in publicly funded child care to 832. In addition, under With-Action conditions for analysis purposes it is expected that 19 slots for publicly-funded child would be created in the study area. As a result, the number of slots (capacity) would increase to 481. With these changes under 2020 With-Action conditions, there would be a shortfall of 351 seats and an overall utilization rate of approximately 172.6 percent.

**Table D-7, Projected Publicly-Funded Child Care Enrollment and Capacity Changes in the 2020 Future With the Proposed Project**

Capacity <sup>1</sup>	Projected Enrollment <sup>2</sup>	Available Slots	Utilization	Increase in Utilization (%) from No-Action Condition
481	832	-351	172.6%	4.9%

*Notes:*

<sup>1</sup> 20 slots would be created as part of the proposed action.

<sup>2</sup> Projected enrollment is calculated by adding the projected new publicly-funded child care-eligible children created by the proposed project to the group child care in the No-Action condition (Table D-6).

## IMPACT SIGNIFICANCE

As described above, this analysis is based on the assumption that an increment of approximately 323 affordable DUs eligible for publicly-funded child care would be introduced on the Project Site and that all of the currently planned developments in the area would be completed by 2020. It is also based on the creation of 19 child care slots for children who are eligible for publicly-funded child care expected to occur under With-Action conditions for analysis purposes. Based on this information, publicly-funded group child care would be above 100 percent capacity in both the No-Action and the With-Action conditions. The 2012 *CEQR Technical Manual* states that if the proposed project would cause an increase of five percent or more in utilization in the study area, a significant adverse impact may result warranting consideration of mitigation. The Proposed Project would result in a 4.9 percentage point increase in the publicly-funded child care utilization rate compared to the No-Action condition. Therefore, the Proposed Project would not result in a significant adverse impact on child care facilities.

Several additional factors may also limit the number of children in need of publicly-funded child care slots in ACS-contracted child care facilities. Families in the study area could make use of alternatives to publicly-funded child care facilities or elect to make use of home licensed family child care facilities instead of group child care. Furthermore, parents of eligible children are not restricted to enrolling their children in child care facilities in a specific geographical area. As such, they could make use of publicly-funded child care providers beyond the two mile study area.

### City Commitments Regarding Mitigation of Child Care Impacts from the 2005 Rezoning

As stated in the 2005 *Greenpoint-Williamsburg Rezoning FEIS* and subsequent Technical Memorandum (described in Attachment A, “Project Description”), it is expected that ACS will continue to monitor development in the surrounding area and respond to provide capacity when needed. While not included in the above analysis, it is possible that additional child care capacity will be added to the study area in conjunction with other large scale developments anticipated to be complete by the 2020 analysis year.

The CPC report for the rezoning approval stated “as is standard practice, [ACS] would monitor development of the proposed action area and respond as appropriate to provide the capacity needed.”<sup>8</sup>

<sup>8</sup> City Planning Commission, March 14, 2005, Calendar No.6, N 050110(A) ZRK.

The “Points of Agreement” (POA) that the City entered into at the time of the rezoning also states “the Administration agrees to monitor the amount of development in the rezoning area on an annual basis. After the number of new housing units built in the rezoning area exceeds 2,200 (25% of the projected development), the Administration agrees to submit to the Council Members for the area by letter an annual report updating needs analysis and planned mitigations, where applicable, from relevant agencies for schools, day care, hospitals, fire protection, police service, and bus and subway service.”<sup>9</sup>

Although information on the number of units developed in the rezoning area to date is not readily available, based on the information presented in Attachment C, it is expected that by 2020 there would be at least 2,200 units developed in the Greenpoint portion of the rezoning area between 2013 and 2020, including as-of-right and proposed Greenpoint Landing buildings, 155 West Street, and 135 West Street. Therefore, consistent with its commitments, the City and ACS in particular should identify needs for publicly-funded child care and planned mitigation to address the impacts disclosed for the City-initiated rezoning. With such measures, the capacity shortfalls projected in the future should be alleviated or eliminated.

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<sup>9</sup> “Points of Agreement: Greenpoint-Williamsburg Rezoning,” May 2, 2005, with cover letter dated May 1, 2005 from Daniel L. Doctoroff, Deputy Mayor for Economic Development and Rebuilding, to Speaker Gifford Miller, New York City Council.

**ATTACHMENT E**  
**OPEN SPACE**

## **A. INTRODUCTION**

An open space assessment may be necessary if a proposed action could potentially have a direct or indirect effect on open space resources in the project area. A direct effect would “physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value.” An indirect effect may occur when the population generated by a proposed development would be sufficient to noticeably diminish the ability of an area’s open space to serve the existing or future population. According to the guidelines established in the 2012 *CEQR Technical Manual*, a project that would add fewer than 200 residents or 500 employees, or a similar number of other users to an open area, is typically not considered to have indirect effects on open space.

Although the Proposed Project would not have a direct effect on existing open space resources in the project area, the Proposed Project would facilitate an incremental increase of 707 dwelling units over 2020 No-Action condition. This would result in an increase of 1,845 residents; based on an assumption of 2.61 residents per residential unit, which exceeds the 2012 *CEQR Technical Manual* threshold for a detailed open space analysis. The Proposed Project would also add a waterfront esplanade, upland connections, and related public open space along the project site, with a total increment of 0.65 acres of publicly accessible open space. A quantitative assessment was conducted to determine whether the proposed action would significantly reduce the amount of open space available for the area’s population. The Proposed Project is also expected to introduce a net increment of 20 employees to the project area, using standard planning assumptions. This is well below the 2012 *CEQR Technical Manual* threshold for analysis based on employee numbers and therefore, the analysis of open space will focus exclusively on the open space needs of the residential population. In addition to the analysis provided in this attachment, Attachment F provides an assessment of the shadow effects of the Proposed Project on open space resources.

## **B. PRINCIPAL CONCLUSIONS**

According to the 2012 *CEQR Technical Manual*, a proposed action may result in a significant adverse impact on open space resources if (a) there would be direct displacement/alteration of existing open space within the study area that has a significant adverse effect on existing users; or (b) it would reduce the open space ratio and consequently overburden existing facilities or further exacerbate deficiency in open space. The 2012 *CEQR Technical Manual* also states that “if the area exhibits a low open space ratio indicating a shortfall of open space, even a small decrease in the ratio as a result of the action may cause an adverse effect.” A 5 percent or greater decrease in the open space ratio is considered to be “substantial”, and a decrease of less than 1 percent is generally considered to be insignificant unless open space resources are extremely limited.



Although the Project Site is neither well- or under-served by open space, the majority of the study area is located in an underserved area as defined in the 2012 *CEQR Technical Manual Appendix: Open Space Maps*.

Based on the analysis below, the proposed action would not result in a significant adverse open space impact. As noted above, the Proposed Project would not result in any direct displacement or alteration of existing public spaces in the study area. The proposed action would decrease the 2020 No-Action open space ratio from 0.549 to 0.535 acres per 1,000 residents, which translates to a 2.53 percent decrease in the 2020 With-Action compared to 2020 No-Action conditions, which is below the 5 percent 2012 *CEQR Technical Manual* threshold. The reduction of the total open space ratio resulting from the proposed action, which is an incremental decrease of approximately 0.014 acres per 1,000 residents, is not expected to noticeably diminish the ability of the study area's open spaces to serve its residential population in the future with the proposed action, in part due to the new public open space created as part of the Proposed Project.

## C. BACKGROUND INFORMATION

### *Greenpoint-Williamsburg Rezoning FEIS*

As described in Attachment B, "Supplemental Screening," there has been previous analysis of the study area and some of the projected development sites in the 2005 *Greenpoint-Williamsburg Rezoning FEIS*. In addition to increased population generated by the rezoning, the FEIS open space analysis accounted for several new public open spaces that were expected to be created post-2005. Within the study area analyzed in this EAS, these included WNYC Transmitter Park and Manhattan Avenue Streetend Park, two facilities that were "No-Build" open spaces in the *FEIS* and that have subsequently opened. In addition, the *FEIS* analysis included waterfront open spaces that would be created on *FEIS* projected development sites in compliance with the Greenpoint-Williamsburg Waterfront Access Plan (WAP BK-1). As discussed in Attachment C, the WAP BK-1 was established as part of the rezoning, but within the study area analyzed in this EAS none of WAP BK-1 parcels has been developed as of 2013. In the Technical Memorandum in *FEIS* Appendix J it was assumed that part of what is identified as the "City Parcel" in this EAS would be developed with approximately 1.5 acres of publicly accessible open space and 550 dwelling units. Both the *FEIS* analysis of the Revised AHBI Alternative and the Technical Memorandum determined that there would be no significant adverse open space impacts as a result of the rezoning.

## D. OPEN SPACE STUDY AREA AND METHODOLOGY

The analysis of open space resources has been conducted in accordance with the guidelines established in the 2012 *CEQR Technical Manual*. Using this methodology, the adequacy of open space in the study area is assessed quantitatively using a ratio of usable open space acreage to the study area population, referred to as the open space ratio. This quantitative measure is then used to assess the changes in the adequacy of open space resources by the Build year 2020, both without and with the proposed action. In addition, qualitative factors are considered in making an assessment of the proposed action's effects on open space resources.

In accordance with the guidelines established in the 2012 *CEQR Technical Manual*, the open space study area is generally defined by a reasonable walking distance that users would travel to reach local open space and recreational resources. That distance is typically a half-mile radius for residential projects and a quarter-mile radius for commercial projects with a worker population. Because the worker population generated by the proposed action falls well below the threshold of 500 additional employees, a half-mile radius is the appropriate study area boundary.

### **Open Space Study Area**

Pursuant to 2012 *CEQR Technical Manual* guidelines, the residential open space study area includes all census tracts that have at least 50 percent of their area located within a half-mile of the proposed project site and all open spaces within it that are publicly accessible. As described above, residents typically walk up to a half-mile for recreational spaces. While some portions of Queens are located within the half-mile radius of the Project Site (portions of Census Tracts 1 and 7)<sup>1</sup>, Queens was not included in the study area, since the residents would need to walk farther than a half-mile to cross the Pulaski Bridge over Newtown Creek and reach the Queens portion of the radius.

The Project Site encompasses portions of Block 2472 and all of Block 2494 in the Greenpoint neighborhood of Brooklyn Community District 1. As shown in Figure E-1, the open space study area includes census tracts 563, 565, and 575 in their entirety.

### **Analysis Framework**

#### *Direct Effects Analysis*

According to the 2012 *CEQR Technical Manual*, a proposed action would have a direct effect on an open space if it causes the physical loss of public open space because of encroachment onto the space or displacement of the space; changes the use of an open space so that it no longer serves the same user population; limits public access to an open space; or causes increased noise or air pollutant emissions, odors, or shadows that would affect its usefulness, whether on a permanent or temporary basis.

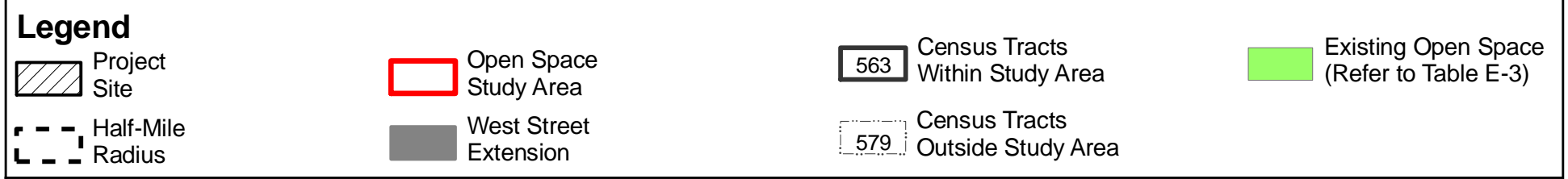
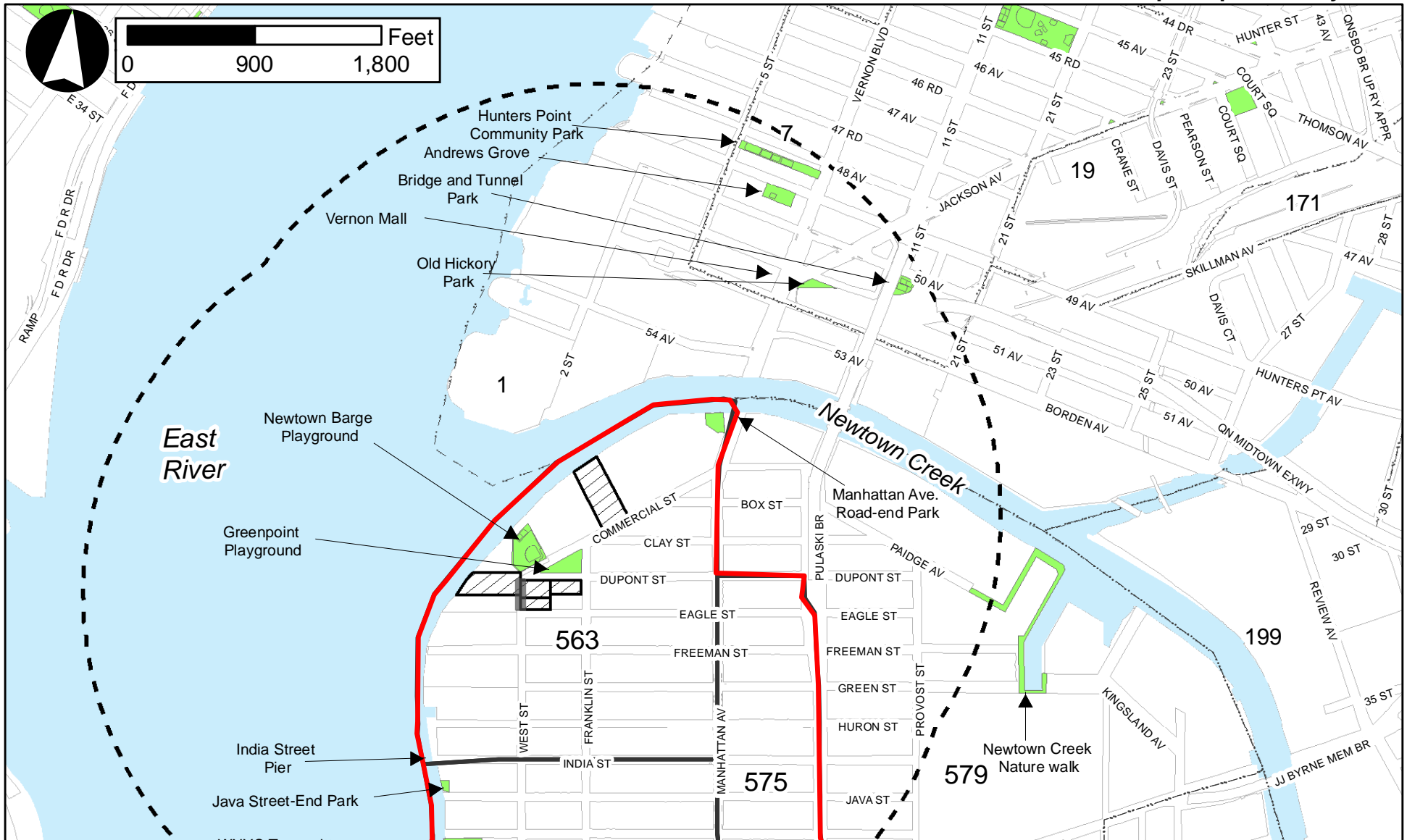
As there are no publicly-accessible open spaces within the Project Site, the Proposed Project would not have any direct effects and no further analysis is warranted. Attachment F provides an assessment of the shadow effects of the Proposed Project on the open space resources, which demonstrates that shadows would not affect the usefulness of any open space resources in the study area.

#### *Indirect Effects Analysis*

Indirect effects occur to an area's open spaces when a proposed action would add enough population, either workers or residents, to noticeably diminish the ability of an area's open space to serve the existing or future population. The 2012 *CEQR Technical Manual* methodology suggests conducting an initial quantitative assessment to determine whether more detailed

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<sup>1</sup> Less than 50% of Queens Census Tracts 1 and 7 are located within a half-mile of the proposed Project Site.



analyses are appropriate, but also recognizes that for projects that introduce a large population in an area that is underserved by open space, it may be clear that a full, detailed analysis should be conducted. The study area is not located within an underserved or well-served area as determined by the 2012 *CEQR* guidelines.

With an inventory of available open space resources and potential users, the adequacy of open space in the study area can be assessed both quantitatively and qualitatively. The quantitative approach computes the ratio of open space acreage to the population in the study area and compares this ratio with certain guidelines. The qualitative assessment examines other factors that can affect conclusions about adequacy, including proximity to additional resources beyond the study area, the availability of private recreational facilities, and the demographic characteristics of the area's population. Specifically, the analysis in this attachment includes:

- Characteristics of the open space users: residents. To determine the number of residents in the study area, 2010 census data have been compiled for census tracts comprising the open space study areas along with projections of large residential developments completed since the 2010 census. In addition, a 0.5 percent per year (2010-2013) background growth rate is applied to the 2010 population to account for general increases in population and smaller developments not identified individually.
- An inventory of all publicly accessible passive and active recreational facilities in the open space study areas.
- An assessment of the quantitative ratio of open space in the study area by computing the ratio of open space acreage to the population in the study area and comparing this open space ratio with certain guidelines. The New York Department of City Planning (DCP) generally recommends a comparison to the median ratio for community districts in New York City, which is 1.5 acres of open space per 1,000 residents.
- An evaluation of qualitative factors affecting open space use.
- A final determination of the adequacy of open space in the open space study area.

## **E. PRELIMINARY ASSESSMENT**

Pursuant to the guidelines of the 2012 *CEQR Technical Manual*, a preliminary open space assessment was conducted which provided a comparison of the total existing open space ratios in the No-Action condition and in the future with the proposed action. As the study area exhibits a low open space ratio (i.e., below the citywide average of 1.5 acres per 1,000 residents) under existing conditions and in the future with the proposed actions, a detailed open space assessment is warranted and is provided below.<sup>2</sup>

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<sup>2</sup> The preliminary open space assessment showed that in the future with the proposed action the open space ratio would be 0.672 acres per 1,000 residents, which is less than the citywide average of 1.5 acres per 1,000 residents.

## F. DETAILED ANALYSIS

### Existing Conditions

#### *Demographic Characteristics of the Study Area*

To determine the residential population served by existing open space resources, 2010 Census data were compiled for the census tracts comprising the study area and updated to 2013. With an inventory of available open space resources and the number of potential users, open space ratios were calculated and compared with existing citywide averages and planning goals set forth by DCP. As mentioned above and shown in Figure E-1, the open space study area is comprised of three census tracts. Table E-1 shows the 2010 Census total population figures for each census tract in the study area, as well as for the study area as a whole. As shown in Table E-1 below, the 2010 Census data indicate that the study area has a total residential population of approximately 11,864 people. Factoring in a yearly background growth factor of approximately 0.5 percent and residents generated by major developments between 2010 and 2013, the residential population of the three census tracts total approximately 12,542 people in 2013. The study area's average median age of 34.1 is the same as the median age for Brooklyn as a whole.

**Table E-1, Study Area Population**

Census Tract	Residential Population
563	4,360
565	3,255
575	4,249
<i>Residential Total in 2010</i>	11,864
<i>Background Growth (0.5% year growth since 2010)</i>	179
<i>Study Area Developments Completed Between 2010 and 2013</i>	499
<i>Residential Total in 2013</i>	<b>12,542</b>

Source: 2010 Census

Within a given area, the age distribution of a population affects the way open spaces are used and the need for various types of recreational facilities. Typically, children 4 years old or younger use traditional playgrounds that have play equipment for toddlers and preschool children. Children ages 5 through 9 typically use traditional playgrounds, as well as grassy and hard-surfaced open spaces, which are important for activities such as ball playing, running, and skipping rope. Children ages 10 through 14 use playground equipment, court spaces, little league fields, and ball fields. Teenagers' and young adults' needs tend toward court game facilities such as basketball and field sports. Adults between the ages of 20 and 64 continue to use court game facilities and fields for sports, as well as more individualized recreation such as rollerblading, biking, and jogging, requiring bike paths, promenades, and vehicle-free roadways. Adults also gather with families for picnicking, ad hoc active sports such as Frisbee<sup>®</sup>, and recreational activities in which all ages can participate. Senior citizens engage in active recreation such as tennis, gardening, and swimming, as well as recreational activities that require passive facilities.

Therefore the residential population of the study area was also broken down by age groups, as seen in Table E-2. As shown in the table, there is an overwhelming majority of residents in the study area between the ages of 20 and 64 at 78.7percent, which is significantly higher than the 62.0 percent for the same age group in Brooklyn as a whole. The study area also hosts a significantly lower rate of school-aged children than Brooklyn as a whole, with a combined 11.5 percent of residents aged 19 and younger, compared to a combined 24.1 percent in Brooklyn as a whole. The percentage of elderly residents over the age of 65 is slightly lower in the study area (9.8 percent) compared to Brooklyn as a whole (11.5 percent).

This data could reflect a proportionately lower demand for passive recreational space among study area residents, compared to Brooklyn as a whole. Also, the peak hours of open space demand would be expected to be concentrated during weekends, early morning and late afternoon to evening hours during the week, as it could be assumed that most residents aged 20 to 64 would work or attend school on weekdays.

**Table E-2, Study Area Age Groups (2010)**

Age Category	Persons	Percent of Total Population
4 and younger	367	3.1
5-9	314	2.6
10-14	319	2.7
15-19	367	3.1
20-64	9,336	78.7
65 and older	1,161	9.8
<b>Subtotal</b>	11,864	100%

Brooklyn, Age Groups (2010)		
Age Category	Persons	Percent of Total Population
4 and younger	117,198	7.1
5-9	159,391	6.4
10-14	156,563	6.3
15-19	170,684	6.8
20-64	1,553,231	62.0
65 and older	287,633	11.5
<b>Subtotal</b>	2,504,700	100%

Source: 2010 Census

### *Inventory of Publicly-Accessible Open Space*

According to the 2012 *CEQR Technical Manual*, open space may be public or private and may be used for active or passive recreational purposes. Pursuant to the 2012 *CEQR Technical Manual*, public open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts under 2012 CEQR guidelines, whereas private open space is not accessible to the general public on a regular basis, and is therefore only considered qualitatively. Field surveys and secondary sources were used to determine the number, availability and condition of publicly accessible open space resources in the study area.

An open space is determined to be active or passive by the uses which the design of the space allows. Active open space is the part of a facility used for active play such as sports or exercise and may include playground equipment, playing fields and courts, swimming pools, skating rinks, golf courses, lawns and paved areas for active recreation. Passive open space is used for sitting, strolling, and relaxation, and typically contains benches, walkways and picnicking areas. However, some passive spaces can be used for both passive and active recreation; such as a green lawn or riverfront walkway, which can also be used for ball playing, jogging or rollerblading.

Within the defined study area, all publicly-accessible open spaces were inventoried and identified by their location, size, owner, type, utilization, equipment, hours, and condition of available open space. The information used for this analysis was gathered through field inventories conducted from January through March 2013; from the New York City Department of Parks and Recreation's (DPR) website; and from the New York City Oasis database and other secondary sources of information.

The condition of each open space facility was categorized as "Excellent", "Good", or "Fair". A facility was considered in excellent condition if the area was clean, attractive, and all equipment was present and in good repair. A good facility had minor problems such as litter, or older but operative equipment. A fair facility was one that was poorly maintained, had broken or missing equipment, lack of security, or other factors that would diminish the facility's attractiveness. Determinations were made subjectively, based on a visual assessment of the facilities.

Likewise, judgments as to the intensity of use of the facilities were qualitative, based on an observed degree of activity or utilization on a weekday from 11AM until 3PM, which is considered the weekday peak utilization period according to the 2012 *CEQR Technical Manual*. If a facility seemed to be at or near capacity, i.e. the majority of benches or equipment was in use, then utilization was considered heavy. If the facility or equipment was in use, but could accommodate additional users, utilization was considered moderate. If a playground or sitting area had few people, usage was considered light. Table E-3, Open Space Inventory, identifies the address, ownership, hours, acreage of active and passive open spaces in the study area, and their condition and utilization. Figure E-2 maps their location in the study area.

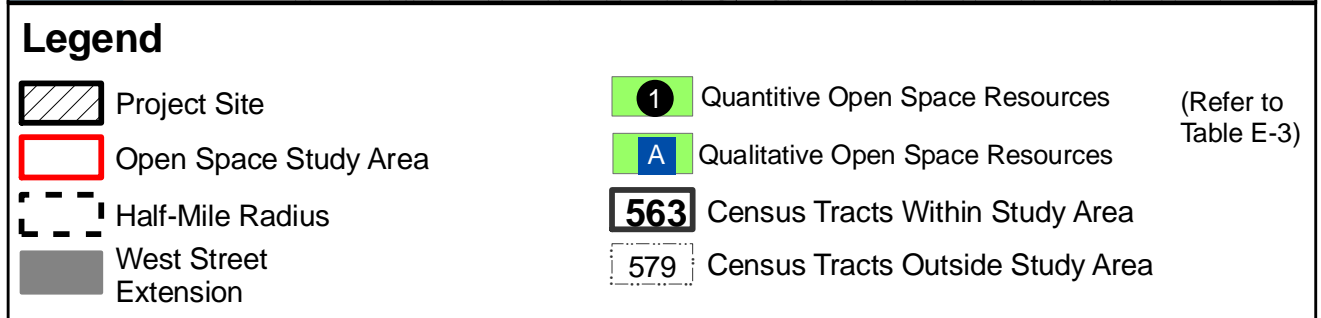
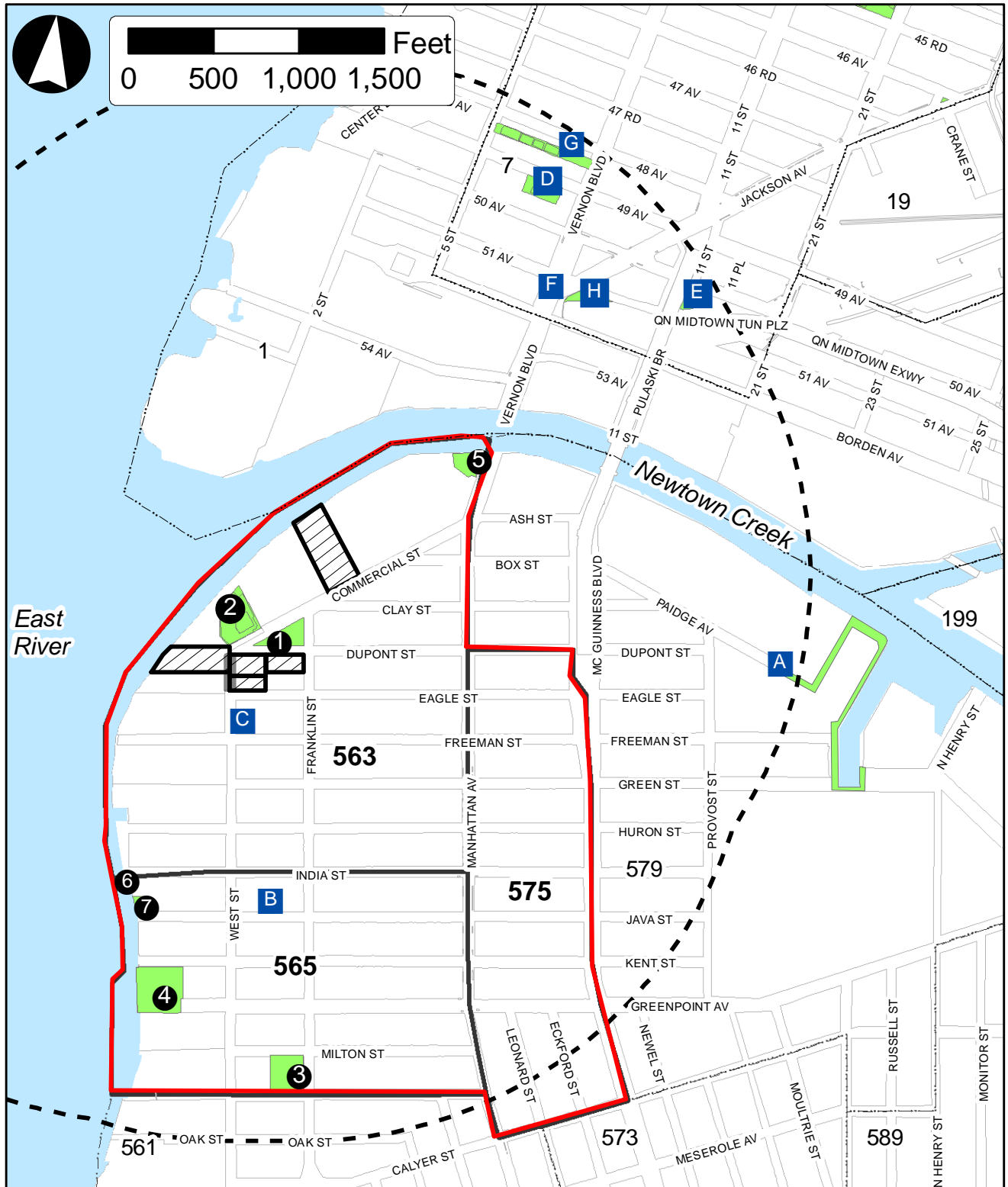
As shown in Figure E-2, 7 publicly-accessible open space and recreational resources within the half-mile study area are included in the quantitative analysis. These resources comprise a total of approximately 5.29 acres, with more passive open space (approximately 3.01 acres, or 57 percent of total) than active open space (approximately 2.28 acres, or 43 percent of total). The larger open space resources included in the quantitative analysis are described briefly below.

### **Open Space Resources**

Descriptions of some of the study area open space resources are provided, including the larger resources and those located in close proximity to the projected development sites.

#### *Greenpoint Playground*

Greenpoint Playground (a.k.a., Right Triangle Park) is located at the northern tip of Greenpoint at the junction of Franklin, Commercial and DuPont Streets. The perimeter of the park is





surrounded by shade trees, beneath which are benches. The park also features a playset with safety surfacing, toddler and child swings, and a spray shower at its center. A new comfort station opened at this park in autumn 2012.

#### *Newtown Barge Playground*

Directly northwest of Greenpoint Playground is Newtown Barge Playground, a 0.98-acre property along the north side of Commercial Avenue. Newtown Barge Playground currently features active recreational facilities, including a paved baseball field and handball courts.

#### *American Playground*

The American Playground is located inland along the west side of Franklin Street between Noble and Milton Streets. The 0.90-acre park is primarily an active recreation resource that contains basketball and handball courts, a comfort station, play equipment, swings, benches and spray showers. Ample shade trees are scattered throughout the playground and a stately iron fence surrounds the facility.

#### *WNYC Transmitter Park*

The WNYC Transmitter Park, located at the western terminus of Greenpoint Avenue at the East River, was opened to the public in September 2012. The park includes approximately 2.2 acres of upland area and was once the home of the WNYC radio transmission towers, it was an approximately \$12 million redevelopment and a joint effort between the NYC Economic Development Corporation and the NYC Department of Parks and Recreation (DPR). The park includes an overlook to the south, seating, and a waterfront esplanade. The center of the park includes a large, open lawn with a separate children's play area featuring a nautical theme to reflect the site's context. It also includes a spray shower and nature gardens. A pedestrian bridge has been restored as a wetland accessible to visitors. At the end of Kent Street is a concrete recreational pier, that was opened to the public in April 2013, featuring opportunities for fishing. The park is situated directly across from the East Village neighborhood of Manhattan and provides visitors passive recreation space set against the backdrop of the Manhattan skyline.

#### *Manhattan Avenue Streetend Park*

The Manhattan Avenue Streetend Park, located at the northern terminus of Manhattan Avenue at its intersection with Newtown Creek, was opened in 2007 as part of New York City Department of Transportation's (NYCDOT) pedestrian oriented reconstruction projects. The 0.2-acre space was developed by NYCDOT with a passive recreation area containing sitting areas, pathways for pedestrians and a boat launch at the water's edge.

Table E-3, Inventory of Existing Open Space and Recreational Facilities in Study Area

Map Key #	NAME	LOCATION	OWNER	AMENITIES	CONDITION	UTILIZATION	HOURS OF ACCESS	AREA (acres)			PERCENTAGE OF TOTAL AREA	
								TOTAL	ACTIVE	PASSIVE	ACTIVE	PASSIVE
1	Greenpoint Playground (a.k.a. Right Triangle Park)	Commercial, Franklin, Dupont Sts.	NYCDPR	Playground, Seating Area, Trees	Excellent	Moderate	Dawn to Dusk	0.50	0.20	0.30	40%	60%
2	Newtown Barge Playground	Commercial, Dupont, & West Streets	NYCDPR	Baseball Field, Handball Court	Excellent	Low	Dawn to Dusk	0.98	0.83	0.15	85%	15%
3	American Playground	Franklin Street, btwn Noble and Milton Streets	NYCDPR	Playground, Seating Areas, Basketball Court, Handball Court, Comfort Station, Spray	Excellent	High	Dawn to Dusk	0.90	0.81	0.09	90%	10%
4	WNYC Transmitter Park	West St. btwn Kent St. and Greenpoint Ave.	NYCDPR	Spray Showers, Lawn, Playground, Fishing station, pier	Excellent	High	Dawn to Dusk	2.2	0.44	1.76	20%	80%
5	Manhattan Ave. Streetend Park	Manhattan Ave. northern terminus	NYCDOT	Boat Launch, Pedestrian Plaza	Excellent	Low	24/7	0.29	0.00	0.29	0%	100%
6	India Street Pier	India st. end (127-141 West St.)	Stiles Properties LLC	Pier, Ferry access barge, benches	Good	Moderate	24/7	0.34	0.00	0.34	0%	100%
7	Java Street-End Park	131 West St-Waterfront	Stiles Properties LLC	Benches, Planters	Fair	Low	24/7	0.08	0.00	0.08	0%	100%
<b>TOTAL</b>								<b>5.29</b>	<b>2.28</b>	<b>3.01</b>	<b>43%</b>	<b>57%</b>
<b>RESOURCES NOT INCLUDED FOR QUANTITATIVE ANALYSIS</b>												
A	Newtown Creek Nature Walk	Freeman ST. Deadend north of Provost St.	NYCDEP	Walking Paths, Seating Paths, Landscaping	Excellent	Low	Dawn to Dusk Weather Permitting	1.68	0.00	1.68	0%	100%
B	Java Street Garden Collaborative	59 Java Street	NYCHPD	Greenthumb, container gardening	Currently Under Renovation	Low	Membership Required	0.06	0.06	0	100%	0%
C	Eagle Street Rooftop Farm	44 Eagle Street	Broadway Stages	Organic, for-profit, vegetable farm, educational and volunteer programs, compost and apprenticeship program Bees and Chickens			Sunday 1-4PM During growing season	0.14	0.14	0.00	100%	0%
D	Andrews Grove	49 Ave bet 5 St and Vernon Blvd	NYCDPR	Playground, sitting area, ball court	Excellent	Moderate		0.52	0.20	0.32	38%	62%
E	Bridge and Tunnel Park	50 Ave bet 11 St and 11 Pl	NYCDPR	Handball and Basketball courts	Good	Low		0.32	0.32	0.00	100%	0%
F	Vernon Mall	51 Ave, Vernon Bl, 52 Ave	NYCDPR /DOT	Sitting Area, Plantings	Fair	Moderate		0.14	0	0.14	0%	100%
G	Hunter's Point Community Park	E River, 2 St Newton Creek and Canal	QWDC	Playground, basketball, handball, sitting area	Excellent	Moderate		1.38	0.69	0.69	50%	50%
H	Old Hickory Park	Jackson Av 51 Ave & Vernon Bl	NYCDPR	Greenstreet with Playground, sitting area, chess	Good	Low		0.23	0	0.23	0%	100%

NYCDPR-New York City Department of City Planning, NYCDOT-New York City Department of Transportation, NYCHPD-New York City Housing Preservation and Development,

NYCDEP-New York City Department of Environmental Protection

Field surveys were conducted January through April between the hours of 12-3:30pm

Sources:

New York City Department of Parks and Recreation website-www.nycgovparks.org

Greenpoint-Williamsburg Contextual Rezoning EAS, 2009

Eagle Street Rooftop Farm website-www.rooftopfarm.org

New York City Department of Transportation website for Pedestrian Network Development-http://www.nyc.gov/html/dot/html/sidewalks/pedestrian\_projects.shtml

## Quantitative Analysis of Open Space Adequacy

The following analysis of the adequacy of open space resources within the study area takes into consideration the ratios of active, passive, and total open space resources per 1,000 residents. As 1.5 acres of total open space per 1,000 residents is the median community district ratio in New York City, it generally represents adequate open space conditions and is used as the CEQR standard for this project. As an optimal planning goal, the City tries to achieve an overall residential open space ratio (OSR) of 2.5 acres per 1,000 population (80 percent active and 20 percent passive) for large-scale plans and proposals. However, this goal is often not feasible for many areas of the City (especially higher density areas), but serves as a benchmark that represents an area that is well served by open spaces.

In calculating the open space ratio per 1,000 user population for the study area, all of the resources listed in Table E-3 were included. Table E-4 shows that with an existing 2013 study area residential population of approximately 12,542 people, the existing total open space ratio in the study area is approximately 0.422 acres of open space per 1,000 residents. The study area has 0.182 acres of active open space per 1,000 residents, and 0.240 acres of passive open space per 1,000 residents.

**Table E-4, Analysis of Adequacy of Open Space Resources in the Study Area under Existing Conditions**

	Total Population	Open Space Acreage			Open Space Ratios Per 1,000 People			DCP Open Space Guidelines		
		Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Residents	12,542	5.29	2.28	3.01	0.422	0.182	0.240	2.5	2	0.5

Based on the previously mentioned DCP guidelines, although the Project Site is not located within an underserved nor a well-served area, the study area exhibits a low open space ratio, compared to the city-wide median ratio of 1.5 acres per 1,000 persons and the planning goal of 2.5 acres per 1,000 persons (0.5 acres of passive space and 2.0 acres of active space). The study area therefore requires a more detailed analysis of open spaces resources available to the residential community.

## Qualitative Assessment of Open Space Adequacy

The existing open space resources included in the quantitative analysis are deficient in meeting the community's open space needs according to DCP's guidelines for the provision of open space. While the study area meets the community's passive open space needs per DCP guidelines, open space ratios per 1,000 residents still fall well below DCP's planning goal of 2.5 acres per 1,000 residents and the City-wide median of 1.5 acres per 1,000 residents. Although the project site is not located in an area that is well- or under-served by open space, the majority of the study area is located in an underserved area as defined in the 2012 *CEQR Technical Manual Appendix: Open Space Maps*.

As shown in Table E-3, the majority of the study area open spaces are in excellent or good condition, and use levels range from low to high, with approximately 57 percent dedicated to passive use, and 43 percent dedicated to active use. The study area contains a good mix of

recreational facilities to serve the area's sizeable adult population, given that the age distribution in the study area includes significantly more adults than Brooklyn as a whole. As noted above, approximately 79 percent of the study area's residents are between the ages of 20 and 64, and approximately 10 percent are seniors, indicating a need for court game facilities, individualized recreation, and passive space. The study area includes 3.01-acres of passive open space facilities, with a variety of passive open space options to serve this older population including a fishing station, a pier, and game courts.

Also located within the study area are the 0.08-acre Java Street Garden and the 0.14-acre Eagle Street Rooftop Farm, which are private open spaces that were conservatively excluded from the quantitative analysis. The Java Street Garden Collaborative is available to the public on the condition that they become members, volunteer a certain amount of hours per month, and attend quarterly meetings. The garden was a vacant space until March 2012, when the community gained access to use it as an open green space to learn about urban gardening and sustainable ecology. Eagle Street Rooftop Farm was started in 2009. The for-profit farm is a joint venture of Brooklyn-based company Broadway Stages and the green roof design and installation firm Goode Green, and is installed on a building owned by Broadway Stages, a Greenpoint-based sound stage company. Goode Green designed the green roof and installed the base system and growing medium. The farm is staffed by a farm manager, a market manager, a farm to chef liaison and the farm based education coordinator. In addition, the farm has a seasonal apprenticeship program and offers volunteer opportunities during the growing season.

Residents from the study area are also likely to utilize the open space resources located within the Queens portion of the half-mile radius (all of which fall outside the study area boundary). Residents accessing these open space resources in Queens would need to walk over the Pulaski Bridge. There are five open space resources located in Queens within the half-mile radius (map key D, E, F, G, and H in Figure E-2 and Table E-3), of which 47 percent (1.21 acres) is active open space, and 53 percent (1.38 acres) is passive open space.

In addition, the 0.45-acre Newtown Creek Nature Walk, which is located within a half-mile radius, falls outside the study area boundaries (as it is located in Census Tract 579 and much less than 50 percent of the tract lies within the half-mile radius) and has therefore been excluded from the quantitative analysis. While this facility is conservatively excluded from the quantitative analysis, it is likely that it would be used by people who live and work in the study area, who would likely be drawn to its passive recreational resources. The Newtown Creek Nature Walk was opened to the public in September 2007. The quarter-mile nature walk offers stunning views of the City and of the nearby industrial landscape, as well as many unique architectural features, plantings and construction techniques that were designed to evoke the rich, continually evolving environmental, industrial and cultural histories of the local area. The Walk features a 515-foot pathway along Whale Creek that is richly planted with trees, shrubs and other flora native to the Newtown Creek area, including Swamp White Oak, Sweet Gum, Eastern Red Cedar, Sawtooth Oak and Pitch Pine. The long pathway also features several recessed seating areas that afford visitors intimate access to the surrounding waterways.

It should also be noted that McCarren Park, a 35.71-acre northwest Brooklyn regional park, is located less than one mile south of the Project Site. The park consists of baseball and football

fields, basketball, tennis, and bocce courts, playgrounds, and running tracks. The community park is also home to a recently renovated Olympic-sized pool, a center for year-round recreation for residents of northern Brooklyn. It is highly likely that the park is used by people who live in the study area, who would be drawn to its active and passive recreational space.

## **G. THE FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION)**

### **Proposed Project Site**

In the absence of the proposed action in 2020, it is expected that the applicant, Greenpoint Landing Associates LLC (GLA) would develop two of the five projected development sites as-of-right on its existing property, which may also include the GLA-owned portion of Projected Development Site 2. GLA would develop one or more apartment buildings which would include a total of approximately 769 dwelling units (DU), approximately 1,800 gsf of ground floor retail, approximately 468 accessory parking spaces, and approximately 19,290 sf (0.44-acres) of publicly accessible open space. The planned development would generate an estimated 2,007 residents within the study area by 2020.

### **Study Area Population**

Several new residential and commercial developments are currently planned and expected to be completed within the study area in the future without the proposed action by 2020. These new developments would increase the residential population within the study area. These include developments expected to be completed in the land use study area identified in Attachment C, "Land Use, Zoning, and Public Policy" (Table C-2). It should be noted that there are additional developments expected to be completed in the 2020 Future Without the Proposed Action that are located outside of the land use study area discussed in Attachment C and therefore not included in the land use analysis, but which are located within the open space study area and have been included in this open space analysis.

The residential components of these No-Build developments have been added to the existing conditions residential population. In addition, a 0.5 percent per year background growth rate is applied to the existing 2013 population to account for general increases in population and smaller developments not identified individually. Table E-5 shows that these No-Build developments and the background growth combined are expected to increase the study area population by approximately 11,647 residents by 2020 to a total of 24,189 residents.

<b>Table E-5, 2020 Study Area Population without the Proposed Action</b>			
<b>Total 2013 Residents in Study Area</b>	<b>12,542</b>		
<b>Anticipated No-Build Development in the 2020 Future<sup>1</sup></b>	<b>Additional Units</b>		<b>Additional Residents<sup>2</sup></b>
	Market Rate	Low/Moderate/Middle Income	
Greenpoint Landing No-Action	615	154	2,007
Greenpoint Landing as-of-right on adjacent sites	898	189	2,837
Other No-Action	1,792	582	6,196
<i>Background Growth</i>			607
<i>(@ 0.5%/year)</i>			
Total New Residents in Study Area			11,647
<b>Total Residents in Study Area, 2020 No-Build</b>			<b>24,189</b>

(1) Source: PHA research of print, online media, and consultation with NYC DCP Brooklyn Borough Office

(2) Assumes 2.61 Residents per Household

## Open Space Resources

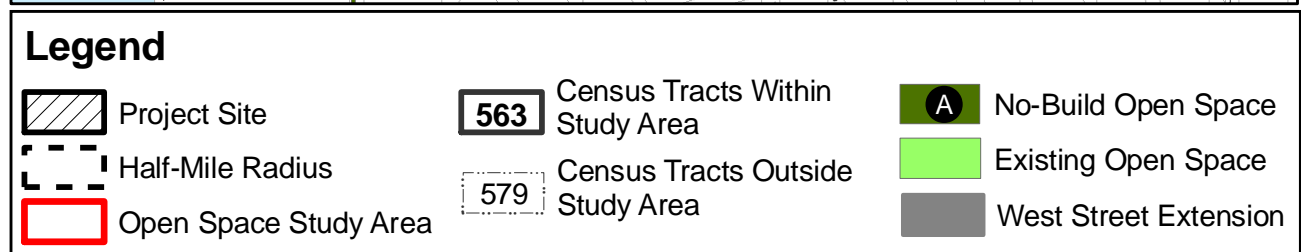
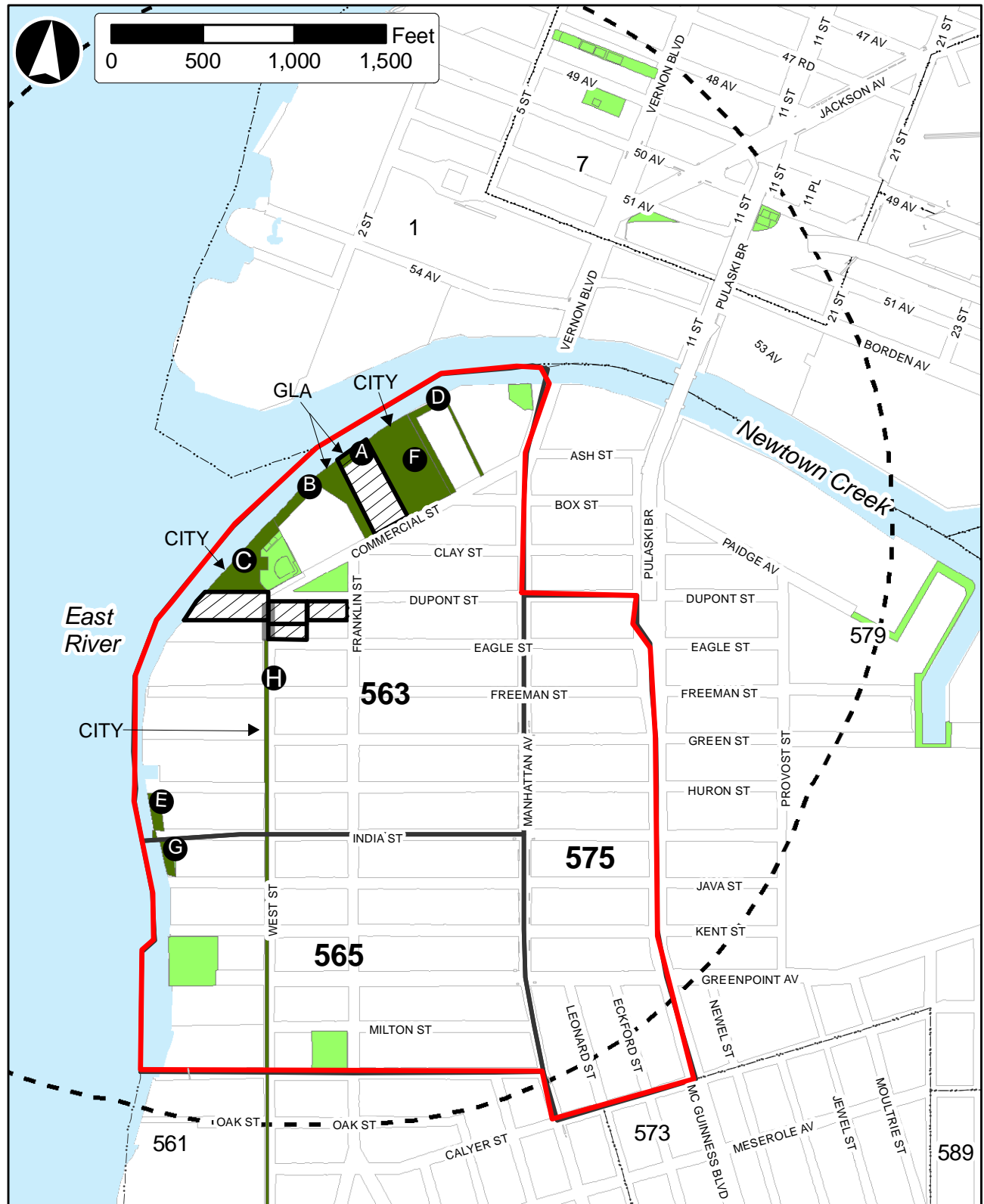
### Study Area

There are eight additional open space resources anticipated to be developed within the study area by the 2020 analysis year without the proposed action. As shown in Figures E-3 and E-4 and Table E-6, the applicant, GLA, would develop approximately 0.81 acres, as-of-right, of publicly accessible open space as part of the Greenpoint Landing development by 2020 on other properties not affected by the proposed action. In addition, as shown in Table C-2, No-Build Developments within the Land Use Study Area, and in Table E-6, GLA would develop an additional approximately 0.44 acres of publicly accessible passive open space on its existing property on Projected Development Site 4 without the proposed action by 2020.

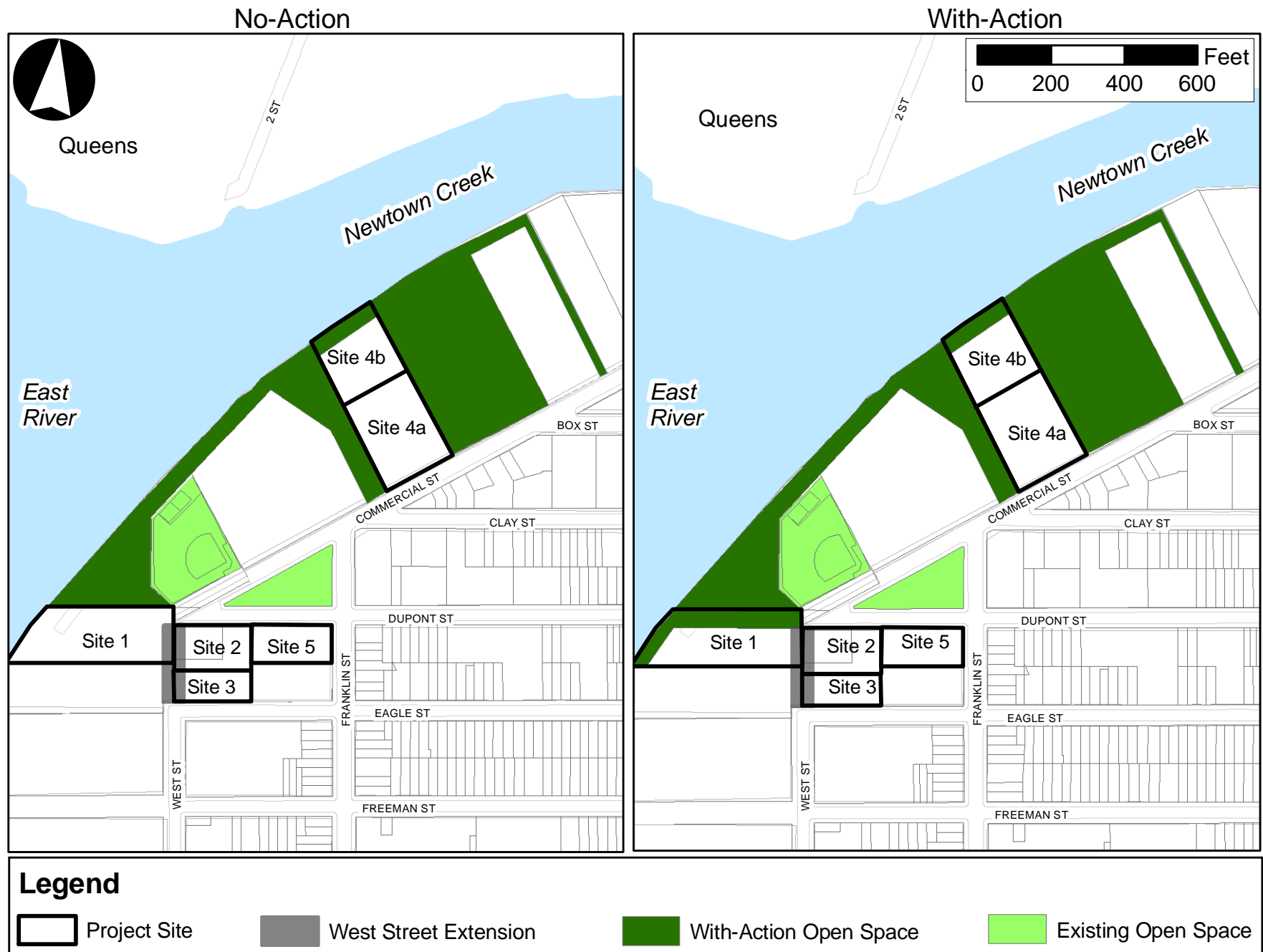
Independent of the proposed action, the City is expected to create three additional public open spaces on City-owned property. On Block 2472, part of Lot 32, adjacent to the Project Site, the Newtown Barge Playground Expansion would include a net increase of approximately 1.29 acres of public open space. On Block 2472 Lot 425, the City is also expected to create Box Street Park at 65 Commercial Street, with approximately 2.81 acres of additional public open space adjacent to the Project Site. By 2015, the City anticipates reconstructing West Street, between Eagle and Quay Streets, to accommodate an approximately 3,150 linear foot (0.72 acres) two-way, class 1 physically separated bike path along the west side of the street, approximately 2,370 linear feet (0.54 acres) of which will be within the study area (construction project FMS ID HWK1048A). It would also include a planted buffer, speed tables and improved pavement markings at intersections, and the underground relocation of existing above-ground utilities (see Figure G-11). This would be a segment of the Brooklyn Waterfront Greenway.

There are three mixed-use developments along the waterfront, independent of GLA, anticipated to be developed within the study area by 2020. Each of these sites is required by waterfront zoning regulations to provide public open space. To the northeast of the Project Site, on Block 2472, Lot 410, the proposed development, 77 Commercial Street, is expected to include

No-Build Open Space Resources



No-Action Open Space vs. With-Action Open Space





approximately 0.88-acres of open space by 2016. The anticipated developments, 155 West Street and 131 West Street, are located to the south of the Project Site on the western edge of the study area, adjacent to one another. The 155 West Street development is expected to include 0.51-acres of publicly accessible open space by 2015, and the 131 West Street development is expected to include 0.76-acres of publicly accessible open space by 2018.

Therefore, in the future without the proposed action, the total amount of open space within the study area would increase by approximately 7.99 acres, to a total of 13.28 acres. Passive open space would increase to 6.82 acres and active open space would increase to 6.46 acres (see Figure E-3).

### *Quantitative Analysis of Open Space Adequacy*

New developments and general background growth in the study area are expected to introduce residents to the area in the future without the proposed action, along with the new open space resources currently being developed and also planned for the future. Although the new developments would also introduce new employees to the area, as previously mentioned, this analysis focuses exclusively on the potential impacts of the proposed action on the residential population of the study area. As shown in Table E-7, in the future without the proposed action, the total open space ratio for the study area would be 0.549 acres per 1,000 residents, which is below the recommended City-wide community district median of 1.5 acres per 1,000 residents.

**Table E-6, Open Space Changes within the Study Area in the 2020 Future Without the Proposed Action**

Map Letter	Resource	Location	Acres			Year
			Passive	Active	Total	
<b>A</b>	Greenpoint Landing Disposition No-Build Waterfront Open Space	Projected Development Site 4 (Block 2472, p/o Lot 100)	0.09	0.35	0.44	2020
<b>B</b>	Greenpoint Landing Development as-of-right Waterfront Open Space	Block 2472, p/o Lot 100 (SW of Projected Development Site 4)	0.6	0.22	0.81	2020
<b>C</b>	Newtown Barge Terminal Playground Expansion	Block 2472, Lot 32	0.19	1.10	1.29	2020
<b>D</b>	77 Commercial St. Waterfront Open Space	Block 2472, Lot 410	0.83	0.00	0.83	2016
<b>E</b>	155 West St. Waterfront Open Space	B 2530 Lot 1, 55, 60	0.51	0.00	0.51	2016
<b>F</b>	65 Commercial St. New City Park	Block 2472, Lot 425	0.84	1.97	2.81	2016
<b>G</b>	131 West Street Waterfront Open Space	Block 2538, Lot 1	0.76	0.00	0.76	2018
<b>H</b>	West Street Greenway	West side of West Street between Eagle and Quay Streets	0.00	0.54	0.54	2015
<b>Totals:</b>			<b>3.81</b>	<b>4.18</b>	<b>7.99</b>	

Study Area Residential Population		Open Space Acreage			Open Space Ratio per 1,000 people		
		Total	Active	Passive	Total	Active	Passive
<b>No-Build</b>	<b>24,189</b>	13.28	6.46	6.82	0.549	0.267	0.282
<b>Existing</b>	<b>12,542</b>	5.29	2.28	3.01	0.422	0.182	0.240

The active open space ratio would increase from the existing conditions of 0.182 acres per 1,000 residents to 0.267 acres, which is below the recommended ratio of 2.0 acres per 1,000 residents, and the study area would not be well-served by active open space. The passive open space ratio for the study area's residents would increase from 0.240 acres per 1,000 residents under existing conditions to 0.282 acres per 1,000 residents under the No-Build condition, which is below the recommended ratio of 0.5 acres per 1,000 residents and the study area would not be well served by passive open space. While the study area would not be well-served relative to the recommended ratios, the substantial open space additions would improve open space ratios under No-Action conditions.

#### *Qualitative Assessment of Open Space Adequacy*

The anticipated waterfront esplanade of Greenpoint Landing's as-of-right and No-Build development in the future without the proposed action would add a substantial amount of open space acreage to the study area, and would contribute to creating waterfront access for the study area. The anticipated public open space expansion of Newtown Barge Playground in the future without the proposed action would also add a substantial amount of open space acreage to the study area, and would create a seamless connection to Greenpoint Landing's waterfront esplanade, as well as provide a considerable amount of active open space. Directly adjacent to the Greenpoint Landing development, the anticipated public open space at 65 Commercial Street and 77 Commercial Street would add a substantial amount of open space, create waterfront access, and provide a connection to Greenpoint Landing's waterfront esplanade. Along the waterfront a few blocks south of the Project Site, the anticipated mixed-use adjacent developments, 155 West Street and 131 West Street, would also add waterfront esplanades, providing waterfront access from the study area.

In addition, the anticipated West Street multi-use pathway with bike lanes, upgraded sidewalks and other amenities would provide a considerable amount of active recreation open space, and create a connection to Greenpoint Landing's waterfront esplanade. This approximately \$5 million project, to be completed by 2015, will be part of the Brooklyn Waterfront Greenway, which is anticipated to be 14-miles long overall along the waterfront between the Greenpoint and Owls Head Brooklyn neighborhoods. It would provide connections to other open spaces outside the study area including Bushwick Inlet Park and East River State Park.

## H. THE FUTURE WITH THE PROPOSED ACTION (WITH-ACTION)

This section describes the open space conditions that would result from the RWCDs associated with the proposed action by 2020. It evaluates the potential for the proposed action to result in significant adverse impacts to open space resources directly and indirectly based on a comparison of the No-Action condition (described above) to the With-Action condition.

The proposed action would allow for six proposed developments on Projected Development Sites 1 through 5. Projected Development Site 1 would consist of approximately 62 affordable dwelling units and 382 market-rate dwelling units; Site 2 would consist of approximately 68 affordable dwelling units and 418 market-rate dwelling units; Projected Development Site 3 would consist of approximately 98 affordable dwelling units; Projected Development Site 4 would consist of approximately 357 affordable residential units and 91 market-rate units; and Projected Development Site 5 would consist of a 640-seat public school. There would be a total of approximately 1,476 dwelling units; this would result in an incremental increase of 707 dwelling units over the 769 dwelling units located on the Project Site under 2020 No-Action conditions. Using the same planning assumptions as the existing conditions and No-Build conditions of 2.61 residents per DU, the proposed action is expected to introduce a net increase of approximately 1,845 residents and would therefore increase the study area's population to a total of 26,034 residents under 2020 Build conditions.

### Direct Effects Analysis

The proposed action would not have a direct effect on any study area open spaces. Construction and operation of the projected developments would not cause the physical loss of public open space because of encroachment or displacement of the space; would not change the use of an open space so that it no longer serves the same user population; and would not limit public access to an open space. In addition, as discussed in other attachments of this EAS, the proposed action would not significantly affect the usefulness or utilization of any study area open spaces due to increased noise or air pollutant emissions, odors, or shadows.

### Indirect Effects Analysis

#### *Open Space Resources*

The proposed action includes the development of a waterfront open space including a waterfront esplanade with upland connections to public streets. The waterfront open space would have a combined total area of approximately 47,643 sf (1.09 acres), resulting in a net increase of approximately 28,353 sf (0.65 acres) of new open space as compared to the 0.44 acres created on the Projected Development Sites under 2020 No-Action conditions. Therefore, the total acreage of open space resources in the open space study area would increase to 13.93 acres in the future With-Action scenario (7.38 acres of passive open space and 6.55 acres of active space).

## Assessment of Open Space Adequacy

### Quantitative Assessment

As discussed above, the projected open space study area population by 2020 in the future with the proposed action would be approximately 26,034 residents. As a result, the total open space ratio in the future with the proposed action would be 0.535 acres per 1,000 residents, a decrease of 0.014 acres (-2.53 percent) compared to the future No-Action ratio (See Table E-8). The active open space ratio with the proposed action would be 0.252 acres per 1,000 residents, and the passive open space ratio with the proposed action would be 0.284 acres per 1,000 residents, which represent a decrease of 0.15 acres (-5.79 percent) and a decrease of 0.002 acres (-0.55 percent), respectively, compared to No-Action conditions (See to Table E-8).

**Table E-8, 2020 Future With the Proposed Action: Open Space Ratios Summary**

	Existing	No-Action	With Action
<b>Study Area Population (persons)</b>			
Residential	12,542	<b>24,189</b>	<b>26,034</b>
<b>Open Space Acreage (acres)</b>			
Active	2.28	6.46	6.55
Passive	3.01	6.82	7.38
<b>Total</b>	5.29	<b>13.28</b>	<b>13.93</b>
<b>Open Space Ratio</b>			
Active	0.182	0.267	0.252
Passive	0.240	0.282	0.284
<b>Total</b>	0.422	<b>0.549</b>	<b>0.535</b>
<b>% Change in Open Space Ratio</b>			
		<i>From Existing to No-Action</i>	<i>From No-Action to With-Action</i>
Active	-	46.91%	-5.79%
Passive	-	17.48%	0.55%
<b>Total</b>	-	<b>30.16%</b>	<b>-2.53%</b>

### Impact Assessment

Impact determinations are based in part on how a project would change the open space ratios in the study area. According to the 2012 *CEQR Technical Manual*, if a proposed project would result in a decrease in open space ratios compared with those in the future without the project, the decrease is generally considered to be a substantial change if it would approach or exceed 5 percent. Or, if a study area exhibits a low open space ratio (e.g., below 1.5 acres per 1,000 residents or 0.15 acres of passive space per 1,000 nonresidential users), indicating a shortfall of

open space, smaller decreases in that ratio as a result of the action may constitute significant adverse impacts.

In addition to the quantitative factors cited above, the 2012 *CEQR Technical Manual* also recommends consideration of qualitative factors in assessing the potential for open space impacts. These include the availability of nearby destination resources, the beneficial effects of new open space resources provided by a project, and the comparison of projected open space ratios with established City guidelines. It is recognized that the open space ratios of the city guidelines described above are not feasible for many areas of the city, and they are not considered impact thresholds on their own. Rather, these are benchmarks that indicate how well an area is served by open space.

As noted above, the Project Site is not located in an area under-served by open space. Based on the analysis above, the proposed action would result in a 2.53 percent decrease in the open space ratio in the Future With Action, which is below the 5 percent 2012 *CEQR Technical Manual* threshold for a significant adverse impact.

#### *Qualitative Assessment*

In the future with the proposed action, ratios of open spaces to residents would continue to be lower than both the 1.5 acres per 1,000 residents measure of open space adequacy and the optimal planning goals furnished by DCP. The population to be generated by the proposed action is not expected to have any special characteristics, such as a disproportionately younger or older population, that would place heavy demand on facilities that cater to specific groups.

As discussed above, the proposed action would provide publicly accessible open space on a waterfront site that is currently completely inaccessible to the public and, in the case of Projected Development Site 1, would remain so under future No-Action conditions. Greenpoint has both a limited amount of existing open space and a limited amount of available land near existing residential development on which to create new open space. The esplanade, with connections to existing open spaces, would be an amenity for the Proposed Project and for the Greenpoint waterfront, consistent with the area's Waterfront Access Plan. Together with adjoining waterfront areas to be developed by the City, by GLA, and by other private property owners, this would provide a continuous waterfront greenway. Without the proposed action, there would be a gap in this system of waterfront open space. As discussed in Attachment C, Land Use, Zoning, and Public Policy, the waterfront open space would be subject to the Zoning Resolution's Article VI, Chapter 2, Special Regulations Applying in the Waterfront Area (the "Waterfront Regulations"), including the specific requirements of ZR Section 62-60 and 62-831 Design Standards for Waterfront Areas, the BK-1 Waterfront Access Plan for Greenpoint-Williamsburg.

In addition, the proposed public school building on Projected Development Site 5 would include an approximately 2,500-sf (0.06-acre) rooftop garden, and a 7,200- sf (0.17-acre) rooftop play yard; a total of approximately 9,700 sf (0.22 acres) of private open space to be utilized for school-related activities only. This on-site recreation space would help to partially offset the increased residential population's additional demand on the study area's open space resources by providing a space that students can use for school activities instead of requiring the use of a

public open space. However, as this open space would not be public space, it was not included in the quantitative analysis.

Overall, the proposed action would not have any significant adverse impacts on open space in the study area. The decreases in active and passive open space ratios that would result from the Proposed Project would be partially alleviated by the waterfront open space generated by the proposed action and Greenpoint Landing's as-of-right open space development. The total open space provided by GLA by 2020 would total approximately 82,979 sf (approximately 1.90 acres). These would be high quality open spaces, meeting the extensive requirements for shore public walkway, upland connections, and amenities, providing public waterfront access in an area where there is only limited access at present. In addition, as mentioned in the No-Build section, the Project Site is less than a mile from McCarren Park a 35.71-acre regional park with a variety of recreational uses; that would continue to be a factor in relieving the active open space deficiency of the study area. Therefore, the proposed action is not anticipated to result in a significant adverse impact on open space resources, nor would the Proposed Project overburden the facilities or open spaces to be developed in the future.

**ATTACHMENT F  
SHADOWS**

## **A. INTRODUCTION**

According to the 2012 *CEQR Technical Manual*, a shadow is defined as the condition that results when a building or other built structure blocks the sunlight that would otherwise directly reach a certain area, space, or feature. A significant adverse shadow impact is considered to occur when the incremental shadow added by a proposed project falls on a sunlight-sensitive resource of concern and substantially reduces or completely eliminates direct sunlight exposure, thereby significantly altering the public's use of the resource or threatening the viability of vegetation or other resources. Such resources include publicly accessible open space, architectural resources with sunlight-sensitive features, natural resources, and planted areas within the unused portions of roadbeds that are part of the City's Greenstreet program. In general, shadows on city streets and sidewalks, other buildings, private open space, and project-generated open space are not considered significant under CEQR. In addition, shadows occurring within an hour and a half of sunrise or sunset generally are also not considered significant under CEQR.

The Proposed Project facilitates the development of five projected developments, including new multi-story apartment buildings of varying heights up to 400 feet tall on Projected Development Sites 1 through 4 and a new approximately 100-foot tall school building on Projected Development Site 5. The apartment buildings on Projected Development Sites 1 through 4 would be developed in compliance with existing bulk controls established under the City's 2005 Greenpoint-Williamsburg rezoning. The new school building on Projected Development Site 5, however, would be developed pursuant to a zoning text amendment allowing a taller building than permitted as-of-right under the existing zoning. These buildings would be developed in the immediate vicinity of two existing parks, Greenpoint Playground and Newtown Barge Playground. The City is planning to expand Newtown Barge Playground under No-Action conditions and under With-Action conditions GLA would contribute approximately \$2.5 million toward the cost of creating the expanded park. In addition, one new public open space under the jurisdiction of the Parks Department will be developed in the area under No-Action conditions by 2020 –Box Street Park at 65 Commercial Street. In addition, under No-Action conditions three private waterfront sites in the vicinity of the projected development sites will be developed with public open space areas as required by waterfront zoning. These include Projected Development Site 4 (by GLA), 37 Commercial Street (by GLA) and 77 Commercial Street by another developer working in partnership with the City. Per 2012 *CEQR Technical Manual* guidelines, the effects of project-generated shadows on these resources must be identified and assessed. The assessment of project-generated shadow effects relies both on previous shadows analysis provided in the 2005 *Greenpoint-Williamsburg Rezoning FEIS* and additional shadows analysis prepared for this EAS. The Proposed Action would also generate new waterfront open space as required by the Greenpoint-Williamsburg Waterfront Access Plan (aka, "WAP BK-1"); however, per 2012 *CEQR Technical Manual* guidelines, the effects of project-generated incremental shadows are not considered on project-generated open spaces. Accordingly, the



project-generated public waterfront open space on Projected Development Site 1 is not assessed for shadow impacts.

## **B. PRINCIPAL CONCLUSIONS**

While Projected Development Sites 3 and 4 would be developed with new buildings under both 2020 No-Action and 2020 With-Action conditions (with the building on Projected Development Site 3 potentially extending onto the GLA-owned portion of Projected Development Site 2), the Proposed Action would facilitate the development of new multi-story buildings on Projected Development Sites 1, 5 and the City-owned portion of Projected Development Site 2 under With-Action conditions that would increase incremental shadow coverage on five public open spaces under 2020 With-Action conditions. Action-generated incremental shadows would be cast on the existing Greenpoint Playground and Newtown Barge Playground (which would be expanded under No-Action conditions) on all four of the analysis dates specified in the 2012 *CEQR Technical Manual*, i.e., March 21, May 6, June 21, and December 21. Action-generated incremental shadows also would be cast on three other planned public open spaces on the December 21 analysis date, including the planned 37 Commercial Street Open Space, the planned Box Street Park at 65 Commercial Street, and the planned 77 Commercial Street Open Space.

For both Greenpoint Playground and Newtown Barge Playground, incremental shadows would be cast for several hours on each analysis date but at most times most of the park areas would not be shaded. Shadow coverage would be extensive on December 21, particularly on the mostly paved Greenpoint Playground, but that time of year is outside the growing season for outdoor plants and trees and park utilization is generally low. Accordingly, the Proposed Action would not result in significant adverse impacts on these two open spaces, which is consistent with the findings of the 2005 *FEIS* which identified similar shadow conditions occurring as a result of the rezoning.

The action-generated shadows on the planned open spaces at 37 Commercial Street, Box Street Park at 65 Commercial Street, and 77 Commercial Street would be limited in duration and coverage. Shadow conditions on these three open spaces would not change substantially between No-Action and With-Action conditions. The Proposed Action therefore would not result in any significant adverse shadow impacts on these three planned open spaces that will be created under 2020 No-Action conditions.

## **C. BACKGROUND**

### *Greenpoint-Williamsburg Rezoning FEIS*

The 2005 *Greenpoint-Williamsburg FEIS* identified both Newtown Barge Park and Greenpoint Playground (referred to as Newtown Barge Park and Greenpoint Park, respectively, in the *FEIS*) as two of the open space resources that would be affected by the rezoning. The *FEIS* noted that open spaces are susceptible to adverse shadow impacts if they contain children's playground and

sprinklers, swimming pools, sitting and sunning areas, ballfields or other play areas not covered in turf. Non-sunlight sensitive resources in open spaces include facilities with paved surfaces that contain no sitting areas or vegetation, no historic plantings, or only contain unusual or historic plantings that are shade tolerant. According to the *FEIS*, Newtown Barge Playground, a park along the north side of Commercial Street, contained a paved baseball field and a handball court. Some trees were located along the southern perimeter of the park. Greenpoint Playground, located on the triangular block bounded by Franklin, Commercial and DuPont Streets, accommodated paved surfaces surrounded by shade trees and benches. This park also featured a playset with safety surfacing, toddler and child swings, and a spray shower.

In the rezoning's "future with the proposed action" condition, the reasonable worst case scenario included construction of new buildings on 50 projected and 234 potential development sites. These new buildings would reach maximum FAR and comply with height and setback regulations within the action area. In order to determine the new incremental shadows that would be cast on open space resources under the reasonable worst case scenario, shadow analyses were conducted for four days during the year: March 21, May 6, June 21, and December 21. The start and end times for the incremental shadows which would be cast on open space resources within the action area produced project shadow increments for each resource.

The *FEIS* found that the projected and potential developments generated by the rezoning would cast new incremental shadows on publicly accessible open space and sunlight sensitive resources within the proposed action area, including Newtown Barge Playground and Greenpoint Playground. On March 21, which is the spring equinox, the shadow cast would have a duration of 8 hours and 14 minutes. On May 6, halfway between the spring equinox and summer solstice, the duration of the incremental shadow in Newtown Barge Playground would be 7 hours and 41 minutes. On June 21, the summer solstice and longest day of the year, Newtown Barge Playground would experience incremental shadows for duration of 6 hours and 1 minute. On December 21, the winter solstice and shortest day of the year, the shadow would have a duration of 6 hours and 2 minutes. In Greenpoint Playground, incremental shadows created by new projected/potential development included in the reasonable worst case scenario would be cast for 8 hours and 53 minutes on March 21, 4 hours and 11 minutes on May 6, 4 hours and 13 minutes on June 21, and 6 hours and 2 minutes on December 21.

The *FEIS* found that shadows cast on Newtown Barge Playground during March 21 and December 21 would be long and cover a majority of the park. However, as March and December do not fall inside the growing period between April and October and because open space utilization is low during these months, the shadows from projected/potential developments considered in the reasonable worst case scenario would not create a significant adverse impact on the park. Similarly, as the majority of Greenpoint Playground is paved and the days with the longest durations of incremental shadows occur in March and December, incremental shadows cast by new development were not expected to have a significantly adverse shadow impact on this open space resource.

While the reasonable worst case development scenario for the proposed action assessed in the *FEIS* was based on an initial rezoning application, the *FEIS* also assessed the shadows effects of several alternatives. The Revised AHBI Alternative reflected the rezoning application that was

adopted. Several changes to the rezoning reflected in the Revised AHBI Alternative affected the shadows assessment, including changes in maximum permitted building heights. The *FEIS* found that taller buildings permitted by the Revised AHBI Alternative would result in longer shadows as compared to the “proposed action” but that the longer incremental shadows would not result in significant adverse impacts on open space resources, including Barge Terminal Playground. The shadows cast in the Revised ABHI Alternative would not be noticeably different than those cast by the proposed action. Durations of shadows cast by the Revised ABHI Alternative on Newtown Barge Playground would be 20 minutes longer on March 21 and 21 minutes longer on May 6. Shadows cast on Newtown Barge Playground in March fall outside of the growing period between April and October. On May 6, as for the proposed action, incremental shadow would only affect a small southeast portion of the park throughout the day. In Greenpoint Playground, incremental shadows cast from the proposed action and those cast from the Revised ABHI Alternative would result in identical durations. Therefore, no significant adverse shadow impacts on open space resources were anticipated as a result of the Revised AHBI Alternative.

The Technical Memorandum in Appendix J of the *FEIS* noted that additional open space could be created at the location identified in this EAS as the Newtown Barge Playground Expansion Area. However, the Technical Memorandum did not present any additional shadows analysis related to that location as it focused on the effects on density-based technical areas only.

#### **D. METHODOLOGY AND SCREENING ASSESSMENT**

In accordance with *CEQR* guidelines, this screening assessment is provided to determine whether the Proposed Project would result in new shadows long enough to reach a sunlight-sensitive resource of concern (except within an hour and a half of sunrise or sunset).

According to the 2012 *CEQR Technical Manual*, the longest shadow a structure will cast in New York City, except for periods close to dawn or dusk, is 4.3 times its height. This area surrounding the structure is defined as the shadow radius and is used to determine which open space resources or sunlight-sensitive historic resources potentially could be affected by the incremental shadows cast from the structure.

Although the 2012 *CEQR Technical Manual* states that all public open spaces are by definition sunlight-sensitive resources of concern, it also states that the uses, types of vegetation, and features of an open space indicate its sensitivity to shadows. Uses that rely on sunlight include passive uses, such as sitting or sunning, and active uses, such as gardening, or children's wading pools and sprinklers. Vegetation requiring sunlight includes tree canopies, flowering plants, and plots in community gardens. Where lawns are actively used, the turf also requires extensive sunlight. For these uses and vegetation, four to six hours a day of sunlight, particularly in the growing season (defined as April to October), is often a minimum requirement. However, the 2012 *CEQR Technical Manual* also states that some open spaces contain facilities that are not sensitive to sunlight. These facilities are usually paved, do not contain sitting areas, vegetation or unusual or historic plantings that necessitate sunlight, and do not accommodate active uses. The assessment of an open space's sensitivity to increased shadows focuses on identifying the

existing conditions of its facilities, plantings, and uses, and the sunlight requirement for each. In particular, the analysis focuses on the specific areas affected by incremental shadows in the context of local conditions.

Following the 2012 *CEQR Technical Manual* guidelines, a screening assessment was conducted for the Proposed Project (described in the 2012 *CEQR Technical Manual* as Tiers 1, 2, and 3 screening assessments). It should be noted that the topography of the area surrounding the development sites is generally flat with a gentle sloping up from the East River and Newtown creek toward the inland areas. There are no steep slopes in the area and the analysis presented herein does not account for any differences in elevation across the study area as the effect on shadow conditions of elevation changes would be minimal.

### **Tier 1 Screening**

For the Tier 1 screening assessment, a radius of 4.3 times the height of the three tallest proposed buildings was drawn from the proposed building envelopes. These included a 1,720-foot (a third of a mile) radius for the proposed 400-foot tall building on Projected Development Site 2 and 1,290-foot (a quarter of a mile) radii for the proposed 300-foot tall buildings on Projected Development Sites 1 and 4. These overlapping radii were used to identify the maximum possible area that could be affected by project-generated shadows, in accordance with 2012 *CEQR Technical Manual* guidelines. This area is shown in Figure F-1. The longest shadow radii for the shorter Projected Development Sites 3 and 5 (proposed to be 75 feet and 100 feet tall, respectively) fall completely within the longest shadow radii of Projected Development Sites 1, 2, and 4.

Within this longest shadow area, there are several existing public open spaces and additional planned open spaces expected under 2020 No-Action conditions. Therefore further screening is warranted in order to determine whether they would be affected by any project-generated incremental shadows.


The Proposed Action would result in incremental shadows cast on the East River and Newtown Creek. As also discussed in Attachment B, these bodies of water are degraded natural resources. There are contaminants present in these waters, these water bodies provided limited opacity, are affected by strong hydrodynamic features, and any wildlife present in the area is tolerant of urban conditions and low-quality habitat. Shadows cast on them would not have the potential to result in significant adverse impacts and no further assessment is warranted.

### **Tier 2 Screening**


For the Tier 2 screening assessment, according to the 2012 *CEQR Technical Manual*, shadows cast by proposed developments fall to the north, east, and west. In New York City, the shadow area is between -108 degrees from true north and +108 degrees from true north. Conversely, any area lying to the south of a site in the triangular area beyond these angles cannot be shaded by a proposed development. The purpose of the Tier 2 screening is to determine whether the sunlight-sensitive resources identified in the Tier 1 screening lie within the portion of the longest shadow study area that potentially can be shaded by the projected developments. It should be



**Legend**

 Projected Development Sites

 Longest Shadow Study Area

 Area that cannot be shaded by the proposed buildings

 Existing Open Space

 Future Open Space

 West Street Extension

noted that if a sunlight-sensitive feature on an architectural resource is located on a facade that faces directly away from the proposed Project Site (*i.e.* when an architectural resource is west of the Project Site and the sunlight-sensitive feature is on the west facade of that structure), no further shadows assessment is needed for that particular resource because no shadows from the proposed project could fall on that sunlight-sensitive face.

Refer to Figure F-1 which presents the results of the Tiers 1 and 2 screening assessments, *i.e.*, the portion of the longest shadow study area lying within -108 degrees from the true north and +108 degrees from true north as measured from southernmost portions of the projected development sites. As shown in the figure, there are several existing and planned open spaces that are located within the portion of the longest shadow study area that potentially can be shaded by the projected developments. These include Greenpoint Playground, Newtown Barge Playground (including its planned expansion), GLA's planned waterfront public access areas at 37 Commercial Street and on Projected Development Site 4, the planned Box Street Park, the planned waterfront public access areas at 77 Commercial Street, and Manhattan Avenue Road End Park (refer to Attachment E, "Open Space," for details on these open space resources).

As discussed in Attachment B, "Supplemental Screening," the closest historic resource to the projected development sites is the Astral Apartments, located approximately 1,000 feet to the south on Franklin Street between India Street and Java Street. There are no historic resources within the Tier 2 screening area and therefore the potential for shadows effects on historic resources can be screened out.

### **Tier 3 Screening**

According to the 2012 *CEQR Technical Manual*, a Tier 3 screening assessment should be performed if any portion of a sunlight-sensitive resource is within the area that could be shaded by the proposed project. The Tier 3 screening assessment is used to determine if shadows resulting from a proposed project can reach a sunlight-sensitive resource at any time between 1.5 hours after sunrise and 1.5 hours before sunset on representative analysis dates.

Given the proximity of public open spaces, including Greenpoint Playground and Newtown Barge Playground, to the portions of the Project Site that would be developed under 2020 With-Action conditions but that would remain undeveloped under 2020 No-Action, it was apparent that detailed modeling would be necessary to determine the duration and coverage of project-generated incremental shadows on study area open space resources. Therefore a detailed analysis was performed as it was clear that the Tier 3 screening would indicate that detailed analysis could not be screened out.

Since the preparation of this shadows analysis there has been a minor adjustment to the anticipated design for Site 4a. The analyzed design was H-shaped with two structures perpendicular to Commercial Street and a shorter building component parallel to and setback from Commercial Street. With the new design (refer to the site plan shown in Figure A-6), the parallel component has been shifted to face directly on Commercial Street, changing from an H shape to a U shape. However, this change in design would not alter shadows cast on any sunlight-sensitive resources given that the parallel component under both designs would have a

lower height than the rest of the development on the site to the north, east, and west (refer to rendering in Figure G-18 showing the site from Commercial Street) and as such this lower section of Site 4a would cast incremental shadows only on an internal courtyard and building space within Site 4a itself. As such, the shadows effects on sunlight-sensitive resources of the H-shaped design analyzed in this attachment would be identical to the effects of the now anticipated U-shaped design.

## **E. ASSESSMENT OF SHADOW IMPACTS**

### **Resources Affected by Project-generated Incremental Shadows**

Per the shadow assessment provided below, the Proposed Project would increase the incremental shadow coverage on Greenpoint Playground and Newtown Barge Playground on all four analysis dates. In addition, the Proposed Project would increase incremental shadow coverage on the December 21 analysis date only on public open space created by GLA under No-Build conditions at 37 Commercial Street, public open space created under No-Build conditions by another developer at 77 Commercial Street, and the planned Box Street Park at 65 Commercial Street created by the City under No-Action conditions.

It should be noted that the proposed waterfront public open space on Projected Development Site 1 was not assessed for the effects of project-generated shadows. Per 2012 *CEQR Technical Manual* guidelines, shadows on project-generated open space are not considered significant under CEQR and their assessment for shadow impacts is not required.

It also should be noted that the proposed development on Projected Development Site 4 would not cast any incremental shadows. A development with approximately the same massing and overall building area would be developed on that site under 2020 No-Action conditions. As discussed in Attachment A, the only incremental change on Projected Development Site 4 under 2020 With-Action conditions would be the inclusion of affordable housing units generated by the City Parcel as part of the Proposed Action.

#### Greenpoint Playground

The half-acre Greenpoint Playground is surrounded by shade trees, beneath which are benches. The majority of the park is paved and features a playset with safety surfacing, toddler and child swings, and a spray shower at its center. A new comfort station opened at this park in autumn 2012.

#### Newtown Barge Playground and Box Street Park at 65 Commercial Street

The existing Newtown Barge Playground is an approximately 0.98-acre City park consisting primarily of active recreation areas, including a paved baseball diamond and handball courts. Vegetation is limited to street trees along Commercial Street. Under No-Action conditions, this park would be expanded onto approximately 1.29 acres of adjoining City-owned land and improvements would be made to the existing parkland.

Box Street Park at 65 Commercial Street will be an approximately 2.81-acre City-owned public park located adjacent to Projected Development Site 4.

Designs for the expanded Newtown Barge Playground and Box Street Park were not complete at the time this EAS was prepared. In 2013 the City issued a Request for Proposals (RFP) for design services for these parks. According to the RFP, it is intended that these parks should be designed to be continuous with and openly accessible from adjoining waterfront public access areas built by private entities (such as GLA). As such, both of these open spaces would include continuous waterfront esplanades with typical amenities including seating. The RFP further states that both new open spaces would be primarily active recreation areas. For analysis purposes of future shadows conditions, the existing and planned expansion of Newtown Barge Playground is considered one open space.

#### Planned Open Space at 37 Commercial Street

As discussed in Attachments A and C, by 2020 GLA is expected to develop one or more as-of-right apartment buildings on 37 Commercial Street, located immediately west of Projected Development Site 4 and immediately east of Newtown Barge Playground. These new developments require the provision of waterfront publicly accessible areas per the Greenpoint-Williamsburg Waterfront Access Plan (“WAP BK-1”). This is expected to be a predominately passive recreation facility including approximately 0.81 acres of public open space, with a shore public walkway, upland connection to Commercial Street, and supplemental open space areas with seating and landscaping. It would be created under both 2020 No-Action and 2020 With-Action conditions; although under With-Action conditions a waterfront zoning authorization would permit certain modifications including changes to site grading that would raise site elevations to provide flood protection improvements and be consistent with building base elevations, which is not permitted as-of-right under zoning. However, such changes would be negligible in terms of the effects of shadows cast by the buildings, including the buildings on this site and the projected development sites.

#### Planned Open Space at 77 Commercial Street

Under 2020 No-Action conditions, a new apartment building is expected to be constructed at 77 Commercial Street. This development, subject to a land use review application approval, will include waterfront public access areas as required by WAP BK-1. This is expected to include approximately 0.88 acres of publicly accessible passive recreation space with a shore public walkway and upland connection to Commercial Street. Similar to the public open space at 37 Commercial Street, it is expected to include a waterfront zoning authorization to allow changes to site elevations.

### **Shadows Analysis**

The detailed shadow analysis first used building heights and footprints of existing and future No-Build structures on and surrounding the projected development sites to determine existing shadows cast on the four representative days of the year specified by the 2012 *CEQR Technical*



*Manual.* This includes buildings that would be built on Projected Development Sites 3 and 4. The No-Action building on Projected Development Site 3 would extend onto the GLA-owned portion of Projected Development Site 2. The No-Action building on Projected Development Site 4 would be approximately the same size and building envelope as would occur under With-Action conditions.

Using a 3D Google SketchUp modeling program, shadows cast by the With-Action conditions buildings on Projected Development Sites 1 through 5 were compared to No-Action conditions shadows on the four analysis dates to identify incremental effects of shadows generated by the Proposed Action. The results of the shadows analysis are discussed below.

Table F-1 shows the duration of incremental shadows cast by the Proposed Project during the analysis periods on Greenpoint Playground, Newtown Barge Playground, the planned 37 Commercial Street public open space, the planned Box Street Park at 65 Commercial Street, and the planned 77 Commercial Street open space. The term incremental shadow refers to increased shadow coverage as compared to shadows cast by other buildings under 2020 No-Build conditions. Where shadows cast by the proposed development would be cast on areas in shadow under No-Build conditions, there would be no incremental shadow.

**Table F-1, Duration of Incremental Shadows on Open Space Resources**

Resource	Analysis Date			
	March 21	May 6	June 21	December 21
<b>Newtown Barge Playground*</b>				
Beginning – Ending Time	08:51 – 14:53	07:36 – 15:19	08:09 – 14:10	09:27 – 13:41
Duration (hours:minutes)	6:02	7:43	6:01	4:14
<b>Greenpoint Playground</b>				
Beginning – Ending Time	08:51 – 14:53	07:36 – 16:29	10:40 – 15:32	11:05 – 14:36
Duration (hours:minutes)	6:02	8:53	4:52	3:31
<b>Box Street Park at 65 Commercial St.</b>				
Beginning – Ending Time	--	--	--	13:46 – 14:53
Duration (hours:minutes)	--	--	--	1:07
<b>37 Commercial St. Open Space</b>				
Beginning – Ending Time	--	--	--	10:28 – 14:03; 14:36 – 14:53
Duration (hours:minutes)	--	--	--	3:35; 0:17; 3:52 (total)
<b>77 Commercial St. Open Space</b>				
Beginning – Ending Time	--	--	--	14:02 – 14:28
Duration (hours:minutes)	--	--	--	0:26

Note: All times are 24-hour clock, Eastern Standard Time; Daylight Savings Time was not accounted for (as per 2012 *CEQR Technical Manual* guidelines).

\* Includes both the existing and planned expansion areas which are intended to be designed as an integrated facility

As shown in the table, the Proposed Project would cast incremental shadows for several hours during each of the four analysis dates on Greenpoint Playground and Newtown Barge Playground. For the planned open spaces at 37 Commercial Street, Box Street Park at 65 Commercial Street, and 77 Commercial Street, the Proposed Project would cast incremental shadows only on the December 21 analysis date. Figures F-2, F-3, F-4, and F-5 show representative shadow views for the four analysis dates on the open space resources of concern.

It should be noted that, per the 2012 *CEQR Technical Manual*, all times reported herein are Eastern Standard Time and do not reflect adjustments for daylight saving time that is in effect from mid March to early November. As such, the times reported in this attachment for March 21, May 6, and June 21 need to have one hour added to reflect the Eastern Daylight Saving Time.

#### March 21 (September 21)

On March 21 the time period for shadows analysis begins at 7:36 AM and continues until 4:29 PM. On the equinoxes, the Proposed Project would not cast any incremental shadows on the planned open spaces at 37 Commercial Street, Box Street Park at 65 Commercial Street, and 77 Commercial Street.

#### *Greenpoint Playground*

The Proposed Project would cast incremental shadows on Greenpoint Playground beginning at 7:36 AM and continuing until 3:19 PM, for a duration of 7 hours and 43 minutes. As indicated by Figure F-2a, during morning the extent of shadow coverage would be limited to relatively small portions along the southern and western edges of this park. The proportion of the park covered in shadow would increase in the mid-afternoon period as shown in Figure F-2b, with a majority of the park covered by incremental shadows as shown in the image for 2:30 PM. As noted above, incremental shadow coverage would terminate at 3:19 PM.

#### *Newtown Barge Playground*

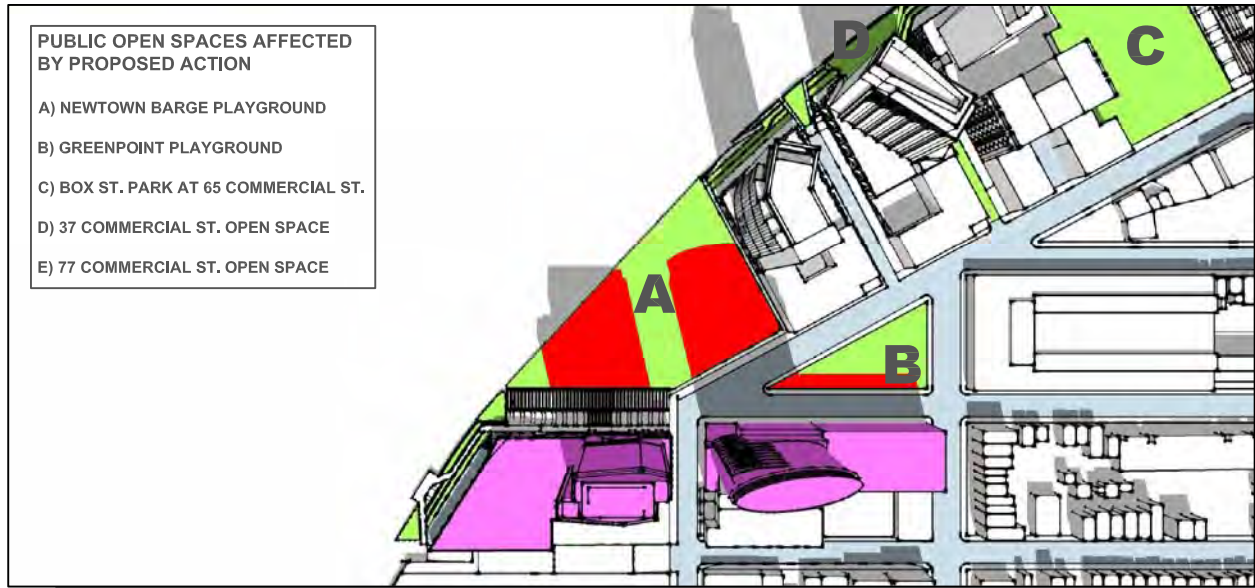
The Proposed Project would cast incremental shadows on Newtown Barge Playground beginning at 7:36 AM and continuing until 4:29 PM, for a duration of 8 hours and 53 minutes. As indicated by Figures F-2a and F-2b, incremental shadows would move across this public open space over the course of the day from west to east and at all times other portions of the park would not be shaded. As shown, by 2:30 PM most of the park would not be shaded.

#### May 6 (August 6)

On May 6 the time period for shadows analysis begins at 6:27 AM and continues until 5:18 PM. On the midpoint between the equinoxes and the solstices, the Proposed Project would not cast any incremental shadows on the planned open spaces at 37 Commercial Street, Box Street Park at 65 Commercial Street, and 77 Commercial Street.











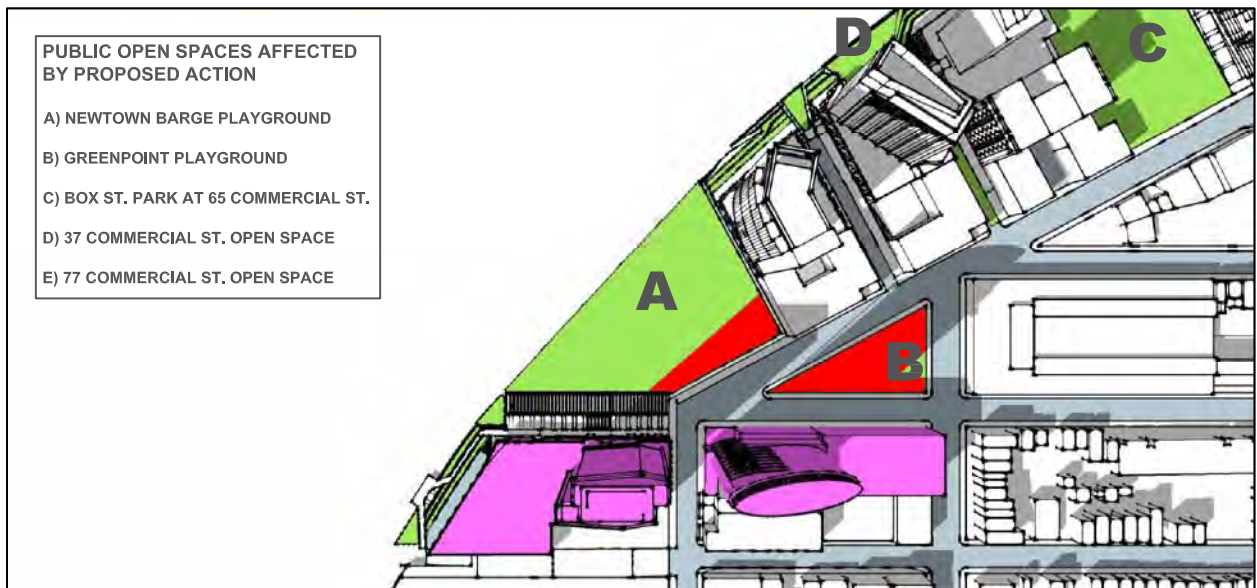
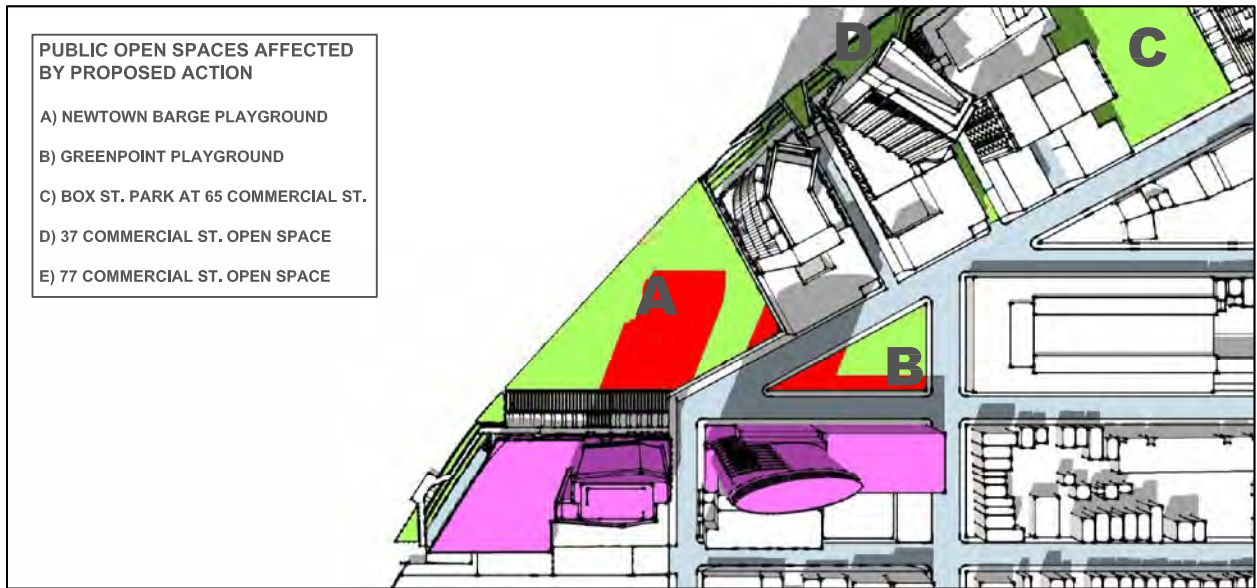
March 21, 08:30 (EST)











March 21, 11:30 (EST)

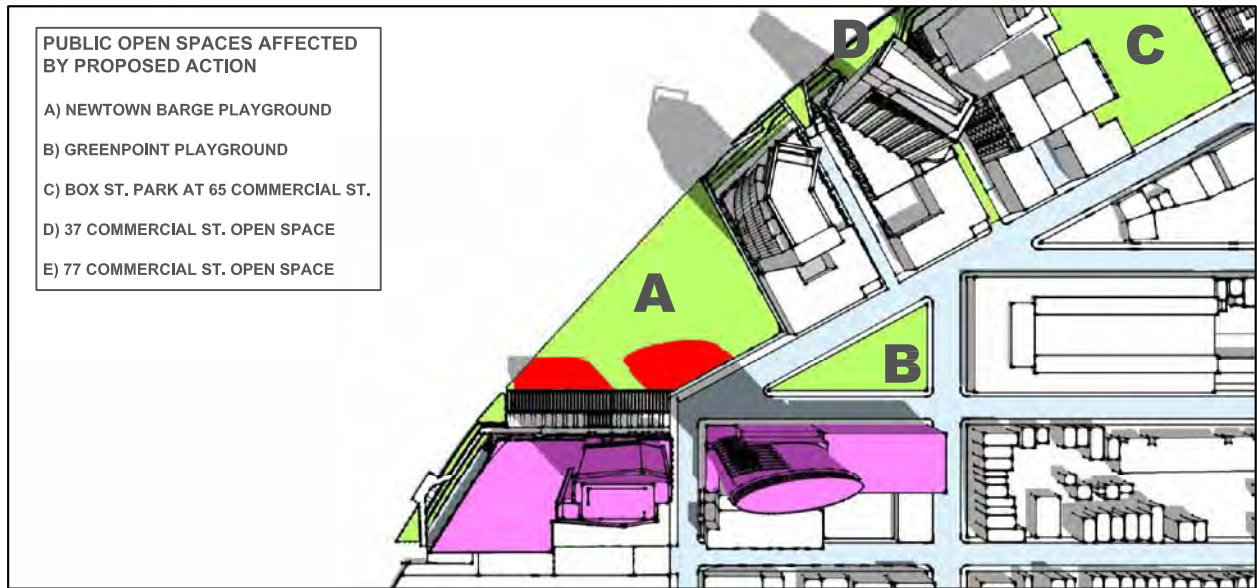
**Legend**

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|---|---------------------------------|---|---|
|  | Sidewalks and Streets           |  | Incremental Shadows Cast by Proposed Action on Resources of Concern         |
|  | No-Build Buildings              |  | Development Sites   |
|  | Open Space Resources of Concern |  | Shadows Cast by No-Build Buildings on Open Spaces, Buildings, and Sidewalks |
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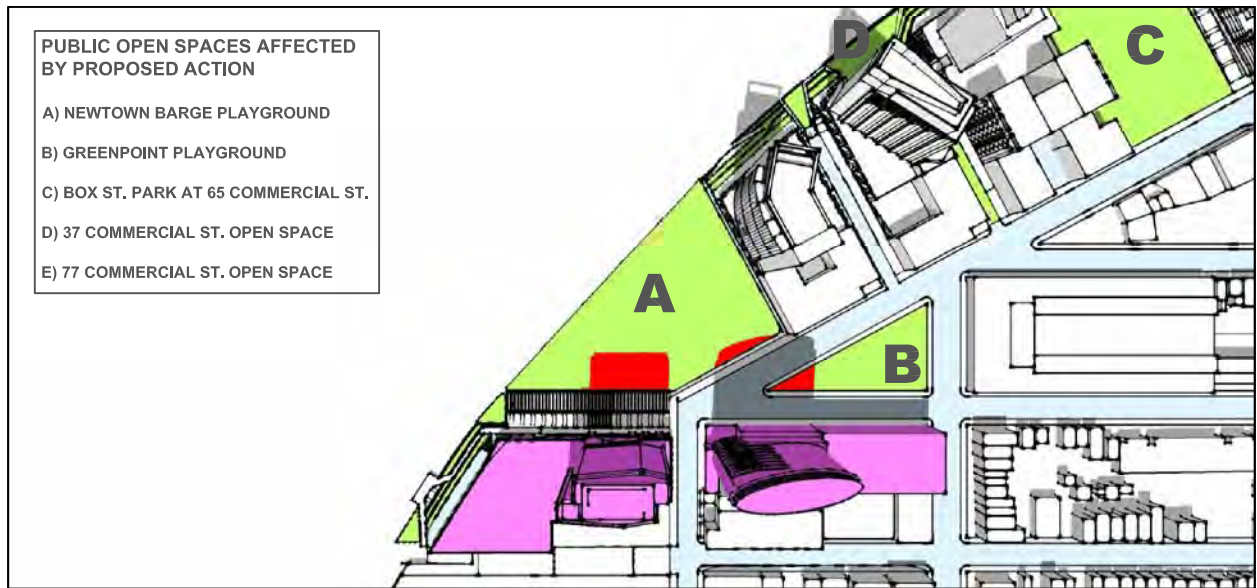


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|---|---------------------------------|---|---|
|  | Sidewalks and Streets           |  | Incremental Shadows Cast by Proposed Action on Resources of Concern         |
|  | No-Build Buildings              |  | Development Sites   |
|  | Open Space Resources of Concern |  | Shadows Cast by No-Build Buildings on Open Spaces, Buildings, and Sidewalks |
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





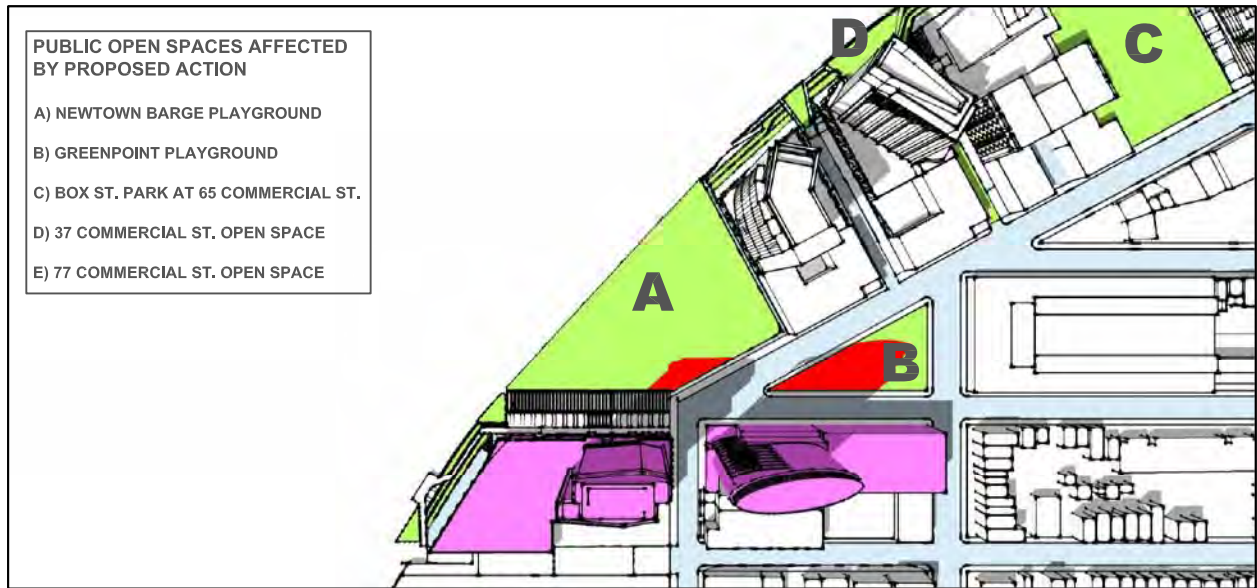
May 6, 10:30 (EST)



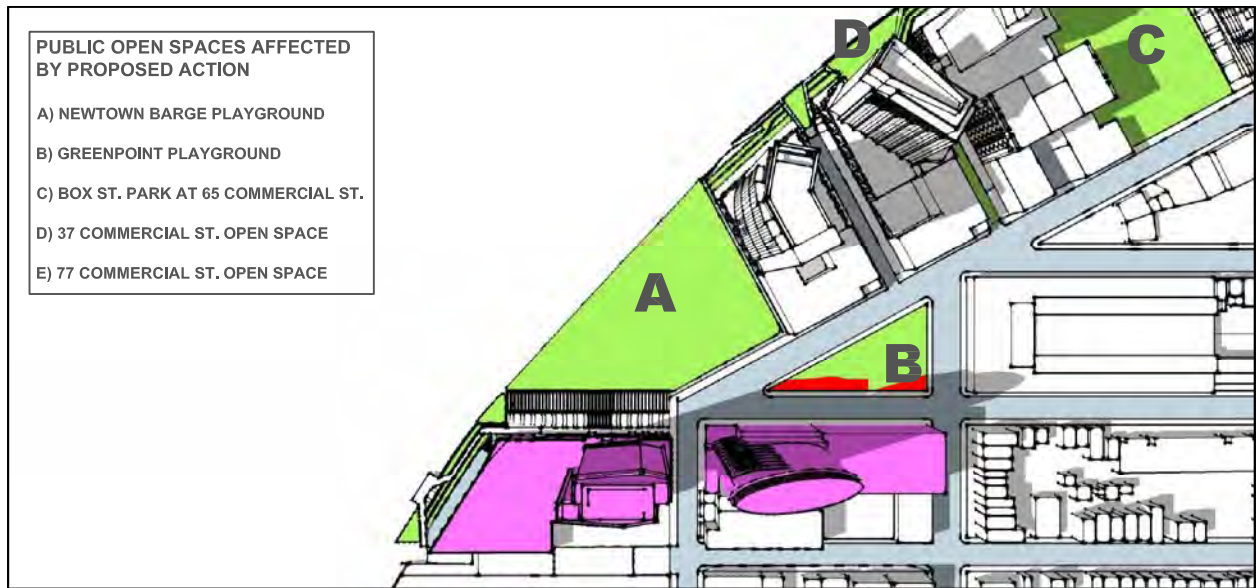
May 6, 12:00 (EST)

### Legend

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|  | No-Build Buildings              |  | Development Sites   |
|  | Open Space Resources of Concern |  | Shadows Cast by No-Build Buildings on Open Spaces, Buildings, and Sidewalks |











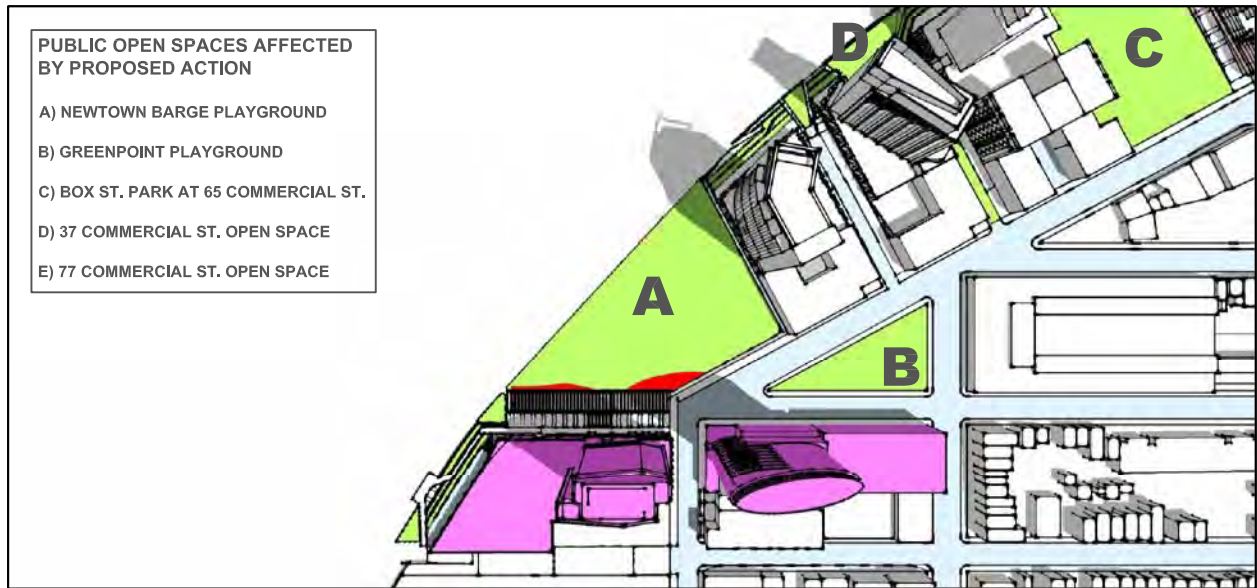
May 6, 13:30 (EST)



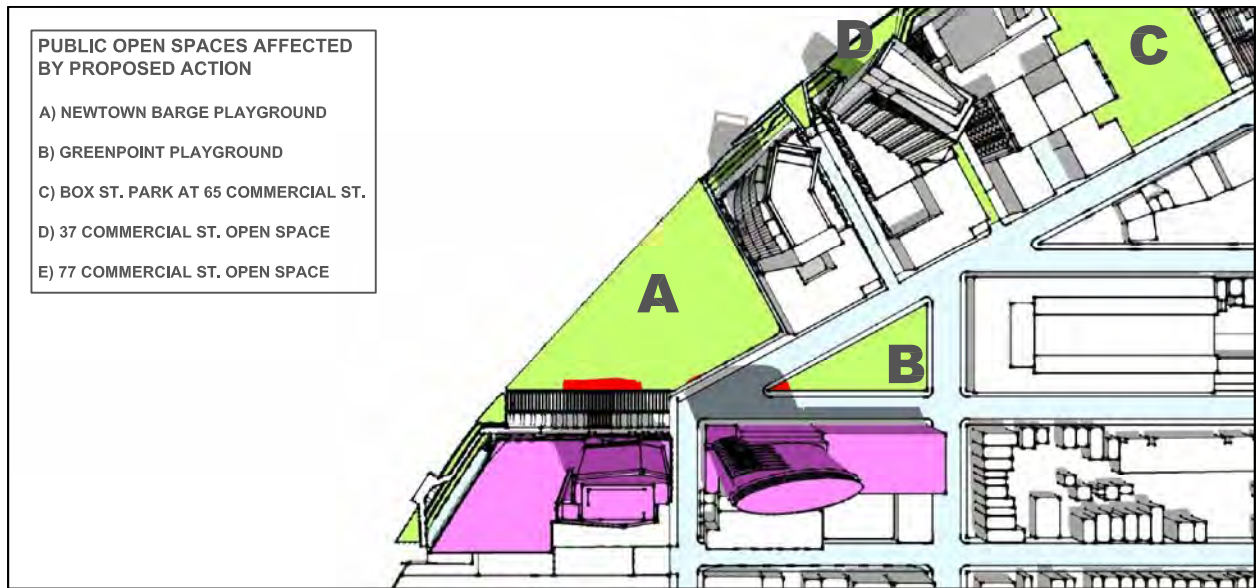
May 6, 15:00 (EST)

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|  | Sidewalks and Streets           |  | Incremental Shadows Cast by Proposed Action on Resources of Concern         |
|  | No-Build Buildings              |  | Development Sites   |
|  | Open Space Resources of Concern |  | Shadows Cast by No-Build Buildings on Open Spaces, Buildings, and Sidewalks |
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






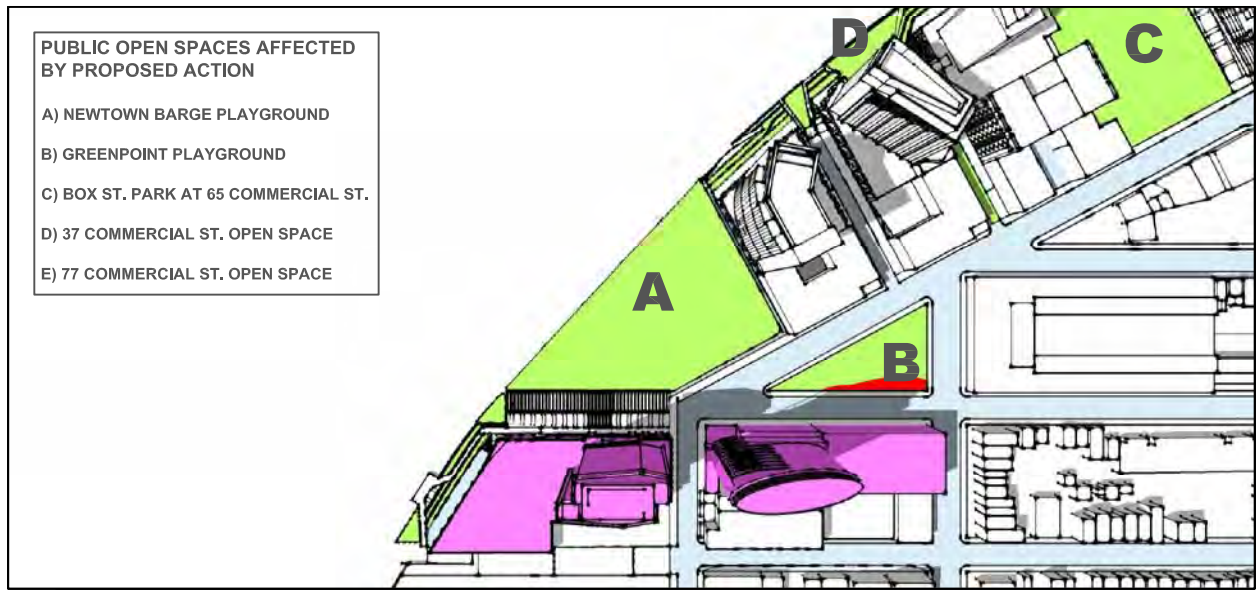
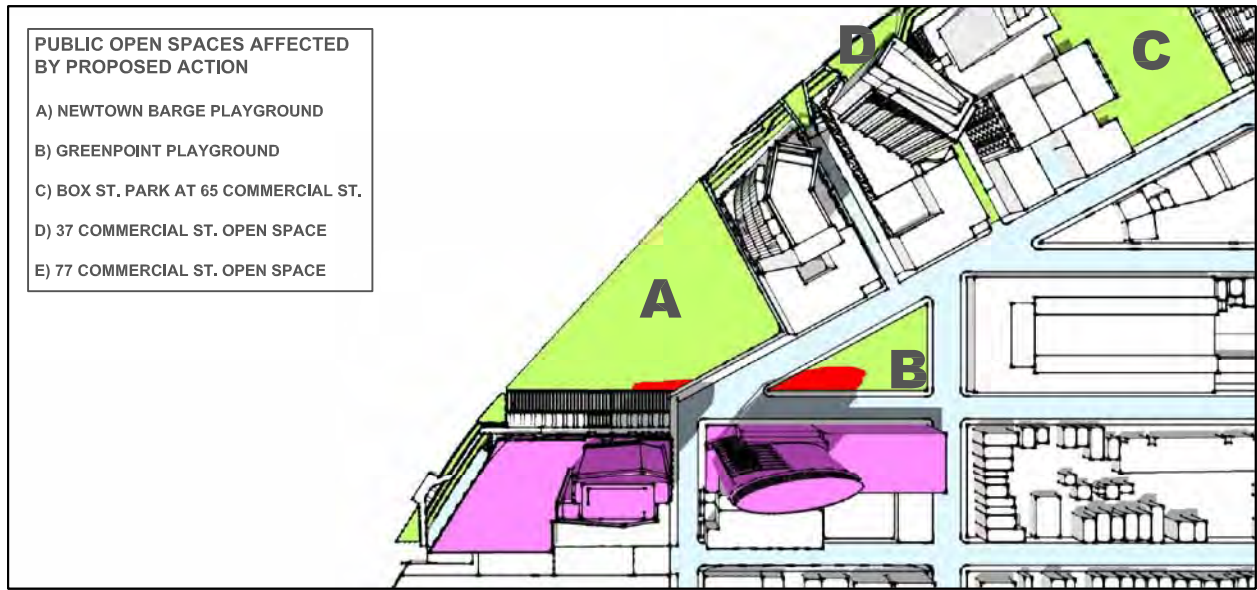
June 21, 10:30 (EST)











June 21, 11:30 (EST)

**Legend**

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|---|---------------------------------|---|---|
|  | Sidewalks and Streets           |  | Incremental Shadows Cast by Proposed Action on Resources of Concern         |
|  | No-Build Buildings              |  | Development Sites   |
|  | Open Space Resources of Concern |  | Shadows Cast by No-Build Buildings on Open Spaces, Buildings, and Sidewalks |
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**Legend**

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|---|---------------------------------|---|---|
|  | Sidewalks and Streets           |  | Incremental Shadows Cast by Proposed Action on Resources of Concern         |
|  | No-Build Buildings              |  | Development Sites   |
|  | Open Space Resources of Concern |  | Shadows Cast by No-Build Buildings on Open Spaces, Buildings, and Sidewalks |
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December 21, 09:30 (EST)



December 21, 11:30 (EST)

**Legend**

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|---|---------------------------------|---|---|
|  | Sidewalks and Streets           |  | Incremental Shadows Cast by Proposed Action on Resources of Concern         |
|  | No-Build Buildings              |  | Development Sites   |
|  | Open Space Resources of Concern |  | Shadows Cast by No-Build Buildings on Open Spaces, Buildings, and Sidewalks |
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








December 21, 13:30 (EST)



December 21, 14:00 (EST)

**Legend**

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|---|---------------------------------|---|---|
|  | Sidewalks and Streets           |  | Incremental Shadows Cast by Proposed Action on Resources of Concern         |
|  | No-Build Buildings              |  | Development Sites   |
|  | Open Space Resources of Concern |  | Shadows Cast by No-Build Buildings on Open Spaces, Buildings, and Sidewalks |
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







December 21, 14:15 (EST)



December 21, 14:45 (EST)

**Legend**

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|---|---------------------------------|---|---|
|  | Sidewalks and Streets           |  | Incremental Shadows Cast by Proposed Action on Resources of Concern         |
|  | No-Build Buildings              |  | Development Sites   |
|  | Open Space Resources of Concern |  | Shadows Cast by No-Build Buildings on Open Spaces, Buildings, and Sidewalks |
|  |                                 |  |   |

*Greenpoint Playground*

The Proposed Project would cast incremental shadows on Greenpoint Playground beginning at 10:40 AM and continuing until 3:32 PM, for a duration of 4 hours and 52 minutes. As shown in Figure F-3a, at noon most of the park would not be shaded as the extent of shadow coverage would be limited to the western edge of the triangular-shaped open space. As shown in Figure F-3b, shadow coverage would increase in the early afternoon, with most of the western and central portions of the park shaded at 1:30 PM. By 3:00 PM, as shown in the figure, the shadow coverage on the park would be limited to relatively small portions along southern edge, while most of the park would not be shaded.

*Newtown Barge Playground*

The Proposed Project would cast incremental shadows on Newtown Barge Playground beginning at 8:09 AM and continuing until 2:10 PM, for a duration of 6 hours and 1 minute. As indicated by Figures F-3a and F-3b, shadows would cover portions of the southern part of the park during the morning and early afternoon but a majority of the park would not be shaded throughout this period.

June 21

On June 21 the time period for shadows analysis begins at 5:57 AM and continues until 6:01 PM. On the summer solstice, which is the day of the year with the longest period of daylight, the sun is most directly overhead and generally shadows are shortest and move across the widest angular range from west to east. On this date the Proposed Project would not cast any incremental shadows on the planned open spaces at 37 Commercial Street, Box Street Park at 65 Commercial Street, and 77 Commercial Street.

*Greenpoint Playground*

The Proposed Project would cast incremental shadows on Greenpoint Playground beginning at 11:05 AM and continuing until 2:36 PM, for a duration of 3 hours and 31 minutes. As shown in Figures F-4a and 4b, during the course of this incremental shadow coverage time period, only relatively small portions of the park would be covered in shadow. At 1:00 PM, the western end of the park would be cast in shadows, while by 2:00 PM a smaller sliver along the southeastern part of the park would be in shadow. Overall, throughout the shadow analysis period a majority of the park would not be shaded.

*Newtown Barge Playground*

The Proposed Project would cast incremental shadows on Newtown Barge Playground beginning at 9:27 AM and continuing until 1:41 PM, for a duration of 4 hours and 14 minutes. As indicated by Figures F-4a and F-4b, shadows would cover only portions of the southern edge of the park during the morning and early afternoon but most of the park would not be shaded throughout this period.

## December 21

On the winter solstice, December 21, which is the day of the year with shortest period of daylight, the sun is low in the sky, shadows are the longest they will be all year, but as a result of the shortened daylight move rapidly. The Proposed Project would cast incremental shadows on Greenpoint Playground, Newtown Barge Playground, the planned open space at 37 Commercial Street, the planned Box Street Park at 65 Commercial Street, and the planned open space at 77 Commercial Street.

### *Greenpoint Playground*

The Proposed Project would cast incremental shadows on Greenpoint Playground beginning at 8:51 AM and continuing until 2:53 PM, for a duration of 6 hours and 2 minutes. As shown in Figure F-5a, at 9:30 AM a substantial portion of the park would be covered by shadows (primarily project-generated shadows) and by 11:30 AM all of the park would be covered by shadows. As shown in Figures F-5b and F-5c, the entire park would be covered in shadows throughout the early afternoon.

### *Newtown Barge Playground*

The Proposed Project would cast incremental shadows on Newtown Barge Playground beginning at 8:51 AM and continuing until 2:53 PM, for a duration of 6 hours and 2 minutes. As shown in Figure F-5a, most of the park would be covered in shadows at 9:30 AM and at 11:30 AM a substantial portion of the park would be covered in shadows, although the areas of shadow coverage would shift as shadows move from being cast in a northwesterly direction to a northerly direction. As shown in Figure F-5b, as shadows move over the course of the early afternoon and are cast in a northeasterly direction, the proportion of the park covered in shadow would decrease and the western portion of the park would not be shaded.

### *37 Commercial Street Open Space*

The Proposed Project would cast incremental shadows on the planned 37 Commercial Street open space for two separate periods. The first period would begin at 10:28 AM and continue until 2:03 PM and the second period would begin at 2:36 PM and continue until 2:53 PM. There would be a combined total duration of 3 hours and 52 minutes. As shown in Figures F-5a, F-5b, and F-5c, most of this area would be covered by shadows cast by other buildings, specifically the two buildings at 37 Commercial Street. As shown in the figures, the area of shadow coverage would be marginally increased by incremental shadows generated by the Proposed Action.

### *Box Street Park at 65 Commercial Street*

The Proposed Project would cast incremental shadows on the planned Box Street Park at 65 Commercial Street beginning at 1:46 PM and continuing until 2:53 PM, for a duration of 1 hour and 7 minutes. As indicated by Figure F-5c, incremental shadows would marginally increase the total shadow coverage cast on the planned park. As shown in the figure, at 2:15 PM and 2:45 PM, for example, a majority of the park would be covered by shadows cast by other buildings,

with the total shadow coverage area increasing a relatively small amount due to incremental shadows while some portions of the park would continue to not be covered by shadows.

### *77 Commercial Street*

The Proposed Project would cast incremental shadows on the planned 77 Commercial Street open space beginning at 2:02 PM and continuing until 2:28 PM, for a duration of 26 minutes. Project-generated incremental shadows would marginally increase the amount of shadow coverage during the relatively brief period of incremental shadow duration. As indicated by Figure F-5c, at 2:15 PM, a small portion of incremental shadow would be cast on the 77 Commercial Street open space along the waterfront; with this increase in shadow coverage a substantial portion of the open space would be covered in shadow though a small area would not be in shadow.

## **Assessment**

### Greenpoint Playground Analysis

Greenpoint Playground is located immediately north of Projected Development Sites 2 and 5 and northeast of Projected Development Site 1, in an area where most existing buildings are low- and mid-rise. Consequently, with new high-rise buildings on the Projected Development Sites, the Proposed Action would cast incremental shadows on this park for several hours per day on each of the four analysis dates. Except for December 21, when shadows are longest, on the other three analysis dates the extent of shadow coverage generally would be limited to only parts of the park at any given time and for most of the shadow analysis periods a majority of the park would not be shaded. Furthermore, over the course of the shadow analysis period all parts of the park would have a period when they would not be covered by shadows. The sensitivity of this park to the effects of shadowing is limited given that it is a primarily paved area with vegetation limited to trees along its perimeter. Incremental shadows cast on December 21 would cover all or much of the park for several hours, which would have an effect on those using the park for seating. However, this would not constitute a significant adverse impact as park usage is generally low during the winter period. Also, under 2020 With-Action conditions there would be several other open spaces in the immediate vicinity that would have seating areas that would not be in shadow, such as on along the Box Street Park waterfront esplanade in the morning and Newtown Barge Playground in the afternoon.

It should be noted that the 2005 *FEIS* similarly found that the rezoning would result in shadows that “would cover a majority of the park for the entire day” on December 21 but that this would not create a significant adverse impact as most of the park is paved and the greatest shadow coverage would occur in the winter which is outside the growing season for outdoor trees and plants. The *FEIS* also noted that utilization of this park’s passive recreation areas is low during that time of year. While the coverage of shadows would be somewhat greater with the Proposed Action due to the proposed bulk modifications to Projected Development Site 5 permitting an increase in maximum building height from 65 feet to 100 feet, the findings of the *FEIS* remain generally applicable.

Accordingly, as project-generated shadow coverage would not be extensive except on the December 21 analysis date when utilization is low and which falls outside the growing season, and consistent with the findings of the *FEIS*, the project-generated shadows on Greenpoint Playground would not result in significant adverse impacts.

#### Newtown Barge Playground Analysis

Action-generated incremental shadows would be cast on parts of the expanded Newtown Barge Playground over the course of several hours on each of the four analysis dates. The extent of shadow coverage would vary, with the greatest coverage on December 21 and the relatively small coverage throughout the day on May and June 21. March 21 would include relatively small shadow coverage during the early morning and late afternoon periods with more substantial shadowing in the midday period, although there would always be some portions of the park not in shadows as action-generated shadows move from the west to east over the course of the day. While the current park is entirely paved apart from some trees, it is expected that in the future after this park is expanded it would include additional vegetation and may include lawns or grass playing fields. It is expected that the expanded and rehabilitated park will be designed to account for the effects of its unique site conditions including action-generated shadows.

The analysis of Newtown Barge Playground in the 2005 *FEIS* noted that shadow coverage during the December 21 and March 21 analysis dates would be extensive but that park utilization is lower during these periods and that these analysis dates fall outside the vegetation growing season.

Accordingly, as action-generated incremental shadow coverage generally would not be extensive and design of the park expansion can account for action-generated shadows in making determinations about the viability and location of vegetation, and consistent with the findings of the *FEIS*, the action-generated incremental shadows on Greenpoint Playground would not result in significant adverse impacts.

#### 37 Commercial Street Open Space Analysis

The Proposed Project would cast incremental shadows on the planned 37 Commercial Street open space for approximately three and a half hours on December 21. The incremental shadow coverage would represent a relatively small increase in the already extensive shadow coverage created by the planned buildings on this site. This would include small increases in shadow coverage on the shore public walkway during the late morning and on the upland connection to Commercial Street during the early afternoon. There would be no incremental shadows cast on this open space during the other three analysis dates.

While the shadow coverage would be extensive and would be marginally increased on December 21 due to action-generated incremental shadows, this would not result in a significant adverse impact. These incremental shadows would only occur on the December 21 analysis date, when, according to the 2012 *CEQR Technical Manual*, vegetation is generally not sensitive to shadows. Further, this type of open space's overall sensitivity to shadows is limited given that it is being

developed adjacent to high rise development. This waterfront open space will be created as required under the WAP BK-1. As with all waterfront open spaces required under City's waterfront zoning regulations, such spaces are built in connection with new buildings on waterfront lots. Given the proximity between waterfront buildings and the open spaces on their sites, there is an inherent interconnection between the two that should be accounted for in design of park elements, including accounting for the affects of shadows from waterfront buildings. As such GLA is developing its open spaces to be compatible with the context of the surrounding area including the expected shadow conditions from planned and proposed developments in the area that are being developed pursuant to the City's 2005 rezoning.

Accordingly, given both the characteristics of this waterfront open space and the relatively limited duration and coverage of action-generated shadows, the Proposed Action would not result in significant adverse shadows impacts.

It should be noted that, consistent with *CEQR Technical Manual* guidelines that analysis of action-generated open space is not warranted, the 2005 *FEIS* did not assess shadow effects of the rezoning on open space generated on rezoning development sites.

#### Box Street Park at 65 Commercial Street

The casting of incremental shadows by the Proposed Project on the planned Box Street Park at 65 Commercial Street would be very minimal, both spatially and temporally. The incremental shadows would cover small areas of the planned 2.30-acre park and would occur for only 1 hour and 7 minutes on December 21. The effects of shadow coverage on both park users and vegetation would be essentially the same with or without the Proposed Action. As such, the Proposed Action would not result in any significant adverse shadow impacts on the planned Box Street Park at 65 Commercial Street.

It should be noted that this site was not anticipated to be a park in the 2005 *FEIS* but instead was identified as a potential development site.

#### 77 Commercial Street Open Space Analysis

The shadows analysis determined that the duration and coverage of incremental shadows on the planned 77 Commercial Street open space would be limited. With or without the Proposed Action, the shadow conditions on this open space resource would not significantly differ. The only incremental shadows would fall for approximately a half-hour in the early afternoon on December 21. As discussed in relation to 37 Commercial Street, waterfront public open spaces created as part of new waterfront buildings generally experience a significant amount of shading from their site buildings and as such their sensitivity to shadows is limited. Accordingly, the Proposed Action would not result in significant adverse shadows impacts on the planned 77 Commercial Street open space.



**ATTACHMENT G**  
**URBAN DESIGN AND VISUAL RESOURCES**

## **A. INTRODUCTION**

The 2012 *CEQR Technical Manual* states that the urban design components and visual resources determine the “look” of a neighborhood—its physical appearance, including the street pattern, the size and shape of buildings, their arrangement on blocks, streetscape features, natural resources, and noteworthy views that may give an area a distinctive character. Pursuant to CEQR methodology, actions that would allow a project to potentially obstruct view corridors, compete with icons in the skyline, or make substantial alterations to the streetscape of a neighborhood by noticeably changing the scale of buildings may warrant a detailed urban design and visual resources analysis. Since the proposed action would facilitate the construction of buildings that would be notably different in bulk, type, and use from the urban design of the Project Site and the surrounding area, a detailed urban design and visual resources analysis was prepared. However, it should be noted that, apart from the proposed public school and the requested waterfront zoning authorizations, the development facilitated by the proposed action would fully comply with waterfront zoning in terms of open space, upland connection, bulk, height, and setback requirements. In addition, while a departure in bulk, type, and use from existing development on the Project Site, the development facilitated by the proposed action would be consistent with as-of-right development anticipated in the Greenpoint Landing development area.

This attachment considers the potential for the Proposed Project to affect the urban design characteristics and visual resources of the Project Site and the study area. As described in Attachment A, “Project Description,” the Project Site encompasses portions of Block 2472 and Block 2494, Lots 1 and 6, in the Greenpoint neighborhood of Brooklyn Community District 1. The technical analysis presented below follows the guidelines of the *CEQR Technical Manual* and addresses each of the above-listed characteristics for existing conditions, the future without the proposed action (the No-Action condition), and the future with the Proposed Project for a 2020 Build year.

## **B. PRINCIPAL CONCLUSIONS**

### **Urban Design**

Development facilitated by the proposed action would not result in significant adverse urban design impacts. While the proposed structures would be a departure from the existing conditions, the design would be consistent with anticipated future development in the surrounding area. By focusing the majority of the bulk on the waterfront the lower height of the inland structures would be more consistent with the surrounding built context. In addition, the proposed waterfront open space would facilitate connections to adjacent open space resources, improving the streetscape. The West Street Extension will be a marked improvement over the No-Action condition facilitating uninterrupted circulation and integrating the Project Site into the surrounding Greenpoint community.

## Visual Resources

The proposed action would not result in significant adverse impacts to visual resources. The proposed action would open up new view corridors to significant visual resources that are currently obstructed by fencing and inaccessible to the public. In addition, the proposed action would result in the creation of new visual resources in the form of waterfront open space. While the proposed action would partially obstruct select views of certain visual resources, these views are not unique and the new views provided along the Brooklyn WAP-designated view corridors and along the proposed waterfront open space would create new enhanced views.

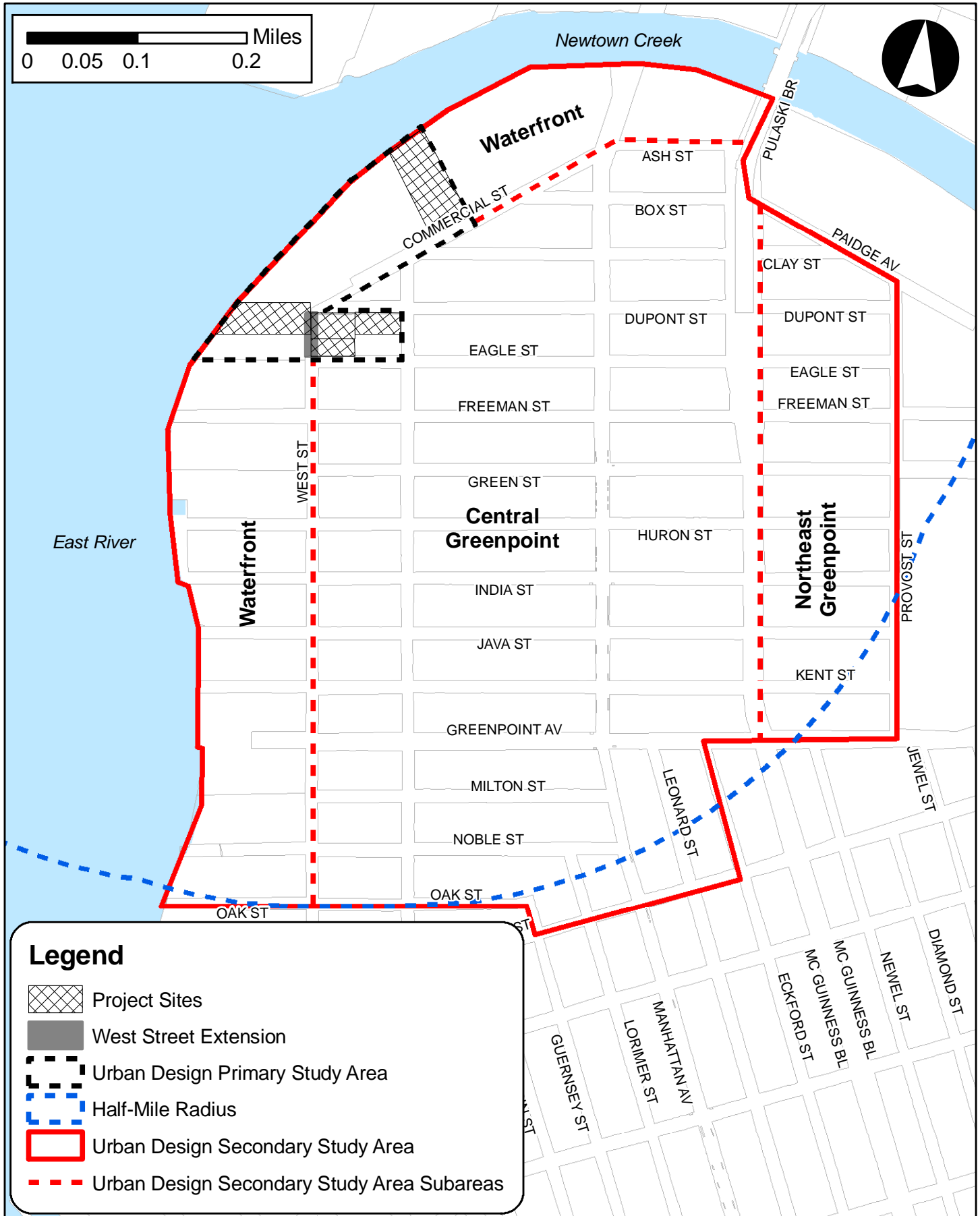
### C. METHODOLOGY

In accordance with the 2012 *CEQR Technical Manual*, this analysis considers the effects of the Proposed Project on the following elements that collectively form an area's urban design:

- *Street Pattern and Streetscape*—the arrangement and orientation of streets define location, flow of activity, street views, and create blocks on which buildings and open spaces are arranged. Other elements including sidewalks, plantings, street lights, curb cuts, and street furniture also contribute to an area's streetscape.
- *Buildings*—building size, shape, pedestrian and vehicular entrances, lot coverage and orientation to the street are important urban design components that define the appearance of the built environment.
- *Open Space*—open space includes public and private areas that do not include structures, including parks and other landscaped areas, cemeteries, and parking lots.
- *Natural features*—natural features include vegetation, and geologic and aquatic features that are natural to the area.
- *View Corridors and Visual Resources*—visual resources include significant natural or built features, including important view corridors, public parks, landmark structures or districts, or otherwise distinct buildings.

As stated in the 2012 *CEQR Technical Manual*, the construction of large buildings at locations that experience high wind conditions (i.e., waterfront locations) may result in an exacerbation of wind conditions due to “channelization” or “downwash” effects that may affect pedestrian safety. Given the location of the Project Site along the East River and the size of the proposed buildings, consideration is given to the relationship of building configurations and wind conditions in both the No-Action and With-Action conditions.

Pursuant to CEQR methodology, this analysis evaluates the potential for impacts on two areas—a primary study area and a secondary study area (see Figure G-1). As described in Attachment A, “Project Description,” the Project Site would allow for five Projected Development Sites



which comprise portions of the Brooklyn Waterfront Access Plan (WAP BK-1) current Parcels 5A, 5B, 5C. WAP Parcel 5A, owned by the Applicant, Greenpoint Landing Associates LLC (GLA), is comprised of Block 2472, Lot 100; WAP Parcel 5B, owned by the City, is comprised of Block 2472, Lot 32 and Block 2494, Lot 6; WAP Parcel 5C is comprised of Lot 2 of Block 2472, Lot 1 of Block 2494, Lot 1 of Block 2502, Lot 1 of Block 2510, and Lot 57 of Block 2520. As these Projected Development Sites represent only portions of blocks, in order to adequately address each of the elements of urban design described above, the affected blocks within which the five Projected Development Sites are located serve as the primary study area (see Figure G-1).

The urban design secondary study area encompasses an area roughly equivalent to the half-mile area around the Projected Development Sites. A half-mile study area was deemed appropriate for the project given the project's scale, waterfront location, and surrounding urban fabric. Boundaries of the secondary study area are as follows: Oak and Calyer Streets to the south, Eckford and Provost Streets to the east, Newtown Creek to the north, and the East River to the west. Pursuant to CEQR methodology, the urban design study area is also consistent with the land use study area. As shown in Figure G-1, for analysis purposes, the secondary study area is divided into three subareas within each the buildings and urban form share common characteristics.

In addition, this analysis considers the effects of the Proposed Project on views from Manhattan and Queens.<sup>1</sup> Views of the primary and secondary study areas are presented in Figures G-2, G-5 to G-9, and G-10, while rendering of the future with the proposed action and the No-Action condition are presented in Figures G-11 through G-17. Figures G-18 and G-19 present illustrative renderings developed in consistency with the proposed urban design guidelines.

#### **D. BACKGROUND**

As described in Attachment A, "Project Description," the Project Site, as well as portions of the above-described urban design primary and secondary study areas are located within the area of Greenpoint and Williamsburg that were rezoned in 2005 and analyzed in the 2005 *Greenpoint-Williamsburg Rezoning FEIS* and subsequent Technical Memorandum. The *FEIS* analysis concluded that, while the rezoning would significantly alter the urban design of the area, the resultant changes would not be adverse. It was expected that the waterfront zoning would ensure a sensitive transition of bulk and scale between the upland areas and the waterfront, and the introduction of new parkland, a waterfront promenade, streetscape improvements, and ground floor retail would extend corridors of activity, fundamentally transforming the way in which the waterfront spaces were expected to be used.

In addition, the 2005 *Greenpoint-Williamsburg Rezoning FEIS* concluded that the rezoning would not create a significant adverse impact on visual resources as it was anticipated to improve the visual quality of the rezoning area through the replacement of dilapidated, often vacant, lots

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<sup>1</sup> While portions of Hunters Point neighborhood of Queens falls within a ½-mile radius of the Project Site, given the division created by Newtown Creek and resulting limited pedestrian accessibility from Greenpoint, this urban design and visual resources analysis focuses only on views from the neighborhood.



1. Poor sidewalk quality.



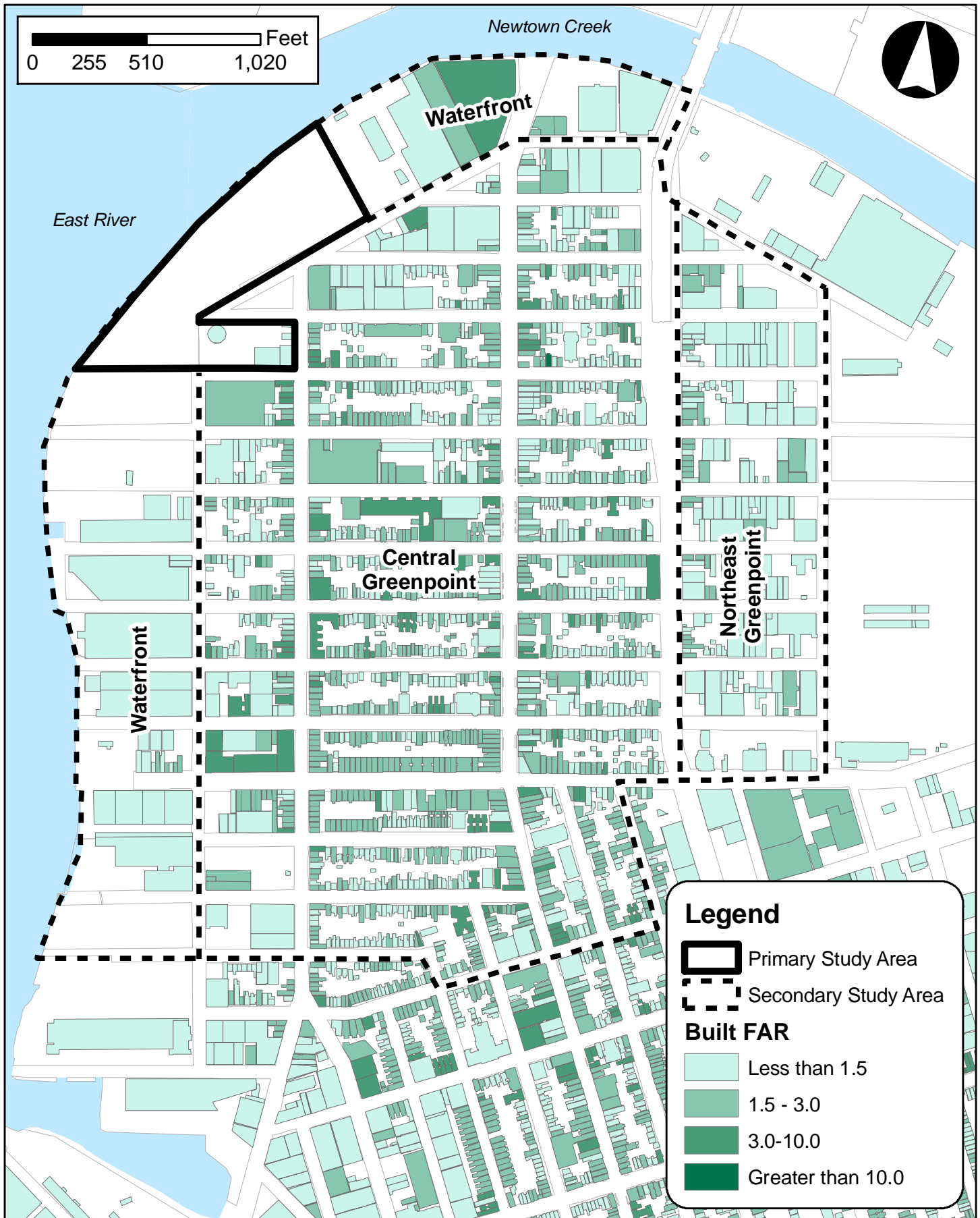
2. Existing sludge tank.

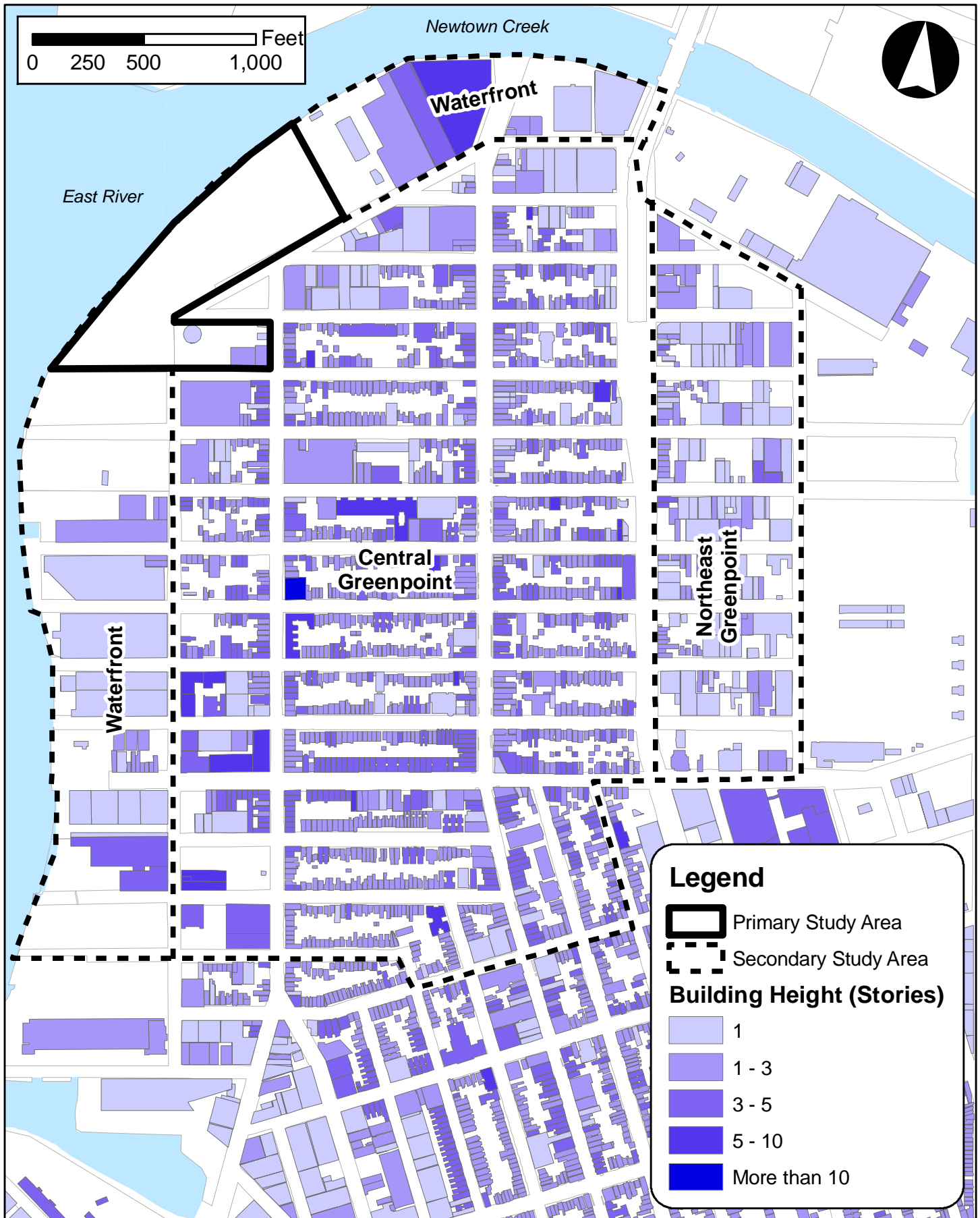


3. Existing car repair shop.



4. Southwest corner of DuPont and Franklin Streets.









View south from the primary study area with the Williamsburg Bridge visible in the background.



View west from the primary study area of the Manhattan skyline with the Empire State Building and Chrysler Building visible in the background.



1. Residential plantings around street trees.



2. Continuous facades of residential buildings.



3. IO8 West Street.



4. Vacant lots blocked off.



1. Blocked off waterfront access.



2. View west along Java Street showing Belgian brick.



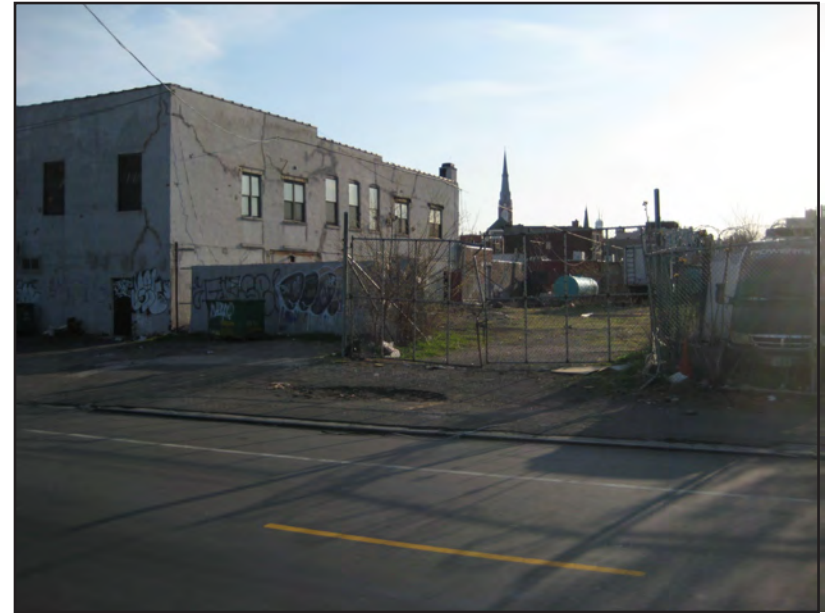
3. WNYC Transmitter Park with Manhattan skyline visible in the background.



4. Mural along the northern side of the India Street ferry approach.



1. Street trees around Newtown Creek WWTP.



2. Vacant lots.

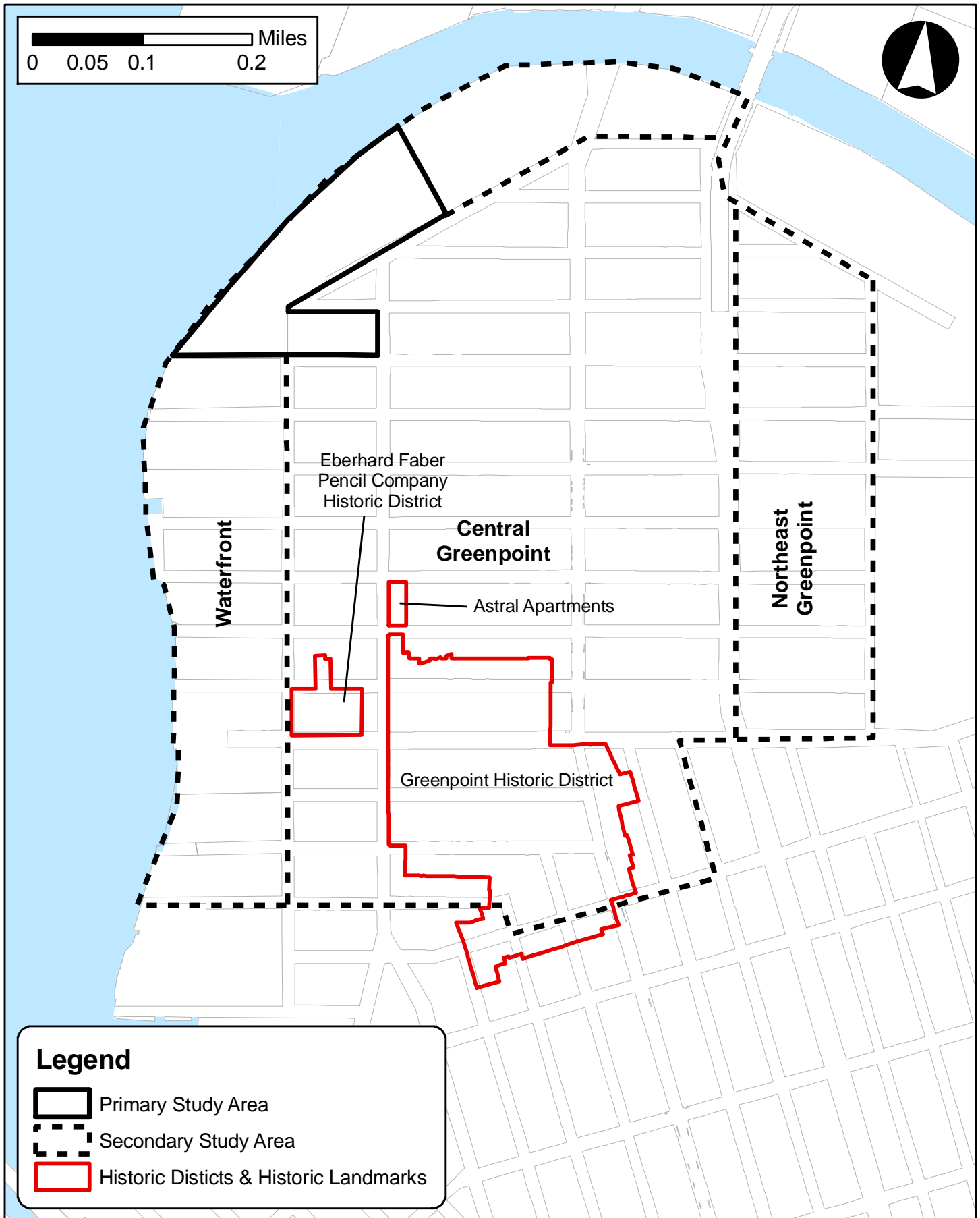


3. Existing buildings.



4. Existing buildings.

Historic Resources within the Urban Design Study Area





1. Astral Apartments.



2. Pencil Factory Historic District.



3. Saint Anthony of Padua Church.



4. View of Manhattan from Commercial Street.



1. Upland Connection view north between Greenpoint Landing As-of-Right development site and Projected Development Site 4 from Commercial Street.



3. View west of 155 West Street in the Waterfront Subarea.



2. View south along west street of West Street Greenway.

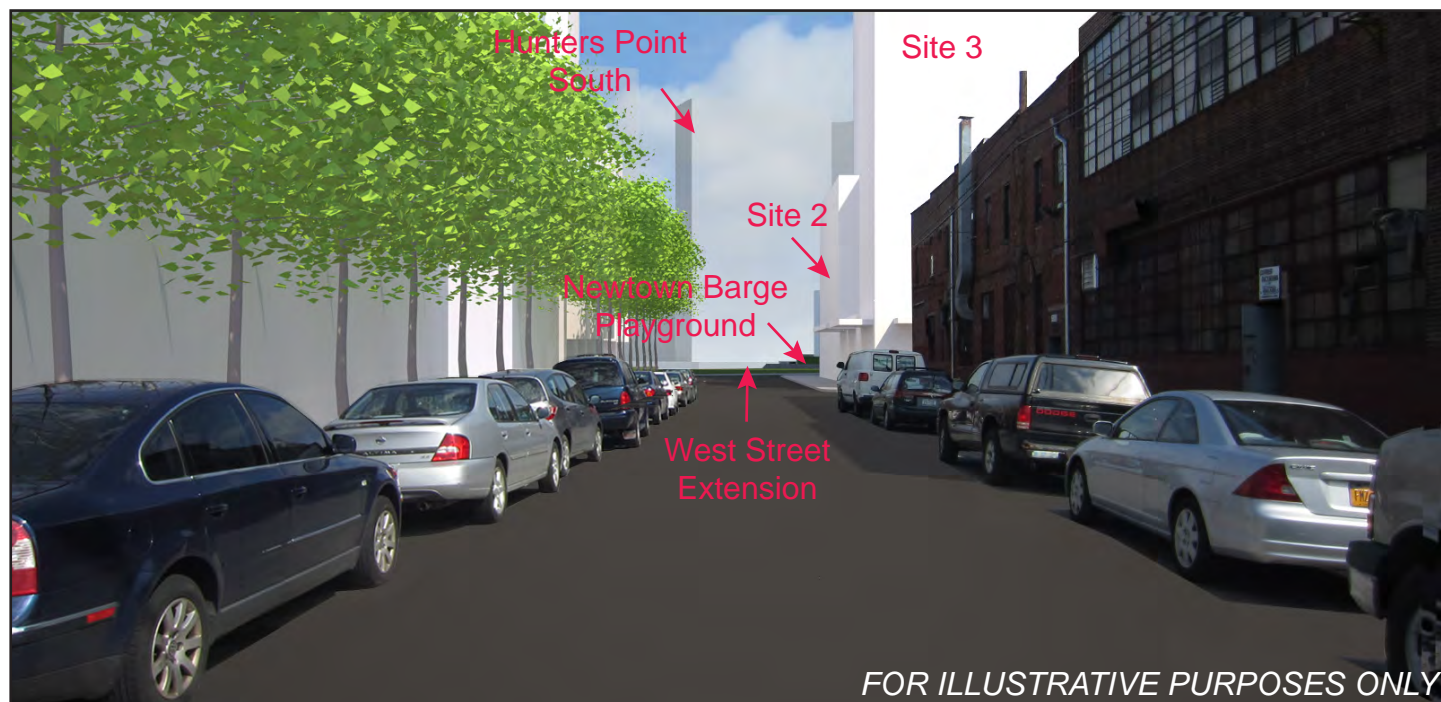


4. View of Greenpoint Landing As-of-Right Development from Commercial Street.

Comparison of No-Action and With-Action Condition - View north along West Street from Eagle



1. No-Action Condition - Site 3 building constructed and NYCDEC sludge tank removed; Hunters Point South partially visible in the background.



2. With-Action Condition - West Street Extension providing unobstructed views of Hunters Point South in the background.



Comparison of No-Action and With-Action Condition -  
View west along DuPont Street from west of Franklin Street



1. No-Action Condition - Projected Development site 3 and the demolished NYCDEP sludge tank property to the south; Newtown Barge Playground Expansion and Greenpoint Landing As-of-Right development to the north.



2. With-Action Condition - Projected Development Sites 5 and 2 in the foreground with the Newtown Barge Playground Expansion, waterfront open space and Manhattan skyline visible in the background.

Comparison of No-Action and With-Action Condition -  
View west along DuPont Street from east of Franklin Street



1. No-Action Condition



2. With-Action Condition - Projected Development Sites 5 and 2 seen in the foreground with an unobstructed view corridor of the Manhattan skyline.

Comparison of No-Action and With-Action Condition -  
View north along proposed waterfront open space



1. No-Action Condition - undeveloped Projected Development Site 1 preventing public access to the waterfront; enlarged Newtown Barge Playground, Greenpoint Landing As-of-Right development, Hunters Point South, and the Manhattan skyline visible in the background.



2. With-Action Condition - Projected Development Site 1 and adjacent waterfront open space in the foreground with the enlarged Newtown Barge Playground, Greenpoint Landing As-of-Right development, Hunters Point South, and the Manhattan skyline visible in the background.



1. No-Action Condition with Greenpoint Landing As-of-Right buildings and No-Action Site 4 development visible across the East River. Apart from the known and anticipated Hunters Point South development, No-Action development located outside of the Greenpoint Landing development site is not shown.



2. With-Action Condition with Greenpoint Landing As-of-Right development sites, Projected Development Sites 1, 2, 4, and 5 visible across the East River. Apart from Hunters Point South, other future known and anticipated developments in the surrounding area are not shown.

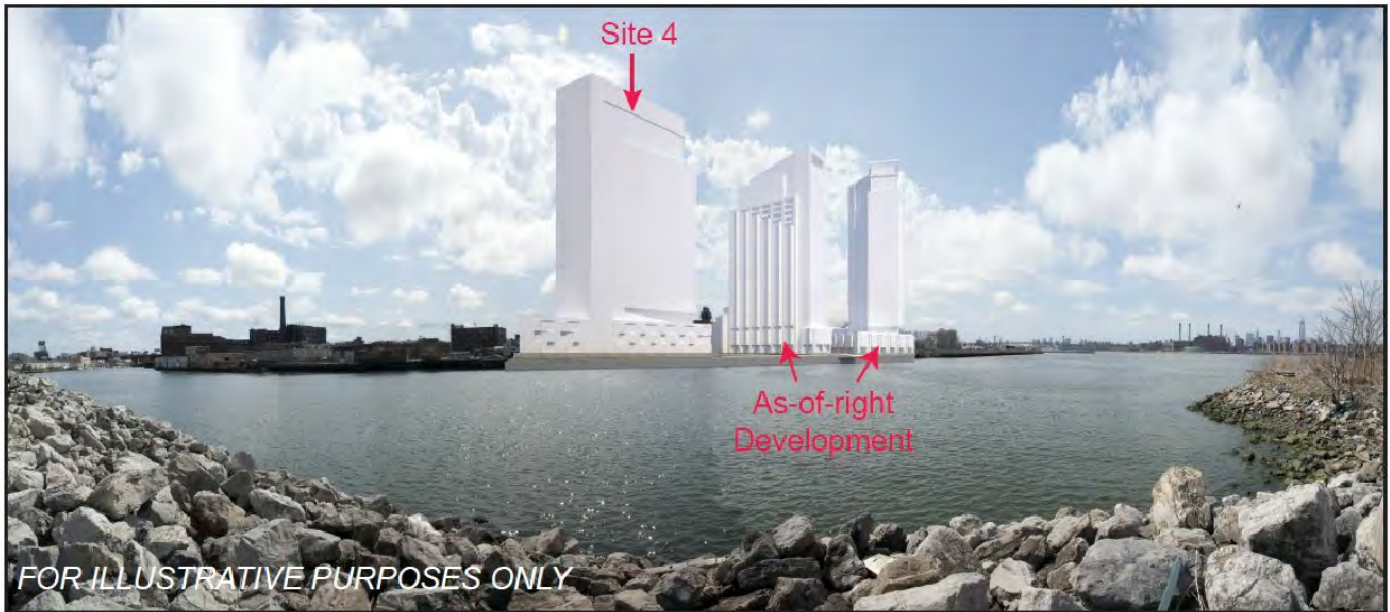


1. No-Action Condition with Greenpoint Landing As-of-Right buildings and No-Action Site 4 development visible across the East River. Apart from the known and anticipated Hunters Point South development, No-Action development located outside of the Greenpoint Landing development site is not shown.

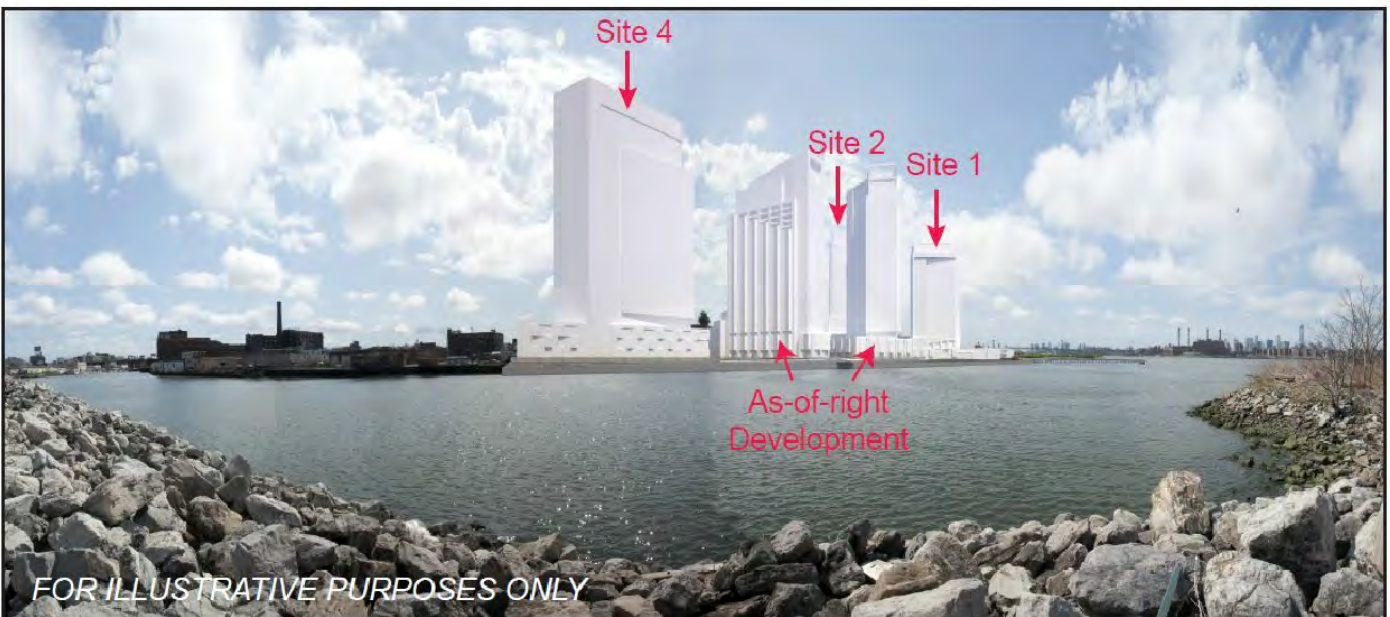


2. With-Action Condition with Greenpoint Landing As-of-Right development sites, Projected Development Sites 1, 2, 4, and 5 visible across the East River. Apart from Hunters Point South, other future known and anticipated developments in the surrounding area are not shown.

Comparison of No-Action and With-Action Condition: View from Hunters Point South



1. No-Action Condition - Greenpoint Landing As-of-Right Development and Site 4 No-Action development. No-Action developments outside of the Greenpoint Landing Development Site are not shown.



2. With-Action Condition - Sites 1, 2 and 4 and As-of-Right Development. Known and anticipated development outside of the Greenpoint Landing Development Site are not shown.



**Greenpoint Landing Disposition EAS**

**Figure G-18**  
**Illustrative Rendering of Site 4a**



**Greenpoint Landing Disposition EAS**

**Figure G-19**  
**Illustrative Rendering of Site 3**



and structures with new and more active uses. Although waterfront development facilitated by the rezoning was expected to preclude skyward views at certain vantage points, the *FEIS* concluded that the development of controls of waterfront zoning (including the Brooklyn WAP) and the zoning text changes would provide new and unencumbered public views and vantage points for pedestrians, where closed streets and lots along the waterfront did not allow access at the time.

With the exception of the proposed public school and the requested waterfront zoning authorizations, the proposed action under this EAS would fully comply with the zoning requirements assessed in the 2005 *FEIS*'s urban design analysis.

## **E. EXISTING CONDITIONS**

### **PRIMARY STUDY AREA**

#### **Urban Design**

The urban design primary study area comprises the large southeastern portion of an irregularly shaped waterfront block. While gated driveways provide vehicular access from Commercial Street, no public streets are located within the primary study area. As such, the primary study area interrupts the regular street grid which characterizes the Greenpoint neighborhood; adjacent West and Commercial Streets are currently severed by the primary study area block, preventing both pedestrian and vehicular through-traffic. A designated Class 2 bike lane runs along Eagle Street.

The sidewalks lining the primary study area are rather barren with minimal street trees and streetscape elements. The most defining streetscape element is the large chain link and metal fencing that surrounds the majority of the primary study area. A number of street trees are located along the south side of DuPont Street, however the poor state of the adjacent sidewalk makes this side of the street unusable for pedestrian circulation (see Figure G-2). Standard "cobrahead" lampposts line portions of Eagle, Commercial, and DuPont Streets. The only well-maintained sidewalks in the primary study area lie adjacent to the buildings lining the northwest corner of Eagle and Franklin Streets.

As shown in Figures G-3 and G-4, most of the primary study area is vacant with just five buildings occupying portions of the block bounded by DuPont, Eagle, and Franklin Streets. Two one-story buildings are located on the corner of DuPont and Franklin Street and are currently occupied by an auto repair shop. As evident in Figure G-2, the buildings have no distinguishing features; the northernmost building is a mobile structure. Directly south of the intersection of DuPont and Commercial Streets is the East River Sludge Storage Tank owned by the New York City Department of Environmental Protection (DEP). A three-story residential structure and associated one-story residential building occupy the southeastern portion of the primary study area. These buildings (which are not located on a Projected Development Site) are more consistent with adjacent buildings found throughout Greenpoint (see Figure G-2).

One open space resource, the Newtown Barge Playground, occupies a portion of the primary study area. As described in Attachment E, “Open Space,” the 0.98-acre park is predominantly paved with basketball and handball courts and a softball field. This open space resource does not reach the waterfront and is surrounded by tall chain link fencing.

### **View Corridors and Visual Resources**

As shown in Figure G-5, visible from the primary study area are a number of visual resources, including the East River and the Manhattan, Brooklyn, and Queens skylines. Important buildings that can be seen include the Empire State Building, the Chrysler Building, the Citicorp Building, the United Nations Headquarters, and One World Trade Center. The Williamsburg and Queensboro Bridges are also visible from the primary study area. However, chain link fencing along the waterfront boundary of the publicly-accessible portions of the primary study area obstruct these views in existing conditions. As such, no publicly-accessible unobstructed views of these visual resources are currently available. Newtown Barge Playground, an open space visual resource, is also located within the bounds of the primary study area and is visible from adjacent Commercial and DuPont Streets.

It should also be noted that four Brooklyn WAP-designated visual corridors fall within the primary study area (refer to Attachment C, “Land Use, Zoning, and Public Policy”). These designated visual corridors correspond to the westerly prolongations of DuPont and Eagle Streets, the northerly prolongation of West Street, and a northwesterly visual corridor with a “flexible location zone” within WAP Parcel 5a. Views from these designated future corridors provide vistas of the East River, the Manhattan and Queens skylines, and the Queensboro Bridge.

### **SECONDARY STUDY AREA**

As discussed above, the secondary study area has been defined as the surrounding area within approximately half mile of the Project Site. Street pattern and streetscape, buildings, and natural features and open space are discussed separately and in more detail for three subareas: the Central Greenpoint subarea, which occupies the area generally bounded by West, Commercial, Oak and Calyer Streets and McGuinness Boulevard; the Waterfront subarea, which is comprised of the blocks immediately adjacent to the East River and Newtown Creek; and the Northeast Greenpoint subarea, which is generally bounded by McGuinness Boulevard, Greenpoint and Paidge Avenues, and Provost Street.

### **Urban Design**

#### ***Central Greenpoint***

##### *Street Pattern and Streetscape*

As evident in Figure G-1, the Central Greenpoint subarea is generally laid out with wider avenues running roughly parallel to the curve of the East River shoreline (north-south) and narrower streets running east-west, which, combined, create mostly regular rectangular-shaped

blocks. Within this grid pattern, blocks are oriented east-west, with the longest east-west span (855 feet) between Franklin Street and Manhattan Avenue; north-south block spans are generally 200 feet throughout the Central Greenpoint subarea. At the southeastern boundary of the subarea (below Greenpoint Avenue) the grid is reoriented in the north-south direction, forming trapezoidal blocks that taper to the east. The general grid pattern is also truncated to the north by Commercial Street to form triangular blocks.

Four major arterials traverse the Central Greenpoint subarea. Franklin Street and Manhattan and Greenpoint Avenues cater to two-way local traffic and are also designated as local truck routes. McGuinness Boulevard, which borders the eastern edge of the subarea, is the largest road located within the study area. This arterial serves two lanes of traffic in each direction, separated by a central median. North of Freeman Street McGuinness Boulevard rises above grade as it connects to the Pulaski Bridge, creating a physical barrier between the blocks located to the east and west of the thoroughfare. Pedestrian access to the Pulaski Bridge is provided along the western side, either via the above-mentioned ramp or stairs that descend just south of the intersection of McGuinness Boulevard and Ash Street.

Street trees generally line the east-west residential streets, with few street trees distributed along Greenpoint and Manhattan Avenues. Street trees along the predominantly residential east-west streets are generally found curbside and are often accompanied by shrubs and smaller vegetation planted by residents within or at their property lines (see Figure G-6). A few New York City Transit (NYCT) bus shelters are found along Manhattan Avenue, along with decorative trash receptacles. “Bishop’s crook” lampposts are also found along Manhattan Avenue, commemorating the Greenpoint Historic District, while standard streetlights serve the rest of the area.

### *Buildings*

With the exception of a few new residential and mixed-use buildings within the Central Greenpoint subarea, the built form remains similar to the description provided in the 2005 *Greenpoint-Williamsburg Rezoning FEIS*. Residential buildings in the Central Greenpoint subarea are arranged linearly along block fronts, creating continuous rows of three- and four-story buildings along the east-west streets. As shown in Figure G-6, residences in this area often feature small front setbacks for stoops, steps to below-grade levels, or small planting areas, rear setbacks for yards, and often brightly-colored façades. Exceptions to this trend are a few remaining low coverage, single-story structures and vacant lots as well as some residential infill development completed since the rezoning. Recent residential construction, while more modern in design, is consistent for the most part with the older construction of the neighborhood, due both to its similar lot coverage and continuance of the street wall.

Continuous street-level retail is found along the entirety of Manhattan Avenue as well as along portions of Greenpoint Avenue and Franklin Street. Buildings along these corridors range from two to four stories and are host to locally-owned retail shops. Structures are built to the lot line and are uninterrupted apart from the occasional vacant lot, rare along these commercial corridors. Commercial uses along McGuinness Boulevard are more varied, with several single-story gas stations set back from the street.

The blocks bordered by Franklin and West Streets visibly exemplify the transition from industrial/manufacturing to mixed-use and residential apartments and low-rise loft buildings eastward to Franklin Street. Industrial/manufacturing and mixed-use buildings on these blocks have varied lot coverage but create a nearly continuous street wall of up to six stories along the east side of West Street. Five- to six-story industrial loft buildings present along Greenpoint Avenue between West and Franklin Streets are generally occupied by commercial and light industrial uses with some residential uses. South of Greenpoint Avenue, a combination of taller loft buildings and low-rise, high-coverage industrial buildings line the blocks between West and Franklin Streets, with two- to four-story residential buildings along portions of Franklin Street. Several recent residential constructions and conversions are also located in this transition area, including the six-story residential building located at 108 West Street (between Kent and Java Streets) which is shown in Figure G-6.

### *Natural Features and Open Space*

Throughout most of the Central Greenpoint subarea, the topography is relatively flat; streets throughout the subarea slope gently down from the intersection of Manhattan and Greenpoint Avenues toward the waterfront.

As discussed in further detail in Attachment E, “Open Space,” two open space resources are located within the Central Greenpoint subarea. Greenpoint Playground is immediately adjacent to the Project Site and American Playground is located along the west side of Franklin Street between Noble and Milton Streets. No additional significant natural features are located within the Central Greenpoint subarea.

Apart from these open space resources, there are few accessible open lots in the Central Greenpoint subarea. Along the western edge of McGuinness Boulevard between Freeman and Green Streets, a small vacant lot is used as parking for an adjacent restaurant. On Java Street between Franklin and West Streets is a small community garden (the Java Street Garden Collaborative). All other vacant lots are surrounded by plywood, preventing both visual and physical access to these sites (see Figure G-6).

### *Waterfront*

#### *Street Pattern and Streetscape*

The waterfront features a rectilinear street pattern, where the block forms maintain a rectilinear edge along West Street while the East River variegates their western boundaries (refer to Figure G-1). West Street runs generally parallel to the waterfront edge and perpendicular to the east-west streets, which are mapped as extending from West Street to the waterfront. Few of the east-west streets in this region reach the water’s edge as built publicly-accessible streets. As shown in Figure G-7, those streets that physically reach the waterfront typically meet dead ends fenced off at the bulkhead line and are sometimes blocked by buildings or run through industrial lots gated from public access. Two exceptions to this trend are Greenpoint Avenue and India Street, which culminate at the entrance to WNYC Transmitter Park and a waterfront pier, respectively.

With few exceptions, the general streetscape of the waterfront area is austere, featuring few attractive features. The waterfront lots currently create a continuous barrier between the upland neighborhoods and the water's edge. Vacant lots that punctuate the industrial waterfront are often overrun by wild grasses and trash, providing makeshift open spaces and informal vantage points for waterfront views. Additional greenery is sporadically encountered on public sidewalks, and street lighting is provided by standard cobrahead lampposts, commonly found throughout the City. Sidewalks and streets near the waterfront parcels are in varying states of repair and often littered with trash (refer to Figure G-7). Worn paving along West Street also reveals the underlying Belgian block paving; Belgian block paving lines the entirety of Java Street as well. Business names are found painted on the façades of older industrial structures, though these businesses are usually not present; newer, active establishments tend to have physical signage attached to their façade.

Two exceptions to this streetscape typology occur along Greenpoint Avenue and India Street. The pedestrian environment along Greenpoint Avenue is enhanced by the presence of WNYC Transmitter Park at its western terminus, shown in Figure G-7. In addition, the shops lining the north side of the street serve to reactivate the street and stand in marked contrast with the large industrial building directly opposite on the south side of Greenpoint Avenue. With a pier located at the end of India Street, the streetscape along this street segment slightly differs from the rest of the Waterfront subarea as well; bollards line the north side of the street, providing a separated pedestrian path to the pier. "Welcome to Greenpoint" murals line the walkway and add character to this street segment (see Figure G-7).

### *Buildings*

As shown in Figure G-3, the majority of the buildings in the Waterfront subarea have floor area ratios (FARs) of less than 1.5. Exceptions to this pattern (along the north side of Greenpoint Avenue, as well as the Greenpoint Manufacturing and Design Center at the intersection of Manhattan Avenue and Commercial Streets) generally consist of buildings built before the establishment of the New York City Zoning Resolution in 1916. The waterfront lots vary with regard to building arrangement and lot coverage. Lots that contain equipment, containers, vehicles, and other materials tend to have small accessory buildings; older loft buildings tend to be taller with high lot coverage, and warehouses tend to be one to two stories in height with moderate lot coverage. In general however, buildings in the Waterfront subarea are built to the street wall with minimal façade elaboration.

East of the Project Site, between Manhattan Avenue and McGuinness Boulevard, several industrial loft buildings, two to six stories in height with high lot coverage, extend along the Newtown Creek waterfront. To the south of the Project Site, the majority of the industrial buildings have high lot coverage and range from one to three stories in height. The remaining buildings of the Greenpoint Terminal Market site, located between Oak Street and Greenpoint Avenue, include a five-story building that breaks the continuity of lower structures along the waterfront. A 2006 fire destroyed several buildings on the site as well as the pedestrian bridges which once crossed above West Street. The resultant vacant lots currently serve primarily as vehicle and shipping container storage.

The one exception to this bulk and use typology of the Waterfront subarea is a cluster of seven three-story attached residential buildings of brick and mortar construction along the north side of Greenpoint Avenue. These buildings are occupied by residential uses with ground floor retail, creating a pedestrian-scale urban environment adjacent to the neighboring WNYC Transmitter Park.

Apart from this small stretch of buildings, no other residential construction has been completed in the Waterfront subarea since the 2005 Greenpoint-Williamsburg rezoning. As such, the built form of the Waterfront subarea remains largely unchanged.

### *Natural Features and Open Space*

Within the Waterfront subarea, the topography is relatively flat, with streets sloping gently towards the East River and Newtown Creek from the inland area. In addition to these two prominent natural features, several open space resources are located within the Waterfront subarea: WNYC Transmitter Park (located on the East River waterfront at the western terminus of Greenpoint Avenue), the Manhattan Avenue Road End Park (located at the northern terminus of Manhattan Avenue), and the Java Street End Park (located at the western terminus of Java Street). These open space resources are described in greater detail in Attachment E, "Open Space."

### *Northeast Greenpoint*

#### *Street Pattern and Streetscape*

As shown in Figure G-1, the streets of the Northeast Greenpoint subarea continue the block pattern of the Central Greenpoint subarea, with mostly regular rectangular-shaped blocks measuring approximately 200 feet by 550 feet. This block pattern is truncated to the north by Paidge Avenue forming triangular and trapezoidal blocks north of DuPont Street. East of Provost Street, the Newtown Creek Wastewater Treatment Facility exists on a superblock spanning from McGuinness Boulevard to North Henry Street.

Two major arterials form the boundaries of the subarea. McGuinness Boulevard lies on the western edge of the subarea, physically dividing the Northeast Greenpoint and Central Greenpoint subareas. McGuinness Boulevard connects to the Pulaski Bridge, connecting to Queens; no pedestrian access points are located on the east side of the bridge. Greenpoint Avenue defines the southern boundary of the subarea and provides a connection to Queens to the east via the J.J. Byrne Memorial Bridge (located outside of the secondary study area). The remaining streets in the subarea are significantly smaller and less used.

Few streetscaping elements are found in this area, augmenting its bare, industrial character, and sidewalks are often occupied with loading and unloading activities of industrial businesses. Around the Newtown Creek Wastewater Treatment Facility, however, street trees are found, creating visual barriers between the industrial uses inside and the public streetscape (refer to Figure G-8). Underneath the McGuinness Boulevard/Pulaski Bridge approach, litter is scattered

along sidewalks that are in generally poor condition. Curb cuts and bollards are commonly visible at large industrial frontages and leading into lots for vehicles and equipment.

### *Buildings*

The Northeast Greenpoint subarea is dominated by industrial and manufacturing activity. The Newtown Creek Wastewater Treatment Facility, immediately adjacent to the eastern boundary of the study area, is the most prominent industrial tenant of the area, occupying the superblock bordered by Provost and North Henry Streets, Greenpoint Avenue, and Newtown Creek. With the exception of some residential and commercial uses along the east side of McGuinness Boulevard, this area is host to industrial buildings and warehouses of low height and high lot coverage, interspersed with smaller loft buildings, vacant lots, and parking lots (refer to Figure G-8). In recent years, although little changes have been made to the exterior of the structures, several of the former industrial buildings in the subarea have been used as film studios.

### *Natural Features and Open Space*

The Northeast Greenpoint subarea is relatively flat with no significant natural features. As described in Attachment E, “Open Space,” the only open space resources in the subarea is the Newtown Creek Nature Walk, which is accessible via Provost Street near the subarea’s northeast boundary. In addition, as shown in Figure G-8, there are several vacant/open lots in the subarea, most of which are used for parking and vehicle storage. Combined, these vacant/open lots add to the uninviting desolate pedestrian environment of the Northeast Greenpoint subarea.

### **View Corridors and Visual Resources**

As shown in Figure G-9, there are a number of visual resources in the study area, including the landmark Astral Apartments, the Eberhard Faber Pencil Company and Greenpoint Historic Districts, the East River and Manhattan skyline, as well as the public parks described above.

The Astral Apartments (shown in Figure G-10), located on the east side of Franklin Street between India and Java Street, approximately 1,200 feet from the Project Site, is an LPC-designated and S/NR-registered historic landmark. The structure, erected by Charles Pratt in 1885-1886 is a significant example of “model tenement” design. The building was designed in the Queen Anne style, with patterned brickwork, rock-face brownstone arches and lintels, and structural steel storefronts with rivets serving as decoration. This architecturally distinguished building adds visual interest to the streetscape. However, due to the surrounding fully developed lots, the structure is only visible from the immediately surrounding streets.

The Eberhard Faber Pencil Company Historic District (designated by LPC in 2007) comprises the majority of the block bounded by Greenpoint Avenue and West, Kent, and Franklin Streets, as well as the adjacent property located at 59-63 Kent Street (refer to Figure G-10), approximately 1,400 feet from the Project Site. The district comprises eight buildings which served as the location of the Eberhard Faber Pencil Company from 1872 to 1956. Most of the buildings in the district date from the mid-1880s to the 1910s and display elements of the German Renaissance Revival style, such as segmental lintels, carefully detailed brickwork, and corbels, as well as pedimented parapets that display Faber’s star and diamond motif. The

complex's signature building (constructed in 1923-1924) is the largest structure at six stories tall, and is embellished with glazed star and pencil terra cotta reliefs advertising the company's main product.

The Greenpoint Historic District is generally bounded by Kent Street to the north, Manhattan Avenue to the east, Calyer Street to the south, and Franklin Street to the west. Houses within the district range from early examples of flats to modest frame dwellings to impressive masonry houses. Construction in Greenpoint boomed in the 1860s and early 1870s, and it was during these decades that some of the district's finest houses were erected. Among them are a large number of Italianate brick row houses; the houses at 128-132 Noble Street and 114-124 Kent Street, dating from 1867-1868 are particularly notable. Also within the district are some of the most impressive ecclesiastical buildings in northern Brooklyn. The most prominent church is Saint Anthony of Padua Roman Catholic Church (1875) on Manhattan Avenue (refer to Figure G-10), the steeple of which is visible through much of the study area and is a defining feature of the Greenpoint skyline.

The East River is primarily visible from WNYC Transmitter Park, the waterfront pier at the western end of India Street, and the Java Street End Park. Additional views of this visual resource are available from the western terminus of some of the east-west streets in the secondary study area. Views across the river are wide and expansive and include the Manhattan, Brooklyn, and Queens skylines. The Williamsburg and Queensboro Bridges are also visible from some vantage points and completely obstructed from many public street locations.

Important buildings that can be seen from the waterfront and in views west along the east-west streets include the Empire State Building, the Chrysler Building, the Citicorp Building, the United Nations Headquarters, and those that make up the Lower Manhattan skyline. These buildings are also visible from Commercial Street in views west across the Project Site (see Figure G-10). From locations farther from the waterfront, such as along Franklin Street and Manhattan Avenue, these resources are only faintly visible in the distance.

As described above and in further detail in Chapter E, "Open Space," several open space resources are located within the urban design secondary study area. Greenpoint Playground, American Playground, and the Java Street Garden Collaborative are in the Central Greenpoint subarea; WNYC Transmitter Park, Manhattan Avenue Road End Park, the India Street Pier, and the Java Street End Park are in the Waterfront subarea; and the Newtown Creek Nature Walk begins at the northeast terminus of the Northeast Greenpoint subarea.

## **F. THE FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION)**

### **PRIMARY STUDY AREA**

As described in Attachment A, "Project Description," in the 2020 No-Action condition, it is expected that GLA will construct two new buildings on Projected Development Sites 3 and 4, with a total of approximately 750,052 gsf of building space and approximately 19,290 sf of publicly-accessible open space. Both of these buildings will fully comply with existing zoning



regulations. In addition, GLA will proceed with as-of-right development on other sites in the Greenpoint Landing development area. One or more new buildings are expected to be developed at 37 Commercial Street by 2020 with a mix of residential and retail uses as well as approximately 35,336 sf (0.81 acres) of publicly-accessible open space (these are referred to as the as-of-right parcels). Projected Development Sites 1, 2, and 5 will remain undeveloped and the East River Sludge Tank currently occupying Projected Development Site 2 would be removed in the No-Action condition (see Attachment A, “Project Description”). It is also anticipated that in the 2020 No-Action Condition, the City will create an additional 1.29 acres of public open space on the City-owned parcel (Block 2472, part of Lot 32) as an expansion of the existing Newtown Barge Playground.

## **Urban Design**

### ***Street Pattern and Streetscape***

In the No-Action condition, two culs-de-sac will provide vehicular access from Commercial Street, separating portions of 37 Commercial Street as well as the No-Action building planned on Projected Development Site 4b. West and Commercial Streets will remain unconnected in the No-Action condition, preventing both pedestrian and vehicular through-traffic.

Further, new sidewalks, street trees and additional pedestrian amenities, including pedestrian crossings, benches, and planted medians, will serve to improve the pedestrian realm. Ground floor retail spaces along West and Commercial Streets and along the new waterfront connections are expected to increase pedestrian activity in the primary study area, and draw people to the waterfront. However, absent the development of Projected Development Sites 1, 2, and 5 these vacant lots will remain voids in the street wall, detracting from the unity of design in the No-Action condition.

### ***Buildings***

In the 2020 No-Action condition, it is expected that GLA will construct a total of four new buildings in the Greenpoint Landing development area (refer to Figure G-11). The new buildings are designed to meet the neighboring context at West and Commercial Streets while stepping up to towers on the waterfront. New buildings will be built to the street wall up to a height of approximately 5 to 6 stories, with tiered towers set back from the street wall that will reach their maximum height (ranging from 19 to 40 stories) along the waterfront. The building on the inland parcel (Projected Development Site 3) would be slightly smaller in scale, with a maximum height of 300 feet. The structure will be similar to the waterfront buildings in materials, and will serve as a visual link to the waterfront structures.

The buildings will be modern in design and clad in glass with greenroofs above both the towers and bases of the structures. Fenestration along the building bases will be regular in arrangement, reminiscent of Greenpoint’s industrial past and consistent with the surrounding buildings. The tower forms will be more varied, incorporating curved elements and angles that will serve to break up and add visual interest to the Greenpoint skyline.<sup>2</sup>

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<sup>2</sup> Information on building facades is provided for illustrative purposes only.

Building uses will incorporate a mix of residential and commercial, with residential uses occupying the upper stories, and ground floor retail along the buildings' bases. The ground floor retail uses are intended to allow for additional transparency at the street level, activating the public realm and drawing people to the waterfront.

### *Wind Conditions*

Given the large scale of the buildings that will be constructed in the 2020 No-Action condition and the primary study area's waterfront location, it is expected that elevated wind conditions will occur. These conditions will be similar to those at comparable waterfront locations in the City. In addition, the Greenpoint Landing open space plan will balance the potential for elevated pedestrian wind conditions with urban design considerations, including the goals of maintaining view corridors, maximizing views to the East River/Newtown Creek and East River waterfront, maintaining pedestrian circulation and access, and not impeding or blocking circulation and access for emergency vehicles.

### *Natural Features and Open Space*

As described above, in the No-Action condition GLA will develop approximately 1.25 acres (54,626 sf) of publicly-accessible open space (19,290 sf on the Projected Development Sites and 35,336 sf on the as-of-right parcels). New open space will be located primarily on the waterfront, as well as in the form of upland connection which will allow pedestrians to access and experience sections of the currently closed-off waterfront (see Figure G-11).

In addition, in the 2020 future with or without the proposed action, the City will create an additional 1.29 acres of public open space. This additional open space will serve as an extension of the existing Newtown Barge Playground, more than doubling the size of this open space resource.

As previously stated, in the 2020 No-Action condition, Projected Development Sites 1, 2, and 5 will remain undeveloped. As such, these vacant lots are expected to continue to be used as open parking lots and car repair shops, closed off from public visual and physical access by the presence of large fencing along their perimeters. In addition, the East River Sludge Tank located in Projected Development Site 2 will be removed; no additional development will occur on this site in the No-Action condition.

### **View Corridors and Visual Resources**

While development in the primary study area in the 2020 No-Action condition will block some views of visual resources in the study area, including the East River and the Manhattan skyline, it will also create new and expansive views of these resources from various public vantage points. The new public open space will create new viewing opportunities for these two resources which are currently not available due to the presence of fencing and other visual barriers along the edge of the primary study area. However, absent the connection of West and Commercial Streets (the

West Street Expansion) in the No-Action condition, the northerly Brooklyn WAP-designated visual corridors will not be established by 2020.

In addition, in the No-Action condition the primary study area development will introduce new open space visual resources. As described above, GLA and the City will create approximately 1.25 acres and 1.29 acres of publicly-accessible open space within the primary study area, respectively. The City's planned expansion of the Newtown Barge Playground will enhance this existing resource and connect it to the new open space that will be developed by GLA in the 2020 No-Action condition.

## **SECONDARY STUDY AREA**

Table C-5 in Attachment C, "Land Use, Zoning, and Public Policy," identified the developments that are projected to occur in the secondary study area in the 2020 No-Action condition. As outlined in the table, there are eleven anticipated No-Action developments involving new construction or changes in use to existing structures. These projects will be primarily residential and mixed-use residential/commercial buildings constructed on large parcel assemblages. Many of the projects will infill underdeveloped sites or replace manufacturing uses with taller construction built to the lot line. In addition, several open space and streetscape improvements are anticipated in the secondary study area.

### **Urban Design**

#### ***Central Greenpoint***

##### *Street Pattern and Streetscape*

While no changes to street pattern are expected in the Central Greenpoint subarea by 2020, streetscape improvements associated with anticipated developments will occur. As required under the New York City Zoning Resolution's Street Trees text amendment (adopted in 2008), all new buildings and all enlargements exceeding 20 percent of the floor area must plant one new tree for every 25 feet of building road frontage. As such, it is anticipated that new trees will be planted in the Central Greenpoint subarea, thereby enhancing the pedestrian realm. In addition, the renovation of currently vacant or underutilized buildings and lots will further enliven the streetscape.

##### *Buildings*

Planned No-Action developments in the Central Greenpoint subarea are predominantly medium-density projects consistent with the surrounding built environment and the area's contextual zoning designation.

Two major No-Action projects are planned for larger lots and site assemblages in the Central Greenpoint subarea. To the south east of the Project Site at 1133 Manhattan Avenue, a seven-story residential building with ground floor retail is under development on the site of a former industrial building. The building's brick construction will be reminiscent of the nearby

Greenpoint Manufacturing and Design Center, an industrial loft building located one block to the north, and will be built to the lot line, maintaining the uninterrupted street wall typical along Manhattan Avenue. Farther southeast of the Project Site, another large mixed-use building is planned at the southwest corner of McGuinness Boulevard and Greenpoint Avenue (209-231 McGuinness Boulevard). The eight-story building will be built to the lot line with ground floor retail along McGuinness Boulevard.

In addition to these larger projects, three known smaller infill development and conversion projects are known and anticipated: new residential construction at 186 Greenpoint Avenue, and residential and office conversions of the landmarked 74 and 58 Kent Street, respectively. These three new projects will be in keeping with surrounding building uses, bulk, and types.

### *Natural Features and Open Space*

No changes to the Central Greenpoint subarea's natural features and open space are anticipated in the 2020 No-Action condition.

### ***Waterfront***

#### *Street Pattern and Streetscape*

As mentioned in Attachment E, "Open Space," as part of the Greenpoint Waterfront Greenway Project, substantial improvements to the West Street streetscape will be completed in the 2020 No-Action condition. As shown in Figure G-11, the plan calls for creating a two-way protected bike lane, resurfacing the roadway, widening portions of the sidewalk, adding street trees and curbside plantings, and converting the street from a two-way to a one-way northbound street.

In addition, new developments planned for the subarea will introduce additional streetscape improvements including street trees, as required under the New York City Zoning Resolution's Street Trees text amendment. The introduction of ground floor retail will also serve to enliven the public realm.

#### *Buildings*

As described in Attachment C, "Land Use, Zoning, and Public Policy," five residential developments will be constructed in the Waterfront subarea in the 2020 No-Action condition; two of these developments are expected to include ground floor retail.

Directly northeast of the Project Site, at 77 Commercial Street, a 710-unit mixed-use residential/commercial building is expected to be completed by 2016. Similar to anticipated No-Action primary study area construction, the base of this building will be built to the lot line, with towers of up to 40 stories stepping up from the inland area to the waterfront.

To the south of the Project Site, two large residential towers are planned at 155 and 131 West Street. The building planned for 155 West Street will be located on the entire waterfront block fronting West Street between India and Huron Streets. As shown in Figure G-11, the building

will meet the scale of the Central Greenpoint subarea on the eastern side, with two 65-foot tall mid-rise buildings with ground floor retail. A 393-foot tall residential tower will occupy the waterfront portion of the block. Similarly, on the block directly south of India Street, two 40-story residential towers are planned along the waterfront, with more contextual mid-rise buildings along the West Street frontage.

In addition to these larger anticipated development projects, two smaller residential projects are planned at 105 West Street and 13 Greenpoint Avenue. These residential projects are expected to include 36 and 50 residential units, respectively.

#### *Natural Features and Open Space*

Several new open space resources associated with planned development are expected to be complete by the 2020 No-Action condition. As described in Attachment E, "Open Space," directly northeast of the Project Site at 65 Commercial Street, an approximately 2.81-acre park will be developed by the Department of Parks and Recreation and will include a play area, outdoor theater, seating, and plantings. In addition, waterfront esplanades are planned adjacent to the 77 Commercial Street and 155 and 131 West Street developments. The 155 West Street project is expected to include an approximately 21,925 sf public park with a play area, lawn, seating and plantings.

#### ***Northeast Greenpoint***

##### *Street Pattern and Streetscape*

Minor improvements to the streetscape will likely occur in the Northeast Greenpoint subarea by 2020. Additional street tree plantings and minor sidewalk repairs are anticipated, as well as improvements to the pedestrian environment along McGuinness Boulevard.

##### *Buildings*

There are no known or anticipated developments in the Northeast Greenpoint subarea that are expected to be completed by 2020.

##### *Natural Features and Open Space*

No changes to Northeast Greenpoint subarea natural features and open space are anticipated in the No-Action condition.

#### **View Corridors and Visual Resources**

Known and anticipated development in the secondary study area by 2020 is expected to obstruct views of the East River and the Manhattan skyline from certain vantage points. However, through the development of new waterfront open space, new view corridors will be established in areas that are currently inaccessible to the public, thereby enhancing the viewing opportunities of these visual resources. In addition, with the completion of 77 Commercial Street development

and the adjacent park at 65 Commercial Street, a Brooklyn WAP-designated visual corridor would be established. Secondary study area development will not alter the existing views of nearby historic resources.

Planned open space in the secondary study area will also serve as new visual resources. These planned amenities will be publicly-accessible, allowing the public to visit and enjoy these secondary study area resources.

## **F. THE FUTURE WITH THE PROPOSED ACTION (WITH-ACTION)**

### **PRIMARY STUDY AREA**

As described in greater detail in Attachment A, “Project Description,” the 2020 With-Action condition would allow for an incremental increase of approximately 787,952 gsf of development. While the as-of-right development at 37 Commercial Street would have a similar density and building envelope in the With-Action condition, the With-Action development of Projected Development Site 3 would result in a net reduction of 216,291 gsf of floor area and the With-Action development of Projected Development Site 4 would include an additional 4,494 gsf of floor area. In addition, construction on Projected Development Sites 1, 2, and 5 as well as the West Street Expansion would be completed by the 2020 With-Action condition. With the exception of the proposed public school on Projected Development Site 5, all of the proposed buildings would fully comply with zoning regulations regarding open space, upland connections, bulk, height, and setbacks. A zoning text amendment to eliminate the setback requirement is being requested for the proposed school building to facilitate its construction to the street wall. Waterfront zoning authorizations would allow modifications to otherwise applicable requirements of the ZR in order to address flooding concerns, newly mandated flood elevation regulations, and to respond to the unique geography of the Project Site.

In addition, as part of the Land Disposition Agreement, a series of urban design guidelines would be established for the proposed Greenpoint Landing buildings. Specifically, these guidelines would only apply to buildings developed with “POA” affordable housing, i.e., Projected Development Sites 3 and 4a, and to buildings developed on land disposed by the City to GLA, i.e., Projected Development Sites 1 and 2. They do not apply to building sites developed as-of-right by GLA on land currently owned by GLA (including Projected Development Site 4b) and they do not apply to the proposed school on Projected Development Site 5. The proposed urban design guidelines would ensure a high quality pedestrian experience and an active streetscape along the proposed building frontages along streets, public parks, and waterfront public access areas. As described in Attachment A, “Project Description,” the proposed design guidelines would include both street level and building base controls. The proposed street level controls would ensure: (1) frequent ground floor residential entries and openings; (2) continuous base expression and increased architectural detail; (3) flood elevation mitigation; and (4) street level transparency. The proposed building base controls would require: (1) modulating the scale of block massings; (2) enhancing the façade segment expression; (3) defining the top of the proposed buildings’ upper bases; and (4) providing visual interest along the building façade abutting the adjacent MTA parcel (65 Commercial Street). Figures G-18 and G-19 show

illustrative renderings of the facades of Projected Development Sites 3 and 4a, respectively. Although illustrative, these were developed in consistency with the urban design guidelines to provide an indication of how these guidelines could be applied.

## **Urban Design**

### ***Street Pattern and Streetscape***

The primary study area's street pattern and streetscape would improve in the With-Action condition. As shown in Figure G-12, with the proposed West Street Expansion, West and Commercial Streets would be connected, allowing uninterrupted pedestrian and vehicular traffic more in keeping with the surrounding Greenpoint street grid. In addition, the streetscape surrounding the Project Site would be enhanced through plantings and sidewalk improvements as well as the reactivation of the pedestrian realm along these corridors through continuous ground floor retail and the urban design guidelines to be set forth in the proposed Land Disposition Agreement.

### ***Buildings***

The proposed action would facilitate the construction of a total of three additional buildings as well as the reconfiguration of the program on Projected Development Sites 3 and 4, compared to the No-Action condition. While the 2020 With-Action program of Projected Development Site 4 would be different than the 2020 No-Action condition, as the building form and overall use would be consistent in the two scenarios, the following discussion focuses on the With-Action development on Projected Development Sites 1, 2, 3, and 5. As required under the proposed Land Disposition Agreement urban design guidelines, all of the buildings would be consistent in materials, while differing in bulk and arrangement to add visual interest.

#### ***Projected Development Site 1***

In the 2020 With-Action condition, an approximately 442,324 gsf residential building with ground floor retail would be constructed on the currently-vacant Projected Development Site 1. Apart from a waterfront zoning authorization for a limited modification to the Waterfront Action Plan, the proposed development on Projected Development Site 1 would fully comply with waterfront zoning regulations regarding open space, upland connections, bulk, height, and setbacks. The building would be slightly lower in height than the as-of-right structures at 37 Commercial Street, with the bulk of the building located along West Street. The building would be built to the street wall, consistent with the surrounding neighborhood, and would step up gradually to a maximum height of 300 feet. By minimizing the building's floor plate, the northern portion of the site would remain open, allowing for additional waterfront open space adjacent to the Newtown Barge Playground Extension.

#### ***Projected Development Site 2***

An approximately 437,425 gsf residential building would be allowed to be constructed on Projected Development Site 2 and would fully comply with zoning regulations regarding bulk,

height, and setbacks as well as the proposed Land Disposition Agreement urban design guidelines. As shown in Figure G-13, the five-story base of the building would be built to the street wall with a tower (reaching 400 feet at its maximum height) set back from the street wall. The tower's floor plate would be curved, following the form of the nearby East River shoreline. The proposed building, due both to its height and central location in the Project Site, would serve as a visual anchor for the adjacent waterfront development.

### *Projected Development Site 3*

Projected Development Site 3 would be developed as a 109,675 gsf mixed-use residential/commercial building in the With-Action condition. The proposed With-Action building would fully comply with existing zoning regulations regarding bulk, height, and setbacks. The approximately 75-foot tall building would be significantly smaller than the proposed building on adjacent Projected Development Site 2. However, through the use of materials consistent with adjacent structures, Projected Development Site 3 would serve as a transition from the existing built environment of Central Greenpoint. In addition, the structure would be built to the lot line, maintaining the street wall of the adjacent existing and With-Action buildings (see Figure G-12).

### *Projected Development Site 5*

In the 2020 With-Action condition, an approximately 120,000 sf school would be constructed on Projected Development Site 5, replacing a lot currently occupied by two small one-story structures currently occupied by an auto repair shop. As shown in Figure G-14, the structure would be built to the lot line with no setbacks, therefore requiring an amendment to existing zoning regulations regarding building height. As stipulated by the School Construction Authority (SCA), construction of the building to the street wall without setbacks is necessary in order to fulfill its intended purpose. While the structure would be taller than adjacent existing structures at 100 feet, such a height is appropriate given the surrounding future built context in the With-Action condition. The structure would serve as a transition from the surrounding existing built context to the significantly taller structure planned for Projected Development Site 2. In addition, given the site's location adjacent to the Greenpoint Playground (refer to Figure G-13), the visual impact of the proposed structure is appropriate as it would be scaled to the open area provided by the playground and would not result in a significant adverse impact.

### *Wind Conditions*

As previously stated, since the proposed action would result in the construction of multiple large buildings close to one another on the Project Site, there is the potential for downwash and channeling effects, and consequent elevated pedestrian-level wind conditions. However, as multiple large building would be constructed on the Project Site in both the No-Action and With-Action conditions, the proposed action would not result in significantly different pedestrian-level wind conditions. In addition, the open space plans for the proposed development sites would balance the potential for elevated pedestrian wind conditions with urban design considerations, including the goals of maintaining view corridors, maximizing views to the East River and East River waterfront, maintaining pedestrian circulation and access, and not impeding or blocking circulation and access for emergency vehicles.



### ***Natural Features and Open Space***

As described in Attachment E, “Open Space,” the proposed action includes the development of an additional incremental increase of 0.65 acres of publicly-accessible open space in the form of waterfront esplanades and upland connections to West and Commercial Streets (see Figure G-15). This incremental increase in open space would connect with and enhance the open space expected to be developed on adjacent parcels in the No-Action condition. While the waterfront zoning authorizations would permit some technical adjustments to grades and other elements (refer to Appendix A), GLA would provide all required esplanades and upland connection and the amount of open space to be provide would exceed the minimum required.

Overall, the proposed action would improve the urban design character of the Project Site. Compared to the No-Action condition, the proposed action would allow for a more unified development with additional publicly-accessible open spaces that would provide a substantial amount of new greenery in the area where few such amenities are present. In the No-Action condition, Projected Development Sites 1, 2, and 5 will remain undeveloped and inaccessible to the public, empty spaces in the surrounding urban fabric. The proposed action is intended to open up the waterfront to the surrounding community by creating new public open spaces and by activating the streetscape with new retail spaces.

### **Visual Resources and View Corridors**

As with the No-Action condition, the proposed action would result in the construction of large-scale structures on currently vacant or underutilized lots. Development facilitated by the proposed action would be constructed so as to establish the view corridors established in the Greenpoint-Williamsburg (BK-1) WAP, opening up new view corridors to the west along DuPont Street, and to the north along West Street (refer to Figures G-12 through G-14). These view corridors are currently obstructed by fencing and would remain obstructed in the No-Action Condition. As such, the proposed action would open up views of visual resources in the surrounding area, including the East River and Newtown Creek, the Manhattan and Queens skylines, and the Queensboro Bridge. The effects of any minor obstructions to visual access to changes in grades that would be allowed by the waterfront zoning authorizations to address newly mandated flood elevations would be minimized by the extensive views to the water provided by adjoining public open spaces offering a range of vistas.

The incremental development on Projected Development Sites 1, 2, and 5 would not obstruct views of the Newtown Barge Playground compared to the No-Action condition, nor would it obstruct views of the planned Newtown Barge Playground Extension. While the With-Action development on Projected Development Sites 1 and 2 would partially obstruct inland views from this open space resource, these views are not unique, and no inland visual resources would be obstructed as a result. In addition, by focusing the building mass of Projected Development Site 1 along West Street, views south towards the Williamsburg Bridge and the Brooklyn skyline would be preserved and enhanced.

As such, the proposed action would not result in a significant adverse impact to visual resources and view corridors within the primary study area.

## **SECONDARY STUDY AREA**

### **Urban Design**

#### ***Street Pattern and Streetscape***

With-Action development on the Projected Development Sites would be consistent with the street pattern and streetscape found throughout the secondary study area. The proposed West Street Expansion would be a marked improvement over the No-Action condition. The proposed West Street Expansion would allow enhanced pedestrian and vehicular circulation within the Waterfront and Central Greenpoint subareas and be consistent with the regular grid pattern characteristic of the surrounding secondary study area. In addition, streetscape improvements and ground-floor retail along the public corridors (required under the proposed Land Disposition Agreement urban design guidelines) would enhance the pedestrian realm, making the surrounding area more active and inviting.

#### ***Buildings***

While differing in bulk and form from many of the buildings found throughout the secondary study area today, the proposed With-Action development would be consistent with planned residential development within the Waterfront subarea and the adjacent Central Greenpoint subarea. In addition, through the planned tiered development and consistent street wall required under the proposed Land Disposition Agreement urban design guidelines, the structures would transition to the East River waterfront, as the urban design analysis of the 2005 *Greenpoint-Williamsburg Rezoning FEIS* similarly concluded.

#### ***Natural Features and Open Space***

Through the revitalization of currently vacant or underutilized and inaccessible lots, development in the With-Action condition would introduce additional waterfront open space. The proposed open space would represent a key component of the continuous waterfront esplanade outlined in the Brooklyn WAP, connecting to the adjacent properties within the Waterfront Subarea.

Overall, the proposed action would result in an improved street pattern and streetscape more consistent with the surrounding secondary study area, the construction of buildings consistent with planned development in the Waterfront subarea, and the continuation of existing and planned open space in the surrounding area. As such, the proposed action would not result in a significant adverse impact to urban design in the secondary study area.

### **Visual Resources and View Corridors**

While the proposed action would result in the construction of buildings that would obstruct certain views of the East River and the Manhattan skyline, With-Action development would facilitate the establishment of the Brooklyn WAP-designated view corridor along West Street.

As a result, uninterrupted northerly views would be established along West Street of the Newtown Barge Playground, Newtown Creek, and the Queens skyline. In addition, the proposed action would create a new waterfront esplanade that would provide new, unobstructed, publicly-accessible views of the East River, the Manhattan, Brooklyn, and Queens skylines, and the Williamsburg and Queensboro Bridges. Therefore, while the proposed action would block some existing views, it would also provide new and expansive views of these resources. As such the proposed action would not have a significant adverse impact on these visual resources as visible from the secondary study area.

As shown in Figure G-16, the proposed buildings would also be visible from Manhattan. At this distance, they would be viewed in the context of other tall, modern residential developments to the south in Greenpoint and Williamsburg and to the north in Queens. At this distance, the proposed buildings would not block any significant visual resources. Further, the proposed action would facilitate the replacement of formerly vacant and underutilized lots with a new uniformly-designed development with a varied skyline, which could also become a focal point of interest.

The Project Site buildings and open spaces would also be visible from Queens, blocking certain views of the East River, Manhattan skyline and Williamsburg Bridge (refer to Figure G-17). However, as-of-right development and the No-Action development of Projected Development Sites 3 and 4 would similarly obstruct these views. As such, the net resultant obstruction of these visual resources as visible from Queens as a result of the proposed action as compared to the No-Action condition would be minimal. Further, the open spaces and greenery on the Project Site would be an attractive visual amenity.

Overall, the proposed action would not have any significant adverse impacts on visual resources in the secondary study area.

**ATTACHMENT H  
TRANSPORTATION**

## **A. INTRODUCTION**

Greenpoint Landing Associates, LLC (“GLA”) is developing Greenpoint Landing, an as-of-right development project on property it owns on the Greenpoint waterfront in Brooklyn Community District 1. In addition to the as-of-right development, GLA and the City are submitting an application for the disposition of 73,389 square feet (sf) of adjoining City-owned property and conveyance of development rights generated by an additional 59,676 sf of City-owned land not being acquired by GLA. These actions are intended to permit the land and development rights of City-owned properties to be incorporated into the Greenpoint Landing project being developed by GLA. This would facilitate the following: (1) development of two new apartment buildings, one entirely on a currently City-owned property and one on a site that at present is partially owned by GLA and partially owned by the City; (2) increase the total development rights available to GLA by approximately 589,481 square feet (sf) of zoning floor area, thereby permitting an increase of 431 affordable housing units and approximately 276 market rate units, for a total of approximately 707 dwelling units (DUs) over what would occur under the 2020 No-Action Scenario conditions; (3) the creation of an approximately 120,000- -square-foot (sf) public elementary/intermediate school with a capacity of approximately 640 seats; (4) an increase of publicly-accessible waterfront open space of approximately 28,353 sf; and (5) an increase of approximately 253 accessory parking spaces. The proposed action would also result in a net increase of 4,900 gsf of local retail space. The Project Site for the proposed action consists of five projected development sites. These include three sites (Projected Development Sites 2, 3, and 5) located on Block 2494 which is bounded by DuPont Street, Franklin Street, Eagle Street, and West Street. There are also two waterfront sites on Block 2472, consisting of one site directly west of Block 2494 (Projected Development Site 1) at the southwest corner of West Street and DuPont Street, and one site located one block northeast of Block 2494 (Projected Development Site 4a/b) located on West Street between Box Street and Clay Street (refer to Figure A-1 in Attachment A, “Project Description.”)

It is expected that by 2020, GLA would complete all of the incremental development generated by the proposed action as well as a portion of the development allowed on an as-of-right basis and, after 2020, the rest of the Greenpoint Landing project would be completed. It should be noted that in conjunction with the Proposed Project, there would be two improvements to the local transportation network. The currently mapped (but unbuilt) northern block of West Street between Eagle Street and DuPont Street would be opened. Also, an additional high entry/exit turnstile would be added to the fare array located at the India Street entrance to the northbound platform of the Greenpoint Avenue subway station to increase the fare array capacity at that location.

## **B. PRINCIPAL CONCLUSIONS**

Based on Level 1 and Level 2 screening analyses specified in the 2012 *CEQR Technical Manual*, a traffic analysis is required for the AM peak hour, while detailed transit and pedestrian analyses

are required for both the AM and PM peak hours. The results of these analyses are summarized below.

### **Traffic**

Weekday AM peak hour traffic conditions were evaluated at a total of five intersections (four signalized and one unsignalized) where project-generated demand would exceed 50 vehicles per hour. The traffic impact analysis indicates that there would be no significant adverse impacts at these analyzed intersections under 2012 *CEQR Technical Manual* criteria.

### **Parking**

The accessory off-street parking capacity required on projected developments sites under zoning would be sufficient to accommodate all project-generated parking demand, and therefore, substantial demand for on-street parking spaces is not anticipated. Consequently, the Proposed Project is not expected to result in significant adverse off-street or on-street parking impacts under 2012 *CEQR Technical Manual* criteria, and a further detailed analysis of parking conditions is not warranted.

### **Transit**

The Proposed Project is expected to add approximately 325 new trips (in and out combined) at the Greenpoint Avenue (G) subway station in the AM peak hour and 345 in the PM peak hour. To help accommodate this increased demand, an additional high entry/exit turnstile controlling access to the northbound platform at India Street would be added to the fare array at this location as part of the Proposed Project. The proposed improvement would provide increased capacity in order to accommodate increased entering demand generated by future developments including the Proposed Project. As discussed in Attachment A, the obligation to provide this proposed improvement would be made part of the transactional documents between GLA and the City and would be fulfilled when MTA NYC Transit advises that the level of construction of the project is such that implementation is required. With this improvement, the Proposed Project is not expected to result in any significant adverse impacts at the Greenpoint Avenue subway station in either the AM or PM commuter peak hours. Additionally, the Brooklyn-Queens Crosstown G subway line is expected to experience fewer than five incremental trips per car in each direction at the maximum load point in each peak hour where the route is projected to exceed guideline capacity as a result of the Proposed Action. Therefore significant adverse impacts to subway line haul conditions are not anticipated based on 2012 *CEQR Technical Manual* criteria.

A total of three bus routes will operate in proximity to projected development sites in the 2020 No-Action condition (the B32, B43 and B62). Total project-generated demand in one direction on any one of these routes is not expected to exceed the 50-trip 2012 *CEQR Technical Manual* analysis threshold in either the weekday AM or PM peak hours. Therefore the Proposed Project is not expected to result in significant adverse impacts to local bus routes in either of these periods.

## **Pedestrians**

Detailed pedestrian impact analyses were conducted at a total of one sidewalk and four corner reservoir areas where project-generated demand is expected to exceed the 200-trip *CEQR Technical Manual* analysis threshold in the weekday AM and/or PM peak hours. All pedestrian elements analyzed were found to operate at level of service B or better in both periods under 2020 With-Action conditions, with no significant adverse impacts.

## **C. GREENPOINT-WILLIAMSBURG REZONING FEIS**

The *Greenpoint-Williamsburg Rezoning FEIS* analyzed the transportation effects of the City's 2005 rezoning proposal, including the Revised AHBI Alternative which reflected the rezoning as adopted. In addition, the Technical Memorandum provided in Appendix J of the *FEIS* assessed the effects that would occur if three sites that were identified as Potential Development Sites in the *FEIS* were instead considered to be projected development sites. The largest of these was Site 3.1 in the *FEIS*, which corresponds to Projected Development Site 1 in this EAS and the City-owned portion of Projected Development 2 in this EAS and also includes the Newtown Barge Playground Expansion Area (refer to Attachment B, "Supplemental Screening," for more information).

### Traffic

The *FEIS* and the Technical Memorandum concluded that there would be significant adverse traffic impacts at 13 intersections in one or more peak hours. None of these 13 impacted intersections are identified as traffic study area intersections in this EAS. With one exception, mitigation measures were identified in the *FEIS* for all of these impacts, consisting of signal timing adjustments, changes to striping, "daylighting" parking regulations, and installation of new traffic signals at unsignalized intersections. One location, the eastbound approach to the intersection of McGuinness Boulevard and Greenpoint Avenue, had a non-mitigable impact in the AM peak hour.

### Parking

The *FEIS* and the Technical Memorandum concluded that there would be no significant adverse impacts on parking.

### Subway

The *FEIS* and Technical Memorandum concluded that there would be one subway stair impact at the Bedford Avenue (L) subway station (located approximately 1.25 miles south of the project site in Williamsburg) in the AM and PM peak hours and a significant adverse line haul impact on Manhattan-bound L subway trains in the AM peak hour. The *FEIS* and the Technical Memorandum determined that a 2-foot stair widening would mitigate the stair impact, and that mitigation of the subway line haul impact would require one additional Manhattan-bound L

subway train per hour during the AM peak hour (increasing the frequency from 18 to 19 trains per hour).

Although the *FEIS* did not identify the potential for significant adverse impacts at the Greenpoint Avenue subway station, it should be noted that *CEQR Technical Manual* methodologies for analyzing subway station conditions have changed since the *FEIS* was issued in 2005. For example, NYCT guideline capacities for fare arrays have been revised, and the analysis now involves separate calculations for entering and exiting flow. A surging factor is also now applied to subway station pedestrian elements based on station layout and the proximity of each element to the platform. As noted above and discussed in more detail later in this attachment, an additional high entry/exit turnstile controlling access to the northbound platform would be added to the fare array at this location as part of the Proposed Project. This increased capacity would be provided in order to accommodate increased entering demand generated by future developments including the Proposed Project. Based on the current 2012 *CEQR Technical Manual* methodologies, with this improvement, the Proposed Project is not expected to result in any significant adverse impacts at the Greenpoint Avenue subway station in either the AM or PM commuter peak hours.

### Bus

The 2005 *FEIS* and the Technical Memorandum concluded that there would be a significant adverse bus impact on one route, the northbound B61 in the PM peak hour. The maximum load point for northbound B61 buses in the PM peak hour was reported to be at the intersection of York Street and Gold Street (located over 2.5 miles south of the Project Site in the Vinegar Hill section of Brooklyn). Mitigation of the bus impact would require one additional northbound B61 bus during the PM peak hour (increasing the frequency from 6 to 7 buses per hour).

### Pedestrians

The *FEIS* and the Technical Memorandum concluded that there would be no significant adverse impacts on pedestrian conditions.

## **D. LEVEL 1 AND LEVEL 2 SCREENING ASSESSMENTS**

The 2012 *CEQR Technical Manual* describes a two-level screening procedure for the preparation of a “preliminary analysis” to determine if quantified operational analyses of transportation conditions are warranted. As discussed below, the preliminary analysis begins with a trip generation (Level 1) analysis to estimate the number of person and vehicle trips attributable to the proposed project. According to the 2012 *CEQR Technical Manual*, if the proposed project is expected to result in fewer than 50 peak hour vehicle trips and fewer than 200 peak hour transit or pedestrian trips, further quantified analyses are not typically warranted. When these thresholds are exceeded, detailed trip assignments (Level 2) are to be performed to estimate the incremental trips that could be incurred at specific transportation elements and to identify potential locations for further analysis. If the trip assignments show that the proposed project would generate 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour



subway trips at a station, 200 or more subway trips in one direction on a single subway line, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a sidewalk, corner area or crosswalk, then further quantified operational analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, parking, and vehicular and pedestrian safety.

A Level 1 trip generation screening assessment was conducted to estimate the number of person and vehicle trips expected to be generated by the Proposed Project during the weekday AM, midday, and PM and Saturday midday peak hours. The estimates were then compared to the 2012 *CEQR Technical Manual* analysis thresholds to determine if a Level 2 screening and/or quantified operational analyses may be warranted. The travel demand assumptions used for the assessment are discussed below and a detailed travel demand forecast is provided.

### Transportation Planning Factors

Table H-1 shows the transportation planning factors used to forecast the travel demand generated by the Proposed Project in the weekday AM, midday, PM and Saturday midday peak hours. These include trip generation rates, temporal and directional distributions, mode choice factors, and vehicle occupancies for the proposed 707 DUs, 4,900 sf of local retail and the 640-seat public elementary/intermediate school. The residential factors are based on data from the 2012 *CEQR Technical Manual*, US Census Bureau's American Community Survey 5-year (2007-2011) data for the census tract containing the Project Site and adjoining census tracts (for mode split and auto occupancy rates), and the *Greenpoint-Williamsburg Rezoning FEIS* (2005). The local retail assumptions are based on data from the 2012 *CEQR Technical Manual* and the *Retail Industrial Text Amendment FEIS*. The public elementary/intermediate school assumptions are based on survey data collected at PS 35 and PS 163 in Queens (November 2012) and survey data from the *Brownsville Ascend Charter School Transportation Assessment* (2011). The forecasts conservatively assume a 95 percent daily student attendance rate.

While travel demand from residential and retail uses typically peaks during the four peak periods discussed above, overlapping demand from the school uses would only occur in the AM peak hour, with little or no demand during the other peak periods.

Table H-2 shows the resulting travel demand forecast for the Proposed Project. As shown in Table H-2:

- Project-generated vehicle trips would total approximately 182 vehicles per hour (vph), 50 vph, 92 vph and 71 vph in the weekday AM, midday, PM and Saturday midday peak hours, respectively. These totals therefore meet or exceed the 50 vph threshold for a Level 1 screening analysis in all peak hours.
- Project-generated subway trips would total 425 and 429 during the weekday AM and PM peak hours. (Transit analyses typically focus on the weekday AM and PM commuter peak hours as it is during these periods that overall demand on the subway and bus systems is usually greatest.) Project-generated subway demand would therefore exceed the 200-trip threshold for a Level 1 screening analysis during these periods.

Table H-1, Travel Demand Forecast Assumptions

Land Use:	<u>Residential</u>		<u>Local Retail</u>		<u>PS/IS School (Student)</u> (6)		<u>PS/IS School (Staff)</u>		<u>PS/IS School (Parent)</u> (9,10)	
<b>Size/Units:</b>	707	DU	4,900	gsf	608	Student	53	Staff	99	Parent
<b>Trip Generation:</b>	( 1)		( 1)		(5)		(5)		(10)	
Weekday	8.075		205		2		2		4	
Saturday	9.6		240		0		0		0	
	per DU		per 1,000 sf		per Student		per Staff		per Student	
<b>Temporal Distribution:</b>	( 1)		( 1)		(7)		(5)		(7)	
AM (8-9)	10.0%		3.0%		38.0%		50.0%		38.0%	
MD ( 12-1)	5.0%		19.0%		0.0%		0.0%		0.0%	
PM ( 5-6)	11.0%		10.0%		5.0%		5.0%		5.0%	
Sat MD (1-2)	8.0%		10.0%		0.0%		0.0%		0.0%	
<b>Modal Splits:</b>	( 2)		( 4)		(5)		(8)		(5)	
	AM/MD/PM/SAT		AM/MD/PM/SAT		AM/MD/PM/SAT		AM/MD/PM/SAT		AM/MD/PM/SAT	
Auto	12.8%		2.0%		0.0%		53.7%		0.0%	
Dropoff/Taxi	0.4%		3.0%		15.0%		0.8%		0.0%	
Subway	66.8%		5.0%		8.5%		24.0%		0.0%	
Bus	3.5%		6.0%		4.3%		6.5%		0.0%	
School Bus	0.0%		0.0%		38.9%		0.0%		0.0%	
Walk/Other	16.5%		84.0%		33.3%		15.0%		100.0%	
	100.0%		100.0%		100.0%		100.0%		100.0%	
<b>In/Out Splits:</b>	( 3)		( 4)		(5)		(5)		(5)	
	In	Out	In	Out	In	Out	In	Out	In	Out
AM (8-9)	15%	85%	50%	50%	100%	0%	100%	0%	50%	50%
MD ( 12-1)	50%	50%	50%	50%	0%	0%	0%	0%	0%	0%
PM ( 5-6)	70%	30%	50%	50%	0%	100%	0%	100%	50%	50%
Sat MD (1-2)	53%	47%	50%	50%	0%	0%	0%	0%	0%	0%
<b>Vehicle Occupancy:</b>	( 2,3)		( 4)		(5)		(5)			
Auto	1.20		2.00		1.30		1.20		N/A	
Taxi	1.40		2.00		1.30		1.20		N/A	
School Bus					35.00					
<b>Truck Trip Generation:</b>	( 1)		( 1)		( 11)					
	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday
	0.06	0.02	0.35	0.04	0.03	0.03	N/A	N/A	N/A	N/A
	per DU		per 1,000 sf		per Student		per 1,000 sf		per 1,000 sf	
	( 1)		(1)		( 11)					
AM (8-9)	12.0%		8.0%		9.6%		N/A		N/A	
MD ( 12-1)	9.0%		11.0%		11.0%		N/A		N/A	
PM ( 5-6)	2.0%		2.0%		1.0%		N/A		N/A	
Sat MD (1-2)	9.0%		11.0%		0.0%		N/A		N/A	
<b>All Peak Hours</b>	In	Out	In	Out	In	Out	In	Out	In	Out
	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	N/A	N/A	N/A	N/A

Notes :

- ( 1) Based on data from 2012 CEQR Technical Manual.
- ( 2) Based on data from 2007-2011 American Community Survey (ACS) Data for Brooklyn tracts 563, 565, 575 and 579.
- ( 3) Based on data from Greenpoint-Williamsburg Rezoning FEIS, March 2005.
- ( 4) Based on Retail Industrial Text Amendment FEIS
- ( 5) Based on data from Brownsville Ascend Charter School Transportation Assesment, 2011. As student modal split varies by grade level, the analysis assumed a composite modal split based on the estimated proportional population in each grade level. Staff to Student ratio of 1 to 11.4.
- ( 6) Assumed absence rate of 5% ; Project proposed to have 640 students.
- ( 7) Based on data from the survey conducted at PS 163 and PS 35 in Queens, November 2012.
- ( 8) Based on data from 2000 Census Reverse Journey to Work Data for Brooklyn tracts 563, 565, 575 and 579.
- ( 9) Based on data from the survey conducted at PS 35 in Queens, November 2012, student to parent ratio of 1 to 0.7.
- (10)  $447(\text{Student in Elementary}) \times 0.95(5\% \text{ Absence Rate}) \times 33.3\%(Walk \text{ Mode}) \times 0.7(\text{Student to Parent Ratio}) = 99$
- (11) Based on data from No.7 Subway Extension-Hudson Yards Rezoning and Development Program FGEIS, 2004.

Table H-2, Net Increment Travel Demand Forecast for the Proposed Project

Land Use:	Residential		Local Retail		PS/IS School (Student)		PS/IS School (Staff)		PS/IS School (Parent)		Total		
	707	DU	4,900	gsf	608	Student	53	Staff	99	Parent			
<b>Peak Hour Person Trips:</b>													
AM (8-9)	571		27		347		53		150				1,148
MD (12-1)	285		172		0		0		0				457
PM (5-6)	628		90		46		5		20				789
SatMD (1-2)	543		106		0		0		0				649
<b>Person Trips:</b>													
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
<b>AM</b>													
Auto	11	62	0	0	0	0	28	0	0	0	39	62	101
Dropoff/Taxi	0	2	0	0	52	0	0	0	0	0	52	2	54
Subway	57	324	1	1	29	0	13	0	0	0	100	325	425
Bus	3	17	1	1	15	0	3	0	0	0	22	18	40
School Bus	0	0	0	0	135	0	0	0	0	0	135	0	135
Walk/Other	14	80	11	11	116	0	8	0	75	75	224	166	390
<b>Total</b>	85	485	13	13	347	0	52	0	75	75	572	573	1,145
<b>MD</b>													
Auto	18	18	2	2	0	0	0	0	0	0	20	20	40
Dropoff/Taxi	1	1	3	3	0	0	0	0	0	0	4	4	8
Subway	95	95	4	4	0	0	0	0	0	0	99	99	198
Bus	5	5	5	5	0	0	0	0	0	0	10	10	20
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk/Other	24	24	72	72	0	0	0	0	0	0	96	96	192
<b>Total</b>	143	143	86	86	0	0	0	0	0	0	229	229	458
<b>PM</b>													
Auto	56	24	1	1	0	0	0	3	0	0	57	28	85
Dropoff/Taxi	2	1	1	1	0	7	0	0	0	0	3	9	12
Subway	294	126	2	2	0	4	0	1	0	0	296	133	429
Bus	15	7	3	3	0	2	0	0	0	0	18	12	30
School Bus	0	0	0	0	0	18	0	0	0	0	0	18	18
Walk/Other	73	31	38	38	0	15	0	1	10	10	121	95	216
<b>Total</b>	440	189	45	45	0	46	0	5	10	10	495	295	790
<b>SatMD</b>													
Auto	37	33	1	1	0	0	0	0	0	0	38	34	72
Dropoff/Taxi	1	1	2	2	0	0	0	0	0	0	3	3	6
Subway	192	170	3	3	0	0	0	0	0	0	195	173	368
Bus	10	9	3	3	0	0	0	0	0	0	13	12	25
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk/Other	47	42	45	45	0	0	0	0	0	0	92	87	179
<b>Total</b>	287	255	54	54	0	0	0	0	0	0	341	309	650
<b>Vehicle Trips :</b>													
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
<b>AM</b>													
Auto (Total)	9	52	0	0	0	0	23	0	0	0	32	52	84
Dropoff/Taxi	0	1	0	0	40	0	0	0	0	0	40	1	41
Dropoff/Taxi Balanced	1	1	0	0	40	40	0	0	0	0	41	41	82
School Bus	0	0	0	0	4	4	0	0	0	0	4	4	8
Truck	3	3	0	0	1	1	0	0	0	0	4	4	8
<b>Total</b>	13	56	0	0	44	44	23	0	0	0	81	101	182
<b>MD</b>													
Auto (Total)	15	15	1	1	0	0	0	0	0	0	16	16	32
Dropoff/Taxi	1	1	2	2	0	0	0	0	0	0	3	3	6
Taxi/Dropoff Balanced	2	2	4	4	0	0	0	0	0	0	6	6	12
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck	2	2	0	0	1	1	0	0	0	0	3	3	6
<b>Total</b>	19	19	5	5	1	1	0	0	0	0	25	25	50
<b>PM</b>													
Auto (Total)	47	20	1	1	0	0	0	3	0	0	48	24	72
Dropoff/Taxi	1	1	1	1	0	5	0	0	0	0	2	6	8
Dropoff/Taxi Balanced	2	2	2	2	5	5	0	0	0	0	9	9	18
School Bus	0	0	0	0	1	1	0	0	0	0	1	1	2
Truck	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	49	22	3	3	6	6	0	3	0	0	58	34	92
<b>SatMD</b>													
Auto (Total)	31	28	1	1	0	0	0	0	0	0	32	29	61
Dropoff/Taxi	1	1	1	1	0	0	0	0	0	0	2	2	4
Dropoff/Taxi Balanced	2	2	2	2	0	0	0	0	0	0	4	4	8
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck	1	1	0	0	0	0	0	0	0	0	1	1	2
<b>Total</b>	34	31	3	3	0	0	0	0	0	0	37	34	71
<b>Total Vehicle Trips</b>													
	In	Out	Total										
AM (8-9)	81	101	182										
MD (12-1)	25	25	50										
PM (5-6)	58	34	92										
SatMD (1-2)	37	34	71										

Notes:

10% linked trip is applied to Local Retail.

25% reduction is applied to school student trips as Residential linkage (NB: per the 2012 CEQR Technical Manual, the project's 707 DU's would generate demand for 290 elementary/intermediate school seats)

- Project-generated local bus trips would total 40 and 30 during the weekday AM and PM commuter peak hours. In addition, as discussed later in this attachment, the Proposed Project is also expected to generate additional bus trips made en route to and from subway stations. These are expected to include an estimated 58 new local bus trips en route to and from subway stations in the AM peak hour and 42 in the PM for access to the subway services in Long Island City. In addition, for analysis purposes, it is conservatively assumed that a third of subway trips made to and from the Greenpoint Avenue (G) station would involve a bus transfer. Accordingly, including bus-subway transfers, the proposed action would generate a total of 206 and 187 bus trips in the weekday AM and PM peak hours, respectively. Accordingly, the proposed action would exceed the 200-trip Level 1 screening for bus analysis.
- Total project-generated pedestrian trips, including walk-only trips and trips en route to area subway stations and bus stops, would total 855, 410, 675 and 572 during the weekday AM, midday and PM and Saturday midday peak hours, respectively. Project-generated pedestrian demand would therefore exceed the 200-trip threshold for a Level 1 screening analysis during these periods.

In summary, traffic, subway, bus, and pedestrian travel demand generated by the Proposed Project would exceed the trip generation thresholds for a Level 1 screening analysis in one or more peak hours. Trip assignment Level 2 screening analyses for these modes are therefore provided below. Detailed parking demand and capacity calculations for the Proposed Project are also provided below.

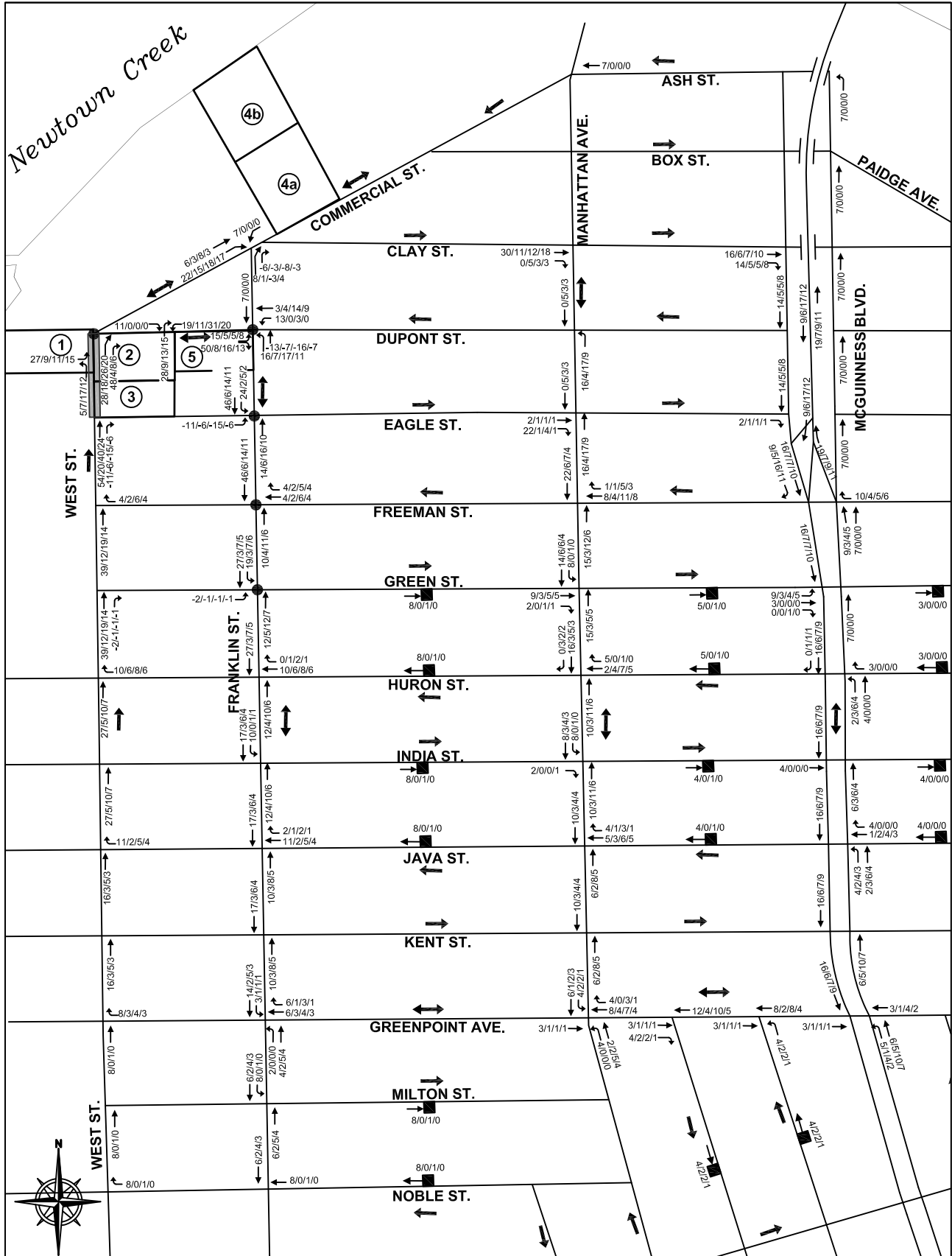
## Traffic

As discussed above, a vehicle trip generation forecast for the Proposed Project shows that an overall increment of 182 vehicle trips (inbound and outbound, combined) is expected during the AM (8-9 AM) peak hour, 50 vehicle trips during the midday (12-1 PM) peak hour, 92 vehicle trips during the PM (5-6 PM) peak hour and 71 vehicle trips in the Saturday midday (1-2 PM) peak hour. Figure H-1 shows the assignment of incremental traffic demand for these peak hours. Auto, taxi, school bus and truck trips were assigned to the study area street network based on their origins and destinations, and were then assigned to the most direct routes to and from each projected development site.

It should be noted that NYCDOT is in the detailed design phase of converting West Street from two-way to one-way northbound operation over its entire length and installing Class I separated bicycle lanes along the west side of the street as part of its Brooklyn Waterfront Greenway project. As this street network change is expected to occur in 2015, prior to the 2020 analysis year, it is therefore reflected in the assignment of project-generated traffic shown in Figure H-1.

As per 2012 *CEQR Technical Manual* criteria, those intersections with less than 50 vph of incremental traffic are unlikely to experience significant adverse traffic impacts and would not warrant further analysis. As shown in Figure H-1, it is expected that this threshold would be exceeded at a total of five intersections during the AM peak hour, including four along Franklin

Net Project Increment Vehicle Trip Assignment



Legend:

- Analyzed Intersection
- ← 4/6/19/13 Project Increment Vehicle Trips AM/MD/PM/SMD
- Projected Development Sites
- West St. Extension
- Origin & Destination for School Trips

Street (at Green, Freeman, Eagle and DuPont Streets), and the intersection of West, Commercial and DuPont Streets. In all other peak hours, no intersection is expected to experience an increase of more than 40 vph. The traffic analysis therefore focuses on conditions at these five intersections in the AM peak hour as no intersection is expected to have significant adverse traffic impacts in any other period.

## **Bus**

The project area is currently served by three NYC Transit bus routes, the B24, B43, and B62. The B24 provides service between Greenpoint and Williamsburg via Sunnyside, Queens. In Greenpoint it operates primarily on Greenpoint Avenue (seven street blocks south of the Project Site) and provides 3 to 4 buses per hour during peak hours. The B43 provides service between Greenpoint and Prospect-Lefferts Gardens. In Greenpoint it operates primarily on Manhattan Avenue, with its northern terminus at Manhattan Avenue and Box Street (one avenue block east of the Project Site). It operates 6 buses per hour in the AM peak hour and 5 buses per hour in the PM peak hour. It provides a transfer to the Greenpoint Avenue (G) subway station. The B62 provides service between Queens Plaza and Downtown Brooklyn. In the vicinity of the Project Site it operates on Manhattan Avenue, Freeman Street (westbound toward Downtown Brooklyn) and Green Street Street (eastbound toward Queens Plaza). At its closest point, it is several blocks southeast of the Project Site. It operates 6 to 9 buses per hour in the AM peak hour and 6 to 7 buses per hour in the PM peak hour. It provides transfers with the Queens Plaza (E, M, R) and Queensboro Plaza (N, Q, 7) subway stations. In addition to these routes, starting in autumn 2013 NYC Transit began operating a new service, the B32. The new B32 provides service between Williamsburg and Long Island City via Greenpoint. In Greenpoint it operates on Franklin Street, Freeman Street (westbound toward Williamsburg) and Green Street (eastbound toward Long Island City). At its closest point it operates one to two blocks from the Project Site. It is scheduled to operate two buses per hour from 7 AM to 9 PM and will provide transfers to the Court Square (E and M) and Marcy Avenue (J, M, and Z) subway stations.

A Level 2 trip assignment for project-generated bus trips. It was assumed that all bus trips involving transfers to the Greenpoint Avenue (G) station would utilize the B43, bus trips involving transfers to subway stations in Long Island City would utilize the B32 or the B62, and that bus only trips would primarily use the B43 and B62 although some trips would also be made on the B24 and B32 routes. The bus trip assignment determined that the B43 bus route would carry 50 or more project-generated trips in the southbound direction in the AM peak hour and in the northbound direction in the PM peak hour. Therefore, further analysis of this route is required. None of the other bus routes in the vicinity of the projected development sites would be expected to carry 50 or more project-generated bus trips in one direction in any peak hour. Table H-3, summarizes the Level 2 bus trip assignment screening.

Table H-3, Level 2 Screening Bus Route Assignment

Route	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
B24	2	2	4	2	1	3
B32	10	20	30	15	7	22
B43	34	<b>86</b>	120	<b>83</b>	41	124
B62	13	39	52	27	11	38
Total	59	147	206	127	60	187

For the AM peak hour, 86 project-generated trips were assigned to the B43 southbound service, of which 81 of those trips would be by passengers alighting at India Street and Manhattan Avenue and transferring to the Greenpoint Avenue (G) subway station. For the PM peak hour, 83 project-generated trips were assigned to the B43 northbound service, of which 78 would be by passengers transferring from the Greenpoint Avenue (G) subway station and boarding at India Street and Manhattan Avenue.

As B43 would carry 50 or more project-generated trips in the AM and PM peak hours, maximum peak load data for the route was reviewed to determine the proposed action would generate 50 or more passengers through the peak load point. As shown in Table H-4, the maximum peak load points in the AM southbound and PM northbound are at intersections along Graham Avenue, which are located south of the Greenpoint Avenue (G) station in Williamsburg. With most project-generated trips that would be using the B43 boarding or alighting at the Greenpoint Avenue, the number of trips potentially traveling through the peak load points would at the maximum be 5 in both peak hours. Accordingly, the proposed action would generate far fewer than the Level 2 screening 50-trip threshold through the peak load points. Accordingly, detailed analysis is not warranted as the proposed action would not have the potential to result in significant adverse bus impacts.

Table H-4, Existing Peak Load Point Data for B43 Bus Route

Peak Hour	Route	Peak Direction	Peak Load Point	Peak Hour Buses <sup>1</sup>	Peak Hour Passengers 2010 <sup>2</sup>	Average Passengers Per Bus	Peak Hour Available Capacity <sup>3</sup>
AM	B43	SB	Graham Av & Broadway	7	320	46	58
PM	B43	NB	Graham Av & Grand St / Debevoise St	6	259	43	119

**Notes:**

<sup>1</sup> Number of peak hour buses is “proposed,” taken from DOT data

<sup>2</sup> Peak hour passengers at peak load point taken from most recently available DOT data

<sup>3</sup> Capacity per bus is 54 passengers (Source: 2012 *CEQR Technical Manual*)

**Subway**

The new residential, local retail and school uses would generate an estimated 425 and 429 subway trips in the AM and PM commuter peak hours, respectively (see Table H-2). Based on

proximity to the proposed development, the majority of these new peak hour subway trips are expected to use the Greenpoint Avenue (G) subway station on the Crosstown Line (see Figure H-2), while approximately 10 percent are assumed to walk to and from the Vernon Boulevard-Jackson Avenue (7) subway station on the Flushing Line in Queens. In addition, given the location of the Project Site with respect to area subway services, it is recognized that some project-generated trips made primarily by subway would likely utilize local bus services for access to and from subway stations in nearby Long Island City. For the purposes of this analysis it was assumed that approximately one-third of project-generated subway demand en route to and from the north would utilize buses for access to the subway services in Long Island City. It is estimated that these bus/subway trips would total approximately 58 in the AM peak hour (in and out combined) and 42 in the PM<sup>1</sup>.

Overall, the Greenpoint Avenue subway station is expected to experience a net increase of 325 new trips in the weekday AM peak hour and 345 trips in the PM as a result of the Proposed Project. New trips at Vernon Boulevard-Jackson Avenue and other subway stations in Long Island City that would be used by some project-generated demand are expected to total less than 50 per station in either peak hour. As the Greenpoint Avenue subway station would experience more than 200 new peak hour trips as a result of development of the Proposed Project, this station has been selected for detailed analysis.

#### Line Haul Analysis Screening Assessment

Line haul demand is the volume of transit riders passing a defined point on a given transit route. As specified in the 2012 *CEQR Technical Manual*, a detailed analysis of subway line haul conditions is generally not required if a proposed action is projected to result in fewer than 200 peak-hour trips being assigned to a single line, as this level of new demand is considered unlikely to result in significant adverse impacts. As discussed above, of the 425 and 429 subway trips that would be generated by the proposed action in the AM and PM peak hours, respectively, the Greenpoint Avenue subway station is expected to experience 325 and 345 of these trips in the AM and PM peak hours, respectively. As the proposed action would generate more than 200 person trips at the Greenpoint Avenue (G) subway station, and the station is served by only one subway line, the demand from the Proposed Project would exceed the Level 2 screening threshold for a subway line haul analysis, requiring a detailed line haul analysis of the Brooklyn-Queens Crosstown G line.

While some project-generated trips are expected to be carried by the other subway lines including 7 and L lines, an assignment of these trips indicates that no other subway line is expected to process more than 200 project-generated trips in any peak hour.

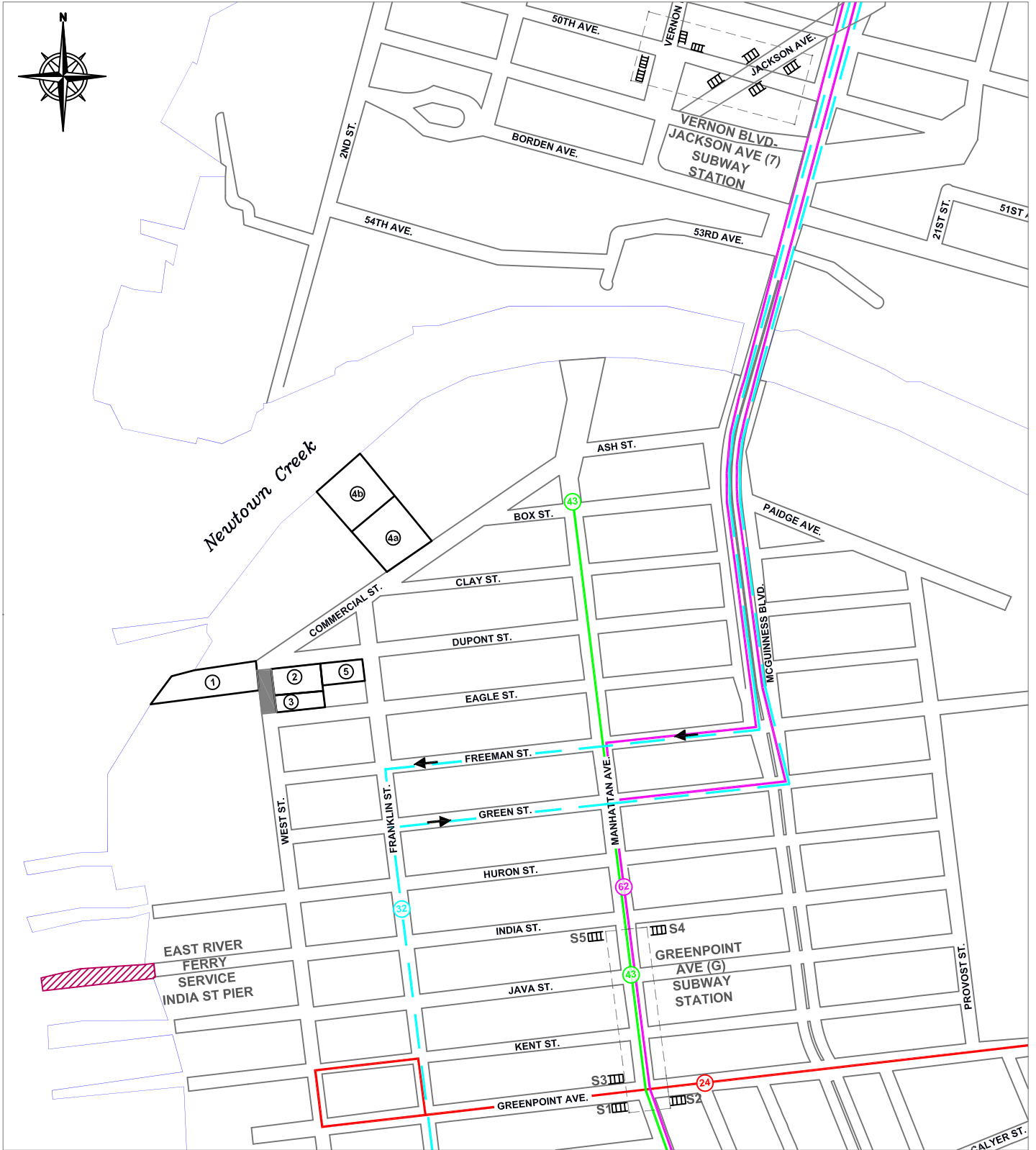
#### **Pedestrians**

The Proposed Project would exceed the 2012 *CEQR Technical Manual* threshold of 200 persons per hour for pedestrian trips on area sidewalks and intersections. These pedestrian trips would







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<sup>1</sup> These subway trips assigned to local bus routes combined with the approximately 10 percent of subway trips that would travel to and from stations in the north would total approximately 100 and 84 project generated trips during the AM and PM peak hours, respectively. This would result in approximately 325 and 345 project generated subway trips utilizing the Greenpoint Avenue (G) subway station during the AM and PM peak hours, respectively.





**Legend:**

- |   |                                    |   |   |
|---|------------------------------------|---|---|
|  | <b>Projected Development Sites</b> |  | <b>Subway Entrance Stair</b>                      |
|  | <b>Existing Bus Routes</b>         |  | <b>East River Ferry Service India Street Pier</b> |
|  | <b>Future Bus Route</b>            |  | <b>West St. Extension</b>                         |

include walk-only trips as well as trips to/from area bus stops and subway stations. (A relatively small number of trips would also be en route to and from the East River Ferry at the India Street Pier.) As shown in the Table H-2, total project-generated pedestrian trips, including walk-only trips and trips en route to area subway stations and bus stops, would total 855, 410, 675 and 572 during the weekday AM, midday and PM and Saturday midday peak hours, respectively. These trips are expected to be concentrated along pedestrian elements (sidewalks, corner areas and crosswalks) in the immediate proximity of projected development sites and entrances to the Greenpoint Avenue subway station. Figure H-3, shows the assignment of project-generated pedestrian trips to study area pedestrian elements. As shown in Figure H-3, a total of one existing sidewalk and four existing corner areas are expected to experience 200 or more new trips in the AM and/or PM peak hours and therefore require detailed analysis. These pedestrian elements, highlighted in Figure H-4, include:

- DuPont Street south sidewalk between Franklin and West Streets
- Franklin Street/DuPont Street, southwest corner
- Franklin Street/Eagle Street, northeast corner
- Franklin Street/Eagle Street, northwest corner
- Franklin Street/Eagle Street, southwest corner

In addition, conditions along the east and west sidewalks on West Street between Eagle and DuPont Streets that would be developed as part of the Proposed Project are also assessed for the 2020 With-Action condition. As no pedestrian element is expected to experience 200 or more new trips in either the weekday midday or Saturday midday peak hours, the analysis of pedestrian conditions focuses on the weekday AM and PM peak hours.

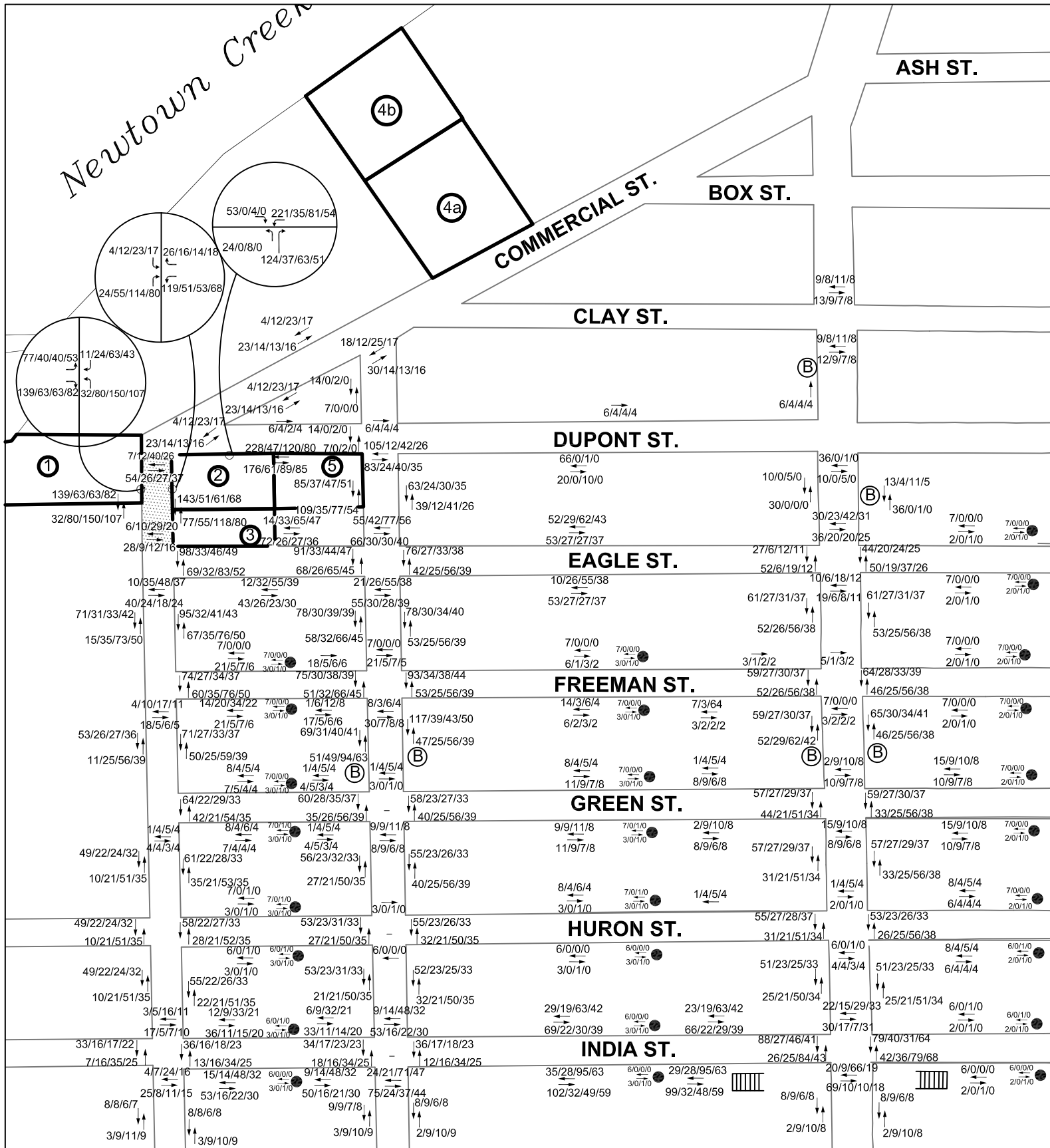
Lastly, as the Proposed Project would include a new public school, a pedestrian safety analysis is provided with a focus on identifying intersections in the vicinity of the school identified as high accident locations.

## **Parking**

Based on data from the US Census Bureau's American Community Survey (2007-2011), there are an average of 0.35 vehicles per household in the Project Site and vicinity (Census tracts 563, 565, 575, 579). The rate for owner-occupied households (comprising 13 percent of all households) is 0.56 vehicles, while the rate for rental households (comprising 87 percent of all households) is 0.32 vehicles. As shown in Table A-6 in Attachment A, "Project Description," all four projected residential sites would be rental and would include affordable housing. Therefore, the rental rate of 0.32 vehicles per household is used to forecast peak residential parking demand for the proposed development.

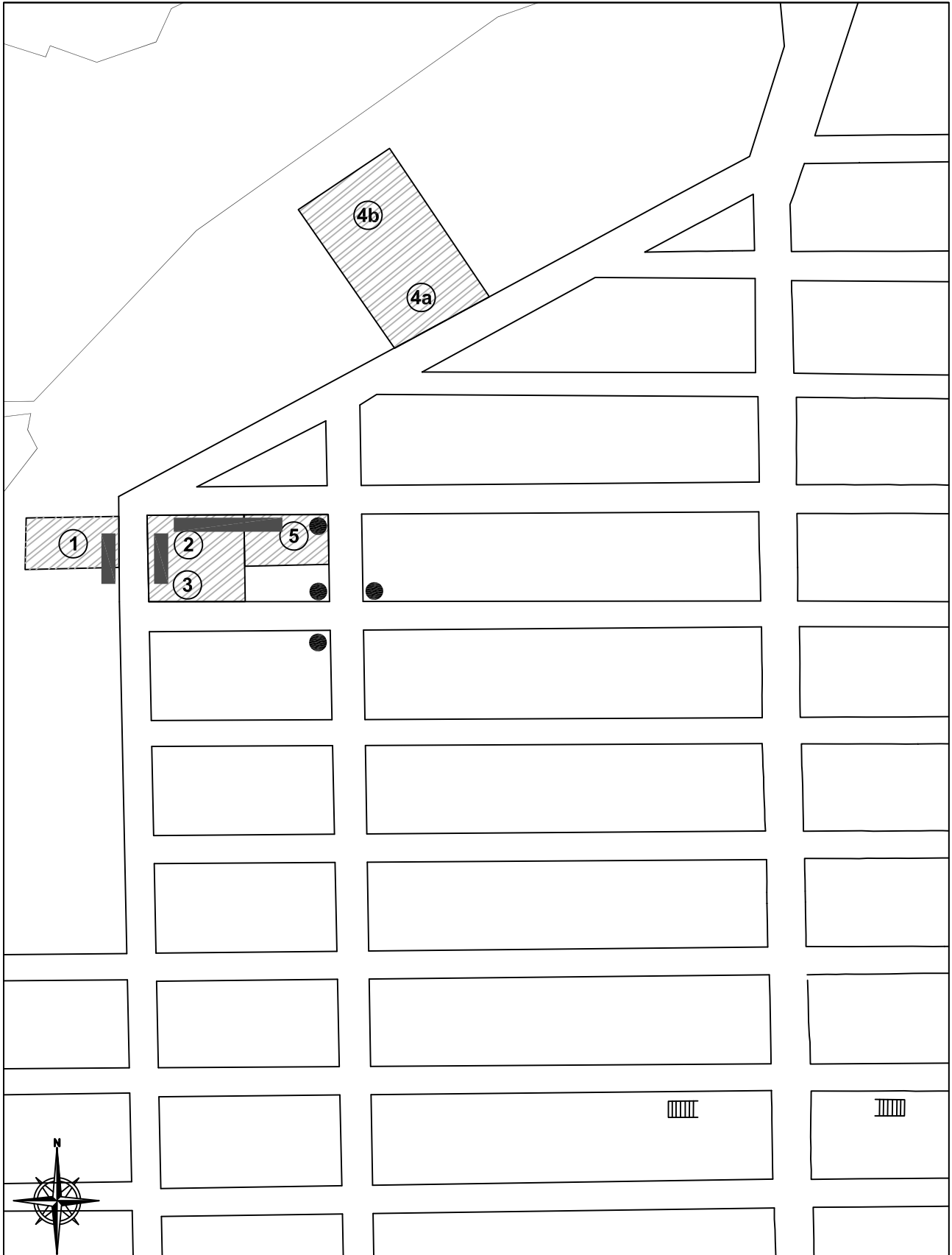
Although the American Community Survey data do not provide a breakout of vehicles per household based on income, it should be noted that previous US Census data sets for New York City have shown an inverse correlation between income and vehicles; i.e., lower income households are less likely to have vehicles than higher income households. Of the Proposed Project's 707-DU increment, it is anticipated that 431 would be affordable housing units of different income bands. Therefore, assuming a 0.32 vehicle/DU rate in forecasting the Proposed Project's residential parking demand can be considered a conservative approach, as the demand

Net Project Increment Pedestrian Trip Assignment



**Legend:**

- 75/24/37/44 - Project Increment Pedestrian Trips AM/MD/PM/SMD
- West St. Extension
- Origin & Destination for School Trips
- Projected Development Sites



**Legend:**

-  Projected Development Sites
-  Analyzed Sidewalk & Crosswalk Location
-  Analyzed Corner Location
-  Subway Stair

generated by the affordable housing units (comprising 61 percent of the total incremental DUs) likely would be somewhat lower.

Using the 0.32 vehicle/DU rate, the total development on projected development sites under With-Action conditions (1,476 DUs) is expected to generate a peak residential parking demand of approximately 472 spaces. Of this total, approximately 226 spaces would be incremental demand attributable to the 707 DUs that would be developed under the Proposed Project. This residential demand would peak during the overnight period. By contrast, parking demands generated by teachers and staff at the proposed public school and by proposed local retail uses, which are not expected to be substantial, would peak during daytime hours. Based on the travel demand factors shown in Table H-1 and the parking accumulation patterns from the *Greenpoint-Williamsburg Rezoning FEIS*, parking demand from the 6,700 sf of local retail space that would be present on projected development sites in the With-Action condition is expected to total approximately one vehicle during any one hour over the course of the day. Parking demand from teachers and staff at the proposed public school is expected to peak at approximately 47 spaces during school hours.

Table H-5 shows the total estimated weekday hourly parking accumulation for development on projected development sites under the With-Action condition. As shown in Table H-5, total parking demand from projected development sites would peak at approximately 472 spaces during the overnight period, with substantially less demand during daytime hours. (As an example, total demand during the 12-1 PM midday period would total 244 spaces.) As noted above, approximately 226 spaces of the peak overnight demand would be incremental demand attributable to the Proposed Project.

Pursuant to existing zoning, under the RWCDS proposed development on projected development sites is expected to provide a total of approximately 576 accessory parking spaces in on-site garages. An estimated 253 of these spaces would represent incremental capacity attributable to the Proposed Project. As shown in Table H-5, this number of accessory spaces would be sufficient to accommodate all projected parking demand generated by the Proposed Project, with a surplus of approximately 104 spaces during the overnight peak period for residential demand.

It also should be noted that construction of the new segment of West Street between Eagle and DuPont Streets under the Proposed Project would add space for approximately 18 new curbside parking spaces. It is therefore anticipated that the Proposed Project would result in an increase in the total number of publicly available on-street parking spaces within a quarter-mile of projected development sites.

In summary, the Proposed Project would provide sufficient accessory off-street parking capacity to accommodate all of its projected demand (with an estimated surplus of approximately 104 spaces during the overnight peak period for residential demand), and is therefore not expected to generate significant demand for on-street parking spaces. Consequently, no significant adverse parking impacts are anticipated, and a further detailed analysis of parking conditions is not warranted.

Table H-5, With-Action Weekday Parking Accumulation on Projected Development Sites

	Residential 1,476 DU			Local Retail 6700 gsf			School (Staff) 53 Staff			Total Accumulation			Total Capacity	Available Capacity
	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.	In	Out	Accum.		
12-1 AM	2	2	472	0	0	0	0	0	0	2	2	472	576	104
1-2	2	2	472	0	0	0	0	0	0	2	2	472	576	104
2-3	2	2	472	0	0	0	0	0	0	2	2	472	576	104
3-4	2	2	472	0	0	0	0	0	0	2	2	472	576	104
4-5	2	2	472	0	0	0	0	0	0	2	2	472	576	104
5-6	4	13	463	0	0	0	0	0	0	4	13	463	576	113
6-7	11	38	436	0	0	0	0	0	0	11	38	436	576	140
7-8	13	39	410	0	0	0	0	0	0	13	39	410	576	166
8-9	19	108	321	0	0	0	47	0	47	66	108	368	576	208
9-10	23	35	309	1	0	1	0	0	47	24	35	357	576	219
10-11	23	40	292	1	1	1	0	0	47	24	41	340	576	236
11-12	24	32	284	1	1	1	0	0	47	25	33	332	576	244
12-1 PM	32	32	284	1	1	1	0	0	47	33	33	332	576	244
1-2	32	33	283	3	3	1	0	0	47	35	36	331	576	245
2-3	34	32	285	1	1	1	0	0	47	35	33	333	576	243
3-4	49	29	305	1	1	1	0	37	10	50	67	316	576	260
4-5	76	41	340	1	1	1	0	5	5	77	47	346	576	230
5-6	98	42	396	1	1	1	0	5	0	99	48	397	576	179
6-7	64	32	428	1	1	1	0	0	0	65	33	429	576	147
7-8	58	29	457	1	1	1	0	0	0	59	30	458	576	118
8-9	40	20	477	1	1	1	0	0	0	41	21	478	576	98
9-10	11	13	475	0	1	0	0	0	0	11	14	475	576	101
10-11	7	10	472	0	0	0	0	0	0	7	10	472	576	104
11-12	7	7	472	0	0	0	0	0	0	7	7	472	576	104
<b>24 hr total</b>	<b>In</b>	<b>Out</b>	<b>Total</b>	<b>In</b>	<b>Out</b>	<b>Total</b>	<b>In</b>	<b>Out</b>	<b>Total</b>	<b>In</b>	<b>Out</b>	<b>Total</b>		
	635	635	1,270	14	14	28	47	47	94	696	696	1,392		

Notes:

Residential and local retail parking accumulation patterns based on data from 2005 Greenpoint-Williamsburg Rezoning FEIS.

The following sections describe the existing conditions in the study area for traffic, subway and pedestrians during analyzed peak hours. The 2020 future conditions without the Proposed Project (the No-Action condition) are also described. Included are increases in demand due to background growth and new developments in and around the study area that are expected by 2020. The change in travel demand resulting from development of the Proposed Project is then projected and added to the No-Action condition to develop the 2020 future with the Proposed Project condition, including changes to the study area street-system proposed as part of the project. Potential significant adverse impacts from project-generated trips and changes to West Street, if any, are then identified and described in detail. The subway analysis of With-Action conditions also accounts for the effects of the change in fare array capacity at the Greenpoint Avenue station with the addition of a high entry/exit turnstile, which would occur as part of the proposed action.

## **E. VEHICULAR TRAFFIC**

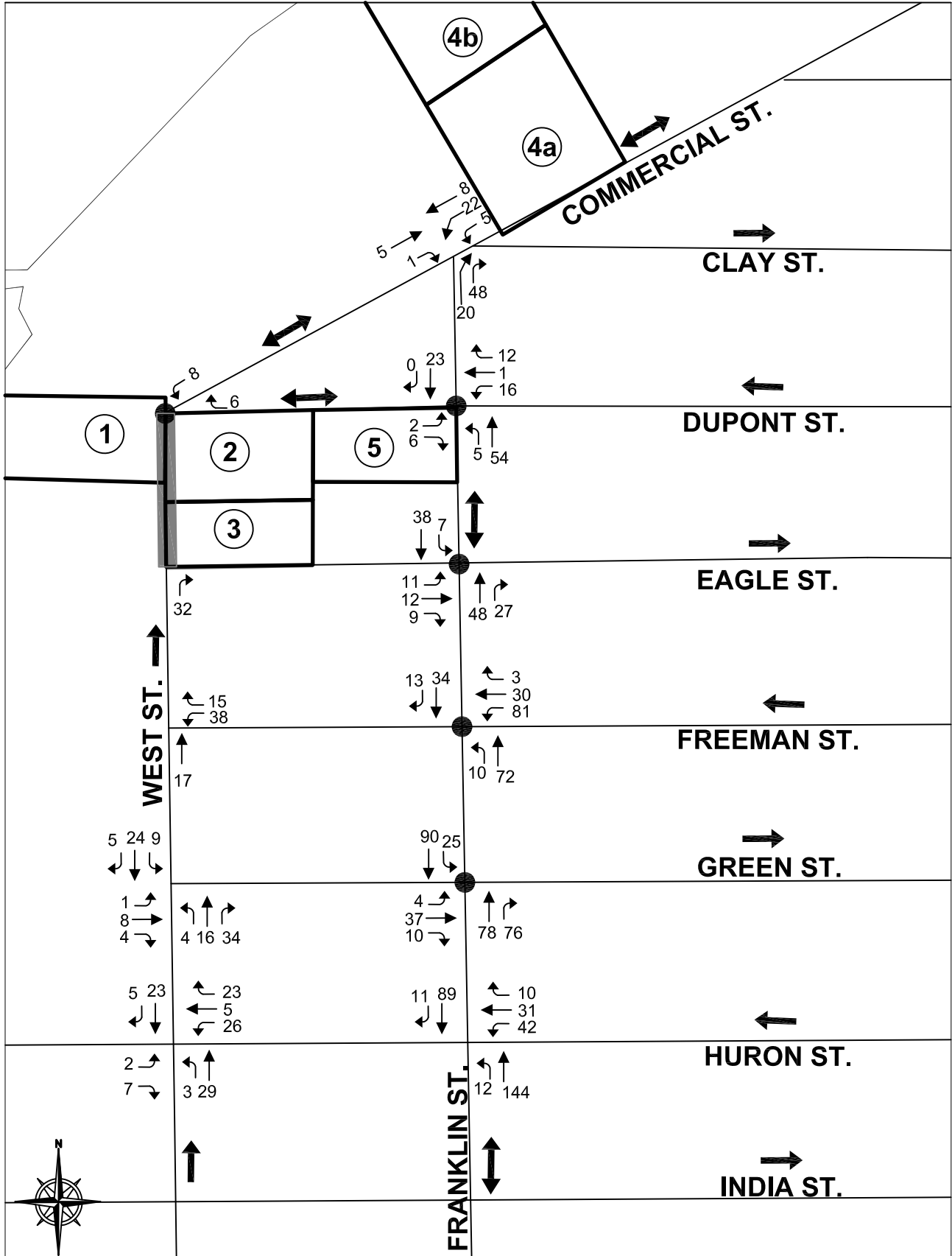
As shown in Figure H-1, the traffic study area for detailed analysis consists of a total of five intersections, four along Franklin Street at Green, Freeman, Eagle and DuPont Streets, and the intersection of West, Commercial and DuPont Streets. These five intersections selected for analysis are those expected to receive the highest concentrations of new vehicular traffic as a result of new development associated with the Proposed Project as well as the limited traffic diversions associated with the proposed one block extension of West Street. Data on existing traffic conditions at these intersections were developed based on manual turning movement counts conducted by NYCDOT in 2012 along with supplemental data collected specifically for this project in April 2013. The 2012 data collection effort was associated with NYCDOT's Greenway project along West Street, including converting West Street from two-way to one-way northbound operation. In addition to turning movement counts, the 2013 supplemental traffic data collection efforts included vehicle classification counts and an inventory of intersection geometries, lane striping, parking regulations and other physical and operational characteristics. Intersection signal timings were obtained from NYCDOT. Figure H-5 shows the weekday AM peak hour traffic volumes within the study area street network for 2012 existing conditions based on the 2012 NYCDOT traffic network and the supplemental data collected in 2013.

### **Street Network**

The traffic study area in northern Greenpoint consists primarily of a regular street grid of north-south main roadways and east-west local streets. Manhattan Avenue is the main north-south roadway and typically carries the heaviest traffic in the study area, while north-south Franklin Street also functions as a key artery, connecting with Kent Avenue to the south. The east-west local streets, typically narrower and more closely spaced than the north-south streets in this area of Brooklyn, provide service to adjacent land uses in the study area.

Within the study area, Franklin Street operates two-way with one travel lane plus parking in each direction. In the vicinity of Green Street, existing two-way traffic volumes total 269 vph in the AM peak hour. Shared bicycle lanes are striped along both northbound and southbound Franklin Street. NYC Transit's new B32 local bus route operates along Franklin Street up to Green and

Existing AM Peak Hour Traffic Volumes



**Legend:**

- Analyzed Intersection
- ← 29 Project Increment Vehicle Trips AM Peak Hour
- West St. Extension
- Projected Development Sites



Freeman streets, north of which it operates along McGuinness Boulevard to and from Long Island City.

Commercial Street operates two-way in a northeast-southwest orientation, with one moving lane plus parking in each direction. The roadway currently terminates at the uncontrolled intersection with DuPont Street. (In the With-Action condition, West Street would be extended to connect with Commercial Street at this intersection, and all-way stop control would be implemented.) Existing two-way traffic volumes on Commercial Street at DuPont Street are generally very low, totaling approximately 8 vph in the AM peak hour.

East-west local streets in the study area typically operate one-way with one moving lane plus parking along both curbs. Striped on-street bicycle lanes are present along both westbound Freeman Street and eastbound Eagle Street. DuPont Street operates one-way westbound up to Franklin Street and two-way on the block between Franklin and Commercial Streets. Existing two-way traffic volumes on DuPont Street approaching Franklin Street total approximately 37 vph in the AM peak hour, while volumes on westbound Freeman Street approaching the stop-controlled intersection with Franklin Street total approximately 114 vph in the AM. Traffic volumes on other local streets in the study area, including West Street, do not typically exceed 51 vph in the AM peak hour.

### **Analysis Methodology**

The capacity analyses at study area intersections are based on the methodology presented in the *Highway Capacity Manual (HCM) Software 2000 Release 5.5*. Traffic data required for these analyses include vehicle volumes on each approach and various other physical and operational characteristics. The *HCM* methodology provides a volume-to-capacity (v/c) ratio for each signalized intersection approach. The v/c ratio represents the traffic volumes on an approach to the approach's carrying capacity. At a v/c ratio of between 0.95 and 1.0, near-capacity conditions are reached and delays can become substantial. Ratios of greater than 1.05 indicate saturated conditions with queuing. The *HCM* methodology also expresses quality of flow in terms of level of service (LOS), which is based on the amount of delay that a driver typically experiences at an intersection. Levels of service range from A, with minimal delay (10 seconds or less per vehicle), to F, which represents long delays (80 seconds or greater per vehicle).

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

Table H-6 shows the LOS/delay relationship for signalized and unsignalized intersections using the *HCM* methodology. Levels of service A, B and C generally represent extremely favorable to fair levels of traffic flow; at LOS D the influence of congestion becomes noticeable as delay increases; LOS E is considered to be the limit of acceptable delay; and LOS F is considered to be unacceptable to most drivers, with traffic operations at or over capacity. In this study, a signalized lane group operating at LOS E or F and/or with a v/c ratio of 0.95 or above is identified as congested. For unsignalized intersections, a movement with LOS E or F is also identified as congested.

**Table H-6: Intersection Level of Service (LOS) Criteria**

Level of Service	Average Delay per Vehicle (seconds)	
	Signalized Intersections	Unsignalized Intersections
A	less than 10.1	less than 10.1
B	10.1 to 20.0	10.1 to 15.0
C	20.1 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
E	55.1 to 80.0	35.1 to 50.0
F	greater than 80.0	greater than 50.0

Source: 2000 Highway Capacity Manual

Table H-7 shows the results of the 2012 existing conditions capacity analysis at four of the five analyzed intersections in the AM peak hour. (The intersection of Commercial Street with DuPont Street is currently uncontrolled and is therefore not analyzed for the existing and No-Action conditions.) As shown in Table H-7, all lane groups at the four intersections analyzed currently operate at an acceptable LOS A or B during the AM peak hour. This is primarily due to the dense street grid and the low traffic volumes in the northern portion of Greenpoint.

### **Future Without The Proposed Action (No-Action)**

In the future without the proposed action (also referred to as the No-Action condition), the Proposed Project would not occur. Instead, it is anticipated that a total of 769 dwelling units and 1,800 sf of local retail would be constructed on Projected Development Sites 3 and 4, and that Projected Development Sites 1, 2 and 5 would remain vacant or used for low-intensity storage (although the No-Action development on Projected Development Site 3 would extend into the GLA-owned portion of Projected Development Site 2). The transportation planning factors in Table H-1 were therefore used to estimate the travel demand that would result from development on Projected Development Sites 3 and 4 in the No-Action condition. It is also expected that during the 2012 through 2020 period, transportation demands in the study area would change due to other development projects in the vicinity as well as general background growth.

**Table H-7, Intersection Level of Service Analysis: Existing Conditions, No-Action Conditions, and With-Actions**

Intersection	Lane Group	2012 Existing Condition			2020 NoBuild Condition			2020 Build Condition		
		Weekday AM Peak Hour			Weekday AM Peak Hour			Weekday AM Peak Hour		
		V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS	V/C Ratio	Delay (sec.)	LOS
1. Dupont Street (E-W) @ Franklin Street (N-S)	EB-LR	0.03	14.3	B	0.03	14.3	B	0.28	17.5	B
	WB-LTR	0.11	15.1	B	0.12	15.2	B	0.17	15.9	B
	NB-LT	0.10	7.7	A	0.13	7.9	A	0.15	8.0	A
	SB-TR	0.04	7.3	A	0.13	7.9	A	0.14	8.0	A
2. Eagle Street (E) @ Franklin Street (N-S)	EB-LTR	0.11	15.2	B	0.20	16.3	B	0.16	15.7	B
	NB-TR	0.14	8.0	A	0.17	8.2	A	0.19	8.4	A
	SB-LT	0.09	7.6	A	0.17	8.3	A	0.32	9.8	A
3. Freeman Street (W) @ Franklin Street (N-S) (Unsignalized Two-Way Stop)	WB-LTR	0.21	11.7	B	0.23	12.4	B	0.36	17.9	C
	NB-LT	0.01	7.6	A	0.01	7.8	A	0.01	8.6	A
4. Green Street (E) @ Franklin Street (N-S)	EB-LTR	0.16	15.6	B	0.21	16.2	B	0.20	16.1	B
	NB-TR	0.29	9.4	A	0.33	9.7	A	0.35	10.0	A
	SB-LT	0.23	8.8	A	0.42	11.1	B	0.54	13.2	B
5. Dupont Street (E-W) @ West Street (N)/ Commercial St (N-S) (Unsignalized All-Way Stop)	WB-R	N/A			N/A			-	6.57	A
	NB-TR	N/A			N/A			-	6.96	A
	SB-L	N/A			N/A			-	7.29	A

**Notes:**

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

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

V/C ratio - volume to capacity ratio

LOS - level of service

\* - Denotes a congested movement (LOS E or F, or V/C ratio greater than or equal to 0.9)

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

In order to forecast these future demands without the Proposed Project, the development projects listed in Table C-5 of Attachment C, “Land Use, Zoning, and Public Policy,” were considered. As shown in Attachment C, an estimated 4,230 DUs, 70,000 sf local retail, 3,800 sf of community facility and about seven acres of public open space are expected to be developed in the area of the Project Site by 2020. Refer to Table H-8, which identifies how each No-Build project was addressed in the traffic analysis. In addition to the estimated transportation demand from these development projects, an annual background growth rate of 0.5 percent per year was applied to existing conditions for the years from 2012 through 2017, and 0.25 percent per year for the 2017 through 2020 period, consistent with 2012 *CEQR Technical Manual* criteria.

Lastly, as noted previously, it is expected that NYCDOT will be modifying West Street from two-way to one-way northbound operation and installing separated, Class I bike lanes on the west side of the street by 2015. Traffic diversions associated with this street system change are therefore also reflected in the 2020 No-Action traffic network.

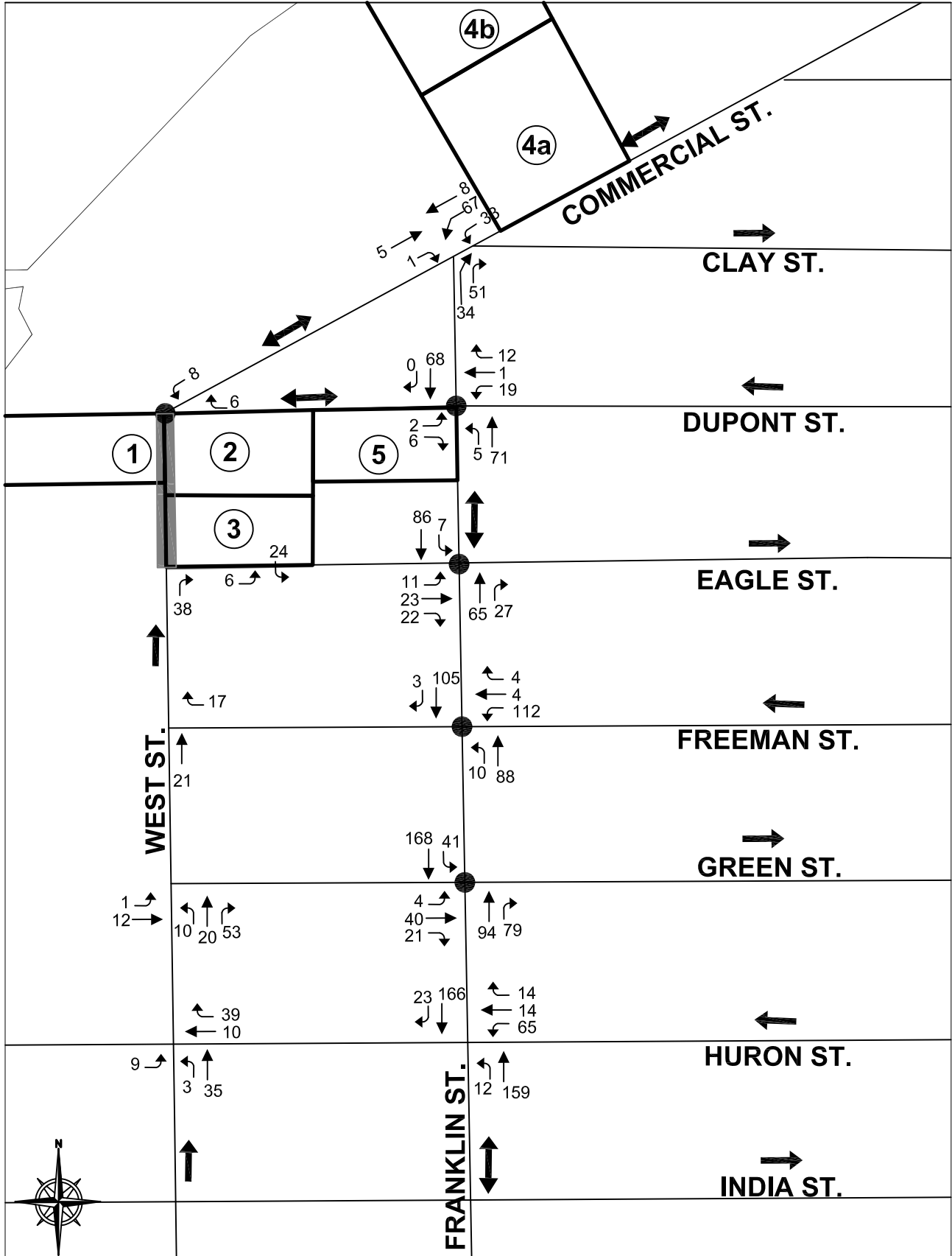
**Table H-8, Traffic Analysis No-Build Projects**

Map Key	Project Name	Location	Treatment in Traffic Analysis
A	Greenpoint Landing Development As-of-Right	37 Commercial Street	Discrete trip generation and assignment
B	Greenpoint Landing Disposition No-Build condition	Projected Development Sites 3 and 4	Discrete trip generation and assignment
C	1133 Manhattan Ave	Block 2482, Lot 26	Discrete trip generation and assignment
D	186 Greenpoint Ave	Block 2575, Lot 5	Accounted for in background growth due to size
E	77 Commercial Street	Block 2472, Lot 410	Discrete trip generation and assignment
F	155 West Street	Block 2530, Lots 1, 55, 60	Discrete trip generation and assignment
G	131 West Street	Block 2538, Lots 1	Discrete trip generation and assignment
H	Greenpoint Terminal Market Conversions 37 West St	Block 2567, Lot 1	Accounted for in background growth due to distance from site
I	Kickstarter (58 Kent St)	Block 2557, Lot 7	Discrete trip generation and assignment
J	74 Kent Street	Block 2557, Lot 13	Accounted for in background growth due to size
K	13 Greenpoint Ave	Block 2556, Lot 45	Accounted for in background growth due to size
L	105 West Street	Block 2556, Lots 55, 57, 58	Accounted for in background growth due to size
M	65 Commercial St (MTA Site)	Block 2472, Lot 425	Accounted for in background growth due to use (open space)
N	West Street Greenway	West Street between Eagle and Quay Streets	Accounted for in background growth due to use (open space) but analysis accounted for traffic diversions
O	209 McGuinness Blvd	Block 2576, Lots 20, 23	Discrete trip generation and assignment

Refer to Attachment C: Table C-5 for program and Figure C-11 for map location.

Figure H-6 shows the expected 2020 No-Action weekday AM peak hour traffic volumes at the five analyzed intersections within the study area, while Table H-7 shows the corresponding 2020 No-Action v/c ratios, delays, and levels of service. As shown in Table H-7, conditions at analyzed intersections generally worsen due to increased traffic from new development.

No-Action AM Peak Hour Traffic Volumes



Legend:

- Analyzed Intersection
- ← 40 Project Increment Vehicle Trips AM Peak Hour
- West St. Extension
- Projected Development Sites

However, all analyzed lane groups would continue to operate at an uncongested LOS A or B in the AM peak hour.

### **Future With The Proposed Action (With-Action)**

As described in detail in Attachment A, “Project Description,” under the Proposed Project, incremental development on projected development sites would allow for a total of approximately 707 new dwelling units, approximately 4,900 sf local retail uses and a new public elementary/intermediary school with approximately 640 seats. Required accessory parking for each site would be provided, and it is also assumed that there would be no new public parking garages incorporated in the projected development sites. In addition to this new development, the mapped but unbuilt segment of West Street from Eagle Street to DuPont/Commerce Streets would be constructed as part of the Proposed Project, and the planned bicycle lanes extended. It is anticipated that all-way stop control would be implemented at this intersection once West Street is extended.

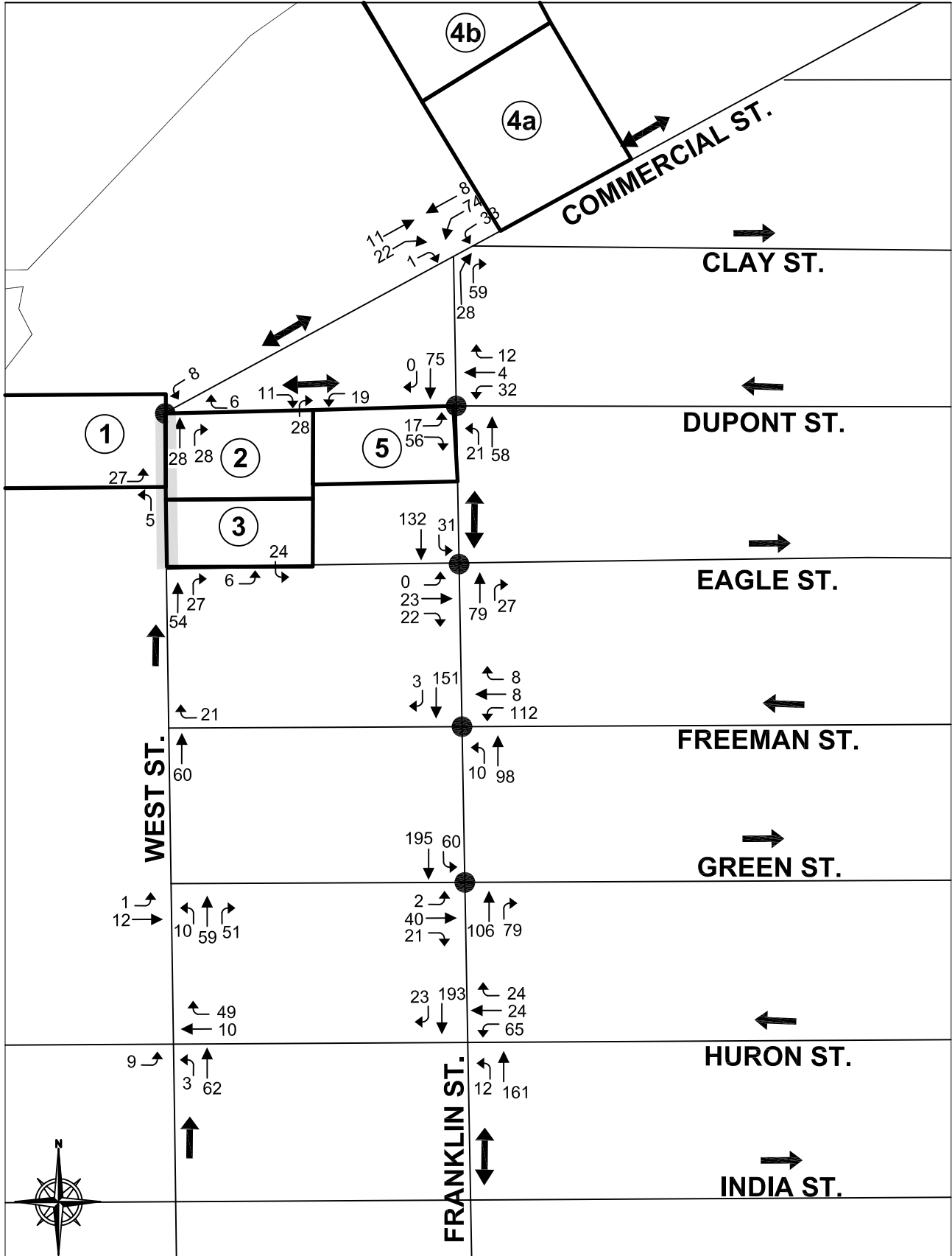
As discussed previously, travel demand was calculated separately for each land use component that would be developed as part of the Proposed Project. In the With-Action condition, all five projected development sites would be developed compared to two sites ( Projected Development Sites 3 and 4) in the No-Action. Consequently, the trip generation analysis takes credit for travel demands generated by No-Action land uses that would be displaced. This includes 769 DUs and 1,800 sf of local retail. Table H-1, above, shows the transportation planning assumptions used to estimate the weekday demand for each of the project components and No-Build land uses, while Table H-2 shows the net weekday peak-hour person-trip and vehicle-trip forecasts for each component of the Proposed Project. Overall, Table H-2 shows that the Proposed Project would generate a net increment of approximately 182, 50, 92 and 71 vehicle trips (in and out combined) in the weekday AM, midday and PM and Saturday midday peak hours, respectively.

### **With-Action Traffic Network**

Figure H-1, above, shows the assignment of the net incremental vehicle trips that would be generated by the Proposed Project during the weekday AM, midday and PM and Saturday midday peak hours. This incremental traffic reflects the combination of new demand and diversions associated with the proposed extension of West Street. Figure H-7 shows the With-Action AM peak hour traffic network, which is a combination of the net increment vehicle trips due to the Proposed Project and the No-Action traffic volume network.

### **Capacity Analysis**

The identification of significant adverse traffic impacts at analyzed intersections is based on criteria presented in the 2012 *CEQR Technical Manual*. According to 2012 *CEQR Technical Manual* criteria, if a lane group under the With-Action condition is within LOS A, B or C, or marginally acceptable LOS D (average control delay less than or equal to 45.0 seconds/vehicle for signalized intersections and 30.0 seconds/vehicle for unsignalized intersections), the impact is not considered significant. If the lane group LOS deteriorates from LOS A, B, or C in the No-Action condition to worse than mid-LOS D (i.e., delay greater than 45 seconds/vehicle at



Legend:

- Analyzed Intersection
- ◀ 40 Project Increment Vehicle Trips AM Peak Hour
- ◻ West St. Extension
- ◻ Projected Development Sites

signalized intersections or 30 seconds/vehicle at unsignalized intersections) or to LOS E or F under the With-Action condition, then a significant adverse traffic impact has occurred. For a lane group operating at LOS D under the No-Action condition, an increase of five or more seconds is considered significant if the With-Action delay exceeds mid-LOS D. For a lane group operating at LOS E under the No-Action condition, an increase in projected delay of 4.0 or more seconds is considered significant, and for a lane group operating at LOS F under the No-Action condition, an increase in projected delay of 3.0 or more seconds is considered significant.

The same criteria apply to both signalized and unsignalized intersections, however, for the minor street at an unsignalized intersection to trigger significant impacts, 90 passenger-car equivalents (PCEs) must be identified in the future With-Action condition in any peak hour.

Table H-7 presents the results of the With-Action traffic capacity analysis for the five analyzed intersections in the AM peak hour, and compares these results with the No-Action condition. As shown in Table H-7, all lane groups at all analyzed intersections would operate at an acceptable LOS C or better in the AM peak hour under With-Action conditions. Therefore, the Proposed Project would not result in significant adverse traffic impacts based on 2012 *CEQR Technical Manual* criteria, and no traffic mitigation would be warranted.

## F. SUBWAY TRANSIT

There are two subway stations located within walking distance of the Project Site (see Figure H-2). The Greenpoint Avenue (G) subway station on the Crosstown Line has entrances to the northbound (Queens-bound) and southbound (Brooklyn-bound) platforms at the intersection of India Street and Manhattan Avenue, an approximately half-mile walk from the Project Site. The Vernon Boulevard-Jackson Avenue (7) subway station on the Flushing Line has entrances to the westbound (Manhattan-bound) and eastbound (Flushing-bound) platforms at the intersection of Jackson Avenue and 50th Avenue in Queens, an approximately three-quarter-mile walk (via the Pulaski Bridge) from the Project Site.

As discussed above, the Proposed Project would generate an incremental demand of approximately 425 subway trips in the weekday AM peak hour and 429 in the PM. The majority of these trips – 325 in the AM peak hour and 345 in the PM -- are expected to use the Greenpoint Avenue (G) subway station. To the north, the G trains terminate at the Court Square station in Long Island City where riders can transfer to and from the E, M and No. 7 trains providing access to Manhattan and other areas of Queens. To the south, G trains traverse neighborhoods such as Williamsburg, Downtown Brooklyn, Carroll Gardens, and Kensington where they connect with subway lines providing access to Manhattan, Queens and other parts of Brooklyn.

The Greenpoint Avenue subway station is comprised of two side platforms – one northbound and one southbound – located beneath Manhattan Avenue. Entrance stairs and fare control areas providing access to each platform are located at Greenpoint Avenue and at India Street. As shown in Figure H-2, based on proximity to the projected development sites, it is anticipated that most if not all project-generated demand at this subway station would utilize stair S4 at the southeast corner of Manhattan Avenue and India Street for access to and from the northbound



platform, and stair S5 at the southwest corner for access to the southbound platform. Access to and from the northbound platform at India Street is controlled by fare array H-1 consisting of one high entry/exit turnstile (HEET) and one high exit turnstile. Access to and from the southbound platform at India Street is controlled by fare array H-2 consisting of two HEETs and two high exit turnstiles.

### **Analysis Methodology**

The methodology for assessing subway station pedestrian circulation elements such as stairs, and fare control elements (regular turnstiles, HEETs, and high exit turnstiles) compares existing and projected pedestrian volumes with the element's design capacity to yield a volume-to-capacity (v/c) ratio. All analyses reflect pedestrian flow volumes over a 15-minute interval during each peak hour. Based on existing pedestrian volumes at the Greenpoint Avenue subway station, the peak periods selected for the analysis of subway station conditions are from 8-9 AM and 5-6 PM. (As noted previously, transit analyses typically focus on the weekday AM and PM commuter peak hours as it is during these periods that overall demand on the subway and bus systems is usually highest.)

Under 2012 *CEQR Technical Manual* guidelines, the capacity of a stairway is determined based on four factors: the New York City Transit (NYCT) guideline capacity, the effective width, and surging and counter-flow factors, if applicable. NYCT guideline capacity for a stair is 10 passengers per minute per foot-width (pmf), and the effective width of a stair is the actual width adjusted to reflect pedestrian avoidance of sidewalls and for center handrails, if present. A surging factor is applied to existing pedestrian volumes to reflect conditions where pedestrian flows tend to be concentrated (or surged) during shorter periods within the 15-minute analysis interval. This factor, which is based on the size of the station and the proximity of the pedestrian element to the station platforms, can reduce the calculated capacity by up to 25 percent. Lastly, a friction (or counter-flow) factor reducing calculated capacity by 10 percent is applied where opposing pedestrian flows use the same stair. (No friction factor is applied if the flow is all or predominantly in one direction.)

By contrast with stairways, under 2012 *CEQR Technical Manual* guidelines the capacity of a turnstile is determined based on only two factors: the NYCT guideline capacity for a 15-minute interval and a surging factor of up to 25 percent. Table H-9 shows the 2012 *CEQR Technical Manual* level of service criteria for all subway station elements. As shown in Table H-9, six levels of service are defined with letters A through F. LOS A is representative of free flow conditions without pedestrian conflicts and LOS F depicts severe congestion and queuing.

**Table H-9, Subway Station Level of Service (LOS) Criteria**

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

Source: 2012 CEQR Technical Manual

## Existing Conditions

Tables H-10 and H-11 show the results of the capacity analysis at analyzed stairs and fare arrays at the Greenpoint Avenue subway station under existing conditions. The analysis is based on count data collected at the station during the AM and PM peak periods on Wednesday, April 10, 2013. As shown in Tables H-9 and H-10, existing peak 15-minute volumes on stair S4 and adjacent fare array H-1 total approximately 123 in the AM peak hour and 149 in the PM, while peak 15-minute volumes using stair S5 and adjacent fare array H-2 total approximately 99 in the AM peak hour and 103 in the PM. With these levels of demand, all analyzed stairs and fare arrays currently operate at an uncongested LOS A in both the AM and PM peak hours.

**Table H-10, Existing Conditions Subway Station Fare Control Area Analysis**

Peak Period	Fare Array	Location	Control Element	Quantity	15-Minute		Surging Factor	Friction Factor	V/C Ratio	LOS
					In	Out				
AM	H-1	Northbound Fare Array Manhattan Avenue & India Street	High Entry/Exit Turnstile	1	52	47	0.75	0.9	0.29	A
			High Exit Turnstile	1						
	H-2	Southbound Fare Array Manhattan Avenue & India Street	High Entry/Exit Turnstile	2	99	24	0.75	0.90	0.23	A
			High Exit Turnstile	2						
PM	H-1	Northbound Fare Array Manhattan Avenue & India Street	High Entry/Exit Turnstile	1	8	95	0.75	0.90	0.16	A
			High Exit Turnstile	1						
	H-2	Southbound Fare Array Manhattan Avenue & India Street	High Entry/Exit Turnstile	2	107	42	0.75	0.90	0.26	A
			High Exit Turnstile	2						

**Notes:**  
Methodology based on 2012 CEQR Technical Manual guidelines  
Surging factors applied only to exiting volumes

Table H-11, Existing Conditions Subway Station Stair Analysis

Peak Period	Stairway		Width (ft.)	Effective Width	15-Minute		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up				
					AM	S4				
	S5	Southwest Corner at Manhattan Avenue & India Street	5.0	4.0	99	24	0.8	0.9	0.24	A
PM	S4	Southeast Corner at Manhattan Avenue & India Street	5.0	4.0	8	95	0.8	0.9	0.23	A
	S5	Southwest Corner at Manhattan Avenue & India Street	5.0	4.0	107	42	0.8	0.9	0.30	A

**Notes:**  
Methodology based on 2012 CEQR Technical Manual guidelines  
Surging factors applied only to exiting volumes

### Line Haul

Line haul is the volume of transit riders passing a defined point on a given transit route. The defined point is typically at the actual maximum load point on each subway route (the point where trains carry the greatest number of passengers during the peak hour). As shown in Table H-12, during the AM peak hour, the maximum load point in the northbound direction is at the Greenpoint Avenue Station and the maximum load point in the southbound direction is Clinton-Washington Avenues Station. During the PM peak hour, the northbound maximum load point is at the Fulton Street Station and the southbound maximum load point is at the 21st Street (Jackson Avenue) Station.

Table H-12, Existing Line Haul Analysis

Peak Hour	Route	Direction	Maximum Load Point (leaving station)	Average Trains Per Hour	Cars Per Hour	Passengers per Hour	Peak Hour Capacity	V/C Ratio
AM	G	NB	Greenpoint Av	9.0	36.0	3,904	5,220	0.75
	G	SB	Clinton-Washington Aves	9.1	36.4	4,079	5,278	0.77
PM	G	NB	Fulton St	7.0	28.0	2,909	3,920	0.74
	G	SB	21 St	6.8	27.2	2,844	3,808	0.75

Source: Data provided by MTA NYC Transit (passenger volumes based on 2012 average rush hour loads)

Conditions for each subway route in both the northbound and southbound direction during the AM and PM peak hours is characterized in terms of a volume-to-capacity (v/c) ratio, which is determined by dividing the number of peak hour passengers traveling through the maximum load point by the line haul capacity provided. Line haul capacity is based on the practical capacity per subway car multiplied by the number of subway cars crossing the maximum point in the peak hour. (Guideline capacities provided by NYCT were used for the analyses). As shown in Table H-12, in the AM and PM peak hours, both the northbound and southbound G trains are operating below capacity. The northbound G train operates with v/c ratios of 0.75 and 0.74 in the AM and PM peak hours, respectively, and the southbound G trains are operating with v/c ratios of 0.77 and 0.75 in the AM and PM peak hours, respectively.

### Future Without The Proposed Action (No-Action)

To determine demand at the Greenpoint Avenue subway station in the No-Action condition, demand from No-Action development on projected development sites was considered, as was demand from other projects expected to occur in the vicinity by 2020. In addition, an annual background growth rate of 0.5 percent per year was applied to existing conditions for the years from 2012 through 2017, and 0.25 percent per year for the 2017 through 2020 period, consistent with 2012 *CEQR Technical Manual* criteria. As shown in Tables H-13 and H-14, based on this projected level of demand, northbound platform fare array H-1 is expected to operate at LOS D in the AM peak hour with a v/c ratio of 1.30; as such it will be operating with demand exceeding capacity. Northbound platform stair S4 is expected to operate at LOS D, with a v/c ratio of 1.00, in the PM peak hour; as such it will be operating with demand equal to capacity. These station elements will operate at LOS C in other periods, as would stair S5 and fare array H-2 in both the AM and PM peak hours.

### Line Haul

As shown in Table H-15, the northbound G line would operate above guideline capacity in the AM and PM peak hours in the future without the proposed action.

- The northbound G will operate above guideline capacity with a v/c ratio of 1.07 in the AM peak hour and a v/c ratio of 1.03 in the PM peak hour, respectively, compared with v/c ratios of 0.75 and 0.74 in the AM and PM peak hours, respectively, under existing conditions.
- The southbound G will operate near guideline capacity in the AM and PM peak hours, with v/c ratios of 0.98 and 0.95, respectively, compared with v/c ratios of 0.77 and 0.75 in the AM and PM peak hours, respectively, under existing conditions.

**Table H-13, No-Action Subway Station Fare Control Area Analysis**

Peak Period	Fare Array	Location	Control Element	Quantity	15-Minute		Surging Factor	Friction Factor	V/C Ratio	LOS
					In	Out				
AM	H-1	Northbound Fare Array Manhattan Avenue & India Street	High Entry/Exit Turnstile	1	265	111	0.75	0.9	1.30	D
			High Exit Turnstile	1						
	H-2	Southbound Fare Array Manhattan Avenue & India Street	High Entry/Exit Turnstile	2	357	49	0.75	0.90	0.81	C
			High Exit Turnstile	2						
PM	H-1	Northbound Fare Array Manhattan Avenue & India Street	High Entry/Exit Turnstile	1	51	393	0.75	0.90	0.75	C
			High Exit Turnstile	1						
	H-2	Southbound Fare Array Manhattan Avenue & India Street	High Entry/Exit Turnstile	2	266	189	0.75	0.90	0.71	C
			High Exit Turnstile	2						

**Notes:**  
Methodology based on 2012 CEQR Technical Manual guidelines  
Surging factors applied only to exiting volumes

Table H-14, No-Action Subway Station Stair Analysis

Peak Period	Stairway		Width (ft.)	Effective Width	15-Minute		Surging Factor	Friction Factor	V/C Ratio	LOS
					Down	Up				
					AM	S4				
	S5	Southwest Corner at Manhattan Avenue & India Street	5.0	4.0	357	49	0.8	0.9	0.77	C
PM	S4	Southeast Corner at Manhattan Avenue & India Street	5.0	4.0	51	393	0.8	0.9	1.00	D
	S5	Southwest Corner at Manhattan Avenue & India Street	5.0	4.0	266	189	0.8	0.9	0.93	C

**Notes:**  
Methodology based on 2012 CEQR Technical Manual guidelines  
Surging factors applied only to exiting volumes

Table H-15, No-Action Line Haul Analysis

Peak Hour	Route	Direction	Maximum Load Point (leaving station)	Average Trains Per Hour	Cars Per Hour	Passengers per Hour	Peak Hour Capacity	V/C Ratio
AM	G	NB	Greenpoint Av	9.0	36.0	5,564	5,220	<b>1.07</b>
	G	SB	Clinton-Washington Avs	9.1	36.4	5,195	5,278	0.98
PM	G	NB	Fulton St	7.0	28.0	4,056	3,920	<b>1.03</b>
	G	SB	21 St	6.8	27.2	3,600	3,808	0.95

These results reflect a growth in demand of approximately one percent per year from 2013 to 2020. The subway passenger volumes passing through the maximum load point also incorporate the subway trip volumes from the No-Action Sites that are included in the transportation analyses.

### Future With The Proposed Action (With-Action)

As discussed previously, the Proposed Project would generate an incremental demand of approximately 325 new subway trips in the AM peak hour and 345 in the PM at the Greenpoint Avenue (G) subway station. These incremental hourly trips were assigned to analyzed stairs and fare arrays, translated into peak 15 minute volumes, and added to the 2020 No-Action demand to determine future conditions with the Proposed Project. In addition, the Proposed Project would include the addition of a high entry/exit turnstile at northbound platform fare array H-1 , providing a total of two HEETs and one HET at this entrance. This additional capacity would be provided in order to accommodate increased entering demand generated by future developments including the Proposed Project.

The 2012 *CEQR Technical Manual* identifies a significant impact for stairways in terms of the minimum width increment threshold (WIT) based on the minimum amount of additional capacity that would be required to restore conditions to either their No-Action v/c ratio or to a v/c ratio of 1.00 (LOS C/D), whichever is greater. Stairways that are substantially degraded in level of service or which experience the formation of extensive queues are classified as significantly impacted. Significant adverse stairway impacts are typically considered to have occurred once the thresholds shown in Table H-16 below are reached or exceeded.

**Table H-16, Significant Impact Thresholds for Stairways**

With-Action V/C Ratio	Width Increment Threshold for a Significant Stair Impact (inches)
1.00-1.09	8
1.10-1.19	7
1.20-1.29	6
1.30-1.39	5
1.40-1.49	4
1.50-1.59	3
≥1.6	2

Source: 2012 CEQR Technical Manual

For turnstiles and high-wheel exit gates, the 2012 CEQR Technical Manual defines a significant impact as an increase from a No-Action volume-to-capacity ratio of below 1.00 to a v/c ratio of 1.00 or greater. Where a facility is already at a v/c ratio of 1.00 or greater, a 0.01 change in v/c ratio is also considered significant.

As shown in Table H-17, with the proposed improvement to northbound platform fare array H-1 as part of the Proposed Project, both this fare array and southbound platform fare array H-2 would operate at an acceptable LOS C or better with v/c ratios of less than 1.0 in the AM and PM peak hours in the With-Action condition. As shown in Table H-18, analyzed stairs S4 and S5 would both operate at an acceptable LOS C with v/c ratios of less than 1.0 in the AM peak hour, and at LOS D with v/c ratios of 1.14 and 1.03, respectively, in the PM peak hour.

However, as the Width Increment Threshold to return these stairs to their No-Action levels of service in the PM would total 6.38 inches and 0.12 inches, respectively, less than the impact thresholds shown in Table H-16, neither of these stairs would be significantly adversely impacted based on 2012 CEQR Technical Manual criteria. Therefore, the Proposed Project is not expected to result in any significant adverse impacts at the Greenpoint Avenue (G) subway station.

**Table H-17, With-Action Subway Station Fare Control Area Analysis**

Peak Period	Fare Array	Location	Control Element	Quantity	15-Minute		Surging Factor	Friction Factor	V/C Ratio	LOS
					In	Out				
AM	H-1	Northbound Fare Array Manhattan Avenue & India Street	High Entry/Exit Turnstile	2	296	131	0.75	0.9	0.76	C
			High Exit Turnstile	1						
	H-2	Southbound Fare Array Manhattan Avenue & India Street	High Entry/Exit Turnstile	2	403	55	0.75	0.90	0.92	C
			High Exit Turnstile	2						
PM	H-1	Northbound Fare Array Manhattan Avenue & India Street	High Entry/Exit Turnstile	2	57	446	0.75	0.90	0.53	B
			High Exit Turnstile	1						
	H-2	Southbound Fare Array Manhattan Avenue & India Street	High Entry/Exit Turnstile	2	295	209	0.75	0.90	0.78	C
			High Exit Turnstile	2						

Notes:  
Methodology based on 2012 CEQR Technical Manual guidelines  
Surging factors applied only to exiting volumes

Table H-18, With-Action Subway Station Stair Analysis

Peak Period	Stairway		Width (ft.)	Effective Width	15-Minute		Surging Factor	Friction Factor	V/C Ratio	LOS	WIT
					Down	Up					
					AM	S4					
	S5	Southwest Corner at Manhattan Avenue & India Street	5.0	4.0	403	55	0.8	0.9	0.87	C	N/A
PM	S4	Southeast Corner at Manhattan Avenue & India Street	5.0	4.0	57	446	0.8	0.9	1.14	D	6.38
	S5	Southwest Corner at Manhattan Avenue & India Street	5.0	4.0	295	209	0.8	0.9	1.03	D	0.12

**Notes:**  
Methodology based on 2012 CEQR Technical Manual guidelines  
Surging factors applied only to exiting volumes  
WIT - Width Increment Threshold

### Line Haul

Project-generated trip assignment volumes were used to determine the average incremental increase in peak hour trips per subway car attributable to the proposed action.

As shown in Table H-19, in both the AM and PM peak hours, the northbound G line would continue to operate above guideline capacity in the future with the proposed action. The southbound G line would operate at capacity in the AM peak hour and near capacity in the PM peak hour in the future with the proposed action.

- In the AM peak hour the northbound G would operate with a v/c ratio of 1.08 compared to a No-Action v/c ratio of 1.07. In the PM peak hour, the northbound G would continue to operate above guideline capacity, with a v/c ratio of 1.06, compared to a No-Action v/c ratio of 1.03.
- In the AM peak hour, the southbound G would operate with a v/c ratio of 1.00, compared with a No-Action v/c ratio of 0.98. In the PM peak hour, the southbound G would continue to operate near capacity with a v/c ratio of 0.96 compared with a No-Action v/c ratio of 0.95.

Table H-19, With-Action Line Haul Analysis

Peak Hour	Route	Direction	Maximum Load Point (leaving station)	Average Trains Per Hour	Cars Per Hour	No-Action Passengers per Hour	Project Increment Passing through Peak Load Point	With-Action Passengers per Hour	Peak Hour Capacity	V/C Ratio	Passengers per Car
AM	G	NB	Greenpoint Av	9.0	36.0	5,564	98	5,662	5,220	1.08	2.72
	G	SB	Clinton-Washington Aves	9.1	36.4	5,195	69	5,264	5,278	1.00	1.90
PM	G	NB	Fulton St	7.0	28.0	4,056	80	4,136	3,920	1.06	2.86
	G	SB	21 St	6.8	27.2	3,600	43	3,643	3,808	0.96	1.58

The greatest increase in incremental trips per subway car would total approximately 2.86 trips per car on the northbound G train leaving the Fulton Street station in the PM peak hour. While this route is projected to exceed guideline capacity in the future with the proposed action, this increase is not significant because it is expected to experience fewer than five incremental trips per car in each direction in each peak hour as a result of the proposed action. Therefore,

significant adverse impacts to subway line haul conditions are not anticipated based on 2012 *CEQR Technical Manual* criteria.

## G. PEDESTRIANS

As shown in the Table H-2 and discussed previously, project-generated pedestrian trips, including walk-only trips and trips en route to area subway stations and bus stops, would total approximately 855 and 675 during the weekday AM and PM peak hours, respectively. These trips are expected to be concentrated along pedestrian elements (sidewalks, corner areas and crosswalks) in the immediate proximity of projected development sites and nearby entrances to the Greenpoint Avenue subway station. As shown in Figure H-4, above, a total of one existing sidewalk and four existing corner areas are expected to experience 200 or more new trips in the AM and/or PM peak hour and were therefore selected for detailed analysis. These include:

- DuPont Street south sidewalk between Franklin and West Streets
- Franklin Street/DuPont Street, southwest corner
- Franklin Street/Eagle Street, northeast corner
- Franklin Street/Eagle Street, northwest corner
- Franklin Street/Eagle Street, southwest corner

In addition, conditions along the east and west sidewalks on West Street between Eagle and DuPont Streets that would be developed as part of the Proposed Project are also assessed for the With-Action condition.

At present, the analyzed sidewalk along DuPont Street has a paved width of only four feet along most of its length, although it widens to approximately 15 feet in width at the southwest corner at Franklin Street. Other sidewalks adjacent to analyzed corner areas are generally 13 to 15 feet in width.

Peak 15-minute pedestrian flow conditions on analyzed sidewalks and corner areas are assessed using the *2000 Highway Capacity Manual* methodology and procedures outlined in the 2012 *CEQR Technical Manual*. Using this methodology, the congestion level of pedestrian facilities is determined by considering pedestrian volume, measuring the sidewalk or crosswalk width, determining the available pedestrian capacity and developing a ratio of volume flows to capacity conditions. The resulting ratio is then compared with LOS standards for pedestrian flow, which define a qualitative relationship at a certain pedestrian traffic concentration level. The evaluation of street crosswalks and corners is more complicated as these spaces cannot be treated as corridors due to the time incurred waiting for traffic lights. To effectively evaluate these facilities, a “time-space” analysis methodology is employed which takes into consideration the traffic light cycle at intersections.

Pedestrian level of service standards are based on the average area available per pedestrian during the analysis period, typically expressed as a 15-minute peak period. LOS grades from A to F are assigned, with LOS A representative of free flow conditions without pedestrian conflicts and LOS F depicting significant capacity limitations and inconvenience. Table H-20 defines the LOS



criteria for pedestrian crosswalk/corner area and sidewalk conditions, as based on the *Highway Capacity Manual* methodology.

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

**TABLE H-20, Pedestrian Levels of Service Descriptions**

LOS	Description	Crosswalk/Corner Area Criteria (sf/ped)	Non-Platoon Sidewalk Criteria (pmf)	Platoon Sidewalk Criteria (pmf)
A	(Unrestricted)	> 60	≤ 5	≤ 0.5
B	(Slightly Restricted)	> 40 to 60	> 5 to 7	> 0.5 to 3
C	(Restricted but fluid)	> 24 to 40	> 7 to 10	> 3 to 6
D	(Restricted, necessary to continuously alter walking stride and direction)	> 15 to 24	> 10 to 15	> 6 to 11
E	(Severely restricted)	> 8 to 15	> 15 to 23	> 11 to 18
F	(Forward progress only by shuffling; no reverse movement possible)	≤ 8	> 23	> 18

**Notes:** Based on average conditions for 15 minutes  
sf/ped – square feet of area per pedestrian  
pmf – pedestrians per minute per foot of effective sidewalk width  
**Source:** 2010 *Highway Capacity Manual*

## Existing Conditions

Data on peak period pedestrian flow volumes were collected along the existing analyzed sidewalk and corner areas during the weekday AM and PM peak periods on Wednesday April 10, 2013. The peak hours were determined to be 8-9 AM and 4:45-5:45 PM by comparing rolling hourly averages, and the highest 15-minute volumes within the selected peak hours were used for analysis.

Existing peak 15-minute pedestrian flow volumes and levels of service along the analyzed sidewalk and corner areas during the weekday AM and PM peak hours are shown in Tables H-21 and H-22, respectively. As shown in Tables H-21 and H-22, the analyzed sidewalk and corner areas all currently operate at an uncongested LOS A in both analyzed peak hours, reflecting the relatively low existing pedestrian volumes in the vicinity of the projected development sites.

Table H-21, Existing Conditions Sidewalk Analysis

No.	Sidewalk Location		Total Width	Effective Width (ft)	Peak 15-Minute Volumes		Flow Rate (persons/foot/min)		Average Flow Level of Service		Platoon-Adjusted Level of Service	
					AM	PM	AM	PM	AM	PM	AM	PM
S1	Dupont St Between West St and Franklin St	South	15	4	1	1	<0.1	<0.1	A	A	A	A
S2	West St Between Eagle St and Dupont St	East	-	-	N/A		N/A		N/A		N/A	
S3	West St Between Eagle St and Dupont St	West	-	-	N/A		N/A		N/A		N/A	

Table H-22, Existing Conditions Corner Area Analysis

No.	Intersection	Corner	Peak Hour Volume		Avg Pedestrian Space (sq-ft/ped)		Level of Service	
			AM	PM	AM	PM	AM	PM
C1	Dupont St @ Franklin St	SW	1	1	2,462.8	2,620.9	A	A
C2	Eagle St @ Franklin St	SW	7	8	1,598.8	893.2	A	A
C3	Eagle St @ Franklin St	NE	17	28	1,116.7	920.8	A	A
C4	Eagle St @ Franklin St	NW	5	6	1,941.7	1,089.3	A	A

### The Future Without the Proposed Action (No-Action)

Estimates of peak hour pedestrian trips on the analyzed sidewalk and corner areas in the No-Action condition were developed by applying background growth rates consistent with the other transportation analyses, as well as pedestrian demand from No-Action development on projected development sites and demand from other projects in the vicinity expected to be completed by 2020. Tables H-23 and H-24 show the forecasted 2020 No-Action peak 15-minute pedestrian flow volumes and levels of service along the analyzed sidewalk and corner areas during the weekday AM and PM peak hours. As shown, all of these analyzed pedestrian elements are projected to operate at an acceptable LOS A in both peak hours in the No-Action condition.

Table H-23, No-Action Sidewalk Analysis

Sidewalk No.	Sidewalk Location		Total Width	Effective Width (ft)	Peak 15-Minute Volumes		Flow Rate (persons/foot/min)		Average Flow Level of Service		Platoon-Adjusted Level of Service	
					AM	PM	AM	PM	AM	PM	AM	PM
S1	Dupont St Between West St and Franklin St	South	15	4	1	1	<0.1	<0.1	A	A	A	A
S2	West St Between Eagle St and Dupont St	East	-	-	N/A		N/A		N/A		N/A	
S3	West St Between Eagle St and Dupont St	West	-	-	N/A		N/A		N/A		N/A	

Table H-24, No-Action Corner Area Analysis

No.	Intersection	Corner	Peak Hour Volume		Avg Pedestrian Space (sq-ft/ped)		Level of Service	
			AM	PM	AM	PM	AM	PM
C1	Dupont St @ Franklin St	SW	1	1	228.5	171.8	A	A
C2	Eagle St @ Franklin St	SW	66	75	145.4	79.0	A	A
C3	Eagle St @ Franklin St	NE	55	77	148.6	100.7	A	A
C4	Eagle St @ Franklin St	NW	31	33	200.0	107.5	A	A

### The Future With the Proposed Action (With-Action)

Development of the Proposed Project would generate new pedestrian demand on analyzed pedestrian elements by 2020. This new demand would include trips made solely by walking, as well as pedestrian trips en route to and from area bus stops and subway stations. (A relatively small number of trips would also be en route to and from the East River Ferry at the India Street Pier.) In general, pedestrian trips generated by the Proposed Project are expected to be most concentrated in the immediate vicinity of the projected development sites.

As shown previously in Table H-2, the Proposed Project is expected to generate a net total of 855 and 675 new pedestrian trips in the AM and PM peak hours, respectively. These trips were assigned to study area sidewalks, corners and crosswalks (see Figure H-3), and translated into peak 15-minute incremental pedestrian volumes which were then added to the projected No-Action volumes to generate the With-Action pedestrian volumes for detailed analysis.

Physical changes to the study area pedestrian network are also expected in the 2020 With-Action condition. With development of Projected Development Sites 2 and 5 under the Proposed Project, it is anticipated that the adjacent south sidewalk on DuPont Street between West and Franklin Streets would be reconstructed to a 15-foot width. In addition, as noted previously, West Street would be extended one block northward to DuPont Street/Commercial Street from its current terminus at Eagle Street. It is anticipated that a 14-foot-wide sidewalk would be provided along the east side of this new block and a 15-foot-wide sidewalk along the west side, consistent with the configuration proposed for the blocks immediately to the south under NYCDOT's Brooklyn Waterfront Greenway project.

### Impact Criteria

For areas of the City outside of a central business district (CBD), 2012 *CEQR Technical Manual* criteria define a significant adverse sidewalk impact to have occurred under platoon conditions if the average pedestrian flow rate under the No-Action condition is less than 3.5 pedestrians/minute/foot (pmf) of effective sidewalk width, and the average flow rate under the With-Action condition is greater than 6.0 pmf (LOS D or worse). If the average flow rate under the With-Action condition is less than or equal to 6.0 pmf (LOS C or better), the impact should not be considered significant. If the No-Action pedestrian flow rate is between 3.5 and 19 pmf, an increase in average flow rate under the With-Action condition should be considered significant based on Table H-25, which shows a sliding-scale that identifies what increase is considered a significant impact for a given flow rate. If the increase in average pedestrian flow rate is less than the value shown in Table H-25, the impact should not be considered significant. If the average pedestrian flow rate under the No-Action condition is greater than 19 pmf, then an increase in pedestrian flow rate greater than or equal to 0.6 pmf should be considered significant.

**Table H-25, Significant Impact Criteria for Sidewalks with Platooned Flow in a Non-CBD Location**

No-Action Condition Pedestrian Flow (pmf)	With-Action Condition Pedestrian Flow Increment to be Considered a Significant Impact (pmf)
< 3.5	With Action Condition > 6.0
3.5 to 3.8	Increment $\geq$ 2.6
3.9 to 4.6	Increment $\geq$ 2.5
4.7 to 5.4	Increment $\geq$ 2.4
5.5 to 6.2	Increment $\geq$ 2.3
6.3 to 7.0	Increment $\geq$ 2.2
7.1 to 7.8	Increment $\geq$ 2.1
7.9 to 8.6	Increment $\geq$ 2.0
8.7 to 9.4	Increment $\geq$ 1.9
9.5 to 10.2	Increment $\geq$ 1.8
10.3 to 11.0	Increment $\geq$ 1.7
11.1 to 11.8	Increment $\geq$ 1.6
11.9 to 12.6	Increment $\geq$ 1.5
12.7 to 13.4	Increment $\geq$ 1.4
13.5 to 14.2	Increment $\geq$ 1.3
14.3 to 15.0	Increment $\geq$ 1.2
15.1 to 15.8	Increment $\geq$ 1.1
15.9 to 16.6	Increment $\geq$ 1.0
16.7 to 17.4	Increment $\geq$ 0.9
17.5 to 18.2	Increment $\geq$ 0.8
18.3 to 19.0	Increment $\geq$ 0.7
> 19.0	Increment $\geq$ 0.6

Source: 2012 *CEQR Technical Manual*

For areas of the City outside of a CBD, 2012 *CEQR Technical Manual* criteria define a significant adverse corner area or crosswalk impact to have occurred if the average pedestrian

space under the No-Action condition is greater than 26.6 square feet/pedestrian (sf/ped) and, under the With-Action condition, the average pedestrian space decreases to 24 sf/ped or less (LOS D or worse). If the pedestrian space under the With-Action condition is greater than 24 sf/ped (LOS C or better), the impact should not be considered significant. If the average pedestrian space under the No-Action condition is between 5.1 and 26.6 sf/ped, a decrease in pedestrian space under the With-Action condition should be considered significant based on Table H-26 which shows a sliding-scale that identifies what decrease in pedestrian space is considered a significant impact for a given amount of pedestrian space in the No-Action condition. If the decrease in pedestrian space is less than the value in Table H-26, the impact is not considered significant. If the average pedestrian space under the No-Action condition is less than 5.1 sf/ped, then a decrease in pedestrian space greater than or equal to 0.2 sf/ped should be considered significant.

**Table H-26, Significant Impact Criteria for Corners and Crosswalks in a Non-CBD Location**

No-Action Condition Pedestrian Space (sf/ped)	With-Action Condition Pedestrian Space Reduction to be Considered a Significant Impact (sf/ped)
> 26.6	With Action Condition $\leq 24.0$
25.8 to 26.6	Reduction $\geq 2.6$
24.9 to 25.7	Reduction $\geq 2.5$
24.0 to 24.8	Reduction $\geq 2.4$
23.1 to 23.9	Reduction $\geq 2.3$
22.2 to 23.0	Reduction $\geq 2.2$
21.3 to 22.1	Reduction $\geq 2.1$
20.4 to 21.2	Reduction $\geq 2.0$
19.5 to 20.3	Reduction $\geq 1.9$
18.6 to 19.4	Reduction $\geq 1.8$
17.7 to 18.5	Reduction $\geq 1.7$
16.8 to 17.6	Reduction $\geq 1.6$
15.9 to 16.7	Reduction $\geq 1.5$
15.0 to 15.8	Reduction $\geq 1.4$
14.1 to 14.9	Reduction $\geq 1.3$
13.2 to 14.0	Reduction $\geq 1.2$
12.3 to 13.1	Reduction $\geq 1.1$
11.4 to 12.2	Reduction $\geq 1.0$
10.5 to 11.3	Reduction $\geq 0.9$
9.6 to 10.4	Reduction $\geq 0.8$
8.7 to 9.5	Reduction $\geq 0.7$
7.8 to 8.6	Reduction $\geq 0.6$
6.9 to 7.7	Reduction $\geq 0.5$
6.0 to 6.8	Reduction $\geq 0.4$
5.1 to 5.9	Reduction $\geq 0.3$
< 5.1	Reduction $\geq 0.2$

Source: 2012 CEQR Technical Manual

### Capacity Analysis

Tables H-27 and H-28 show the forecasted With-Action peak 15-minute pedestrian flow volumes and resulting levels of service along analyzed sidewalks and corner areas, respectively, during the weekday AM and PM peak hours. As shown, with its proposed reconstruction to 15 feet, the south sidewalk along DuPont Street is projected to operate at an acceptable LOS B or better in both analyzed peak hours in the With-Action condition, as would all four analyzed corner areas. In addition, the two sidewalks flanking the proposed extension of West Street are both projected to operate at an acceptable LOS A or better in both peak hours. Therefore, under 2012 *CEQR Technical Manual* criteria, the Proposed Project would not result in any significant adverse pedestrian impacts at any sidewalks, corners or crosswalks in the study area.

**Table H-27, With-Action Sidewalk Analysis**

Sidewalk No.	Sidewalk Location		Total Width	Effective Width (ft)	Peak 15-Minute Volumes		Flow Rate (persons/foot/min)		Average Flow Level of Service		Platoon-Adjusted Level of Service	
					AM	PM	AM	PM	AM	PM	AM	PM
S1	Dupont St Between West St and Franklin St	South	15	10	203	106	1.4	0.7	A	A	B	B
S2	West St Between Eagle St and Dupont St	East	14	10	90	110	0.6	0.7	A	A	B	B
S3	West St Between Eagle St and Dupont St	West	15	10	107	86	0.7	0.6	A	A	B	B

**Table H-28, With-Action Corner Area Analysis**

No.	Intersection	Corner	Peak Hour Volume		Avg Pedestrian Space (sq-ft/ped)		Level of Service	
			AM	PM	AM	PM	AM	PM
C1	Dupont St @ Franklin St	SW	205	125	81.3	98.3	A	A
C2	Eagle St @ Franklin St	SW	86	110	99.2	60.6	A	A
C3	Eagle St @ Franklin St	NE	55	77	109.0	80.5	A	A
C4	Eagle St @ Franklin St	NW	31	33	133.3	83.9	A	A

## H. VEHICULAR AND PEDESTRIAN SAFETY EVALUATION

Under 2012 *CEQR Technical Manual* guidelines, an evaluation of vehicular and pedestrian safety is needed for locations within the traffic and pedestrian study areas that have been identified as high accident locations. These are defined as locations where 48 or more total reportable and non-reportable crashes or five or more pedestrian/bicyclist injury crashes have occurred in any consecutive 12 months of the most recent three-year period for which data are available. (Reportable accidents are defined as those involving injuries, fatalities, and/or \$1,000 or more in property damage.)

Table H-29 shows summary accident data for the years 2009 through 2011 that were obtained from NYCDOT. This is the most recent three year period for which data are available. Included are the total number of crashes each year and the numbers of crashes each year involving pedestrians and cyclists at intersections in proximity to the rezoning area. As shown in Table H-29, no intersections were found to have experienced a total of 48 or more crashes in any one year, nor were any found to have experienced five or more pedestrian and/or bicyclist injury crashes in one or more years. Therefore, no intersections in the vicinity of the Proposed Project are considered high accident locations.

**Table H-29, Summary Motor Vehicle Accident Data 2009-2011**

Intersection		Pedestrian Injury Accidents			Bicycle Injury Accidents			Total Pedestrian/Bicycle Injury Accidents			Total Accidents (Reportable + Non-Reportable)		
		2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
Manhattan Avenue	Box St	0	0	0	0	0	0	0	0	0	0	1	0
	Clay St	0	0	0	0	0	0	0	0	0	0	0	0
	DuPont St	0	0	0	0	0	0	0	0	0	0	0	0
	Eagle St	0	0	0	0	0	0	0	0	0	0	0	0
	Freeman St	0	0	0	0	0	0	0	0	0	0	0	0
	Green St	0	0	0	0	0	0	0	0	0	1	0	1
	Huron St	0	1	0	0	0	0	0	1	0	0	1	1
	India St	1	0	0	0	0	0	1	0	0	1	1	0
Greenpoint Ave	0	2	0	0	0	0	0	2	0	1	2	0	
Commercial Street	Box St	0	0	0	0	0	0	0	0	0	0	0	1
	DuPont St	0	0	0	0	0	0	0	0	0	0	0	0
Franklin Street	Clay St/ Commercial St	0	0	0	0	0	0	0	0	0	0	0	0
	DuPont St	0	0	0	0	0	0	0	0	0	0	0	0
	Eagle St	0	0	0	0	0	0	0	0	0	0	0	0
	Freeman St	0	0	0	0	0	0	0	0	0	1	1	0
	Green St	1	0	0	0	0	0	1	0	0	1	0	0
	Huron St	0	0	0	0	0	0	0	0	0	0	0	0
	India St	0	0	0	0	0	0	0	0	0	0	1	0
Greenpoint Ave	0	0	0	0	0	0	0	0	0	1	2	0	
West Street	Eagle St	0	0	0	0	0	0	0	0	0	1	0	0
	Freeman St	0	0	0	0	0	0	0	0	0	1	0	0
	Green St	0	0	0	0	0	0	0	0	0	0	1	0
	Huron St	0	0	0	0	0	0	0	0	0	1	0	0
	India St	0	0	0	0	0	0	0	0	0	0	1	0

Source: NYCDOT

Although there are no high accident locations in the vicinity, a number of street network changes associated either with the No-Action condition or with the Proposed Project may affect pedestrian and vehicular safety. As noted previously, it is expected that NYCDOT will be modifying West Street from two-way to one-way northbound operation and providing Class I separated bicycle lanes on the west side of the street in the 2015 No-Action condition. In addition to enhancing cyclist safety by providing a new, separated bicycle facility, this change in

the street network will also eliminate a number of vehicular turning movements along the West Street corridor, thereby reducing the potential for conflicts with pedestrians on crosswalks. Also, under the Proposed Project, the mapped but unbuilt segment of West Street from Eagle Street to DuPont/Commerce streets would be constructed, and the planned bicycle lanes extended. While this new street connection along with demand from the Proposed Project is expected to increase vehicle and pedestrian traffic in the vicinity, the implementation of all-way stop control at the intersection of West, Commercial and DuPont Streets once West Street is extended is expected to enhance pedestrian safety at this location.

Lastly, as previously noted, the Proposed Project would include construction of a new 640-seat public elementary/intermediary school on Projected Development Site 5, with an entrance expected to be located on DuPont Street. This would introduce additional pedestrian trips by students and parents on nearby sidewalks, with many likely traversing intersections along Franklin Street at DuPont Street and Eagle Street, both of which are signalized. The installation of high visibility crosswalks and school crossing signs at these and other nearby intersections may therefore warrant consideration.



**ATTACHMENT I**  
**AIR QUALITY**

## **A. INTRODUCTION**

The application is for a series of land use approvals related to development of several parcels of land in the northwest corner of Greenpoint, Brooklyn, located along the East River and Newtown Creek between Eagle Street to the south and Box Street to the north (the “Project Site”). Previously, these parcels were included in the *Greenpoint-Williamsburg Rezoning FEIS* that was completed in 2005. Since the No-Action and With-Action scenarios for the Proposed Project differ from those analyzed in the 2005 *FEIS*, a new air quality analysis must be prepared to determine the potential for impacts.

Under the Reasonable Worst-Case Development Scenario (RWCDs), Greenpoint Landing Associates (GLA) would have the ability to develop five projected development sites and utilize all development rights associated with a City Parcel, including new buildings on the portion of the City Parcel that would be disposed by the City to GLA. Six mixed-use and residential buildings are envisioned to be constructed on Projected Development Sites 1 to 4. Based on discussions with the NYC School Construction Authority, a public school would be constructed on Projected Development Site 5. Projected development using the development rights generated by the City Parcel would include a total of up to approximately 707 dwelling units (DUs), including 276 market rate DUs and 431 affordable housing DUs.

In addition to the Proposed Project, the West Street Extension would be built and opened from Eagle Street to DuPont Street. This street segment, which is currently mapped but is not built, is 70 feet wide and 200 feet long. It would operate one-way northbound, similar to the existing block to the south.

In addition to the five projected development sites, GLA owns and plans to develop other adjoining parcels on an as-of-right basis. These additional parcels, referred to as the “As-of-right Properties” consist of two separate contiguous areas. These include: (1) parcels immediately west of Projected Development Site 4, which are expected to be developed on an as-of-right basis by 2020, i.e., by the same time as the projected developments sites; and (2) parcels located south of Projected Development Site 1, which are expected to be developed on an as-of-right basis after 2020, i.e., after the projected development sites. This environmental review focuses on the incremental changes in conditions that would be generated by the proposed action on the five projected development sites and not on the as-of-right development that would occur on these other sites either with or without the proposed action but includes this additional development that is expected to be completed by 2020 as part of the 2020 No-Action condition.

The 59,676-sf portion of the City Parcel that would remain under City ownership as part of the proposed action is currently a mostly vacant area, although there is some storage use. In

addition, an approximately 3,010-sf rectangular (43 feet by 70 feet) portion of this property is functionally part of an existing park as it is located inside the fence-line of the Newtown Barge Playground and is primarily occupied by a basketball court. As discussed in Attachment A, “Project Description,” with the proposed action the development rights generated by this property would be transferred to GLA. The City has committed to convert this property into an expansion of the adjoining Newtown Barge Playground independent of the proposed action (therefore this park expansion is considered a No-Action development for the environmental review purposes). With this addition, the existing park would be expanded from approximately 0.98 acres to approximately 2.27 acres.

The following air quality analyses are presented in this attachment to determine the significance of the RWCDs:

- The potential for emissions from project-related vehicle trips;
- The potential impacts of the emissions of a proposed parking garage;
- The potential for emissions from the heating, ventilation and air conditioning (HVAC) systems of the projected and potential developments to significantly impact other projected/potential development sites (project-on-project impacts);
- The potential for emissions from the HVAC systems of the projected and potential developments to significantly impact existing sensitive land uses within 400 feet;
- The potential combined impacts from HVAC emissions of projected and potential developments that are located in close enough proximity to one another (clusters) to significantly impact existing sensitive land uses and other projected/potential developments;
- The potential for emissions sources from existing commercial, institutional, or residential developments within 400 feet from proposed developments to significantly impact the proposed developments, and
- The potential for significant air quality impacts from air toxic emissions generated by nearby existing industrial sources on the proposed development sites.

Air quality analyses were conducted, following the procedures outlined in the 2012 *New York City Environmental Quality Review (CEQR) Technical Manual*, to determine whether the proposed action under the RWCDs would result in exceedances of ambient air quality standards or health-related guideline values. The methodologies and procedures utilized in these analyses are described below.

## **B. PRINCIPAL CONCLUSIONS**

The result of the analyses conducted is that the proposed action would not have any significant air quality impacts. This is based on the following findings:

- Emissions from project-related vehicle trips would not cause a significant mobile source air quality impact;

- With required compliance with the specified (E) designations, the emissions from the heating, ventilation and air conditioning systems of selected projected and potential developments would not cause a significant air quality impact to other projected/potential development sites or existing sensitive land uses;
- Emissions from “large” existing emission sources would not cause a significant air quality impact to the projected/ potential development sites; and
- Air toxic emissions generated by nearby existing industrial sources would not cause a significant air quality impact to the projected/potential development sites.

## C. STANDARDS AND CRITERIA

### National Ambient Air Quality Standards

Ambient air is defined by the United States Environmental Protection Agency (EPA) as that portion of the atmosphere, external from buildings, to which the general public has access. National Ambient Air Quality Standards (NAAQS) were promulgated by EPA to protect public health and welfare, allowing for an adequate margin of safety. The NAAQS include sulfur dioxide, carbon monoxide, ozone, nitrogen dioxide, fine particulates, and lead. They consist of primary standards, established to protect public health with an adequate safety margin, and secondary standards, established to protect "plants and animals and to prevent economic damage." The six pollutants are deemed criteria pollutants because threshold criteria can be established for determining adverse effects on human health. These pollutants are described below.

- Carbon Monoxide (CO) is a colorless, odorless gas produced from the incomplete combustion of gasoline and other fossil fuels. The primary source of CO in urban areas is from motor vehicles. Because this gas disperses quickly, CO concentrations can vary greatly over relatively short distances.
- Fine Particulates (PM<sub>10</sub>, PM<sub>2.5</sub>) also are known as Inhalable or Respirable Particulates. Particulate matter is a generic term for a broad range of discrete liquid droplets or solid particles of various sizes. The PM<sub>10</sub> standard covers particles with diameters of 10 micrometers or less, which are the ones most likely to reach the lungs. The PM<sub>2.5</sub> standard covers particles with diameters of 2.5 micrometers or less.
- Lead (Pb) is a heavy metal. Emissions are principally associated with industrial sources and motor vehicles that use gasoline containing lead additives. Most U.S. vehicles produced since 1975, and all produced after 1980, are designed to use unleaded fuel. As a result, ambient concentrations of lead have declined significantly.
- Nitrogen dioxide (NO<sub>2</sub>) is a highly oxidizing, extremely corrosive toxic gas. It is formed by chemical conversion from nitric oxide (NO), which is emitted primarily by industrial furnaces, power plants, and motor vehicles.

- Ozone (O<sub>3</sub>) is a principal component of smog. It is not emitted directly into the air, but is formed through a series of chemical reactions between hydrocarbons and nitrogen oxides in the presence of sunlight.
- Sulfur dioxides (SO<sub>2</sub>) are heavy gases primarily associated with the combustion of sulfur-containing fuels such as coal and oil. No significant quantities are emitted from mobile sources.

In addition to NAAQS, New York State Ambient Air Quality Standards further regulate concentrations of the criteria pollutants discussed above. The New York State Department of Environmental Conservation (NYSDEC), Air Resources Division, is responsible for air quality monitoring in the state. Monitoring is performed for each of the criteria pollutants to assess compliance. Table I-1 shows the National and New York State Ambient Air Quality Standards.

**Table I-1: National and New York State Ambient Air Quality Standards**

Pollutant	Averaging Period	Standard	2011 Value	Monitor
Sulfur Dioxide	3-hour average	1,300 µg/m <sup>3</sup>	82.7 µg/m <sup>3</sup>	Queens
	1-hour average <sup>c</sup>	197 µg/m <sup>3</sup>	79.8 µg/m <sup>3</sup>	College 2
Inhalable Particulates (PM <sub>10</sub> )	24-hour average	150 µg/m <sup>3</sup>	47 µg/m <sup>3</sup>	Queens College 2
Inhalable Particulates (PM <sub>2.5</sub> )	3-yr average annual mean	12 µg/m <sup>3</sup>	9.5 µg/m <sup>3</sup>	P.S. 219 / Queens
	Maximum 24-hr. 3-yr. avg. <sup>c</sup>	35 µg/m <sup>3</sup>	34.9 µg/m <sup>3</sup>	College 2
Carbon Monoxide	8-hour average <sup>a</sup>	9 ppm	1.8 ppm	Queens
	1-hour average <sup>a</sup>	35 ppm	2.1 ppm	College 2
Ozone	Maximum daily 8-hr avg. <sup>b</sup>	0.075 ppm	0.075 ppm	Queens College 2
Nitrogen Dioxide	12-month arithmetic mean	100 µg/m <sup>3</sup>	21.62 µg/m <sup>3</sup>	Queens
	1-hour average <sup>d</sup>	100 ppb (188 µg/m <sup>3</sup> )	67 ppb (128 µg/m <sup>3</sup> )	College 2
Lead	Quarterly mean	0.15 µg/m <sup>3</sup>	0.0497 µg/m <sup>3</sup>	I.S. 52 (Bronx)

Notes: ppm = parts per million; µg/m<sup>3</sup> = micrograms per cubic meter.

a. Not to be exceeded more than once a year.

b. Three-year average of the annual fourth highest maximum 8-hour average concentration effective May 27, 2008.

c. Not to be exceeded by the 98<sup>th</sup> percentile of 24-hour PM<sub>2.5</sub> concentrations in a year (averaged over 3 years).

d. Three-year average of the 98<sup>th</sup> percentile of the daily maximum 1-hour average, effective January 22, 2010.

e. Three-year average of the 99<sup>th</sup> percentile of the daily maximum 1-hour average, final rule signed June 2, 2010.

Sources: New York State Department of Environmental Conservation; New York State Ambient Air Quality Development Report, 2011; New York City Department of Environmental Protection, 2012.

### New York City De Minimis and Interim Guidance Criteria

For carbon monoxide from mobile sources, the City's *de minimis* criteria are used to determine the significance of the incremental increases in CO concentrations that would result from a proposed action. These set the minimum change in an 8-hour average carbon monoxide concentration that would constitute a significant environmental impact. According to these criteria, significant impacts are defined as follows:

- An increase of 0.5 ppm or more in the maximum 8-hour average carbon monoxide concentration at a location where the predicted No Action 8-hour concentration is equal to or above 8 ppm.
- An increase of more than half the difference between baseline (i.e., No Action) concentrations and the 8-hour standard, when No Action concentrations are below 8 ppm.

For PM<sub>2.5</sub> analyses at the microscale level, the City's *de minimis* criteria for developing significance are:

- Predicted increase of more than half the difference between the background concentration and the 24-hour standard;
- Predicted annual average PM<sub>2.5</sub> concentration increments greater than 0.1 ug/m<sup>3</sup> at ground level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations); or
- Predicted annual average PM<sub>2.5</sub> concentration increments greater than 0.3 µg/m<sup>3</sup> at a discrete or ground-level receptor location.

### **State Implementation Plan (SIP)**

The Clean Air Act requires states to submit to the EPA a SIP for attainment of the NAAQS. The 1977 and 1990 amendments required comprehensive plan revisions for areas where one or more of the standards have yet to be attained. Kings County is part of a CO maintenance area and is nonattainment (moderate) for the 8-hour ozone standard and nonattainment for PM<sub>10</sub> and PM<sub>2.5</sub>. The state is under mandate to develop SIPs to address ozone, carbon monoxide, and PM<sub>10</sub>. It is also working with the EPA to formulate standard practices for regional haze and PM<sub>2.5</sub>.

### **New York State Department of Environmental Conservation (NYSDEC)**

In addition to criteria pollutants, a wide range of non-criteria air pollutants known as toxic air pollutants may be emitted from industrial sources. These pollutants, ranging from high to low toxicity, can be grouped into two categories: carcinogenic air pollutants and non-carcinogenic air pollutants. NYSDEC has established Short-Term Guideline Concentrations (SGCs) and Annual Guideline Concentrations (AGCs) for numerous toxic or carcinogenic non-criteria pollutants for which EPA has no established standards. They are maximum allowable 1-hour and annual guideline concentrations, respectively, that are considered acceptable concentrations below which there should be no adverse effects on the health of the general public. SGCs are intended to protect the public from acute, short-term effects of pollutant exposures, and AGCs are intended to protect the public from chronic, long-term effects of the exposures. Pollutants with no known acute effects have no SGC criteria, but do have AGC criteria. NYSDEC's *DAR-1 AGC/SGC Tables* (October 18, 2010) contains the most recent compilation of the SGC and AGC guideline concentrations.

Where the NYSDEC-established AGC is based on a health risk criteria (i.e., a one in a million cancer risk), and the source has Best Available Control Technology (BACT) installed, NYCDEP may consider the potential impacts to be insignificant if the projected ambient concentration is less than 10 times the AGC. This is because NYSDEC developed the AGCs for these pollutants by reducing the health risk criteria by a factor of 10 as an added safety measure.

No NAAQs, SGCs, or AGCs exist for emissions of pollutants that are grouped together such as total solid particulates, total hydrocarbons, or total organic solvents. Therefore, as recommended by NYCDEP, all solid particulates are assumed to be PM<sub>10</sub>. For total organic solvents or total hydrocarbons, the SGCs and AGCs for specific compounds should be obtained and used in an analysis.

Based on SGCs and AGCs, EPA also developed methodologies that can be used to estimate the potential impacts of air toxic pollutants from multiple emission sources. The "Hazard Index Approach" can be used to estimate the potential impacts of non-carcinogenic pollutants. If the combined ratio of estimated pollutant concentrations divided by the respective SGCs or AGCs value for each of the toxic pollutants is found to be less than 1, no significant air quality impacts are predicted to occur. Using these factors, the potential cancer risk associated with each carcinogenic pollutant, as well as the total cancer risk of the releases of all of carcinogenic toxic pollutants combined, can be estimated. If the total incremental cancer risk of all of the carcinogenic toxic pollutants combined is less than one in one million, no significant air quality impacts are predicted to occur due to these pollutant releases.

## **D. EXISTING CONDITIONS**

### **Existing Air Quality**

As stated previously, Kings County is part of a CO maintenance area and is nonattainment (Moderate) for the 8-hour ozone standard and nonattainment for PM<sub>10</sub> and PM<sub>2.5</sub>. It is in compliance with all other NAAQS.

### **Background Concentrations**

For SO<sub>2</sub>, and NO<sub>x</sub>, and PM<sub>10</sub>, the background concentrations were obtained from the air quality monitor at Queens College 2 / Public School 219. The background values were calculated as follows:

- 79.5 µg/m<sup>3</sup> for the 1-hour SO<sub>2</sub> concentration averaged over 3 years of data (2009-2011) at the 99<sup>th</sup> percentile,
- 82.4 µg/m<sup>3</sup> for the 3-hour SO<sub>2</sub> concentration based on 2011, the most recent year of monitored data,
- 41.0 µg/m<sup>3</sup> for the annual NO<sub>2</sub> averaged over 5 years of data (2007-2011) at the 98<sup>th</sup> percentile,

- 126.8 ug/m<sup>3</sup> for the 1-hour NO<sub>2</sub> averaged over 3 years of data (2009-2011) at the 98<sup>th</sup> percentile,
- 47 ug/m<sup>3</sup> for the 24-hour PM<sub>10</sub> average based on 2011, the most recent year of monitored data, and
- 28 ug/m<sup>3</sup> for the 24-hour PM<sub>2.5</sub> average based on the 98<sup>th</sup> percentile averaged over 3 years (2009-2011).

As a conservative approach for CO, the highest value from the past 5 years of monitored values was used as the background value. Based on the Queens College station, the CO background would be 3.4 ppm for the 1-hour average and 2.8 ppm for the 8-hour average as shown in Table I-2.

**Table I-2: Monitored CO Concentrations (ppm)**

Monitor	Year	1-Hour Value	8-Hour Value
Queens College 2, Queens	2007	3.4	<b>2.8</b>
	2008	2.3	1.7
	2009	3.1	1.9
	2010	<b>3.4</b>	2.7
	2011	2.1	1.8

*Note: Numbers in bold type are the highest in their category.*

*Source: New York State Department of Environmental Conservation.*

## Affected Properties

The affected properties are located along the East River and Newtown Creek between Eagle Street to the south and Box Street to the north (the “Project Site”). It includes approximately 4 blocks for the five projected development sites and one block for the two as-of-right parcels. Table I-3 provides a list of all the blocks and lots included in the analysis. For the purposes of the proposed action, Projected Development Site 4 is divided into Site 4a and Site 4b. The development sites are shown in Figure I-1. The majority of the projected development sites under existing conditions are utilized for storage purposes, including a DEP sludge tank.

**Table I-3: Affected Properties**

Development Site	Block	Lots	Address	Lot Area (sq. ft.)	Owner
1	2472	32 (partial)	219 West St.	63,852	City
2	2494	1 (partial), 6	16-20 DuPont St.	24,788	GLA, City*
3	2494	1 (partial)	31 Eagle St.	20,628	GLA
4a	2472	100 (partial)	45 Commercial St.	49,642	GLA
4b	2472	100 (partial)	45 Commercial St.	56,775	GLA
5	2494	1 (partial)	237-241 Franklin St.	20,025	GLA

\* Projected Development Site 2 includes approximately 11,561 sf of currently City-owned property (Block 2494, Lot 6) and approximately 13,227 sf of currently GLA-owned property (Block 2494, part of Lot 1).



Figure I-1: Projected and Potential Development Sites



## E. FUTURE WITHOUT THE PROPOSED ACTION

In the 2020 future without the proposed action, Projected Development Sites 3 and 4 would be developed, with the development of Projected Development Site 3 potentially extending onto the GLA-owned portion of Projected Development Site 2, but the other projected development sites would remain undeveloped, although the City would remove the existing Sludge Tank from Projected Development Site 2. The as-of-right buildings west of Projected Development Site 4 would be constructed. In addition, new residential development is anticipated nearby for 77 Commercial Street (Block 2472, Lot 410). The planned playground expansion for the New Barge Playground Expansion also would occur. A future public park is also planned for Block 2472, Lot 400, which is adjacent to Projected Development Site 4 on the east. For the purposes of this EAS, these No-Action Conditions are assumed to be present by 2020 when the development of the Proposed Project would be completed. Additional as-of-right development anticipated for the parcel immediately south of Projected Development Site 1 on Block 2472 would occur after 2020, and it is not included in this EAS. West Street, which is currently two-way south of Freeman Street, would become one-way northbound, and the southbound traffic would be diverted to Franklin Street.

Table I-4: Development for No-Action Conditions, 2020

Development Site	Block	Lots	Address	Lot Area (sq. ft.)	Building Ht. (ft.)	Building Size (sq. ft.)
<b>Project Sites</b>						
1	2472	32 (partial)	219 West St.	63,852	0	0
2	2494	1 (partial), 6	16-20 DuPont St.	24,788	0	0
3	2494	1 (partial)	31 Eagle St.	20,628	400	325,966
4a	2472	100 (partial)	45 Commercial St.	49,642	300	424,086
4b	2472	100 (partial)	45 Commercial St.	56,775		
5	2494	1 (partial)	237-241 Franklin St.	20,025	0	0
<b>As-of-Right Sites</b>						
37 Commercial St. (E. development)	2472	100 (partial)	37 Commercial St.	203,225	300	451,370
37 Commercial St. (W. development)	2472	100 (partial)	37 Commercial St.		400	593,416
Total						1,044,786
<b>Non-Project Sites</b>						
Base	2472	410 (partial)	77 Commercial St.	112,000	65	291,534
N. Tower	2472	410 (partial)	77 Commercial St.		150	281,000
S. Tower	2472	410 (partial)	77 Commercial St.		110	188,113
Total						760,647

37 Commercial Street W. Development(s) and E. Development(s) are also referred to as F Building(s) and G Building(s), respectively.

Source: Philip Habib & Associates

## F. FUTURE WITH THE PROPOSED ACTION

### Description of the Proposed Action

Table I-5 shows the anticipated development with the proposed action. By 2020 under the With-Action Scenario, the Project Site would be anticipated to include six new mixed-use and residential developments on Sites 1 through 4 and one new community facility development (a public school) on Site 5. These buildings would include a total of approximately 1,538,004 gsf of building space encompassing approximately 1,476 DUs, 6,700 gsf of retail space; a 120,000 gsf community facility that would house a 640-seat public elementary/intermediate school; and approximately 576 accessory parking spaces.

In addition to the Proposed Project, the West Street Extension would be built and opened from Eagle Street to DuPont Street. This street segment, which is currently mapped but is not built, is 70 feet wide and 200 feet long. It would operate one-way northbound, similar to the existing block to the south. It is expected to remain unbuilt if the proposed action is not adopted.

Table I-5: Projected and As-of-Right Development Sites, Action Conditions

Site No.	Building ID	Tax Block	Lot(s)	Projected Square Footage						Height (ft)
				Residential	Retail	Community Facility	Sub-total	Garage	Total	
<b>Projected Development Sites, Applicant</b>										
1	1	2472	32 (partial)	402,024	2,100		410,124	38,200	442,324	300
2	2	2494	1 (partial), 6	395,825			437,425	41,600	437,425	400
3	3	2494	1 (partial)	102,675	1,200		103,875	5,800	109,675	75
4a	4a – POA Building 2	2472	100 (partial)	145,187	3,400		148,587		148,587	156
	4a – POA Building 3	2472	100 (partial)	<u>148,587</u>	<u>0</u>		<u>148,587</u>		<u>148,587</u>	156
4b	4b	2472	100 (partial)	<u>101,806</u>	<u>0</u>		<u>101,806</u>	<u>29,600</u>	<u>131,406</u>	300
Subtotal				395,580	3,400		398,980	29,600	428,580	
5	5	2494	1 (partial)			120,000	120,000		120,000	100
<b>As-of-Right Development Sites</b>										
37 Commercial St.	6/E. development	2472	100 (partial)	403,620	1,650		405,270	46,100	451,370	300
37 Commercial St.	7/W. development	2472	100 (partial)	<u>545,766</u>	<u>1,650</u>		<u>547,316</u>	<u>46,100</u>	<u>593,416</u>	400
Subtotal				949,286	3,300		952,586	92,200	1,044,786	
<b>Non-Project Sites</b>										
77 Commercial St.	Base	2472	410 (partial)	291,534			291,534		291,534	68
77 Commercial St.	N. Tower	2472	410 (partial)	281,000			281,000		281,000	404
77 Commercial St.	S. Tower	2472	410 (partial)	109,433	25,750	6,200	141,383	46,730	188,113	306
Subtotal				681,967	25,750	6,200	713,917	46,730	760,647	

Source: Philip Habib & Associates

## Mobile Source Analysis

### Carbon Monoxide

Localized increases in CO levels may result from increased vehicular traffic volumes and changed traffic patterns in the study area as a consequence of the proposed action. The mobile source analysis outlined in the *CEQR Technical Manual* considers actions that add new vehicles to roadways or change traffic patterns, either of which may have significant adverse air quality impacts. The primary pollutant of concern is carbon monoxide. For this area of the City, the threshold volume for modeling CO concentrations using MOBILE6.2 and CAL3QHC is an increment of 170 vehicles during a peak hour.

Based on information in the Attachment H, "Traffic," the proposed action would generate a net increment of less than 170 vehicles during a peak hour. Therefore, no intersection modeling of CO is required.

### Particulate Matter (PM<sub>2.5</sub>)

A PM<sub>2.5</sub> screening analysis was conducted using the spreadsheet referenced on page 17-10 of the *CEQR Technical Manual*. The algorithm uses traffic volume according to vehicular class and determines the equivalent number of HDDVs by type of road. Based on guidance from NYCDEP, the minor leg of an intersection determines its classification as a local road, collector, arterial, or expressway. A more detailed analysis is required if the proposed action would meet or exceed the thresholds shown below.

- 12 HDDV for paved roads with average daily traffic fewer than 5,000 vehicles,
- 19 HDDV for collector-type roads,
- 23 HDDV for principal and minor arterial roads, and
- 23 HDDV for expressways and limited-access roads.

The Proposed Action would generate additional passenger vehicles (autos and SUVs). Additional trucks generated during peak traffic periods would be minimal. Figure H-1 in the traffic study included multiple intersections in an area bounded by West Street on the west, McGuinness Boulevard on the east, Ash Street on the north, and Noble Street on the south. For the purposes of the PM<sub>2.5</sub> screen, only signalized intersections would be considered for further analysis because the traffic volume on the main roadway of an unsignalized intersection flows freely and idling vehicles are limited to the much smaller volume on the minor roadway.

According to the NYCDOT website:

- Manhattan Avenue is a minor arterial,
- Box Street between Commercial Street and McGuinness Boulevard is a collector,
- Freeman Street between Manhattan Avenue and McGuinness Boulevard is a collector, and
- Green Street between Manhattan Avenue and McGuinness Boulevard is a collector.

The other roads are not specifically classified and would presumably be classified as paved roads with less than 5,000 vehicles per day.

The Proposed Action would generate passenger vehicles (autos and SUVs). Figure H-1 in the traffic study included multiple intersections in an area bounded by West Street on the west, McGuinness Boulevard on the east, Ash Street on the north, and Noble Street on the south. For the purposes of the PM<sub>2.5</sub> screen, only signalized intersections would be considered for further analysis because the traffic volume on the main roadway of an unsignalized intersection flows freely and idling vehicles are limited to the much smaller volume on the minor roadway.

Table I-6 shows the net project increments at the signalized intersections analyzed by the traffic study. Table I-6 also shows the roadway classification of the minor street(s) in the intersection. Only the peak AM period is shown because the traffic increments are highest for the peak AM period due to the traffic from the proposed public school. The intersections with the greatest exceedances of the threshold volumes are on Franklin Street. The worst case occurs during the peak AM period at the Franklin/Dupont Streets intersection, which would have a net project increment of 66 vehicles. This intersection was therefore modeled as a worst case for mobile source PM<sub>10</sub> and PM<sub>2.5</sub>.

**Table I-6: PM 2.5 Screen for Signalized Intersections, AM Period**

<b>Signalized Intersection</b>	<b>Increment</b>	<b>Roadway Types</b>	<b>Result</b>	<b>Exceedance (passenger vehicles as Equivalent HDDV)</b>
Franklin @	Dupont St.	< 5,000 vehicles	Fail	66
	Eagle St.	< 5,000 vehicles	Fail	48
	Green St.	< 5,000 vehicles	Fail	31
	Huron St.	< 5,000 vehicles	Fail	24
	Greenpoint Ave.	< 5,000 vehicles	Fail	12
	Noble St.	< 5,000 vehicles	Pass	-11
Manhattan Ave. @	Clay	Arterial/<5,000 vehicles	Fail	5
	Dupont St.	Arterial/Arterial	Pass	-506
	Freeman St.	Arterial/Collector	Pass	-50
	India St.	Arterial/<5,000 vehicles	Fail	3
	Kent St.	Arterial/<5,000 vehicles	Pass	-9
	Greenpoint Ave.	Arterial/Arterial	Pass	-491
Milton St.	Arterial/<5,000 vehicles	Pass	-19	
McGuinness Blvd.@	Freeman St.	Arterial/Collector	Pass	-45
	Green St.	Arterial/Collector	Pass	-61
	Huron St.	Arterial/<5,000 vehicles	Pass	0
	India St.	Arterial/<5,000 vehicles	Fail	1
	Java St.	Arterial/<5,000 vehicles	Fail	2
	Kent St.	Arterial/<5,000 vehicles	Pass	-3
	Greenpoint Ave.	Arterial/Arterial	Pass	-489

*Note: Entries in bold type exceed NYCDEP's PM<sub>2.5</sub> screen*

*Source: Philip Habib & Associates, and Sandstone Environmental Associates, Inc.*

### CAL3QHC Modeling

Fine particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) was modeled using MOBILE6.2 to obtain emission factors and CAL3QHC for overall pollutant concentrations. Emission factors for 2020 for a speed of 25 mph were obtained from EPA's MOBILE6.2 model. The ambient temperature used in the model was 43°F, as recommended by the NYCDEP. Inputs pertaining to inspection/maintenance, anti-tampering programs, etc., were obtained from NYCDEP's most recent guidelines (March 2008). The resulting MOBILE6.2 emission factors for autos and SUVs were multiplied by the percentages for each (76% and 24%, respectively) to calculate the composite emission factors, by speed, for use in the CAL3QHC model. Fugitive dust from brake and tire wear, as well as re-entrainment of dust was calculated using the formulas from Section 13.2.1-3 of EPA's AP-42 Document. The formulas were based on an average fleet weight of 3 tons and a silt loading factor of 0.4 g/m<sup>2</sup> as recommended by the *CEQR Technical Manual (2012)* for paved roadways with less than 5,000 vehicles per day.

Roadway links were modeled to a distance of 1,000 feet from the intersection or to the end of the roadway, whichever came first. The mixing zone for free-flow links was equal to the width of the traveled way plus an additional 10 feet (3 meters) on each side of the roadway. Receptor points were placed at mid-sidewalk and outside the mixing zone. They were modeled at 20-foot intervals for a distance of 100 feet in each direction from the intersection. The idling emission factor for passenger vehicles is 0. Therefore, no queue links were included in the analysis.

Typical worst-case meteorological conditions were modeled. These included a mixing layer height of 1,000 meters, a wind speed of 1 meter per second, and an atmospheric stability class of D (neutral stability). Settling and deposition velocities were assumed to be 0. Each computer run covered wind angles from 0 to 360 degrees and identified the worst-case wind angle for each receptor point.

Traffic for With-Action Conditions was modeled for PM<sub>10</sub>. The 24-hour results were added to background concentrations and compared with the NAAQS. Since PM<sub>2.5</sub> impacts are determined from the project-generated increments, only the traffic volumes for the net project increment (project induced traffic and diverted traffic) were modeled with CAL3QHC. Where the net volume increment on a roadway link was negative, a zero value was used in the model. If the modeling shows that PM<sub>2.5</sub> concentrations are within the allowable increments for the 24-hour and annual periods, then no further analysis is required for that intersection or for intersections with lower new project increments of traffic.

CAL3QHC provides maximum 1-hour concentrations. The one-hour concentration was converted to a 24-hour concentration using a conversion factor of 0.4 and also to an annual concentration using a conversion factor of 0.08 per guidance from NYCDEP.

Table I-7 shows the results of the modeling. For PM<sub>10</sub>, the worst-case receptor point was at Receptor 9 at the southwest corner of the intersection of Franklin Street/Dupont Street. The modeled concentration was equivalent to 9.2 ug/m<sup>3</sup>, and the total concentration with background would be 54.2 ug/m<sup>3</sup>. This total concentration of PM<sub>10</sub> is below the NAAQS of 150 ug/m<sup>3</sup>.

For PM<sub>2.5</sub>, the worst-case receptor point was also at the southwestern corner of the intersection. The incremental concentration of PM<sub>2.5</sub> would be equivalent to 0.8 for the 24-hour period and 0.2 for the annual period. These values are below the de minimis of 3.5 ug/m<sup>3</sup> for the 24-hour period and below 0.3 ug/m<sup>3</sup> for the annual period. Therefore, no impacts from PM<sub>10</sub> or PM<sub>2.5</sub> due to mobile sources are projected.

**Table I-7: Mobile Source Air Quality for PM<sub>10</sub> and PM<sub>2.5</sub>, With-Action Conditions**

Pollutant	Time Period	Modeled Value (ug/m <sup>3</sup> )	Background (ug/m <sup>3</sup> )	Total (ug/m <sup>3</sup> )	NAAQS (ug/m <sup>3</sup> )
PM <sub>10</sub>	24-Hour	9.2	47	54.2	150
Pollutant	Time Period	Modeled Value (ug/m <sup>3</sup> )	Background (ug/m <sup>3</sup> )	Total (ug/m <sup>3</sup> )	Interim Guidance
PM <sub>2.5</sub>	24-Hour	0.8	NA	0.8	3.5 ug/m <sup>3</sup>
PM <sub>2.5</sub>	Annual	0.2	NA	0.2	0.3 ug/m <sup>3</sup>

Source: Sandstone Environmental Associates, Inc.

## Parking Facilities

The Proposed Action would include 576 parking spaces on the Projected Development Sites. As a worst-case scenario, an air quality analysis was conducted for the largest proposed garage. The largest garage would be on Projected Development Site 2, which would have 208 parking spaces. It would have 41,600 sq. ft. of parking area. Table I-8, shows the hourly parking demand for Projected Development Site 2. As a worst case, the highest incoming (54) and outgoing (36) volumes were used for the analysis.

**Table I-8: Hourly Garage Parking Demand (Projected Site #2)**

Time Period	Volume			Time Period	Volume		
	In	Out	Total		In	Out	Total
12-1 am	0	0	0	12-1 pm	11	11	22
1-2	0	0	0	1-2	11	11	22
2-3	0	0	0	2-3	11	11	22
3-4	1	1	2	3-4	16	47	63
4-5	1	1	2	4-5	25	19	44
5-6	1	4	5	5-6	33	19	52
6-7	4	13	17	6-7	21	11	32
7-8	4	13	17	7-8	19	10	29
8-9	<b>54</b>	<b>36</b>	90	8-9	13	6	19
9-10	8	11	19	9-10	4	4	8
10-11	8	13	21	10-11	2	3	5
11-12 pm	8	11	19	11-12 am	2	2	4

*Note: Numbers in bold type represent the worst-case hour*

Source: Philip Habib & Associates

The vent stack was conservatively assumed to be 12 feet directly above ground level at the vehicle entry site on Dupont Street. Receptor points included the near and far sidewalks. The pedestrian on the near sidewalk would be 6.5 feet away from the garage vent while the

pedestrian standing on the far sidewalk across Dupont Street would be 42 feet away. Carbon monoxide emissions from vehicles on Dupont Street were calculated from the formula in the 2012 *CEQR Technical Manual Appendices*.

Table I-9 shows the results. For the 8-hour averaging period, the total CO concentrations would be 3.2 ppm for the near sidewalk and 3.1 ppm for the far sidewalk. These values are within the NAAQS and the NYC de minimis criterion. Therefore, no significant adverse impacts are expected from this garage with the stack and vent installed at this location.

**Table I-9 CO Air Quality for Garage (ppm)**

Stack above Dupont Street Entrance				
	Near Sidewalk		Far Sidewalk	
Distance to Vent (ft.)	6.0		42.0	
Vent Height (ft.)	12.0		12.0	
Receptor Height (ft.)	6.0		6.0	
Averaging Period	<b>1-Hour</b>	<b>8-Hour</b>	<b>1-Hour</b>	<b>8-Hour</b>
Garage CO result (ppm)	0.6	0.4	0.5	0.3
Line Source (ppm)	NA	NA	0.0162	0.0113
Background Value (ppm)	3.4	2.8	3.4	2.8
Total Concentration (ppm)	4.0	3.2	3.7	3.1
NAAQS, CO (ppm)	35.0	9.0	35.0	9.0
Impact	No		No	

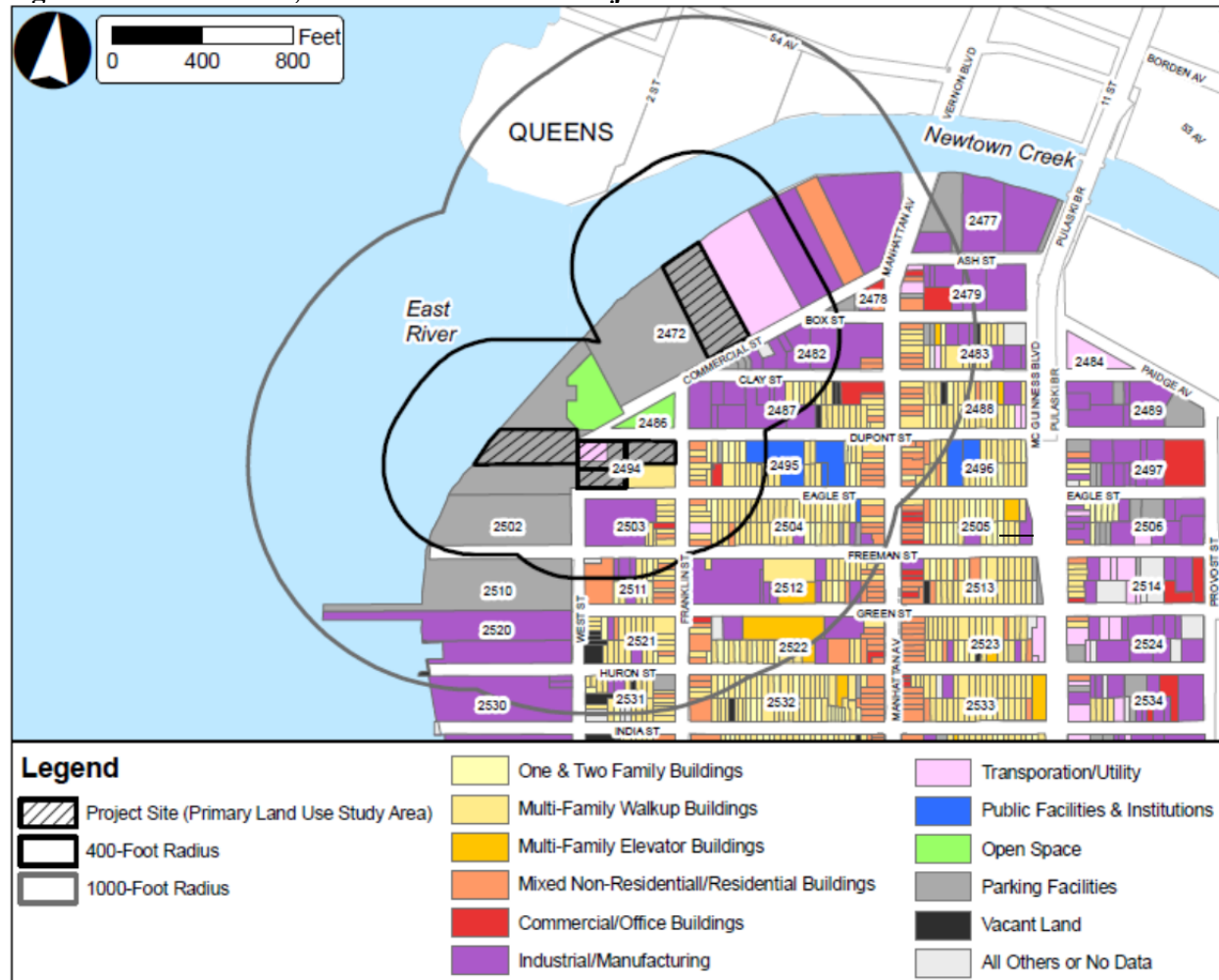
Source: Sandstone Environmental Associates, Inc.

### Stationary Source HVAC

Actions can result in stationary source air quality impacts when they create new stationary sources of pollutants that can affect surrounding uses (such exhaust from boiler stack(s) used for heating/hot water, ventilation, or air conditioning systems); when they locate new sensitive uses (schools, hospitals, residences) near such stationary sources; and when new emission sources are located within a short distance of each other. Air quality impacts from HVAC sources are unlikely at distances of 400 feet or more, but a major source within 1,000 feet may be a source of concern. Figure I-2 shows the radii of 400 and 1,000 feet from the Project Site boundaries.



Figure I-2: 400-ft and 1,000-ft Radii from the Project Site Boundaries



Source: Philip Habib & Associates

### Effects of Existing HVAC Emission Sources on Proposed Action

No large institutional or industrial buildings are within 1,000 feet of the proposed action, and none are anticipated by 2020. The non-project developments at 77 Commercial Street and as-of-right development at 37 Commercial Street would be completed by 2020 could affect the proposed action. One or more buildings would be constructed on 37 Commercial Street (Block 2472, partial Lot 100). For the purposes of this analysis, they are labeled E. Development(s) and W. Development(s). The three buildings planned for 77 Commercial Street are labeled as Buildings 8, 9, and 10. Of these, the smaller base building would not have its own boiler.

A screening analysis was carried out using Figure 17-5 (SO<sub>2</sub> boiler screen for residential #2 fuel oil) and Figure 17-7 (NO<sub>2</sub> boiler screen for residential natural gas) from the 2012 *CEQR Technical Manual Appendices*. The size of the development is plotted against the distance in feet to the edge of the receptor building. Figures 17-5 and 17-7 are applicable to buildings where the boiler stack is at least 30 feet from the nearest building of similar or greater height. If the distance is less than 30 feet, the analysis must be carried out using AERMOD modeling. If the plotted point is on or above the applicable curve, the potential for a significant air quality impact exists, and further analysis is required using AERSCREEN or AERMOD modeling.

As a worse-case analysis for screening purposes, the distance between a stack and the nearest building of similar or greater height is assumed to be the distance between lot lines of the two buildings. The stacks would be at least three feet higher than the roof. The garage square footages were not included in the analysis because they are typically not heated.

Table I-10 shows the results of a screening analysis for the buildings on these two sites. As shown in the table, the lot line for the 37 Commercial Street East Development(s) (Building ID 6), which will have a maximum height of 300 feet, is only 30 feet from the lot line for the proposed 300-foot high tower on Projected Development Site 4b. However, its proximity to the planned 37 Commercial Street West Development(s), which will have a maximum height of 400 feet, is not within the scope of the Proposed Project analysis. It screens out for Projected Development Site 2 due to the distance between the two lots, which is over 400 feet.

The lot line for 37 Commercial Street West Development(s), with a maximum 400-foot tower (Building ID 7), is 170 feet from Projected Development Site 2, and due to the large square footage for this building, it does not screen out. Therefore, the as-of-right buildings at 37 Commercial Street must be run with AERMOD to ensure that they do not cause impacts to the Projected Development Site 4b.

The buildings constructed by the applicant have the option of using either Ultra-Low Sulfur Fuel Oil No. 2 (ULSHO), or natural gas as the fuel for their HVAC systems, which is the requirement for new buildings within New York City.

**Table I-10: Future As-of-Right and Non-Project Development Sites, Action Conditions**

Site	Building ID	Tax Block	Lot(s)	Heated Sq. Ft.	Stack Ht. (ft.)	Nearest Bldgs ≥ Ht.*	Distance (ft.) between lots	Results
<b>As-of-Right</b>								
37 Commercial St.	6/W. development(s)	2472	100 (partial)	405,270	303	4b, 7	30, 30	Use AERMOD
37 Commercial St.	7/E. development(s)	2472	100 (partial)	<u>547,316</u>	403	2	170	Use AERMOD
Subtotal				952,586				
<b>Non-Project</b>								
77 Commercial St.	8/Base	2472	410 (partial)	291,534	68	4a/4b	276	Screens out
77 Commercial St.	9/N. Tower	2472	410 (partial)	281,000	407	7	>400	NA
77 Commercial St.	10/S. Tower	2472	410 (partial)	<u>141,383</u>	309	4b	250	Screens out
Subtotal				422,383				

\*Refers to buildings proposed for Greenpoint Landing and not to as-of-right buildings.

NA = not applicable

Source: Philip Habib & Associates

The buildings at 77 Commercial Street, due to their heights and distances, would screen out for potential impacts to the projected development sites. The north tower is over 400 feet from the nearest building of similar height. The south tower is 250 feet from Projected Development Site

4b, and it would screen out for both natural gas and fuel oil at this distance. Its proximity to the 400-foot high building at 77 Commercial Street is not within the scope of the Proposed Project analysis.

### **Screening Analysis of Proposed Action on Existing and Future Structures**

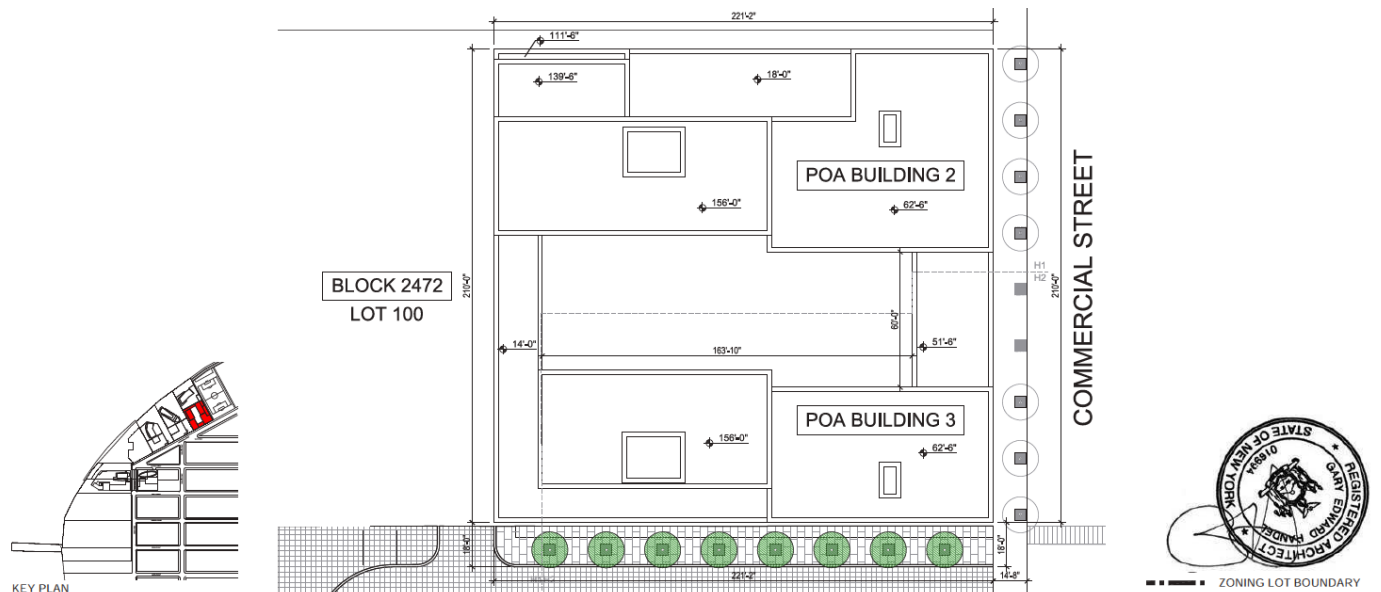
Seven buildings would be anticipated to be constructed on Projected Development Sites 1 through 5, which would be under the control of the applicant. Projected Development Site 4 would include two sections:

- Site 4a with two buildings at 148,587 heated sq. ft. and 148,587 heated sq. ft., at a height of 156 ft. each and
- Site 4b with 131,406 heated sq. ft. at a height of 300 ft.

As each building at Site 4 would be built separately and would include separate HVAC systems with separate stacks, the three buildings at Site 4 were analyzed as three individual HVAC systems. In addition, based on the proximity and similarity in height of the two proposed buildings at Site 4a, a conservative analysis of potential cumulative impacts from the two buildings as a combined source at Site 4a on Site 4b was performed. All of the buildings would use natural gas. The stacks may be located on the mechanical bulkheads on the rooftops. However, as a worst-case condition, no credit for the height of the bulkheads was used in the analysis except for the proposed buildings at Site 4a, which, due to their proximity to each other (see Figure I-3), a stack height of 10 feet above the rooftop is assumed. Stack emission points were initially assumed to be three feet above the rooftop except for the building on Projected Development Site 3 and the public school on Projected Development Site 5. Due to the rooftop recreation areas on these buildings, the stacks are assumed to be 10 feet above the rooftop. Projected Development Site 5, with a resulting stack height of 110 feet, is therefore 35 feet above the rooftop recreation area on Projected Development Site 3 and therefore would not require further analysis for the Projected Development Site 3 rooftop. Figure I-4 shows the projected boiler stack locations and heights.

Table I-11 shows the stack heights and heated square footages for the Projected Development Sites, as well as their distances to the nearest buildings of similar or greater height and the results of the HVAC screen. As shown in the table, most of the buildings would require further analysis with AERMOD. The AERMOD analyses focused on individual buildings. Due to the proximity and similarity in height of the two proposed buildings at Site 4a, an AERMOD analysis was also necessary to evaluate the potential for cumulative impacts.

Figure I-3: Illustrative Site Plan for Site 4a



SK6: POA BUILDINGS 02 AND 03: ILLUSTRATIVE SITE PLAN

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FOR ILLUSTRATIVE PURPOSES ONLY

GREENPOINT LANDING

Figure I-4: Stack Locations used for AERMOD



☆ = Stack Locations

Table I-11: CEQR Manual HVAC Screening Analyses

Site No.	Building ID	Tax Block	Lot(s)	Residential	Retail	Community	Subtotal (Heated Sq. Ft.)	Garage	Total	Bldg. Ht. (ft.)	Stack Ht. (f.)	Nearest Bldgs ≥ Ht.	Dist. (ft.) between lots	Results
														Natural Gas
1	1	2472	32 (partial)	402,024	2,100	0	404,124	38,200	442,324	300	303	2	75	Use AERMOD
2	2	2494	1 (partial), 6	395,825	0	0	395,825	41,600	437,425	400	403	7	170	Screens out
3	3	2494	1 (partial)	102,675	1,200	0	103,875	5,800	109,675	75	85	2, 5	<30, <30	Use AERMOD
4	4a	2472	100 (partial)	145,187	3,400	0	148,587	0	148,587	156	166	NA	NA	Use AERMOD (as combined source)
4	4a	2742	100 (partial)	148,587	0	0	148,587	0	148,587	156	166			
4	4b	2472	100 (partial)	101,806	0	0	101,806	29,600	131,406	300	303	NA	NA	Restrictions
			Subtotal	395,580	3,400	0	398,980	29,600	428,580	300	303	6	30	Use AERMOD
5	School	2494	1 (partial)	0	0	120,000	120,000	0	120,000	100	110	2	<30	Use AERMOD

NA = not applicable

Source: Philip Habib & Associates

## **Modeling for Methodology**

All sites requiring further analysis were modeled with AERMOD. AERMOD, designed to support EPA's regulatory modeling programs, is a steady-state Gaussian plume model with three separate components: AERMOD (a dispersion model), AERMAP (a terrain preprocessor), and AERMET (a meteorological preprocessor). AERMOD can handle emissions from point, line, area, and volume sources. The model is run with five years of meteorological data that include surface mixing height, wind speed, stability class, temperature, and wind direction.

**Urban/rural.** Both the airport and the site are in urban locations, and AERMOD's URBAN option was selected.

**Stack parameters.** EPA defines GEP (good engineering practice) stack height as the height necessary to insure that emissions from a building's stack do not result in excessive concentrations of any air pollutant in the immediate vicinity of the source as a result of atmospheric downwash, eddies, or wakes that may be created by the source itself, nearby structures, or nearby terrain obstacles. The Building Profile Input Program (BPIP) was run in conjunction with AERMOD. The model was run both with and without building downwash to determine which condition would provide worst-case results.

**Pollutants.** Pollutants included NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Only the annual period was analyzed for NO<sub>2</sub> because the one-hour period is not required for an EAS. Emission factors for natural gas were based on an annual consumption rate of 45.2 cubic feet of natural gas per square foot for a residential structure, as indicated in the NYC *CEQR Technical Manual (2012)*. The annual consumption of natural gas, in cubic feet, was converted to pounds using a multiplier of 100 or 50 for a low NO<sub>x</sub> boiler as recommended in Table 1.4-1 of EPA's AP-42 publication for external combustion sources. The resulting annual emissions were converted to hourly and annual emission rates in grams/second based on 2,400 hours per year of use for heating. Because these emissions represent both NO and NO<sub>2</sub> combined, the annual emissions were next multiplied by 0.80 to reflect the component of the total that is nitrogen dioxide.

**Meteorological Data.** The model was run with data from LaGuardia Airport for 2008 through 2012. The upper air station used with La Guardia is Brookhaven. The data was obtained from Trinity Consultants, which provided the following description of the data and processing methods:

***BREEZE FILLSFC:*** The BREEZE FILLSFC program identifies outlying and missing parameters, identifies the percentage of missing unprocessed data (to verify compliance with EPA's 90% regulation), and specifies how missing data is filled. The program is created to follow the EPA's guidelines for filling missing data in raw surface files as specified in their *Procedures for Substituting Values for Missing NWS Meteorological Data for Use in Regulatory Air Quality Models*. BREEZE FILLSFC is a FORTRAN executable program that reads raw surface meteorological data in CD-144 format and fills in missing observations of a length specified by the processor (typically 5 hours). The program measures the data capture of eight parameters: ceiling height, wind direction, wind speed, temperature, total opaque sky, station pressure, relative humidity, and total

sky cover. Based on guidelines set forth by the EPA, the parameters are filled in using the following methods:

- Ceiling height, Total opaque sky, Station pressure, Relative humidity, and Total sky cover: Filled using persistence – the value prior to a gap of missing hours is persisted through the missing period;
- Temperature: Filled using interpolation – missing hours are filled in by interpolating between the values prior to and following the gap;
- Wind Speed: Filled by averaging – an arithmetic average of the four surrounding values (two before and two after) is taken and the gap is filled accordingly;
- Wind Direction: Filled by vector averaging – a unit vector average of the four surrounding values (two before and two after) is taken and the gap is filled accordingly. Only valid wind directions are used in this average - calms and variables are ignored and other steps are taken to ensure only valid data is used.

The program generates a report which details the data capture percentage prior to filling as well as the number of hours filled for each parameter sorted by the method used to fill the missing data.

***BREEZE FSL Fill:*** The BREEZE FSL Fill program reads in the raw upper air data files in FSL format and identifies missing soundings. For individual missing soundings, the program fills in the sounding from the same time on the previous day. For consecutive missing days, the first day is filled with the previous day, the last day is filled with the following day and the soundings in between are just left as missing. Using persistence for upper air filling has been used quite extensively and is generally acceptable since upper air conditions vary much less than surface conditions and AERMET uses very limited information from the files in any case. The program also has an option to fill in missing soundings with data from another station should that methodology be necessary.

**Surface characteristics.** Surface characteristics for the project site and meteorological site were identified according to EPA's *AERMOD Implementation Guide*. In accordance with the U.S. EPA's *AERMOD Implementation Guide* dated 08009, Trinity Consultants used their AERSURFACE program for determining surface characteristics to be used in AERMET processing. By default, 12 sectors were implemented for determining surface roughness, and the seasonal averaging period was used. Both the airport and the site are in urban locations, and AERMOD's URBAN option was selected. The population used for the urban area was 1,700,000, and the default urban surface roughness length of 1.0 m was used for the site.

**Receptors.** Receptor points on the receiving building were assumed to be one foot above the stack height of the source building if the two buildings were the same height. Otherwise, a set of receptors at the same height as the stack were placed on the receiving building if it was taller than the source building. Receptors were placed at 10-foot intervals on the receiving building where operable windows/air intake vents were assumed to be in place. Projected Development



Sites 3 and 5 have rooftop recreational space. Therefore, receptors were placed on the rooftop to ensure that the stack heights for those buildings were appropriate. In addition, the rooftop receptors on Projected Development Site 5 were included when modeling the stack on Projected Development Site 3 to evaluate the potential for impacts.

### AERMOD Results

Modeling results for boilers using natural gas are shown in Table I-12 and described below. Only the annual concentrations were modeled because *according to page 17-7 of the 2012 CEQR TM, at this time and for the purposes of CEQR, it is premature to conduct a quantitative assessment of a project's potential SO<sub>2</sub> and NO<sub>2</sub> emissions' effect on the new 1-hour standards. Therefore, a quantitative discussion/analysis of a project's SO<sub>2</sub> and NO<sub>2</sub> emissions in terms of the new 1-hour standard is not appropriate.*

Based on the modeled results, Projected Development Site 3 must use low NO<sub>x</sub> boilers with an emission rate of 0.002701 grams per second or less. Projected Development Sites 3 and 5 must place the stacks at least 10 feet above the roof due to the planned rooftop recreational space. No significant adverse impacts are projected providing all buildings comply with the conditions shown in Table I-12.

The cumulative impact analysis performed for the two buildings from Site 4a on Site 4b assumed emission from the total development size of the two buildings on site 4a releasing from a single stack at a distance of 61 feet from the closest receptor at Site 4b. The analysis deemed that there would be no potential for significant adverse impact with a stack height of 10 feet above the roof of the tallest tier of POA building 3 of Site 4a (closest to Site 4b).

Since the closest receptor distance used in the cumulative analysis is similar to the distance between POA Buildings 2 and 3 on Site 4a, and there no potential for significant adverse impact was identified with doubled the emission, a project-on-project analysis was not deemed necessary for Site 4a POA Buildings 2 and 3, with a stack height restriction of 10 feet about the building rooftops.

**Table I-12: Nitrogen Dioxide AERMOD Concentrations (µg/m<sup>3</sup>)**

Buildings		Annual Concentrations (µg/m <sup>3</sup> )			Comments
Source	Receiver	Modeled	Background	Total	
6*	4b	1.1	40.2	41.3	Modeling assumed no stack or boiler restrictions
1	2	1.2	40.2	41.5	Natural gas, stack at least 303 feet above grade, 30 ppm low NO <sub>x</sub> burners
3	2	4.5	40.2	44.7	No stack or boiler restrictions
3	3	0.4	40.2	40.6	Natural gas, stack at least 85 feet above grade, and 10 foot stack setback restriction
4a	4a	2.1	40.2	42.3	Natural gas, stack at least 10 feet above roof
3	5	3.4	40.2	43.6	No stack or boiler restrictions
5	2	36.8	40.2	77.1	No restrictions
5	5	0.8	40.2	41.0	Natural gas, stack at least 110 feet above grade, and 10 foot stack setback restriction
<b>NO<sub>2</sub> NAAQS (ug/m<sup>3</sup>) Standard</b>				<b>100</b>	

\*As-of-right buildings at 37 Commercial Street

Source: Sandstone Environmental Associates, Inc

## Air Toxics

### Search for Facilities with Operational Emissions

Potential adverse effects on the proposed new development from existing industrial emissions are a source of concern due to the number and proximity of industrial properties. This section addresses the potential for toxic emissions from nearby industrial sources to significantly impact the proposed development sites.

According to the 2012 *CEQR Technical Manual*, existing facilities with the potential to cause adverse air quality impacts are those that would require permitting under city, state and federal regulations. The *Manual* lists the following types of uses as a source of concern for the residential uses that would occur under the proposed action:

- large emission source (e.g., solid waste or medical waste incinerators, cogeneration facilities, asphalt and concrete plants, or power generating plants) within 1,000 feet,
- a medical, chemical, or research laboratory nearby,
- a manufacturing or processing facility within 400 feet, and
- an odor producing facility within 1,000 feet.

To identify facilities in the categories listed above, the research included on-line searches of NYSDEC's Air Permit Facilities Registry and EPA's Facility Registry System for permitted facilities, an on-line search of data provided by the NYC Department of Buildings, New York City's Open Accessible Space Information System Cooperative (OASIS) data base, telephone directory listings, available aerial photos provided by Google and Bing, internet websites, NYSDEC's DAR-1, and a search for NYCDEP permits. Review of available information indicated numerous vacant lots and industrial establishments.

This information was used to supplement and update the original air toxics analysis carried out for the *Greenpoint-Williamsburg Rezoning FEIS* that was completed in 2005. The only large emission source identified in the *FEIS* was the North 1<sup>st</sup> Street power plant operated by the New York Power Authority (NYPA). Modeling of this facility with the ISC3 model determined that no impacts were likely. However, this source falls outside of 1,000 feet of the projected development sites analyzed in this EAS and therefore no additional analysis was performed. No other large industrial emission sources were identified within 1,000 feet of the boundaries for the Project Site.

The air toxics analysis for the *Greenpoint-Williamsburg Rezoning FEIS* identified 96 permitted facilities consisting of 192 sources. Subsequent analysis determined that, at most sites, maximum short-term and annual average concentrations of individual compounds would be below NYSDEC SGCs and AGCs, and that the cumulative health risk associated with industries in the proposed rezoning area would be below EPA criteria. Where appropriate, (E) designations were incorporated into the text of the rezoning proposal to ensure that no significant impacts at those sites would occur. The (E) designations recommended in the *Greenpoint-Williamsburg Rezoning*

FEIS did not include the projected development sites that are part of the proposed action analyzed in this EAS.

Based on available information, a list of industrial and commercial sites were submitted to NYCDEP for an updated permit search. They are shown in Table I-13 along with the results. Industrial sites that would be redeveloped as part of the proposed action would not be included in the analysis. Thus, the buildings at 77 Commercial Street would be redeveloped for commercial/residential uses.

**Table I-13: Industrial Sites within 400 feet of 2005 Rezoning Boundaries**

Block	Lot	Address	Observed/Listed Land Uses	NYCDEP Permits Found	Current Land Uses
2503	1	198 West St.-	Eagle Tools		
2504	3	246 Franklin St.-	Gabriel's Collision Center		
2487	1	280 Franklin St.-	Harte & Company		
2487	10	10 Clay St. -	Factory		
2487	12	14-20 Clay St. -	Factory	CA1440-92	Vacant
2487	72	57 Dupont St. -	Factory-For Rent Sign		
2487	78	55 Dupont St. -	Factory		
2487	17	22-24 Clay St. -	Factory-For Rent Sign	CA3009-68	Vacant
2487	18	26 Clay St. -	Factory-For Rent Sign		
2487	57	93 Dupont St. -	Factory-For Rent Sign		
2482	9	19 Clay St. -	Factory	PA505-92	Residential
2482	21	6 Box St.	Warehouse	PB0589-07	Warehouse
2482	26	1133 Manhattan Ave.-	M. Hiller & Sons,Inc		
2472	410	77 Commercial St. -	Central Plastic Inc, CP Sunrise Trading Co,Chun Po Distribution		
2472	425	65 Rear Commercial St. -	New York City Transit		
2495	30	96 Dupont St. -	Public Facility/Institution		
2520	1	161 West St.-	Warehouse		
2520	57	171 West St.-	Greenpoint Storage terminal		
2530	1	155 West St.-	Warehouse		

Source: Sandstone Environmental Associates, Inc.

Approximately half of Block 2487 is occupied by an abandoned factory building formerly owned by Harte & Company. This includes the two buildings at 14-20 Clay Street, which are two stories high and have a total of 11,400 sq. ft. They were built in 1931, and no certificates of occupancy are available on-line. A street view on Google Earth indicates that the buildings are vacant and for rent. They are owned by 49 Dupont Realty Corp. Similarly, the two buildings at 22-24 Clay Street (also 67-69 DuPont Street) are two stories high and have a total of 22,600 sq. ft. They were built in 1931, and no certificates of occupancy are available on-line. Field observations indicate that the building is still vacant as of July 18, 2013. Based on this information, the permits at these two sites are no longer applicable and do not require further analysis.

The property at 19-27 Clay Street (also 64 Commercial Street) has two buildings. They are two stories high and have a total of 10,526 sq. ft. They were built in 1931. The most recent certificate of occupancy, dated 1969, is for the manufacture of ink and chemical products (Use Groups 16d and 17b). Recent field observations indicated the building has been converted to residential use. This is confirmed by information on the NYC Department of Buildings available from the OASIS website. Therefore, no further analysis is required.

The one-story building at 6-16 Box Street (also 39-49 Dupont Street) was constructed in 1953 and has 24,200 sq. ft. A temporary certificate of occupancy was issued in April 2013 for loading berths. Additional information on the NYC Department of Buildings website indicates the building has undergone renovations. This site appears to be a warehouse, and is not a likely source of air toxics.

## **F. CONCLUSIONS AND RECOMMENDATIONS**

### **Mobile Sources**

The Proposed Action would not generate air quality impacts for CO or fine particulates. It screens out for CO impacts because project-generated traffic would fall below the threshold of 170 vehicles through in intersection during a peak traffic hour. The screen for PM<sub>10</sub>/PM<sub>2.5</sub> indicated the need for modeling. Modeling of the intersection of Dupont Street and Franklin Street included fine particulates from exhaust fugitive dust. The analysis showed no potential for impacts due to PM<sub>10</sub> or PM<sub>2.5</sub>.

### **Parking Facilities**

No impacts due to underground parking are projected. The largest parking facility would be on Projected Development Site 2. It would be a garage with 41,600 sq. ft. The far sidewalk included a line source contribution from Dupont Street. No 1-hour or 8-hour CO impacts to the receptor points were identified.

### **Air Toxics**

Air pollutant emissions from industrial uses within 400 feet of the 2005 rezoning boundaries would not generate significant adverse impacts based on a review of the air toxics analysis in the *Greenpoint-Williamsburg Rezoning FEIS* and an updated permit search.

### **Stationary HVAC Sources**

No large emission sources within 1,000 feet of the 2005 rezoning area are likely to cause adverse air quality impacts. This is due to their distances, the heights of their stacks, and the lack of a direct line of site to the rezoning area. The only large emission source identified in the FEIS was the North 1<sup>st</sup> Street power plant operated by the New York Power Authority (NYPA). Modeling of this facility with the ISC3 model determined that no impacts were likely. No other large industrial emission sources were identified within 1,000 feet of the boundaries for the Project Site.

For HVAC, the analysis determined that all projected development sites would require (E) designations that would specify the type of fuel to be used as natural gas, and would specify the height of the stack(s) above the roof, and some projected development sites would need (E) designations that would specify stack setback locations. The proposed (E) designations for the applicable projected development sites with respect to HVAC systems are presented below.

The (E) designation text related to air quality is as follows:

**Projected Development Site 1 (Block 2472, Lot p/o 32)**

Any new development on the above-referenced property must ensure that fossil fuel-fired heating and hot water equipment utilize only natural gas, and that the heating and hot water equipment exhaust stack(s) must be located at least 303 feet above grade and must be fitted with low NO<sub>x</sub> burners with a maximum emission concentration of 30 ppm, to avoid any potential significant air quality impacts.

**Projected Development Site 2 (Block 2494, Lots p/o 1, 6)**

Any new development on the above-referenced property must ensure that fossil fuel-fired heating and hot water equipment utilize only natural gas, and that the heating and hot water equipment exhaust stack(s) must be located at least 403 feet above grade to avoid any potential significant air quality impacts.

**Projected Development Site 3 (Block 2494, Lot p/o 1)**

Any new development on the above-referenced property must ensure that fossil fuel-fired heating and hot water equipment utilize only natural gas, and that heating and hot water equipment exhaust stack(s) are located at least 85 feet above grade, and at least 10 feet from the edges of the building facing Dupont Street and Franklin Street lot lines, to avoid any potential significant air quality impacts.

**Projected Development Site 4a – POA Building 2 (Block 2472, p/o Lot 100)**

Any new development on the above-referenced property must ensure that fossil fuel-fired heating and hot water equipment utilize only natural gas, and that heating and hot water equipment exhaust stack(s) are located at least 166 feet above grade to avoid any potential significant air quality impacts.

**Projected Development Site 4a – POA Building 3 (Block 2472, p/o Lot 100)**

Any new development on the above-referenced property must ensure that fossil fuel-fired heating and hot water equipment utilize only natural gas, and that heating and hot water equipment exhaust stack(s) are located at least 166 feet above to avoid any potential significant air quality impacts.

**Projected Development Site 4b (Block 2472, p/o Lot 100)**

Any new development on the above-referenced property must ensure that fossil fuel-fired heating and hot water equipment utilize only natural gas, and that heating and hot water equipment exhaust stack(s) are located at Building 4b, at least 303 feet above grade to avoid any potential significant air quality impacts.

**Projected Development Site 5 (Block 2494, Lot p/o 1)**

Any new development on the above-referenced property must ensure that fossil fuel-fired heating and hot water equipment utilize only natural gas, and that heating and hot water equipment exhaust stack(s) are located at least 110 feet above grade, and at least 10 feet from the edges of the building facing West Street and Eagle Street lot lines, to avoid any potential significant air quality impacts.

The (E) designations for the applicant's projected development sites are based on the applicant's illustrative building design for these sites. Any changes to the heights or configurations of the buildings or tiers may necessitate revisions to the (E) designations.

With the abovementioned institutional controls in place, no significant adverse impacts related to air quality would result from the proposed action. To the extent permitted under Section 11-15, "Environmental Requirements" of the Zoning Resolution, the requirements of the (E) designations may be modified, or determined to be unnecessary, based on new information or technology, additional facts, such as changes to the heights or configurations of the buildings represented in the illustrative massing for the proposed project, including the illustrative massing shown in Figure I-3, or updated standards that are relevant at the time each building is ultimately developed.

**ATTACHMENT J  
CONSTRUCTION**

**A. INTRODUCTION**

Construction impacts, although temporary, can include disruptive and noticeable effects. They may be analyzed for a project that involves construction or may induce construction either in the short-term (less than two years) or long-term (two or more years). Construction impact assessments establish the potential effects of an action on transportation, air quality, noise or other technical areas such as historical and cultural resources, hazardous materials and natural resources throughout the duration of a project. Assessments of these areas of concern are provided in this attachment.

The proposed action would facilitate construction on Projected Development Sites 1 through 5, which are located in the northwestern part of Greenpoint. These would include six multi-story elevator apartment developments that may include ground floor retail and/or below-grade parking and one new public school building. On Projected Development Sites 1 and 4, which are adjacent to the shoreline, new waterfront public open space areas also would be constructed. As discussed in Attachment A, “Project Description,” under No-Action conditions, there would be one or more developments of similar size constructed on Projected Development Site 3 (which would extend into the GLA-owned portion of Projected Development Site 2) and on Projected Development Site 4. As such, the incremental change in construction on the projected development sites occurring as a result of the proposed action would be three additional developments. In addition, other development by the applicants is expected to occur under No-Action conditions on adjoining sites. These include one or more developments constructed by GLA on 37 Commercial Street, the removal of the existing NYC DEP sludge tank on Projected Development Site 2 and the NYC DEP sludge vessel dock adjacent to Projected Development Site 1 by the City, and the creation of a Newtown Barge Playground expansion adjacent to Projected Development Site 1.

**B. PRINCIPAL CONCLUSIONS**

This attachment provides a description of the Proposed Project’s construction activities, schedule, staffing, and truck activity. Per the 2012 *CEQR Technical Manual* guidance, this is followed by assessments of key areas of concern including transportation, air quality, noise, and other technical areas including historic and cultural resources, hazardous materials, natural resources, open space, socioeconomic conditions, community facilities, land use and public policy, neighborhood character, and infrastructure. The construction process in New York City is highly regulated to ensure that construction period impacts are eliminated or minimized and this would apply to the Proposed Project. Details on any temporary street and sidewalk closures necessary to facilitate project construction are not available at this time but at the time of any closure would be fully addressed by a permit (and pedestrian access plan) required by the New York City Department of Transportation’s Office of Construction Management and Coordination



(OCMC). Per the analysis presented in this attachment, the Proposed Project would not result in significant adverse construction impacts.

The analysis provided in this attachment identifies several measures which are considered project components related to the environment (PCREs). As discussed in Attachment A, these include the following improvements to prevent potential impacts: construction noise barriers (referenced in Table J-9, Summary of Recommended Construction Barriers on page J-25, implementation of diesel particulate matter (DPM) emissions, control measures and utilization of best available technologies and Tier 3 or newer equipment during construction. The obligation to implement these PCREs would be made part of the transactional documents between GLA and the City.

## C. BACKGROUND INFORMATION

### *Greenpoint-Williamsburg Rezoning FEIS*

The construction assessment included in the 2005 *Greenpoint-Williamsburg Rezoning FEIS* concluded that construction-related activities were not expected to have significant adverse impacts on natural resources, noise, architectural resources, traffic, air quality, or hazardous material. However, the proposed 2005 rezoning possessed a potential for adverse impacts on archeological resources.

Architectural resources identified by the *FEIS* would not experience adverse effects as a result of construction activity as all buildings designated as historic resources were protected by applicable laws and regulations. It should be noted that, as discussed in Attachment B, “Supplemental Screening,” the projected development sites assessed in this EAS do not contain and are not located within the vicinity of any historic resources. The *FEIS* identified the potential for impacts on archaeological resources during construction at 14 projected development sites and 50 potential development sites on privately-owned land in the proposed rezoning area. Mitigating the effect of the rezoning would not be feasible as the projected and potential development sites were privately owned and could be developed as-of-right with or without the rezoning. However, as discussed in Attachment B of this EAS, the *FEIS* concluded that the projected development sites analyzed in this EAS were not identified as having potential archaeological sensitivity.

It was anticipated in the 2005 *FEIS* that construction induced by the rezoning would not have an adverse impact on natural resources. The rezoning would result in the rehabilitation and enhancement of 5,000 linear feet of shoreline. The process of obtaining permits for waterfront improvement would minimize adverse impacts. Additionally, pursuant to state and national law, a Stormwater Pollution Prevention Plan (SWPPP) would be established prior to construction activities on waterfront sites. According to the *FEIS*, no stormwater discharges would be anticipated as an SWPPP would present stormwater management practices.

The *FEIS* stated that potential adverse construction-related impacts from hazardous materials would be minimized by implementing remediation requirements performed under the purview of the New York City Department of Environmental Protection and the New York State Department of Environmental Conservation (as discussed in Attachment B, “Supplemental

Screening” of this EAS, the NYC Mayor’s Office of Environmental Remediation now performs oversight of the City’s (E) designation program).

The *FEIS* also stated that construction activities would result in temporary disruption of traffic and pedestrian movements. As these conditions are short-term, they would not result in significant adverse impacts on traffic and transportation conditions, the *FEIS* concluded.

Possible impacts on local air quality associated with the rezoning under the *FEIS* included fugitive dust emissions from land clearing operations and mobile source emissions which include hydrogen, nitrogen oxide and carbon monoxide. The *FEIS* concluded that fugitive emissions would be mitigated through appropriate control measures and that mobile source emissions would be minimized by following standard traffic maintenance requirements.

The *FEIS* stated that adverse impacts from noise would be minimized by adhering to the New York City Noise Control Code and the EPA noise emission standards which mandate that some construction equipment meets noise emission standards; that construction activity be limited to weekdays between 7AM and 6 PM; and that construction materials be handled in such a manner as not to create additional noise.

#### **D. FUTURE WITHOUT THE PROPOSED ACTION**

Under No-Action conditions, new Greenpoint Landing buildings would be constructed by 2020, including buildings on Projected Development Sites 3 and 4 and one or more as-of-right buildings located west of Projected Development Site 4 at 37 Commercial Street, a property that is not affected by the proposed action. The development of Projected Development Site 4 and 37 Commercial Street requires the creation of waterfront public open space as part of the Greenpoint-Williamsburg Waterfront Access Plan. It should be noted that the No-Action development on Projected Development Site 3 could extend into the GLA-owned portion of Projected Development Site 2. In addition, by the end of 2014 the City is expected to remove both the NYC DEP Sludge Tank from the City-owned portion of Projected Development Site 2 and the NYC DEP Sludge Vessel Dock located adjacent to Projected Development Site 1. The City has also committed to construct the Newtown Barge Playground Expansion, located north of Projected Development Site 1, with or without the proposed action. For analysis purposes this is assumed to occur by or before the 2020 analysis year.

#### **E. FUTURE WITH THE PROPOSED ACTION**

Under With-Action conditions by 2020, new developments would be anticipated to be constructed on Projected Development Sites 1 through 5. These would include new mixed-use and residential developments by GLA on Projected Development Sites 1 through 4 and a new public school by SCA on Projected Development Site 5. The six GLA developments are anticipated to be constructed in phases and the sequencing would be consistent with the provision of “POA” affordable housing units that facilitate the development of certain affordable housing units be constructed on Projected Development Sites 3 and 4a. The GLA developments would include some buildings with a small amount of ground-floor local retail and/or parking garages. The developments on Projected Development Sites 1 and 4 would include required

waterfront public open space. The Proposed Project would also include transportation system improvements including the West Street Extension, the building of a one-block roadway extension from Eagle Street to DuPont Street, which is mapped but not currently built, and the provision of a new high entry/exit turnstile (HEET) at the Greenpoint Avenue (G) subway station. The incremental change in construction that would occur under With-Action compared to No-Action conditions would include two additional apartment developments (on Projected Development Sites 1 and 2), additional public open space (on Projected Development Site 1), the new public school building (on Projected Development Site 5), the West Street Extension, and the new HEET at the Greenpoint Avenue (G) subway station.

**F. OVERVIEW OF CONSTRUCTION ACTIVITIES**

As the Proposed Project is in preliminary design and is not expected to advance to detailed design until after the CEQR process is completed, information on construction scheduling, staffing, and tasks provided herein is based on experience with similar projects and general procedures used for construction in New York City.

**Construction Phasing for a Typical New Building**

Construction for each of the action-generated buildings is expected to have a duration of approximately 23 months. Table J-1 provides an illustrative action-generated building construction schedule and Table J-2 indicates how this illustrative schedule for No-Action and With-Action conditions is projected to be implemented for each site.

Table J-1, Illustrative Construction Task Schedule

TASK*	Month																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
A. Demolition/Site Clearance	█																						
B. Excavation/Foundation		█	█	█	█	█																	
C. Superstructure						█	█	█	█	█	█												
D. Façade/Roof												█	█	█	█								
E. Interior Framing, Drywall, Finishes																							
F. Exterior Landscape & Hardscape																							

\* Task letters serve as a key for Table J-2

**Task Descriptions and Number of Workers per Site**

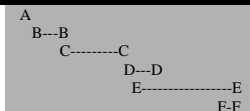
**A. Demolition/Site Clearance.** This task would involve demolition of existing structures, pavement, and other existing hardscape. Given the relatively small size of the existing buildings, this task would last approximately 1 month.

**B. Excavation/Foundation.** This task would involve excavation of soil and rock, and minimal grading for foundations and any new on-site utility connections. Activities would include digging, pile-driving, pile capping, excavation and removal of excavated materials, dewatering (to the extent required), and reinforcing and pouring of the foundation. Typical equipment used for these activities would include excavators, backhoes, tractors, piledrivers, hammers, and cranes. Trucks would arrive at the site with pre-mixed concrete and other building materials, and would remove any excavated material and construction debris. This is anticipated to be the noisiest phase of work and would last approximately 5 months.

**Table J-2, Illustrative Project Area Building and Task Phasing by 2020**

	Year				2014				2015				2016				2017				2018				2019				2020			
	Quarter	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
<b>2020 No-Action Conditions</b>																																
37 Commercial St. "as-of-right"					A B--B C-----C D--D E-----E F-F																											
37 Commercial St. "as-of-right"									A B--B C-----C D--D E-----E F-F																							
Projected Development Site 3													A B--B C-----C D--D E-----E F-F																			
Projected Development Site 4																	A B--B C-----C D--D E-----E F-F															
<b>2020 With-Action Conditions</b>																																
37 Commercial St. "as-of-right"					A B--B C-----C D--D E-----E F-F																											
Projected Development Site 3					A B--B C-----C D--D E-----E F-F																											
37 Commercial St. "as-of-right"									A B--B C-----C D--D E-----E F-F																							
Projected Development Site 5									A B--B C-----C D--D E-----E F-F																							
Projected Development Site 4a(1)													A B--B C-----C D--D E-----E F-F																			
Projected Development Site 4a(2)													A B--B C-----C D--D E-----E F-F																			
Projected Development Site 4b													A B--B C-----C D--D E-----E F-F																			
Projected Development Site 2																	A B--B C-----C D--D E-----E F-F															
Projected Development Site 1																					A B--B C-----C D--D E-----E F-F											

**Legend:**



Task phasing –  
for letter key refer  
to Table J-1

Water misting would be used to the extent necessary and practicable to minimize dust from excavation operations for Projected Development Sites 1, 2, 3, 4a and 5. A wheel-well wash station would be installed at the truck exit from site to ensure that mud and dust are not carried to the adjacent streets.

As discussed in the “Hazardous Materials” section of Attachment B, “Supplemental Screening,” development of Projected Development Sites 1, 2, 3 and 4a would be governed by (E) designations for hazardous materials that require that a testing and sampling protocol be conducted, and a remediation plan be developed and implemented where appropriate, to the satisfaction of the NYC Mayor’s Office of Environmental Remediation (OER). Any petroleum storage tanks encountered would be registered, properly assessed, and removed along with any contaminated soil, in accordance with all applicable regulatory requirements including New York State Department of Environmental Conservation (“NYSDEC”) requirements for spill reporting and cleanup.

During this task, it is anticipated that sidewalk protection bridges, with full height plywood barriers would be installed to protect the public right of way to the extent necessary and practicable for Projected Development Sites 1, 2, 3, 4a and 5. Sidewalk and parking lane closures during this period of work may be required to facilitate material delivery and construction debris removal. This could result in temporary rerouting of pedestrians to sidewalks across the street and the temporary elimination of curbside parking spaces.

**C. Superstructure.** Construction during this task would include the building framework (columns and beams) and floor decks. It would also include underground parking foundation, ramps, and decking, where applicable. These activities would require the use of tower cranes, compressors, personnel and material hoists, front-end loaders, concrete pumps, on-site bending jigs, welding machines, and a variety of hand-held tools, in addition to the delivery trucks transporting construction materials to the site. This stage would last approximately 6 months.

**D. Facade/Roof.** This phase of work would be relatively quiet; and no fugitive dust would be generated from the erection of the wall panels or roof work. This task would be completed in approximately 4 months.

Following the first month of work on this task, this work would overlap with the early months of the interior framing, drywall, and finishes task. With these two tasks being undertaken simultaneously, the average daily number of workers would peak at 124 workers.

**E. Interior Framing, Drywall, Finishes.** New finishes at the walls, floors, and ceilings would be installed throughout the building. This task would last approximately 11 months. It is the quietest task with no fugitive dust generated from the work. There is generally no noise impact to the surrounding community as a result of this work.

It should be noted that the final 2 months of this task would overlap with the exterior landscape and hardscape task.

***F. Exterior Landscape and Hardscape.*** This would likely include permanent improvements including waterfront public open space on Projected Development Sites 1 and 4, with less activity required for the upland Projected Development Sites 2, 3, and 5. This would also include site driveways and the West Street Extension constructed in tandem with Projected Development Site 1. Intermittent sidewalk closure only would be required for curb cut work. Misting would be used to mitigate dust. This task would last approximately 2 months.

### **Development Site Construction Scheduling/Sequencing**

While Table J-1 presents a typical construction phasing schedule for a new building, Table J-2 presents illustrative task scheduling for all buildings to be constructed by GLA under both 2020 No-Action conditions and 2020 With-Action conditions. In addition, the 2020 With-Action conditions would include the new public school built by SCA on Projected Development Site 5. GLA has not finalized its construction sequencing and in any event such scheduling is subject to change due to myriad variables; the information in this table is a reasonable projection based on GLA's and SCA's preliminary plans. Projected Development Site 4 would consist of three distinct sections that would be constructed as discrete structures and therefore are listed separately in Table J-2. It should be noted that the exact timing of these elements are subject to change. If plans for construction phasing changes substantially from what is assumed for this analysis, then a revised analysis may be appropriate. Construction of the various components of the RWCDs conceptual development plan would occur over approximately 5 to 6 years, with construction activities and intensities varying, depending on what components of the overall development are under way at any given time. Under either No-Action or With-Action scenario conditions, given typical market conditions and other considerations for large residential developments involving multiple buildings it is preferable to complete the buildings sequentially at temporal intervals rather than completing all buildings simultaneously. This is evidenced by similar developments such as Queens West, Battery Park City, Riverside South, and Hunters Point South.

As indicated in Table J-2, for the 2020 No-Action scenario, it is anticipated four Greenpoint Landing buildings would be constructed by 2020, including new buildings on Projected Development Sites 3 and 4 and one or more as-of-right buildings at 37 Commercial Street, a property which is not affected by the proposed action but which is located west of Projected Development Site 4. For illustrative purposes, it is assumed that four GLA buildings would be constructed consecutively, although as indicated by the table some overlap likely would be necessary to complete four buildings by 2020. As such, from 2014 to 2020, under the No-Action scenario it is likely that at least one building would be under construction at any given time and that certain periods two buildings would be under construction concurrently.

Under 2020 With-Action conditions GLA would facilitate the creation of "POA" affordable housing units on Projected Development Sites 3 and 4a. As indicated in Table J-2, it is likely that for most of the period from 2014 to 2020, there would be two buildings under construction at the same time and during some periods there would be three buildings under construction. The With-Action condition includes the public school to be constructed by SCA. It is possible the school could be completed and in operation before the completion of the neighboring buildings on Projected Development Sites 2 and 3, as indicated in the illustrative schedule in the

table. Compared to No-Action condition, therefore, there are expected to be up to three buildings under construction at any one time on the projected development site and the adjoining Greenpoint Landing “No-Build site” as compared to up to two buildings, an incremental increase of one building.

**Construction Workers Estimate**

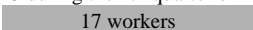
Table J-3 also presents the estimated construction workers on-site per day for both No-Action and With-Action conditions. Based on the illustrative schedule shown in the table, the peak incremental workers generated by the proposed action would be approximately 125 workers during the fourth quarter of 2017. The number of workers is based on the development gross square footage and estimated construction costs for each site. These estimates are developed using a RIMS II analysis based on the construction estimate for each development site (assuming \$350 per gross square foot for new construction).

**Table J-3, Illustrative Project Area Building Phasing by 2020 and Staffing**

	2014	2015	2016	2017	2018	2019	2020
<b>2020 No-Action Conditions</b>							
37 Commercial St. “as-of-right”	106 workers						
37 Commercial St. “as-of-right”			80 workers				
Projected Development Site 3				50 workers			
Projected Development Site 4						76 workers	
<b>2020 With-Action Conditions</b>							
37 Commercial St. “as-of-right”	106 workers						
Projected Development Site 3		17 workers					
37 Commercial St. “as-of-right”			80 workers				
Projected Development Site 5			21 workers				
Projected Development Site 4				76 workers			
Projected Development Site 2					78 workers		
Projected Development Site 1						79 workers	
<b>Total Net Increment Workers*</b>	0	17	38	† 97	47	* 104	31 81 3

† 3rd quarter of 2016 net increment workers would be 21 (could not fit in table due to space constraints)

\* Peak total net incremental workers would be 125 during the 4th quarter of 2017

**Legend:**  Estimated Constructions Workers On-site per Day

**Construction Trucks Estimate**

An estimate of the number of daily construction trucks generated was made based on prior environmental review documents.<sup>1</sup> It is estimated that the first six months of construction (the demolition/site clearance; and excavation/foundation phases) would generate approximately nine daily trucks per 100,000 gsf of development area, the second six months of construction (the superstructure phase) would generate approximately eleven daily trucks per 100,000 gsf of development area, and the final eleven months of construction (the façade/roof; interior framing, drywall, and finishes; and exterior landscape and hardscape phases) would generate

<sup>1</sup> Sources for truck trip generation included: Dormitory Authority State of New York (Lead Agency), *Brooklyn College Nostrand Avenue Development EAS* (2013) and Office of the Deputy Mayor for Economic Development (Lead Agency), *Admirals Row Plaza FEIS* (2011).

approximately three daily trucks per 100,000 gsf. These ratios were applied to each of the development sites and the resulting estimate of the number of daily trucks, based on each development gsf and illustrative building phasing is shown in Table J-4 for Greenpoint Landing 2020 No-Action conditions and in Table J-5 for Greenpoint Landing 2020 With-Action conditions. As shown in Table J-5, the incremental peak number of daily trucks is expected to be 52, which based on the illustrative schedule would occur in the fourth quarter of 2016. As discussed below, it is expected that each daily truck would make one round trip to and from the site, two truck trips per each truck, and that it is conservatively assumed that most truck deliveries would result in two truck trips in the same hour.

**Table J-4, Illustrative Project Area Construction Truck Forecast: 2020 No-Action Conditions**

	2014	2015	2016	2017	2018	2019	2020
37 Commercial St. "as-of-right"	53	65	18				
37 Commercial St. "as-of-right"			41	50	14		
Projected Development Site 3				29	36	10	
Projected Development Site 4						38	47
Maximum Peak No-Action Trucks	59 in the 4th quarter of 2015						

**Legend:** 40 49 13 Estimated Construction Daily Trucks (2 daily trips/truck)

**Table J-5, Illustrative Project Area Construction Truck Forecast: 2020 With-Action Conditions**

	2014	2015	2016	2017	2018	2019	2020
37 Commercial St. "as-of-right"	53	65	18				
Projected Development Site 3		10	12	3			
37 Commercial St. "as-of-right"			41	50	14		
Projected Development Site 5			11	13	4		
Projected Development Site 4				39	47	13	
Projected Development Site 2					39	48	13
Projected Development Site 1						40	49
Maximum Peak With-Action Trucks	66 in the 4th quarter of 2016						
Max. Peak Net Increment Trucks	52 in the 4th quarter of 2016*						

\* There would be 20 net daily trucks in the 4th quarter of 2017 (the quarter with peak net number of workers per Table J-3) and 51 net daily trucks in the 2nd & 3rd quarters of 2018 when total net vehicle (passenger car equivalents) trips would peak (as discussed in the traffic assessment section)

**Legend:** 40 49 13 Estimated Construction Daily Trucks (2 daily trips/truck)

## General Construction Practices

The construction process in New York City is highly regulated to ensure that construction period impacts are eliminated or minimized. The various requirements are typically incorporated into construction contract documents to ensure compliance with the applicable regulations.

**Construction Equipment.** Typical equipment used for demolition, excavation and grading, and site preparation for the Proposed Project would include bulldozers, backhoes, compaction equipment, tractors, pile-drivers, concrete pumping trucks, and steel erection equipment (mobile cranes). Other types of equipment that would be used include hoist complexes, dump trucks and loaders. Trucks would deliver concrete and other building materials, and remove excavated material as well as demolition and construction debris. The construction equipment likely to be



used during the building construction would include compressors, cranes, hoists, bending jigs, and welding machines. Trucks would remain in use during building construction for material supply and construction waste removal. Interior construction and site finishes and improvements work would employ a large number of construction workers, and a wide variety of fixtures and supplies would be delivered to the site.

***Deliveries and Access.*** It is expected that access to the construction site for delivery of materials for on Projected Development Sites 1, 2, 3, 4a and 5 would be controlled, scheduled, and managed to minimize impacts on street traffic. Flaggers would be posted, as necessary, throughout the duration of the construction to manage and maintain traffic flows throughout the construction period. Unscheduled deliveries would be minimized to avoid traffic impacts. It is expected that the Proposed Project would generate a peak of 52 trucks per day, occurring when multiple site construction overlaps.

***Hours of Work.*** The permitted hours of construction regulated by the *New York City Noise Control Code* and New York City Department of Buildings (“NYCDOB”) apply in all areas of the city and are reflected in the collective bargaining agreements with major construction trade unions. It is anticipated that the bulk of construction activities would take place Monday through Friday, during the regularly allowed hours of construction (7:00 AM to 6:00 PM), but that some overtime may be required to complete some time-sensitive tasks beyond the normal work day (e.g., cement pouring) on weekdays and that some construction activities could also occur on Saturdays. Typically, construction work would begin at 7 AM on weekdays, with most workers arriving between 6 AM and 7 AM. Typically, work would end at 3:30 PM, but could be extended until 6 PM for such tasks as finishing a concrete pour for a pad, or completing the bolting of a steel frame erected that day.

In the event that overtime or Saturday work is required, appropriate work permits from NYCDOB would be obtained. After hours construction activities (weekdays between 6 PM and 7 AM and on weekends) may be permitted only to accommodate: (1) emergency conditions; (2) public safety; (3) construction projects by or on behalf of City agencies; (4) construction activities with minimal noise impacts; and (5) undue hardship resulting from unique site characteristics, unforeseen conditions, scheduling conflicts, and/or financial considerations. In such cases, the numbers of workers and pieces of equipment in operation would be limited to those needed to complete the particular authorized task. Therefore, the level of activity for any weekend work would be less than a normal workday. If it were to become necessary, the typical weekend workday would be on Saturday, beginning with worker arrival and site preparation at 7 AM, and ending with site cleanup at 5 PM. Extended workdays may occur during foundation and superstructure tasks, and limited extended workdays could occur during other tasks over the course of construction, but would likely be minimized.

For any work occurring outside the regular weekday hours, an Alternative Noise Mitigation Plan permit would need to be obtained from the New York City Department of Environmental Protection (“NYCDEP”) in accordance with the *New York City Noise Control Code*, as per § 24221 of the *New York City Administrative Code*. It is necessary to file this document with NYCDEP, and the approved plan must be accessible to inspectors. In accordance with § 24221, any individual or entity performing construction work in the City shall adopt and implement an

Alternative Noise Mitigation Plan for each construction site when any device or activity deviates from strict compliance with the noise mitigation rules as defined in § 24219 (including work being performed outside the regularly allowed weekday construction hours). An Alternative Noise Mitigation Plan is also required when the construction devices being used on a site for any reason cannot strictly comply with the mitigation strategies and Best Management Practices defined in 15 Rules of the City of New York (RCNY) § 28102.

***Sidewalk and Lane Closures.*** Construction would not result in the closure of any roadway (including bicycle routes) or sidewalk elements not typically fully addressed by a permit (and pedestrian access plan) required by the New York City Department of Transportation's (NYCDOT) Office of Construction Mitigation and Coordination ("OCMC") at the time of closure so that impacts are not expected to occur, and construction would not affect access points to transit. Construction staging would take place on and around the projected sites. Although there likely would be opportunities for construction staging on portions other properties owned by GLA and the City, it is possible that some staging, including laydown areas used for temporary storage and unloading of construction materials, equipment, and supplies would take place on adjoining portions of public streets. Such staging on public streets would be required to be reviewed and approved by OCMC. Given the location of the projected development sites on the northwest edge of the street grid, it is not expected that through streets would be used for material laydown and loading/unloading. Materials that are needed during the day are usually delivered early that day. These materials, such as reinforcing bars and prefabricated pieces, are stored until needed. However, in certain cases, several days of construction materials would be stored, although for security such storage would typically be in secured areas on the project site.

As discussed below, similar to other workers in the area, it is expected that construction workers would travel to and from the Project Site by a variety of modes.

As part of the proposed actions, a new one-block long street segment would be constructed, extending West Street from Eagle Street to DuPont Street. Temporary street and sidewalk closures on the adjoining public streets may be required to complete construction of this roadway.

## **F. ASSESSMENT**

According to the guidelines provided by the 2012 *CEQR Technical Manual*, analysis of a project's construction activity may be carried out with consideration for project duration, intensity, the complexity and location of construction activity as well as the use of construction equipment and potential site disturbance.

The 2012 *CEQR Technical Manual* states that preliminary assessments of construction impacts is warranted if a project's construction extends for a period of greater than two years. As discussed above, while the proposed action would result in an overall construction period longer than two years, the construction period for each building is expected to be two years or less. Given the size and location of the five projected development sites and GLA's neighboring "No-Build site" they are spread over an area with some distance separating the individual building areas.

## Transportation

The projected development sites are not located in a Central Business District (CBD), or along an arterial or major thoroughfare. There are no bicycle routes, bus lanes or routes, or access points to transit at or immediately adjacent to the sites. Vehicular access to/from the sites for construction worker vehicles would be via the one-way (northbound) West Street two-way (eastbound-westbound) Commercial Street, and the two-way (northbound-southbound) Franklin Street. As any temporary lane or sidewalk closures resulting from the proposed project would not occur along a major thoroughfare, project-related construction activity would not create significant disruptions in traffic flow.

### Traffic

Construction of the Proposed Project would generate trips resulting from arriving and departing construction workers, movement of materials and equipment, and removal of construction waste.

The 2012 *CEQR Technical Manual* states that the volume of vehicular traffic (including trucks) expected to be generated during peak construction hours should be estimated in order to determine whether a detailed quantitative analysis is warranted. The assessment of construction-related traffic should consider vehicles generated by construction employees driving to and from the site, as well as trucks and other vehicles associated with project construction.

Based on the illustrative schedule, estimated construction employees, and construction trucks, shown in Tables J-2, J-3, J-4, and J-5, it is expected that the incremental number of daily construction vehicle trips would peak during the second and third quarters of 2018 at approximately 72 passenger-car equivalent (PCE) vehicles. It should be noted that for traffic assessment purposes, per the 2012 *CEQR Technical Manual*, trucks are counted as two PCEs. The analysis assumes that each truck would be expected to make two trips (one round trip to and from the site) on a typical day.

### *Construction Worker Trips*

Given typical construction hours, worker trips would not be concentrated in the peak traffic analysis hours and would not represent a substantial increment during those peak traffic analysis hours. Construction work shifts would typically begin by 7:00 AM and finish around 3:00 PM or 3:30 PM. Most construction worker arrivals would occur before the typical 8:00 AM to 9:00 AM traffic peak period, and construction worker departures would generally occur before the 5:00 PM to 6:00 PM evening commuter peak period. As presented in the *Admirals Row Plaza FEIS* (2011)<sup>2</sup>, commuting to work via auto for construction occupations is estimated at approximately 55 percent, with an average auto occupancy rate of 1.9. As the Project Site analyzed in this EAS is served by mass transit — including the nearby Greenpoint Avenue (G)

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<sup>2</sup> Source for construction transportation planning assumptions used: Office of the Deputy Mayor for Economic Development (Lead Agency). *Admirals Row Plaza Final Environmental Impact Statement*. October 2011.

subway station and several bus routes — it is expected that a substantial number of construction workers also would use mass transit to commute to and from the projected development sites.

#### *Truck Trips*

Based on *CEQR* analyses of construction for other projects, including the 2011 *Admirals Row Plaza FEIS*, truck deliveries would be spread throughout the day. The trucks would arrive at and depart from the projected development sites via NYCDOT-designated truck routes, which include Franklin Street, Commercial Street, Ash Street, Box Street, Manhattan Avenue, and McGuinness Boulevard. (Trucks are only permitted to use nondesignated routes at the beginning or end of a trip, when traveling between their origin/destination and a truck route, using the most direct route possible.)

Construction truck trips would be made throughout the day and most trucks would remain in the area for short durations. For analysis each truck delivery was assumed to result in two truck trips generally during the same hour (one “in” and one “out” movement). Construction truck deliveries would peak during the hour before the normal work day (25 percent of daily total), overlapping with construction worker arrival traffic.

#### *Temporal Distribution*

Based on these assumptions, peak-hour construction traffic was estimated for the period when the number of workers and truck deliveries is expected to peak, are summarized in Table J-6. As shown in Table J-6, construction activities would result in a maximum combined auto and truck traffic of 74 vehicle trips during the 6:00 AM to 7:00 AM hour and 74 vehicle trips during the 3:00 PM to 4:00 PM hour. As also shown in the table, the combined construction auto and truck vehicle trips would be 12 and 1 during the 8:00 AM – 9:00 AM and 5:00 PM – 6:00 PM peak hours, respectively.

**Table J-4, Peak Incremental Construction Vehicle Trips per Hour**

Hour	Worker Vehicle Trips		Truck Trips*		Total Vehicle Trips			Accumulation
	In	Out	In	Out	In	Out	Total	
5-6 AM	4	0	0	0	4	0	4	4
6-7 AM	23	1	24	24	47	25	72	26
7-8 AM	4	0	8	8	12	8	20	30
8-9 AM	0	0	6	6	6	6	12	30
9-10 AM	0	0	6	6	6	6	12	30
10-11 AM	0	0	6	6	6	6	12	30
11-12 N	0	0	8	8	8	8	16	30
12-1 PM	0	0	8	8	8	8	16	30
1-2 PM	0	0	6	6	6	6	12	30
2-3 PM	0	4	10	10	10	14	24	26
3-4 PM	1	23	24	24	25	47	72	4
4-5 PM	0	3	2	2	2	5	7	1
5-6 PM	0	1	0	0	0	1	1	0
6-7 PM	0	0	0	0	0	0	0	0
<b>Total</b>	32	32	108	108	140	140	280	

\* Truck Trips converted to passenger-car equivalents (PCEs); actual number of truck trips would be half of values shown in table.

Calculated per assumptions used in 2011 *Admirals Row Plaza FEIS*.

### *Level 1 Screening*

As the proposed action would generate peak incremental construction PCE vehicle trips in excess of 50 in the 6:00 AM to 7:00 AM and 3:00 PM to 4:00 PM hours, it would exceed the Level 1 trip generation screening threshold for detailed analysis and a Level 2 trip assignment screening is necessary. Apart from those two peak hours, during the other periods, no intersection would process an incremental increase in traffic that would exceed the Level 1 50-trip generation screening threshold and therefore no significant adverse impacts would be expected due to construction traffic further assessment is required for those periods.

### *Level 2 Screening*

A trip assignment of peak construction PCE vehicle trips and operational vehicle trips present during the period of peak construction was prepared as shown in Figure J-1. This trip assignment determined that no intersection would process more than 50 project-generated trips. Therefore, no significant adverse construction traffic impacts would occur and no further analysis is warranted.

### Parking

Although a parking plan for construction workers has not been developed at the time this EAS was prepared, it is expected that construction workers' private vehicles would be accommodated either on the projected development sites, other GLA-owned properties, or at on-street parking spaces available in the area.

As shown in Table J-4, the Proposed Project's incremental peak parking demand would be 38 parking spaces. As discussed in the 2012 *CEQR Technical Manual*, projects which do not require detailed traffic analysis generally also do not require detailed parking analysis.

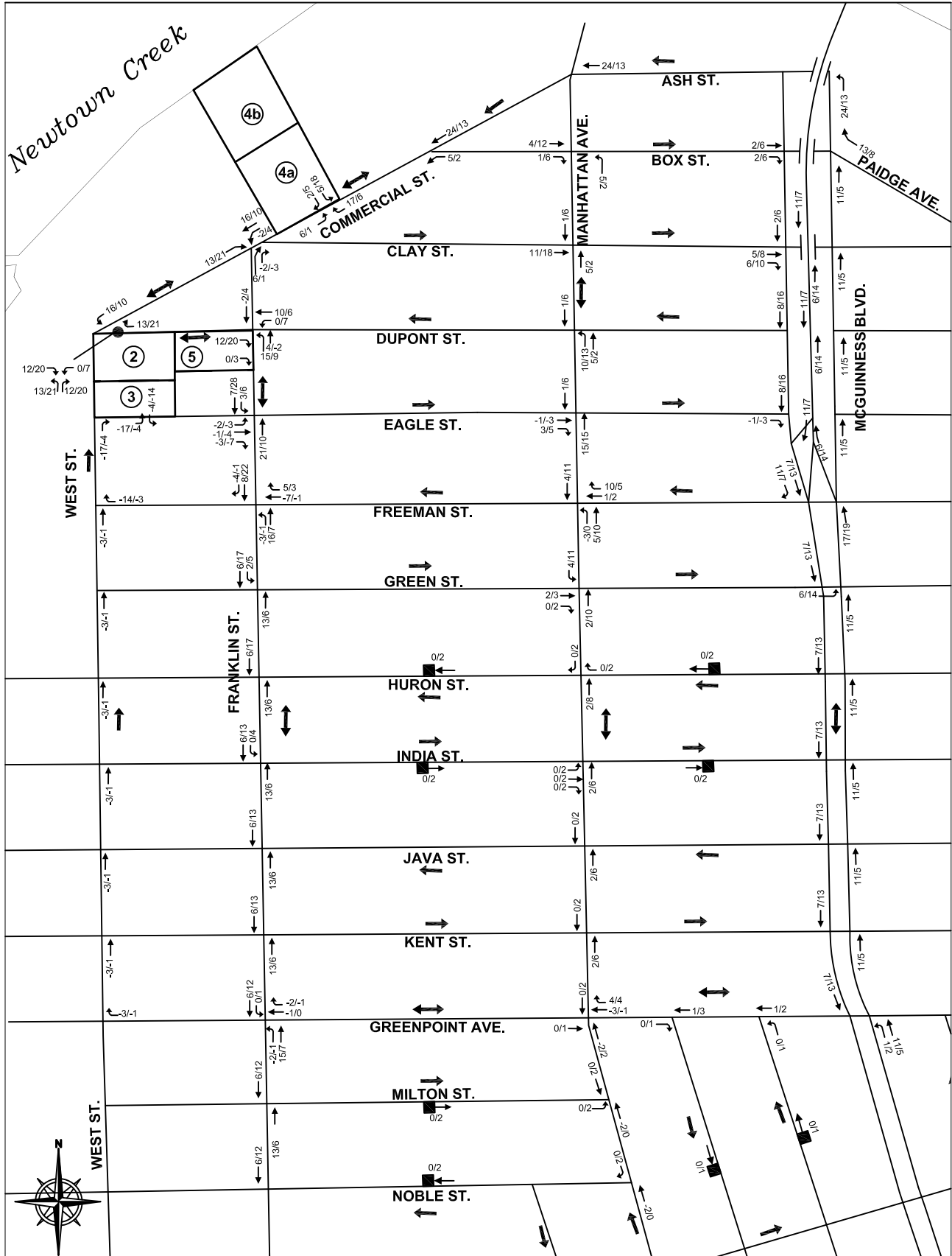
## **Air Quality and Noise**

### *Criteria for Determining Need for Assessment*

Generally, if a transportation analysis is not needed with regard to construction activities, an air quality or noise assessment of construction vehicles is likely not warranted. As indicated in the Level 2 screening presented above, no significant adverse traffic impacts are projected and no further assessment of construction traffic is required. Therefore, no analysis of air quality or noise associated with construction traffic is warranted.

With regard to the air quality and noise effects of other construction activities, the following should be considered by the lead agency in determining whether a preliminary analysis is needed. Often, this involves considerations of construction equipment and activities. An assessment of air quality and noise for construction activities is likely not warranted if the project's construction activities:

Construction Vehicle Trip Assignment



**Legend:**

← 24/13

**Construction Vehicle Trips**  
AM (6-7)/PM (3-4)

□ **Projected Developent Sites**

■ **Origin & Destination for School Trips**

- Are considered short-term;
- Are not located near sensitive receptors;
- Do not involve construction of multiple buildings where there is a potential for on-site receptors on buildings to be completed before the final build-out; and
- The pieces of diesel equipment that would operate in a single location at peak construction are limited in number.

In assessing the criteria above, further analysis should be performed if the Proposed Project would cause construction equipment to be operating within 1,500 feet of a receptor for a period of time exceeding two years. In some circumstances, however, even a shorter term construction phase may affect highly sensitive locations (such as schools, hospitals, etc.), warranting further quantitative analysis.

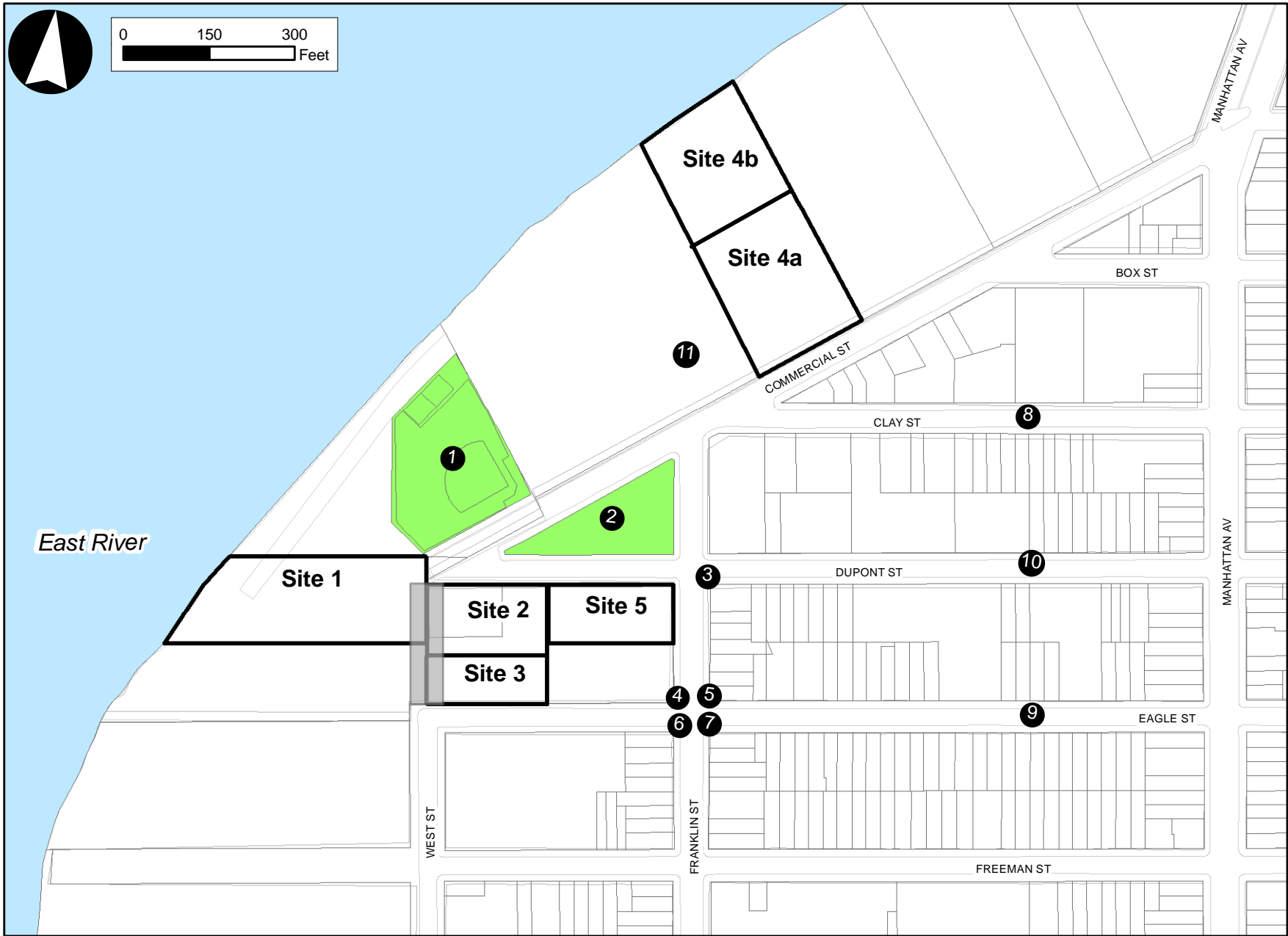
Table J-2 shows the construction phasing for With-Action Conditions. Air quality and noise impacts would occur primarily during tasks A, B, and C, i.e., demolition/site clearance; excavation/foundation; and superstructure, respectively. After these construction tasks, site disturbance is minimal and the subsequent tasks have fewer items of equipment and/or quieter equipment, particularly if an electric hoist is used.

Further analysis would be required where sensitive receptors are subjected to a continuous period of construction in tasks A, B, or C for two years.

Under No Action conditions, the one or more as-of-right buildings on Block 2472 would be spaced out evenly over a four-year period, each taking about two years to complete. Since the construction stages during the second year do not generate significant impacts to air quality and noise, no sensitive receptors would experience impacts exceeding two years or generate very high shorter-term impacts affecting highly sensitive sites. Under With-Action Conditions, the envisioned construction of the Proposed Project would overlap the as-of-right construction, and further evaluation to determine the potential for impacts was carried out.

Under With-Action-conditions, as shown in Table J-2 construction of the first two buildings would subject nearby homes to construction tasks A through C for about 18 months. This would be followed by a 6-month period of less intense activity. From 2016 through the first three quarters of 2018, the overlapping construction of four buildings would result in sensitive receptors being subjected to construction tasks A through C for over two years. This would be followed by a less intensive period of about 3 months at the end of 2018. The last two buildings would be constructed during 2019 through 2020, but only the first year would include tasks A through C. Based on the foregoing, the 2016 through 2018 period warrants further analysis. This includes construction of 37 Commercial Street, Projected Development Site 5, Projected Development Site 4, and Projected Development Site 2.

Potential construction impacts typically occur primarily within 20 feet of ground level. This is because combustion engines and disruption of the ground surface occur within this envelope. Buildings that are wholly or partially shielded from the ground-level operations generally are not the worst-case receptor points. The areas of sensitive receptors within approximately 400 feet of the construction areas are shown in Table J-5 and Figure J-2. In measuring the distances, the





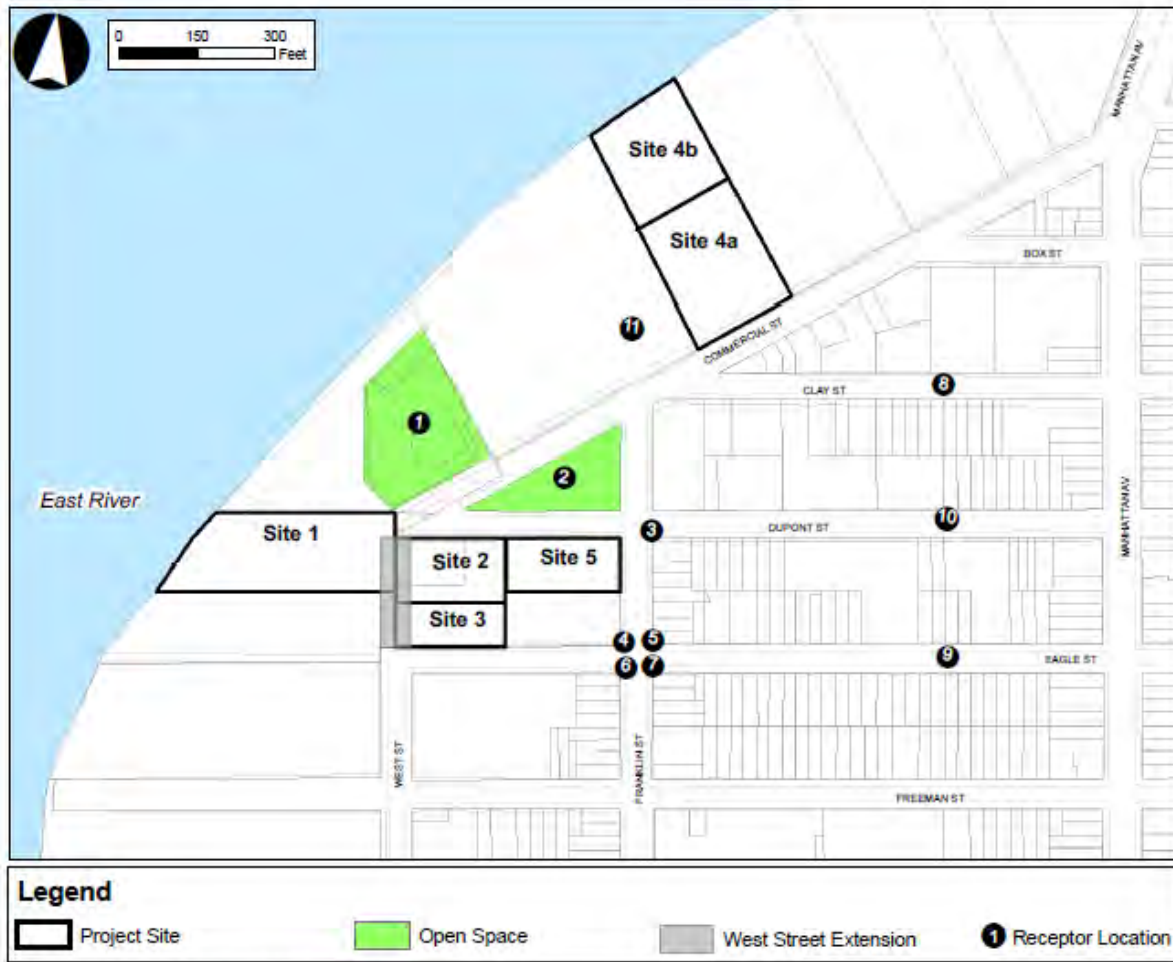
construction activities were assumed to be about 50 feet inside the lot lines as an average worst-case condition. Because it is expected to be completed by early 2016, one of the buildings on 37 Commercial Street is a sensitive receptor for this analysis.

**Table J-5, Sensitive Receptor Locations Analyzed**

ID	Block	Lots	Location	Distance to Construction Sites (ft.)				
				2	3	4	5	37-2
1	2472	Lot 75	Playground next to 37 Commercial St.	140	245	460	250	50
2	2486	Lot 1	Playground across from 37 Commercial St.	100	175	270	90	95
3	2495	Lots 6-8	SE corner Dupont/Franklin Sts.	300	300	430	100	300
4	2494	Lot 26	NW corner Franklin/Eagle Sts.	50	50	600	50	330
5	2495	Lots 1-5	NE corner Franklin/Eagle Sts.	305	310	590	120	435
6	2503	Lots 21-24	SW corner Franklin/Eagle Sts.	250	180	700	200	500
7	2504	Lots 5-8	SE corner Franklin/Eagle Sts.	335	320	690	210	550
8	2487	Lots 23-31	Midblock Clay St., West to Franklin Sts.	785	850	320	605	590
9	2495	Lots 57-60	Midblock Eagle St., Franklin St. to Manhattan Ave.	485	470	520	285	555
10	2495	Lots 54-57	Midblock Dupont St., Franklin St. to Manhattan Ave.	510	560	450	350	450
11	2472	Lot 100	37 Commercial St.	440	510	50	375	50

Notes: 3 = Projected Development Site 3; 37= 37 Commercial Street; 5=Projected Development Site 5; 4= Projected Development Site 4; 2=Projected Development Site 2.

Source: Sandstone Environmental Associates, Inc.



Greenpoint Landing Disposition EAS

Figure J-2  
Sensitive Noise Receptor Locations

**Air Quality**

*Introduction*

Potential impacts on local air quality during construction of the projected developments include: fugitive dust (particulate) emissions from land clearing operations; and mobile source emissions, including hydrocarbons, nitrogen oxide, and carbon monoxide, from increased traffic and on-site equipment.

Fugitive dust emissions could occur from land clearing, excavation, hauling, dumping, spreading, grading, compaction, wind erosion, and traffic over unpaved areas. Actual quantities of emissions depend on the extent and nature of the land clearing operations, the type of equipment employed, the physical characteristics of the underlying soil, the speed at which construction vehicles are operated, and the type of fugitive dust control methods employed. Much of the fugitive dust generated by construction activities consists of relatively large-size particles, which are expected to settle within a short distance from the construction site and to

not significantly impact nearby buildings or people. All appropriate fugitive dust control measures – including watering of exposed areas and dust covers for trucks – would be employed during construction on Projected Development Sites 1, 2, 3, 4a and 5..

Mobile source emissions may result from the operation of construction equipment, trucks delivering materials and removing debris, workers' private vehicles, or occasional disruptions in traffic near the construction site. Localized increases in mobile source emissions would be minimized on Projected Development Sites 1, 2, 3 and 4a by following standard traffic maintenance requirements, such as: construction requiring temporary street closings would be performed during off-peak hours wherever possible; the existing number of traffic lanes would be maintained to the maximum extent possible; and idling of delivery trucks or other equipment would not be permitted during unloading or other inactive times. Also, as with all SCA projects, the construction activities for the proposed public school on Projected Development Site 5 would be subject to New York City Local Law 77, which requires the use of best available technology (BAT) for equipment at that time of construction for City capital projects. Local Law 77 measures would significantly reduce particulate matter emissions compared with constructions without such measures.

#### *Actions to Minimize Impacts*

Standard mitigation measures will be incorporated, to the extent practicable, into the construction plans for the applicant-controlled properties on Projected Development Sites 1, 2, 3 and 4a to minimize potential impacts in accordance with all applicable laws, regulations, and building codes. All equipment will comply with applicable EPA regulations. To minimize fugitive dust emissions, vehicles on-site would be limited to a speed of 5 mph, and water would be used to wet working surfaces. Storage piles would be covered. Exposed areas will be stabilized after disturbance to minimize dust. Tracking pads will be established at construction exits to prevent dirt from being tracked onto roadways. Dust associated with demolition activities will be controlled with misting systems. Construction areas would be surrounded by perimeter fencing that would help contain fugitive dust emissions. Emission reduction and related construction measures will be included in the specifications of the construction contracts.

To minimize the potential for impacts on Projected Development Sites 1, 2, 3 and 4a, the applicant has agreed to implement a diesel particulate matter (DPM) emissions reduction program that would include best management practice comprised of the following components:

1. *Diesel Equipment Reduction.* Construction would minimize the use of diesel engines and maximize the use of electric engines where practical.
2. *Clean Fuel.* Ultra-low sulfur diesel fuel (ULSD) would be used exclusively for diesel engines. This would enable the use of tailpipe reduction technologies (see below) and would directly reduce DPM and sulfur oxides (SO<sub>x</sub>) emissions.
3. *Best Available Tailpipe Reduction Technologies.* Nonroad diesel engines with a power rating of 50 hp or greater and controlled truck fleets (i.e., truck fleets under long-term contract, such as concrete mixing and pumping trucks) would utilize the best available tailpipe reduction technology for reducing DPM emissions, such as diesel particle filters (DPFs).

4. *Utilization of Tier 3 or Newer Equipment.* In addition to the tailpipe controls commitments, the construction program would mandate the use of Tier 3 or later construction equipment for nonroad diesel engines greater than 50 hp.
5. *Location of Equipment.* In order to minimize their effects, some emissions sources such as concrete trucks and pumps would be located away from Projected Development Site 2 to the extent practicable.
6. *Fugitive Dust.* The fugitive dust control plans described in the preceding paragraph would be required as part of contract specifications to the extent practicable.
7. *Idle Times.* Restrictions would be placed on on-site vehicle idle times for all vehicles not using the engine to operate a loading, unloading, or processing device (e.g., concrete mixing trucks) in compliance with applicable laws.
8. *Compliance.* In addition, the applicant would take such additional measures to reduce pollutant emissions during construction of the proposed developments as are required under all applicable laws, regulations and building codes.

Due to its square footage, if Sites 4a and 4b are constructed simultaneously the construction at Projected Development Site 4 may have a significant adverse impact on air quality at the completed residential units facing on one of the buildings at 37 Commercial Street. The proposed DPM measures under this EAS would be sufficient to prevent significant adverse air quality impacts from the Project Site because they were incorporated as part of a detailed construction analysis for the *Fordham University Lincoln Center Master Plan EIS (Fordham EIS)*, and the Proposed Action analyzed under this EAS would have a lower emissions intensity than the Fordham University Lincoln Center Master Plan as described below.

Emissions intensity is the pollutant emission rate per square foot for a construction area. The emissions from all construction sources for a given pollutants, such as PM<sub>2.5</sub>, are summed and divided by the square footage of the area to determine an emissions intensity in lbs/day/square foot. The emissions intensity for Projected Development Site 4 in this EAS was calculated for the 24-hour and annual averaging periods and compared with the emissions intensity data used in the *Fordham EIS*.

For the *Fordham EIS*, the projected worst-case construction period was for the construction of that project's Sites 4 and 5/5a. PM<sub>2.5</sub> emissions from construction were expected to be greatest during a 12-month period when the Excavations and Foundations construction stage was underway. The *Fordham EIS* analysis included engine exhaust from diesel-powered equipment, fugitive dust from on-site trucks and equipment, and truck exhaust emissions, and fugitive dust from on-site processing, loading and unloading activities. An 8- or 11-hour day was used, with the 11-hour shift every other day. The work week was assumed to be primarily 5 days per week but some weekend work was included in the calculations. AERMOD was used to model PM<sub>2.5</sub> concentrations at the fenceline of the *Fordham EIS* site, on a 7-foot wide sidewalk, and at nearby residential buildings 20 feet from the construction site. The *Fordham EIS* analysis concluded that no significant adverse air quality impacts would occur.

The emissions intensity that can be calculated for the construction scenario described above is  $1.48\text{E}^{-05}$  lbs/day/ft<sup>2</sup> for the short-term averaging period and  $7.54\text{E}^{-06}$  lbs/day/ft<sup>2</sup> for the annual averaging period. This is based on a construction area for Fordham Sites 4 and 5/5a that totals

60,900 square feet. The buildings on Fordham Sites 4, 5a, and 5 would reach heights of 661 feet, 155 feet, and 381 feet, respectively.

An emissions intensity was calculated for Projected Development Site 4 in this EAS based on the construction stages over the worst-case 12-month period. The analysis included PM<sub>2.5</sub> due to on-site fugitive dust and exhaust emissions. An 8-hour, six-day work week was assumed as a worst-case analysis. Projected Development Site 4 in this EAS covers an area of 106,417 sq. ft., which is larger in surface area than the sites analyzed in the *Fordham EIS*. However, the resulting emissions intensity for the Project Site analyzed in this EAS is lower than that in the *Fordham EIS*. Some of the factors that contribute to this include:

- Projected Development Site 4 in this EAS would be developed with three buildings that are smaller than the ones envisioned under the *Fordham EIS*. They would reach maximum heights of 156 and 300 feet, and would require less on-site construction activity.
- The *Fordham EIS* analysis assumed the use of cranes with diesel engines while the construction cranes for the Proposed Project would be electric.
- Sensitive receptors for the Proposed Project are lower than the proposed buildings analyzed in the *Fordham EIS*.

The emissions intensity calculated for Projected Development Site 4 in this EAS was  $1.32^{-05}$  lbs/day/ft<sup>2</sup> for the peak 24-hour averaging period and  $6.99E^{-06}$  lbs/day/ft<sup>2</sup> for the annual averaging period. This is lower than the emissions intensities calculated for the *Fordham EIS*. Therefore, the construction best management practices adopted for the *Fordham EIS* would be sufficient to prevent potential construction air quality impacts for the Proposed Project, given that the *Fordham EIS* sites with higher emissions intensities were found to not result in significant adverse construction air quality impacts.

## Noise

### *Actions to Avoid Impacts*

For noise, mitigation measures for Projected Development Sites 1, 2, 3, 4a and 5 would comply with Title 15 of the Rules of the City of New York, Chapter 28, City-wide Construction Noise Mitigation, which specifies requirements for a Construction Noise Mitigation Plan, required noise mitigation measures for general construction, and additional measures to be taken if DEP receives noise complaints concerning a construction site. Additional measures for Projected Development Sites 1, 2, 3, 4a and 5 may include use of temporary barriers to help shield sensitive receptors from potential noise impacts. These barriers are required to be constructed of sufficiently massive material to achieve a sound transmission class (STC) rating of 30 or greater. The actual insertion loss achieved by the barrier under field conditions, however, may be lower at nearby sensitive receptors due to limits on the height of the barriers — generally about 20 feet.

In addition, to help minimize potential annoyance from back-up alarms, truck routes within for Projected Development Sites 1, 2, 3, 4a and 5 under the applicant's control would have one-way patterns, whenever possible, to reduce the need for backing up.

### *Potential for Impacts*

Impacts during construction would include noise and vibration from the operation of construction equipment. The potential for impacts includes the cumulative effect of equipment when multiple sites are undergoing redevelopment at the same time. The severity of impacts from these noise sources would depend on the noise characteristics of the equipment and activities involved, the construction schedule, and the distance to potentially sensitive noise receptors. Noise and vibration levels at a given location are dependent on the kind and number of pieces of construction equipment being operated, as well as the distance from the construction site. Increased noise levels caused by construction activities can be expected to be most significant during the early phases of construction before the building is enclosed. The Building Exterior and Building Interior phases have the least potential to cause noise impacts due to the relatively low volume of hourly trucks and the presence of the electric hoist, which is quieter than diesel-powered equipment. Increases in noise levels caused by delivery trucks and other construction vehicles would not be significant. Small increases in noise levels are expected to be found near a few defined truck routes and the streets in the immediate vicinity of the projected development sites. Construction noise is regulated by the New York City Noise Control Code and by EPA noise emission standards for construction equipment. These local and federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emissions standards; that, except under exceptional circumstances, construction activities be limited to weekdays between the hours of 7 AM and 6 PM; and that construction material be handled and transported in such a manner as not to create unnecessary noise. Compliance with noise control measures would be ensured by directives to the construction contractor.

As discussed in the "Noise" section of Attachment B, "Supplemental Screening," Projected Development Sites 1, 2, 3, 4a and 5 would have window-wall attenuation that is sufficient to avoid impacts from ambient noise per (E) designation requirements. These measures would also help to attenuate construction noise that may occur near projected developments that are occupied before or during construction at other nearby sites.

### *Impact Criteria*

An impact would occur if sensitive receptors would experience:

- Cumulative construction noise levels exceeding ambient noise levels by 3 dBA or more for a period of two years or more;
- Cumulative construction noise levels exceeding 85 dBA for the duration of a construction phase, and
- Cumulative construction noise levels exceeding ambient noise levels by 15 dBA or more for the duration of a construction phase (i.e., more than 4 weeks).

The use of 15 dBA is based on information in NYSDEC's Assessing and Mitigating Noise Impacts document as the threshold of an objectionable human reaction.

### *Methodology*

The equipment utilization and Leq noise levels at a distance of 50 feet were obtained from the *CEQR Technical Manual*.

The formula for converting the maximum noise level to an Leq is shown below:<sup>3</sup>

$$L_{\max} + 10 \times \log (\text{operating time/project time})$$

If the equipment has an Lmax of 85 dBA at 50 feet, and it operates 40% of the time over a 1-hour period, then the Leq(1 hr) at 50 feet would be about 4 decibels less, or  $85 - 4 = 81$  dBA. Beyond 50 feet, the noise level would attenuate at a rate of 6 dBA per distance doubling. Thus, at 100 feet, the Leq would be 75 dBA ( $81 - 6 = 75$ ).

At a distance of 50 feet, the cumulative Leq from the on-site equipment shown in Table J-6 would range from 62.0 to 85.5 dBA, depending on the construction phase. This does not include potential noise reductions that would be achieved with portable noise barriers. Based on Title 15, Chapter 28 of the Rules of the City of New York, such barriers are among the additional pathway controls to be implemented at construction sites if NYCDEP receives noise complaints.

At each sensitive receptor location, the noise levels from each ongoing construction site were logarithmically added together and the noise levels were adjusted for distance using the formula for 6 decibels per distance doubling. Where an existing or newly constructed building would provide shielding, a 10 dBA credit was applied. The results showed that some sites would experience significant adverse impacts unless mitigation measures are applied in the form of construction noise barriers that can provide 10 to 15 dBA of noise attenuation.

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<sup>3</sup> Noise and Vibration Control Engineering: Principles and Applications, edited by Leo L. Beranek and Istvan L. Ver, John Wiley & Sons, 1992, p. 652.

**Table J-6, Equipment Noise (Leq) by Construction Stage**

<b>Equipment</b>	<b>Demolition</b>	<b>Excavation, Foundations, Sewer &amp; Utility</b>	<b>Building Superstructure</b>	<b>Building Exterior</b>	<b>Interior Finishes</b>
Excavator Utilization Leq @ 50	85 0.4 81.0				
Bulldozer Utilization Leq @ 50	85 0.4 81.0				
Loader 1 Utilization Leq @ 50		85 0.5 82.0			
Loader 2 Utilization Leq @ 50		85 0.5 82.0			
Concrete pump Utilization Leq @ 50			82 0.2 75.0		
Backhoe Utilization Leq @ 50		80 0.4 76.0			
Compressor Utilization Leq @ 50			82 0.5 79.0		
Crane Utilization Leq @ 50			85 0.16 77.0		
Generator Utilization Leq @ 50			82 0.5 79.0		
Electric Hoist Utilization Leq @ 50				70 0.16 62.0	70 0.16 62.0
<b>Total Leq @ 50'</b>	<b>84.0</b>	<b>85.5</b>	<b>83.8</b>	<b>62.0</b>	<b>62.0</b>

Source: Sandstone Environmental Associates, Inc.



**Table J-7, Summary of Potential Noise Level Increments**

Receptor Area	Location	Construction Noise Level Increments, No Mitigation						Comments
		Range > 3 dBA	Duration (Weeks)	Range > 15 dBA	Duration (Weeks)	Range > 85 dBA	Duration (Weeks)	
1	Newtown Barge Playground	7.3-23.2	104	<b>19.2-23.2</b>	<b>39</b>	<b>85.8-88.0</b>	<b>26</b>	Two one-year periods >3 dBA separated by 26 weeks, some insertion loss provided by 37
2	Greenpoint Playground	<b>3.9-24.7</b>	<b>130</b>	<b>17.1-24.7</b>	<b>104</b>	<b>85.4</b>	<b>13</b>	2-1/2 years continuously greater than 3 dBA; some insertion loss provided by 37
3	SE Corner Dupont/Franklin	3.3-21.4	104	<b>17.1-21.4</b>	<b>52</b>	0	0	65 weeks>3 dBA and 39 weeks >3 dBA separated by 13 weeks; some insertion loss provided by 37 and Clay St. buildings
4	NW corner Franklin/Eagle	<b>3.7-27.1</b>	<b>156</b>	<b>23.1-27.1</b>	<b>104</b>	<b>23.0-27.1</b>	<b>78</b>	3 years continuously greater than 3 dBA; some insertion loss provided by 37
5	NE corner Franklin/Eagle	8.1-19.7	104	<b>15.6-19.7</b>	<b>52</b>	0	0	Two one-year periods >3 dBA separated by 26 weeks, some insertion loss provided by 37 and Clay St. buildings
6	SW corner Franklin/Eagle	3.8-6.5	91	0	0	0	0	52 weeks>3 dBA and 39 weeks >3 dBA separated by 26 weeks; some insertion loss provided by 37, Clay St. buildings, and building at NW corner of Franklin/Eagle Sts.
7	SE corner Franklin/Eagle	3.2-6.3	78	0	0	0	0	52 weeks>3 dBA and 2 intermittent 13-week periods >3 dBA; some insertion loss provided by 37, Clay and Dupont St. buildings, and building at NW corner of Franklin/Eagle Sts.
8	Midblock Clay, West to Franklin	3.5-4.0	26	0	0	0	0	Two 13-week periods of > 3.0 dBA separated by 13 weeks.
9	Midblock Eagle, Franklin to Manhattan	3.5-4.5	39	0	0	0	0	39 continuous weeks
10	Midblock Dupont, Franklin to Manhattan	3.6-4.2	39	0	0	0	0	39 continuous weeks
11	37 Commercial Street	<b>5.7-28.5</b>	<b>130</b>	<b>23.1-28.5</b>	<b>78</b>	<b>85.7-89.3</b>	<b>65</b>	All weeks are contiguous

Source: Sandstone Environmental Associates, Inc.

The worst-case period is from 2016 to 2018 when Projected Development Sites 2, 3, 4, and 5 would be constructed along with 37 Commercial Street. Table J-7 summarizes the potential impacts at the nearby sensitive receptor locations. Receptors west of Franklin Street are the most susceptible to impacts. This includes receptor locations 1, 2, and 11, which have little to shield them from the concentration of development at the Projected Development Sites. Receptor locations 3, 4, and 5 would experience potential impacts due to their proximity to Projected Development Sites 2, 3, and 5. Locations east of Franklin Street have numerous existing buildings to provide shielding. Receptor locations 6 and 7 on the south side of Eagle Street would experience shielding from the residential building on the northwest corner of Eagle and Franklin Streets, as well as development on Clay and Dupont Streets.

The potential noise impacts can be mitigated through the use of acoustic fencing around the construction sites for Projected Development Sites 1, 2, 3, 4a and 5. In most cases, an insertion loss of 10 dBA would be sufficient to mitigate the impacts. Where the construction sites are directly adjacent to the receptor locations, acoustic fencing that provides 15 dBA of noise reduction would be needed to mitigate potential impacts. However, due to height limitations, they might not be high enough to mitigate potential impacts at second and third floor windows.

Table J-8 summarizes the noise level increments at the receptor locations with the recommended acoustic fencing around the construction sites. With the appropriate acoustic fencing in place, no receptor locations are projected to experience significant adverse impacts.

Table J-9 summarizes the recommended acoustic fencing. Projected Development Site 1 is scheduled for construction after the other buildings have been constructed, and therefore was not included in the worst-case analysis period. However, its location adjacent to the Newtown Barge Playground would warrant the use of a 15 dBA construction fence during the construction phases through the Building Superstructure phase. Similarly, Projected Development Site 3 would be in the final stages of construction during the worst-case construction period; however, it is adjacent to receptor location 4. Based on the calculations for the other analyses, an acoustic fence with 15 dBA of attenuation is recommended for the eastern side of the Projected Development Site 3 construction lot to prevent potential impacts.

**Table J-8, Summary of Noise Level Increments with Acoustic Fencing**

Receptor Area	Location	Range > 3 dBA	Duration (Weeks)	Range > 15 dBA	Duration (Weeks)	> 85 dBA	Duration (Weeks)	Comments
1	Newtown Barge Playground	3.0-13.3	91	0	0	0	0	39 weeks>3 dBA and 1 year>3 dBA separated by 39 weeks
2	Greenpoint Playground	1.5-14.8	117	0	0	0	0	65 weeks>3 dBA and 1 year>3 dBA separated by 13 weeks
3	SE Corner Dupont/Franklin	3.3-11.7	91	0	0	0	0	52 weeks>3 dBA and 39 weeks >3 dBA separated by 26 weeks
4	NW corner Franklin/Eagle	8.8-13.3	101	0	0	0	0	Two one-year periods >3 dBA separated by 26 weeks, some insertion loss provided by 37. Assumes 15 dBA IL for barriers on Projected Development Sites 2, 3, and 5
5	NE corner Franklin/Eagle	3.7-10.1	52	0	0	0	0	4 weeks>3 dBA ; some insertion loss provided by Clay St. buildings. Assumes 15 dBA IL for barriers on Projected Development Sites 2 and 3
6	SW corner Franklin/Eagle	3.4-6.6	91	0	0	0	0	52 weeks>3 dBA and 39 weeks >3 dBA separated by 26 weeks; some insertion loss provided by building at NW corner of Eagle/Frnaklin as well as Clay and Dupont Sts.
7	SE corner Franklin/Eagle	3.2-6.3	78	0	0	0	0	No additional mitigation necessary
8	Midblock Clay, West to Franklin	3.5-4	26	0	0	0	0	No additional mitigation necessary
9	Midblock Eagle, Franklin to Manhattan	3.5-4.5	39	0	0	0	0	No additional mitigation necessary
10	Midblock Dupont, Franklin to Manhattan	3.6-4.2	39	0	0	0	0	No additional mitigation necessary

**Table J-9, Summary of Recommended Construction Barriers**

Source	Recommended Attenuation for Barrier Noise Wall				Comments
	North	South	East	West	
1	15	10	15	NA	Need 15 dBA for Newtown Barge Playground
2	10	15	15	10	Need 15 dBA for buildings on NW and SW corners of Eagle/Franklin Streets
3	10	10	15	10	Need 15 dBA for buildings on NW and SW corners of Eagle/Franklin Streets
4a	NA	10	10	15	Need 15 dBA for 37 Commercial St.
5	10	15	10	10	Need 15 dBA for building on corner of Eagle/Franklin Streets

Source: Sandstone Environmental Associates, Inc.

### **Historic and Cultural Resources**

As discussed in the “Historic and Cultural Resources” section of Attachment B, “Supplemental Screening,” there are no known historic architectural or archaeological resources on or in the vicinity of the projected development sites. Accordingly, the proposed action does not have the potential to adversely affect any historic resources during construction and no further assessment is warranted.

### **Hazardous Materials**

As discussed in the “Hazardous Materials” section of Attachment B, “Supplemental Screening,” (E) designations for hazardous materials are recorded against all of the tax lots that comprise the projected development sites. For new developments, enlargements of existing buildings, or changes in use, the NYC Department of Buildings will not issue a building permit until the environmental requirements of the (E) designation are satisfied. For hazardous materials (E) designations, the environmental requirements are that a testing and sampling protocol be conducted, and a remediation plan be developed and implementation where appropriate, to the satisfaction of the NYC Mayor’s Office of Environmental Remediation (OER). The measures required include Health and Safety Plans (HASPs) during site investigation work and remediation/construction and plans for the safe disposal of soil and construction debris.

Any petroleum storage tanks encountered would be registered, properly assessed, and removed along with any contaminated soil, in accordance with all applicable regulatory requirements including New York State Department of Environmental Conservation (“NYSDEC”) requirements for spill reporting and cleanup.

In addition, demolition of interiors, portions of buildings or entire buildings are regulated by the NYC Department of Buildings requiring abatement of asbestos prior to any intrusive construction activities including demolition. The Occupational Safety and Health Administration (OSHA) regulates construction activities to prevent excessive exposure of workers to contaminants in the building materials including lead in paint. New York State Solid Waste regulations control where demolition debris and contaminated materials associated with construction are handled and disposed. Adherence to these existing regulations would prevent impacts from development activities at the projected development sites.

Accordingly, the Proposed Project would not result in any significant adverse hazardous materials impacts during construction of the Proposed Project or upon occupancy of the site following construction.

### **Natural Resources**

As discussed in the “Natural Resources” section of Attachment B, “Supplemental Screening,” the projected development sites do not contain any natural resources. Projected Development Sites 1 and 4 are waterfront sites located adjacent to the East River and Newtown Creek, which are degraded natural resources.

The proposed project would not include any in-water disturbance, excavation, filling, or any other activities beyond the existing bulkhead or shoreline except for any repairs required or necessary to maintain the integrity of the bulkhead or allow for GLA to fulfill its waterfront obligations under the Zoning Resolution. Such work would be required to comply with all applicable permitting procedures, which are ministerial actions not part of the proposed action. Impact-avoidance techniques would be examined during the permitting process for any such work.

Waterfront development projects resulting in any potential discharges to water bodies generally require a General Permit for Stormwater Discharges for Construction Activity from NYSDEC, which in part requires a Stormwater Pollution Prevention Plan (SWPPP) for sites of 1 acre or larger. A SWPPP identifies potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges. In addition, the SWPPP describes and ensures the implementation of practices which would be used to reduce the pollutants in stormwater discharges and to assure compliance with the terms and conditions of a State Pollutant Discharge Elimination System (SPDES) permit. All SWPPPs must include erosion and sediment controls. SWPPPs must present fully designed and engineered stormwater management practices with all necessary maps, plans and construction drawings. With these procedures, no construction period impacts from stormwater discharges would be anticipated.

Accordingly, as project construction is required to comply with environmental regulations that provide protection for natural resources, the Proposed Project would not result in any significant adverse natural resources impacts during project construction and no further assessment is warranted.

### **Open Space**

There are no publicly-accessible open spaces within the projected development sites, and no open space resources would be used for staging or other construction activities. As discussed in Attachment E, “Open Space,” there are two public open spaces in immediate proximity to the projected development sites, including Greenpoint Playground, located across the street from Projected Development Sites 2 and 5, and Newtown Barge Playground which is located near Projected Development Site 1 and which would be expanded under No-Action conditions to be immediately adjacent to that development site. Project-generated construction would have

temporary effects, primarily related to construction noise and nearby temporary lane closures; as noted above construction noise primarily would be a concern during the early construction phases (approximately one year in duration as shown in Table J-1) before the buildings are enclosed and interior work occurs which produces substantially less noise. As noted above, the project would be required to comply with the City Noise Control Code which regulates construction noise to reduce the effects on noise sensitive receptors including public parks. It is expected that public access to these parks would not be interrupted due to the Proposed Project.

Waterfront publicly-accessible open spaces would be constructed on Projected Development Sites 1 and 4 in conjunction with development on those sites as required by zoning. As these open spaces are completed and construction continues on neighboring properties there likely would be some disruption (e.g., noise) to the newly completed open spaces. However, the level of construction activity would vary and move throughout the projected development sites, and no immediate area would experience the effects of the project's construction for the full construction duration.

Therefore, while the Proposed Projects would result in temporary construction effects on these parks, there would not be any significant adverse open space impacts during project construction.

### **Socioeconomic Conditions**

Construction of the Proposed Project would have direct, positive socioeconomic benefits resulting from expenditures on labor, materials, and services, and indirect socioeconomic benefits created by expenditures by material suppliers, construction workers, and others involved in the project. Construction of the Proposed Project also would contribute to increased tax revenues for the city and state, including those from personal income taxes.

Construction activities on the projected development sites would result in some interruptions to activities in the surrounding area and would include various lane and/or sidewalk closures for different stages of construction. However, such closures would be limited to the immediately adjacent area, and would not be expected to affect socioeconomic conditions within the surrounding area as they would not affect the operations of any nearby businesses, access to jobs, or housing.

### **Community Facilities**

There are no community facilities located on the projected development sites or on the adjoining properties and facing blocks fronts. The closest community facility is Dupont Street Senior Housing, a 98-unit housing facility located at 80 Dupont Street, approximately 315 feet east of Projected Development Site 5. There are several intervening buildings between that facility and the Project Site. As such the construction effects on this and other community facilities located further away would be minimal. Therefore, construction of the Proposed Project would not have a significant adverse impact on any community facilities and no further assessment is warranted.

## **Land Use and Public Policy**

Construction activities would affect land use on the projected development sites but would not alter surrounding land uses. As is typical with construction projects, during periods of peak construction activity there would be some disruption, predominantly noise, to the nearby area. There would be construction trucks and construction workers coming to the site. Noise would be primarily a concern during the early phases of construction prior to enclosure of buildings after which interior work would proceed with much less noise effects on the surrounding properties. These disruptions would be temporary in nature and would have limited effects on land uses within the study area, particularly as most construction activities would take place within the projected development sites or within portions of sidewalks, curbs, and travel lanes of immediately adjacent public streets.

Although the Proposed Project construction is expected to have a duration of approximately six years, the level of activity would vary and shift across the projected development sites over the period and no one area would experience the effects of the project's construction activities for the full six-year period.

Overall, while the construction at the projected development sites would be evident to the local community, the limited duration of construction of each individual development site would not result in significant or long-term adverse impacts on local land use patterns or the character of the nearby area.

## **Neighborhood Character**

As discussed in this attachment, the Proposed Project would not result in any construction-related significant adverse impacts to land use and public policy, socioeconomic conditions, open space, historic and cultural resources, transportation, air quality, or noise. Therefore, no significant adverse impacts to neighborhood character would be expected to occur with construction of the Proposed Project.

## **Water and Sewer Infrastructure**

The construction activities that would be required to connect the Proposed Project to existing water and sewer infrastructure would be similar to that which would occur under No-Action conditions, given the size of the anticipated project-generated development (approximately 707 DUs and a new public school) relative to the overall new development anticipated by GLA and other developers in the immediate area under No-Action conditions. As noted in Attachment C, there are expected to be approximately 4,230 additional dwelling units developed in the land use study area by 2020 and additional development is expected on other GLA-owned properties after 2020. Such activities occur on a regular basis throughout the City. Therefore, the Proposed Project's construction activities would not result in a significant adverse impact to water and sewer infrastructure.

For effects on stormwater management during construction of the Proposed Project, as noted above in the discussion of natural resources, the Proposed Project would be required to prepare a SWPPP for NYSDEC approval to address stormwater management for waterfront sites during both project construction and for permanent conditions upon project completion.

Accordingly, the Proposed Project would not result in significant adverse water and sewer infrastructure impacts during project construction.

### **Summary**

As indicated, there would be considerable construction activity present in the Greenpoint Landing area under both No-Action and With-Action scenario conditions. Under With-Action conditions, this construction activity would occur at a greater scale. In addition, as noted in Attachment C, there are additional nearby developments also expected to be completed by 2020. Some projects will be completed and occupied as this now relatively low-intensity area becomes redeveloped with new residences, retail, and (under With-Action conditions) a new public school. In any event, however, all projects are required to comply with regulations described herein, such as the Noise Construction Code, designed to ameliorate the adverse effects of construction. Accordingly, while construction generated by the Proposed Project would create noticeable and disruptive effects, such temporary effects would not result in significant adverse construction impacts.



**APPENDIX A**  
**PROPOSED WATERFRONT ZONING AUTHORIZATION TEXT**  
**AND ZONING TEXT AMENDMENT**

**Greenpoint Landing Disposition Proposed Action  
Waterfront Zoning Authorization Text**

**WAP Parcel 5a (Block 2472, Lot 100)**

Waterfront authorization pursuant to ZR 62-822(a). The design of the waterfront access areas on Zoning Lot 5a will require a number of authorizations of modification of ZR Sections 62-30, 62-50 and 62-90 waterfront requirements, in order to address flooding concerns and newly mandated flood elevation regulations and to respond to the unique geography of the site. The requested modifications include the following:

- Raised level of waterfront yard to address higher flood elevations, contrary to ZR 62-332
- Raised grades of visual corridors to address higher flood elevations, contrary to ZR 62-512
- Wider portions of supplemental public access area (width to depth ratio greater than 3:1), contrary to ZR 62-571(a)(1)
- Narrow (less than 10 feet wide) portions of supplemental public access area contrary to ZR 62-571(b)(1)
- Supplemental public access area less than 5,000 square feet, contrary to ZR 62-931(d)(3)(ii)

Waterfront authorization pursuant to ZR 62-822(b). The design of the waterfront access areas on Zoning Lot 5a will require a number of authorizations of modification of ZR Sections 62-60 and 62-90 waterfront requirements, in order to address the changes requested under ZR Section 62-822(a) and to create a superior design for the waterfront. The requested modifications include the following:

- Portions of supplemental public access area without a dedicated path, contrary to ZR 62-62(a)(2)
- Planting areas amounting to 48% (i.e., less than 50%) of the total shore public walkway area and supplemental public access area, contrary to ZR 62-62(c)(1)
- Screening buffers with widths less than 10 feet, contrary to ZR 62-62(c)(2)(ii)
- Planting in transition zone less than 40% (i.e., 27%), contrary to ZR 62-64(c)(3) to provide a dog run in the transition area
- Wall heights in excess of 21 inches, contrary to ZR 62-651(c)(3), and retaining wall with longest continuous edge within 6" of adjacent grade level less than 40% (i.e., 12%) of perimeter planting area, contrary to ZR 62-655(a)
- Perimeter of lawn within 6" of adjacent grade less than 60% (i.e., 47%), contrary to ZR 62-655(a)(6)
- Vehicular turnaround area paving wider than private driveway material leading to turnaround, contrary to ZR 62-64(b)(3)
- Guardrail and seating details that do not follow the WAP design reference standards, contrary to ZR 62-931(c)
- Height of solid curb on which fence is mounted in excess of 6" (i.e., 12"), contrary to ZR 62-651(c)(2), surrounding a small dog park

**Greenpoint Landing Disposition Proposed Action  
Waterfront Zoning Authorization Text**

**WAP Parcel 5B (Block 2472, part of Lot 32)**

Waterfront authorization pursuant to ZR 62-822(a). The design of the waterfront access areas on Zoning Lot 5b-1 will require a number of authorizations of modification of ZR Sections 62-30 and 62-50 waterfront requirements, in order to address flooding concerns and newly mandated flood elevation regulations and to respond to the unique geography of the site. The requested modifications include the following:

- Raised level of waterfront yard to address higher flood elevations, contrary to ZR 62-332
- Raised grades of visual corridors to address higher flood elevations, contrary to ZR 62-512
- Wider portions of supplemental public access area (width to depth ratio greater than 3:1), contrary to ZR 62-571(a)(1)

Waterfront authorization pursuant to ZR 62-822 (b). The design of the waterfront access areas on Zoning Lot 5b-1 will require a number of authorizations of modification of ZR Sections 62-60 and 62-90 waterfront requirements, in order to address changes requested under ZR Section 62-822(a) and to create a superior design for the waterfront. The requested modifications include the following:

- Portions of supplemental public access area without a dedicated path, contrary to ZR 62-62(a)(2)
- Planting areas amounting to 33% (i.e., less than 50%) of the total shore public walkway area and supplemental public access area, contrary to ZR 62-62(c)(1)
- Screening buffers with widths less than 10 feet, contrary to ZR 62-62(c)(2)(ii)
- Wall heights in excess of 21 inches, contrary to ZR 62-651(c)(3), and retaining wall with longest continuous edge within 6” of adjacent grade level less than 40% (i.e., 18%) of perimeter planting area and greater than 60% (i.e., 74%) of perimeter planting area is retaining wall, contrary to ZR 62-655(a)
- Guardrail and seating details that do not follow the WAP design reference standards, contrary to ZR 62-931(c)

# Proposed Zoning Text

Matter in underline is new, to be added;

Matter in ~~strikeout~~ is to be deleted;

Matter with # # is defined in Section 12-10;

\* \* \* indicates where unchanged text appears in the Zoning Resolution

## Article 1

### Chapter 1

#### Title, Establishment of Controls and Interpretation of Regulations

\* \* \*

11-10

ESTABLISHMENT AND SCOPE OF CONTROLS, ESTABLISHMENT OF DISTRICTS,  
AND INCORPORATION OF MAPS

\* \* \*

11-13

Public Parks

District designations indicated on #zoning maps# do not apply to #public parks#, except as set forth in Section 105-91 (Special District Designation on Public Parks) and in paragraph (c) of Section 62-351 (Special floor area regulations). In the event that a #public park# or portion thereof is sold, transferred, exchanged, or in any other manner relinquished from the control of the Commissioner of Parks and Recreation, no building permit shall be issued, nor shall any #use# be permitted on such former #public park# or portion thereof, until a zoning amendment designating a zoning district therefore has been adopted by the City Planning Commission and has become effective after submission to the City Council in accordance with the provisions of Section 71-10 (PROCEDURE FOR AMENDMENTS).

\* \* \*

## Article IV

### Chapter 2

#### Special Regulations Applying in the Waterfront Area

\* \* \*

62-35

Special Bulk Regulations in Certain Areas Within Community District 1, Brooklyn

On #waterfront blocks# in #Inclusionary Housing designated areas# in Community District 1, Borough of Brooklyn, the special #bulk# regulations of this Chapter are further modified as set forth in this Section, inclusive.

62-351

Special floor area regulations

\* \* \*

(c) Special regulations for Parcel 5e within Waterfront Access Plan BK-1

On Parcel 5e within Waterfront Access Plan BK-1, in the event that a property is #developed# as a #public park#, such property shall continue to be considered part of a #zoning lot# for the purposes of generating #residential floor area# based on the #residential floor area ratio# applicable to the property prior to its #development# as a

**Greenpoint Landing  
Proposed Zoning Text**

#public park#. In no event shall the #floor area# generated by the property #developed# as a #public park# be utilized within the #public park#, but may be utilized pursuant to Section 62-353 (Special floor area, lot coverage and residential density distribution regulations). Floor space within any structure constructed pursuant to an agreement with the Department of Parks and Recreation within such #public park# shall be exempt from the definition of #floor area#.

(d) Special regulations for Parcel 5d within Waterfront Access Plan BK-1

On Parcel 5d within Waterfront Access Plan BK-1, up to 120,000 square feet of floor space within a public #school#, constructed in whole or in part pursuant to agreement with the New York City School Construction Authority and subject to the jurisdiction of the New York City Department of Education, shall be exempt from the definition of #floor area# and from #lot coverage# requirements for the purposes of calculating the permitted #floor area ratio# and #lot coverage# for #community facility uses# and the maximum #floor area ratio# and total permitted #lot coverage# of the #zoning lot#.

\* \* \*

62-354

Special height and setback regulations

Within Waterfront Access Plan BK-1, the provisions of Section 62-341 (Developments on land and platforms) are modified as follows:

\* \* \*

(j) On Parcel 5d, the provisions of paragraphs (c)(1) and (c)(2) shall be modified as follows for public #schools# constructed in whole or in part pursuant to an agreement with the New York City School Construction Authority and subject to the jurisdiction of the New York City Department of Education:

(1) The maximum base height provisions of paragraph (c)(1) shall not apply; and

(2) The maximum #building# height provisions of paragraph (c)(2) shall be modified to permit a maximum #building# height of 100 feet or six #stories#, whichever is less.

62-355

Special yard regulations

On Parcel 5d within Waterfront Access Plan BK-1, the #yard# provisions of Section 24-36 (Minimum Required Rear Yards) shall not apply to public #schools# constructed in whole or in part pursuant to an agreement with the New York City School Construction Authority and subject to the jurisdiction of the New York City Department of Education.

\* \* \*

62-90

WATERFRONT ACCESS PLANS

\* \* \*

62-93

Borough of Brooklyn

\* \* \*

62-931

Waterfront Access Plan BK-1: Greenpoint-Williamsburg

Maps BK-1a through BK-1c in paragraph (f) of this Section show the boundaries of the area comprising the Greenpoint-Williamsburg Waterfront Access Plan and the location of certain

**Greenpoint Landing  
Proposed Zoning Text**

features mandated or permitted by the Plan. The plan area has been divided into parcels consisting of tax blocks and lots and other lands as established on May 11, 2005, as follows:

\* \* \*

- Parcel 5a: Block 2472, Lot 100
- Parcel 5b: Block 2472, Lot 32, south of the prolongation of the northern #street line# of DuPont Street
- Block 2494, Lot 6
- Parcel 5c: Block 2472, Lot 2
- ~~Block 2494, Lot 1~~
- Block 2502, Lot 1
- Block 2510, Lot 1
- Block 2520, Lot 57
- Parcel 5d: Block 2494, Lot 1
- Parcel 5e: Block 2472, Lot 32, north of the prolongation of the northern #street line# of DuPont Street
- Parcel 6: Block 2472, Lot 75

\* \* \*

(d) Special public access provisions by parcel

The provisions of Sections 62-52 (Applicability of Waterfront Public Access Area Requirements) and 62-60 (DESIGN REQUIREMENTS FOR WATERFRONT PUBLIC ACCESS AREAS) are modified at the following designated locations which are shown on Map BK-1b in paragraph (f) of this Section:

- (1) Parcels 1 and 2

\* \* \*

- (4) Parcel 5b

The portion of Block 2472, Lot 32 located within Parcel 5b shall constitute a #zoning lot# for the purpose of applying all #waterfront public access area# and #visual corridor# provisions of Sections 62-50 through 62-90, inclusive.

- ~~(4)~~(5) Parcel 5c

- (ii) #Supplemental public access area#

Two #supplemental public access areas# shall be provided on Parcel 5c. A #supplemental public access area# shall be bounded by the southern boundary of the required Green Street #upland connection#, the #shore public walkway#, the southern boundary of Parcel 5c and the northern prolongation of the eastern boundary of the #shore public walkway# required in Parcel 7.

The remaining required #supplemental public access area# shall be provided either on the #pier# or distributed evenly as a widening of the #shore public walkway# located between the Eagle Street and Green Street #upland connections#. If any #supplemental public access area# is located on the #pier#, one shade tree shall be required for each 1,000 square feet of #supplemental public access area#, but in no event shall more than four shade trees be required. A shading element may be substituted for the required shade trees at a rate of 450 square feet of shade element per tree.

The total #lot area# utilized in the calculation of required #supplemental public access area# for Parcel 5c, pursuant to Section 62-57, shall include the #lot area# within Parcel 5d.

- (6) Parcel 5e

**Greenpoint Landing  
Proposed Zoning Text**

The portion of Block 2472, Lot 32 located within Parcel 5e shall constitute a #zoning lot# for the purpose of applying all #waterfront public access area# and #visual corridor# provisions of Sections 62-50 through 62-90, inclusive.

<del>(5)</del> (7)	Parcel 7	*	*	*
<del>(6)</del> (8)	Parcels 9, 10 and 11	*	*	*
<del>(7)</del> (9)	Parcel 13	*	*	*
<del>(8)</del> (10)	Parcel 14	*	*	*
<del>(9)</del> (11)	Parcel 15	*	*	*
<del>(10)</del> (12)	Parcels 19, 20, 21 and 22	*	*	*
<del>(11)</del> (13)	Parcel 25	*	*	*
<del>(12)</del> (14)	Parcel 26	*	*	*
<del>(13)</del> (15)	Parcel 27	*	*	*

NOTE: Maps BK-1a to BK-1c to be amended to show Parcels 5d and 5e

**APPENDIX B**  
**WATERFRONT REVITALIZATION PROGRAM**  
**CONSISTENCY ASSESSMENT FORM**



## **A. INTRODUCTION**

As indicated in Figure C-2 in Attachment C, “Land Use, Zoning, and Public Policy,” the project site is located within the New York City Coastal Zone and as such is subject to review for its consistency with the City’s Waterfront Revitalization Program

The Federal Coastal Zone Management Act of 1972, established to support and protect the nation’s coastal areas, set forth standard policies for the review of proposed projects along the coastlines. As part of the Federal Coastline Management Program, New York State had adopted a state Coastal Management Program, designed to achieve a balance between economic development and preservation that will promote waterfront revitalization and waterfront dependent uses; protect fish, wildlife, open space, scenic areas, public access to the shoreline, and farmland. The program is also designed to minimize adverse changes to the ecological systems, erosion, and flood hazards.

The New York City Waterfront Revitalization Program (WRP) is the city's principal coastal zone management tool, and is included as part of New York State’s Coastal Zone Management Program. It establishes the City’s Coastal Zone, and includes policies that address the waterfront’s economic development, environmental preservation, and public use of the waterfront, while minimizing the conflicts among those objectives. As originally adopted in 1982 and revised in 1999, it establishes the City's policies for development and use of the waterfront and provides the framework for evaluating the consistency of all discretionary actions in the coastal zone with those policies. A “New Waterfront Revitalization Program” was approved by the Council of the City of New York in October 1999, and was approved by the NYS Department of State and the U.S. Secretary of Commerce in the summer of 2002. It includes ten policies dealing with: (1) residential and commercial redevelopment; (2) water-dependent and industrial uses; (3) commercial and recreational boating; (4) coastal ecological systems; (5) water quality; (6) flooding and erosion; (7) solid waste and hazardous substances; (8) public access; (9) scenic resources; and (10) historical and cultural resources.

In accordance with the guidelines of the 2012 *CEQR Technical Manual*, a preliminary evaluation of the proposed action's potential for inconsistency with the new WRP policies was undertaken. This preliminary evaluation requires completion of the Consistency Assessment Form, which was developed by the NYC Department of City Planning to help applicants identify which Waterfront Revitalization Program policies apply to a specific action. The questions in the Consistency Assessment Form are designed to screen out those policies that would have no bearing on a consistency determination for a proposed action. For any questions that warrant a "yes" answer or for which an answer is ambiguous, an explanation should be prepared to assess the consistency of the proposed action with the noted policy or policies.

The Consistency Assessment Form was prepared for the proposed action, and is provided at the end of this appendix. As indicated in the form, the proposed action was deemed to require further assessment of certain policies listed below. The remaining policies are not applicable to the proposed action and are not included in this assessment.

### ***Greenpoint-Williamsburg Rezoning FEIS***

As discussed in Attachment C, the City's 2005 *Greenpoint-Williamsburg Rezoning FEIS* included a WRP assessment. The *FEIS* found that the rezoning would be consistent with all applicable WRP policies and that there would be no significant adverse impacts related to the WRP. As described in Attachment B, "Supplemental Screening," the project site analyzed in this EAS was identified and analyzed as projected and potential development sites in the *FEIS*.

Given the relationship between the proposed action and the 2005 rezoning, the Consistency Assessment Form and the further assessment of policies provided in the *FEIS* were consulted in the preparation of this WRP assessment.

## **B. CONSISTENCY WITH APPLICABLE LOCAL WRP POLICIES**

Per the Consistency Assessment Form, the following policies warranted further assessment: 1; 1.1; 2; 2.3; 3.2; 4.2; 5.1; 6; 7.2; 8.1; 8.2; 8.3; 8.4; 9.1.

Therefore, these policies are addressed below.

### **POLICY 1: Support and facilitate commercial and residential redevelopment in areas well-suited to such development.**

#### ***1.1 Encourage commercial and residential redevelopment in appropriate coastal zone areas.***

The projected development sites were rezoned from manufacturing zoning districts to residential districts as part of the City's 2005 rezoning. The 2005 *FEIS*'s WRP assessment stated that the rezoning "would create opportunities for new housing development on underutilized and vacant land formerly used for manufacturing, particularly along the waterfront, where there is no longer a concentration of industrial activity and where strong demand for housing exists." The *FEIS* concluded, "The section of the coastal zone falling within the proposed action area does not contain any natural or topographic features that would hinder redevelopment, and the street grid provides excellent access to the upland areas. Therefore, this area is appropriate for the residential and commercial redevelopment that would be facilitated by the proposed action. As the proposed action would encourage and facilitate residential and commercial redevelopment in an area currently characterized by underutilized waterfront properties, it is therefore consistent with this policy."

The proposed action analyzed in this EAS is consistent with the 2005 rezoning in facilitating residential development with local retail on waterfront sites, including an incremental increase of 707 units over 2020 No-Action conditions and a new elementary/intermediate school to serve residents of the area. As discussed in Attachment B, “Supplemental Screening,” Projected Development Sites 1 to 5 in this EAS were analyzed as projected and potential development sites in the *FEIS* and the Technical Memorandum provided in Appendix J of the *FEIS*. Accordingly, the conclusions of the *FEIS* remain applicable and the proposed action is consistent with Policy 1.1.

***1.2 Encourage non-industrial development that enlivens the waterfront and attracts the public.***

The *FEIS* stated that the rezoning “would significantly revitalize and enliven the area’s waterfront, by bringing a 24-hour population to this underutilized swath of land along the Brooklyn waterfront.” It also noted the new parks and public open space that would be created consistent with the Greenpoint-Williamsburg Waterfront Access Plan (WAP BK-1). The *FEIS* concluded that the rezoning would be consistent with Policy 1.2.

The proposed action would facilitate development pursuant to the rezoning. As noted in Attachment A, “Project Description,” the proposed zoning text amendments would facilitate the creation of public open space and the creation of a public elementary/intermediate school that would serve the local community including the new development occurring along the waterfront pursuant to the rezoning. While the proposed action includes waterfront zoning authorizations, they would consist of technical adjustments in site elevations (see also discussion of Policy 6.1) and would not change the proposed project’s use or density; compliance with other required elements specified in the WAP, including the required number and location of waterfront public access areas, upland connections, and visual corridors. Accordingly, the proposed action would be consistent with Policy 1.2.

**POLICY 2: Support water-dependent and industrial uses in New York City coastal areas that are well suited to their continued operation.**

***2.2 Encourage working waterfront uses at appropriate sites outside the Significant Maritime and Industrial Areas.***

The *FEIS* stated that working waterfront uses are not prevalent along the waterfront area affected by the rezoning and demand for such activities is not expected in the future. It noted that “working waterfront and industrial uses are not consistent with the proposed rezoning of the waterfront area to allow residential uses.” The *FEIS* found that that the rezoning is consistent with Policy 2.2.

As discussed in Attachment A, the only existing working waterfront uses on the projected development sites are the DEP sludge tank on Projected Development Site 2 and the DEP sludge dock used by DEP sludge vessels adjacent to a portion of Projected Development Site 1 and the planned Newtown Barge Playground expansion site to the north. Consistent with commitments made by the City, the sludge tank is to be removed and regular use of the sludge dock would be

ended, independent of the proposed action, by mid-2014 and these facilities would be replaced by a new sludge loading dock DEP is constructing at 1 Kingsland Avenue (Block 2508, part of Lot 1) approximately three-quarters of a mile east of the project site on Whale Creek Canal adjacent to the Newtown Creek WPCP. It is expected that the sludge dock will remain in place to be available for emergency use but that such operations will be very infrequent. As such, while the sludge dock will remain this working waterfront use will be used on a very limited basis and the planned residential and open space uses on Projected Development Site 1 would be designed to accommodate the occasional use of the sludge dock. Apart from the limited continuation of this legacy working waterfront use, with the residential zoning districts created by the 2005 rezoning in place, the projected development sites are not appropriate sites for working waterfront uses. Accordingly, the proposed action would be consistent with Policy 2.2.

### ***2.3 Provide infrastructure improvements necessary to support working waterfront uses.***

The *FEIS* found that Policy 2.3 is not applicable to the rezoning given the absence of working waterfront uses. Similarly, as there will be no working waterfront uses on the projected developments sites in the future and these sites are not appropriate for working waterfront uses, this policy is not applicable to the proposed action.

### **POLICY 3.2: Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation centers.**

#### ***3.2 Minimize conflicts between recreational, commercial, and ocean-going freight vessels.***

Per the Consistency Assessment Form, the *FEIS* found that this policy was not applicable to the rezoning and no further assessment was provided. As the proposed project could involve bulkhead repairs necessary to facilitate the provision of waterfront open space, Consistency Assessment Form question 12, "Does the proposed project involve infrastructure improvement, such as construction of piers, docks, or bulkheads?" is conservatively answered "yes.". Any waterfront infrastructure improvement that could occur is expected to be in-kind replacement and repair necessary to facilitate waterfront public access. In addition, the project site is not a proposed location for recreational, commercial, or ocean-going vessels. Accordingly, Policy 3.2 is not applicable to the proposed action.

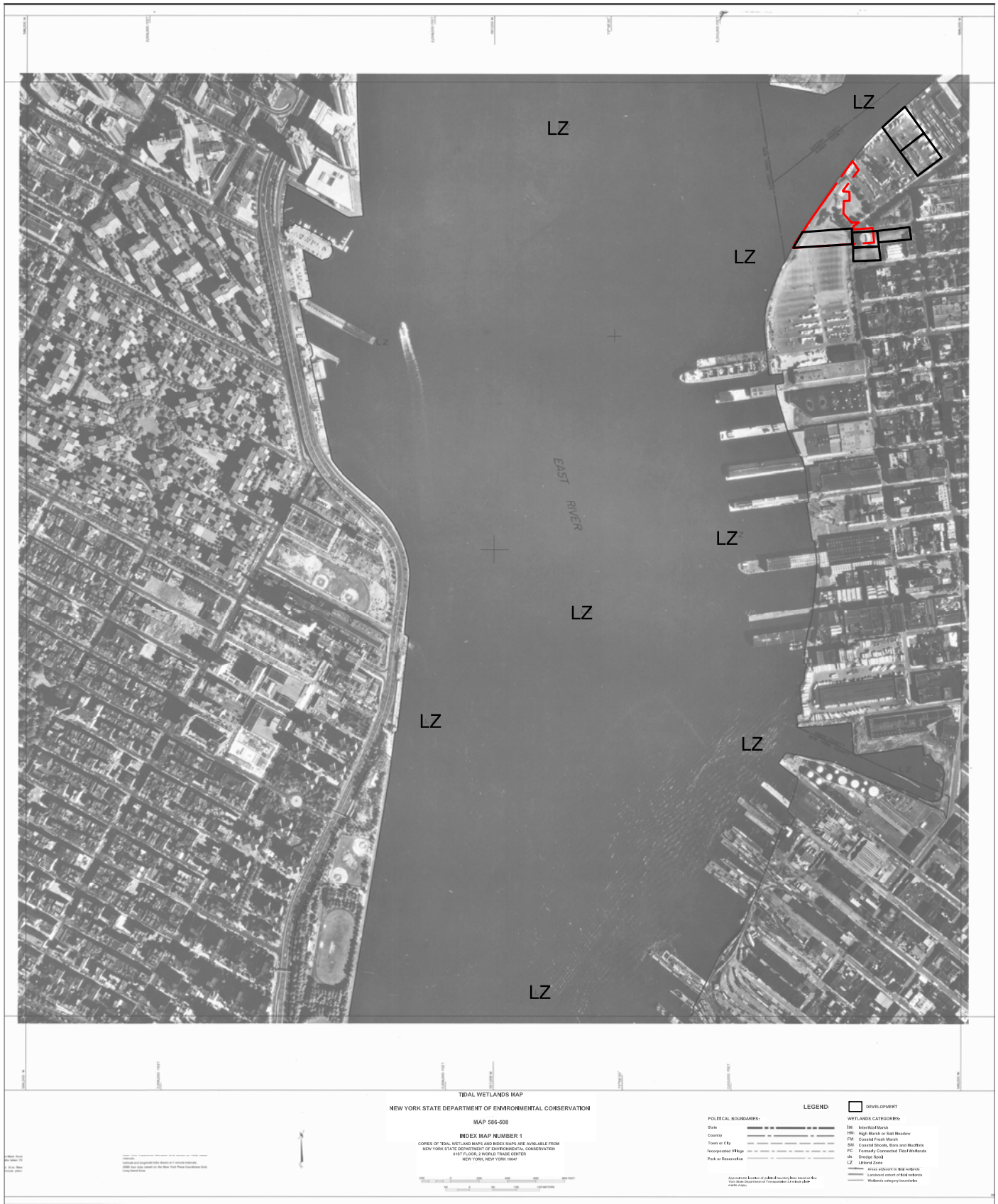
### **POLICY 4: Protect and restore the quality and function of ecological systems within the New York City coastal area.**

#### ***4.2 Protect and restore tidal and freshwater wetlands.***

As shown in Figures AB-1 and AB-2, the project site is located adjacent to designated tidal wetlands. As shown in Figure AB-1, adjoining areas of the East River and Newtown Creek are designated "littoral zone" by the NY State Department of Environmental Conservation (NYSDEC). NYSDEC defines littoral zone as "the tidal wetland zone that includes all lands under tidal waters which are not included in any other category. There shall be no LZ under waters deeper than six feet at mean low water."<sup>1</sup> Similarly, as shown in Figure AB-2, the

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<sup>1</sup> NYSDEC website, accessed June 2013 < <http://www.dec.ny.gov/lands/5120.html> >





**Greenpoint Landing Disposition EAS**

**Figure AB-2**  
**National Wetlands Inventory**

National Wetlands Inventory designates the adjoining waters as “estuarine and marine deepwater”, which is described as “open water estuary, bay, sound, open ocean.”<sup>2</sup>

The proposed project’s direct affects on any areas that meet these wetlands definitions would be limited as the project would not affect any areas beyond the bulkhead. As discussed in the “National Resources” section of Attachment B, construction activities for the proposed project that may occur along the waterfront -- adjacent to areas regulated as NYSDEC tidal wetlands or NYSDEC tidal wetland adjacent areas (defined as landward areas between the mean high water line and the beginning of man-made structures or asphalt surfaces) – potentially could include bulkhead repairs and construction of the waterfront esplanade (shore public walkway). Any such activities, which are subject to permitting processes, would not result in a net increase in fill below mean high water (MHW) and spring high water (SHW) or a change in the shoreline configuration that would result in loss of NYSDEC littoral zone tidal wetlands. Any resuspension of bottom sediment resulting from the bulkhead repair would be minimal and temporary, and would be confined to the immediate vicinity of the work and would not result in significant or long-term adverse impacts to littoral zone tidal wetlands, water quality, or aquatic biota. The proposed waterfront esplanade would not extend within NYSDEC littoral zone tidal wetlands.

Once construction is completed, operation of the proposed project would not result in significant adverse impacts to NYSDEC-designated littoral zone wetlands within the East River. Implementation of the Stormwater Pollution Prevention Plan (SWPPP) developed for the project site would minimize potential impacts to existing NYSDEC-designated littoral zone tidal wetlands, water quality, and aquatic biota. Therefore, the proposed project would be consistent with this policy.

## **POLICY 5: Protect and improve water quality in the New York City coastal area.**

### ***5.1 Manage direct or indirect discharges to waterbodies.***

The proposed project would provide for the management and treatment of stormwater entering the East River and Newtown Creek from the project site. As the proposed project would result in development of a waterfront site larger than one acre, it is required to develop and implement a SWPPP subject to NYC DEP oversight. The SWPPP is mandated to provide best management practices and green infrastructure measures that would minimize potential impacts to NYSDEC littoral zone tidal wetlands and aquatic resources from stormwater discharges. Stormwater management measures implemented within the project site would regulate the rate at which runoff is discharged to the DEP storm sewer and then to the East River and Newtown Creek after treatment at the Newtown Creek Wastewater Treatment Plant or through outfalls. In addition, as part of the SWPPP best management practices and engineering controls would be implemented to mitigate potential erosion and sedimentation impacts during and post construction. The proposed project would result in a net increase in pervious surface coverage in the project site, thereby reducing runoff and potentially improving water quality along the shoreline. Therefore, the proposed project would be consistent with this policy.

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<sup>2</sup> National Wetlands Inventory website, accessed June 2013, < <http://www.fws.gov/wetlands/Data/Mapper-Wetlands-Legend.html>>

**POLICY 6: Minimize loss of life, structures and natural resources caused by flooding and erosion.*****6.1 Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the condition and use of the property to be protected and the surrounding area.***

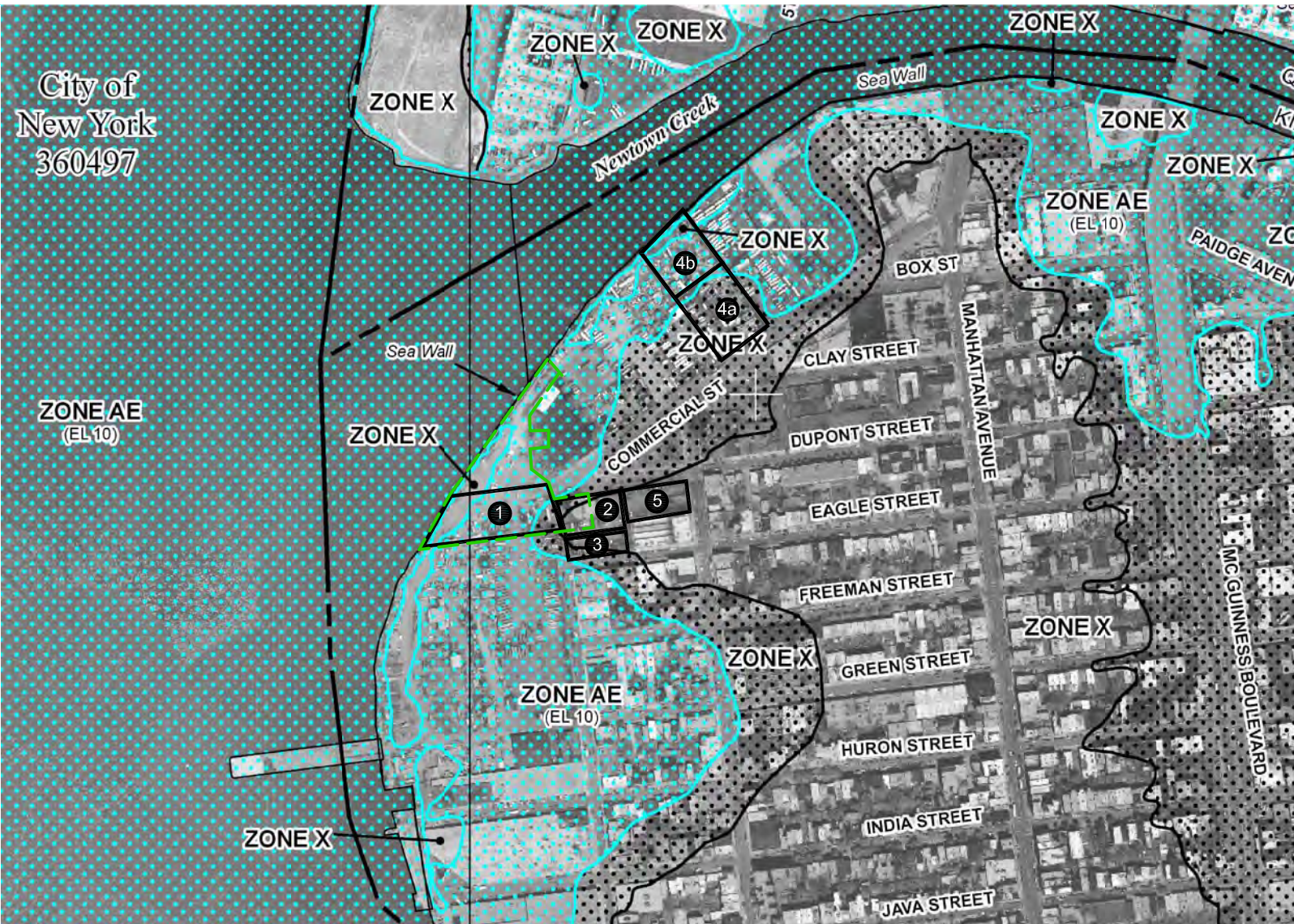
The *FEIS* noted that the majority of the rezoning area along the shoreline is in the 100-year floodplain (also referred to as Special Flood Hazard Areas subject to inundation by the 1 percent annual chance flood). The *FEIS* discussed the NYC Building Code's flood prevention measures which adhere to FEMA floodplain regulations. The *FEIS* also noted that the rezoning area is not subject to critical erosion and does not contain any regulated floodways. The *FEIS* concluded that because all development in the rezoning area must be compliant with the NYC Building Code and its flood related provisions, the rezoning would be consistent with Policy 6.1.

Figure AB-3 shows the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map currently in effect (effective November 16, 1983 with revision dated September 5, 2007 to update map format, to change Special Flood Hazard Areas, and to reflect updated topographic information) for the project site and vicinity. As shown in the figure, the 100-year floodplain includes parts of the projected development sites and the base flood elevation is 10 feet above the National Geodetic Vertical Datum of 1929 (NGVD 1929).

In June 2013, FEMA issued Preliminary Work Maps for New York City. FEMA created these maps to show coastal flood hazard data and they are an interim product created in the process of developing new preliminary Flood Insurance Rate Maps. The Preliminary Work Maps, which are considered the best available flood hazard data, replace the Advisory Base Flood Elevation (ABFE) maps issued earlier in 2013 and in turn will be replaced by the preliminary Flood Insurance Rate Maps for New York City expected to be issued during summer 2013. In some cases, the flood elevations shown in the Preliminary Work Maps are higher than the base flood elevation shown on the current Flood Insurance Rate Maps. Refer to Figure AB-4 which shows the Preliminary Work Map for the project site and vicinity. As shown in Figure AB-4, portions of the projected development sites are located within the Preliminary Work Map Zone AE (100-year floodplain) with base flood elevations of 11 and 12 feet above the North American Vertical Datum of 1988 (NAVD 88), as compared to a base flood elevation on the Flood Insurance Rate Map of 10 feet above NGVD 29 (which is equivalent to 8.9 NAVD 88).

For New York City, Mayor Bloomberg issued Executive Order No. 230 (EO 230) on February 5, 2013 (subsequently renewed) allowing (among other changes) limited suspension of height regulations. The Executive Order allows, on a temporary, emergency basis, buildings to adjust their base plane elevation used to measure their compliance with zoning building height requirements based on the Preliminary Work Plan base flood elevation (originally EO 23 referred to the now superseded ABFE) even if it is higher than the base flood elevations defined in the Flood Insurance Rate Maps provided that a building meets all floodproofing requirements up to the Preliminary Work Plan base flood elevation. As such, the City has adopted the "preliminary" elevations as having the same legal status as the officially defined base flood





### LEGEND

**SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, AV, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

**ZONE A** No Base Flood Elevations determined.

**ZONE AE** Base Flood Elevations determined.

**ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

**ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

**ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently identified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

**ZONE AV** Area to be protected from 1% annual chance flood by a federal flood protection system under construction; no Base Flood Elevations determined.

**ZONE V** Coastal Flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

**ZONE VE** Coastal Flood zone with velocity hazard (wave action); Base Flood Elevations determined.

**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

**OTHER FLOOD AREAS**

**ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

**OTHER AREAS**

**ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.

**ZONE D** Areas in which flood hazards are undetermined, but possible.

**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**

**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- 30-year flood boundary
- ZONE X and OPA boundary
- Boundary defining Special Flood Hazard Area Zones and boundary defining Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation (in feet) value; elevation in feet\* (EL 10')
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the National Geodetic Vertical Datum of 1929

Triangulation

Geographic coordinates: referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere

87° 07' 45" 32" 22" 30"

76° 14' 14"

1000-meter Universal Transverse Mercator grid values, zone 18

600000 FT 5000-foot grid ticks: New York State Plane coordinate system, using island zone (18) (Zone 18), Lambert Conformal Conic projection

DX5510 x (see explanation in Notes to Users section of this FIRM panel)

M 1:5 Scale Map

MAP DEPOSITORY: Refer to listing of Map Repositories on Map Index

INITIAL MAP DATE: June 25, 1978

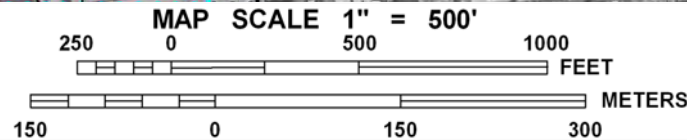
FLOOD HAZARD BOUNDARY MAP REVISIONS: June 11, 1979

FLOOD INSURANCE RATE MAP EFFECTIVE: November 08, 1983

FLOOD INSURANCE RATE MAP REVISIONS: (see explanation in Notes to Users section of this FIRM panel)

December 5, 2007 - A special rate for Greenpoint Special Flood Hazard Areas, used to reflect updated floodplain elevation.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-438-6625.



**Legend:**

- Projected Development Sites
- Projected Development Sites
- Boundary of City Parcel
- 100 Year Flood Zone
- 500 Year Flood Zone



**Legend**

**Preliminary Work Maps (supersede ABFEs)**

- Limit of Moderate Wave Action (LiMWA)
- Floodplain Boundaries
  - 0.2 Pct Annual Chance Flood Hazard
  - 1 Pct Annual Chance Flood Hazard
  - Floodway
- Gutters
- Coastal Shoreline

**Floodplain Areas**

- A No Base Flood Elevations determined
- AE Base Flood Elevations determined
- AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial flooding, velocities also determined.
- VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined
- Shaded X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood

**Advisory Base Flood Elevation Layers**

- Advisory Zone V-A Boundary
- Limit of Moderate Wave Action (LiMWA)
- Advisory Shaded Zone X
- Advisory Base Flood Elevation Zones
- Advisory Zones V and A
  - A No Base Flood Elevations determined
  - V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined

- 1 Projected Development
- 2 Sites
- Boundary of City Parcel

Source: FEMA (<http://bit.ly/18KMpTB>)  
 Note: all elevations per NAVD 88

elevations. This allows new buildings to be constructed in compliance with higher preliminary base flood elevations specified without being “penalized” by having their building height requirements measured from a lower base plane elevation based on the current Flood Insurance Rate Map. DCP proposed a zoning text amendment application to make the changes in EO 230 permanent as the adoption of new Flood Insurance Rate Maps with revised base flood elevations could take up to two years. That application was certified into public land use review by the City Planning Commission (CPC) on May 20, 2013.

The buildings constructed as a consequence of the proposed action would be constructed pursuant to the applicable flood prevention measures and requirements.

In addition to constructing the proposed project buildings to withstand flooding in conformance with FEMA’s best available data and EO 230, the proposed action would also include other site flood protection measures. The proposed waterfront zoning authorizations would permit modifications to otherwise applicable requirements of the ZR in order to address flooding concerns, newly mandated, flood elevation regulations, and to respond to the unique geography of the project site. Figure AB-5 shows the proposed grading plans for the project site included in the land use review application for the waterfront zoning authorizations.

With the proposed project’s building and site measures designed to address flooding and erosion, it would be consistent with Policy 6.1.

**6.2 *Direct public funding for flood prevention or erosion control measures to those locations where the investment will yield significant public benefit.***

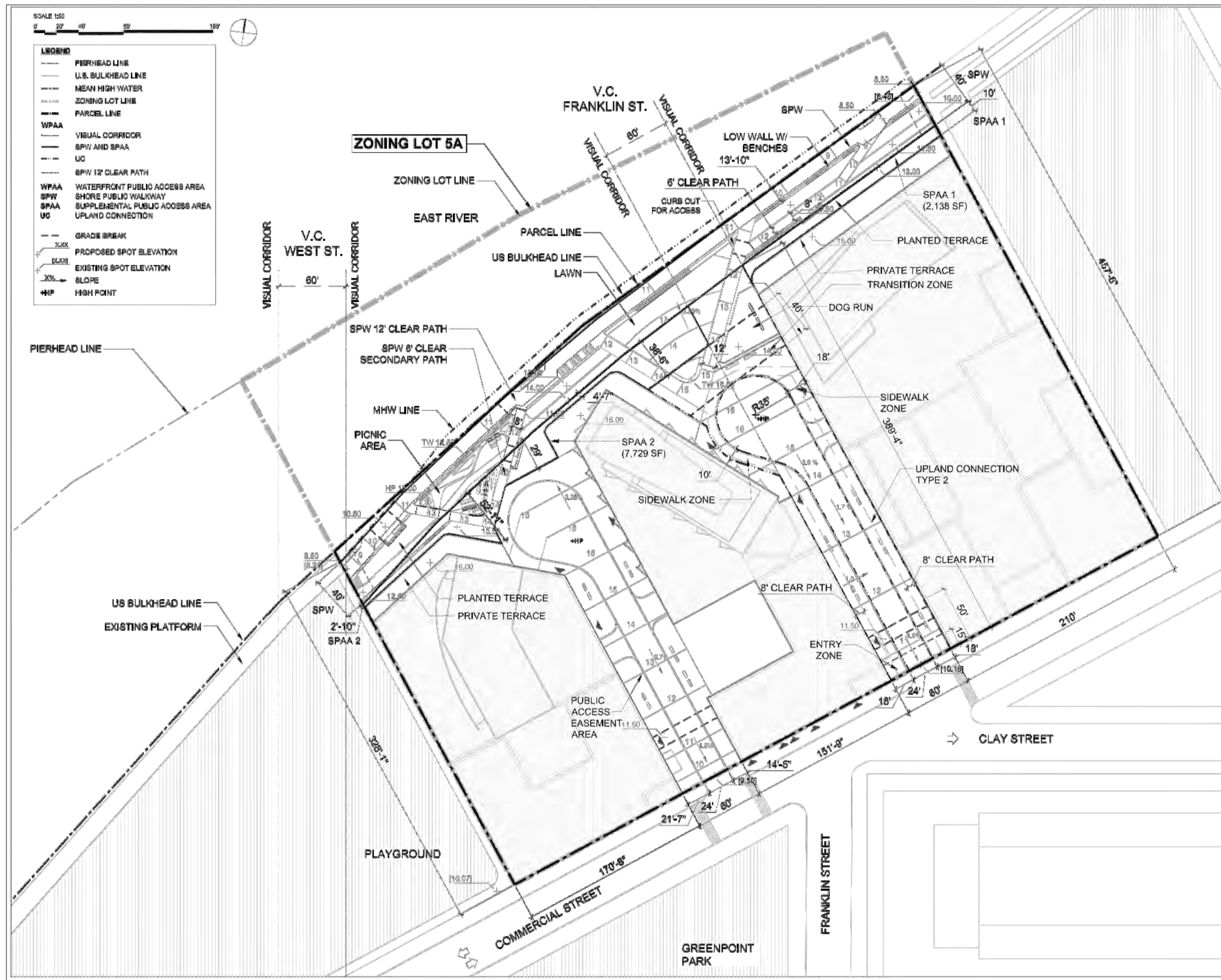
The *FEIS* stated that Policy 6.2 was not applicable as the rezoning would not involve direct public funding for flood prevention or erosion control measures. This is also the case for the proposed action and accordingly, Policy 6.2 is not applicable.

**POLICY 7: Minimize environmental degradation from solid waste and hazardous substances.**

**7.2 *Prevent and remediate discharge of petroleum products.***

All of the projected and potential development sites identified in the *FEIS* were mapped with (E) designations for hazardous materials due to past or present uses on or adjacent to the sites. The (E) designation requires that the fee owner of a site conduct a testing and sampling protocol and remediation of environmental conditions (including petroleum products) where appropriate, before the issuance of a building permit. The (E) designation also includes a mandatory construction-related health and safety plan. Refer to the “Hazardous Materials” section of Attachment B for further information.

As (E) designations were placed on all development sites, the *FEIS* concluded that the rezoning would be consistent with Policy 7.2.





As discussed in Attachment B, the five projected development sites affected by the proposed action were all projected or potential development sites in the *FEIS* and therefore all have (E) designations for hazardous materials. With the measures required by the (E) designation, the proposed action would be consistent with Policy 7.2.

**POLICY 8: Provide public access to, from, and along New York City's coastal waters.**

**8.1 Preserve, protect and maintain existing physical, visual and recreational access to the waterfront.**

There is no existing physical, visual, or recreational access to the waterfront on the projected development site. Although Projected Development Sites 1 and 4 are located on the waterfront both sites are enclosed by fencing and are not publicly accessible. Accordingly, Policy 8.1 is not applicable to the proposed action.

**8.2 Incorporate public access into new public and private development where compatible with proposed land use and coastal location.**

The proposed project would include provision of publicly-accessible open space, as required by the WAP. This would include an incremental increase of approximately 28,353 sf of public open space on Projected Development Site 1 and approximately 19,290 sf of public open space on Projected Development Site 4 (the latter would also be provided under No-Action conditions). While the proposed zoning authorizations would allow for modifications of certain WAP requirements relating to proposed changes to site grading, the project would comply with requirements concerning the amount of public open space to be provided. The public open space would be publicly accessible via upland connection and visual corridors provided per the WAP. Accordingly, the proposed action would be consistent with Policy 8.2.

**8.3 Provide visual access to coastal lands, waters and open space where physically practical.**

As noted in the response to Policy 8.1, the proposed project would include visual corridors provided per the WAP. These would extend from the shoreline to upland public streets and in addition these visual corridors would be publicly accessible areas providing access to the shore public walkway offering direct views of the water. While the proposed zoning authorizations would permit modifications to the site elevations, such changes are necessary to provide flood protection and would not significantly affect visual access given the provision of the shore public walkway and supplemental public access areas. In addition, adjoining publicly-accessible open spaces will also provide visual access to and from these open spaces created as part of the proposed action. These adjoining facilities include the Newtown Barge Playground (to be expanded independent of the proposed project) and the planned Box Street Park at 65 Commercial Street. The effect on the public visual access to coastal lands, waters, and open space, due to any obstructions to visual corridors that might be created by increased grades allowed by the proposed waterfront certification should be minimized by the extensive views provided by a range of locations that would be available on the extensive public open space network in this area. Accordingly, the proposed action would be consistent with Policy 8.3.

#### **8.4 *Preserve and development waterfront open space and recreation on publicly owned land at suitable locations.***

The proposed project includes the provision of a publicly accessible waterfront open space and esplanade, and upland connections to West and Commercial Streets. The waterfront esplanade would run the length of Projected Development Site 1, connecting on the north to the proposed Newtown Barge Playground expansion, and Projected Development Site 4, connecting on the northeast to the proposed Box Street Park at 65 Commercial Street and on the southwest to the Greenpoint Landing as-of-right waterfront open space at 37 Commercial Street. The waterfront esplanade would include landscaping and seating along the waterfront. The upland connections are intended to provide view corridors and public access from public streets to the esplanade and the adjoining East River and Newtown Creek. As each site along the waterfront is built out, the associated public open space required under the Zoning Resolution would be completed at the same time as the buildings. Upon completion, the proposed project would create approximately 1.09 acres (0.65-acre increment) of publicly accessible waterfront open space. The proposed waterfront esplanade would be designed to provide a cohesive transition between the project site and the proposed City public parks and waterfront esplanades at 77 Commercial Street and 37 Commercial Street. Therefore, the proposed project would be consistent with this policy.

#### **POLICY 9: Protect scenic resources that contribute to the visual quality of the New York City coastal area.**

##### **9.1 *Protect and improve visual quality associated with New York City's urban context and the historic and working waterfront.***

The *FEIS* stated that the rezoning would protect and improve visual quality of the urban context and the waterfront in the Greenpoint-Williamsburg study area. It cited the WAP as a means of providing visual, physical, and recreational public access to the waterfront replacing the vacant, underutilized, and generally inaccessible formerly industrial properties along the shoreline. The WAP requires the establishment of waterfront public access areas including shore public walkways and upland connections, as well as visual corridors. The *FEIS* further noted that special waterfront bulk regulations for new buildings on waterfront sites require bulk regulations to achieve contextual-style development on the portions of waterfront blocks that interface with the neighborhood while allowing additional flexibility for taller buildings at a greater distance from the existing low-rise upland neighborhood. The *FEIS* concluded that the rezoning would be consistent with Policy 9.1.

The proposed action is being developed in general conformance with the rezoning and the WAP. The only modification to building envelope would be a zoning text amendment for the Projected Development Site 5, to accommodate the school. While this approximately 100-foot tall building would be taller than the 65 foot maximum allowed under existing zoning, as discussed in Attachment G, "Urban Design and Visual Resources," this change would not result in significant adverse urban design and visual resources impacts. This modification would not affect visual, physical, or recreational access to the waterfront as it would not encroach upon designated visual corridors or upland connections. The site is not located directly on the

waterfront and would provide a transition between the existing low and mid-rise buildings on inland blocks and taller buildings along the waterfront allowed pursuant to the rezoning. As such the zoning text amendment permitting a taller school would not adversely affect the waterfront visual quality. The other element of the proposed action that would not comply with the existing zoning would be modifications to waterfront zoning regulations permitted by the proposed waterfront zoning authorizations. These authorizations would permit modifications to site elevations intended to address concerns associated with flooding, but would not modify requirements for the provisions of shore public walkways, upland connections, visual corridors, and the required amount of waterfront public access areas. The modifications permitted by the authorizations have been designed to permit the minimum modifications necessary to address flooding related concerns and respond to the unique geography of the site. These modifications would not adversely affect the visual quality of the waterfront as they would still result in physical, visual, and recreational public access to the waterfront consistent with the WAP. Accordingly, the proposed action is consistent with Policy 9.1.

### **C. ASSESSMENT**

The *FEIS* concluded that the rezoning would not result in any significant adverse impacts related to the WRP. Based on the Consistency Assessment Form completed for the proposed action, which is provided on the following pages, several policies required further assessment. The assessment provided herein found that the proposed action would be consistent with all applicable policies. Therefore, the proposed action would not result in any significant adverse impacts related to the WRP.



For Internal Use Only:

WRP no. \_\_\_\_\_

Date Received: \_\_\_\_\_

DOS no. \_\_\_\_\_

## NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM Consistency Assessment Form

Proposed actions that are subject to CEQR, ULURP or other local, state or federal discretionary review procedures, and that are within New York City's designated coastal zone, must be reviewed and assessed for their consistency with the New York City Waterfront Revitalization Program (WRP). The WRP was adopted as a 197-a Plan by the Council of the City of New York on October 13, 1999, and subsequently approved by the New York State Department of State with the concurrence of the United States Department of Commerce pursuant to applicable state and federal law, including the Waterfront Revitalization of Coastal Areas and Inland Waterways Act. As a result of these approvals, state and federal discretionary actions within the city's coastal zone must be consistent to the maximum extent practicable with the WRP policies and the city must be given the opportunity to comment on all state and federal projects within its coastal zone.

This form is intended to assist an applicant in certifying that the proposed activity is consistent with the WRP. It should be completed when the local, state, or federal application is prepared. The completed form and accompanying information will be used by the New York State Department of State, other state agencies or the New York City Department of City Planning in their review of the applicant's certification of consistency.

### A. APPLICANT

1. Name: Greenpoint Landing Associates (GLA); NYC Dept. of City Planning; NYC Dept. of HPD
2. Address: See attached contact information for applicants
3. Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_
4. Project site owner: Greenpoint Landing Associates (GLA); City of New York

### B. PROPOSED ACTIVITY

1. Brief description of activity:

This application would facilitate the redevelopment of underutilized, partially vacant waterfront property in Greenpoint, Brooklyn with a mixed-use, primarily residential development. The project increment would include approximately 707 dwelling units (DUs), of which approximately 431 would be affordable housing DUs, approximately 4,900 gsf of local retail space, approximately 120,000 gsf of community facility space housing a 640-seat public elementary/intermediate school, approximately 25,393 sf of public open space, and approximately 253 accessory parking spaces. This would be in addition to as-of-right development by GLA as part of a larger development project that (including the project increment) would result in a total of approximately 1,476 DUs by 2020 and after 2020 with full build out would result in approximately 5,000 DUs.

2. Purpose of activity:

The proposed action would enable the City to fulfill its commitment to facilitate the development of a substantial number of affordable housing units from the development rights generated by City-owned properties (Block 2472, Lot 32 and Block 2494, Lot 6) referred to as the "City Parcel." In addition, the proposed action would enable the City and the NYC School Construction Authority to create a public elementary/intermediate school for the neighborhood, which responds to a need for increased school capacity identified in the City's 2005 Greenpoint-Williamsburg Rezoning FEIS.

3. Location of activity: (street address/borough or site description):

219 West St. (Block 2472, part of Lot 32)

45 Commercial St. (Block 2742, part of Lot 100)

16 DuPont St. (Block 2494, Lot 6)

18-20 DuPont St., 31 Eagle St., 237-241 Franklin St. (Block 2494, Lot 1)

**WRP Consistency Assessment Form: Greenpoint Landing Disposition  
Application Information**

1. GLA

**NAME OF APPLICANT**

Greenpoint Landing Associates (GLA), c/o Park Tower Group

**NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON**

Melanie Meyers, Esq., Fried Frank Harris Shriver Jacobson LLP  
Richard Leland, Esq., Fried Frank Harris Shriver Jacobson LLP

ADDRESS	CITY	STATE	ZIP
One New York Plaza, Floor 22	New York	NY	10004
TELEPHONE	EMAIL		
+1.212.859.8785 (Meyers)	Melanie.Meyers@friedfrank.com		
+1.212.859.8978 (Leland)	Richard.Leland@friedfrank.com		

2. HPD

**NAME OF APPLICANT**

New York City Department of Housing Preservation and Development (HPD)

**NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON**

Jack Hammer, Director, Brooklyn Planning

ADDRESS	CITY	STATE	ZIP
100 Gold Street	New York	NY	10038
TELEPHONE	EMAIL		
+1.212.863.5056	hammerj@hpd.nyc.gov		

3. DCP

**NAME OF APPLICANT**

New York City Department of City Planning

**NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON**

Purnima Kapur, Director, Brooklyn Office

ADDRESS	CITY	STATE	ZIP
16 Court Street, Floor 7	Brooklyn	NY	11241
TELEPHONE	EMAIL		
+1.718.780.8280	pkapur@planning.nyc.gov		

**Proposed Activity Cont'd**

4. If a federal or state permit or license was issued or is required for the proposed activity, identify the permit type(s), the authorizing agency and provide the application or permit number(s), if known:

Possible DEC permits for waterfront improvements (scope to be determined).

5. Is federal or state funding being used to finance the project? If so, please identify the funding source(s).

Possible housing financing through NYC HPD or NYC HDC, which could include federal or state funding sources.

6. Will the proposed project require the preparation of an environmental impact statement?

Yes \_\_\_\_\_ No  If yes, identify Lead Agency:

7. Identify **city** discretionary actions, such as a zoning amendment or adoption of an urban renewal plan, required for the proposed project.

(1) Disposition/UDAAP Designation of City-owned properties; (2) zoning text amendments; (3) Acquisition and Site Selection by SCA of a school site; (4) waterfront zoning authorizations; (5) Amendment to a Restrictive Declaration.

**C. COASTAL ASSESSMENT**

**Location Questions:**

**Yes No**

1. Is the project site on the waterfront or at the water's edge?

\_\_\_\_\_

2. Does the proposed project require a waterfront site?

\_\_\_\_\_

3. Would the action result in a physical alteration to a waterfront site, including land along the shoreline, land underwater, or coastal waters?

\_\_\_\_\_

**Policy Questions**

**Yes No**

The following questions represent, in a broad sense, the policies of the WRP. Numbers in parentheses after each question indicate the policy or policies addressed by the question. The new Waterfront Revitalization Program offers detailed explanations of the policies, including criteria for consistency determinations.

Check either "Yes" or "No" for each of the following questions. For all "yes" responses, provide an attachment assessing the effects of the proposed activity on the relevant policies or standards. Explain how the action would be consistent with the goals of those policies and standards.

4. Will the proposed project result in revitalization or redevelopment of a deteriorated or under-used waterfront site? (1)

\_\_\_\_\_

5. Is the project site appropriate for residential or commercial redevelopment? (1.1)

\_\_\_\_\_

6. Will the action result in a change in scale or character of a neighborhood? (1.2)

\_\_\_\_\_

**Policy Questions cont'd**

**Yes No**

7. Will the proposed activity require provision of new public services or infrastructure in undeveloped or sparsely populated sections of the coastal area? (1.3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Is the action located in one of the designated Significant Maritime and Industrial Areas (SMIA): South Bronx, Newtown Creek, Brooklyn Navy Yard, Red Hook, Sunset Park, or Staten Island? (2)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. Are there any waterfront structures, such as piers, docks, bulkheads or wharves, located on the project sites? (2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Would the action involve the siting or construction of a facility essential to the generation or transmission of energy, or a natural gas facility, or would it develop new energy resources? (2.1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11. Does the action involve the siting of a working waterfront use outside of a SMIA? (2.2)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12. Does the proposed project involve infrastructure improvement, such as construction or repair of piers, docks, or bulkheads? (2.3, 3.2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. Would the action involve mining, dredging, or dredge disposal, or placement of dredged or fill materials in coastal waters? (2.3, 3.1, 4, 5.3, 6.3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14. Would the action be located in a commercial or recreational boating center, such as City Island, Sheepshead Bay or Great Kills or an area devoted to water-dependent transportation? (3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15. Would the proposed project have an adverse effect upon the land or water uses within a commercial or recreation boating center or water-dependent transportation center? (3.1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16. Would the proposed project create any conflicts between commercial and recreational boating? (3.2)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17. Does the proposed project involve any boating activity that would have an impact on the aquatic environment or surrounding land and water uses? (3.3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18. Is the action located in one of the designated Special Natural Waterfront Areas (SNWA): Long Island Sound- East River, Jamaica Bay, or Northwest Staten Island? (4 and 9.2)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19. Is the project site in or adjacent to a Significant Coastal Fish and Wildlife Habitat? (4.1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20. Is the site located within or adjacent to a Recognized Ecological Complex: South Shore of Staten Island or Riverdale Natural Area District? (4.1and 9.2)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21. Would the action involve any activity in or near a tidal or freshwater wetland? (4.2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
22. Does the project site contain a rare ecological community or would the proposed project affect a vulnerable plant, fish, or wildlife species? (4.3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23. Would the action have any effects on commercial or recreational use of fish resources? (4.4)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24. Would the proposed project in any way affect the water quality classification of nearby waters or be unable to be consistent with that classification? (5)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25. Would the action result in any direct or indirect discharges, including toxins, hazardous substances, or other pollutants, effluent, or waste, into any waterbody? (5.1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
26. Would the action result in the draining of stormwater runoff or sewer overflows into coastal waters? (5.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
27. Will any activity associated with the project generate nonpoint source pollution? (5.2)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28. Would the action cause violations of the National or State air quality standards? (5.2)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Policy Questions cont'd**

**Yes No**

29. Would the action result in significant amounts of acid rain precursors (nitrates and sulfates)? (5.2C)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30. Will the project involve the excavation or placing of fill in or near navigable waters, marshes, estuaries, tidal marshes or other wetlands? (5.3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
31. Would the proposed action have any effects on surface or ground water supplies? (5.4)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
32. Would the action result in any activities within a federally designated flood hazard area or state-designated erosion hazards area? (6)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
33. Would the action result in any construction activities that would lead to erosion? (6)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
34. Would the action involve construction or reconstruction of a flood or erosion control structure? (6.1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
35. Would the action involve any new or increased activity on or near any beach, dune, barrier island, or bluff? (6.1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
36. Does the proposed project involve use of public funds for flood prevention or erosion control? (6.2)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
37. Would the proposed project affect a non-renewable source of sand ? (6.3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
38. Would the action result in shipping, handling, or storing of solid wastes, hazardous materials, or other pollutants? (7)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
39. Would the action affect any sites that have been used as landfills? (7.1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40. Would the action result in development of a site that may contain contamination or that has a history of underground fuel tanks, oil spills, or other form or petroleum product use or storage? (7.2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
41. Will the proposed activity result in any transport, storage, treatment, or disposal of solid wastes or hazardous materials, or the siting of a solid or hazardous waste facility? (7.3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
42. Would the action result in a reduction of existing or required access to or along coastal waters, public access areas, or public parks or open spaces? (8)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
43. Will the proposed project affect or be located in, on, or adjacent to any federal, state, or city park or other land in public ownership protected for open space preservation? (8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
44. Would the action result in the provision of open space without provision for its maintenance? (8.1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
45. Would the action result in any development along the shoreline but NOT include new water-enhanced or water-dependent recreational space? (8.2)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
46. Will the proposed project impede visual access to coastal lands, waters and open space? (8.3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
47. Does the proposed project involve publicly owned or acquired land that could accommodate waterfront open space or recreation? (8.4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
48. Does the project site involve lands or waters held in public trust by the state or city? (8.5)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
49. Would the action affect natural or built resources that contribute to the scenic quality of a coastal area? (9)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
50. Does the site currently include elements that degrade the area's scenic quality or block views to the water? (9.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Policy Questions cont'd**

**Yes      No**

51. Would the proposed action have a significant adverse impact on historic, archeological, or cultural resources? (10)

\_\_\_\_\_

52. Will the proposed activity affect or be located in, on, or adjacent to an historic resource listed on the National or State Register of Historic Places, or designated as a landmark by the City of New York? (10)

\_\_\_\_\_

**D. CERTIFICATION**

The applicant or agent must certify that the proposed activity is consistent with New York City's Waterfront Revitalization Program, pursuant to the New York State Coastal Management Program. If this certification cannot be made, the proposed activity shall not be undertaken. If the certification can be made, complete this section.

"The proposed activity complies with New York State's Coastal Management Program as expressed in New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program, and will be conducted in a manner consistent with such program."

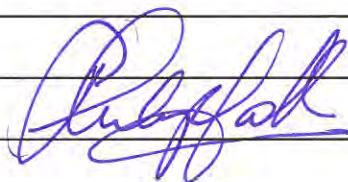
Applicant/Agent Name: Greenpoint Landing Associates/ Philip Habib PE

Address: 535 Madison Avenue

New York, NY 10022

Telephone 212.310.9642

Applicant/Agent Signature: \_\_\_\_\_ Date: 7/18/13



**APPENDIX C**  
**AGENCY CORRESPONDENCE**



DEPARTMENT OF CITY PLANNING  
CITY OF NEW YORK

ENVIRONMENTAL ASSESSMENT AND REVIEW DIVISION

Amanda M. Burden, FAICP, *Director*  
Department of City Planning

July 16, 2013

Richard Leland  
Fried, Frank, Harris, Shriver & Jacobson LLP  
One New York Plaza  
New York, NY 10004

**Re: Greenpoint Landing**  
**CEQR No. 77DCP110K**  
**ULURP No. Pending**

Dear Mr. Leland:

The Department accepts the Reasonable Worst Case Development Scenario (RWCDs) dated July 16, 2013 in connection with the above-referenced application. The Department may determine that modifications to the proposal or newly identified information warrant revisions to the RWCDs.

Sincerely,

Robert Dobruskin

cc: Celeste Evans                      Purnima Kapur                      Dylan Casey  
David Karnovsky                      Jeff Reuben, PHA                      Olga Abinader  
Steven Lenard                          Susan Wong                          Pat Bussey  
Melanie Meyers, Fried, Frank, Harris, Shriver & Jacobson LLP





**MEMORANDUM**

**To:** New York City Department of City Planning, Environmental Review Team  
**From:** Philip Habib & Associates  
On behalf of Greenpoint Landing Associates, LLC c/o Park Tower Group  
**Date:** February 11, 2013 (Revised March 14, 2013, April 2, 2013, July 16, 2013, October 29, 2013)  
**Re:** **Proposed Reasonable Worst Case Development Scenario for the Greenpoint Landing Disposition and Related Actions Application**

The following outlines the proposed Reasonable Worst Case Development Scenario (“RWCDs”) for the Greenpoint Landing Disposition and Related Actions Application.

**I. PROJECT DESCRIPTION**

Greenpoint Landing Associates, LLC (“GLA”) is developing Greenpoint Landing, an as-of-right development project on property it owns on the Greenpoint waterfront in Brooklyn Community District 1. In addition to the as-of-right development, GLA and the City of New York (“the City”) are submitting an application for the disposition of approximately 73,389 square feet (sf) of adjoining City-owned property and conveyance of development rights generated by an additional approximately 59,676 sf of City-owned land not being acquired by GLA. In addition, GLA is applying for additional discretionary actions to facilitate related development that would be integrated into Greenpoint Landing. For the purposes of environmental review, the “Proposed Project” consists of the development that would be facilitated as a consequence of the Proposed Action.

The development sites affected by the Proposed Action are referred to as *Projected Development Sites 1 - 5* and collectively are also referred to as the “Project Site”. These include:

- (1) City-owned property that may be developed by the applicant – *Projected Development Sites 1 (Block 2472, p/o 32) and 2 (B 2494, p/o L 1, 6)* (the latter includes a mix of City-owned and applicant-owned property);
- (2) Properties currently owned by the applicant that would be allowed to utilize development rights acquired from the City for affordable housing projects – *Projected Development Sites 3 (B 2494, p/o L 1) and 4a (B 2472, p/o L 100)*; and
- (3) Property currently owned by the applicant that would be acquired by the School Construction Authority (SCA) on which a public school would be developed – *Projected Development Site 5 (B 2494, p/o L 1)*.

**Actions Necessary to Facilitate the Proposal**

The Proposed Project will require the following land use actions:

- Disposition of City-owned property and conveyance of development rights from City-owned property to be retained by the City to GLA;
- Urban Development Action Area Plan (UDAAP) designation and disposition of City-owned property, Brooklyn Block 2494, Lot 6 (part of Projected Development Site 2) and Block 2472 p/o

Lot 32 (Projected Development Site 1) and conveyance of development rights attributable to the remainder of Lot 32;

- Zoning text amendment to create within the WAP (a) a new Parcel 5d from a portion of the existing WAP Parcel 5c, comprising Block 2494, Lot 1 (the GLA-owned portion of Projected Development Site 2, Projected Development Site 3 and Projected Development Site 5) to allow the parcel to be developed as an affordable housing project and public school prior to certification of a waterfront access plan for the remainder of WAP Parcel 5c and (b) a new Parcel 5e from a portion of the existing WAP Parcel 5b, comprising the portion of Lot 32 of Block 2472 that would be retained by the City to enable the remainder of WAP Parcel 5b (Projected Development Site 1 and the City-owned portion of Projected Development Site 2) to receive a waterfront certification without designing the waterfront access areas on new Parcel 5e;
- Zoning text amendment to allow park use on new Parcel 5e to generate floor area notwithstanding its intended future use as publicly accessible open space
- Zoning text amendment to establish permitted building envelope for the proposed public school use and to allow floor space used by schools within an upland GLA property to be exempt from the definition of floor area;
- Amendment of a Restrictive Declaration (“RD”); The Restrictive Declaration would be amended to allow siting of development rights in a manner not presently permitted by the RD. This amendment is needed to allow for the use of City development rights by GLA between Parcels 5a, 5b, 5c, and 5d. Upon approval of the disposition application, GLA and the City would enter into an amendment to the RD;
- Acquisition and site selection of public school site by SCA;
- Two waterfront zoning certifications for Parcels 5a (Projected Development Site 4 and the remainder of Lot 100 in Block 2472), one waterfront certification for WAP Parcel 5b (Projected Development Site 1 and the City-owned portion of Projected Development Site 2), and one waterfront certification for WAP Parcel 5d (the GLA-owned portion of Projected Development Site 2, Projected Development Site 3 and Projected Development Site 5) pursuant to Zoning Resolution Section (ZR §) 62-811; and for WAP Parcels 5a (Projected Development Site 4 and the remainder of Lot 100 in Block 2472) and 5b (Projected Development Site 1 and the City-owned portion of Projected Development Site 2), waterfront zoning authorizations pursuant to ZR §62-822(a); and
- Possible New York City Department of Housing Preservation and Development or New York City Housing Development Corporation financing.

These actions are intended to permit the land and development rights of City-owned properties to be incorporated into the Greenpoint Landing project being developed by GLA. This would facilitate the following: (1) development of two apartment buildings, one entirely on a currently City-owned property and one on a site partially owned by GLA and partially currently owned by the City; (2) increase the total development rights available to GLA by approximately 589,481 square feet (sf) of zoning floor area, thereby permitting an increase of 431 affordable housing units and approximately 276 market rate units, for a total of approximately 707 DUs over what would occur under the No-Action Scenario conditions;<sup>1</sup> (3) the creation of an approximately 120,000-gross-square-foot (gsf) public elementary/intermediate school with a capacity of approximately 640 seats; (4) an increase of publicly-accessible waterfront open space of approximately 28,353 sf; and (5) an increase of approximately 253 accessory parking spaces.

---

<sup>1</sup> Recent surveys of the City Parcel demonstrate that the portion of Lot 32 not already improved as part of the street system is somewhat smaller than originally assumed, and as a result would generate approximately 589,481 square feet of floor area and would allow for an increment of approximately 694 dwelling units (including the 431 POA Units) rather than the 707 initially identified for the RWCDS. Because the addition of 707 dwelling units reflects a more conservative reasonable worst case scenario, this Memo and the EAS reflect an increment of 707 dwelling units in the analyses.

It is expected that by 2020 GLA would complete all of the incremental development generated by the Proposed Action as well as a portion of the development allowed on as-of-right basis and that after 2020 the rest of the Greenpoint Landing project would be completed on an as-of-right basis.

The 73,389-sf property that the City would dispose to GLA in fee and the property generating the additional development rights being transferred from the City are collectively referred to as the *City Parcel*. Table 1 summarizes the maximum permitted floor area for the *City Parcel* under No-Action Scenario (as-of-right) conditions and With-Action Scenario conditions and identifies the incremental development associated with the Proposed Action.

The *City Parcel* is divided into two zoning districts: R6 and R8. The R6 portion is 73,451 sf and the R8 portion is 59,614 sf. In this area, R6 permits a maximum residential FAR of 2.75 and R8 permits a maximum residential FAR of 6.5. As shown in the table, the Proposed Action would allow for GLA to receive approximately 589,481 zoning square feet (zsf) of floor area generated by the *City Parcel*, while under No-Action conditions the development rights attributable to the City Parcel would not be used.

**Description of the Surrounding Area and Proposed Project Area**

Greenpoint is located at the northern tip of Brooklyn, directly south of Long Island City, Queens. The East River and Newtown Creek form the neighborhood’s western, northern, and eastern boundaries. Greenpoint is served by the G subway line, connecting to Carroll Gardens in Brooklyn and points in Queens, and the East River Ferry, which provides service to midtown and downtown Manhattan, Long Island City, and other neighborhoods along the river in Brooklyn.

**Table 1, Comparison of *City Parcel* Maximum Permitted Floor Area**

Uses	City Parcel Area sf	No-Action Conditions <sup>2</sup>		With-Action Conditions		Project Increment
		FAR	Max. Floor Area (ZSF)	FAR	Max. Floor Area (ZSF)	Max. Floor Area (ZSF)
Residential <sup>1</sup> / Community Facility <sup>3</sup>	R6: 73,451	2.75	0	2.75	201,990	201,990
	R8: 59,614	6.5	0	6.5	387,491	387,491
	Total: 133,065	4.46	0	4.46 (ave.)	589,481 <sup>4</sup>	589,481 <sup>4</sup>

<sup>1</sup> Residential FAR for With-Action Conditions is based on the maximum FAR permitted for residential uses including inclusionary housing, in accordance with the bulk regulations of Article VI, Chapter 2 of the Zoning Resolution (ZR) 62-35).  
<sup>2</sup> Since development of City Parcel would likely require discretionary actions, the No-Action development is assumed to be 0.  
<sup>3</sup> Where a community facility use shares a zoning lot with a residential use, community facility FAR is governed by the FAR limits for residential uses pursuant to the bulk regulations of Article VI, Chapter 2 of the Zoning Resolution (ZR 62-324).  
<sup>4</sup> Under With-Action Scenario conditions, school space on Projected Development Site 5 would be exempt from definition of floor area.

The blocks immediately surrounding the Project Site along the waterfront and north of Box Street historically were developed with industrial uses in the nineteenth century. These industries included ship building, metal and glass production, and oil and sugar refining. Industry in this area declined steadily throughout the twentieth century. Most of this area was rezoned to permit residential uses in 2005 although many of these properties continue to be used for low-intensity non-residential uses or are vacant.

The inland blocks east of West Street and south of Clay Street were originally developed in the nineteenth and early twentieth centuries as residential neighborhoods to house workers attached to the vibrant industries located along the East River and Newtown Creek. The area has seen considerable growth during the last decade as a residential neighborhood. Today, most of these blocks consist of 2-4 story wood-frame attached houses and apartment buildings, while some buildings rise to five or six

stories. These buildings often include ground floor commercial uses when located along the commercial corridors including on Manhattan Avenue and Franklin Street. The blocks between Franklin Street and West Street and between Clay Street and Box Street are transitional areas with a patchwork of residential and residual industrial properties.

**Context: Greenpoint Landing**

As noted above, the Proposed Action would facilitate development that could be incorporated into a larger as-of-right development project. In its entirety, the Greenpoint Landing development, including both the incremental development generated by the Proposed Action and the as-of-right development that would occur independent of the Proposed Action, would consist of 12 apartment buildings and 1 public school building in an approximately 17-acre upland area. The development would include approximately 5,475 dwelling units (DUs), of which approximately 4,121 DUs would be market rate units and 1,354 DUs would be affordable housing units; approximately 22,838 gsf of retail space; approximately 2,607 accessory parking spaces; a 640-student, 120,000 sf elementary/intermediate school; and approximately 174,771 sf (approximately 4 acres) of publicly-accessible open space. GLA is developing the Greenpoint Landing project in several phases over an approximately 10 to 12-year period.

However, this environmental review focuses on the incremental changes in conditions that would be generated by the Proposed Action and not on as-of-right development that would occur either with or without the Proposed Action. Therefore, the remainder of this RWCDs Memo focuses only on the development sites and incremental development associated with the Proposed Action and not the entire Greenpoint Landing development.

**Description of the Project Site**

Projected Development Sites

For the purposes of this environmental review, the development sites affected by the Proposed Action are identified as *Projected Development Sites 1 - 5*.<sup>2</sup> Information on these sites is summarized in Table 2. As noted above these sites include City-owned properties to be disposed to the applicant, applicant-owned properties that would also utilize development rights from the *City Parcel*, and an applicant-owned property that would be conveyed to the SCA and on which a new public school would be constructed. Refer to the discussion of the two portions of *Projected Development Site 4* (i.e., 4a and 4b) below under “Description of the Proposed Development.”

**Table 2, Projected Development Sites**

<b>Projected Development Site</b>	<b>Block &amp; Lot(s)</b>	<b>Address</b>	<b>WAP Parcel</b>	<b>Area (SF)</b>	<b>Present Owner</b>
1	B 2472, p/o L 32	219 West St.	5B	61,675	City
2	B 2494, p/o L 1, 6	16-20 DuPont St.	5B, 5D <sup>1</sup>	24,941	GLA, City <sup>2</sup>
3 <sup>3</sup>	B 2494, p/o L 1	31 Eagle St.	5D <sup>1</sup>	20,268	GLA
4 <sup>3</sup>	B 2472, p/o L 100	45 Commercial St.	5A	106,417	GLA
5	B 2494, p/o L 1	241 Franklin St.	5D <sup>1</sup>	20,025	GLA

<sup>1</sup> Projected Development Sites 2 (partial), 3, and 5 are currently designated as part of WAP Parcel 5C but as part of the Proposed Action these sites would be designated WAP Parcel 5D.

<sup>2</sup> Projected Development Site 2 includes 11,714 sf of currently City-owned property (Block 2494, Lot 6) and 13,227 sf of

<sup>3</sup> In other, non-CEQR project documents, Projected Development Site 1 is identified as Parcel “D1” and “CP1”; Projected Development Site 2 is identified as Parcel “E1” and “CP2”; ; Projected Development Site 3 is identified as Parcel “E3”; Projected Development Site 4 is identified as Parcel “H” and “H1/H2/H3”; and Projected Development Site 5 is identified as Parcel “E2.” These terms are not being used in the environmental review documents.

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currently GLA-owned property (Block 2494, part of Lot 1).

<sup>3</sup> As discussed, Projected Development Site 3 and part of Projected Development Site 4 (referred to as Site 4a) are the anticipated locations of the 431 affordable units associated with the City Parcel.

### City Parcel: Newtown Barge Terminal Playground Expansion

In addition to the disposition of a portion (73,389 sf) of the City Parcel to GLA, the Proposed Action would allow for the conveyance of development rights from the remainder of the City Parcel that would be retained by the City. This property, located north of *Projected Development Site 1* at 219 West Street (Block 2472, part of Lot 32) is currently vacant but will be converted into a public open space and configured as an extension of Newtown Barge Playground, an existing 46,622 sf (1.1 acre) mapped City park adjoining it to the east. The conversion of this site from a vacant property will occur under 2020 No-Action and 2020 With-Action Scenario conditions. Accordingly, the conversion of this site into public open space would not be a consequence of the Proposed Action. Although this property is not a projected development site, it would generate floor area used by GLA on the Project Site.

### WAP Parcels

The projected development sites listed in Table 2 comprise a portion of the parcels identified in the Waterfront Access Plan BK-1 (the “WAP”), per ZR 62-931, as Parcels 5A, 5B, and 5C. The WAP governs the provision of waterfront public open space required for developments in this area. Refer to Figure 1, which identifies WAP parcels 5A, 5B, and 5C, and Figure 2, Tax Maps. The projected development sites are located in R6 and R8 zoning districts, with C2-4 commercial overlays along Commercial Street and West Street. Refer to Figure 3, Zoning Map. Figure 4 provides photographs of the projected development sites.

### Existing and Historic Uses

Among the historic uses on the Project Site were lumber yards, iron works, and porcelain factories in the nineteenth century and coal storage in the twentieth century. Its recent uses have included a lumber yard, vehicle and open storage<sup>3</sup> and use as a television filming set. The Project Site was rezoned in 2005 as part of the City-initiated Greenpoint-Williamsburg Rezoning from M1-1 and M3-1 districts to the aforementioned R6 and R8 districts with C2-4 commercial overlays along the street corridors.

### Affordable Housing

Subject to the City providing sufficient subsidies, the Proposed Action would facilitate the development by GLA of 431 affordable units on *Projected Development Sites 3 and 4a*, and the affordable income bands would be approximately as follows:

10% at <40% of AMI (43 units)

40% at <60% of AMI (169 units)

25% at <80% of AMI (108 units)

25% at <120% of AMI (108 units)

The final three units would be for the superintendents of each building.

It is anticipated that the City will issue standard subsidies such that the units are financially feasible under commercially reasonable terms. The City may offer the subsidies in tranches provided that the first round

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<sup>3</sup> *Archaeological Assessment Report, Greenpoint-Williamsburg Rezoning – Phase IA, Parts I, II, and III*. Prepared by Celia J. Bergoffen, Ph.D., R.P.A., April 2004.

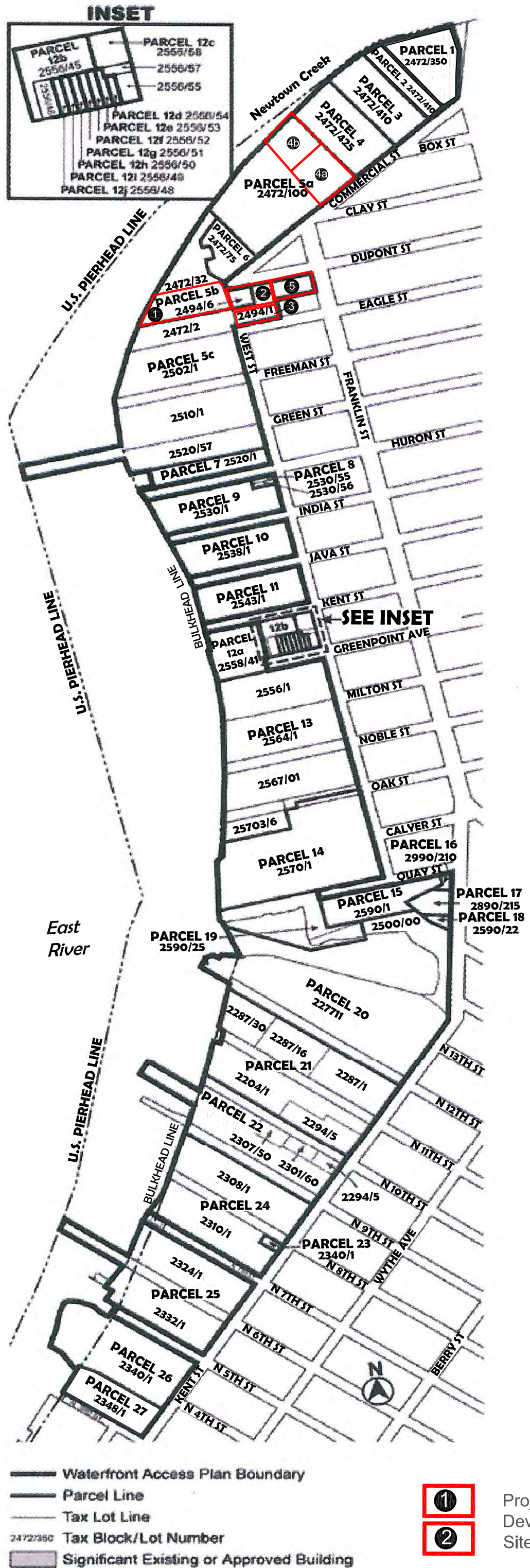


Figure 1  
 Projected Development Sites: Relationship to WAP BK-1



NYC Digital Tax Map

Effective Date : 10-29-2009 09:37:16  
End Date : Current  
Brooklyn Block: 2472

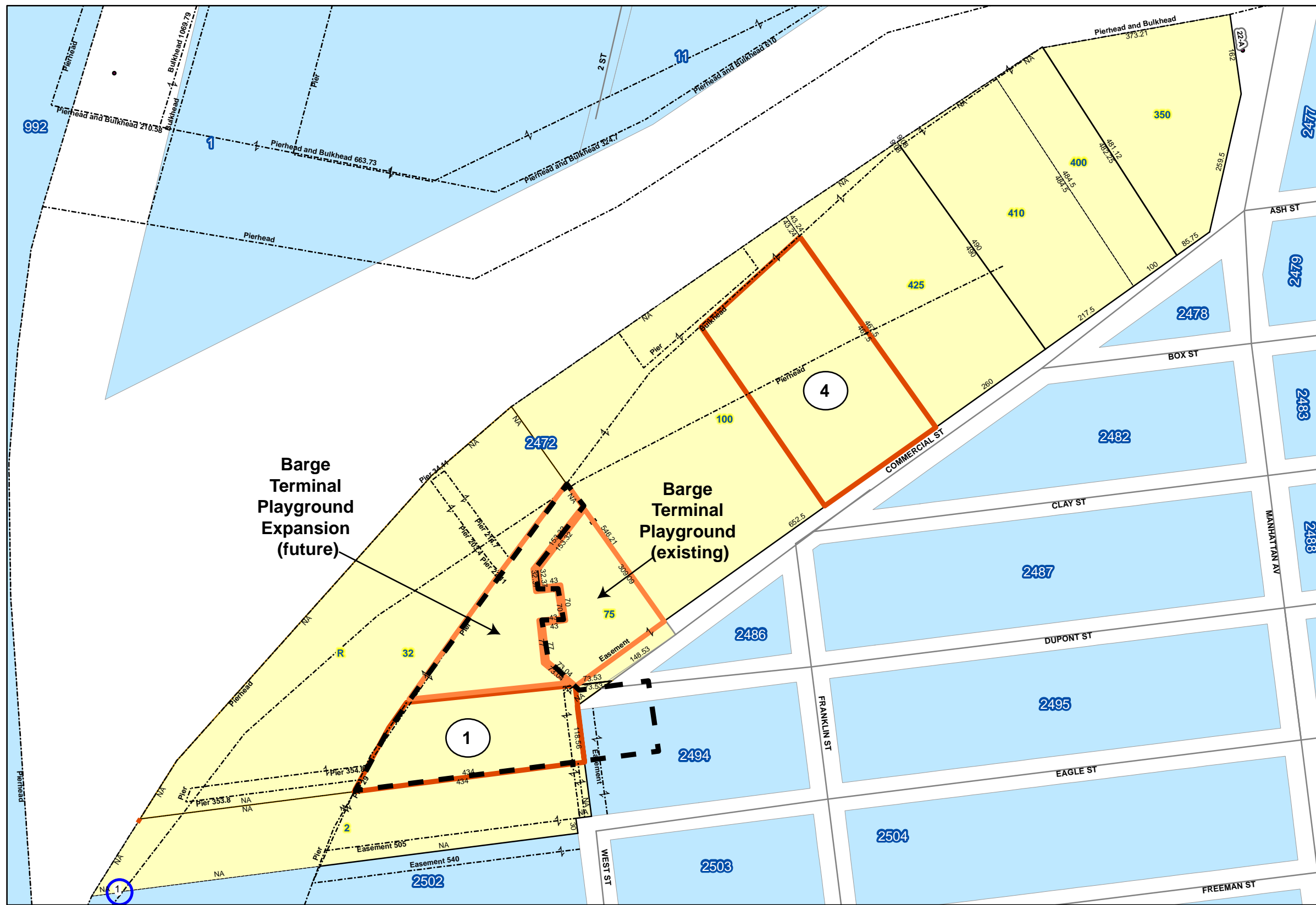


Legend

- Streets
- Miscellaneous Text
- ↕ Possession Hooks
- - - Boundary Lines
- ↕ Lot Face Possession Hooks
- Regular
- Underwater
- Yellow Tax Lot Polygon
- Blue Tax Block Polygon

**1** Projected Development Sites

**- - -** Boundary of City Parcel





NYC Digital Tax Map

Effective Date : 06-14-2012 09:28:04

End Date : Current

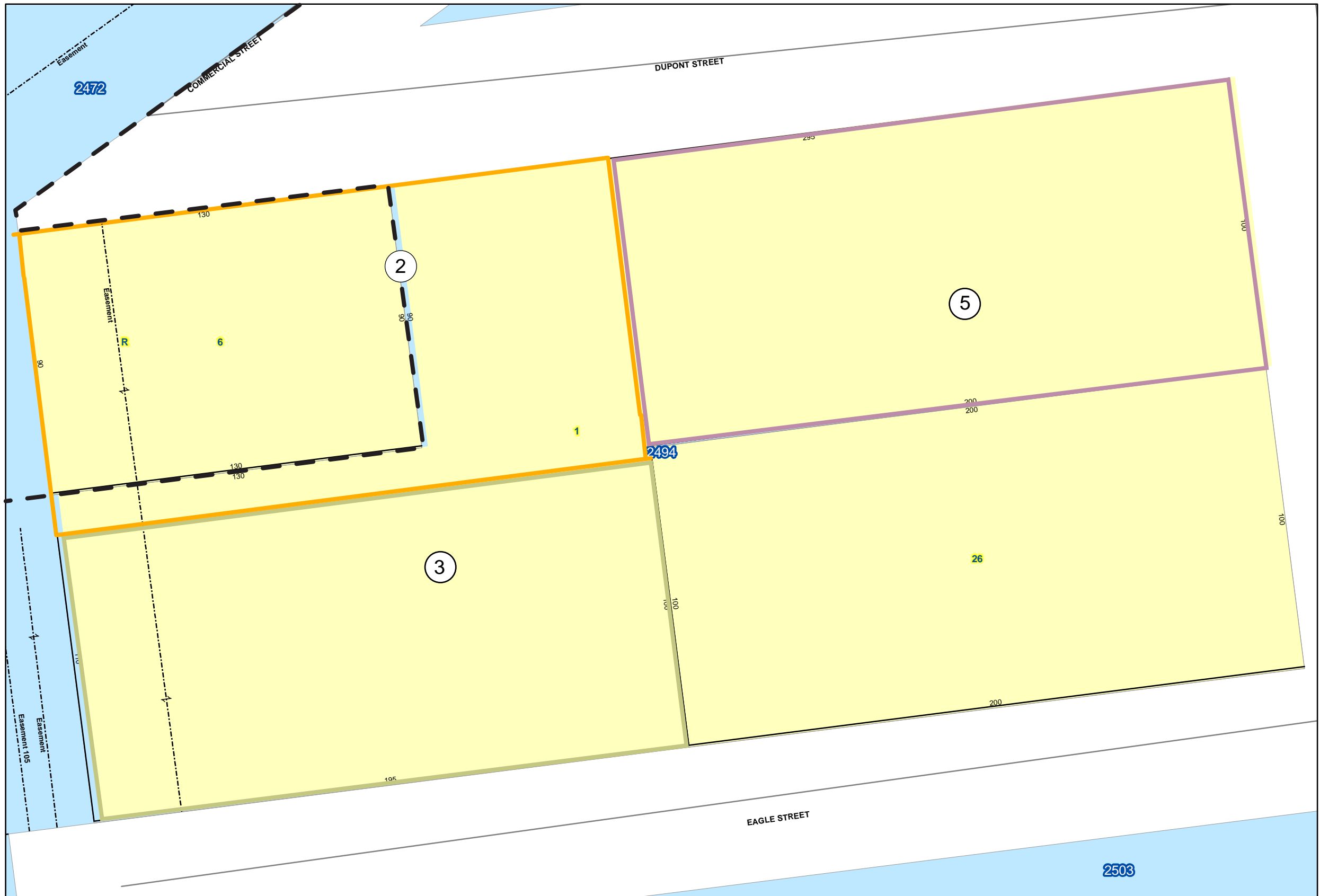
Brooklyn Block: 2494

Legend

- Streets
- Miscellaneous Text
- ↓ Possession Hooks
- - - - Boundary Lines
- ↓ Lot Face Possession Hooks
- Regular
- - - - Underwater
- Tax Lot Polygon
- Condo Number
- Tax Block Polygon

③ Projected Development Sites

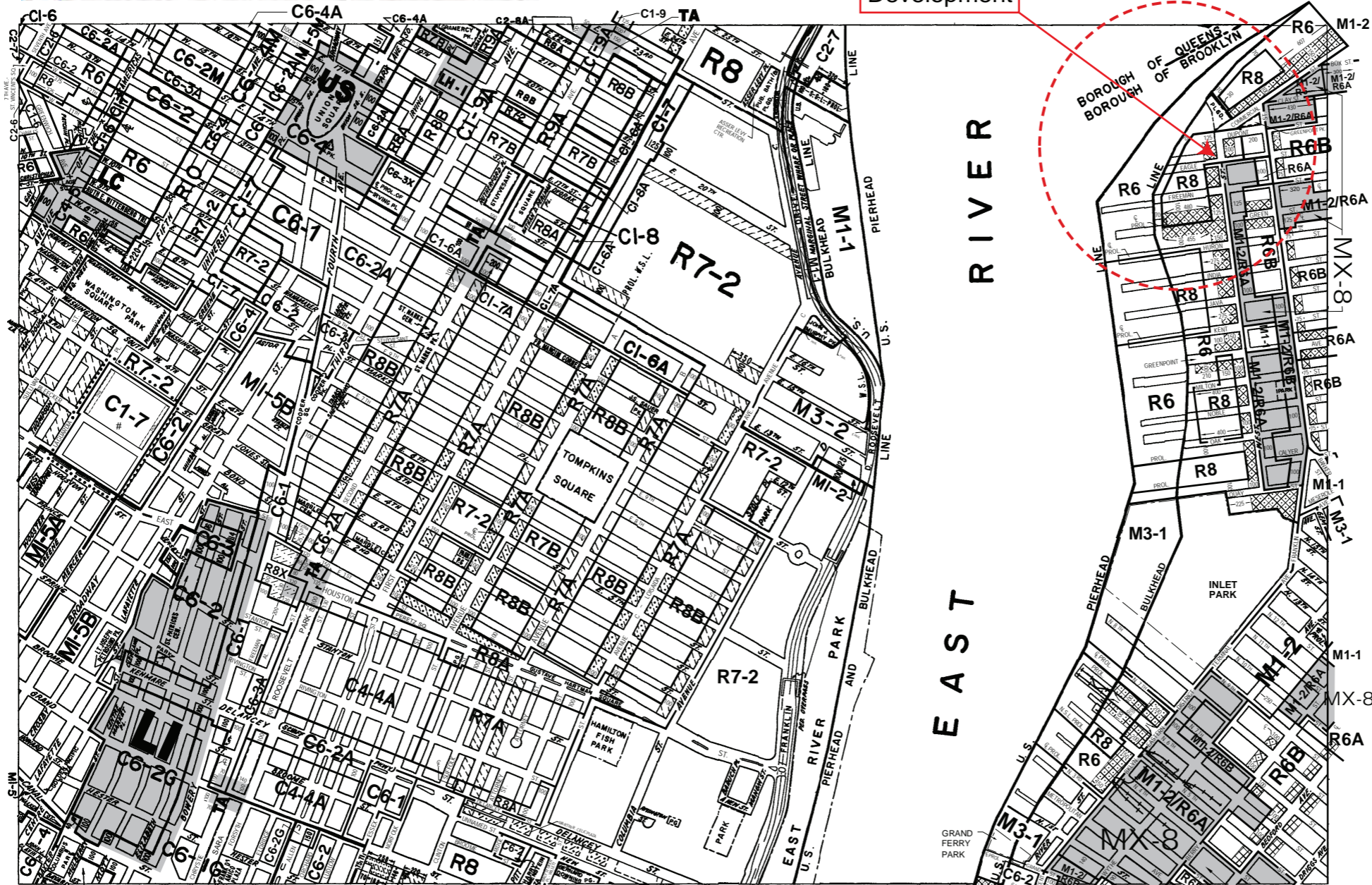
--- Boundary of City Parcel





Click blue box on map to view sketch map of proposed map change

Proposed Development



### ZONING MAP

THE NEW YORK CITY PLANNING COMMISSION

**Major Zoning Classifications:**  
 The number(s) and/or letter(s) that follows on R, C or M District designation indicates use, bulk and other controls as described in the text of the Zoning Resolution.

- R – RESIDENTIAL DISTRICT
- C – COMMERCIAL DISTRICT
- M – MANUFACTURING DISTRICT

**SPECIAL PURPOSE DISTRICT**  
 The letter(s) within the shaded area designates the special purpose district as described in the text of the Zoning Resolution.

**AREA(S) REZONED**

**Effective Date(s) of Rezoning:**  
 07-25-2012 C 120122 ZMM

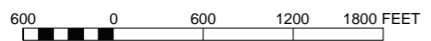
**Special Requirements:**  
 For a list of lots subject to CEQR environmental requirements, see APPENDIX C.  
 For a list of lots subject to "D" restrictive declarations, see APPENDIX D.  
 For Inclusionary Housing designated areas on this map, see APPENDIX F.

MAP KEY

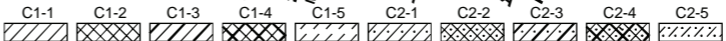
8b	8d	9b
12a	12c	13a
12b	12d	13b

© Copyrighted by the City of New York

ZONING MAP 12C



# NOTE: STREETS FOR THE STREET MAP CHANGE C 120077 MMM ARE SHOWN ON THIS MAP PRIOR TO BECOMING EFFECTIVE IN ORDER TO LOCATE ZONING DISTRICT BOUNDARIES.

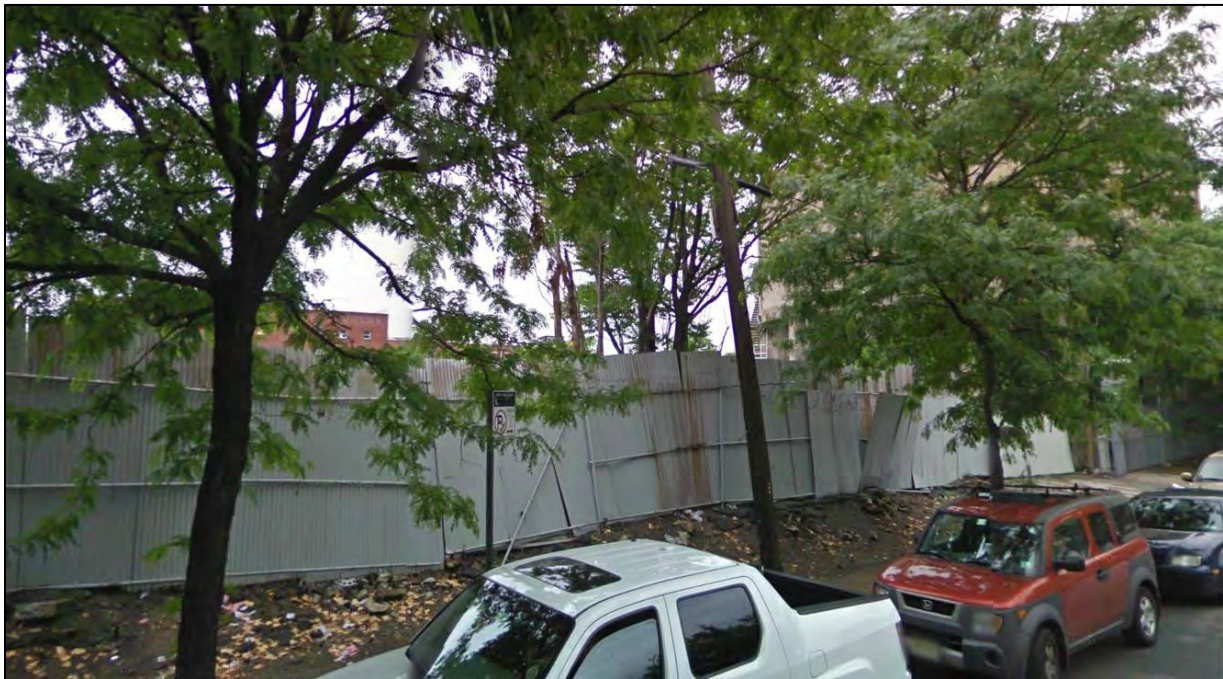


NOTE: Where no dimensions for zoning district boundaries appear on the zoning maps, such dimensions are determined in Article VII, Chapter 6 (Location of District Boundaries) of the Zoning Resolution.

NOTE: Zoning information as shown on this map is subject to change. For the most up-to-date zoning information for this map, visit the Zoning section of the Department of City Planning website: [www.nyc.gov/planning](http://www.nyc.gov/planning) or contact the Zoning Information Desk at (212) 720-3291.



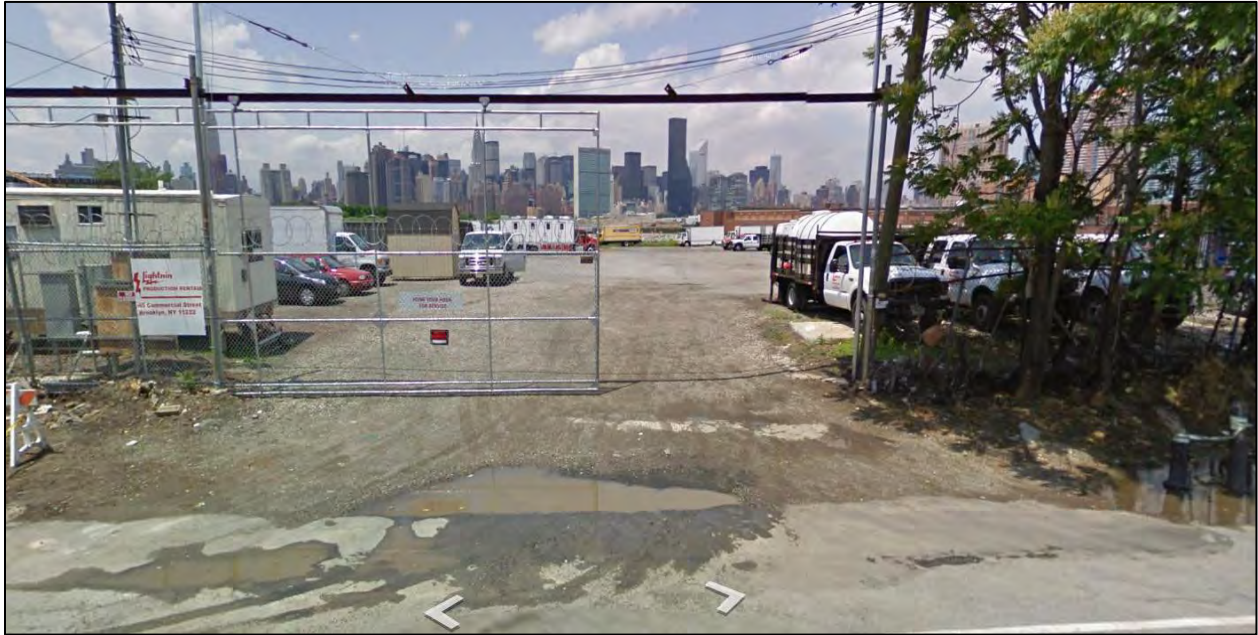
1: View of Site 1 looking west from Dupont St.



2: View of Site 2 looking south from Dupont St.



3: View of Site 3 looking north from Eagle St.



4: View of Site 4a/b looking northwest from Commercial St.



5: View of Site 5 looking south from Dupont St.

of subsidy is sufficient to develop a minimum of 98 units. The City and GLA have identified *Projected Development Site 3* as the location of the first tranche of these units, with the closing for those units anticipated to occur in December 2013.<sup>4</sup>

### **Description of the Proposed Development**

The Proposed Action would facilitate GLA's development of *Projected Development Sites 1 and 2* with buildings with a mix of market rate and affordable housing units. *Projected Development Site 3* would be developed with the above-described affordable housing units using generated by the *City Parcel*. *Projected Development Site 4* would consist of two parts, 4a and 4b: 4a is expected to be developed with two buildings housing approximately 333 affordable units, and 4b would be developed with an as-of-right apartment building containing an 80-20 mix of market rate and affordable housing units.<sup>5</sup> *Projected Development Site 5* would be developed with a 640-seat public elementary/intermediate school. GLA would be permitted to use approximately 235,000 zsf of the 589,481 zsf of floor area generated by the *City Parcel* for the development of up to approximately 276 market rate DUs (however see footnote on page 2), with the remainder of the floor area used to develop 431 affordable housing DUs.<sup>6</sup> In addition, under With Action Scenario conditions school space developed on *Projected Development Site 5* would be exempt from the definition of floor area. Based on discussions with the NYC School Construction Authority, it is expected that the proposed school would have approximately 120,000 sf of space.

In terms of building volumes, the Proposed Project would include an approximately 100-foot tall school building and mixed-use and residential buildings, with elements up to 300 feet tall or 400 feet tall (the maximum permitted building heights of the R6 and R8 districts, respectively), with towers rising above bases and with additional setbacks. These buildings would feature much lower heights along West Street and Commercial Street. The mixed-use and residential developments would comply with existing zoning bulk envelope controls.

## **II. BUILD YEAR**

Under With-Action conditions it is expected that GLA would develop the Project Site and fully utilize the developments rights associated with the *City Parcel* and made available by the Proposed Action by 2020. Accordingly, as discussed in further detail below, the RWCDS would use a 2020 Build year for analysis purposes.

## **III. PURPOSE AND NEED FOR THE PROPOSED ACTION**

The Proposed Action would enable the City to facilitate the development of 431 affordable housing units from the development rights generated by the *City Parcel* and allow for the improvement of the remainder of the *City Parcel* as open space. These units would be in addition to the 20% affordable housing that would be generated by the floor area associated with GLA's as-of-right development sites. Other benefits for the City would be the construction of a new public school building in a neighborhood with a growing

---

<sup>4</sup> In a separate transaction, the City is also making additional subsidies available to GLA for an additional affordable housing project under the City LAMP program, with the funding for this project scheduled for December 2013. The LAMP project would not be comprised of POA units; this would occur independent of the Proposed Project.

<sup>5</sup> Although 4a and 4b would house different types of units and separate buildings (4a would consist of two buildings and 4b of one building), for the purposes of most CEQR technical areas, *Projected Development Site 4* can be considered one development site as the site's buildings would be adjacent to each other and 4b would not front on a public street.

<sup>6</sup> While the development rights generated by the Proposed Action would be formally defined in terms of zoning square feet of floor area, consistent with CEQR methodologies, the environmental review of the Proposed Action will focus on gross square feet (gsf) for assessing the density-related effects of the Proposed Action.

residential population and the development of waterfront public open space on *Projected Development Site 1* that would not otherwise be provided and an aggregate increase in public open space over No-Action conditions. The Proposed Action would be developed in general conformity with existing plans for the area including the Greenpoint-Williamsburg Rezoning and the WAP-BK-1, while the proposed modifications allowed by the waterfront zoning authorizations would address flooding concerns, newly mandated flood elevation regulations, and to respond to the unique geography of the Project Site.

The Proposed Action would also enable GLA to develop a more cohesive development plan that better links the northern and southern portions of Greenpoint Landing. Otherwise, there would remain vacant, unutilized properties interrupting the new continuity of development along the Greenpoint waterfront.

#### **IV. PROPOSED REASONABLE WORST-CASE DEVELOPMENT SCENARIO (RWCDs)**

As discussed above, the Project Site was rezoned as part of the Greenpoint-Williamsburg rezoning in 2005 and GLA intends to develop its properties as-of-right in the event that the Proposed Action is not approved. Furthermore, the Proposed Action would not increase the maximum permitted FAR, change permitted uses, or change bulk regulations governing building volumes or lot coverage on GLA's properties. Instead, the effects of the Proposed Action would facilitate (1) the disposition of a portion of the *City Parcel* to GLA; and (2) the proposed zoning text amendment to exempt the proposed school from the definition of floor area and allow bulk modifications to the school building, which would facilitate the school's construction without reducing the permitted residential floor area and enable it to meet its programmatic and functional needs. These changes and their effects on anticipated development were reviewed to determine what the RWCDs for the No-Action Scenario and With-Action Scenario would be and therefore determine the incremental development associated with the Proposed Action.

##### **The Future Without the Proposed Action (No-Action Scenario)**

Under 2020 No-Action Scenario conditions, the *City Parcel* would remain City-owned and development rights associated with the City Parcel would not be used. By 2020 under No-Action Scenario conditions, it is expected that GLA would develop buildings as-of-right on *Projected Development Sites 3 and 4*. There would be no development on *Projected Development Site 1* as it is City-owned. There would be no development on *Projected Development Site 2* as a substantial portion of the site is City-owned although the building on *Projected Development Site 3* could extend onto the GLA-owned portion of *Projected Development Site 2*. While residential development on *Projected Development Site 5* could occur, as a conservative measure it is assumed that no development would occur. Refer to Table 3, which presents the No-Action development scenario.

As shown in the table, under 2020 No-Action Scenario conditions, the Project Site would include two new buildings developed with a total of 750,052 gsf of building space, including 660,202 gsf of residential space. These buildings would include approximately 615 market rate DUs, 154 affordable housing DUs, and 769 total DUs; 1,800 gsf of retail; 323 accessory parking spaces; and 19,290 sf of publicly accessible open space. There would be no community facility space developed on the Project Site under No-Action Scenario conditions.

##### Other Greenpoint Landing As-of-right Development by 2020

As discussed above, in addition to the development described above, it is expected that GLA will proceed with as-of-right development on other sites it owns in the Greenpoint Landing development area. These other developments would be built on properties that would not be affected by the Proposed Action. On these other sites by 2020, there are expected to be one or more new buildings with approximately 1,087 DUs, including 898 market rate DUs and 189 affordable housing DUs; 3,300 gsf of retail space; 461

accessory parking spaces; and 35,336 sf of publicly accessible open space. These developments would be accounted for in the technical analyses provided in the EAS as study area No-Build sites for the Proposed Action. Also as mentioned above the City is expected to create 59,676 sf of additional public open space on the portion of the *City Parcel* located north of *Projected Development Site 1*.

### **The Future With the Proposed Action (With-Action Scenario)**

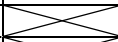
By 2020 under With-Action Scenario conditions, it is expected that GLA could develop the five projected development sites and utilize all development rights associated with the *City Parcel* and including new buildings on the portion of the City Parcel that would be disposed by the City to GLA. Refer to Table 4, which presents the With-Action development scenario.

**Table 3, Project Site 2020 No-Action Scenario**

Projected Development Site	GSF Above-grade	GSF Below-grade	Total GSF	Retail GSF	Community Facility GSF	Residential GSF	Parking GSF	Dwelling Units			Accessory Parking Spaces	Building Height (feet)	Public Open Space SF
								Market Rate	Affordable	Total			
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	302,516	23,450	325,966	1,800	0	274,516	26,200	249	63	312	131	400'	0
4	424,086	0	424,086	0	0	385,686	38,400	366	91	457	192	300'	19,290
5	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>726,602</b>	<b>23,450</b>	<b>750,052</b>	<b>1,800</b>	<b>0</b>	<b>660,202</b>	<b>64,600</b>	<b>615</b>	<b>154</b>	<b>769</b>	<b>323</b>	<b>N/A</b>	<b>19,290</b>

Notes:  
 There would be no manufacturing space on the projected development sites under either No-Action or With-Action Scenario Conditions as manufacturing uses are not permitted by the R6 and R8 commercial overlay zoning governing land uses on these sites.

**Table 4, Project Site 2020 With-Action Scenario**

Projected Development Site	GSF Above-grade	GSF Below-grade	Total GSF	Retail GSF	Comm-unity Facility GSF	Residential GSF	Parking GSF <sup>2</sup>	Dwelling Units			Accessory Parking Spaces <sup>2</sup>	Building Height (feet)	Public Open Space SF
								Market Rate	Afford-able	Total			
1	414,504	27,820	442,324	2,100	0	374,204	38,200	382	62	444	191	300'	28,353
2	435,425	2,000	437,425	0	0	393,825	41,600	418	68	486	208	400'	0
3	109,675	0	109,675	1,200	0	102,675	4,600	0	98	98	29	75'	0
4a (POA) <sup>1</sup>	314,334	0	297,174	3,400	0	293,774	0	0	333	333	0	178'	
4b (non-POA) <sup>1</sup>	131,406	0	131,406	0	0	101,806	29,600	91	24	115	148	300'	
4 all <sup>1</sup>	446,940	0	428,850	3,400	0	395,580	29,600	91	357	448	148	300'	19,290
5	120,000	0	120,000	0	120,000	0	0	0	0	0	0	130'	0
<b>Total</b>	<b>1,508,184</b>	<b>29,820</b>	<b>1,538,004</b>	<b>6,700</b>	<b>120,000</b>	<b>1,266,284</b>	<b>115,200</b>	<b>891</b>	<b>585</b>	<b>1,476</b>	<b>576</b>	<b>N/A</b>	<b>47,643</b>

<sup>1</sup> Under 2020 With-Action Scenario Conditions on Projected Development Site 4, two "POA Unit" buildings could be constructed on the "4a" portion and one non-POA building, i.e., an 80-20 as-of-right building, constructed on the "4b" portion. For the purpose of waterfront public space requirements under the WAP, Projected Development Site 4 will be treated as a single development site.

<sup>2</sup> Accessory parking assumes 0.3 parking spaces per affordable dwelling units and 0.4 parking spaces per market rate dwelling units. Parking is assumed to be provided at an average of 200 gsf per space.



As shown in Table 4, by 2020 under the With-Action Scenario, the project site is expected to include six new mixed-use or residential developments and one new community facility development. These buildings would include a total of approximately 1,538,004 gsf of building space, including 1,266,284 gsf of residential space. These developments would include approximately 1,476 DUs, with 891 market rate DUs and 585 affordable housing DUs; 6,700 gsf of retail space; an approximately 120,000 sf community facility that would house a 640-seat public elementary/intermediate school; and approximately 576 accessory parking spaces.

### **Incremental Development**

Based on the RWCDs for 2020 No-Action Scenario and With-Action Scenario conditions identified above, the net incremental change in development that would be facilitated as a result of the Proposed Action is identified below in Table 5.

As shown in Table 5, in the 2020 Build year, the Proposed Action would facilitate a net incremental increase in development of approximately 276 market rate units and approximately 431 affordable housing units, for a total of approximately 707 DUs. This reflects the utilization of all the *City Parcel* development rights by 2020 including the completion of 431 affordable units by 2020.

As also shown in Table 5, other incremental changes in development between 2020 With-Action conditions and 2020 No-Action conditions would include incremental increases of 606,082 gsf of residential space; 28,353 sf of public open space; 253 accessory parking spaces; a public school; and 781,582 gsf of total building area. The public open space increment reflects the proposed open space provided on *Projected Development Site 1* under the WAP, as that site would remain undeveloped under No-Action Scenario conditions.

The project increment identified in Table 5 would be analyzed as the RWCDs in the EAS as it represents the full utilization of the development rights generated by the Proposed Action with the likely worst case use.

### **Projected Residents and Employee Ratios**

It is projected that the average number of residents per project-generated unit would be 2.61 (which is the 2010 Census average household size for Brooklyn Community District 1). The average number of retail employees is expected to be 3 per 1,000 gsf; the average number of school employees is expected to be 1 per 11 students (per the *West 44th Street & 11th Avenue Rezoning FEIS*); the average number of residential building employees is expected to be 1 per 25 DUs (per the *West Clinton Rezoning EAS*); and the average number of parking facility employees is expected to be 1 per 50 spaces (per the *Atlantic Yards FEIS*).

**Table 5, Project Site 2020 Incremental Development**

	GSF Above-grade	GSF Below-grade	Total GSF	Retail GSF	Comm-unity Facility GSF	Residential GSF	Parking GSF	Dwelling Units			Accessory Parking Spaces	Building Height (feet)	Public Open Space SF
								Market Rate	Afford-able	Total			
No-Action	726,602	23,450	750,052	1,800	0	660,202	64,600	615	154	769	323	N/A	19,290
With-Action	1,508,184	29,820	1,538,004	6,700	120,000	1,266,284	115,200	891	585	1,476	576	N/A	47,643
<b>Increment</b>	<b>781,582</b>	<b>6,370</b>	<b>787,952</b>	<b>4,900</b>	<b>120,000</b>	<b>606,082</b>	<b>50,600</b>	<b>276</b>	<b>431</b>	<b>707</b>	<b>253</b>	<b>N/A</b>	<b>28,353</b>

## ARCHAEOLOGY

**Project number:** DEPARTMENT OF CITY PLANNING / LA-CEQR-K  
**Project:**  
**Date received:** 7/16/2013

**Comments:** as indicated below. Properties that are individually LPC designated or in LPC historic districts require permits from the LPC Preservation department. Properties that are S/NR listed or S/NR eligible require consultation with SHPO if there are State or Federal permits or funding required as part of the action.

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**This document only contains Archaeological review findings. If your request also requires Architecture review, the findings from that review will come in a separate document.**

**Properties with no Archaeological significance:**

- 1) ADDRESS: 31 EAGLE STREET, BBL: 3024940001
- 2) ADDRESS: WEST STREET, BBL: 3024940006
- 3) ADDRESS: 219 WEST STREET, BBL: 3024720032
- 4) ADDRESS: 37 COMMERCIAL STREET, BBL: 3024720100

**Comments:**

B 2494 Lot 1 was included in the, "Archaeological Assessment Report- Phase 1A Greenpoint-Williamsburg Rezoning Report," prepared by Celia Bergoffen and dated April 2004. The Commission continues to concur with its findings that this lot is not archaeologically sensitive.

In addition, the Commission reviewed the Greenpoint Landing Disposition EAS, Attachment B: Supplemental Screening for archaeological resources and concurs with the findings that the above referenced lots are not archaeologically sensitive.



7/17/2013

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SIGNATURE  
Amanda Sutphin, Director of Archaeology

DATE

**File Name:** 28680\_FSO\_ALS\_07172013.doc



## New York City Transit

July 16, 2012

Robert Dobruskin, AICP, Director  
NYC Department of City Planning  
Environmental Assessment and Review Division  
22 Reade Street, 4 East  
New York, NY 10007

Dear Mr. Dobruskin,

New York City Transit (NYCT) has reviewed the Transportation Chapter of the EAS for the proposed Greenpoint Landing development and confirms the conclusions identified in the document regarding NYCT bus, subway, and station project components.

Additionally NYCT, NYC Department of City Planning (DCP), and Greenpoint Landing Associates LLC (GLA) have agreed that a new high entry/exit turnstile (HEET) would be provided by GLA at a cost of \$50,000 as a condition of the EAS for the project. The HEET would be a new turnstile at the India Street entrance on the northbound platform of the Greenpoint Avenue (G) subway station and would be installed by NYCT.

Sincerely,

A handwritten signature in cursive script, appearing to read "Judith McClain".

Judith McClain  
Senior Director, Service Planning – Operations Planning  
MTA New York City Transit

cc: Olga Abinader  
Mehdi Amjadi  
Russel Wight

**From:** Salig, Mary (Parks) [mailto:Mary.Salig@parks.nyc.gov]  
**Sent:** Wednesday, July 17, 2013 12:47 PM  
**To:** OLGA ABINADER  
**Cc:** Alderson, Colleen  
**Subject:** Shadows and Open Space - GLA EAS Chapters

The NYC Department of Parks and Recreation (DPR) has reviewed the Shadows and Open Space Chapters prepared for the Greenpoint Landing Environmental Assessment Statement (EAS). DPR agrees with the conclusions of no significant adverse impacts related to Shadows and Open Space.

As always, call or email with any questions.

**Mary Salig**

**Mary Salig**  
Planning Project Manager

**T** 212.360.3489  
**F** 917.849.6480  
**E** [mary.salig@parks.nyc.gov](mailto:mary.salig@parks.nyc.gov)

**NYC Parks**  
The Arsenal, Central Park  
830 Fifth Avenue, Room 3  
New York, NY 10065

*Save a tree. Please do not print this e-mail unless necessary.*

**From:** JESSICA FAIN  
**Sent:** Thursday, July 18, 2013 2:22 PM  
**To:** OLGA ABINADER; STEVEN LENARD  
**Cc:** MICHAEL MARRELLA  
**Subject:** Greenpoint Landing/ WRP 12-137

We have completed the review of the project as described below for consistency with the policies and intent of the New York City Waterfront Revitalization Program (WRP).

**Greenpoint Landing:** The proposed action consists of several discretionary actions including: (1) Disposition/UDAAP designation of City-owned properties; (2) zoning text amendments; (3) Acquisition and Site Selection by SCA of a school site; (4) waterfront zoning authorizations; (5) Amendment to a Restrictive Declaration. The proposed action would facilitate the redevelopment of underutilized, partially vacant waterfront property in Greenpoint, Brooklyn with a mixed-use, primarily residential development.

Based on the information submitted, the Waterfront Open Space Division, on behalf of the New York City Coastal Commission, having reviewed the waterfront aspect of this action, finds that the actions will not substantially hinder the achievement of any Waterfront Revitalization Program (WRP) policy and hereby finds the project consistent with the WRP policies.

This consistency determination is only applicable to the information received and the current proposal. Any additional information or project modifications would require an independent consistency review.

For your records, this project has been assigned WRP # 12-137. If there are any questions regarding this review, please contact me.

**JESSICA FAIN**  
PLANNER, WATERFRONT AND OPEN SPACE DIVISION

**NYC DEPT OF CITY PLANNING**  
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[JFAIN@PLANNING.NYC.GOV](mailto:JFAIN@PLANNING.NYC.GOV)  
[www.nyc.gov/planning](http://www.nyc.gov/planning)

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