100 East End Avenue, Manhattan

Block 1579

Block 1579, Lot 23

60 EASTEND OWNERS INC.
60 E. END AVE.
NEW YORK, NY 10028-7907

Block 1579, Lot 30

70-74 EAST END AVENUE LLC
74 E. END AVE.
NEW YORK, NY 10028-7905

Block 1579, Lot 33

HAKIM, CATHY UNDER/
3 WEST 57TH STREET FL.
NEW YORK, NY 10019

Block 1579, Lot 34

300 EAST 61ST STREET, LLC
969 3RD AVE. RM. 4J
NEW YORK, NY 10022-2042

Block 1579, Lot 35

83RD STREET PROPERTRIES
25311 80TH AVE.
GLEN OAKS, NY 11004-1210

Block 1579, Lot 136

83RD STREET PROPERTRIES
25311 80TH AVE.
GLEN OAKS, NY 11004-1210

Block 1580

Block 1580, Lot 9

EARLY ELIZABETH
511 E. 83RD ST.
NEW YORK, NY 10028-7215

Block 1580, Lot 10

513 EAST 83 STREET LLC
513 E. 83RD ST.
NEW YORK, NY 10028-7217

Block 1580, Lot 11

515 EAST 83RD STREET REALTY CORP.,
EXPERT MGMT
318 E. 80TH ST.
NEW YORK, NY 10075-0914

Block 1580, Lot 12

KANTER'S REALTY ASSOC
80 CUTTERMILL RD. STE 402
GREAT NECK, NY 11021-3118

Block 1580, Lot 13

591 EAST 83 REALTY LLC
C/O SW MANAGEMENT LLC
145 HUGUENOT ST. STE 503
NEW ROCHELLE, NY 10801-5236

Block 1580, Lot 14

521 EAST 83RD STREET CORP.
521 E. 83RD ST.
NEW YORK, NY 10028-7212

Block 1580, Lot 15

AMO ASSOCIATES LLC
226 E. 54TH ST. STE 402
NEW YORK, NY 10022-4986

Block 1580, Lot 16

AMO ASSOCIATES,
525 E. 83RD ST.
NEW YORK, NY 10028-7231

Block 1580, Lot 17

527 EAST 83RD
BEACH LANE MANAGEMENT CO.
111 N. CENTRAL AVE. STE 400
HARTSDALE, NY 10530-1932

Block 1580, Lot 18

OLYMPUS REALTY CORP.
529 E. 83RD ST.
NEW YORK, NY 10028-7214

Block 1580, Lot 19

531 EAST 83RD STREET OWNERS CORP.
WOLFSON FARKAS & GARVEY
10418 METROPOLITAN AVE.
FOREST HILLS, NY 11375-6736

Block 1580, Lot 20

HOLLYWOOD REALTY ASSCTS
429 E. 82ND ST.
NEW YORK, NY 10028-6028

Block 1580, Lot 23

EIGHTY EAST END OWNERS CORP.
205 E. 42ND ST. STE 600
NEW YORK, NY 10017-5706

Block 1580, Lot 127

SAMATT ASSOCIATES, LLC
88 E. END AVE.
NEW YORK, NY 10028-8024

Block 1580, Lot 7501

OWNER/AGENT
90 E. END AVE.
NEW YORK, NY 10028-8000

Block 1580, Lot 32

530-538 EAST 84TH STREET OWNERS INC.
4225 21ST ST.
LONG ISLAND CITY, NY 11101-4906

Block 1580, Lot 33

METRO MANAGEMENT
429 25 21 ST. APT. JUDITH CUTLER
LONG ISLAND CITY, NY 11101

Block 1580, Lot 37

JOAN DUNN (AS TRUSTEE)
JOAN & ROBERT DUNN
513A E. 84TH ST.
NEW YORK, NY 10028-7301

Block 1580, Lot 38

ROMARK REALTY, LLC
221 E. 83RD ST.
NEW YORK, NY 10028-2811

Block 1580, Lot 41

516 EAST 84TH STREET,
33 THE CRSSNG
PURCHASE, NY 10577-2211

Block 1580, Lot 42

EZRA , RUTH
514 E. 84TH ST.
NEW YORK, NY 10028-7302

Block 1580, Lot 43

510 E. 84 ST. CORP.
PALEY MANAGEMENT CORP.
221 E. 83RD ST.
NEW YORK, NY 10028-2811

Block 1580, Lot 46

506 EAST 84TH REALTY LLC
433 W. 14TH ST. STE 4293
NEW YORK, NY 10014-1001

Block 1581

Block 1581, Lot 106

509 E. 84TH ST. ASSOC LLC C/O METRO LOFT
MGMT LLC
20 EXCHANGE PL. STE 1100
NEW YORK, NY 10005-3263

Block 1581, Lot 7

VANDAELE, TRUSTEE, WALTER
3034 CLEVELAND AVE. NW
WASHINGTON, DC 20008-3531

Block 1581, Lot 8

DUNN, ROBERT J.
513 E. 84TH ST.
NEW YORK, NY 10028-7301

Block 1581, Lot 9

LOUIS E. CORTES
515 E. 84TH ST.
NEW YORK, NY 10028-7301

Block 1581, Lot 109

MCKENNA, JAMES J.
517 EAST 84TH STREET APT. 2A UPPER DUPLEX
NEW YORK, NY 10028

Block 1581, Lot 10

JOSEPH FACCIBENE JR.
519 E. 84TH ST.
NEW YORK, NY 10028-7301

Block 1581, Lot 11

OELSNER, EDWARD C. III
521 E. 84TH ST.
NEW YORK, NY 10028-7301

Block 1581, Lot 12

HLASTEAD MANAGEMENT LLC
770 LEXINGTON AVE. APT. 5TH FLO
NEW YORK, NY 10065

Block 1581, Lot 23

THE CHAPIN SCHOOL LTD.
100 E. END AVE.
NEW YORK, NY 10028-7498

Block 1581, Lot 30

ONE TEN E. END ASSOCIATES
C/O WEINREB MANAGEMENT
276 RIVERSIDE DR.
NEW YORK, NY 10025-5204

Block 1581, Lot 35

COLMORE INC.
C/O HELGA KELM & CO.
10905 BERRYLAND CT.
OAKTON, VA 22124-1447

Block 1581, Lot 36

MEILKE PETER A.
536 E. 85TH ST.
NEW YORK, NY 10028-7464

Block 1581, Lot 37

534 EAST 85TH STREETCO.
219 E. 81ST ST. # L.
NEW YORK, NY 10028-2654

Block 1581, Lot 39

530 E. 85TH STREET COR.
MARIN MANAGEMENT CORP.
157 E. 25TH ST.
NEW YORK, NY 10010-2313

Block 1581, Lot 40

JESSICA LEIGH ASSOCIATES LLC.
528 E. 85TH ST.
NEW YORK, NY 10028-7453

Block 1581, Lot 141

GMAC COMMERICAL MORTGAGE
P.O. BOX 1015
HORSHAM, PA 19044-8015

Block 1581, Lot 142

526 EAST 85TH REALTYCORP.
524 E. 85TH ST.
NEW YORK, NY 10028-7470

Block 1581, Lot 43

5282, LLC
522 E. 85TH ST.
NEW YORK, NY 10028-7468

Block 1581, Lot 44

520 EAST 85TH STREETREALTY
520 E. 85TH ST.
NEW YORK, NY 10028-7469

Block 1581, Lot 45

ZELDA RLTY CP
SJS MANAGEMENT CORP.,
767 3RD AVE. RM. 31A
NEW YORK, NY 10017-2088

Block 1582

Block 1582, Lot 9

BFBX, LLC
C/O HENRY M. BOEHRINGER
38 THOMPSON LN.
STANFORDVILLE, NY 12581-5613

Block 1582, Lot 10

CASE, MARY ANNE
521A E. 85TH ST.
NEW YORK, NY 10028-7458

Block 1582, Lot 11

FAME COMPANY
150 E. 58 ST. APT. 28 FL.
NEW YORK, NY 10155

Block 1582, Lot 12

521B EAST 85TH STREET,
521B E. 85TH ST.
NEW YORK, NY 10028-7460

Block 1582, Lot 13

523B EAST 85 REALTY LLC
C/O T&T REALTY MANAGEMENT LLC
433 W. 14TH ST. STE 4293
NEW YORK, NY 10014-1001

Block 1582, Lot 14

MARK ROSENTHAL
525 E. 85TH ST.
NEW YORK, NY 10028-7401

Block 1582, Lot 15

MEADWAY ESTATES INC.
P.O. BOX 630181
LITTLE NECK, NY 11363-0181

Block 1582, Lot 23

120 EAST END AVE. CORP.
201 E. 42ND ST. FL. 6
NEW YORK, NY 10017-5700

Block 1582, Lot 30

130 E. END TENANTS CORP.
130 E. END AVE.
NEW YORK, NY 10028-7553

Block 1582, Lot 31

544 EAST 86TH STREET LLC
C/O RUDIN MANAGEMENT CO., INC.
345 PARK AVE.
NEW YORK, NY 10154-0004

Block 1582, Lot 34

WALLACK MANAGEMENT CO.
18 E. 64TH ST.
NEW YORK, NY 10065-7286

Block 1582, Lot 40

MILLARD,KATHLEEN,T
520 E. 86TH ST.
NEW YORK, NY 10028-7534

Block 1590

Block 1590, Lot 36

EAST END TOWER LLC
85 E. END AVE.
NEW YORK, NY 10028-8020

Block 1590, Lot 41

BROOKS HOLDING CORP.
MERLOT MANAGEMENT
201 WEST 91ST STREET, SU
NEW YORK, NY 10024

Block 1590, Lot 42

ONE GRACIE SQUARE CORP.
1 GRACIE SQ.
NEW YORK, NY 10028-8001

Block 1590, Lot 44

SEVEN GRACIE SQ. CORP.
BHS
770 LEXINGTON AVE. FL. 5
NEW YORK, NY 10065-8165

Block 1590, Lot 48

VITO VERNI
P.O. BOX 600 APT. WOODLAWN STATION
BRONX, NY 10470-0266

Block 1592

Block 1592, Lot 1

PARKS AND RECREATION (GENERAL)
ARSENAL WEST
16 W. 61ST ST.
NEW YORK, NY 10023-7604

100 East End Avenue, Manhattan

Community Board

Manhattan Community Board 8
505 Park Avenue, Suite 620
New York, NY 10022

City Councilperson

Ben Kallos
244 East 93rd Street
New York, NY 10128

Borough President

Office of Manhattan Borough President
Gale Brewer
1 Centre Street, 19th Floor
New York, NY 10007

Department of City Planning (Manhattan Office)

Ms. Edith Hsu-Chen
Director, Manhattan Office
Department of City Planning
22 Reade Street, 6W
New York, NY 10007-1216

Department of City Planning (Central Office)

Christopher Holme
22 Reade Street
New York, NY 10007-1216

State of New York)
County of Queens)

Miya Alcivar, being duly sworn, deposes and says: That the foregoing names and addresses were obtained from the City Collector's office on the 6th day of May, 2014.

Miya Alcivar

Sworn before me on
this 15TH day of OCTOBER May, 2014.

IAN RASMUSSEN
NOTARY PUBLIC-STATE OF NEW YORK
No. 02RA6298453
Qualified In Queens County
My Commission Expires March 24, 2018

[Notary Public Stamp]

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

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

Part I: GENERAL INFORMATION

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

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

2. *Project Name* Chapin School Enlargement

3. *Reference Numbers*

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

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY Board of Standards and Appeals			NAME OF APPLICANT The Chapin School		
NAME OF LEAD AGENCY CONTACT PERSON Rory Levy, CEQR Examiner			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON James Heineman, Equity Environmental Engineering		
ADDRESS 250 Broadway, 29th Floor			ADDRESS 227 Route 206, Suite 6		
CITY New York	STATE NY	ZIP 10007	CITY Flanders	STATE NJ	ZIP 07836
TELEPHONE 212-788-8749	EMAIL rlevy@bsa.nyc.gov		TELEPHONE 973-527-7451x101	EMAIL jim.heineman@equityenvironmental.com	

5. *Project Description*

The proposed action is a variance to waive Floor Area Ration (FAR), height and setback regulations of the R10A district, and height, setback, rear yard, and Floor Area Ratio regulations of the R8B district, to construct a building addition that will accommodate a gymnasium that meets National Federation of High School standards for basketball, and provides needed instructional spaces. The building would be within the R10A district's mazimum height limit, but would exceed the maximum street wall height and would encroach on the required 15-foot setback above the maximum street wall height. The enlargement would extend approximately twenty-five feet into the midblock R8B district. Total building height would be 185.66 feet, which is within the permitted 210 foot height limit of the R10A district, and would have a total zoning floor area of 176,249 square feet, which exceeds the 166,261.7 square feet permitted by the site's zoning.

Project Location

BOROUGH Manhattan	COMMUNITY DISTRICT(S) 8	STREET ADDRESS 100 East End Avenue
TAX BLOCK(S) AND LOT(S) Block 1581, Lot 23		ZIP CODE 10028
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS northwest corner of East End Avenue and East 84th Street		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY R10A; R8B		ZONING SECTIONAL MAP NUMBER 9A

6. *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:	

☐ 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:
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION 24-11, 24-17, 77-22, 24-522, 23-633, 23-663, 124-36, 24-50

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

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

☐ LEGISLATION
☐ RULEMAKING
☐ CONSTRUCTION OF PUBLIC FACILITIES
☐ 384(b)(4) APPROVAL
☐ OTHER, explain:
☐ FUNDING OF CONSTRUCTION, specify:
☐ POLICY OR PLAN, specify:
☐ FUNDING OF PROGRAMS, specify:
☐ PERMITS, specify:

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

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

State or Federal Actions/Approvals/Funding: ☐ YES ☒ NO If "yes," specify:

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

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

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

Physical Setting (both developed and undeveloped areas)

Total directly affected area (sq. ft.): 22,784
Waterbody area (sq. ft) and type:
Roads, buildings, and other paved surfaces (sq. ft.): 22,784
Other, describe (sq. ft.):

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

SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 43,410.5
plus 144,254 existing
NUMBER OF BUILDINGS: 1
GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 198,659
HEIGHT OF EACH BUILDING (ft.): 185.66
NUMBER OF STORIES OF EACH BUILDING: 11(8 existing)

Does the proposed project involve changes in zoning on one or more sites? ☐ YES ☒ NO
If "yes," specify: The total square feet owned or controlled by the applicant:
The total square feet not owned or controlled by the applicant:

Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading? ☒ YES ☐ NO
If "yes," indicate the estimated area and volume dimensions of subsurface permanent and temporary disturbance (if known):
AREA OF TEMPORARY DISTURBANCE: 5,000 sq. ft. (width x length)
VOLUME OF DISTURBANCE: 165,000 cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 5,000 sq. ft. (width x length)

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

	Residential	***Commercial***	***Community Facility***	***Industrial/Manufacturing***
Size (in gross sq. ft.)			198,659	
Type (*e.g.*, retail, office, school)	units		school	

Does the proposed project increase the population of residents and/or on-site workers? ☐ YES ☒ NO
If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: NUMBER OF ADDITIONAL WORKERS:
Provide a brief explanation of how these numbers were determined:

Does the proposed project create new open space? ☐ YES ☒ NO If "yes," specify size of project-created open space: sq. ft.

Has a No-Action scenario been defined for this project that differs from the existing condition? ☐ YES ☒ NO
If "yes," see Chapter 2, "Establishing the Analysis Framework" and describe briefly:

9. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2019

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 48

WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☒ YES ☐ NO	IF MULTIPLE PHASES, HOW MANY?
BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE:	

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

☒ RESIDENTIAL ☐ MANUFACTURING ☐ COMMERCIAL ☒ PARK/FOREST/OPEN SPACE ☒ OTHER, specify: institutional (schools)

Part II: TECHNICAL ANALYSIS

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

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

	YES	NO
1. *LAND USE, ZONING, AND PUBLIC POLICY*: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	☐	☒
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	☐	☒
(c) Is there the potential to affect an applicable public policy?	☐	☒
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach.		
(e) Is the project a large, publicly sponsored project?	☐	☒
○ 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?	☐	☒
○ If "yes," complete the Consistency Assessment Form.		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
○ Generate a net increase of 200 or more residential units?	☐	☒
○ Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
○ Directly displace more than 500 residents?	☐	☒
○ Directly displace more than 100 employees?	☐	☒
○ Affect conditions in a specific industry?	☐	☒
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
○ Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, hospitals and other health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
○ **Child Care Centers:** Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ **Libraries:** Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6)	☐	☒
○ **Public Schools:** Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ **Health Care Facilities and Fire/Police Protection:** Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the proposed project change or eliminate existing open space?	☐	☒
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☒	☐
○ If "yes," would the proposed project generate more than 50 additional residents or 125 additional employees?	☐	☒
(c) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
○ If "yes," would the proposed project generate more than 350 additional residents or 750 additional employees?	☐	☐
(d) If the project in located an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	☐	☐

	YES	NO
5. *SHADOWS*: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☒	☐
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☒	☐
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☐	☒
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☐	☒
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources.		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
○ If "yes," list the resources and attach supporting information on whether the proposed project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☐	☒
○ If "yes," complete the Jamaica Bay Watershed Form, and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☐	☒
(b) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☐	☒
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☐	☒
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☒	☐
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: presence of contaminated soil on-site, unregistered above-ground storage tanks for #2 fuel oil	☒	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☒
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than the amounts listed in Table 13-1 in Chapter 13?	☐	☐
(d) Would the proposed project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it	☐	☐

	YES	NO
involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?		
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week): no increase		
○ Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	☐	☒
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	☐	☒
12. *ENERGY*: CEQR Technical Manual Chapter 15		
(a) Using energy modeling or Table 15-1 in Chapter 15, the project's projected energy use is estimated to be (annual BTUs): 9,526,600		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☒	☐
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following questions:		
○ Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☐	☒
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☐	☐
○ Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	☐	☒
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway trips per station or line?	☐	☐
○ Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☐	☒
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	☐	☐
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☐	☒
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed)	☐	☒
(c) Does the proposed project involve multiple buildings on the project site?	☐	☒
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	☐	☒
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☐	☒
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☐	☒
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☒	☐
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒

	YES	NO
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☒	☐
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary. No impacts related to air quality, hazardous materials, or nosie were identified.		
18. *NEIGHBORHOOD CHARACTER*: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	☒	☐
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary. no adverse impacts associated with any of the constituent elements of neighborhood character would occur.		
19. *CONSTRUCTION*: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
o Construction activities lasting longer than two years?	☒	☐
o Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	☐	☒
o Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, *etc.*)?	☒	☐
o Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	☐	☒
o The operation of several pieces of diesel equipment in a single location at peak construction?	☐	☒
o Closure of a community facility or disruption in its services?	☐	☒
o Activities within 400 feet of a historic or cultural resource?	☐	☒
o Disturbance of a site containing or adjacent to a site containing natural resources?	☐	☒
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?	☐	☒
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in Chapter 22, "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination. All construction activities will comply with relevant DOB and DOT regulations.		

20. *APPLICANT'S CERTIFICATION*

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

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

APPLICANT/REPRESENTATIVE NAME	DATE
James Heineman	October 16, 2014

SIGNATURE

PLEASE NOTE THAT APPLICANTS MAY BE REQUIRED TO SUBSTANTIATE RESPONSES IN THIS FORM AT THE DISCRETION OF THE LEAD AGENCY SO THAT IT MAY SUPPORT ITS DETERMINATION OF SIGNIFICANCE.

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

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

1. For each of the impact categories listed below, consider whether the project may have a significant adverse effect on the environment, taking into account its (a) location; (b) probability of occurring; (c) duration; (d) irreversibility; (e) geographic scope; and (f) magnitude.

IMPACT CATEGORY	Potentially Significant Adverse Impact YES	NO
Land Use, Zoning, and Public Policy	☐	☐
Socioeconomic Conditions	☐	☐
Community Facilities and Services	☐	☐
Open Space	☐	☐
Shadows	☐	☐
Historic and Cultural Resources	☐	☐
Urban Design/Visual Resources	☐	☐
Natural Resources	☐	☐
Hazardous Materials	☐	☐
Water and Sewer Infrastructure	☐	☐
Solid Waste and Sanitation Services	☐	☐
Energy	☐	☐
Transportation	☐	☐
Air Quality	☐	☐
Greenhouse Gas Emissions	☐	☐
Noise	☐	☐
Public Health	☐	☐
Neighborhood Character	☐	☐
Construction	☐	☐

2. Are there any aspects of the project relevant to the determination of whether the project may have a significant impact on the environment, such as combined or cumulative impacts, that were not fully covered by other responses and supporting materials? ☐ YES ☐ NO

If there are such impacts, attach an explanation stating whether, as a result of them, the project may have a significant impact on the environment.

3. Check determination to be issued by the lead agency:

☐ **Positive Declaration**: If the lead agency has determined that the project may have a significant impact on the environment, and if a Conditional Negative Declaration is not appropriate, then the lead agency issues a *Positive Declaration* and prepares a draft Scope of Work for the Environmental Impact Statement (EIS).

☐ **Conditional Negative Declaration:** A *Conditional Negative Declaration* (CND) may be appropriate if there is a private applicant for an Unlisted action AND when conditions imposed by the lead agency will modify the proposed project so that no significant adverse environmental impacts would result. The CND is prepared as a separate document and is subject to the requirements of 6 NYCRR Part 617.

☐ **Negative Declaration:** If the lead agency has determined that the project would not result in potentially significant adverse environmental impacts, then the lead agency issues a *Negative Declaration*. The *Negative Declaration* may be prepared as a separate document (see template) or using the embedded Negative Declaration on the next page.

4. ***LEAD AGENCY'S CERTIFICATION***

TITLE	LEAD AGENCY
NAME	DATE
SIGNATURE	

NEGATIVE DECLARATION (Use of this form is optional)

Statement of No Significant Effect

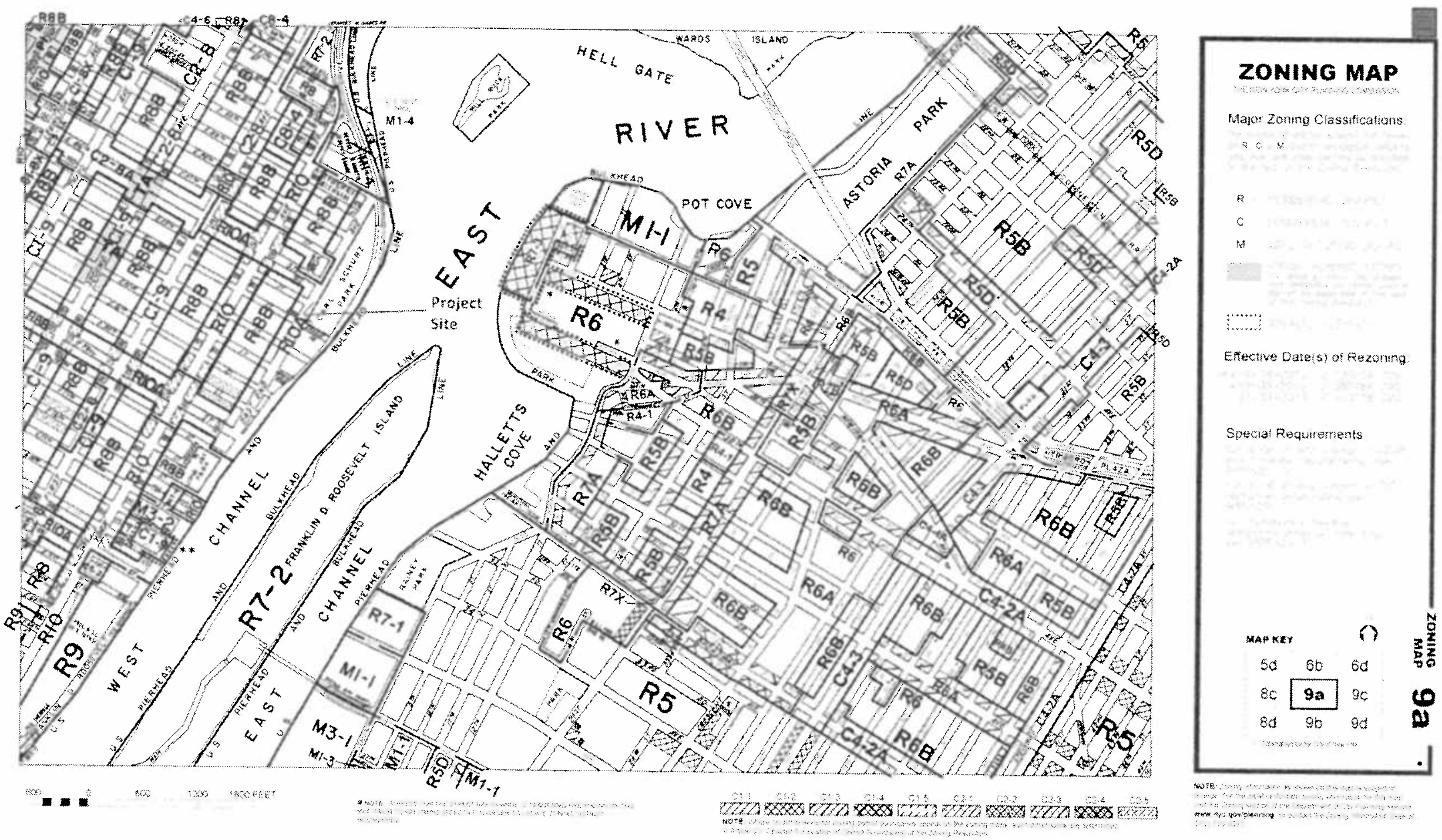
Pursuant to Executive Order 91 of 1977, as amended, and the Rules of Procedure for City Environmental Quality Review, found at Title 62, Chapter 5 of the Rules of the City of New York and 6 NYCRR, Part 617, State Environmental Quality Review, assumed the role of lead agency for the environmental review 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 finds that 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	DATE
SIGNATURE	

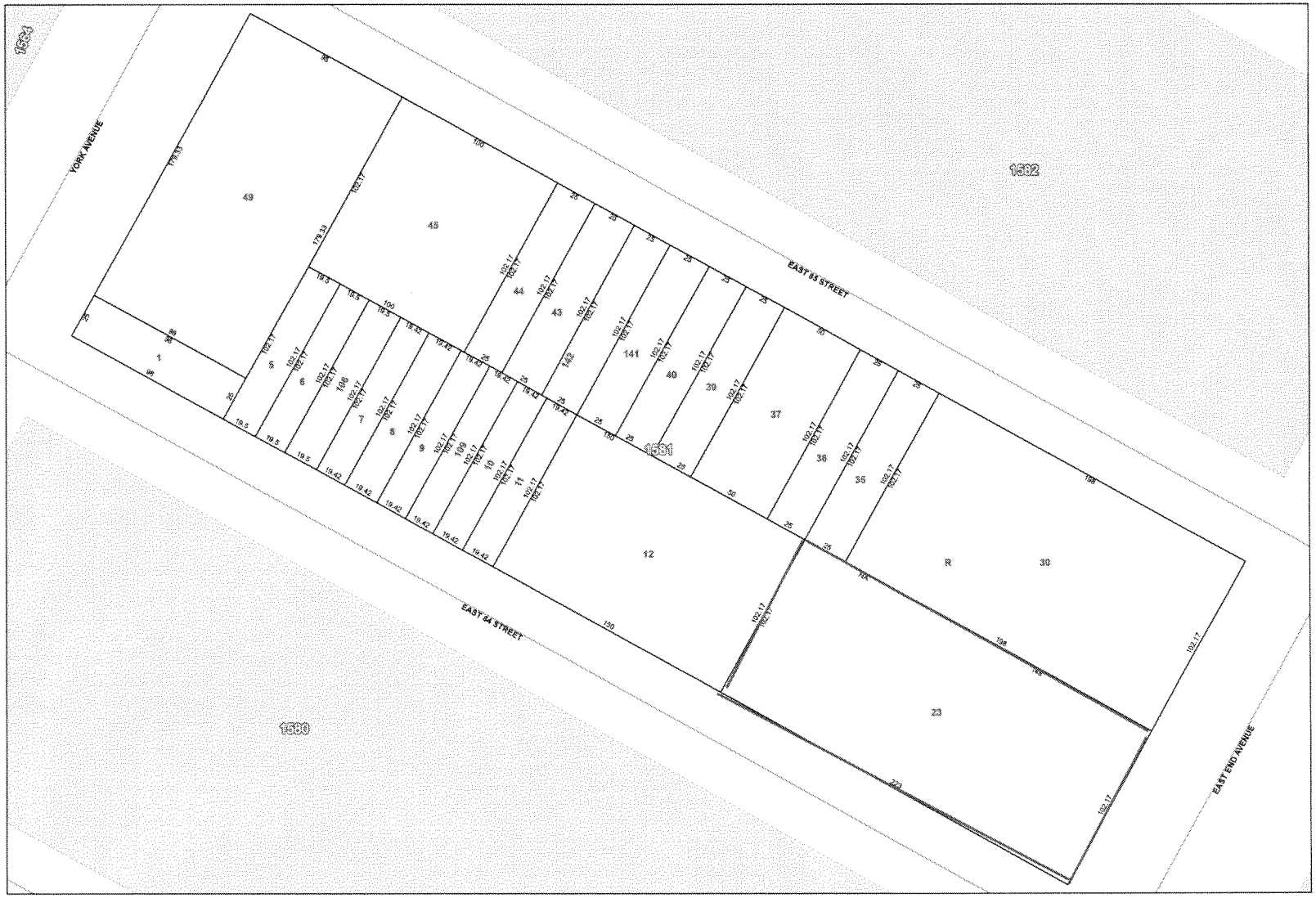

ZONING MAP
Major Zoning Classifications:
R
C
M
Effective Date(s) of Rezoning:
Special Requirements
MAP KEY
5d 6b 6d
8c 9a 9c
8d 9b 9d
ZONING MAP
9a
HELL GATE
WARDS ISLAND
EAST RIVER
POT COVE
ASTORIA PARK
HALLETTS COVE
Project Site
FRANKLIN D. ROOSEVELT ISLAND
WEST CHANNEL
EAST CHANNEL
M1-1
R6
R5
R4
R5B
R6B
R6A
R7A
R7X
R7-1
R7-2
R5D
R8B
R10
R10A
R9
M1-4
M3-1
C4-2A
C4-3
1800 FEET

NYC Finance

NYC Digital Tax Map

Effective Date : 01-14-2013 14:57:34
End Date : Current

Manhattan Block: 1581



Legend

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

Introduction

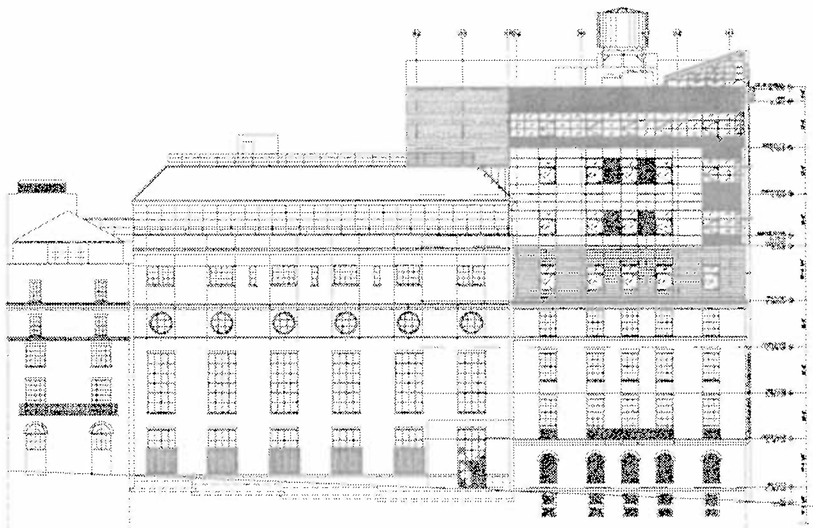
Project Description
The applicant, The Chapin School, proposes to construct an enlargement of its existing Use Group 3 school to improve the existing facility at 100 East End Avenue in the Yorkville section of Manhattan Community District 8. The purpose of the enlargement is to allow the construction of a new gymnasium and accessory facilities that will meet official standards for league basketball play, as well as classroom space to accommodate the School's growing music and performing arts programs. No increase in enrollment or staffing levels would occur as a result of the proposed enlargement.

The enlargement would consist of the development of a new 9th floor containing dance and music space, a new 10th floor containing lockers and a training room, and a double-height 11th floor containing a new gymnasium. A portion of the building roof would contain a small garden area and an open activity area to accommodate outdoor play. Additionally, one partial below-grade level would be developed to accommodate a new cafeteria for the lower school. The existing undersized gymnasium on the school's second floor would be converted into new classroom space, locker rooms, offices, and collaboration rooms. The gym on the fifth floor would become a design/robotics studio.

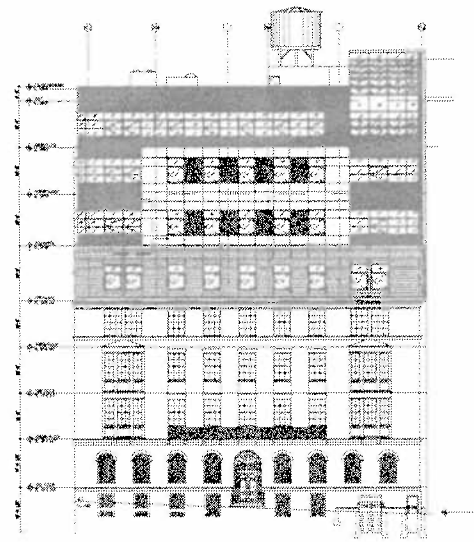
In order to allow this enlargement, relief from the bulk regulations of the site's R10A and R8B zoning districts is required. The building's East End Avenue portion would exceed the maximum street wall height of the R10A district and would violate the 15-foot setback required above the maximum street wall height. The proposed enlargement would extend approximately twenty-five feet into the R8B district that is mapped beyond 100 feet from East End Avenue. This portion of the building would not comply with the R8B district's rear setback and street wall regulations. The height of the enlargement within the R8B district would exceed the district's 75-foot height limit but would be within the maximum previously approved by the Board of Standards and Appeals. The building's total proposed zoning floor area of 176,249 square feet would exceed the maximum permitted floor area of 166,261.7 square feet.

The existing school operates pursuant to two previous BSA actions. The original variance was approved in 1987 under Cal. No. 498-87-BZ to permit the enlargement of an existing six-story school to allow for the construction of a new gymnasium. In 1996, under Cal. No. 171-95-BZ, the Board granted a variance to permit the School to accommodate a new library, gymnasium, and performing arts facility. In 2006, the 1996 variance was reopened and amended to allow the addition of three floors above the portion of the School located on East End Avenue to accommodate the School's science program.

The proposed action would result in a building with eleven stories and one below-grade level. Building height would be 185.66'. The existing eight-floor school has a height of 116.69'. The building would contain 176,249 square feet of zoning floor area, resulting in a Floor Area Ratio (FAR) of 7.74. The existing building contains 132,328 square feet of zoning floor area, with an FAR of 5.8.



1 EXISTING SOUTH ELEVATION
1/16" = 1'-0"



2 EXISTING EAST ELEVATION
1/16" = 1'-0"

ARCHITECTS
NK
ARCHITECTURE ENGINEERING PLANNING INTERIORS

ALLEN R. KOPELSON, AIA 013818-1
BEN P. LEE, AIA 015723-1
STEPHEN P. ALLIOTTO, AIA 031872-1
PAUL J. DRAGO, AIA 022989-1
DANIEL J. TOPPINS, AIA 038083-1

NO. ISSUED TO	REVISION DESCRIPTION	DATE DATE

PROJECT

CHAPIN SCHOOL

VERTICAL EXPANSION AND RENOVATION

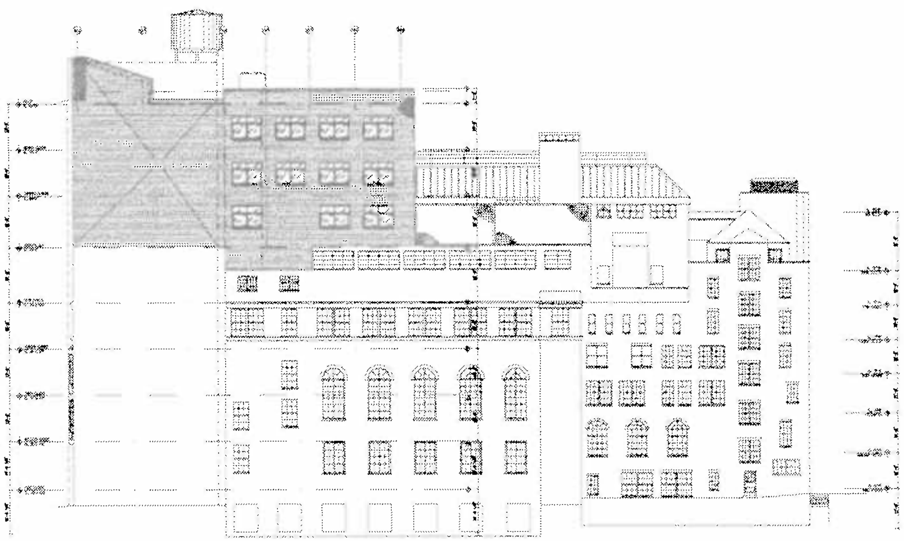
100 EAST END AVE.
New York, NY 10028

DRAWING TITLE
EXISTING CONDITIONS ELEVATIONS

SEAL & SIGNATURE

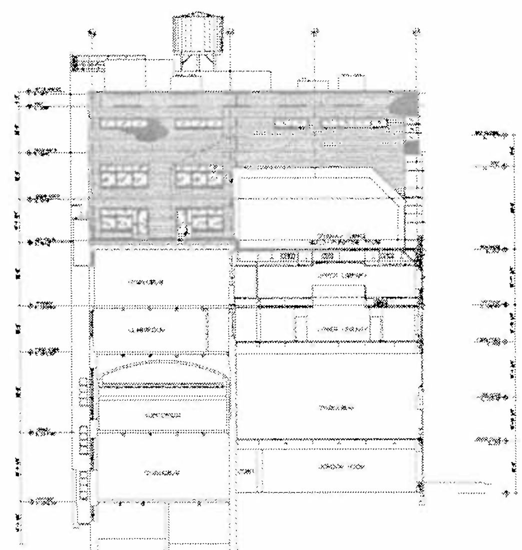
DATE:
PROJECT No: Y177.000
DRAWN BY: ABC
CHK BY: RLS
DWG No:

EX-010.00



1 EXISTING NORTH ELEVATION

1/16" = 1'-0"



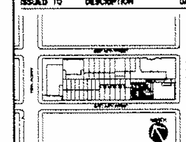
2 EXISTING WEST ELEVATION/ SECTION

1/16" = 1'-0"

ARCHITECTS

ALLEN R. KOPELSON, AIA
BEN P. LEE, AIA
STEPHEN P. ALLIOTTO, AIA
PAUL J. GRAGO, AIA
DANIEL J. TOPPING, AIA

NO. ISSUED TO	REVISION DESCRIPTION	DATE DATE



PROJECT

CHAPIN SCHOOL

VERTICAL EXPANSION AND RENOVATION

100 EAST END AVE.
New York, NY 10028

DRAWING TITLE
EXISTING CONDITIONS ELEVATIONS

SEAL & SIGNATURE

DATE:
PROJECT No: Y177.000
DRAWN BY: ABC
CHK BY: RLS
DWG No:
EX-011.00

Site History
The subject site is currently occupied by an eight-story building that was originally built in approximately 1928 and subsequently enlarged to its present size. This building is used as a school for girls from kindergarten through 12th grade.

Purpose and Need

The Chapin School's existing gymnasiums are all undersized and do not meet the standards required to host league games. The school does not currently have adequate performing arts spaces or space for large group instruction.

Existing Gyms
There are currently four separate gyms at The Chapin School, located on the first, second, fifth and sixth floors. The second floor gym is the largest, with dimensions of 38' x 70' (2,660 sf), the sixth floor gym is 35' x 62' (2,170 sf), and the first floor gym is 30' x 70' (2,100 sf). The fifth floor gym is 40' x 66' (2,640 sf), but within that space there is an 18' x 14' (252 sf) separate fitness room and the remainder of the space is dedicated exclusively to gymnastics.

Standards for Gym Size
The National Federation of High School (NFHS) rules call for a minimum basketball court size of 50' x 84' plus a 10' safety buffer around the entire perimeter, requiring a space of at least 70' x 104' (7,280 sf). The American Association of Independent Schools (AAIS), to which Chapin and other private schools in the City belong and which administers league play among these schools, adheres to the NFHS standards.

Until now, because of the substandard dimensions, the AAIS has prohibited league tournament games at Chapin, but has allowed home games by waiver. Based on player safety concerns, the AAIS has announced it intends to discontinue the practice of issuing this waiver, and as a result would prohibit schools with substandard gyms from hosting home games. Developing a complying gym that allows Chapin to continue to participate in the AAIS league is now an important programmatic need.

Music and Performing Arts Programs
The existing facilities for the School's music and dance programs are wholly inadequate to support the School's commitment to performing arts. There is currently an Arts requirement for students in kindergarten through ninth grade that cannot be extended through twelfth grade, in large part due to the lack of space to accommodate more classes. In order to fulfil the school's programmatic needs, additional classroom space must be provided for music and dance instruction and practice. In the Existing Building, Chapin currently uses the assembly room as an alternate dance instruction area, but the Lower, Middle, and Upper Schools each have news and assembly programming each week that utilize that space, along with parent gatherings and events that require set-up and tear-down time, all of which leave little time for dance program use. The Existing School currently lacks music practice rooms and adequate classrooms, including a Lower School music room. Furthermore, the School requires additional space for the storage of music and dance equipment. The music and dance programs of Chapin's Lower, Middle, and Upper Schools are currently confined to shared space. This has limited the ability of the School to provide music and dance classes at common times across multiple age groups throughout the entire school year. With the additional space requested, Chapin would be able to provide continuity in their music instruction by offering music literacy, skills, and process courses continuously through the year. Specifically, the Proposed Building would provide new classrooms for dance, string music, Lower School music, music practice rooms, and music storage rooms. Thus, the proposal would provide the necessary additional space for the performing arts programs and would enable Chapin to provide more consistent courses across the grade levels.

Large Group Instruction and Commons
The school does not currently have adequate space to accommodate larger groups of students, or an adequate commons room where students from across the school community can gather.

Summary of Environmental Assessment
Based on the answers to the questions contained in the attached Environmental Assessment Statement (EAS) Form, the following issues were found to require additional information and analysis: Shadows, Urban Design, Hazardous Materials, Transportation, Air Quality, and Noise.

- Urban Design: The proposed action would allow development of a building that exceeds the maximum street wall height of the R10A district and encroaches on the required setback. The proposed building would not exceed the maximum height limit of the R10A district and would be shorter than several other buildings on East End Avenue. Additionally the proposed action would allow the midblock portion of the enlargement to exceed the height limit of the R8B zoning district. Many of the existing buildings fronting on East End Avenue extend into the midblock R8B district and exceed that district's 75-foot height limit. The proposed development would be consistent with the many buildings of similar or greater height located in the area and would not introduce a new element to the area's built form.

  Shadows: The proposed action would allow an increase in building height from 117 feet to 185.66 feet. The subject site is located west of Carl Schurz Park and therefore project-generated shadows would fall on the park during the late afternoon period. An assessment of shadow conditions with and without the proposed project shows that new shadows would be largely or wholly subsumed within the shadows cast on the park by existing buildings. The incremental shadows attributable to the proposed enlargement would be small in size and short in duration. The presence of shadows cast by existing buildings located to the south and the west of the park do not adversely affect its usability, and incremental shadows attributable to the proposed development similarly would not adversely affect the park.

- Hazardous Materials: A Phase I conducted for the property reported that previous subsurface investigation revealed Volatile Organic Compounds (VOCs) and Semi-volatile Organic Compounds (SVOCs) in excess of regulatory standards. A Phase II investigation identified some exceedences of soil and groundwater crieria. If necessary, remediation would ensure that no adverse impacts related to hazardous materials occur.

- Transportation: The proposed enlarged school would exceed the size threshold identified in Table 16-1 of the 2014 *CEQR Technical Manual* as warranting further assessment. The proposed enlargement would not result in an increase in student enrollment or number of faculty. With development of a new gymnasium, the school would be permitted to continue to host basketball games, and could host additional tournament games. An analysis was conducted of traffic generation associated with basketball games and tournaments in the existing gymnasium and with the proposed enlargement. This assessment determined that traffic generation associated with the proposed enlargement would not have the potential for adverse impacts related to transportation. Several public parking garages are located in close proximity to the Chapin School and could accommodate the parking demand associated with events at the new gymnasium.

- Air Quality: Based on a screening analysis performed using Figure 17-3 of the 2012 CEQR Technical Manual, the proposed action would not have the potential for adverse impacts related to HVAC exhaust emissions.
- Noise: The proposed enlargement would include a rooftop activity area that would be used for physical education and recess during school hours and for organized practices during before-school and after-school hours between approximately 7:00 am and 8:00 pm. Based on existing ambient noise levels and the noise that would be generated by use of the rooftop activity area, future noise levels at nearby residences would continue to be within acceptable levels.

Land Use, Zoning and Public Policy

Existing Conditions

Project Site
The subject site is a 22,784 square foot (approximately ½ acre) lot located at 100 East End Avenue, at the northwest corner of East End Avenue and East 84th Street. The site is rectangular with approximately 102 feet of frontage on East End Avenue and approximately123 feet of frontage on East 84th Street.

The site is occupied by an eight-story building that was originally constructed in approximately 1928, and subsequently enlarged to its present size. The existing building has a maximum height of 117 feet, and is eight stories in height. It contains 132,328 square feet of zoning floor area on eight floors, as well as a cellar level. The building houses the Chapin School, a not-for-profit private school serving girls from kindergarten to 12th grade. Current enrollment is approximately 750 students.

The easternmost 100 feet of the subject site, facing East End Avenue, is within an R10A zoning district, while the western 123 feet of the site is within an R8B district.

Public policy for land use development for the subject property is embodied in the zoning districts and BSA grants that affect the site.

Surrounding Area
The study area for land use, zoning, and public policy consists of the area within a 400' radius of the subject site. The area is developed with a mix of higher-density residential buildings along East End Avenue, 86th Street, and Gracie Square, and medium-density residences on the side streets. A public park, Carl Schurz Park, is located east of the subject site, across East End Avenue. The zoning for the area consists of an R10A higher density residence district mapped on East End Avenue, the blocks east of East End Avenue, and on East 86th Street, and R8B on the midblocks to the west of East End Avenue.

The area is not within the Coastal Management Zone and is not within an Urban Renewal Area. Public policy for land use and development within the area is embodied in the NYC Zoning Resolution.

Future No-Action

In the future without the proposed action, the site would continue to be occupied by the Chapin School. The school would continue to rely on its existing undersized gymnasium, affecting its ability to host interschool basketball and volleyball games. The school's ability to offer other physical education, dance, and music programming would also be constrained by the school's limited space for these activities.

No changes in land use, zoning, or public policy are anticipated for the surrounding land use study area.

Future with the Action

LAND USE

In the future with the proposed action, the facility that currently occupies the subject site would be enlarged to offer a wider range of recreational and educational opportunities to its existing students. A three-story enlargement would be built at the building's east end, extending for a depth of approximately 123 feet from East End Avenue. This addition would contain music and

dance studios, locker and training facilities, and a gymnasium that is large enough to meet high school federation standards for basketball. The roof of the new addition would contain a small garden area and an athletic area.

The existing school use is permitted as-of-right by the site's R10A and R8B zoning. The bulk of the existing school is permitted by BSA bulk variance. The proposed action would allow the building to be enlarged vertically in order to accommodate a regulation-size gymnasium. The necessary gym dimensions require encroaching into the required setback of the R10A zone, violating the maximum base height and maximum building height regulations of the R8B district, and exceeding the allowable Floor Area Ratio of the site by approximately 9,987.3 square feet, or 6.0%.

The enlargement would permit the school to host league and tournament basketball games, and provide enhanced facilities for music, dance and theater. The following table presents information on use of the current gymnasium for interschool sporting events, and future use of the proposed new gymnasium

No increase in enrollment or staffing is expected as a result of the proposed enlargement.

The school at this location is an established part of the community, and is consistent with the area's land use patterns. The enlargement under the proposed action would permit the school to continue providing needed services to the community.

Overall, the proposed project would be consistent with established land use patterns and trends in the area, and would not result in adverse impacts.

Chapin Basketball and Volleyball Games/Specatators

	Home Games	Tournament Games	# Spectators for regular season games	# Spectators for tournament games
Varsity & JV Basketball (combined totals)				
Current	20	2 (jv only)	60	50 (jv only - can't host varsity tournament games)
Projected	26	8	60	*100-150
Notes				*once in the fall, once in the winter could have 400 for a tournament game
Varsity & JV Volleyball (combined totals)				
Current	20	4	60	80-100
Projected	24	6-8	60	*100-150
Notes				*once in the fall, once in the winter could have 400 for a tournament game
Middle School (5th-8th grade) Basketball and Volleyball (combined totals)				
Current	28	1	50	100
Projected	18	2	50	100

Notes: We currently host a lot of middle school games because our varsity teams have to rent outside of school to get practice on a regulation size gym periodically.
For our non-league games, schools refuse to play in our gym so we must schedule away for those varsity games and some jv, also opening the availability for more middle school home games.

4/24/2014

100 East End Ave_Land Use Map

ZoLa

Primary Land Use

- One & Two Family Resldence
- Multi-Family Residence (Walkup)
- Multi-Family Residence (Elevator)
- Mixed Residential & Commercial
- Commercial Use
- Industrial / Manufacturing
- Transportation / Utility
- Public Facilities and Institutions
- Open Space & Recreation
- Parking
- Vacant Land

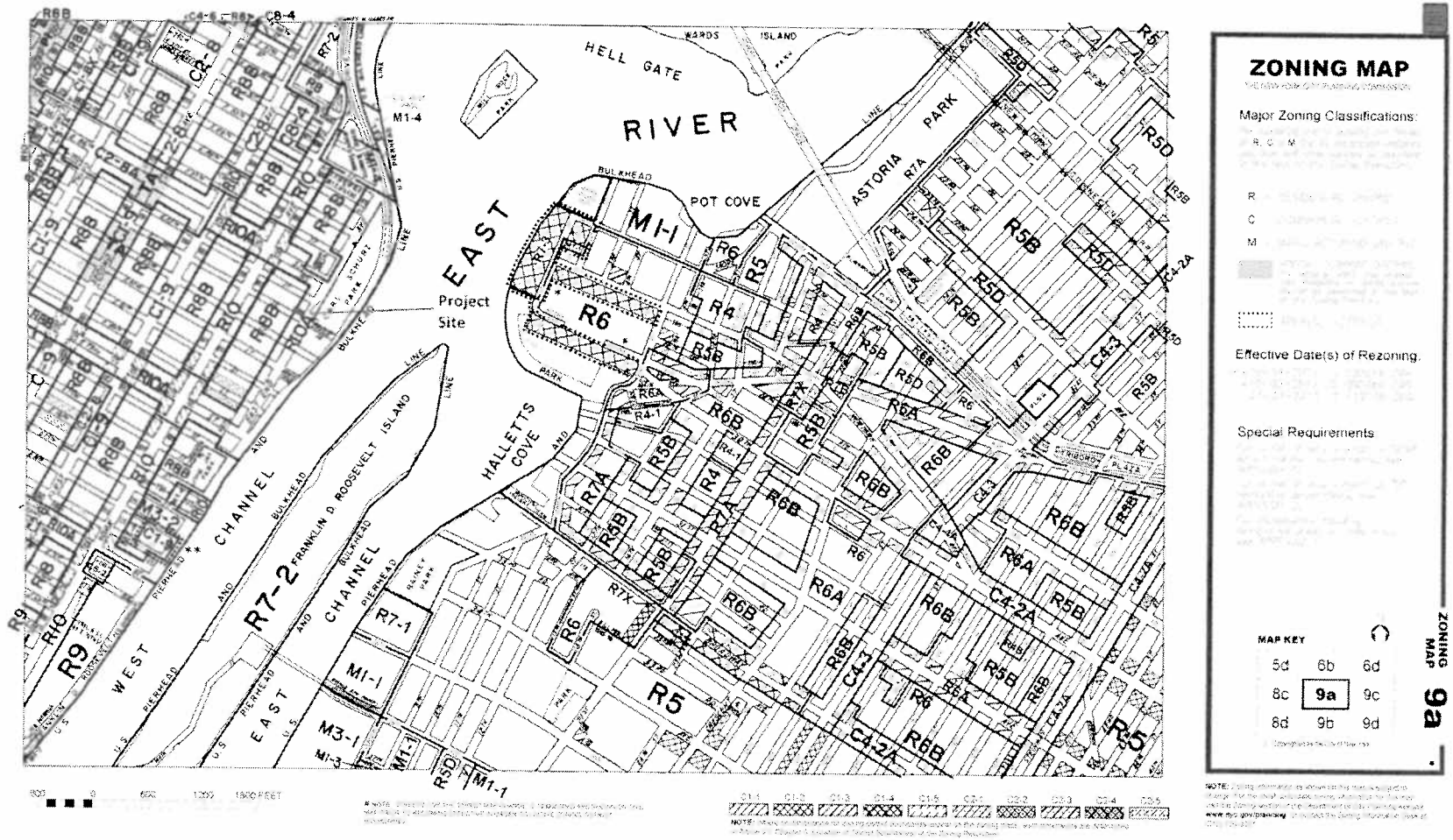
ZONING

The proposed action would vary the bulk regulations of the R10A and R8B districts to permit enlargement of a Use Group 3 school. It would also vary the following bulk regulations: floor area and FAR; rear yards; height; and setback. Such bulk modification is permitted pursuant to ZR 72-21 subject to findings related to unique site conditions, neighborhood character, lack of a self-induced hardship, and minimum variance necessary to afford relief.

The proposed variance would result in continued occupancy of the site for a well-established community facility, in a building that is adequate to meet the present and ongoing needs of the school community, and that is compatible in its use with surrounding uses and development trends. It would not affect zoning beyond the subject site or allow a use that is incompatible with the site's zoning.

PUBLIC POLICY

The NYC Zoning Resolution defines public land use policy for the subject site. Public policy includes the ability of the BSA to vary the bulk regulations of the Zoning District where findings are met subject to findings related to unique site conditions, neighborhood character, lack of a self-induced hardship, and minimum variance necessary to afford relief. The proposed enlargement of the existing school building to provide a regulation-size gymnasium and other enhanced facilities would be consistent with public policy supportive of the provision of community services that meet the needs of the surrounding neighborhood and the city.



ZONING MAP

Major Zoning Classifications:

R C M

R

C

M

Effective Date(s) of Rezoning:

Special Requirements

MAP KEY

5d	6b	6d
8c	**9a**	9c
8d	9b	9d

ZONING MAP **9a**

Community Facilities

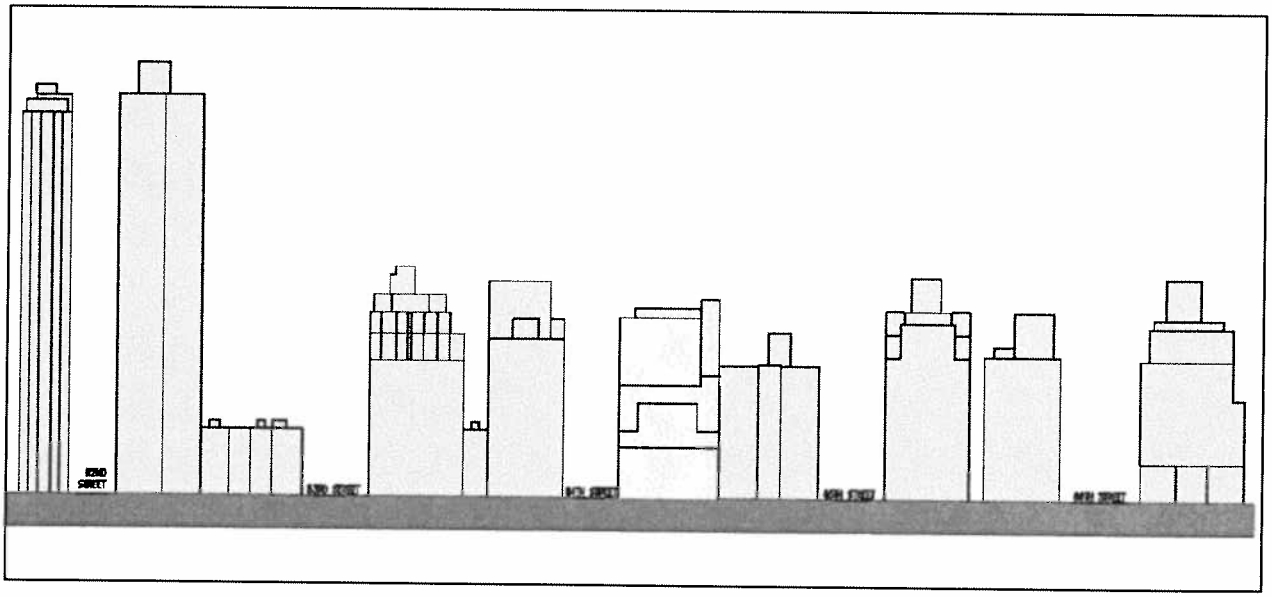
The proposed action would alter the existing Chapin School facility, by enlarging it to provide a gymnasium that meets high school standards, as well as improved music and dance facilities, to better address the programmatic goals of the school. Work would be scheduled to avoid conflicts with the academic calendar to the greatest extent possible. Therefore, although there would be temporary disruption of the provision of community services at the site, the proposed action would have a beneficial effect on the ability of the Chapin School to serve its community.

Urban Design

The proposed action would permit an eleven-story, 185.66' high building. Most of the enlarged building would be within the R10A district that is mapped within 100 feet of East End Avenue, with approximately twenty-five feet of the building extending into the midblock R8B District. The enlarged building would be approximately sixty-eight feet higher than the existing school, and would exceed the street wall and setback regulations of the R10A district mapped within 100 feet of East End Avenue and the street wall and maximum building height regulations of the R8B district mapped on the midblock beyond 100 feet from East End Avenue.

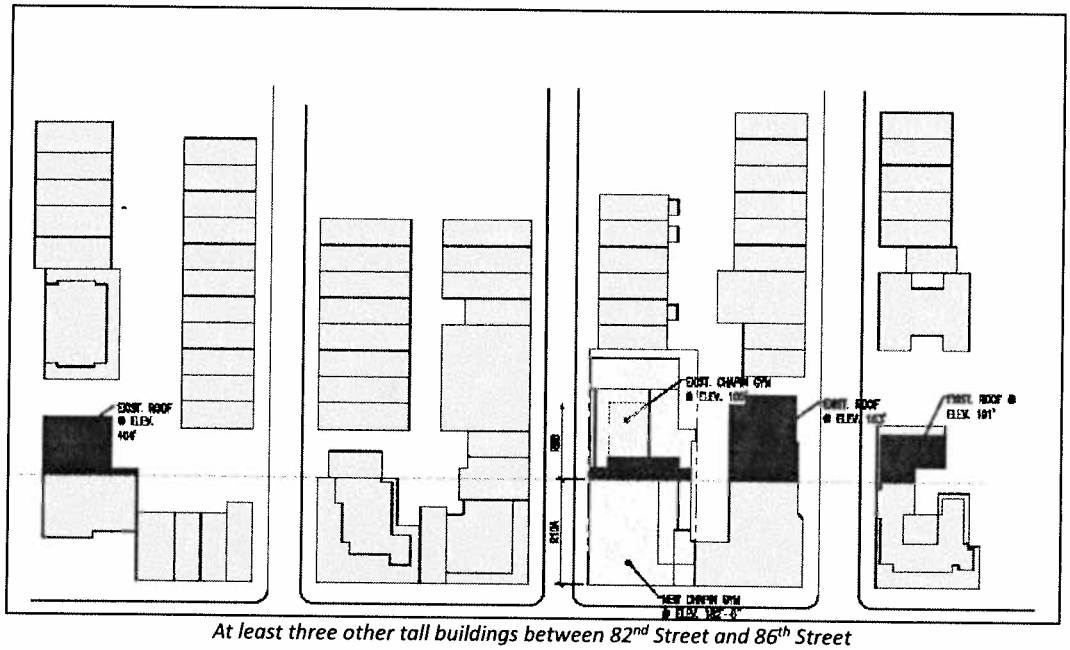
The urban fabric of this section of the Upper East Side is defined by higher-density residential buildings along East End Avenue, and midrise development on the midblocks. The area surrounding the Site is primarily residential in use, with ground floor retail/commercial uses located along York Avenue (one block west), and in some buildings on East End Avenue. The area varies greatly in terms of building types, and includes single- and multi-family townhouses, tenement style apartment buildings, post-1916 style apartment houses, post-1961 style apartment towers. More recent development is characterized by tower-on-base style apartment buildings and contextually formed apartment buildings.

The proposed 185.66' school building would be significantly lower than the R10A district's maximum permitted height of 210 feet, and would be within the range of existing building heights, and would be shorter than at least six buildings along this section of East End Avenue.



The proposed enlargement would be lower or similar in height to multiple buildings on East End Avenue between 82nd Street and 86th Street

While the proposed enlargement would extend into the midblock R8B district, it would be consistent with many existing taller buildings that encroach into the midblock zoning district. There are at least sixteen buildings that violate the R8B height limit within the R8B district fronting on the midblocks of East 80th–East 85th Streets between East End Avenue and York Avenue and lots in the R8B fronting on the north side East 86th Street from East End Avenue west to York Avenue. Therefore the proposed bulk, while not permitted by the site's zoning, would be consistent with multiple existing buildings in the vicinity and would not introduce a new urban design element or be out of character with the built form of the area.



At least three other tall buildings between 82nd Street and 86th Street extend into the midblock R8B district and exceed that district's height limit

Overall, the proposed building would not introduce a new design element into the area's built environment and would not result in significant adverse impacts on urban design.

Shadows

CEQR analyses the potential for new structures to cast shadows on sunlight-sensitive publicly accessible resources or other resources of concern such as natural resources. According to *CEQR Technical Manual* methodology, an assessment of the potential for shadow impacts is required when a proposed action would result in incremental height in excess of fifty feet, or any increase in building height on a site that is located adjacent to, or across the street from a sunlight-sensitive resource. The proposed action would allow a sixty-eight foot increase in the height of the Chapin School, which is located across East End Avenue from Carl Schurz Park. Accordingly, an assessment of the potential for shadow impacts was conducted pursuant to *CEQR Technical Manual* methodology.

The first step is to identify the area within which new action-generated shadows could fall. This is defined as the circle surrounding the proposed structure with a radius of 4.3 times the structure's maximum height. As shown in the following figure *Tier 1 Screening Assessment*, much of the southern half Carl Schurz Park is within this potentially affected area.

Next, to account for the directions of shadows cast by the sun as it travels across the southern portion of the sky from our Northern Hemisphere location, the potentially affected area is limited to the area between +109° and -109°. This is illustrated in the following figure *Tier 2 Screening Assessment*.

Because the Chapin School is located west of Carl Schurz Park, it would cast shadows on the park during the afternoon period as the sun sets in the west. CEQR Technical Manual methodology requires assessment of shadows at four representative times of the year: 1) December 21, the winter solstice; 2) March 21/September 21, the equinox; 3) May 6/August 6, a day half way between the equinox and the summer solstice; and 4) June 21, the summer solstice. The path of project-generated shadows across the ground on these analysis dates is shown on the attached figures *Tier 3 Screening Assessment*.

There are several tall buildings in the vicinity of Carl Schurz Park along its southern and eastern borders. These buildings currently cast shadows affecting much of Carl Schurz Park during the periods analyzed for shadows from the proposed Chapin School enlargement. Specifically, the residential buildings immediately to the south at 90 East End Avenue and to the north at 110 East End Avenue, cast shadows that would subsume much of the new shadow generated by the proposed enlarged school. Shadows cast by the proposed enlargement, along with existing shadows cast by these buildings, are shown in the attached figured *Tier 3 Incremental*. A discussion of these incremental shadows follows.

<u>December 21st</u>

The proposed enlargement will create a new shadow that would fall on a portion of the western edge of Carl Schurz Park during the December 21st winter solstice analysis day. This incremental shadow is projected to occur at the end of the CEQR analysis period, from approximately 2:00 pm, until 2:53 pm (CEQR does not consider shadows occurring within 90 minutes of sunrise or sunset), a period of fifty-three minutes. This brief period of incremental shadow, during a time of year when vegetation is dormant and the park is generally lightly used, would not create significant adverse impacts. It would not affect vegetation growth, and would have a minimal effect on the park's usability.

<u>March 21st/September 21st</u>

The proposed enlargement would cast a shadow on Carl Schurz Park during the March 21st/September 21st equinox analysis day. Such impact is projected to occur from approximately 2:30 pm until 4:29 pm (the end of the CEQR required analysis period), a period of two hours. However, much of this shadow would be subsumed within shadow cast by the buildings at 90 East End Avenue and at 110 East End Avenue for much of this period. An incremental shadow would be cast over a portion of Carl Schurz Park between approximately 85th Street and 86th Street for a period of approximately one hour from 3:30 to 4:29.

May 6th/August 6th

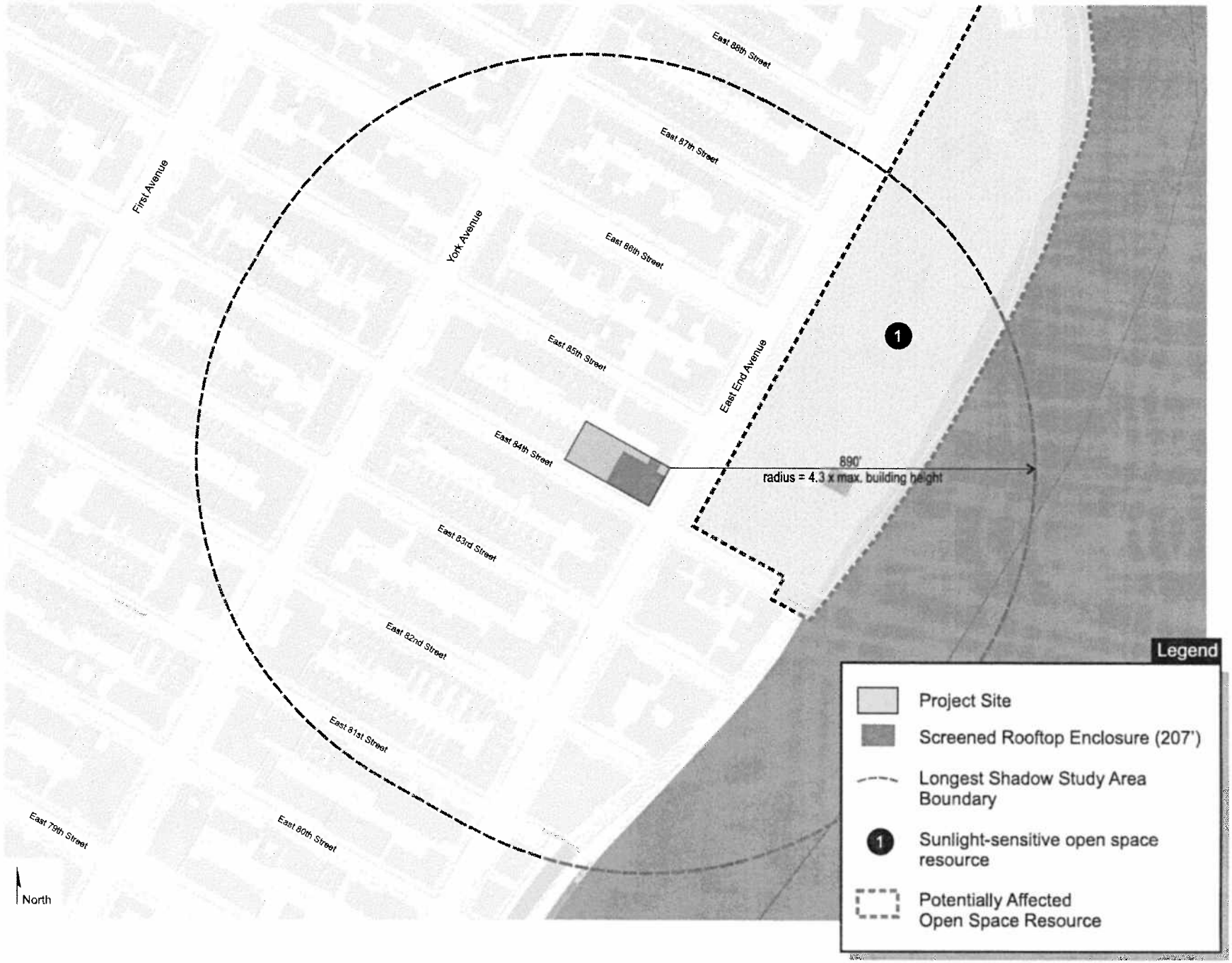
The proposed enlargement will cast a shadow on a portion of Carl Schurz Park during the May 6th/August 6th analysis day (half way between the summer solstice and the equinox). Such impact is projected to occur from approximately 2:30 pm, until 5:18 pm (the end of the CEQR required analysis period), a period of two hours and forty-eight minutes. However, for most of this period, the shadow generated by the building enlargement would be completely subsumed within existing shadows cast by the existing Chapin School building and by 110 East End Avenue. A new shadow would be cast on a portion of the eastern part of Carl Schurz Park between 84th Street and 85th Street for a period of approximately forty-eight minutes from 4:30 until 5:18 pm.

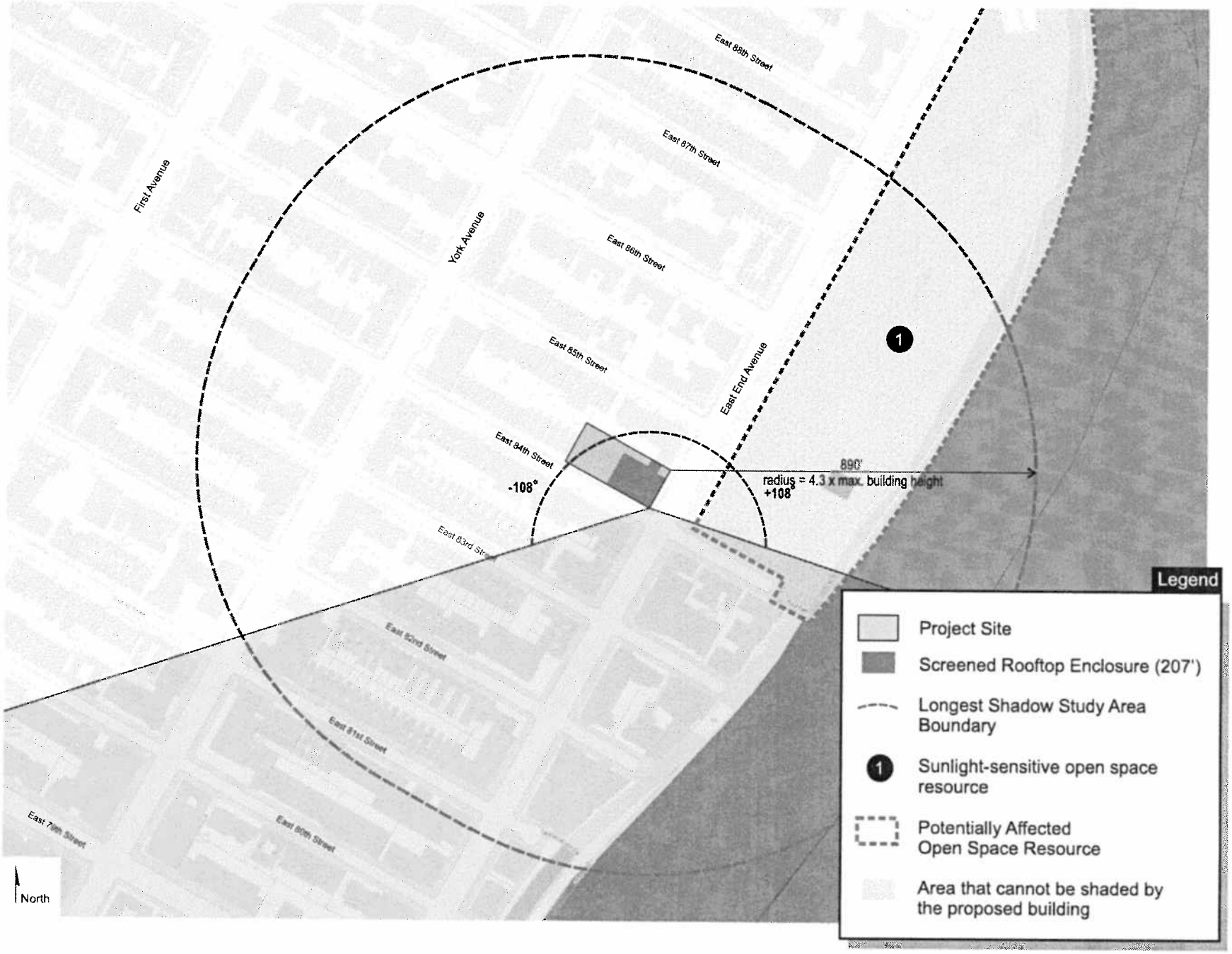
June 21st

The proposed enlargement will cast a shadow on a portion of Carl Schurz Park during the June 21st summer solstice analysis day. Such shadows would reach the park between approximately 2:00 pm, until 6:01pm (the end of the CEQR required analysis period), a period of four hours. For much of this period, the shadow would be mostly or entirely subsumed within shadows cast by the existing Chapin School and 110 East End Avenue. A new shadow would be cast on a portion of the center of Carl Schurz Park at approximately 5:00 p.m. and along the easternmost end of the park at the end of the analysis period, at approximately 6:00 p.m, a period of approximately one hour.

Conclusions

Carl Schurz Park is bordered on its southern and western sides by a series of tall buildings, which cast shadows on much of the park. Despite this, the park is attractively landscaped and is heavily used by area residents. There is no significant difference in plant growth or user activity level or usability between those parts of the park that are most affected by existing shadows and those that are not. The proposed enlargement of the Chapin School would generate shadows that, for the most part, would be subsumed within existing buildings' shadows. There would be new incremental shadows cast during the late afternoon period. These incremental shadows would affect small portions of the park. Based on the attractiveness and popularity of Carl Schurz Park, the presence of tall, shadow-casting buildings on its southern and western edges does not appear to create adverse conditions. Similarly, the small incremental shadows attributable to the proposed Chapin School enlargement are not expected to result in significant adverse impacts related to shadows.


East 88th Street
East 87th Street
First Avenue
York Avenue
East 86th Street
East 85th Street
East End Avenue
East 84th Street
890'
radius = 4.3 x max. building height
East 83rd Street
East 82nd Street
East 81st Street
East 79th Street
East 80th Street
North
1
Legend
Project Site
Screened Rooftop Enclosure (207')
Longest Shadow Study Area Boundary
Sunlight-sensitive open space resource
Potentially Affected Open Space Resource


East 88th Street
East 87th Street
First Avenue
York Avenue
East 86th Street
East 85th Street
East End Avenue
East 84th Street
East 83rd Street
East 82nd Street
East 81st Street
East 80th Street
East 79th Street
1
890'
radius = 4.3 x max. building height
-108°
+108°
North
Legend
Project Site
Screened Rooftop Enclosure (207')
Longest Shadow Study Area Boundary
Sunlight-sensitive open space resource
Potentially Affected Open Space Resource
Area that cannot be shaded by the proposed building


Legend
Project Site
Screened Rooftop Enclosure (207')
8:51am
Shadow Cast / Analysis Time
1
Sunlight-sensitive open space resource
Potentially Affected Open Space Resource
Existing Building Roofs
Existing Shadows Cast
New Shadows to be Cast
Course of Outer Limit of Shadow
East 88th Street
East 87th Street
East 86th Street
2:00pm
2:53pm
York Avenue
East End Avenue
East 85th Street
East 84th Street
East 83rd Street
East 82nd Street
East 81st Street
East 80th Street
East 79th Street
North


Legend
Project Site
Screened Rooftop Enclosure (207')
8:01am
Shadow Cast / Analysis Time
1
Sunlight-sensitive open space resource
Potentially Affected Open Space Resource
Existing Building Roofs
Existing Shadows Cast
New Shadows to be Cast
Course of Outer Limit of Shadow
East 88th Street
East 87th Street
East 86th Street
East 85th Street
East 84th Street
East 83rd Street
East 82nd Street
East 81st Street
East 80th Street
East 79th Street
York Avenue
East End Avenue
1
3:30pm
4:29pm
North


Legend
Project Site
Screened Rooftop Enclosure (207')
8:51am
Shadow Cast / Analysis Time
1
Sunlight-sensitive open space resource
Potentially Affected Open Space Resource
Existing Building Roofs
Existing Shadows Cast
New Shadows to be Cast
Course of Outer Limit of Shadow
East 88th Street
East 87th Street
East 86th Street
East 85th Street
East 84th Street
East 83rd Street
East 82nd Street
East 81st Street
East 80th Street
East 79th Street
York Avenue
East End Avenue
1
2:30pm
3:30pm
4:30pm
North


Legend
Project Site
Screened Rooftop Enclosure (207')
8:51am
Shadow Cast / Analysis Time
1
Sunlight-sensitive open space resource
Potentially Affected Open Space Resource
Existing Building Roofs
Existing Shadows Cast
New Shadows to be Cast
Course of Outer Limit of Shadow
East 88th Street
East 87th Street
East 86th Street
East 85th Street
East 84th Street
East 83rd Street
East 82nd Street
East 81st Street
East 80th Street
East 79th Street
York Avenue
East End Avenue
2:00pm
3:00pm
4:00pm
5:00pm
1
North

Hazardous Materials

According to the CEQR Technical Manual, the potential for significant impacts from hazardous materials can occur when: (a) hazardous material exists 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. Since the proposed action would allow new development for community facility use, no new activities or processes using hazardous materials would be introduced to the site or increase pathways to a hazardous materials exposure.

A Phase I Environmental Site Assessment was performed in May 2014 by Asset Inspection Technologies Corp (AIT). The ESA report notes that AIT was provided with two sets of soil sampling analysis results for the Property from a Phase II Sub-Surface Investigation conducted in 2008, and undated Soil Waste Classification Laboratory. These sample results were provided to AIT without corresponding Phase II reports, justification for sampling, or map(s) of sample locations. Elevated levels of contaminants, including VOCs and SVOCS, were encountered in excess of regulatory guidelines. Given the historical presence of contaminated soils on-site, as well as the absence of any further associated documentation, it is AIT's professional opinion that the historical presence of contaminated soils on-site is considered to be a Recognized Environmental Condition (REC). In the absence of additional associated documentation, AIT recommends that a Phase II sub-surface investigation be performed on-site, in order to determine the extent, if any, of existing sub-surface contamination at the Property.

The petroleum storage on-site (in the form of one 7,000-gallon #2 fuel oil AST, and one #2 fuel oil-fired emergency generator and associated day tank) is not registered with the New York State Department of Environmental Conservation (NYSDEC). AIT recommends that the petroleum storage on-site be registered with the NYSDEC, and that a copy of the current registration be posted on-site, as required.

A Phase II Subsurface Investigation was performed at the Chapin School in August 2014 by Partner Assessment Corporation. A geophysical survey and the advancement of eight borings were conducted for the collection of representative soil and groundwater samples, and these samples were analyzed at a state-certified laboratory .

Based on the soil analytical results, the metals nickel, lead, and zinc were detected above NYSDEC unrestricted use criteria, but below NYSDEC residential use criteria. Iron, which does not have an associated NYSDEC unrestricted use criterion, was detected above its NYSDEC residential use criterion. All other soil analytes were either not detected above laboratory detection limits or were below their associated NYSDEC criteria.

Based on the groundwater analytical results, which were limited to volatile organic compounds (VOCs) due to available groundwater recovery, toluene was detected above NYSDEC criteria. All other groundwater VOCs were either not detected above laboratory detection limits or were below their associated NYCDEC criteria.

Transportation

The proposed action would permit the enlargement of the Chapin School from 132,328 square feet of zoning floor area to 176,249 square feet of zoning floor area. This incremental development exceeds the threshold size for community facility development as identified in Table 16-1 of the 2014 *CEQR Technical Manual.* Accordingly, an assessment of new traffic associated with the project was conducted.

The proposed enlargement would allow construction of a gymnasium that meets interschool standards for basketball, as well as space for music and dance, and a rooftop activity area. There would be no increase in student enrollment or in staffing levels, and therefore no increase in traffic associated with daily school travel.

The new gymnasium would allow the Chapin School to continue hosting interschool basketball games, and would also allow it to host basketball tournaments. Accordingly, traffic associated with these events was assessed, and compared to traffic associated with use of the existing, undersized gymnasium.

Existing Conditions

Street Network
The Chapin School is located at the northwest corner of East End Avenue and East 84th Street. East End Avenue is a two-way avenue with two moving lanes in each direction. Immediately in front of the school is a No Standing 7AM-4PM School Days regulation. Across East End Avenue is a No Parking Except for DOT Vehicles 7AM-7PM Monday-Friday regulation. East 84th Street is a one-way eastbound street between East End Avenue and York Avenue. Curbside parking on East 84th Street is governed by twice-weekly street cleaning regulations.

Parking
There are multiple public parking garages within approximately one block of the Chapin School that are open from at least 6 or 7 am until 1 am. These include:

1) 110 East End Avenue (entrance on 85th Street), 40 spaces
2) 81-89 East End Avenue (entrance on 83rd Street) – 91 spaces
3) 80 East End Avenue (entrance on 83rd Street) - 35 spaces
4) 436 East 83rd Street – 44 spaces
5) 500 East 85th Street – 77 spaces

Public Transportation
Local crosstown (M86) and uptown-downtown (M31) bus service is available at the corner of York Avenue and East 86th Street, three blocks from the subject site. The closest subway station is the 86th Street station of the IRT 4, 5, and 6 trains located at Lexington Avenue and East 86th Street.

Gymnasium Use
The existing undersized gymnasium is used to host interschool basketball and volleyball games at the varsity, junior varsity, and middle school levels.

The chart on the following page and included above in the Project Description, describes the current use of the gymnasium for interschool events, as well as the proposed use of the new facility.

The school currently hosts approximately twenty high school basketball games per year (varsity and junior varsity combined) and a similar number of volleyball games, and approximately twenty-eight middle school games. The school also hosts approximately two JV basketball tournaments, four high school volleyball tournaments, and one middle school tournament.

Attendance at high school basketball and volleyball games is approximately sixty, while eighty to one hundred spectators may attend volleyball or middle school tournaments.

Chapin Basketball and Volleyball Games/Specatators

	Home Games	Tournament Games	# Spectators for regular season games	# Spectators for tournament games
Varsity & JV Basketball (combined totals)				
Current	20	2 (jv only)	60	50 (jv only - can't host varsity tournament games)
Projected	26	8	60	*100-150
Notes				*once in the fall, once in the winter could have 400 for a tournament game
Varsity & JV Volleyball (combined totals)				
Current	20	4	60	80-100
Projected	24	6-8	60	*100-150
Notes				*once in the fall, once in the winter could have 400 for a tournament game
Middle School (5th-8th grade) Basketball and Volleyball (combined totals)				
Current	28	1	50	100
Projected	18	2	50	100

Notes: We currently host a lot of middle school games because our varsity teams have to rent outside of school to get practice on a regulation size gym periodically.
For our non-league games, schools refuse to play in our gym so we must schedule away for those varsity games and some jv, also opening the availability for more middle school home games.

4/24/2014

Future Without the Proposed Action
No significant changes to transportation demand associated with the school are anticipated in the future without the proposed action. The school would continue to host high school and middle school volleyball and basketball games, but would be unable to host varsity basketball tournaments in its substandard gymnasium. It is possible that the waiver that currently allows the school to host interschool basketball games would be revoked, requiring the school's basketball teams to travel to all interschool games.

Future With the Proposed Action
No changes in school enrollment or staffing would occur as a result of the proposed enlargement. Improved facilities would serve the existing school community. With the proposed enlarged gymnasium, the Chapin School would be able to continue hosting interschool basketball games, and would be eligible to host varsity basketball tournaments. Accordingly, an assessment of travel associated with these events was conducted.

Interschool Games
Chapin School currently hosts approximately 20 junior varsity and varsity basketball games per year. Games are typically held on school day afternoons between approximately 4 p.m. and 6 p.m., with a small number (5%) held in the early evening between 6:30 and 8:30 p.m., and approximately 5% held on weekends. The number of basketball games would increase to 26, since certain non-league opponents currently decline to play in the school's gym. The number of attendees at these games, approximately sixty, would not change.

The school currently hosts two JV basketball tournament games per year. These events have approximately fifty spectators. With the enlargement, the school could host eight JV or varsity tournament basketball games per year, with attendance of 100 to 150. A major tournament game, which could occur once in the fall and once in winter, could attract up to 400 spectators.

The school currently hosts approximately 20 junior varsity and varsity volleyball games per year. The number of volleyball games would increase slightly, to 24. The number of attendees at these games, approximately sixty, would not change. The school currently hosts four tournament volleyball games per year, with attendance of 80 to 100. With the enlarged gymnasium, the number of tournament volleyball games would increase to six to eight, with attendance of 100 to 150.

The school currently hosts 28 middle school volleyball and basketball games, with average attendance of fifty spectators. With the proposed enlargement, the number of games would be reduced to 18, since the gym would host more high school level games. Attendance would not change. The school currently hosts one middle school tournament game per year, with attendance of 100. With the enlargement, one or two tournament games would be hosted, with attendance of 100.

Trip Generation
The visiting team typically travels to the Chapin School in a single school bus carrying players and coaches. Most of the spectators at games are typically Chapin students and staff who are a school already. A smaller number (up to twenty for a regular game, fifty to seventy-five for a tournament game) of family or friends may also attend the game and travel to the school specifically for the game. Based on the school's past experience, and verified by US Census data on local journey-to-work data, it is expected that approximate 35% of visitor trips would be by mass transit, 25% by private auto, 15% by taxi, with the balance walk-only trips by neighborhood residents. Average vehicle occupancy of 2.0 is expected for all private auto and taxi trips.

School bus and taxi drop-offs would occur within the School No Standing zone in front of the Chapin School on East End Avenue. Private auto trips would be to one of the nearby public parking facilities.

A 'worst-case' condition would be the semi-annual tournament game with up to 400 attendees. Currently, the largest events hosted at the existing gymnasium are middle-school tournament games with attendance of 100. Other events in the new gymnasium would have less than half the traffic generation associated with these events and are more representative of typical use of the gymnasium.

For the worst-case tournament games, it is assumed that 25% of the attendees would be Chapin School staff and students who are at school already and do not represent new travel. The remaining 300 attendees are assigned to various travel modes as described above, with 25% (75 person-trips) travelling by private car, 15% (45 person-trips) by taxi, 35% (105 person-trips) by mass transit, with the remaining 25% (75 person-trips) walk only.

Vehicular Traffic
With an average vehicle occupancy of two persons, the 75 people travelling by private auto would generate 38 vehicular trips prior to the game, and again afterwards. Because the Chapin School does not have on-site parking, these trips would be to one of several nearby public parking garages, rather than the school itself. This dispersion of private auto trips would prevent any one location from receiving more than a fraction of these trips.

The 45 person-trips by taxi would generate 23 vehicular trips to the school. After dropping off fares, the taxis depart, so that each taxi trip counts as two trips – one arriving and one departing. However, it is assumed that approximately one half of departing taxis would be hailed by another fare, so that these departing trips are accommodating demand not associated with the Chapin School. Therefore total net arriving and departing taxi trips at the school would be 34.

The total number of vehicular trips, 38 private auto and 34 taxi, exceeds the 50-vehicle CEQR Technical Manual threshold. The next step, therefore, is to assign these trips to the local road network. The private auto trips would be directed to one of the nearby public parking garages. These garages are on East 83rd Street and on East 85th Street, between the western side of York Avenue and the eastern side of East End Avenue. Drop-offs would occur at the school, located at the intersection of East End Avenue and East 84th Street. East End Avenue is a two-way street, so trips from the south would drop off on the eastern side, adjacent to Carl Schurz Park, while trips from the north would drop off on the western side, in front of the school.

With this dispersion of vehicular trips, no single intersection would receive in excess of the CEQR threshold of fifty vehicular trips. Therefore no additional assessment is warranted and no impacts are anticipated.

Transit
The 105 person-trips by mass transit that would be generated by the largest tournament games hosted at the gymnasium is well below the 200-trip threshold identified in the CEQR Technical Manual as having the potential for significant impacts. Therefore no further assessment is warranted.

Pedestrians
Attendance at the largest tournament games would include 75 walk-only trips. These trips, combined with the transit trips, which also include a walk component from the transit stop to the destination, would be below the 200-trip CEQR threshold. Therefore no additional assessment is warranted and no impacts are anticipated.

Parking
The Chapin School does not provide any off-street parking. There are multiple public parking facilities in close proximity that would accommodate the peak parking demand that could occur during tournament games and at other times.

Air Quality

An air quality analysis is conducted in order to assess the effects of a proposed action on ambient air quality (i.e. the quality of the surrounding air). Ambient air quality can be affected by air pollutants produced by fixed facilities, usually referred to as "stationary sources," and by motor vehicles, referred to as "mobile sources".

Mobile Sources

According to the CEQR Technical Manual, actions can result in significant mobile source air quality impacts when they increase or cause a redistribution of traffic, create any new mobile sources of pollutants, or add new uses near mobile sources. The following actions may result in significant adverse air quality impacts and therefore require further analyses:

- Placement of operable windows, balconies, air intakes, or intake vents generally within 200 feet of an atypical vehicular source of air pollutants
- Creation of a fully or partially covered roadway
- Generate peak hour auto traffic or divert existing traffic, resulting in:
    - 160 or more auto trips in sections of downtown Brooklyn or Long Island City
    - 140 or more auto trips in Manhattan between 30th and 60th Streets
    - 170 or more auto trips in all other areas of the City
- Generate peak hour heavy-duty diesel vehicle trips or its equivalent in vehicular emissions resulting in:
    - 12 or more heavy duty diesel vehicles (HDDV) for paved roads with average daily traffic fewer than 5,000 vehicles
    - 19 or more HDDV for collector roads
    - 23 or more HDDV for principal and minor arterials
    - 23 or more HDDV for expressways and limited access roads
- Creation of new sensitive uses (particularly schools, hospitals, parks and residences) adjacent to large existing parking facilities or parking garage exhaust vents
- Addition of a sizeable number of other mobile sources of pollution, such as heliports, rail terminals, or trucking

The proposed project would not create any of these conditions. Therefore an assessment of mobile source air quality is not warranted.

Stationary Sources

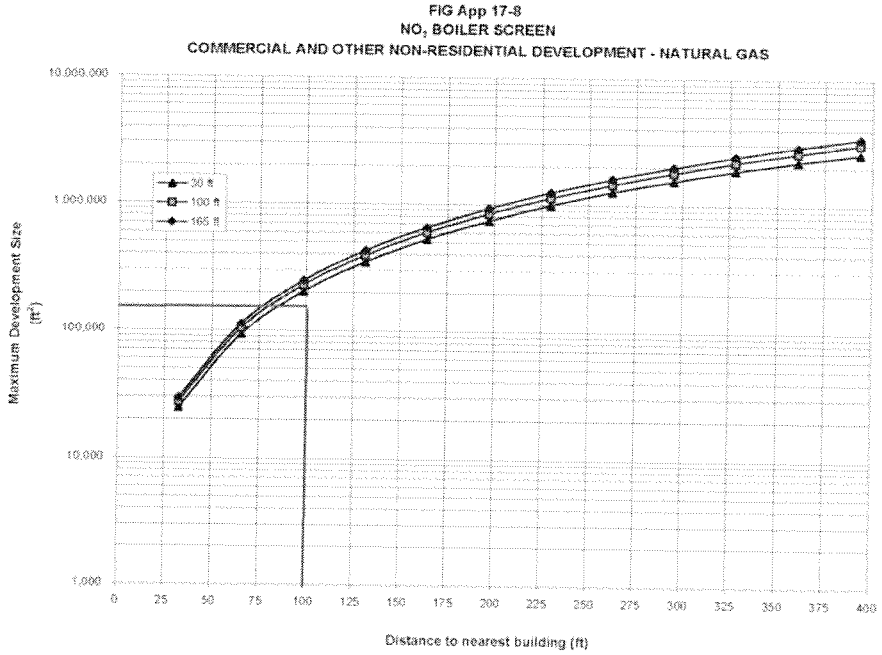
According to the CEQR Technical Manual, the potential of stationary source air quality impacts exist when actions create:

- New stationary sources of pollutants
- Add uses near existing (or planned) emissions stacks
- Add new uses that might be affected by the emissions from the stacks
- Add structures near such stacks and those structures can change the dispersion of emissions from the stacks so that they begin to affect surrounding uses

The enlarged building would be heated by a new gas fired system and would have a floor area of 176,249 square feet. Therefore, a preliminary screening was conducted to determine the effects on nearby receptors.

Based on a review of land use maps the closest building of equal or greater height to the enlarged school would be 90 East End Avenue, located directly south of the school, across East 84th Street. Based on the proposed roof layout, the ventilation stacks from the school's HVAC equipment would be at least 100 feet from the closest windows at 90 East End Avenue.

A screening analysis was conducted using Figure 17-8 of the CEQR Technical Manual (next page). As indicated, the proposed development would not result in significant adverse impacts related to stationary source air emissions.



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Industrial Sources

The proposed action would allow enlargement of an existing community facility in an area where surrounding land uses are residential and community facilities. There are no industrial activities, auto-related uses, or large institutional uses within 400 feet of the school. Therefore no significant impact related to industrial emission sources in the project vicinity would result.

Noise

The proposed enlargement of the Chapin School would not result in a significant increase in vehicular traffic, and therefore would not result in changes in noise levels related to vehicular activity. The school use itself is not considered a significant noise generator. However, school playgrounds have been identified as having the potential to affect noise levels. The proposed enlargement would include provision of a rooftop activity area. This space would be used for recess and physical education classes between approximately 7 am and 4 pm, and for team practices from 4 pm to 8 pm.

Existing Conditions

The rooftop activity area would generate noise that could affect surrounding upper floor residences. The worst-case condition would be at windows that have a direct line of site to the activity area, since intervening buildings or other structures block some of the sound energy. The first step was to document existing ambient noise levels at an elevated location. Accordingly, noise monitoring was conducted on the roof of the Chapin School during a typical week day, April 29, 2014. Wind speeds were moderate, at approximately 8 miles per hour. Temperature was moderate, 48 degrees Fahrenheit. The predominant noise source at the rooftop locations was the rooftop HVAC equipment, along with nearby traffic noise and general background noise from such sources as traffic on the FDR Drive. Because of the relatively cool temperatures, it is believed that the monitored conditions constitute a relatively low baseline against which to evaluate future noise conditions. In hotter weather, the HVAC equipment would operate at greater intensity, generating more noise.

Noise conditions were monitored at four locations on the Chapin School rooftop. Results of the noise monitoring are presented in the following table:

Location #	Description	L_{eq} (dB)	L_{max} (dB)	L_{min} (dB)	L_{10} (dB)
1	West end of upper roof, 12' from condenser	75.2	76.9	74.6	75.4
2	South end of upper roof, 15' from HVAC equipment	73.8	78.2	71.2	74.3
3	Southeast corner of upper roof, 22' from HVAC equipment	71.0	71.9	68.8	71.5
4	Northeast corner of upper roof, adjacent to greenhouse	65.5	66.9	64.9	65.9

In all cases, noise levels are very steady, with a small range between maximum and minimum noise levels.

Future Without the Proposed Action

No significant changes to ambient noise conditions are anticipated in the future without the proposed action. No new noise generating activities or significant changes in vehicular traffic noise would occur.

Future With the Proposed Action

The proposed building enlargement would include installation of an activity area on the new 11th floor roof. This facility would be used by students during recess and physical education classes between 7 a.m. and 4 p.m., and for team practices from 4 p.m. to 8 p.m. Approximately 20 students at a time would use the facility.

Anticipated noise levels associated with the rooftop activity area were projected relying on a paper presented at the Inter-noise 2009 conference, "Acoustical analysis methodology for urban rooftop play areas in New York City" by Benjamin H. Sachwald and Dan Abatemarco. Their paper documents the results of noise monitoring conducted at an existing rooftop playground over two days of operation. The microphone was placed at the edge of the rooftop play area, approximately 30 feet from the center of playground activity. The average number of simultaneous playground users during the monitoring was 30 children. A worst-case L_{eq} of 74.0 dB was recorded at the monitoring location at the edge of the play area, approximately 30 feet from the center of the play area.

To assess how the additional noise generated by use of the rooftop activity area would affect ambient noise, it is necessary to add this noise source to existing noise. The following table indicates how the addition of a new noise source affects total noise level:

Sound Power Level Difference between two Sound Sources (dB)	Added Decibel to the Highest Sound Power Level (dB)
0	3
1	2.5
2	2
3	2
4	1.5
5	1
6	1
7	1
8	0.5
9	0.5
10	0.5
> 10	0

If it is conservatively assumed that noise at the edge of the proposed rooftop activity area would be similar to the worst-case noise that was observed at an existing rooftop playground, then the new noise source would generate 74.0 decibels at this location.

The nearest residential use with a direct line of site to the proposed rooftop play area would be the building directly to the south of the school, across East 84th Street. The proposed addition would place the new rooftop activity area above the height of any windows in buildings to the north. Buildings to the west of the site are significantly lower than the proposed enlarged school, and Carl Schurz Park is located to the east. The windows of the building to the south are at least 60 feet from the proposed rooftop activity area.

The existing ambient noise at the southern edge of the roof, the location closest to the nearest sensitive receptor, was measured at 73.8 dB. Adding the 74 dB playground noise would produce a with-action noise level at the rooftop edge of 76.0 dB. It was noted that the noise monitoring location at the southern edge of the building was 15 feet from the HVAC equipment that was the primary noise source at the location.

To account for the distance between the monitoring location and the closest residential receptor location, the inverse square law as it applies to sound propagation was employed. Since the HVAC equipment and the activity area can both be treated as a point noise source, then the noise from this source would decrease by 6 decibels for every doubling in distance from the noise. With a fifteen-foot distance between the monitoring location and the noise source, and a sixty-foot distance between the monitoring location at the building's southern edge, noise from the rooftop activity area in conjunction with noise from the rooftop HVAC equipment would decrease by at least twelve decibels (two doublings in distance. Therefore noise attributable to the Chapin School rooftop at the closest residential receptor location would be no more than 64 decibels. This would constitute an insignificant contribution to total ambient noise levels and would not result in significant adverse impacts related to noise.

Neighborhood Character

An assessment of neighborhood character is generally needed when a proposed project has the potential to result in significant adverse impacts on or moderate effects on a specific range of technical areas presented in the CEQR Technical Manual. These elements are believed to define a neighborhood's character, specifically:

- Land Use, Zoning, and Public Policy
- Socioeconomic Conditions
- Open Space
- Historic & Cultural Resources
- Urban Design and Visual Resources
- Shadows

- Transportation
- Noise

On the EAS Form, yes responses were provided for the following elements of the CEQR assessment:

- Urban Design: Yes, the proposed building would not be consistent with certain bulk regulations of the site's R10A and R8B zoning designations. However, there are multiple large buildings of greater height than the proposed enlarged Chapin School, as well as at least sixteen other buildings that exceed the height limit of the midblock R8B district. The proposed enlargement would not introduce a new design element into the area's built environment.
- Shadows: Yes, the proposed building would create shadows that would affect a publicly accessible open space, Carl Schurz Park. Most of the building's shadow would be subsumed within shadows cast by existing buildings, and new incremental shadows would be of short duration and limited extent. The shadows of the tall buildings that line the southern and western sides of Carl Schurz Park do not detract from its usability, and the incremental shadows attributable to the Chapin School enlargement would similarly not result in significant adverse impacts.
- Hazardous Materials: Yes, the proposed action would result in soil disturbance and new development within a manufacturing zone. A Phase I ESA identified a Recognized Environmental Condition (REC) that would be addressed prior to construction. Implementation of a Remedial Work Plan will ensure that the potential presence of hazardous materials on site does not adversely affect site workers, building occupants, or neighbors.
- Transportation: Yes, the project size exceeds the threshold level identified in the CEQR Technical Manual. However, an assessment of incremental traffic associated with the proposed enlargement reveals that far fewer than fifty hourly vehicular trips would result from the proposed action at any single location.
- Noise: Yes the rooftop activity area proposed as an element of the Chapin School enlargement would be a noise source. However, the contribution to ambient noise from the school's rooftop activity area and HVAC equipment would be insignificant at the nearest residential location.

A preliminary assessment determines if anticipated changes in these elements may affect one or more contributing elements of neighborhood character. The assessment should answer the following two questions:

1. *What are the defining features of the neighborhood?*

The surrounding area contains a number of high-rise residential buildings along East End Avenue and medium-rise buildings on the midblocks between East End Avenue and York Avenue. The Chapin School is a community facility that has been a part of the community for many decades.

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

The proposed action would allow the enlargement of an existing school that is an established component of the neighborhood. The enlargement would allow the school to better serve its students by offering improved athletic, performing arts, and academic facilities.

The scope, size, and location of the proposed project would not create a significant adverse change to any of the distinctive features noted above. The enlargement of an undersized, and inadequate building housing the school would benefit an educational facility that plays a central role in the community.

No significant adverse neighborhood character impacts are anticipated and no additional assessments are required at this time.

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Asset Inspection Technologies Corp.

PHASE I
Environmental Site Assessment
2014

Prepared for:
The Chapin School
100 East End Ave
New York, NY 10028

Project # CHAPIN 002

Survey Dates:
July 15, 2013

Date of Issue:
May 5, 2014

Table of Contents

EXECUTIVE SUMMARY

Asset Inspection Technologies Corp. (AIT) was retained by <Client Name> to perform a Phase 1 Environmental Site Assessment (ESA) of the Property known as The Chapin School, which is located as 100 East End Avenue, New York, NY (Property). This ESA was conducted in general conformance with International Standard Practice for Environmental Site Assessments ASTM E1527-05 for the purpose of identifying recognized environmental conditions (RECs) in connection with the Property.

The Property consists of an approximately 0.52 acre rectangular-shaped parcel of land, located on the northwest corner of East End Avenue and East 84th Street in the borough of Manhattan, New York County, New York City, NY. The full address of the Property is 100-106 East End Avenue/553-547 East 84th Street. The Property is improved with an 8-story building with a basement and a sub-basement, which is solely occupied by The Chapin School. The subject building was originally constructed in 1927, with additions in 1971 and 2008. Construction elements consist of reinforced concrete construction, with concrete and brick masonry foundation walls, and brick masonry exterior walls with stone detailing. The upper portion of the façade and southern elevation feature composite panels. The roofing system consists of the main roof area and the rear roof set-backs, each of which are flat, and are surfaced with a modified bitumen membrane.

The sub-basement contains the boiler room and fuel oil tank vault. The basement contains storage and mechanical areas, as well as the lower lobby, office areas, the faculty lounge, the cafeteria, and the emergency generator room. The ground-floor contains the main lobby, office areas, a gym, and classroom areas. The second floor contains the auditorium, a conference room, offices, and classrooms. The third floor contains classrooms and offices. The fourth floor contains classrooms, offices, and library areas. The fifth floor contains classrooms, offices, a gym, and library areas. The sixth floor contains classrooms, offices, a gym, and a theater. The seventh floors contains classrooms and offices. The eighth floor is a partial floor/penthouse, and contains classroom and office areas.

Interior finishes consist of a combination of vinyl and ceramic tile flooring, with painted gypsum wall board and plaster walls and ceilings, as well as drop ceiling systems with lay-in ceiling panels. Ambient heating is provided via a combination of two central dual #2 fuel oil-/natural gas-fired low-pressure boiler, located in the sub-basement boiler room, and roof-mounted natural gas-/electric-fired packaged HVAC units. Vertical access is provided via six interior stairwells and three traction-type elevators. In addition, one hydraulic disability-accessible lift is provided at the lower lobby entrance exterior.

Electricity and natural gas are provided by Consolidated Edison of New York (ConEd). Domestic water, sanitary sewer, and storm water services are provided by the New York City Department of Environmental Protection (NYC DEP). Additional site improvements are limited to a poured concrete sidewalk at the East

End Avenue and East 84th Street Property frontages, and a small central concrete-paved courtyard area.

The Property is situated in a built-up urban residential area in the borough of Manhattan. Surrounding properties consist of multi-story residential buildings and a park. Groundwater flow in the surrounding area is presumed to be to the east, towards the East River.

CONCLUSIONS AND RECOMMENDATIONS

AIT has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM E1527-05 of 100 East End Avenue, New York, NY (Property). Any exceptions to, or deletions from, this practice are described in *Section 9.0* of this report. This assessment has revealed no evidence of recognized environmental conditions (RECs) or issues of concern in connection with the Property, with the exception of the items noted below:

- AIT was provided with two sets of soil sampling analysis results for the Property: Phase II Sub-Surface Investigation Sample Results for the Property, analyzed by Analytics Corporation of Ashland, VA, and addressed to Lawrence Environmental Group (LEG) of New York, NY, dated April 2, 2008; and Soil Waste Classification Laboratory Results Summary for the Property, analyzed by Impact Environmental, Inc., of Flemington, NJ, for LEG (undated). These sample results were provided to AIT by the Client without corresponding Phase II reports, justification for sampling, or map(s) of sample locations. Elevated levels of contaminants, including VOCs and SVOCS, were encountered in excess of regulatory guidelines. It should be noted that the source of the soils/waste soils is unknown, and it is unknown whether the source of the contamination, or any associated contamination, current exists on-site. Given the historical presence of contaminated soils on-site, as well as the absence of any further associated documentation, it is AIT's professional opinion that the historical presence of contaminated soils on-site is considered to be an REC. In the absence of additional associated documentation, AIT recommends that a Phase II sub-surface investigation be performed on-site, in order to determine the extent, if any, of existing sub-surface contamination at the Property. Based on the results of the Phase II investigation, further actions may be warranted, and costs incurred.
- The petroleum storage on-site (in the form of one 7,000-gallon #2 fuel oil AST, and one #2 fuel oil-fired emergency generator and associated day tank) is not registered with the New York State Department of Environmental Conservation (NYSDEC). AIT recommends that the petroleum storage on-site be registered with the NYSDEC, and that a copy of the current registration be posted on-site, as required.

1.0 INTRODUCTION

1.1.1 Recognized Environmental Conditions

The purpose of the Phase 1 Environmental Site Assessment is to identify, to the extent feasible, recognized environmental conditions (RECs) in connection with the Property. The methods and procedures used to perform this task follow ASTM International Standard E 1527-05, Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process. A recognized environmental condition is defined as:

> "The presence or likely presence of any *hazardous substances* or *petroleum products* on a *property* under conditions that indicate an existing release, a past release, or a *material threat* of a release of any *hazardous substances* or *petroleum products* into structures on the *property* or into the ground, ground water, or surface water of the *property*. The term includes *hazardous substances* or *petroleum products* even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not recognized environmental conditions."

1.1.2 Historical Recognized Environmental Condition

As part of the Phase I Environmental Site Assessment, historical recognized environmental conditions (HRECs) in connection with the Property will be identified to the extent feasible. A historical recognized environmental condition is defined as:

> "An environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently."

If a past release of any hazardous substances or petroleum products has occurred in connection with the Property and has been remediated, with such remediation accepted by the responsible regulatory agency (for example, as evidenced by the issuance of a No Further Action letter or equivalent), this condition shall be considered a "historical recognized environmental condition" and included in the findings section of the Phase I Environmental Site Assessment report.

1.2 Scope of Services

This ESA was conducted utilizing a standard of good commercial and customary practice that is consistent with ASTM International ASTM E1527-05. Any significant scope-of-work additions, deletions, or deviations to ASTM E1527-05 are noted in *Sections 9.0 and 10.0.* In general, the scope of this assessment consisted of:

- Reviewing readily available information and environmental data related to the Property;
- Interviewing readily available persons knowledgeable about the subject property;
- Reviewing readily available maps and records maintained by federal, state, and local regulatory agencies;
- Conducting a visual site inspection; and
- A review of available documentation of asbestos and lead-based paint surveys, if available.

The specific scope of this assessment included the following:

- A site reconnaissance to inspect on site conditions and assess the Property's location with respect to surrounding property uses and natural surface features - photographs taken as part of the site reconnaissance are provided in *Appendix A;*
- A review of and interpretation of historical sources, where applicable, including (but not limited to): Sanborn Fire Insurance maps (*Appendix B*), the most recent topographic map available for review *(Appendix C*), a site vicinity map (*Appendix D*), and city directories, in order to identify previous activities on and in the vicinity of the Property;
- A review of published radon occurrence maps, included in *Appendix F*, to determine if the Property are located in an area with a propensity for elevated radon gas levels;
- Obtaining specialized knowledge or experience on the part of the user and owner;
- A review of readily available environmental databases maintained by the United States Environmental Protection Agency (USEPA), state, and local agencies within the approximate minimum search distances. The environmental database report was provided by Environmental Data Resources, Inc. (EDR) Milford, CT;
- A review of physical characteristics of the Property through a review of referenced sources for topographic, geologic, soils, and hydrologic data;
- A review of prior asbestos and lead survey reports, if available; and
- A review of other historical records, if available, in possession of the current owner, prospective purchaser, or consultants of the Property

1.3 Assumptions, Limitations, and Exceptions

The work conducted by AIT for this ESA was limited to those services described herein, and no other service beyond those explicitly stated should be inferred or are implied. The conclusions presented in this report are professional opinions based solely upon AIT's interpretations of the readily available historical information, conversations with personnel knowledgeable about the site, and other readily available information, as referenced in the report. These conclusions are intended exclusively for the purpose stated herein, at the site indicated, and for the project indicated.

This ESA report was prepared solely for the benefit of <Client Name>. However, AIT will, upon written request from <Client Name>, certify that lending institutions or other third parties who may acquire a security leasehold or fee interest in the Property, may rely on this ESA. The scope of services performed during this investigation may not be appropriate for other users, and any use or re-use of this document, or the findings or conclusions presented herein, is at the sole risk of said user.

This study is not intended to be a definitive investigation of possible contamination at the Property. No exploratory borings, soil or groundwater sampling, or laboratory analyses were performed at the Property as part of this ESA, and therefore, the conclusions set forth herein are made without the benefit of such investigations. AIT is not responsible for consequences or conditions arising from facts that were unknown, concealed, withheld, or not fully disclosed at the time of the assessment.

The regulatory database report provided is based on an evaluation of the data collected and compiled by a contracted data research company. The report focuses on the Property and neighboring properties that could impact the Property. Neighboring properties listed in governmental environmental records are identified within specific search distances. The regulatory research is designed to meet the requirements of ASTM International ASTM E1527-05. The information provided in the regulatory database report is assumed to be correct and complete unless obviously contradicted by field observation or other reviewed sources. AIT makes no guarantee, express or implied, that any land title records reviewed represent a comprehensive or precise delineation of past property ownership or occupancy.

This report is intended to be used in its entirety. No excerpts may be taken to be representative of the findings of this assessment. Opinions presented in this report (if any) apply to site conditions and features as they existed at the time of AIT's site visit and those reasonably foreseeable. They cannot necessarily apply to conditions and features of which AIT is unaware and has not had the opportunity to evaluate.

It should be recognized that even the most comprehensive ESA and scope of services may fail to detect environmental liabilities on a particular Property. Therefore, AIT cannot act as insurers, and cannot 'certify' that the Property is free of environmental contamination, and no expressed or implied representation or warranty is included or intended in our reports, except that our services were performed, within the limits prescribed by <Client Name>, with the customary thoroughness and competence of our profession.

2.0 SITE DESCRIPTION

The Property consists of an approximately 0.52 acre rectangular-shaped parcel of land, located on the northwest corner of East End Avenue and East 84th Street in the borough of Manhattan, New York County, New York City, NY. The full address of the Property is 100-106 East End Avenue/553-547 East 84th Street. The Property is improved with an 8-story building with a basement and a sub-basement, which is solely occupied by The Chapin School. The subject building was originally constructed in 1927, with additions in 1971 and 2008. Construction elements consist of reinforced concrete construction, with concrete and brick masonry foundation walls, and brick masonry exterior walls with stone detailing. The upper portion of the façade and southern elevation feature composite panels. The roofing system consists of the main roof area and the rear roof set-backs, each of which are flat, and are surfaced with a modified bitumen membrane.

The sub-basement contains the boiler room and fuel oil tank vault. The basement contains storage and mechanical areas, as well as the lower lobby, office areas, the faculty lounge, the cafeteria, and the emergency generator room. The ground-floor contains the main lobby, office areas, a gym, and classroom areas. The second floor contains the auditorium, a conference room, offices, and classrooms. The third floor contains classrooms and offices. The fourth floor contains classrooms, offices, and library areas. The fifth floor contains classrooms, offices, a gym, and library areas. The sixth floor contains classrooms, offices, a gym, and a theater. The seventh floors contains classrooms and offices. The eighth floor is a partial floor/penthouse, and contains classroom and office areas.

Interior finishes consist of a combination of vinyl and ceramic tile flooring, with painted gypsum wall board and plaster walls and ceilings, as well as drop ceiling systems with lay-in ceiling panels. Ambient heating is provided via a combination of two central dual #2 fuel oil-/natural gas-fired low-pressure boiler, located in the sub-basement boiler room, and roof-mounted natural gas-/electric-fired packaged HVAC units. Vertical access is provided via six interior stairwells and three traction-type elevators. In addition, one hydraulic disability-accessible lift is provided at the lower lobby entrance exterior.

Electricity and natural gas are provided by Consolidated Edison of New York (ConEd). Domestic water, sanitary sewer, and storm water services are provided by the New York City Department of Environmental Protection (NYC DEP). Additional site improvements are limited to a poured concrete sidewalk at the East End Avenue and East 84th Street Property frontages, and a small central concrete-paved courtyard area.

The Property is situated in a built-up urban residential area in the borough of Manhattan. Surrounding properties consist of multi-story residential buildings and a park. Groundwater flow in the surrounding area is presumed to be to the east, towards the East River.

3.0 USER PROVIDED INFORMATION

3.1 Historical Records

No historical records or documentation were provided by <Client Name>.

3.2 Title Records

Although requested, no title records or documentation were provided by <Client Name>.

3.3 Environmental Liens and Property User Specialized Knowledge or Experience

<Client Name> did not provide any information regarding environmental liens, or any additional/specialized information.

3.4 Environmental Violations

<Client Name> did not provide any information regarding environmental violations for the Property.

3.5 Lawsuits or Administrative Proceedings

<Client Name> reportedly has no knowledge of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum products involving the Property.

3.6 Reason for Performing Phase 1

This Phase I ESA report was requested by <Client Name> for informational purposes.

4.0 RECORDS REVIEW

4.1 Standard Environmental Record Sources

4.1.1 Previous Environmental Reports

The following previous environmental reports were provided by the Client to AIT for review:

- **Phase II Sub-Surface Investigation Sample Results for the Property, analyzed by Analytics Corporation of Ashland, VA, and addressed to Lawrence Environmental Group (LEG) of New York, NY, dated April 2, 2008**

  Of note, these sample results were provided to AIT by the Client without a corresponding Phase II

report, justification for sampling, or map of sample locations. One soil sample was analyzed, the results provided for which were analyzed for herbicides, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), Toxicity characteristic leaching procedure (TCLP) compounds, including TCLP metals, pesticides, gasoline range organics (total petroleum hydrocarbons [TPH]), PCBs, and metals. Elevated levels of contaminants in excess of regulatory guidelines were encountered within the soil sample. It should be noted that the source of the soils/waste soils is unknown, and it is unknown whether the source of the contamination, or any associated contamination, current exists on-site.

- **Soil Waste Classification Laboratory Results Summary for the Property, analyzed by Impact Environmental, Inc., of Flemington, NJ, for LEG**

  Of note, these sample results were provided to AIT by the Client without a corresponding Phase II report, justification for sampling, or map of sample locations. The sampling summary contains results for two soil waste samples at the Property. Elevated levels of methyl ethyl keytone, cadmium, chromium, barium, nickel, and zinc were identified in excess of NYSDEC TAGM recommended soil clean-up objectives. No addition information was provided. It should be noted that the source of the waste soils is unknown, and it is unknown whether the source of the contamination, or any associated contamination, current exists on-site.

Given the historical presence of contaminated soils on-site, as well as the lack of any further associated documentation, it is AIT's professional opinion that the historical presence of contaminated soils on-site is considered to be an REC. In the absence of additional associated documentation, AIT recommends that a Phase II sub-surface investigation be performed on-site, in order to determine the extent, if any, of existing sub-surface contamination at the Property. Based on the results of the Phase II investigation, further actions may be warranted, and costs incurred.

- **Foundation Plan for the Property, prepared by Greenhut and Taffel Consulting Engineers, dated 1970**

  In addition, AIT was provided with a 1970 Foundation Plan for the Property, prepared by Greenhut and Taffel Consulting Engineers, which depicts an existing fuel oil tank at the eastern portion of the basement. Based on AIT's site observations, this is assumed to depict the location of the existing sub-basement AST vault, and is not indicative of an REC.

4.1.2 Federal Database Sites

An ASTM-compliant Phase I Radius Search Report was obtained from Environmental Data Resources, Inc., Milford, Connecticut. Due to the large size of the EDR Search Radius Map document, it is not

included with this Phase I ESA. However, this document is available electronically upon request. The following Federal database listings were searched, if available:

- **NPL** - National Priority List
- **CERCLIS** - Comprehensive Environmental Response, Compensation, and Liability Information System
- **CERC-NFRAP** - CERCLIS No Further Remedial Action Planned
- **RCRA CORRACTS** - Resource Conservation and Recovery Act Corrective Action Report
- **RCRA-TSD** – RCRA Treatment, Storage, and/or Disposal Facilities
- **RCRA Gen -** RCRA Generators
- **ERNS** - Emergency Response Notification System

The Property is listed on the FINDS database, for its listing on the Facility Information System (FIS) database. No additional pertinent information is provided with regard to this listing. Of note, a listing on the FINDS and FIS databases is not indicative of an REC. Therefore, this listing is not considered to be an issue of concern.

In addition, the following federal database information appears in the Environmental Data Resources (EDR) report:

National Priorities List *(NPL)*

The National Priorities List (NPL) is the Environmental Protection Agency (EPA) database of uncontrolled or abandoned hazardous waste facilities identified for priority remedial actions under the Superfund Program.

No NPL facilities were identified within one mile of the Property.

Federal CERCLIS List

The Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) list is a compilation of facilities that the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances.

No CERCLIS facilities were identified within a ½- mile of the Property.

Federal CERCLIS NFRAP Sites List

The CERCLIS No Further Remedial Action Planned (NFRAP) List is a compilation of facilities that the EPA has investigated, and has determined that the facility does not pose a threat to human health or the environment, under the CERCLA framework.

No adjoining CERCLIS NFRAP facilities were identified.

Federal Resource Conservation and Recovery Act (RCRA) CORRACTS TSD Facilities List

The EPA Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Treatment, Storage and Disposal (TSD) database is a compilation by the EPA of reporting facilities which treat, store or dispose of hazardous waste. The CORRACTS database is the EPA's list of treatment storage or disposal facilities subject to corrective action under RCRA.

No RCRA CORRACTS TSD facilities were identified within one mile of the Property.

Federal Resource Conservation and Recovery Act (RCRA) Non-CORRACTS TSD Facilities List

The RCRA TSD database is a compilation by the EPA of reporting facilities that treat, store or dispose of hazardous waste.

No RCRA TSD facilities were identified within a ½-mile of the Property.

Federal RCRA Generator List

The RCRA program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Generators database is a compilation by the EPA of reporting facilities that generate hazardous waste.

Two adjacent RCRA Generator facilities were identified. The first facility is known as Carl Schurz Park, and is listing as being located at East End Avenue and East 84th Street, beyond East End Avenue to the East (by visual observation), and down-gradient relative to the Property. This facility is also cross-referenced on the MANIFEST database. This facility is listed as a Conditionally Exempt Small Quantity Generator of hazardous waste. However, this facility is not listed on the LTANKS, SPILLS, or any of the other database searched, and no violations are listed for this facility. Given that a listing on the RCRA GEN and MANIFEST databases is not indicative of an REC, as well as the lack of documented releases from this facility, this adjoining RCRA GEN/MANIFEST facility is not considered to be an REC.

The second facility is known as ConEd, and is located at Gracie Square and East End Avenue, beyond East 84th Street to the southeast (by visual observation), and down-gradient of the Property. However, this facility is not listed on the LTANKS, SPILLS, or any of the other database searched. Given that a listing on the RCRA GEN database is not indicative of an REC, as well as the lack of documented releases from this facility, this adjacent RCRA GEN facility is not considered to be an REC.

Federal Emergency Response Notification System (ERNS)

The Emergency Response Notification System (ERNS) is a national database used to collect information or reported release of oil or hazardous substances.

No adjoining ERNS incidents were identified.

No additional federal regulatory database sites of concern were identified within the EDR radius search report.

4.1.3 State/Local Database Sites

The following state/local database listings were searched, if available:

- **SHWS -** State Hazardous Waste Sites (CERCLIS-equivalent)
- **SWLF –** Solid Waste Facilities/Landfill Sites
- **LTANKS** - Leaking Storage Tank Incident Reports
- **UST** – NYSDEC UST Registration database
- **HIST UST** – NYSDEC Historical UST Registration database
- **AST** – NYSDEC AST Registration database
- **HIST AST** – NYSDEC Historical AST Registration database

The Property is not listed on any of the State or Local EDR databases searched.

However, the following state database information appears in the EDR radius report:

State Hazardous Waste Sites (SHWS)

The New York State Department of Environmental Conservation (NYSDEC) maintains a list of facilities considered to be actually or potentially contaminated and presenting a possible threat to human health and the environment.

Two SHWS facilities were identified within one mile of the Property. Each of these facilities were found to be located in excess of 4,000 feet of the Property, and are located cross-gradient relative to the Property. Therefore, given the respective hydrological locations of these facilities, as well as the urban and developed nature of the surrounding area, and the distance of these facilities from the Property, these two SWHS facilities are not considered to be an REC.

Solid Waste/Landfill Facilities (SWLF)

A database of SWLF facilities is prepared by the NYSDEC.

One SWLF facility was identified within a ½-mile of the Property. This facility is located 1,971 feet to the north-northeast, and cross-gradient relative to the Property. Therefore, given the hydrological location of this facility, as well as the urban and developed nature of the surrounding area, and the distance of this facility from the Property, this SWLF facility is not considered to be an REC.

State Leaking Underground Storage Tank List (LTANKS)

The NYSDEC compiles lists of all leaks of hazardous substances from underground storage tanks.

Eighty-one LTANKS facilities were identified within a ½-mile of the Property. Each of these LTANKS facilities were found to be located in excess of 670 feet of the Property, and are either listed as being "Closed" by the NYSDEC, or are located either cross- or down-gradient relative to the Property, or both. Therefore, given the remedial status and/or hydrological location of these facilities, as well as the urban and developed nature of the surrounding area, and the distance of these facilities from the Property, these 81 LTANKS facilities are not considered to be an REC.

State Underground Storage Tank List (UST)/State Historic Underground Storage Tank List (HIST UST)

The NYSDEC compiles a list of registered and historically registered USTs.

Two adjoining UST/HIST UST facilities were identified, at 530-538 East 84th Street, and 523-533 East 84th Street, respectively. In addition, these two facilities are also listed on the AST database. However, these two facilities were not identified on the LTANKS, SPILLS, or any of the other databases searched. Given that a listing on the UST, HIST UST, and AST registration databases is not in itself indicative of an REC, as well as the lack of documented releases from these adjacent facilities, this adjoining UST/HIST UST/AST facilities are not considered to be an REC.

State Aboveground Storage Tank List (AST)

The NYSDEC maintains a list of registered and historically registered ASTs.

Two adjacent AST facility was identified, at 530-538 East 84th Street, and 523-533 East 84th Street, respectively. These facilities are also listed on the UST and HIST UST databases, and are addressed in the UST/HIST UST sections above.

4.1.4 Additional and Supplemental Federal, State, and Local Database facilities

Additional and Supplemental Federal, State, and Local Database facilities include, but are not limited to:

- **Proposed NPL** - Proposed National Priority List Sites
- **De-listed NPL** - National Priority List Deletions
- **NPL Recovery** – Federal Superfund Liens

- **RAATS** - RCRA Administrative Action Tracking System
- **US Inst Control** – Sites with institutional Controls
- **DOD** - Department of Defense
- **FUDS** – Formerly Used Defense Sites
- **US BROWNFIELDS** – A Listing of Brownfield Sites
- **CONSENT** - Superfund (CERCLA) Consent Decrees
- **ROD** - Records Of Decision
- **UMTRA** - Uranium Mill Tailings Sites
- **ODI** - Open Dump Inventory
- **TRIS** - Toxic Chemical Release Inventory System
- **TSCA** - Toxic Substances Control Act
- **FTTS INSP** - FIFRA/ TSCA Tracking System
- **FIFRA** (Federal Insecticide, Fungicide, & Rodenticide Act)
- **TSCA** (Toxic Substances Control Act)
- **SSTS** - Section 7 Tracking Systems
- **ICIS -** Integrated Compliance Information System
- **PADS** - PCB Activity Database System
- **MLTS** - Material Licensing Tracking System
- **MINES** - Mines Master Index File
- **FINDS** - Facility Index System/Facility Identification Initiative Program Summary Report
- **NY MANIFEST** – List of "manifest" tracking documents
- **NPL Liens** - Federal Superfund Liens
- **INDIAN RESERV** - Indian Reservations
- **HSWDS** - Hazardous Substance Waste Disposal Site Inventory
- **SWRCY** - Registered Recycling Facility List
- **SWTIRE** - Registered Waste Tire Storage & Facility List
- **CBS UST** - Chemical Bulk Storage Database
- **MOSF UST** - Major Oil Storage Facilities Database
- **CBS AST** - Chemical Bulk Storage Database
- **HIST LTANKS** – Historical releases in New York State
- **NY SPILLS** - Chemical spills in New York State
- **NY HIST SPILLS** – Historical chemical spills in New York State
- **MOSF AST** - Major Oil Storage Facilities Database
- **ENG CONTROLS** - Registry of Engineering Controls
- **INST CONTROL** - Registry of Institutional Controls

- **VCP** - Voluntary Cleanup Agreements
- **BROWNFIELDS** - Brownfields Site List
- **DEL SHWS** - De-listed Registry Sites
- **E DESIGNATION** – NYC E DESIGNATION facilities
- **AIRS** - Air Emissions Data
- **SPDES** - State Pollutant Discharge Elimination System

The Property is not listed on any of the Additional/Supplemental Federal, State, or Local databases reviewed.

However, the following additional non-contiguous Additional/Supplemental State or Local Database and EDR facilities were identified within the study radii: 1 ENG CONTROLS facility: INST CONTROL facility; 1 VCP facility; 12 SPILLS facilities; 22 RCRA Non-GEN facilities; 61 NY MANIFEST facilities; 14 DRYCLEANERS facilities; 1 EDR MGP facilities; 11 HIST AUTO STAT facilities, and 22 HIST CLEANERS facilities. With the exception of the MANIFEST facility addressed above, of these facilities are located beyond the Property and adjoining properties, and either cross- or down-gradient with respect to the assumed direction of groundwater flow. Therefore, given the urban and developed nature of the surrounding area, as well as the distance/non-contiguous location and hydrological location of these facilities, these Additional/Supplemental State or Local Database and EDR facilities are not considered to be an REC.

4.1.5 Orphans List

EDR provides an "orphans" list of facilities which are not mapped due to poor and /or inadequate address information. The Property and adjoining properties were not listed on the EDR orphan facility list.

4.1.6 Local Regulatory Agency Findings

County Recorder / Assessor

AIT attempted to obtain information pertaining to environmentally-related liens or deed restrictions for the Property at the New York City Department of Tax Assessment website. No information regarding environmentally-related liens or deed restrictions was identified. General Property information identified has been included in the appropriate sections of this report.

Building Department

Records from the New York City Department of Buildings (NYC DOB) were reviewed on the Property Profile Overview (PPO) on the NYC DOB website for evidence indicating the developmental history of the Property, and for the presence of documentation relative to USTs. Miscellaneous permits/actions were

listed for the Property, dating from 1927 through the present, including a 1927 and 1930 New Building applications; 1927 and 1930 Demolition permits; Oil Burner applications dated 1955, 1959, 1970, 2004, and 2009; and various Certificates of Occupancy (COs) dated from 1928 through circa 2011 for a private school. Of note, the presence of an oil fired boiler was noted on numerous COs. The Oil Burner applications, as well as the fuel oil usage indicated on the historical COs, is in accordance with the Property's current and historical usage of fuel oil as a heating source, which is addressed in Section 5.4.3. No additional actions/permits of environmental or historical significance were identified on the PPO.

Fire Officials

Records from the New York City Fire Department are available by written request and fee only, and results are not provided to the user for approximately 60 days from the date of receipt of the request by the NYCFD. As such, other sources were searched for information regarding current and Historical petroleum storage tanks at the Property. These records included state regulatory agency databases, Sanborn Fire Insurance maps, building department records, and historical city directories, which are discussed within the respective sections of this report.

4.2 Aerial Photography

Due to the extent of historical documentation obtained, as well as the dense urban nature of the surrounding area, AIT determined that aerial photographs would not produce sufficiently useful information to justify reviewing.

4.3 Sanborn Fire Insurance Maps

Sanborn Fire Insurance maps dated 1896, 1911, 1939, 1951, 1979, 1980, 1981, 1983, 1985, 1986, 1988, 1991, 1992, 1993, 1994, 1995, 1996, 2001, 2002, 2003, 2004, and 2005 were available for review, and were provided by EDR/Sanborn. Copies of the Sanborn maps are provided in Appendix B.

Date:	1896 - 1911
Description:	Ten 4- and 5-story residential buildings, some with ground-floor commercial units, are depicted on-site. Surrounding properties to the north and west consist of adjoining multi-story residential buildings. Surrounding properties to the south, beyond East 84th Street, consist of multi-story residential buildings, some with ground-floor commercial units. Surrounding properties to the east, beyond East End Avenue, consist of a park.

Date:	1939 - 1951
Description:	A "U"-shaped 6-story institutional building with a central courtyard, labeled "Chapin School – Built 1927" is depicted on-site (assumed to be the original development identified on-site during AIT's site inspection). Surrounding properties to the north consist of an undeveloped lot. Surrounding properties to the south, beyond East 84th Street, consist of multi-story residential buildings, some with ground-floor commercial units. Surrounding properties to the east, beyond East End Avenue, consist of a park. Surrounding properties to the west consist of adjoining multi-story residential buildings.
Date:	1979 - 2005
Description:	A rectangular-shaped 6-story institutional building, labeled "Chapin School – Built 1927/1971" is depicted on-site (assumed to be the development identified on-site during AIT's site inspection). Surrounding properties to the north and west consist of adjoining multi-story residential buildings. Surrounding properties to the south, beyond East 84th Street, consist of multi-story residential buildings, some with ground-floor commercial units. Surrounding properties to the east, beyond East End Avenue, consist of a park.

No issues of environmental concern were identified on the Sanborn maps reviewed.

4.4 Topographic Map

The United States Geological Survey (USGS), Central Park, NY Quadrangle 7.5-Minute series topographic map was reviewed for this ESA. This map was published by the USGS in 1995. According to the contour lines on the topographic map, the Property is located approximately 44 feet above mean sea level (MSL). The Property and immediate surrounding area slope gently downward to the north and east. The general surrounding area slopes downward to the east. The contour lines in the general surrounding area indicate that the general surrounding area slopes gently downwards to the east, towards the East River. No structures were indicated on the Property or the adjoining Properties on the topographic map.

4.5 City Directories

Historical city directories (including Polk directories and New York Telephone Address directories) were provided by EDR, and were reviewed for past names and businesses which were listed for the Property

and the adjoining properties. City directories were reviewed, dated 1927 to 2013. Listings for the Property consist of a combination of residential tenants, the Chapin School, a bank, and Emergency Anytime Towing (in 2013 only). Of note, based on AIT's visual observations and interviews, no towing companies are currently located on-site, nor were any located on-site in 2013. Therefore, this towing company listing is assumed to be erroneous.

Listings for the adjacent properties consist of a combination of residential and commercial/retail tenants/owners. No listings of concern, such as gasoline stations, dry cleaning facilities, industrial facilities, etc., were identified for the Property or the adjoining properties on the City Directories reviewed. A copy of the EDR City Directory is available upon the Client's request under separate cover.

4.6 Evaluation of Radon Risk Data

The USEPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones, Zone 1 being those areas with the average predicted indoor radon concentration in residential dwellings exceeding the EPA Action limit of 4.0 picoCuries per Liter (pCi/L). It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the EPA recommends site specific testing in order to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures. The review of the EPA Map of Radon Zones places the Property in Zone 3, where average predicted radon levels are less than 2.0 pCi/L. Therefore, no further action is recommended at this time regarding radon on site. A copy of the radon map reviewed is provided in *Appendix F*.

4.7 Hydrology

Groundwater flow is typically topographically influenced, as shallow groundwater tends to originate in areas of topographic highs and flow toward areas of topographic lows, such as rivers, stream valleys, ponds, and wetlands. A broader, interconnected hydrogeologic network often governs groundwater flow at depth or in the bedrock aquifer. Groundwater depth and flow direction are also subject to hydrogeologic and anthropogenic variables such as precipitation, evaporation, extent of vegetation cover, and coverage by impervious surfaces. Other factors influencing groundwater include depth to bedrock, the presence of artificial fill, variability in local geology, and groundwater sources or sinks.

Groundwater in New York City is not used as a drinking water source. Potable water for the Property is provided by the City of New York Department of Environmental Protection (NYCDEP), and is derived from reservoirs in the Croton, Catskill, and Delaware watersheds. Groundwater is expected to be present at a depth of greater than 10-20 feet below ground surface (bgs). The NYSDEC groundwater classification is GA (fresh groundwater). Groundwater in both the unconsolidated deposits and in the bedrock is expected

to flow to the east, towards the East River. Groundwater flow in the fill may, however, be influenced locally by the presence of underground man-made structures (pipes, foundations, subway tunnels, etc.).

4.8 Other Historical Records

Previously prepared environmental reports provided by the Client are addressed in Section 4.1.1. No additional previously prepared environmental reports, such as Phase I or II Environmental Site Assessments, lead-in-water surveys, or geotechnical reports, were provided for review.

4.9 Historical Use Summary

The following briefly summarizes the developmental history of the Property, based on City Directories, Sanborn Fire Insurance maps, and municipal records reviewed:

The Property is currently improved with an 8-story institutional building, which has historically been occupied by the Chapin School. The subject building was originally constructed in 1927, with additions in 1971 and 2008. In 1896 and 1911, the Property was occupied by 10 multi-story residential buildings, some with ground-floor retail units. No previous environmentally significant usages or occupancy of the Property, or storage or usage of hazardous materials or petroleum products were identified during AIT's historical review, with the exception of fuel oil, historically utilized as a heating source, and the following:

- AIT was provided with two sets of soil sampling analysis results for the Property: Phase II Sub-Surface Investigation Sample Results for the Property, analyzed by Analytics Corporation of Ashland, VA, and addressed to Lawrence Environmental Group (LEG) of New York, NY, dated April 2, 2008; and Soil Waste Classification Laboratory Results Summary for the Property, analyzed by Impact Environmental, Inc., of Flemington, NJ, for LEG (undated). These sample results were provided to AIT by the Client without corresponding Phase II reports, justification for sampling, or map(s) of sample locations. Elevated levels of contaminants, including VOCs and SVOCS, were encountered in excess of regulatory guidelines. It should be noted that the source of the soils/waste soils is unknown, and it is unknown whether the source of the contamination, or any associated contamination, current exists on-site. Given the historical presence of contaminated soils on-site, as well as the absence of any further associated documentation, it is AIT's professional opinion that the historical presence of contaminated soils on-site is considered to be an REC. In the absence of additional associated documentation, AIT recommends that a Phase II sub-surface investigation be performed on-site, in order to determine the extent, if any, of existing sub-surface contamination at the Property. Based on the results of the Phase II investigation, further actions may be warranted, and costs incurred.

5.0 SITE RECONNAISSANCE

5.1 Methodology

Site reconnaissance was conducted to obtain information indicating the likelihood of identifying recognized environmental conditions (RECs) in connection with the Property. The site reconnaissance was conducted in a systematic manner by Jeremy Mushlin, EP, a representative of AIT, who visually and physically inspected selected interior and exterior areas of the Property on April 24, 2014. Weather conditions were sunny, with temperatures in the 40s. The adjacent properties are privately owned, and access was not attempted. Photo documentation is provided in *Appendix A*. No limiting conditions were encountered during AIT's site inspection.

5.2 General Property Setting

The Property is located in a built-up urban residential area in the borough of Manhattan, New York City, NY.

5.3 Exterior Observations

5.3.1 Industrial Usage

No industrial usage was identified on the Property or adjoining properties during AIT's site inspection.

5.3.2 Pits, Ponds, and Lagoons

No pits, ponds, or lagoons, suspected of containing hazardous substances or petroleum products, were observed on the Property exterior.

5.3.3 Unidentified Substances, Containers, Staining, or Stressed Vegetation

No unidentified substances, containers, staining, or stressed vegetation were observed at the exterior areas.

5.3.4 Odors

Property exteriors displayed no evidence or reports of foul odors being emitted from the grounds, drains, or walls.

5.3.5 Hazardous Substances and Petroleum Products in Connection with Identified Uses (Exterior)

No hazardous substances or petroleum products were observed at the building exterior. However, two

groundwater monitoring wells were identified at the East 84th Street sidewalk. The monitoring wells are assumed to be associated with the 2008 Phase II investigation, which is addressed in Section 4.1.1.

5.3.6 Indications of Polychlorinated Biphenyls (PCBs)

Older transformers and other electrical equipment could contain polychlorinated biphenyls (PCBs) at a level that subjects them to regulation by the USEPA. PCBs in electrical equipment are controlled by United States Environmental Protection Agency regulations 40 CFR, Part 761. Under the regulations, there are three categories into which electrical equipment can be classified:

- Less than 50 parts per million (PPM) of PCBs – *"Non-PCB" transformer*
- 50 ppm-500 ppm – *"PCB-Contaminated" electrical equipment*
- Greater than 500 ppm – *"PCB" transformer*

A sub-grade transformer vault was observed at the East 84th Street sidewalk, adjacent to the Property. This transformer vault is owned and maintained by, and is the sole responsibility of, ConEd (the local utility). This vault was not identified on any of the regulatory databases search, and no releases or violations were identified for this vault. Given that this vault is maintained by, and is the sole responsibility of, the local utility, as well as the lack of outstanding regulatory mandates with regard to its presence, the presence of this sub-grade transformer vault is not considered to be an REC.

In addition, one hydraulic disability-accessibility lift was observed at the eastern frontage, at the lower lobby entrance area. The unit was observed to be in good condition, and was free of visible leaks. This unit was reportedly installed post-1990. This is in accordance with AIT's site observations. Given the recent installation of the unit, hydraulic fluids utilized are unlikely to contains PCBs. Therefore, the presence of this unit is not considered to be an REC.

No additional potential PCB-containing equipment (transformers, oil-filled switches, hoists, lifts, dock levelers, etc.) was observed at the Property exterior during AIT's site reconnaissance.

5.3.7 Waste Handling

Solid waste generated on-site is picked up on a regular basis by a private commercial waste hauler. In the interim, solid waste is stored in the building's service areas. No visual evidence of improper solid waste storage or disposal was observed on site.

5.4 Interior Observations

5.4.1 Hydraulic Oil

No equipment anticipated to utilize hydraulic oils, or to contain PCBs, such as electrical transformers, hydraulic elevators, etc., was observed within the subject building during AIT's site reconnaissance.

5.4.2 Sumps

A sheen was observed at the sub-basement boiler room sump pit. It was unclear whether the sheen was petroleum based. However, AIT recommends that any potential fuel oil discharges from the building boilers be stored on-site picked up for recycling by the Property's fuel oil provider, and not be discharged to the sump pit.

No additional stained sump pits or improper waste water disposal were observed on site.

5.4.3 Storage Tanks

No underground petroleum storage tanks, or evidence thereof, was observed during the Property reconnaissance or reported during interviews.

However, one 7,000-gallon #2 fuel oil AST was observed in the sub-basement AST vault. This AST fires the two central low-pressure boilers on-site. This AST was observed to be in good condition, and was free of visible leaks. One fuel oil vent pipe, assumed to be associated with this AST, was observed at the East 84th Street frontage.

Of note, according to Mr. Walter Patela, maintenance staff for the Property, of The Chapin School, the active fuel oil AST was installed circa 2008, and served as a replacement for a previous fuel oil AST, which was historically located in the same sub-basement AST vault. In addition, AIT observed a small, circular area of patched concrete at the East 84th Street sidewalk. The source of this patched area is unknown, but may potentially be associated with a former fuel oil fill port for the previous AST on-site. Therefore, the presence of this area of patched concrete is not considered to be an REC.

In addition, AIT was provided with a 1970 Foundation Plan for the Property, prepared by Greenhut and Taffel Consulting Engineers, which depicts an existing fuel oil tank at the eastern portion of the basement. Based on AIT's site observations, this is assumed to depict the location of the existing sub-basement AST vault, and is not indicative of an REC.

Moreover, one #2 fuel oil-fired emergency generator and associated day tank were identified at the basement-level generator room. The generator and day tank are fed via the #2 fuel oil AST discussed above. Of note, the combined capacity of the generator and day tank was not labeled, but appeared to be less than 150 gallons. The generator and day tank were observed to be in good condition, and were free of visible leaks, and their presence is not considered to be an REC.

The New York City Fire Department (NYCFD) permit for the petroleum storage on-site was observed to be current at the time of inspection (#01880954, expires April 2014). However, the petroleum storage on-site is not registered with the New York State Department of Environmental Conservation (NYSDEC). AIT recommends that the petroleum storage on-site be registered with the NYSDEC, and that a copy of the current registration be posted on-site, as required.

5.4.4 Hazardous Substances and Petroleum Products in Connection with Identified Uses (Interior)

General chemicals for academic/science class usage were identified in the 8th floor science classroom area. Containers were each observed to be less than 1 gallon in size, and were observed to be stored property, with no evidence of spills, leaks, or improper storage observed. It should be noted that a full environmental regulatory compliance audit of the Property is beyond the scope of this assessment. Should a comprehensive evaluation of all regulatory compliance issues regarding the science department on-site be required, a full regulatory compliance audit should be conducted.

No additional evidence of the use of hazardous materials or petroleum products was observed on site, with the exception of #2 fuel oil, as noted in Section 5.4.3 above.

5.4.5 Mold

As part of this assessment, AIT performed a limited visual inspection for the significant presence of mold. Molds have been found to be associated with a variety of health problems in humans. Molds are decomposers of organic materials, thrive in damp environments, and produce tiny spores to reproduce. When mold spores land on a damp indoor surface, they may begin growing and digesting the substrate in order to survive. When excessive moisture or water accumulates indoors, mold growth will often occur on susceptible surfaces, particularly if the moisture problem remains undiscovered or unaddressed. As such, interior areas of buildings characterized by poor ventilation and high humidity are the most common locations of mold growth. Building materials including drywall, wallpaper, baseboards, wood framing, insulation and carpeting often play host to such growth.

AIT observed interior areas of the Property structure for the presence of mold. AIT did not note obvious visual or olfactory indications of the presence of mold. It should be noted that a comprehensive evaluation of any/all areas of water damage on-site is beyond the scope of this ESA report. This activity was not designed to discover all areas which may be affected by mold growth on the Property. Rather, it is intended to provide the Client with an indication if significant (based on observed areas) mold growth is present at the Property. Of note, areas not observed as part of this limited assessment, such as in pipe chases, HVAC systems, and behind enclosed walls and ceilings, may contain mold growth which was not visually accessible.

5.4.6 Lead in Drinking Water

Drinking water with lead concentrations greater than the USEPA Action Level for lead in drinking water of 15 ug/L (micrograms of lead per liter of water) can contribute to delays in physical and mental development in infants and children, and kidney problems or high blood pressure in adults. Common sources of lead in drinking water include the erosion of natural deposits and corrosion of household plumbing systems. Lead, a metal found in natural deposits, is commonly used in household plumbing materials and water service lines.

According to the New York City Department of Environmental Protection (NYC DEP) website, water quality in New York City meets and often exceeds local, state and federal standards for water quality, including those for lead and copper. New York City Water must comply with strictly enforced standards established by the United States Environmental Protection Agency, the New York State Health Department, and the NYCDEP. The City also is required to routinely monitor its system by testing the water both at the wellhead and within the distribution system for a wide range of parameters, including bacteria, inorganic chemicals such as nitrate, chloride, lead and volatile organic compounds, including benzene and trichloroethylene.

Based on the aforementioned information reviewed, lead in drinking water at the Property is not likely to constitute an REC. Of note, lead concentrations in lead in tap water may vary greatly depending on location, based on the age and condition of plumbing materials utilized. Water sampling was not conducted at the Property to verify water quality.

6.0 INTERVIEWS

AIT interviewed Mr. Walter Patela, maintenance staff for the Property, of The Chapin School. Mr. Patela had no knowledge of prior or current environmental lawsuits or environmental liens associated with the Property, and no RECs or issues of environmental concern were reported or noted by Mr. Patel.

No government officials were interviewed during the preparation of this Phase I ESA. Regulatory data was obtained directly from regulatory websites and the EDR database report, which was reviewed as part of AIT's due diligence inquiry for the Property.

7.0 OPINION

This assessment has revealed no evidence of recognized environmental conditions (RECs) in connection with the Property, with the exception the following:

- AIT was provided with two sets of soil sampling analysis results for the Property: Phase II Sub-Surface Investigation Sample Results for the Property, analyzed by Analytics Corporation of Ashland, VA, and addressed to Lawrence Environmental Group (LEG) of New York, NY, dated April 2, 2008; and Soil Waste Classification Laboratory Results Summary for the Property, analyzed by Impact Environmental, Inc., of Flemington, NJ, for LEG (undated). These sample results were provided to AIT by the Client without corresponding Phase II reports, justification for sampling, or map(s) of sample locations. Elevated levels of contaminants, including VOCs and SVOCS, were encountered in excess of regulatory guidelines. It should be noted that the source of the soils/waste soils is unknown, and it is unknown whether the source of the contamination, or any associated contamination, current exists on-site. Given the historical presence of contaminated soils on-site, as well as the absence of any further associated documentation, it is AIT's professional opinion that the historical presence of contaminated soils on-site is considered to be an REC. In the absence of additional associated documentation, AIT recommends that a Phase II sub-surface investigation be performed on-site, in order to determine the extent, if any, of existing sub-surface contamination at the Property. Based on the results of the Phase II investigation, further actions may be warranted, and costs incurred.

8.0 CONCLUSIONS and RECOMMENDATIONS

AIT has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM E1527-05 of 100 East End Avenue, New York, NY (the Property). Any exceptions to, or deletions from, this practice are described in *Section 9.0* of this report. This assessment has revealed no evidence of recognized environmental conditions (RECs) or issues of environmental concern in connection with the Property, with the exception the following:

- AIT was provided with two sets of soil sampling analysis results for the Property: Phase II Sub-Surface Investigation Sample Results for the Property, analyzed by Analytics Corporation of Ashland, VA, and addressed to Lawrence Environmental Group (LEG) of New York, NY, dated April 2, 2008; and Soil Waste Classification Laboratory Results Summary for the Property, analyzed by Impact Environmental, Inc., of Flemington, NJ, for LEG (undated). These sample results were provided to AIT by the Client without corresponding Phase II reports, justification for sampling, or map(s) of sample locations. Elevated levels of contaminants, including VOCs and SVOCS, were encountered in excess of regulatory guidelines. It should be noted that the source of the soils/waste soils is unknown, and it is unknown whether the source of the contamination, or any associated contamination, current exists on-site. Given the historical presence of contaminated soils on-site, as well as the absence of any further associated documentation, it is AIT's professional opinion that the historical presence of contaminated soils on-site is considered to be an REC. In the absence of additional associated documentation, AIT recommends that a Phase II sub-surface investigation be performed on-site, in order to determine the extent, if any, of existing sub-surface contamination at the Property. Based on the results of the Phase II investigation, further actions may be warranted, and costs incurred.

- The petroleum storage on-site (in the form of one 7,000-gallon #2 fuel oil AST, and one #2 fuel oil-fired emergency generator and associated day tank) is not registered with the New York State Department of Environmental Conservation (NYSDEC). AIT recommends that the petroleum storage on-site be registered with the NYSDEC, and that a copy of the current registration be posted on-site, as required.

9.0 DEVIATIONS AND LIMITING CONDITIONS

The findings and conclusions within contain all of the limitations inherent in these methodologies that are referred to in ASTM 1527-05. Specific limitations and exceptions to this ESA are more specifically set forth below:

- AIT encountered data limitations by not interviewing past Property owners or tenants, or adjacent property owners, as none were available for comment, did not respond to requests to information, or

did not exist. However, based on our review of the available municipal, regulatory, and historical information, the absence of information obtained from interviews with these individuals is not considered significant to the findings, conclusions, or recommendation of this assessment.

- The first developed usage of the Property was not identified. Historical data was reviewed from as early as 1896. In addition, data gaps in excess of the recommended 5-year interval were encountered during AIT's historical review. However, based on the quantity of available information reviewed, these historical data gaps are not considered to be an issue of concern.

10.0 ADDITIONAL SERVICES

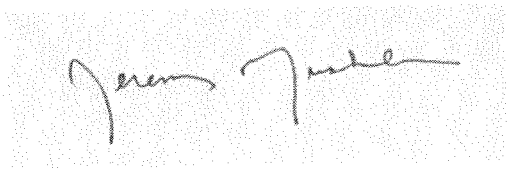
No additional services are recommended.

11.0 REFERENCES

The following references were relied upon in preparing this *Phase I Environmental Site Assessment:*

- EDR City Directory Abstract
- EDR Radius Map with GeoCheck®
- EDR Sanborn® Map Report
- Federal Emergency Management Agency, Federal Insurance Administration, National Flood Insurance Program website
- Foundation Plan for the Property, prepared by Greenhut and Taffel Consulting Engineers, dated 1970
- Google Earth
- New York City Department of Buildings website
- New York City Department of Environmental Protection Drinking Water Supply and Quality Report
- New York City Department of Tax Assessment website
- New York City Fire Department - Bureau of Fire Prevention (NYCFD), 9 Metrotech Center, New York, NY, (718) 999-2681
- New York City OASIS municipal data website
- Phase II Sub-Surface Investigation Sample Results for the Property, analyzed by Analytics Corporation of Ashland, VA, and addressed to Lawrence Environmental Group (LEG) of New York, NY, dated April 2, 2008
- Soil Waste Classification Laboratory Results Summary for the Property, analyzed by Impact Environmental, Inc., of Flemington, NJ, for LEG (undated)
- United States Department of Agriculture, USGS Bedrock and Engineering Geologic Maps of New York County and Parts of Kings and Queens Counties, 1994
- USEPA Map of Radon Zones
- USGS 7.5 Minute Series Topographic Map

12.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS



Jeremy Mushlin, EP

Senior Associate

Import signature

Reviewer Name

Title

13.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Jeremy Mushlin has over fifteen years of experience in due diligence activities for commercial real estate transactions, spanning both environmental and structural disciplines. Experience includes the performance of Phase I Environmental Site Assessments (ESAs) of all property types, including residential, retail, commercial office, and industrial properties throughout the United States for a wide range of financial clients, attorneys, and real estate companies, with a special area of expertise in New York City five-boroughs environmental and structural issues.

Mr. Mushlin has a working familiarity with all common ESA and PCA scopes of work, including ASTM, Fannie Mae, and Freddie Mac. Mr. Mushlin is also a licensed New York State Asbestos Inspector, USEPA Lead Inspection, and New York City Asbestos Investigator. Mr. Mushlin also has extensive experience in the review of final reports and QA/QC. Experience also includes service as liaison between real financial entities and environmental agencies, and marketing/client duties. Mr. Mushlin's extensive experience in the New York City metro area provides AIT with a unique solution to the resolution of environmental and structural due diligence issues in the 5-boroughs area.

PARTNER

PHASE II SUBSURFACE INVESTIGATION REPORT

THE CHAPIN SCHOOL
100 East End Avenue
New York, New York 10028

August 29, 2014
Partner Project Number 14-122660.1

Prepared for
ASSET INSPECTION TECHNOLOGIES CORP.
319 Lafayette Street, Suite 192
New York, New York 10012

August 29, 2014

Peter Ellams
Asset Inspection Technologies Corp.
319 Lafayette Street
Suite #192
New York, New York 10012

Subject: **Phase II Subsurface Investigation Report**
The Chapin School
100 East End Avenue
New York, New York 10028
Partner Project Number 14-122660.1

Dear Mr. Ellams:

The following letter report describes the field activities, methods, and findings of the Phase II Subsurface Investigation conducted by Partner Assessment Corporation (Partner) at the above-referenced property (site or subject property). The purpose of the investigation was to provisionally evaluate soil and groundwater conditions relating to a recognized environmental condition (REC) identified by Asset Inspection Technologies Corp. (AIT) and the presence of fill material from unknown origin. Asset Inspection Technologies Corp. provided project authorization through a signed copy of Partner Proposal Number P14-122660.1.

Site Description

Partner reviewed the AIT May 5, 2014 *Phase I Environmental Site Assessment Report* (Phase I) for the subject site. Based on the report, the subject property consists of an approximately 0.52 acre rectangular-shaped parcel of land, located on the northwest corner of East End Avenue and East 84th Street in the borough of Manhattan, New York City, New York. The subject property is improved with an eight-story building with a basement and a sub-basement, and is solely occupied by The Chapin School, an independent kindergarten through 12th grade private school.

The subject building was originally constructed in 1927, with additions in 1971 and 2008. Prior to 1927, the parcel was developed with four and five story residential buildings, some with ground-floor commercial units, from 1896 through 1911. Refer to Figure 1 for a site location map of the subject property vicinity and to Figure 2 for a Topographic map.

Site History

AIT identified two recognized environmental conditions (REC):

1. "AIT was provided with two sets of soil sampling analysis results for the Property: Phase II Sub-Surface Investigation Sample Results for the Property, analyzed by Analytics Corporation of Ashland, VA, and addressed to Lawrence Environmental Group (LEG) of New York, NY, dated April 2, 2008; and Soil Waste Classification Laboratory Results

Summary for the Property, analyzed by Impact Environmental, Inc., of Flemington, NJ, for LEG (undated). These sample results were provided to AIT by the Client without corresponding Phase II reports, justification for sampling, or map(s) of sample locations. Elevated levels of contaminants, including volatile organic compounds (VOC) and semivolatile organic compounds (SVOC), were encountered in excess of regulatory guidelines. It should be noted that the source of the soils/waste soils is unknown, and it is unknown whether the source of the contamination, or any associated contamination, current exists on-site. Given the historical presence of contaminated soils on-site, as well as the absence of any further associated documentation, it is AIT's professional opinion that the historical presence of contaminated soils on-site is considered to be an REC. In the absence of additional associated documentation, AIT recommends that a Phase II subsurface investigation be performed on-site, in order to determine the extent, if any, of existing sub-surface contamination at the Property. Based on the results of the Phase II investigation, further actions may be warranted, and costs incurred."

2. "The petroleum storage on-site (in the form of one 7,000-gallon #2 fuel oil aboveground storage tank (AST), and one #2 fuel oil-fired emergency generator and associated day tank) is not registered with the New York State Department of Environmental Conservation (NYSDEC). AIT recommends that the petroleum storage on-site be registered with the NYSDEC, and that a copy of the current registration be posted on-site, as required."

During subsequent conversations with AIT, the location of the former exceedances was generally identified as the northeast corner of the building. Additionally, the presence of historic fill material from unknown origin was raised as a concern.

According to AIT, groundwater flow direction at the subject property is likely toward the east and depth to groundwater is likely greater than 10 to 20 feet below ground surface (bgs).

Geology and Hydrogeology

Based on a review of the United States Geological Survey (USGS) Central Park Quadrangle topographic map, the subject property is situated at an elevation approximately 45-50 feet above mean sea level, and the local topography is sloping gently to the southeast.

The subject property is situated within the New England Uplands Physiographic Region of the State of New York. The uppermost geologic formation underlying the soils at the subject property is mapped by the USGS as the Ordovician aged Manhattan Formation. These deposits consist of pelitic schists, and amphibolite.

Based on the United States Department of Agriculture (USDA) Soil Survey for New York County, New York, the subject site is underlain by the Urban Land complex. The USA approximated depth to bedrock for the area is 80 inches.

The nearest surface water in the vicinity of the subject property is the East River, located approximately 480 feet to the southeast of the subject property. No settling ponds, lagoons, surface impoundments, wetlands or natural catch basins were observed at the subject property during this assessment.

Based on borings advanced during this investigation, the underlying subsurface consists predominantly of brown silts, clayey silts, silty sand, saporlite (weathered schist) and fill materials (crushed concrete, brick and gray gravel) from the ground surface to approximately 9.5 feet below ground surface (bgs). A limited amount of suspect perched groundwater was observed in soil boring SB-6 at approximately 7-8 ft bgs; otherwise, groundwater was not observed in any other boring. Please see Appendix A for boring logs from this investigation.

Field Activities

To provisionally evaluate soil and groundwater conditions relating to AIT identified REC No. 1 and the presence of fill material from unknown origin, Partner conducted a Phase II Subsurface Investigation. The investigation scope included a geophysical survey and the advancement of eight borings (SB-1 through SB-4 and SB-6 through SB-9) for the collection of representative soil and groundwater samples.

As it does not involve subsurface investigation, REC No. 2 is not addressed herein.

Utility Clearance
Partner retained Warren George Drilling (WGD) of Jersey City, New Jersey to provide and operate drilling equipment. WGD notified the New York's One Call Center to clear public utility lines as required by law at least 72 hours prior to drilling activities.

Geophysical Survey
On August 4, 2014, Delta Geophysics Inc. (Delta) of Catasauqua, Pennsylvania conducted a limited geophysical survey under the direction of Partner. The purpose of the geophysical survey was to clear boring locations of utilities. The limited geophysical survey was performed using a Geophysical Survey Systems Inc. SIR-3000 cart-mounted Ground Penetrating Radar (GPR) unit with a 400 MHz antenna, Fisher M-Scope TW-6 pipe and cable locator, and Radio detection RD7000 precision utility locator.

Delta identified numerous subsurface utilities and cleared all borings prior to drilling activates.

Health and Safety Plan
Partner reviewed the site-specific Health and Safety Plan with on-site personnel involved in the project prior to the commencement of drilling activities.

Drilling Equipment
On August 6 and 7, 2014, under the direction of Partner, WGD advanced borings SB-1 through SB-4 and SB-6 through SB-9 with a direct-push, Geoprobe Model 420M drill rig. Drilling rods

and sampling equipment were decontaminated between samples and borings to prevent cross-contamination.

Boring Locations
Borings SB-1 through SB-4 were advanced in the southwestern vicinity of the building in areas of historical fill material. Borings SB-6 through SB-9 were advanced in the northeastern vicinity of the building in the area of the REC No. 1, identified by AIT. Originally proposed locations SB-5 and SB-10 could not be accessed to due physical construction access constraints. Refer to Figure 3 for a map indicating boring locations.

Sampling Depths
All borings were advanced to equipment limitation refusal. Borings SB-1, SB-3, SB-4, SB-8 and SB-9 were advanced to a terminal depth of 4.0-5.0 feet bgs and borings SB-2, SB-6 and SB-8 were advanced to a terminal depth of 8.0-9.5 feet bgs.

Boring SB-6 was converted into a temporary well point and was screened between 0 and 8 feet bgs.

Soil Sampling Methodology
Borings SB-1 through SB-4 and SB-6 through SB-9 were overlain by a concrete slab which was penetrated by a specialized coring machine. Soil cores from each boring were collected using a 3-foot long by 1.5-inch diameter MacroCore sampler with a 3-foot long acetate liner, which was advanced by the direct-push drill rig using 3-foot long by 1.5-inch diameter drill rods. The sampler was driven into the subsurface to allow undisturbed soil to enter the open MacroCore barrel and retrieved in 3-foot intervals to recover the soil-filled liners.

A lengthwise section of each acetate liner was removed with a splitting tool to expose the soil. The soil column was visually inspected for discoloration, monitored for odors, and classified in accordance with the Unified Soil Classification System (USCS). Select intervals were placed in sealable plastic bags and field-screened with a photo ionization detector (PID) calibrated to isobutylene.

Soils encountered consisted predominantly of brown silts, clayey silts, silty sand, saporlite (weathered schist) and fill materials (crushed concrete, brick and gray gravel) from the ground surface to approximately 9.5 feet bgs. No field (visual or olfactory) evidence of potential impacted conditions was observed in soils encountered in soil borings SB-1 through SB-4 and SB-6 through SB-9. PID readings were not detected in the soils encountered in soil borings SB-1 through SB-4 and SB-6 through SB-9.

A limited amount of suspect perched groundwater was observed in soil boring SB-6 at approximately 7-8 ft bgs; otherwise, groundwater was not observed in any other boring. Refer to Appendix A for a copy of the soil boring logs.

The soil samples were collected by transferring soil into laboratory-supplied glassware. The glassware was filled with soil to capacity (where applicable) to minimize headspace and reduce the potential for volatilization, labeled for identification, and stored in an iced cooler.

Soil borings were backfilled with soil cuttings and hydrated bentonite chips upon completion of sampling, and capped with concrete patch to match existing ground cover.

Groundwater Sampling Methodology
Upon completion of soil sampling to the terminal depth a temporary well point was installed within the borehole of soil boring SB-6 using 1-inch diameter polyvinyl chloride (PVC) screen and riser. The temporary well point installed in the soil boring was screened from approximately 0 to 8-feet bgs.

A groundwater sample was retrieved from the temporary well point installed at soil borings SB-6 using new, dedicated 3/8-inch diameter polyethylene tubing attached to a peristaltic pump and was conveyed into two hydrochloric acid-preserved vials. Each vial was filled with no observable headspace or air bubbles to minimize the potential for volatilization, labeled for identification, and stored in an iced cooler.

Following filling of the VOC analysis vials, the temporary well point dried up. The temporary well point was allowed to recharge for approximately one hour; however, no additional water entered the well. Therefore, no additional volume could be collected.

Following completion of groundwater sampling, the temporary well point was removed from the borehole and the boring was backfilled with hydrated bentonite chips and resurfaced with concrete to match the existing material.

No significant amounts of screening derived wastes were generated as part of these activities.

Laboratory Analyses

Partner collected eight soil samples and one groundwater sample between July 6 and 7, 2014, which were transported in an iced cooler under proper chain-of-custody protocol to Alpha Analytical Laboratories (Alpha) in Westborough, Massachusetts a state-certified laboratory (NYSDEC Environmental Laboratory Accreditation Program (ELAP) certificate number 11148) for analysis.

Based on field-screening results, soil samples SB-1 through SB-4 (historical fill material area of concern) were analyzed for VOCs in accordance with the United States Environmental Protection Agency (USEPA) Method 8260, SVOCs in accordance with USEPA Method 8270, polychlorinated biphenyls (PCB) via USEPA Method 8082, and target analyte list (TAL) metals via USEPA Methods 6010 and 7000. Soil samples SB-6 through SB-9 (historical impact area of concern, AIT REC No. 1) were analyzed for VOCs in accordance with the USEPA Method 8260 and SVOCs in accordance with USEPA Method 8270.

Groundwater sample SB-6 was analyzed for VOCs in accordance with the USEPA Method 8260.

Investigation Scope Summary
Please see Table 1 for a summary of the borings, sampling schedule, and laboratory analyses for this investigation.

Laboratory Analysis Results

Alpha reported analytical results on August 14 and 15, 2014. Refer to Table 2 for a summary of the soil sample laboratory analysis results and Table 3 for a summary of the groundwater sample laboratory analysis results.

Refer to Appendix B for the full laboratory analysis report, which includes chain-of-custody and laboratory quality assurance/quality control (QA/QC) documentation. Laboratory QA/QC data were within acceptable limits.

Discussion

Soil Analysis:
Soil results were compared to the following NYSDEC criteria:

1. Soil Cleanup Objectives (SCOs) for Unrestricted Use following 6 New York Codes, Rules, and Regulations (NYCRR) 375-6;
2. SCO for Residential Use following 6 NYCRR 375-6; and
3. NYSDEC CP-51 Soil Cleanup Levels Criteria per NY CP-51.

As indicated in Table 2, with the exception of a few SVOCs and VOCs none of the analyzed soil samples contained detectable concentrations of PCBs, SVOCs or VOCs. The several VOCs and SVOCs that were detected did not exceed their NYSDEC criteria.

Three metals (nickel in boring SB-2 and lead and zinc in SB-3) were detected above their NYSDEC unrestricted use criteria; however, the results were below residential use criteria. Iron was detected above NYSDEC residential criteria in borings SB-1 through SB-4.
Groundwater Analysis:
Groundwater results were compared to the following NYSDEC groundwater criteria:

1. Technical and Operational Guidance Memorandum Groundwater Standards (TOGS).

As indicated in Table 3, groundwater sample SB-6 contained one VOC (toluene) above the TOGS standard. Acetone, was detected at concentrations above its reporting limits, but did not exceed the TOGS criteria.

Summary and Conclusions

To provisionally evaluate soil and groundwater conditions relating to AIT identified REC No. 1 and the presence of fill material from unknown origin, Partner conducted a Phase II Subsurface Investigation. The investigation scope included a geophysical survey and the advancement of eight borings (SB-1 through SB-4 and SB-6 through SB-9) for the collection of representative soil and groundwater samples.

Delta identified numerous subsurface utilities and cleared all borings prior to drilling activates.

Based on the soil analytical results, the metals nickel, lead, and zinc were detected above NYSDEC unrestricted use criteria, but below NYSDEC residential use criteria. Iron, which does not have an associated NYSDEC unrestricted use criterion, was detected above its NYSDEC residential use criterion. All other soil analytes were either not detected above laboratory detection limits or were below their associated NYSDEC criteria.

Based on the groundwater analytical results, which were limited to VOCs due to available groundwater recovery, toluene was detected above NYSDEC criteria. All other groundwater VOCs were either not detected above laboratory detection limits or were below their associated NYSDEC criteria.

Because impact was detected above NYSDEC criteria, additional investigation is recommended.

Limitations

This Report presents a summary of work conducted by Partner. The work includes observations of site conditions encountered and the analytical results provided by an independent third party laboratory of samples collected during the course of the project. The number and location of samples were selected to provide the required information. However, it cannot be assumed that the limited available data are representative of subsurface conditions in areas not sampled.

Conclusions and/or recommendations are based on the observations, laboratory analyses, and the governing regulations. Conclusions and/or recommendations beyond those stated and reported herein should not be inferred from this document.

Partner warrants that the environmental consulting services contained herein were accomplished in accordance with generally accepted practices in the environmental engineering, geology, and hydrogeology fields that existed at the time and location of work. No other warranties are implied or expressed.

Reports, both verbal and written, as they pertain to the property located at 100 East End Avenue, New York, New York, are for the sole use and benefit of Asset Inspection Technologies Corp..

This report has no other purpose and may not be relied upon by another person or entity without the written consent of Partner.

Signatures of Participating Professionals

Thank you for the opportunity to be of service. If you have any questions, please do not hesitate to contact Kristine MacWilliams at (704) 893-8761 or via electronic mail at kmacwilliams@partneresi.com.

Sincerely,

Alexandra Hassler
Staff Professional II

Andres Simonson
Senior Project Manager

Attachments:

Tables
1. Summary of Investigation Scope
2. Soil Analytical Summary
3. Groundwater Analytical Summary

Figures
1. Site Location Map
2. Topographic Map
3. Sample Location Map

Appendices
A. Boring Logs
B. Laboratory Reports