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January 18, 2012

Ms. Lee Guterman
Deputy Director, IEH Division
New York City School Construction Authority
30-30 Thomson Avenue
Long Island City, New York 11101

Re: Phase I Environmental Site Assessment
X229, 275 Harlem River Park Bridge Avenue, Bronx, NY
LLW No. 073025; SCA Job No. X229-39925

Dear Ms. Guterman:

At the request of the New York City School Construction Authority (NYCSCA), AKRF Engineering, P.C. (AKRF) conducted a Phase I Environmental Site Assessment (ESA) for Intermediate School (I.S.) 229X (X229), located at 275 Harlem River Park Bridge Avenue, in the Bronx, New York (hereafter referred to as the "Site"). The Site consists of a five-story building built entirely on elevated concrete decking above Metro North railroad tracks. The concrete decking and current on-site structure were constructed in 1976, and have been used as a public school since that time.

The Phase I ESA did not identify on-site recognized environmental conditions (RECs) or vapor encroachment conditions (VECs). The following off-site RECs and/or VECs were identified: the potential presence of buried structures below the concrete decking, which could contain historic fill material and railroad track components; two nearby dry cleaning facilities (located on the east- and southeast-adjacent blocks) with documented generation of halogenated solvent waste; a Con Edison substation/garage located on the east-adjacent block that is listed as a hazardous waste generator; former industrial/automotive uses on nearby properties (e.g., coal yards, a yacht launch facility, an auto parts warehouse, a steel fabrication shop, a truck company, a tape factory, garages with gasoline tanks); chemical bulk storage and generation of hazardous lead waste at the west-adjacent property; and, a New York Spill listing with the potential to affect the Site. The Phase I ESA also revealed environmental concerns associated with suspect asbestos-containing materials (ACM), suspect interior and exterior lead-based paint (LBP), and suspect polychlorinated biphenyl (PCB)-containing light ballasts and caulking material.

An Indoor Air Quality Survey conducted at the Site in August 2011 concluded that volatile organic compound levels in indoor and outdoor air do not represent a concern. Based on these findings, no further investigation of the identified RECs/VECs is warranted at this time. Prior to renovations that would disturb the subsurface or if consideration is given to purchasing the property in the future, a comprehensive Phase II Environmental Site Investigation should be completed. Any suspect ACM, suspect LBP, and/or suspect PCB-containing materials must be properly maintained and managed during any renovation or demolition activities in accordance with NYCSCA policies and procedures.

Sincerely,

Rebecca A. Kinal, P.E.
Sr. Technical Director/Project Manager

PHASE I ENVIRONMENTAL SITE ASSESSMENT

OF

X229
275 HARLEM RIVER PARK BRIDGE AVENUE
BRONX, NY 10453

SCA CONTRACT NO. C000012275
SCHOOL DISTRICT: 9X
SCA LLW NO. 073025
SCA JOB NO. X229-39925

AKRF PROJECT NO. 86011-0001

JANUARY 18, 2012

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1.0 EXECUTIVE SUMMARY

At the request of the Industrial and Environmental Hygiene (IEH) Division of the New York City School Construction Authority (NYCSCA), AKRF Engineering, P.C. (AKRF) conducted a Phase I Environmental Site Assessment (ESA) of Intermediate School (I.S.) 229X (X229), hereafter referred to as the "Site". The Site is located at 275 Harlem River Park Bridge (aka 300 West Tremont Avenue), in the Bronx, New York (Tax Block 2882, Lot 130), in an area that is primarily characterized by residences and commercial properties with some transportation/utility-related uses.

The Site consists of an approximately 155,000 square foot (SF), five-story building. The Site structure is built entirely on an approximately 15- to 20-foot high elevated concrete deck located above Metro North railroad tracks, and is not in contact with soil. The current on-site structure was constructed in 1976, and has been used as a public school since that time.

The main objective of the Phase I ESA is to identify recognized environmental conditions and environmental concerns that may affect the suitability of the Site for use as a school. Recognized environmental conditions are defined in ASTM International (ASTM) Standard Practice E 1527-05 as the presence or likely presence, use, or release on the Site of hazardous substances or petroleum products. In addition, other environmental issues and conditions that, in the opinion of the *environmental professional* conducting the assessment, would not be considered *recognized environmental conditions* are identified in this assessment. These may include *historical recognized environmental conditions* and/or *de minimis* conditions. The Phase I ESA also includes a preliminary evaluation of specific potential environmental issues or conditions that are, according to ASTM E 1527-05, considered non-scope considerations. These issues include potential vapor encroachment conditions (VECs) as per ASTM E2600-10, radon, asbestos-containing material (ACM), polychlorinated biphenyl (PCB)-containing light ballasts and caulking materials, exterior lead-based paint (LBP), chemical storage, wetlands, regulatory compliance issues, dry cleaner and other industrial emissions, mold, biological agents, electromagnetic fields, and methane. The Phase I ESA included a review of federal, state, and local records, previous reports (if available) and historical documents; visual observation of the Site and adjoining properties; and interviews with selected Site representatives.

The assessment requested by the NYCSCA is intended to identify conditions that would have the potential to impact the continued use of the Site as a public school facility. The assessment was also conducted for purposes of environmental due diligence in order to qualify for the innocent landowner, a bona fide prospective purchaser or a contiguous property owner defense under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). The Phase I ESA included, but was not limited to an assessment of the following potential environmental issues: current and historical Site usage; current and historical usage of adjoining properties; regulatory agency records review; on-site solid waste management and disposal practices; on-site hazardous materials and petroleum products management; chemical storage, ACM, PCBs and exterior LBP management; wetlands; regulatory compliance issues; dry cleaner and other industrial emissions; radon; mold and moisture intrusion; biological agents; electromagnetic fields; and potential for methane generating materials.

AKRF has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-05 and the requirements of the NYCSCA. Any additions to, exceptions to, or deletions from this practice are described in Section 2.0 of this report.

This assessment has revealed no evidence of on-site RECs/VECs. This Phase I ESA has revealed the following off-site RECs and/or VECs associated with the Site:

Off-Site RECs/VECs:

- Potential buried demolition debris associated with the former structures below the Site (train platforms), that could include historic fill of unknown origin and railroad track components/ballasts with potential creosote and/or petroleum.
- A current dry cleaning facility located on the east-adjacent block (1828 Cedar Avenue) across the Major Deegan Expressway is listed in the regulatory database as a registered drycleaner, a Resource Conservation and Recovery Act (RCRA) Small Quantity Generator (SQG), and a historic RCRA Large Quantity Generator (LQG) for the production of spent halogenated solvents between 1989 and 2006. This facility could also be a potential source of air emissions.
- A Consolidated Edison substation/garage on the east-adjacent block (1823 Sedgwick Avenue) with buried gasoline tanks noted on the 1950 through 2007 Sanborn Maps, listed as a RCRA Conditionally Exempt Small Quantity Generator (CESQG) generator of wastes including dielectric fluids, glycol, mercury, corrosives and PCBs, and on the NY Spills database with open and closed spills affecting soil and/or groundwater.
- A current drop-off drycleaners located on the southwest-adjacent block (45 Richman Plaza) listed as a RCRA non-generator and a historic SQG for the production of halogenated solvents between 1987 and 1995.
- Former industrial/automotive uses including: Coal Yard and Yacht Launch and Engine Co. with machine shops, gasoline tanks and boat repair shops west- and northwest adjacent to the Site (1900-1928); auto parts warehouse, coal pockets, garages and steel fabrication shops west- and southwest-adjacent to the Site (1950); and, Singer Truck Company and tape factory northwest of the Site (1950).
- A chemical bulk storage (CBS) facility (sodium hypochlorite) and RCRA SQG (lead) associated with Roberto Clemente State Park, west-adjacent to the Site.
- Former automotive-related/manufacturing uses on the east-adjacent tax blocks (e.g., garages with gasoline tanks, factories).
- One New York State Department of Environmental Conservation (NYSDEC) spill listing, one petroleum bulk storage (PBS) facility, and one CBS facility on nearby properties with the potential to have affected the subsurface beneath the Site.

Environmental Concerns

The Phase I ESA has identified the following environmental concerns associated with the Site:

- Suspect ACM noted in the on-site structure included chalkboards and associated mastic, resilient floor tile and mastics, ceramic floor and wall tiles and mastics, wallboard assemblies, pipe insulation, caulking, ceiling tiles, and roofing materials. Additional asbestos-containing materials may be present within pipe chases, behind walls, above recessed ceilings, or in other hidden locations.

- Based on the age of the Site building, interior and exterior painted surfaces are considered suspect LBP.

- Based on the age of the Site building, fluorescent lighting ballasts, electrical fixtures, and caulking associated with the on-site structure may be PCB-containing. Suspected transformer vaults were noted in a concrete area southeast-adjacent to the Site that may contain PCBs.

Recommendations

An Indoor Air Quality Survey conducted at the Site in August 2011 concluded that volatile organic compound levels in indoor and outdoor air do not represent a concern. Based on these findings, no further investigation of the identified RECs/VECs is warranted at this time. Prior to renovations that would disturb the subsurface or if consideration is given to purchasing the property in the future, a comprehensive Phase II Environmental Site Investigation should be completed. Any suspect ACM, suspect LBP, and/or suspect PCB-containing materials must be properly maintained and managed during any renovation or demolition activities in accordance with NYCSCA policies and procedures.

2.0 INTRODUCTION

This report summarizes the results of the Phase I Environmental Site Assessment (ESA) of Intermediate School (I.S.) 229X (X229) located at 275 Harlem River Park Bridge (aka 300 West Tremont Avenue), Bronx, New York. The Site is legally defined as New York City Tax Block 2882, Lot 130. Site consists of an approximately 155,000 square foot, five-story building. The Site structure is built entirely on an approximately 15- to 20-foot high elevated concrete deck located above Metro North railroad tracks, and is not in contact with soil.

Visual inspection of the adjacent areas was performed on August 8, 2011 by Neoma Chefalo of AKRF. Visual inspection of the Site structure was performed on August 29, 2011 by Neoma Chefalo of AKRF, accompanied by Celestino Fernandez, Custodial Engineer for the building. At the time of the inspection, the weather was clear and approximately 80 º F, and the visibility of the Site was not obscured by weather conditions.

2.1 Selected Definitions

The following terms are used throughout this report and, for the purpose of clarity, corresponding definitions are provided. These terms are fully defined in ASTM E 1527-05 and ASTM E 2600-10

Recognized environmental conditions (RECs) - 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*.

Environmental Professional - A person meeting the education, training, and experience requirements as set forth in 40 CFR § 312.10(b), necessary to conduct a *site reconnaissanc*e, *interview*s, and other activities in accordance with this practice, and from the information generated by such activities, having the ability to develop opinions and conclusions regarding *RECs* in connection with the *property* in question.

Vapor Encroachment Condition (VEC) – The presence or likely presence of chemical of concern vapors in the subsurface of the target property caused by the release of vapors from contaminated soil or groundwater or both either on or near the target property.

2.2 Purpose and Scope

The purpose of this assessment is to identify *RECs* and certain other environmental issues or concerns as they existed at the Site at the time of the Site visit. The assessment is intended to identify conditions that would have the potential to impact the continued use of the Site as a public school facility. The assessment was also conducted for purposes of environmental due diligence in order to qualify for the innocent landowner, a bona fide prospective purchaser or a contiguous property owner defense under the Comprehensive Environmental Responsibility Compensation and Liability Act (CERCLA). The Phase I ESA included, but was not limited to an assessment of the following potential environmental issues: current and historical Site usage; current and historical usage of adjoining properties; regulatory agency records review; on-Site solid waste management and disposal practices; on-Site hazardous materials and petroleum products management; ACM, PCB containing equipment and LBP management; wetlands; regulatory compliance issues; dry cleaner and other industrial emissions, radon, mold and moisture intrusion; biological agents; electromagnetic fields; and, potential for methane generating materials.

This evaluation was conducted by qualified *environmental professionals* utilizing a standard of good commercial and customary practice in accordance with the ASTM E 1527-05. The scope of work completed for this evaluation meets all requirements of ASTM 1527-05 and includes the following:

- Documenting the physical characteristics of the Site through a review of available topographic, geologic, wetland, flood plain, groundwater data and Site observations.

- Researching the Site history through a review of reasonably ascertainable standard sources such as land deeds, fire insurance maps, city directories, aerial photographs, prior reports and interviews.

- Documenting current Site conditions, via observations and interviews, regarding the presence or absence of hazardous substances/petroleum products; the generation, treatment, storage, or disposal of hazardous, regulated, or medical wastes; the presence of electrical equipment that utilizes oils which potentially contain PCBs; and the presence of storage tanks (above and below ground), floor drains, drains that discharge to subsurface, former septic tanks and drywells.,

- Determining the usage of adjoining and nearby properties to identify the likelihood for environmental conditions (if present and/or suspected) and concerns to migrate onto the Site.

- Evaluating information contained within federal and state environmental databases and other local environmental records, within specific search distances.

2.3 Additions, Deviations, Deletions, and Data Gaps

The following environmental issues that are outside the scope of (additions to) ASTM E 1527-05 were evaluated:

- A review of available radon data for the Site vicinity
- An assessment in accordance with ASTM E 2600-10 for a vapor encroachment condition (VEC)
- A review of available wetlands data
- A visual assessment for water damage and mold
- A visual assessment for suspect ACM
- A visual assessment for suspect LBP
- An assessment of potential methane generation on-site or migration to the Site
- Regulatory compliance
- PCB light ballasts and caulking materials
- Biological agents
- Air emissions from drycleaners and other industrial sources
- An assessment of the potential presence of electromagnetic fields (EMF)
- An assessment of any dust generating activities on or near the Site.

The following deviations, data gaps and deletions from ASTM E 1527-05 were necessary in conducting this assessment:

- The property area history review was not conducted in five-year intervals. However, sufficient information about the history of the Site and surrounding area could be obtained from the available historical Sanborn Maps, aerial photographs, city directories, and local records, and this data gap is not likely to alter the conclusions of this report.

2.4 Limitations and Exceptions

AKRF has prepared this Phase I ESA using reasonable efforts in each phase of its work to identify recognized environmental conditions associated with hazardous substances, wastes and petroleum products at the Site. The methodology of the Phase I ESA was consistent with the ASTM E 1527-05. Findings within this report are based on information collected from observations made on the day(s) of the site investigation(s) and from reasonably ascertainable information obtained from governing public agencies and private sources.

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

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

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

The regulatory database report provided is based on an evaluation of the data collected and compiled by a contracted data research company. The report focuses on the Site and neighboring properties that could impact the Site. Neighboring properties listed in governmental environmental records are identified within specific search distances. The search distance varies depending upon the particular government record being checked. The regulatory research is designed to meet the requirements of ASTM E 1527-05. The information provided in the regulatory database report is assumed to be correct and complete.

This report was prepared for the sole use of NYCSCA and related New York City municipal agencies pursuant to the AKRF Contract dated August 1, 2011.

3.0 SITE DESCRIPTION

3.1 Site Location and Legal Description

The Site is located at 275 Harlem River Park Bridge in the Bronx, Bronx County, New York (Tax Block 2882, Lot 130). Site consists of an approximately 155,000-SF, five-story building. The Site structure is built entirely on approximately 15- to 20-foot high elevated concrete decking above Metro North railroad tracks, and is not in contact with soil. The Site is currently leased by the NYCSCA for use as a public school facility.

According to New York City Department of Buildings (NYCDOB) records and the New York City Department of City Planning (NYCDCP) zoning map, the Site is currently zoned M2-1 (medium density manufacturing district) and does not contain a Hazardous Materials "E" Designation. A map showing the location of the Site is presented in *Appendix A*. A Site Plan showing the physical layout, including adjacent land use, is presented in *Appendix B*. Photographs of the Site and surrounding areas are included in *Appendix C*. A zoning map is included in *Appendix J*.

The Site is abutted to the north by an elevated roadway (West Tremont Avenue) and the Morris Heights train station below. The Site is abutted to the west by an elevated roadway (Matthewson Road) followed by Roberto Clemente State Park below. The Major Deegan Expressway is located immediately east of the Site at grade level, followed by residences with street-level retail and commercial structures along Cedar Avenue, including Ernest Winzer Cleaners, a dry cleaning facility, at 1828 Cedar Avenue. The Site is abutted to the south by Harlem River Park Bridge and ground-level railroad tracks beneath. The River Park Towers apartment buildings are located southwest of the Site, followed by a public elementary school, P.S. 230.

The Site structure comprises IS 229X and is occupied by janitorial, utility and mechanical rooms on the ground floor and a public school facility on the first through fourth floors. Nearby properties consist of predominantly commercial and residential properties with some transportation/utility-related uses. Based on the review of the historic fire insurance maps (refer to Section 5.4) and observations made during the Site reconnaissance, no significant changes have been noted for the Site and adjoining properties since the most recent Sanborn Map, dated 2007.

3.2 Physical Setting

3.2.1 Topography

According to the United States Geological Survey (USGS) 7.5-Minute Quadrangle Map, Central Park, New York, dated 1995, the elevation of the ground below the Site is approximately 17 feet above the National Geodetic Vertical Datum of 1929 (an approximation of mean sea level). The Site structure is elevated on an approximately 15-foot to 20-foot high elevated concrete deck. The topography of the immediate Site area was observed to be generally level, which is consistent with the topographic map contours. The Harlem River is located approximately 420 feet west of the Site. A copy of the topographic map is presented in *Appendix A*.

3.2.2 Geology

According to the USGS Reconnaissance of the Ground-Water Resources of Bronx and Richmond Counties, New York (1981), bedrock is approximately 20 to 40 feet below grade in the vicinity of the Site

and consists of pre-Cambrian rocks identified as the Manhattan Schist. Bedrock in Bronx County is typically overlain by a relatively thin covering of glacial deposits, mainly till.

3.2.3 Soils

According to the New York City Soil Reconnaissance Soil Survey compiled by the United States Department of Agriculture-Natural Resources Conservation Service, soils beneath the Site are described as: nearly level to gently sloping areas of till plains that have been partially cut and filled for athletic fields, cemeteries, and light residential use; a mixture of gneissic till soils and anthropogenic soils, with more than 15 percent impervious pavement and buildings covering the surface.

3.2.4 Hydrology

Based upon a review of topographical data, the regional groundwater flow direction in the areas surrounding the Site is assumed to be westerly toward the Harlem River, located approximately 420 feet west of the Site. Actual groundwater flow in the Site vicinity can be affected by many factors including past filling activities, underground utilities and other subsurface openings or obstructions such as basements, nearby subway lines and other factors beyond the scope of this study. Based on data in the USGS Reconnaissance of Ground Water in Bronx, New York and Richmond Counties, the anticipated depth to groundwater in the vicinity of the Site is approximately 10 to 15 feet below ground surface.

No public water supply wells were noted within a one-mile radius of the Site in the EDR report. The groundwater in the vicinity of the Site is not known to be used for human consumption, as most potable water in the area is derived from upstate reservoirs managed by New York City; the Site and vicinity are serviced by the City water supply.

Stormwater in the Site vicinity flows to the New York City combined sanitary/stormwater sewer system. AKRF did not observe any retention ponds or other surface water bodies on the Site. The nearest surface water body is the Harlem River located approximately 420 feet west of the Site.

AKRF reviewed the United States Fish and Wildlife Service National Wetlands Index (NWI) map for the area of the Site (http://www.fws.gov/wetlands/data/index.html) to determine if the Site is located in a regulated wetlands area. Based on a review of the map, the Site is not located within a regulated wetlands area. No suspected wetlands were observed during the Site inspection. A copy of the wetlands map is included in *Appendix D*.

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the Site area (Panel No. 3604970081F, effective date September 2007) was reviewed to assess whether the Site is located within a designated flood plain or flood zone. The Site is located in Zone AE area, which is defined by FEMA as an area of inundation by the one-percent-annual-chance flood, including areas with the two-percent wave runup, elevation less than 3.0 feet above the ground, and areas with wave heights less than 3.0 feet. The Site is elevated approximately 15 to 20 feet above ground level; therefore, its designation within a flood hazard zone is not considered an environmental concern. A copy of the FEMA map for the Site area is included in *Appendix E.*

3.2.5 Radon

Radon is a colorless, odorless radioactive gas that results from the natural breakdown of uranium minerals in soil, rock, and water, which subsequently enters the atmosphere. It can concentrate in buildings,

entering through cracks and other penetrations of a building foundation. Some areas are more likely to have elevated concentrations of radon than others, reflecting subsurface lithologic conditions.

The New York State Department of Health (NYSDOH) maintains a database of radon test results on a local and county level. According to the NYSDOH, 89 radon tests have been conducted in 2010 in Bronx County. The average radon level was found to be 1.61 picoCuries per liter (pCi/L). According to data provided in the GeoCheck Section of the regulatory agency database report (*Appendix I*), an average radon level of 1.110 pCi/L in basements was reported for Bronx County, based on 31 test locations. No zip code-specific radon data was available. These results are below the United States Environmental Protection Agency (USEPA) Action Level of 4.0 pCi/L; therefore, AKRF concludes that it is unlikely that elevated levels of radon gas are present at the Site.

4.0 ADJOINING PROPERTIES

The general Site area consists of residential and commercial development, with a city park and transportation/utility-related property usage in the immediate area. The following table summarizes the adjoining property uses:

Direction	Facility Name/Description	Street Address/Location	Current Use
North	West Tremont Avenue followed by:		Public Street (elevated above railroad tracks)
	Morris Heights Metro North Railroad Station	229 West Tremont Avenue	Train Station for Metro North Railroad
East	Major Deegan Expressway followed by:		Interstate highway
	Dwellings with street-level retail **Ernest Winzer Cleaners** **Consolidated Edison**	1800-1838 Cedar Avenue **1828 Cedar Avenue** **1823 Sedgwick Avenue**	Dwellings/stores **Dry cleaning facility** **Substation/Garage**
South	West Tremont Avenue followed by:		Public Street (elevated above railroad tracks)
	Metro North Railroad Tracks		Commuter railroad tracks
Southwest	River Park Towers Apartment Buildings **Nu River Park Cleaners**	16 Richman Plaza 45 Richman Plaza	Apartment Buildings with street-level retail Drycleaner (formerly on-site operations, currently drop off service only)
West	Matthewson Road followed by:		Public Street (elevated above railroad tracks)/parking lot
	Roberto Clemente State Park	301 West Tremont Avenue	Public park and pool

The entire Site structure is located on elevated decking above Metro North **railroad tracks** (no ground contact). The Site is abutted to the north by an elevated roadway (West Tremont Avenue) and the Morris Heights train station below. The Site is abutted to the west by an elevated roadway (Matthewson Road) followed by Roberto Clemente State Park. The Major Deegan Expressway is located immediately east of the Site at grade level followed by residences with street-level retail and commercial structures along Cedar Avenue, including **Ernest Winzer Cleaners** (a dry cleaning facility) at 1828 Cedar Avenue. A **Consolidated Edison substation/garage** is located on the east-adjacent block at 1823 Sedgwick Avenue. The Site is abutted to the south by Harlem River Park Bridge and grade-level railroad tracks beneath. The River Park Towers apartment buildings with ground floor retail are located southwest of the Site, beyond Harlem River Park Bridge. **Nu River Park Cleaners**, located at 45 Richman Plaza, southwest of the Site, was observed to be a drop-off only dry cleaning service (no dry cleaning is currently conducted on the premises).

A **fill port** for the on-site No. 4 fuel oil AST system was noted in a concrete-paved area immediately outside of the southeastern portion of the Site building and a **vent pipe** is located immediately outside of the building in this area. No stains or leaks were noted in connection with the fill port or vent pipe. **Suspect transformer vaults** were also noted in this area.

Based on our inspection of the adjoining properties, the following RECs/VECs were identified:

- The entire Site structure is located on an elevated deck above Metro North **railroad tracks.**

- A **fill port** and **vent pipe** for the on-site No. 4 fuel oil AST system were noted in a concrete-paved area immediately outside of the southeastern portion of the Site building.
- **Suspect transformer vaults** were noted in a concrete-paved area immediately outside of the southeastern portion of the Site building.
- **Ernest Winzer Cleaners**, a dry cleaning facility, is located on the east-adjacent block at 1828 Cedar Avenue.
- A **Consolidated Edison substation/garage** is located on the on the east-adjacent block at 1823 Sedgwick Avenue.
- **Nu River Park Cleaners**, which is currently a drop-off dry cleaner, but formerly had on-site operations, was observed at 45 Richman Plaza, located southwest of the Site.

5.0 HISTORICAL USE RESEARCH

5.1 Land Title Records and Tax Records

A Land Title Records search dated August 26, 2011 was received from Environmental Data Resources, Inc. (EDR) of Milford, Connecticut. Additionally, electronic property transaction records for the Site Block and Lot were reviewed from the New York City Department of Finance Office of the City Register Automated City Register Information System (ACRIS). The current owner of the Site was listed as The City of New York in the Land Title report and the ACRIS electronic deed information. The records indicated an ownership history for the Site Block and Lot as follows:

Year	Grantor/Grantee Listed on Deed
1978	Grantor is Penn Central Transportation Company; Grantee is Owasco River Railway
1984	Grantor is New York State Urban Development Corp.; Grantee is City of New York

Review of the title information identified railroad companies as prior owners of the Site. The presence of railroad tracks beneath the Site is considered an off-site REC/VEC.

5.2 Historical USGS Topographic Quadrangles

AKRF reviewed available historical USGS Topographic Quadrangles for information regarding past uses of the Site and adjoining properties for the years 1897, 1947, 1966, 1979 and 1995 provided by EDR. Copies of the historical USGS topographic maps are included in *Appendix F*.

Year	Comments
1897: Harlem Quadrangle 1:62,500	**Site:** The property below the Site is developed with railroad tracks. **Surrounding Properties:** North-south trending **railroad tracks** are shown in the Site vicinity. The general area was labeled as the Tremont section of the Bronx. Sparse unspecified structures are present to the east. The Harlem River is shown in the immediate area west of the Site. The Jerome Park Reservoir is noted in the surrounding area to the northeast. An unspecified stream and denser development are shown in the greater surrounding area to the east. The wider area surrounding the Site contains railroad tracks, sparse development with denser development further south of the Site.
1947: Central Park Quadrangle 1:25,000	**Site:** The Site appears similar to the 1897 map. **Surrounding Properties:** Unidentified structures and docks are noted west and southwest of the Site. A train station is shown south of the Site. New York University/University Park complex is shown northeast of the Site. The George Washington Bridge is shown south of the Site. Denser development is depicted in the wider area surrounding the Site.
1966: Central Park Quadrangle 1:24,000	**Site:** The Site appears similar to the 1947 map. **Surrounding Properties:** The Major Deegan Expressway is labeled immediately east of the Site. A train station and a fire station are shown north of the Site. Additional structures are shown on the New York University campus northeast of the Site. The greater surrounding area is shaded pink, indicating unspecified development.
1979: Central Park Quadrangle 1:24,000	**Site:** No significant changes were noted from the 1966 map. **Surrounding Properties:** Harlem Park Bridge is shown immediately south of the Site. The building outlines for the current River Park Tower buildings and PS 30X are shown southwest of the Site in place of former unspecified structures. Several former unspecified structures northwest of the Site were no longer shown. No further significant changes were noted from the 1966 map.

Year	Comments
1995: Central Park Quadrangle 1:24,000	**Site:** No significant changes were noted from the 1979 map. **Surrounding Properties:** Roberto Clemente State Park is noted immediately west of the Site. No further significant changes were noted from the 1979 map.

Review of the historical USGS Topographic Quadrangles identified **railroad tracks** beneath the Site from at least 1897, which is considered a REC/VEC. The Site was developed in a riverbank area adjacent to the Harlem River that was filled extensively to accommodate urban development. As such, historic fill of an unknown origin could be present below grade level beneath the Site building's elevated structure; however, the current Site structure is not in contact with the ground surface and, therefore, historic fill is not considered an REC. Based on a review of the historic topographic maps, the Site was not located in an area of suspected former wetlands, and potential subsurface methane is not considered an environmental concern at the Site.

5.3 Historical Aerial Photographs

AKRF reviewed aerial photographs of the Site and surrounding areas provided by EDR to identify historical land use that may have involved hazardous substances and petroleum products. These photographs ranged from 1954 to 2006. The following table summarizes descriptions and interpretations from the aerial photograph reviews:

Year	Comments
1954	**Site:** The property below the Site is developed with railroad tracks. The Site structure is not yet present. **Surrounding Properties:** North-south trending **railroad tracks** are located beneath the Site along the Harlem River. The West Tremont Avenue elevated roadway is present immediately north of the Site. Apparent waterfront-related commercial/industrial uses are located west and northwest of the Site, with the Harlem River located further west. Vacant land and some sparse structures are located immediately east of the Site. The blocks east and southeast of the Site contain apparent commercial/residential structures.
1966	**Site:** No significant changes were noted from the 1954 photograph. **Surrounding Properties:** A north-south trending expressway is noted immediately east of the Site, followed by apparent commercial/residential development. No other significant changes are noted from the 1954 aerial photograph.
1975	**Site:** The Site structure appears to be partially constructed. **Surrounding Properties:** Apparent high-rise residential structures are noted southwest of the Site, across the newly constructed Harlem Park Bridge. A pool and apparent parkland are shown immediately west and northwest of the Site. Approach ramps for the George Washington Bridge are present in the greater surrounding area, southwest of the Site. No other significant changes are noted from the 1966 aerial photograph.
1984	**Site:** The Site structure appears in its current configuration. **Surrounding Properties:** A ball field is located in the greater surrounding area north of the Site. No other significant changes are noted from the 1975 aerial photograph.
1995	**Site:** No changes are noted from the 1984 aerial photograph. **Surrounding Properties:** No further significant changes are noted from the 1984 aerial photograph.
2006	**Site:** No changes are noted from the 1995 aerial photograph. **Surrounding Properties:** No significant changes from the 1995 map are noted.

The review of aerial photographs indicated that the Site was developed with the current structure between 1975 and 1984. Review of the aerial photographs identified **railroad tracks** beneath the Site, which are considered a REC/VEC. Copies of reproducible aerial photographs are included in *Appendix G*.

5.4 Historical Fire Insurance Maps (Sanborn Maps)

A search for historical fire insurance maps for the Site and adjoining properties was conducted by EDR. Specifically, Sanborn Fire Insurance maps from 1896, 1900, 1915, 1922, 1928 1950, 1977, 1978, 1979, 1980, 1981, 1984, 1985, 1986, 1989, 1991, 1992, 1993, 1995, 1996, 1998, 2001, 2002, 2003, 2004, 2005, 2006 and 2007 were reviewed. The following table presents descriptions and interpretations from the historical fire insurance map review:

Year	Comments
1896	**Site:** The property below the Site is developed with railroad tracks. The Site structure is not present. **Surrounding Properties:** The New York Central and Hudson **railroad tracks** and the Morris Heights railroad station are shown beneath the Site. East 177th (Dock) Street abuts the Site to the north. Vacant land and an unspecified structure abut the Site to the east. Railroad tracks and vacant land abut the Site to the south. Vacant land, docks, unspecified structures and the Harlem River abut the Site to the west. A boat engine company with **workshops,** a show room **and gasoline engine shops** is shown northwest of the Site beyond East 177th Street. Vacant land, sparse dwellings and a church are shown in the greater surrounding area east of the Site.
1900	**Site:** No significant changes are shown from the 1896 map. **Surrounding Properties:** The Morris Heights railroad station expanded. A brick and lime yard and a **yacht launch and engine company** were present west of the Site. Additional structures are shown on the boat engine company northwest of the Site including **lumber sheds, a planning mill, print shop, copper smith,** showrooms, and **assembly** and **paint shops**. Additional dwellings and unspecified structures are present on the east-adjacent blocks.
1915	**Site:** No significant changes are shown from the 1900 map. **Surrounding Properties:** Additional structures are present on the coal yard and yacht launch west of the Site including **repair/machine shops, a freight house, a mechanic shop, a planning mill, print shop, joiner shops, an auto house, and two buried gasoline tanks**. The Morris Heights train station extended north of West 177th Street. Additional residences and a church are shown on blocks southeast of the Site. No further significant changes from the 1900 map were noted on the surrounding properties.
1922	**Site:** No significant changes are shown from the 1915 map. **Surrounding Properties:** Coverage for the east- and south-adjacent blocks was not available. No further significant changes from the 1915 map were noted on the surrounding properties.
1928	**Site:** No significant changes are shown from the 1922 map. **Surrounding Properties:** An additional coal yard is shown southwest of the Site. No further significant changes from the 1922 map were noted on the surrounding properties.

Year	Comments
1950	**Site:** No significant changes are shown from the 1928 map. **Surrounding Properties:** West 177th Street was relabeled as West Tremont Avenue. The coal yard west of the Site had expanded and occupied the area of the former yacht launch shown on earlier maps. Additional **coal pockets, a garage and a fabricating shop** were shown southwest of the Site. A **technical tape factory**, food distribution warehouse and **Singer Truck Corporation** were shown northwest of the Site across West Tremont Avenue in place of the former boat launch noted on previous maps. Additional residences are shown east of the Site, followed by industrial/automotive uses east of Cedar Avenue including a **candy factory** at 1830 Cedar Avenue, a **blind factory** at 1800 Cedar Avenue, and a **garage with gasoline tanks at 1823 Sedgewick Avenue**. No further significant changes from the 1928 map were noted on the surrounding properties.
1977	**Site:** The Site structure is shown in its current configuration, labeled as public Primary and Intermediate School No. 229, and noted as being constructed in 1976 on an elevated deck. **Surrounding Properties:** The West Tremont Avenue Bridge and Harlem River Park Bridge abut the Site to the north and south, respectively. Matthewson Road, an elevated roadway, abuts the Site to the west, followed by Roberto Clemente State Park. The River Park Towers apartment buildings and associated parking garage are shown southwest of the Site across Harlem River Park Bridge. The Major Deegan Expressway is shown immediately east of the Site. The former blind factory and candy factory east of Cedar Avenue are labeled as unspecified commercial structures. A parking garage is noted on the northeast-adjacent block. No further significant changes from the 1950 Map were noted on the surrounding properties.
1978	**Site:** The Site appears similar to the 1977 map. **Surrounding Properties:** No significant changes from the 1977 map were noted on the surrounding properties.
1979	**Site:** The Site appears similar to the 1978 map. **Surrounding Properties:** No significant changes from the 1978 map were noted on the surrounding properties.
1980	**Site:** The Site appears similar to the 1979 map. **Surrounding Properties:** The former garage on the east-adjacent block shown on earlier maps was relabeled as a **Consolidated Edison Garage/facility**. No significant changes from the 1979 map were noted on the surrounding properties.
1981	**Site:** The Site appears similar to the 1980 map. **Surrounding Properties:** No significant changes from the 1980 map were noted on the surrounding properties.
1984	**Site:** The Site appears similar to the 1981 map. **Surrounding Properties:** No significant changes from the 1981 map were noted on the surrounding properties.
1985	**Site:** The Site appears similar to the 1984 map. **Surrounding Properties:** No significant changes from the 1984 map were noted on the surrounding properties.
1986	**Site:** The Site appears similar to the 1985 map. **Surrounding Properties:** No further significant changes from the 1985 map were noted on the surrounding properties.
1989	**Site:** The Site appears similar to the 1986 map. **Surrounding Properties:** No further significant changes from the 1986 map were noted on the surrounding properties.
1991	**Site:** The Site appears similar to the 1989 map. **Surrounding Properties:** No significant changes from the 1989 map were noted on the surrounding properties.

Year	Comments
1992	**Site:** The Site appears similar to the 1991 Map. **Surrounding Properties:** No significant changes from the 1991 map were noted on the surrounding properties.
1993	**Site:** The Site appears similar to the 1992 Map. **Surrounding Properties:** No significant changes from the 1992 map were noted on the surrounding properties.
1995	**Site:** The Site appears similar to the 1993 map. **Surrounding Properties:** No further significant changes from the 1993 map were noted on the surrounding properties.
1996	**Site:** The Site appears similar to the 1995 map. **Surrounding Properties:** No significant changes from the 1995 map were noted on the surrounding properties.
1998	**Site:** The Site appears similar to the 1996 map. **Surrounding Properties:** No further significant changes from the 1996 map were noted on the surrounding properties.
2001	**Site:** The Site appears similar to the 1998 map. **Surrounding Properties:** No further significant changes from the 1998 map were noted on the surrounding properties.
2002	**Site:** The Site appears similar to the 2001 map. **Surrounding Properties:** No significant changes from the 2001 Map were noted on the surrounding properties.
2003	**Site:** The Site appears similar to the 2002 map. **Surrounding Properties:** No significant changes from the 2002 map were noted on the surrounding properties.
2004	**Site:** The Site appears similar to the 2003 map. **Surrounding Properties:** No significant changes from the 2003 map were noted on the surrounding properties.
2005	**Site:** The Site appears similar to the 2004 map. **Surrounding Properties:** No significant changes from the 2004 map were noted on the surrounding properties.
2006	**Site:** The Site appears similar to the 2005 map. **Surrounding Properties:** No significant changes from the 2005 map were noted on the surrounding properties.
2007	**Site:** The Site appears similar to the 2006 map. **Surrounding Properties:** No significant changes from the 2006 map were noted on the surrounding properties.

The review of historical fire insurance maps indicated the following evidence of RECs/VECs:

- **Railroad tracks** were shown beneath the Site on the 1896 through 2007 Sanborn Maps, which are considered a REC/VEC. A **coal yard** and **yacht launch and engine company,** west-adjacent to the Site, containing **repair/machine shops, a freight house, a mechanic shop, a planing mill, print shop, joiner shops, an auto house, and two buried gasoline tanks** on the 1900 through 1928 Sanborn Maps.
- A boat engine company with **workshops, planning mill, print/paint shops,** a show room and **gasoline engine shops** on the northwest-adjacent block. This facility was converted to a

technical tape factory, food distribution warehouse and **Singer Truck Corporation,** as shown on the 1950 map.

- **A coal yard** containing **coal pockets, garages and steel fabrication shops** on the southwest-adjacent block on the 1950 Sanborn Map.
- Industrial/automotive uses were noted on the east-adjacent block including a **candy factory** at 1830 Cedar Avenue, a **blind factory** at 1800 Cedar Avenue, and a **garage with gasoline tanks at 1823 Sedgewick Avenue on** the 1950 Sanborn Map. The garage was labeled as a Con Edison facility on the 1980 through 2007 Sanborn Maps.

Copies of the Sanborn Maps are included in *Appendix H.*

5.5 City Directories

A review of historical city directories was conducted by EDR. The following table presents descriptions and interpretations from the historical city directory reviews:

Year	Comments
1927	**Site: Not listed** **Surrounding Properties:** Stores, Great Atlantic & Pacific Tea Co
1931	**Site:** Not listed **Surrounding Properties:** Residential
1940	**Site:** Not listed **Surrounding Properties:** Stein Hall & Co Inc ofc
1949	**Site:** Not listed **Surrounding Properties:** Not listed
1956	**Site:** Not listed **Surrounding Properties:** Not listed
1961	**Site:** Not listed **Surrounding Properties:** Not Listed
1965	**Site:** Not listed **Surrounding Properties:** Not listed
1971	**Site:** Not listed **Surrounding Properties:** Not Listed
1976	**Site:** Not listed **Surrounding Properties:** Not Listed
1983	**Site:** Not listed **Surrounding Properties:** Not Listed
1993	**Site:** Not listed **Surrounding Properties:** Not Listed
2000	**Site:** Not listed **Surrounding Properties:** Not Listed
2005	**Site:** Not listed **Surrounding Properties:** Not Listed

No RECs/VECs were identified in the city directory listings. A copy of the historical city directories is included in *Appendix J.*

5.6 Prior Reports

Indoor Air Quality (IAQ) Survey of X229, 275 Harlem River Park Bridge, AKRF Engineering, P.C. (AKRF), September 28, 2011

AKRF conducted an Indoor Air Quality (IAQ) Survey of the Site at the request of the NYCSCA IEH Division. The IAQ field activities were performed in August 2011, and included a building inspection, field screening of indoor air conditions, chemical inventory for the sampled areas within the Site building, collection and laboratory analysis of three (3) indoor air samples from the first floor of the building, and collection and analysis of one (1) ambient air sample from an exterior first-floor balcony. The IAQ sampling was conducted in accordance with the NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006. The IAQ samples were analyzed for NYCSCA's list of 26 volatile organic compounds (VOCs) using USEPA Method TO-15. The laboratory analytical results indicated that no VOCs were detected in the indoor or ambient air samples at concentrations above the corresponding NYSDOH Air Guideline Values or above the range of anticipated background levels. Based on the results of the IAQ Survey, AKRF concluded that the Site was suitable for continued use as a school.

5.7 Other Historical Sources

AKRF reviewed electronic block and lot information for the Site on PropertyShark.com (Property Shark). This website contains information including past and present ownership listings, selected tax records, and New York City Department of Buildings (NYCDOB) files including building permits, and environmental hazards compiled by Toxics Targeting, Inc. of Ithaca, New York. The Property Shark website indicated that the Site and/or adjoining properties did not contain any toxic site listings. A copy of the Property Shark report is included in *Appendix J***.**

5.8 Historical Use Interviews

Mr. Celestino Fernandez, custodial engineer for the Site, was interviewed regarding the Site history. Mr. Fernandez, who has worked at the Site for approximately 10 years, indicated that the Site has been occupied for use as a school for approximately 34 years. Mr. Fernandez indicated that only routine cleaning fluids, paints and building materials are used and stored on-site in a locked closet on the second floor and within basement-level mechanical spaces. Mr. Fernandez was unaware of any current or historical material releases, monitoring wells, or subsurface disturbances on the Site.

5.9 Historical Use Summary

The following table summarizes the findings of the research pertaining to historical Site usage:

YEARS	HISTORICAL USES		SOURCE(S)	COMMENTS
	Site	Surrounding Property		
1896-1928	Vacant	**Railroad tracks** are located below Site. Surrounding area contains vacant lots, dwellings, **coal yards, a boat launch and boat building shops with repairs/printing and gasoline tanks** on the northwest and west-adjacent properties	Sanborn Maps, topographic map	1896 Sanborn Map is the earliest record identified.
1950	Vacant	Former boat building shops northwest of the Site are converted to a **technical tape factory and a truck company.** East-adjacent block contains a **blind factory and candy factory** along Cedar Avenue, and a **garage with gasoline tanks** along Sedgewick Avenue	Sanborn Maps	
1977-2007	Site structure is shown in its current configuration, labeled as Public School 229	Surrounding area primarily consists of residential/ commercial development. River Park Towers apartments are located southwest of the Site. Roberto Clemente State Park is located west and northwest of the Site	Sanborn Maps, aerial photographs, historic topographic maps	

The review of historical records identified the following RECs/VECs:

- A review of historic Sanborn Maps, aerial photographs and historic topographic maps indicated that **railroad tracks** were present beneath the Site from at least 1896 through present.
- The Sanborn Maps identified a boat engine company with **workshops, a planning mill, print/paint shops, a show room and gasoline engine shops** on the northwest-adjacent block between 1896 and 1928 that was converted to a **technical tape factory**, food distribution warehouse and **Singer Truck Corporation** on the 1950 map.
- The Sanborn Maps noted a **coal yard** and **yacht launch and engine company** west-adjacent to the Site containing **repair/machine shops, a freight house, a mechanic shop, a planning mill, print shop, joiner shops, an auto house, and two buried gasoline tanks** on the 1900 through 1928 Sanborn Maps.
- **A coal yard** containing **coal pockets, garages and steel fabrication** was noted on the southwest-adjacent block on the 1950 Sanborn Map.

- Sanborn Maps identified industrial/automotive uses on the east-adjacent block including a **candy factory** at 1830 Cedar Avenue, a **blind factory** at 1800 Cedar Avenue, and a **garage with gasoline tanks at 1823 Sedgewick Avenue** on the 1950 Sanborn Map. The garage was labeled as a **Con Edison facility** on the 1980 through 2007 Sanborn Maps.

6.0 REGULATORY AGENCY RECORD REVIEWS

The databases discussed in this section, provided by EDR, Inc. of Milford, Connecticut, were reviewed for information regarding documented and/or suspected releases of regulated hazardous substances and/or petroleum products on or near the Site. AKRF also reviewed the "unmappable" (also referred to as "orphan") listings within the database report, cross-referencing available address information and facility names. Unmappable sites are listings that cannot be plotted with confidence, but are identified as being located within the general area of the Site based on the partial street address, city name, or zip code. In general, a listing cannot be mapped due to inaccurate or incomplete address information in the database that was supplied by the corresponding regulatory agency. Any listings from the unmappable summary which were identified by AKRF as a result of the area reconnaissance and/or cross-referencing to mapped listings are included in the corresponding database discussion within this section.

6.1 Federal and State Regulatory Agency Database Reviews

A review of federal and state records for the Site was accomplished by contacting offices of federal and state regulatory agencies and reviewing of the regulatory listings compiled in the regulatory agency database report (*Appendix I*). The results of the review of the federal and state records are presented below. Copies of the correspondences are included in *Appendix K*.

United States Environmental Protection Agency (USEPA)

The USEPA is responsible for the research, development and enforcement of national environmental regulations. Certain regulatory programs are deferred by the USEPA to state or tribal entities issuing permits and enforcing compliance. The USEPA Region 2 covers New York, New Jersey, Puerto Rico, US Virgin Islands and seven tribal nations within the region. A Freedom of Information Law (FOIL) request was submitted to the USEPA Region 2 on August 10, 2011 to determine if pertinent environmental records for the Site are on file with the USEPA. The USEPA responded to the FOIL request in a letter dated August 11, 2011. The FOIL response included a 1996 Notification of Hazardous Waste Activity Form for "Public School IS 229X" (identified as USEPA ID # NYR000028761). The form indicated that the Site would generate waste from mercury vapor and fluorescent lamps (USEPA hazardous waste codes D000, D008 and D009). The form noted that the New York Power Authority was the contractor for the generator. This information may refer to the removal of mercury-containing light bulbs from the Site. No leaks or spills were noted associated with light fixtures during the Site reconnaissance.

New York State Department of Environmental Conservation (NYSDEC)

The NYSDEC is responsible for the implementation and enforcement of state-mandated environmental regulations to protect the public health and safety. The NYSDEC Region 2 covers New York City. A FOIL request was submitted to the NYSDEC on August 11, 2011 to determine whether pertinent environmental records for the Site are on file with the NYSDEC. A response dated September 21, 2011 was received from the NYSDEC that included copies of files pertaining to Site's address that included a 2005 Hazardous Waste Report form (NYSDEC form GM) documenting the generation of 14,000 pounds of water with trace acetone (F003). This information is consistent with the regulatory database information and Section 8.4.1 of this report. No evidence of a current or ongoing material release was noted in any of the inspected areas during the Site reconnaissance, therefore the aforementioned hazardous waste generation at the Site is not considered a current REC.

New York State Department of Health (NYSDOH)

The NYSDOH Bureau of Environmental Exposure Investigation is responsible for investigating the potential for human exposure from environmental contamination, including inactive hazardous waste sites. Activities conducted by the NYSDOH include water sampling and treatment; dump site, construction site, and spill investigations; and emergency event investigations. The NYSDOH also provides regulatory oversight for state, federal Superfund, Brownfield, and voluntary clean-up sites. A FOIL request was submitted to the NYSDOH on August 10, 2011 to determine if pertinent environmental records for the Site are on file with the NYSDOH. A response letter dated September 22, 2011 was received from the NYSDOH. The letter indicated that no record of the Site address was found in NYSDOH records.

A summary of sites identified through the Federal and State regulatory agency databases review is provided in the following table:

Federal and State List	Last Updated	Search Radius*	No. of Sites within Search Radius	Site Appears on List	RECs/VECs/ Concerns Identified
National Priorities List for Federal Superfund Cleanup (NPL)	06/14/11	1 mile	1	No	No
Delisted NPL Site List	04/13/11	1 mile	0	No	No
Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), including CERCLIS NFRAP Sites	02/25/11	½ mile	0	No	No
Resource Conservation and Recovery Information System – Corrective Action Activity RCRIS CORRACTS and Non-CORRACTS Treatment, Storage, or Disposal Facilities (RCRIS-TSD),	05/02/11 05/02/11	1 mile ½ mile	0	No	No
Resource Conservation and Recovery Information System Generators/Transporters (RCRIS Gen/Trans)	05/02/11	¼ mile	5 (+ 2 Non-generators including the Site)	**Yes**	**Yes**
Federal Institutional Control/Engineering Control Registries	06/14/11	½ mile	0	No	No
Emergency Response Notification System (ERNS)	06/14/11	Site	0	No	No
Toxic Release Inventory System (TRIS)	03/21/11	¼ mile	0	No	No
New York State Inactive Hazardous Waste Disposal Site (SHWS)	07/05/11	1 mile	0	No	No
Hazardous Substance Waste Disposal Site Inventory (HSWDS)	11/30/06	½ mile	0	No	No
Solid Waste Management Facilities Sites (SWMF)	06/24/11	½ mile	0	No	No
Vapor Reopened	12/17/10	1 mile	0	No	No
New York State Spills Information (NY Spills)/Leaking Underground Storage Tanks (LTANKS)	08/01/11	½ mile	252	**Yes**	**Yes**

Federal and State List	Last Updated	Search Radius*	No. of Sites within Search Radius	Site Appears on List	RECs/VECs/ Concerns Identified
Petroleum Bulk Storage Tanks [Underground Storage Tanks (USTs)/ASTs]	08/05/11	¼ mile	46	**Yes**	**Yes**
Chemical Bulk Storage Facilities (CBS)	07/05/11	¼ mile	1	No	**Yes**
State Voluntary and Brownfield Cleanup Program Sites	07/05/11	1 mile	2	No	No
Registered Dry Cleaners	07/05/11	½ mile	11	No	**Yes**
Manufactured Gas Plant Sites (Coal Gas)	12/28/09	1 mile	2	No	No
E-Designation Sites	02/04/11	¼ mile	0	No	No

The following subsections provide a discussion of the surrounding properties, which have been identified within the search radius and listed in the table:

National Priorities Listing (NPL) – Environmental Protection Agency Superfund

The NPL is a subset of the CERCLIS and lists properties that are ranked as high priority for cleanup under the Superfund program. One NPL facility was listed within a one-mile radius of the Site. Based on its distance (over 4,500 feet from the Site) and details provided in the regulatory database, this listing is not anticipated to represent an environmental concern to the Site.

Delisted NPL Site List

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the USEPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425 (e), sites may be deleted from the NPL when no further response is appropriate. Neither the Site nor any other facilities within a one-mile radius of the Site were listed in the delisted NPL database.

Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)

The CERCLIS list is a compilation of known and suspected uncontrolled or abandoned hazardous waste sites which are, or were, under investigation by USEPA but have not been elevated to the status of a Superfund (NPL) site. Former CERCLIS sites that have been granted the status of No Further Remedial Action Planned (NFRAP) are also included in this database. Neither the Site nor any other facilities within a one-half mile radius of the Site were listed in the CERCLIS database.

Resource Conservation and Recovery Information System - Treatment, Storage, or Disposal Facilities (RCRIS-TSD)/RCRIS Corrective Action Activity (CORRACTS)

The Resource Conservation and Recovery Act (RCRA) program identifies and tracks hazardous wastes from the point of generation to the point of disposal. The RCRIS database tracks those facilities that treat, store and/or dispose of hazardous materials as defined by RCRA (referred to as TSD facilities). The RCRIS CORRACTS database identifies TSD facilities that have conducted, or are currently conducting, corrective action(s) as regulated under RCRA. Neither the Site nor any other facilities within the specified search radii of the Site were listed in the RCRIS-TSD or RCRIS CORRACTS databases.

Resource Conservation and Recovery Information System Generators/Transporters (RCRIS Gen/Trans)

This list includes any operation that generates or transports hazardous waste and that must obtain a hazardous waste generator identification number or transporter permit. The Site is listed as a RCRA Non-generator and is on the Manifest database. Three RCRA generators (and two Non-generators) were listed within a one-quarter mile radius of the Site. The Site listing and proximal facilities that are considered potential RECs/VECs are listed as follows:

Listing	Distance/ Direction	Assumed Hydraulic Gradient	Map ID Number	Regulatory Site ID #/ Status/Available Data
Public School IS 229X 275 Harlem River Park Bridge Bronx, NY 10453	Site	Site	A1	USEPA ID NYR000028761. RCRA Non-generator in 1982, 2006 and 2007, and Manifest database in 1986. RCRA Small Quantity Generator (SQG) of Hazardous Wastes for 3,500 pounds of mercury waste (D009) in 1996 and 14,000 pounds of F003-Unknown (non-halogenated solvent) waste in 2005. No violations were identified
Roberto Clemente State Park 301 West Tremont Ave Bronx, NY 10453	20 ft/NNE	Cross-gradient	B5	USEPA ID NYR000171017. RCRA Conditionally Exempt Small Quantity Generator (CESQG) in 1973. Also listed in Manifest database for generation of waste streams including unspecified wastes in 2010 and lead (Waste Code D008) in 1973. No violations were cited for the park.
Ernest Winzer Cleaners 1828 Cedar Avenue Bronx, NY 10453	125ft/SE	Cross-gradient/ Upgradient	C9	USEPA ID NYD012307971. RCRA Large Quantity Generator (LQG) in 1985 and 1992, and SQG in 1999 and 2006. This facility is also listed in the Manifest database in 2008 and 2009. The facility generated waste streams including lead solvents (Waste Code F002) between 1985 and 2006. Violations were cited for the facility including a manifest violation in 1987, a general violation in 1990, and a compliance evaluation in 2005. The violations cited in 1987 and 1990 were resolved, the violation cited in 2005 was listed with an unknown compliance status.

Listing	Distance/ Direction	Assumed Hydraulic Gradient	Map ID Number	Regulatory Site ID #/ Status/Available Data
Con Edison –Sedgewick Avenue 1823 Sedgewick Avenue Bronx, NY 10463	340 ft/SE	Cross-gradient/ Upgradient	C26	USEPA ID NYR000020776. RCRA CESQG in 1996 and 2006. This facility is also listed in the Manifest database for the generation of waste streams including PCB wastes (Waste Code B007), corrosive wastes (Waste Code D002), mercury (Waste Code D009), lead (Waste Code D008), ignitable wastes (D001), benzene (D018) and unspecified wastes between 2002 and 2009. No violations were cited for the facility.
Nu River Park Cleaners 45 Richman Plaza Bronx, NY 10453	352 ft/SW	Down-gradient	27	USEPA ID NYD982189359. RCRA Non-generator in 1999 and 2006 and a historic SQG for the production of halogenated solvents (Waste Code F002) between 1987 and 1995. This facility is listed in the Manifest database for the generation of halogenated solvents between 1989 and 2003. No violations were cited in the regulatory database.

Based on the 1996 Notification of Hazardous Waste Activity Form obtained from the FOIL request submitted to the USEPA, the mercury waste generated at the Site in 1996 is likely associated with removal of mercury-containing light bulbs, and is not considered a REC. Based on information provided by Mr. Edward Williams of the NYCSCA, the unknown waste generated in 2005 consisted of water with a trace concentration of acetone from the school laboratories that was pumped out of a sewage holding tank when the tank's pump failed. Additional information regarding the F003 waste generated at the Site is provided in Section 8.4.1. No evidence of a current or ongoing material release was noted in any of the inspected areas during the Site reconnaissance; therefore, the aforementioned hazardous waste generation at the Site is not considered a current REC. Based on distance from the Site and/or regulatory status, the remaining RCRIS Gen/Trans listings cited within the regulatory database are not anticipated to have affected the environmental integrity of the Site.

Federal Institutional Control/ Engineering Control Registries

These registries are listings of sites with engineering and institutional controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or affect human health. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls. Neither the Site nor any other facilities within a one-half mile radius of the Site were listed on the Federal Institutional Control/Engineering Control Registries database.

Emergency Response Notification System (ERNS)

The Emergency Response Notification System (ERNS) is a national database used to collect information on reported releases of oil and hazardous substances. The Site was not listed on the ERNS database.

Toxic Release Inventory System (TRIS)

TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313. Neither the Site nor any other facilities within a one-quarter mile radius of the Site were listed in the TRIS database.

New York State Inactive Hazardous Waste Disposal Sites (SHWS)

The New York State Inactive Hazardous Waste Sites database, compiled by the NYSDEC, maintains information regarding the investigation and cleanup of suspected hazardous waste sites. Neither the Site nor any other facilities within a one-mile radius of the Site were listed in the SHWS database.

Hazardous Substance Waste Disposal Site Inventory (HSWDS)

The list includes any known or suspected hazardous substance waste disposal sites. Also included are sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites and non-Registry sites that USEPA Preliminary Assessment (PA) reports or Site Investigation (SI) reports were prepared. Hazardous Substance Waste Disposal Sites are eligible to be Superfund sites. The sites on the list will not automatically be made Superfund sites, rather each site will be further evaluated for listing on the Registry. Neither the Site nor any other facilities within a one-half mile radius of the Site were listed in the HSWDS database.

Solid Waste Management Facilities (SWMF)

The SW/LF database is a comprehensive listing of State permitted/recorded solid waste facilities. No SWMF facilities were listed within a one-half mile radius of the Site.

Vapor Reopened/ Vapor Intrusion Legacy Site List

New York is currently re-evaluating previous assumptions and decisions regarding the potential for soil vapor intrusion exposures at sites. As a result, all past, current, and future contaminated sites will be evaluated to determine whether these sites have the potential for exposures related to soil vapor intrusion. No Vapor Reopened facilities were listed within a one-mile radius of the Site.

New York State Spills Information Database (NY Spills)/Leaking Underground Storage Tanks (LTANKS)

The NY Spills database, including LTANKS sites, was researched to identify listings within one-half mile of the Site. The Site is listed on the NY Spills database with a closed status spill (No. 1101318) of approximately 10 gallons of fuel oil due to a tank overfill that resulted in a reported release to the paved parking lot and was reported to be cleaned and closed on May 5, 2011. Based on these details, this Spill is considered a *de minimis* condition (i.e., not a REC). The database identified 251 additional spills (30 LTANKS and 221 Spills sites) reported within a one-half mile radius of the Site. Proximal facilities that are considered RECs/VECs are listed as follows:

Listing	Distance/ Direction	Assumed Hydraulic Gradient	Map ID Number	Regulatory Site ID # /Status/Available Data
Vacant Building 1854 Cedar Avenue Bronx, NY	200 ft/ENE	Cross-gradient/ Upgradient	E16	Closed spill number 0808073 was reported in 2008 when petroleum-contaminated soil was discovered during redevelopment activities. The NYSDEC remarks associated with the case indicated that contaminated soil was to be removed from the Site. No information regarding laboratory analysis, contaminant type and/or remedial activities was provided in the listing. The spill was closed in 2009.
Sedgwick Avenue PURS 1823 Sedgewick Avenue Bronx, NY	350 ft/SSW	Cross-gradient	H48	Active spill number 0109265 was reported at this Con Edison facility in 2001 when 20 gallons of dielectric fluid was reported to have leaked from a cable feeder. Subsequent investigations identified contamination beneath the sub-basement. The most recent notes in the spill file (2010) indicated that a remediation plan would be prepared to address contamination associated with this incident and multiple historic spills of dielectric fluids at the facility between 2001 and 2010 that were consolidated under this spill number (including closed spill numbers 0202997, 0908287, 0500419 0908715). Closed spills reported for the facility involving ethylene glycol included No. 0503972 reported in 2005 when approximately 25 gallons of glycol was found in an oil/water separator and Spill no. 0706665 reported for the facility in 2007 due to a release of ethylene glycol from an expansion tank overflow. The spill file information indicates that the spills were remediated; however, no information pertaining to soil and groundwater investigations conducted at the facility were noted in the regulatory database.

Based on distance from the Site, assumed hydraulic relationship, and/or the nature of the incident/regulatory status, none of the remaining facilities located within the search radius of the Site identified in the Spills/LTANKS databases are expected to impact the environmental integrity of the Site.

Petroleum Bulk Storage Tanks (USTs/ASTs)

The NYSDEC Petroleum Bulk Storage (PBS) Tanks database was researched to identify listings for the Site and properties located within one-quarter mile from the Site. The Site is listed in the PBS Tanks database (Facility ID 2-352535) for two in-service 7,500-gallon No. 4 fuel oil aboveground storage tanks (ASTs) installed in 1978. Based on inspection of these tanks during the Site reconnaissance and the *de*

minimis nature of the Spill listing associated with the tanks, they are not considered a REC. One nearby PBS facility that is considered a REC/VEC is listed as follows:

Listing	Distance/ Direction	Assumed Hydraulic Gradient	Map ID Number	Regulatory Site ID #/ Status/Available Data
1849 Sedgwick Ave Bronx, NY 10463	500ft/ ESE	Crossgradient	H35	Facility 2-242519. One in-service 15,000-gallon No. 6 fuel oil UST installed in 1963.

Based on distance from the Site, assumed hydraulic relationship, the lack of known releases with the potential to affect the Site, and/or current regulatory status, none of the remaining facilities identified within one-quarter mile of the Site in the PBS database are expected to impact the environmental integrity of the Site.

Chemical Bulk Storage (CBS) Database

The CBS lists facilities that store regulated non-petroleum substances in aboveground tanks with capacities greater than 185 gallons and/or in underground tanks of any size. The Site was not identified on the CBS database. One CBS facility was listed within a one quarter-mile radius of the Site and is considered a REC/VEC.

Listing	Distance/ Direction	Assumed Hydraulic Gradient	Map ID Number	Regulatory Site ID #/ Status/Available Data
Roberto Clemente State Park 301 West Tremont Ave Bronx, NY 10453	20 ft/NNE	Crossgradient	B3	Facility ID 2-000021. One closed 2,900-gallon sodium hypochlorite UST installed in 1973, one in-service 2,500-gallon sodium hypochlorite UST installed in 1995

New York State Voluntary and Brownfields Cleanup Program (VCP/BCP)

The NYSDEC Voluntary and Brownfields Cleanup Programs database was researched to identify listings for the Site and within a one-mile radius of the Site. The Site was not listed in the VCP/BCP databases. One BCP/VCP site was identified within a one-half mile radius of the Site. Given its distance (over 3,500 feet from the Site) across the Harlem River, releases from this facility are not anticipated to represent an environmental concern to the Site.

Registered Dry Cleaners

The registered dry cleaners database was researched to identify listings within one-quarter mile of the Site. The Site was not listed in the Dry Cleaners database. The database identified eleven registered dry cleaners within a one-half mile radius of the Site. The following facilities were also listed as hazardous waste generators and are considered RECs/VECs:

Listing	Distance/ Direction	Assumed Hydraulic Gradient	Map ID Number	Regulatory Site ID #/ Status/Available Data
Ernest Winzer 1828 Cedar Avenue Bronx, NY 10453	125ft/SE	Crossgradient/ Upgradient	C6	Facility ID No. 2-6004-00104. Registered as a Perc Dry leaner
Nu River Park Cleaners 45 Richman Plaza Bronx, NY 10453	352 ft/SW	Downgradient	27	Facility ID No. 2-6004-00506. Registered as a drop off service.

Manufactured Gas Plant Sites (Coal Gas)

The EDR manufactured gas plant (MGP) database was researched to identify listings for the Site and within a one-mile radius of the Site. Two facilities were listed in the MGP database within a one-mile radius of the Site. Given their distance from the Site (both are located over 4,000 miles from the Site), these facilities are not expected to have affected the environmental integrity of the Site

New York City E-Designation Site Listing

A New York City "E" designation for a property requires that the fee owner of the site conduct a testing and sampling protocol, and remediation where appropriate, to the satisfaction of the New York City Office of Environmental Remediation (NYCOER) before the issuance of a building permit by the Department of Buildings pursuant to the provisions of Section 11-15 of the Zoning Resolution (Environmental Requirements). Neither the Site nor any adjoining facilities were listed with an E-designation.

6.2 Local Regulatory Agency Research

A review of local records for the Site was accomplished by contacting offices of New York City regulatory agencies. The results of the review of local records are presented below. Copies of the correspondences are included in *Appendix K*.

New York City Department of Buildings (NYCDOB)

Electronic NYCDOB records for the Site were reviewed to determine whether there were any references to buildings, tanks or other structures, property usage or inspection reports that may have indicated the presence, past use, or release of hazardous substances, wastes or petroleum products within the Site. The NYCDOB Building Information Systems electronic data included the following information:

- No Certificates of Occupancy (C of O) were listed for the Site block and lot.
- A permit was filed in January 2011 for the replacement of the fuel oil-fired boiler system including burners, boiler feeds, transfer pumps and associated equipment.

No RECs/VECS were identified in the electronic NYCDOB records.

New York City Department of City Planning (NYCDCP)

AKRF reviewed the NYCDCP Zoning Map (Map 1d), available via the NYCDCP on-line web-site. According to the map, the Site is zoned M2-1 (medium density manufacturing district) and does not contain a hazardous materials "E" designation.

New York City Fire Department (FDNY)

The FDNY is responsible for the enforcement of local fire codes pertaining to the use and storage of flammable and hazardous materials. FDNY information concerning petroleum storage tanks, sealed or removed petroleum storage tanks, and history of leaks at the Site was requested in a record search form dated September 20, 2011. The FDNY has not responded to the records request at this time. If issues of potential concern are noted upon receipt of this information, an addendum to this report will be created to discuss relevant findings

New York City Department of Health (NYCDOH)

The NYCDOH, Bureau of Environmental Investigations (BEI) maintains files of health-related environmental incidents in the City of New York. These incidents may include spills of hazardous chemicals, citizen's complaints regarding asbestos issues, or reports of chemical odors or fumes. NYCDOH information concerning the Site was requested in a letter dated October 2, 2011. As of the date of this report, the NYCDOH has not responded to the FOIL request. If issues of potential concern are noted upon receipt of this information, an addendum to this report will be created to discuss relevant findings.

New York City Department of Environmental Protection (NYCDEP)

The NYCDEP maintains files of incidents involving environmentally regulated materials. The records maintained by NYCDEP include reports of spills of hazardous chemicals and citizen's complaints on environmental issues. NYCDEP information concerning the Site was requested in a letter dated September 29, 2011. As of the date of this report, the NYCDEP has not responded to the FOIL request. If issues of potential concern are noted upon receipt of this information, an addendum to this report will be created to discuss relevant findings.

7.0 USER RESPONSIBILITIES

7.1 Environmental Liens or Activity and Use Limitations

An Environmental Lien search was ordered by EDR on August 7, 2011. The lien search indicated that no environmental liens or other activity and use limitations (AULs) were reported for the Site and the current property owner was listed as the City of New York.

7.2 Valuation Reduction for Environmental Issues

No information was available at the time of the assessment regarding the relationship of the purchase price of the property to the fair market value of the property. If information is received regarding valuation reduction for environmental issues that changes the conclusions or recommendations presented in this Report, an addendum will be submitted to the NYCSCA.

7.3 Knowledge or Experience of the User

NYCSCA is not currently aware of any specialized knowledge or experience that is material to RECs in connection with the property. Additionally, the NYCSCA is not currently aware of any specialized knowledge or experience that may be important to the screening of VECs in connection with the property.

7.4 Commonly Known or Reasonably Ascertainable Information

The NYCSCA is not currently aware of any commonly known or reasonably ascertainable information within the local community about the property that is material to RECs in connection with the property. Additionally, the NYCSCA is not currently aware of any commonly known or reasonably ascertainable information within the local community important to the screening of VECs in connection with the property.

8.0 SITE RECONNAISSANCE AND INTERVIEWS

8.1 Methodology and Limiting Conditions

The inspection of the Site included observations of the property and surrounding area (site reconnaissance) that were made to identify potential sources or indications of hazardous substances, including: ASTs; USTs; tank vents and fill ports; transformers and other items that could contain PCBs; waste storage areas; hazardous materials usage, storage, and disposal; stained surfaces and soils; stressed vegetation; leaks; and, odors. In addition, readily-observable portions of the properties immediately adjacent to the Site were viewed from public rights-of-way to identify or determine the likelihood of any of the aforementioned potential sources of contamination being present.

8.2 Site Reconnaissance

Visual inspection of the adjacent areas was performed on August 8, 2011 by Neoma Chefalo of AKRF. Visual inspection of the Site building was performed on August 29, 2011 by Neoma Chefalo of AKRF, who was accompanied by Celestino Fernandez, Custodial Engineer for the building. At the time of the inspection, the weather was clear and approximately 80 ºF and the visibility of the Site was not obscured by weather conditions.

The Site is located at 275 Harlem River Park Bridge in the Bronx, Bronx County, New York (Tax Block 2882, Lot 130). The Site consists of an approximately 155,000-square foot (SF), five-story building. The Site structure is built entirely on approximately 15- to 20-foot high elevated concrete decking above Metro North railroad tracks, and is not in contact with soil.

The structure is rectangular in shape and constructed with concrete and brick, with the main entrance located along Harlem River Park Bridge. The interior of the building contains painted gypsum board, plaster and concrete block walls, vinyl floor tile, ceramic floor and wall tile, and dropped ceiling tiles. Interior building materials were noted to be in generally fair to good condition. The Site building is serviced by three traction elevators.

The ground floor of the building is occupied by utility/mechanical rooms and custodial offices/locker rooms. The ground floor contains a boiler room with three fuel oil-fired boilers, fuel and water pumping equipment, a hot water condenser tank, air conditioning units and associated piping. Two 7,500-gallon No. 4 fuel oil ASTs are located within a vault adjacent to the boiler room. No leaks, spills, significant stains or odors were observed in boiler room or tank vault. A kitchen preparation area is located in the basement and contains a grease trap. The custodian indicated that the trap is cleaned on an as-needed basis by a private contractor. No leaks or odors were observed in connection with the trap. A utility room containing electrical switches is located in the basement, on the southern portion of the building. No leaks or odors were observed in connection with the electrical equipment. The remainder of the basement is used for the storage of school furniture and supplies, light fixtures stored in cardboard containers, and small containers (five gallons or less) of paints, joint compound, and cleaning fluids. No leaks or odors were observed in the basement. Floor drains noted throughout the structure (i.e. in bathrooms and mechanical rooms) are likely connected to the sewer system, according to the custodian.

The first floor of the building contains a lobby, the main office, staff offices, school supply storage rooms, restrooms and classrooms on the western portion; and classrooms, a kitchen/cafeteria, restrooms, and two traction passenger elevators on the eastern portion. No leaks or spills were noted in the inspected areas of

the first floor. The second floor of the building contains classrooms, a library, offices, two cafeterias, a gymnasium, an auditorium and restrooms. A janitorial supply closet is located on the second floor that contains small containers (five gallons or less) of cleaning fluids, paints, joint compound, soaps, floor waxes and floor finishes stored on designated shelving. No leaks or odors were noted in connection with the containers. The third floor contains classrooms, a library, an auditorium, school supply storage rooms, offices and restrooms. The fourth floor contains classrooms, a cafeteria, offices, student resource rooms, restrooms and school storage rooms. Two science laboratory classrooms are located on the fourth floor. Small quantities of typical laboratory materials (i.e., acids and bases) were stored in laboratory cabinets and on designated shelving with no leaks or spills noted.

No evidence of a material release was noted within the interior of the building. With the exception of minor quantities of universal hazardous wastes (i.e., fluorescent light bulbs stored in the basement), cleaning fluids, paints, and laboratory supplies, no evidence of hazardous/chemical waste generation or accumulation was noted within the interior of the structure.

The building roof comprises a built-up roofing system in fair condition. Building materials were noted to be in generally fair condition with minor damaged paint noted in the basement level mechanical space (i.e., not within publicly accessible spaces).

A fill port for the on-site No. 4 fuel oil AST system and suspected transformer vaults were noted in a concrete-paved area immediately outside of the southeastern portion of the Site building and a vent pipe was located immediately outside of the building in this area. No stains or leaks were noted in connection with the suspect fill port or vent pipe.

8.3 Current and Historical Use Interviews

The following knowledgeable persons were interviewed with regard to the Site pursuant to ASTM 1527-05 Section 10:

8.3.1 Current Property Owner

Name	Title/Company	Years Associated with Site
N/A	City of New York	35

The current property owner was not interviewed.

8.3.2 Current Site Operator or Key Site Manager

Name	Title/Company	Years Associated with Site
Celestino Fernandez	Custodial Engineer	10
Edward Williams	NYCSCA Project Officer	NA

Mr. Fernandez, the custodial engineer for the Site, provided access to the structure and indicated that the Site was used as a public school facility. Mr. Williams provided information regarding the hazardous waste generated at the Site in 2005 (refer to Section 8.4.1). Detailed information provided during the above-listed interviews is referenced in applicable sections of this report and is documented on Record of Communication forms in *Appendix K*.

8.3.3 Site Occupants

Name	Title/Company	Years Associated with Site
Celestino Fernandez	Custodial Engineer	10

Mr. Fernandez, the custodial engineer for the Site, is considered a Site occupant. Information provided by Mr. Fernandez is described in Section 8.3.2.

8.3.4 Past Owners, Operators and Occupants

No prior owners or occupants were available to be interviewed.

8.3.5 Report User

Name	Title/Company	Years Associated with Site
Lee Guterman	Deputy Director/NYCSCA	N/A

According to the ASTM E1527-05 User Questionnaire provided by Ms. Guterman, the NYCSCA was not aware of any environmental liens, land use limitations, specialized knowledge, or past uses of the Site. Detailed information provided during the above-listed interviews is referenced in applicable sections of this report and a copy of the ASTM E1527-05 User Questionnaire is included in *Appendix K*.

8.4 Hazardous Substances and Petroleum Products Storage and Handling

8.4.1 Hazardous Substances

Small containers (5 gallons or less) of cleaning fluids, joint compound, and paints were stored on designated shelving in the janitor's closet on the second floor and within mechanical spaces. Small containers of laboratory-related chemicals (i.e. acids and bases) were stored in cabinets and designated shelving within two laboratory classrooms on the fourth floor. No significant stains or leaks were noted in these areas. The Site is listed as a RCRA SQG of hazardous wastes for mercury waste in 1996 and unknown (non-halogenated solvent) waste in 2005. Based on information provided by Mr. Edward Williams of the NYCSCA, the unknown waste generated in 2005 consisted of water with a trace concentration of acetone from the school laboratories that was pumped out of a sewage holding tank when the tank's pump failed. Based on the 1996 Notification of Hazardous Waste Activity Form obtained from FOIL request submitted to the USEPA, the mercury waste generated at the Site in 1996 is likely associated with removal of mercury-containing light bulbs. No evidence of a current or ongoing material release was noted in any of the inspected areas during the Site reconnaissance, therefore the aforementioned hazardous waste generation at the Site is not considered a current REC.

8.4.2 Petroleum Products Storage and Handling

The Site is registered as a Petroleum Bulk Storage Facility (Facility ID 2-352535) with two in-service No. 4 fuel oil ASTs located within a vault on the ground floor of the structure. No evidence of a material release was noted inside the tank vault. A fill port for the on-site AST system was noted in a concrete-paved area immediately outside of the southeastern portion of the Site building and a vent pipe was

located immediately outside of the building in this area. No stains or leaks were noted in connection with the suspect fill port or vent pipe.

8.5 Solid Waste Generation, Storage and Disposal

The New York City Department of Sanitation removes solid waste from the Site. No RECs associated with the solid waste generation and disposal at the Site were identified during the Site reconnaissance.

8.6 Polychlorinated Biphenyls (PCBs)

PCBs are toxic components of various products including, but not limited to caulking materials, light ballasts, and dielectric and hydraulic fluids that were formerly used in electrical equipment such as transformers and hydraulic elevators/lifts. The manufacture and use of PCBs was banned in the United States in 1978. Fluorescent lighting ballasts, electrical fixtures, and caulking associated with the on-site structure may be PCB-containing. No leaks or spills were noted in connection with the electrical or lighting fixtures. Suspected transformer vaults were noted in a concrete area southeast-adjacent to the Site that may contain PCBs.

8.7 Asbestos-Containing Material (ACM)

AKRF conducted a limited visual survey within accessible areas for the presence of suspect ACM at the Site. The intent of the building survey was to identify exposed suspect ACM through a preliminary non-destructive survey. In accordance with the NYCSCA scope of services, no sampling of suspect ACM was performed during this investigation. Pursuant to applicable asbestos control regulations and guidelines, AKRF considered any observed suspect materials to be asbestos-containing.

Suspect ACM noted in the on-site structure included chalkboards and associated mastic, resilient floor tile and mastics, ceramic floor and wall tiles and mastics, wallboard assemblies, pipe insulation, caulking, ceiling tiles, and roofing materials. Suspect ACM were noted to be in good to fair condition with some water staining noted on ceiling tiles throughout the structure. Additional asbestos-containing materials may be present within pipe chases, behind walls, above recessed ceilings, or in other hidden locations.

8.8 Lead-Based Paint (LBP) Survey

During the site inspection, a limited visual assessment of accessible painted surfaces was performed by AKRF. No sampling or intrusive work was performed, as this is outside the scope of this assessment. In accordance with NYCSCA's current interior LBP Inspection protocol, all painted interior surfaces are assumed to be LBP.

The interior painted surfaces within the public school space were in fair to good condition. Painted surfaces were observed on the exterior of the building including exterior concrete walls and doors. LBP is considered an environmental concern.

8.9 Regulatory Compliance

No regulatory compliance issues were noted during the Site reconnaissance.

8.10 Electromagnetic Fields

No high voltage power lines and/or substations were observed adjacent to the Site.

8.11 Other Environmental Conditions (Methane, Mold, etc.)

Based on a review of the historic topographic map and knowledge of the area, the Site was not located in an area of suspected former wetlands, and potential subsurface methane is not considered an environmental concern at the Site. No visual evidence of mold was noted in accessible portions of the structure.

9.0 SUMMARY OF FINDINGS

This report summarizes the findings of the Phase I ESA of I.S. 229X located at 275 Harlem River Park Bridge (aka 300 West Tremont Avenue), in the Bronx, New York (Block 2882, Lot 130). The Site consists of an approximately 155,000-SF, five-story building. The Site structure is built entirely on an approximately 15- to 20-foot high elevated concrete deck above Metro North railroad tracks, and is not in contact with soil.

The current on-site structure was constructed in 1976 and has been used as a school since that time. According to the New York City Department of Buildings and the Department of City Planning zoning map, the Site is currently zoned M2-1 (medium density manufacturing district) and does not contain a Hazardous Materials "E" Designation. Nearby properties consist of predominantly commercial and residential properties with some transportation/utility-related uses.

Pertinent findings from the historical use research, regulatory agency records review, and site reconnaissance and interviews are summarized below:

- Visual inspection of the adjacent areas was performed on August 8, 2011 by Neoma Chefalo of AKRF. Visual inspection of the Site building was performed on August 29, 2011 by Neoma Chefalo of AKRF, who was accompanied by Celestino Fernandez, Custodial Engineer for the building. Two in-service No. 4 fuel oil ASTs located were observed within a vault on the ground floor of the structure. The Site is registered as a PBS Facility (Facility ID 2-352535). No evidence of a material release was noted inside the tank vault. A fill port for the on-site AST system was noted in a concrete-paved area immediately outside of the southeastern portion of the Site building and a vent pipe was located immediately outside of the building in this area. A closed status spill (Spill No. 1101318) was listed for the Site in May 2011 for the release of approximately 10 gallons of fuel oil due to a tank overfill that resulted in a reported release to a paved parking lot and was reported to be cleaned and closed on the same day that it was reported. No evidence of a release was observed in association with the fill and vent lines and/or the surrounding paved areas at the time of the Site reconnaissance.
- According to the USGS 7.5-Minute Quadrangle Map, Central Park, New York, dated 1995, the elevation of the ground below the Site is approximately 17 feet above the National Geodetic Vertical Datum of 1929 (an approximation of mean sea level).
- Based on data in *Reconnaissance of the Ground-Water Resources of Kings and Queens Counties, New York*, USGS (*Ground-Water Resources*), and *Water-Table Altitude in Kings and Queens Counties, New York in March 1997*, USGS, groundwater is anticipated to be approximately 10 to 15 feet below the ground surface beneath the Site and most likely flows toward Harlem River, approximately 420 feet west of the Site.
- The Site is listed as a RCRA SQG of hazardous wastes for mercury waste in 1996 and unknown (non-halogenated solvent) waste in 2005. Based on information provided by the NYCSCA, the unknown waste consisted of water with a trace concentration of acetone from the school laboratories that was pumped out of a sewage holding tank when the tank's pump failed. Based on a 1996 Notification of Hazardous Waste Activity Form obtained from FOIL request submitted to the USEPA, the mercury waste generated at the Site in 1996 is likely associated with removal of mercury-containing light bulbs. No evidence of a current or ongoing material release was noted in any of the inspected areas during the Site

reconnaissance. Small containers (5 gallons or less) of cleaning fluids, joint compound, and paints were stored on designated shelving in the janitor's closet on the second floor and within mechanical spaces. Small quantities of routine laboratory chemicals were noted within cabinets and on designated shelving in laboratory classroom on the fourth floor. No evidence of leaks or spills was noted in connection with the cleaning fluids or laboratory chemicals.

- Current and former off-site uses identified in the historical records review, regulatory database and/or Site reconnaissance that may have affected subsurface conditions beneath the Site included:
- The Site was constructed above railroad tracks. Potential buried demolition debris associated with the former structures below the Site (train platforms) could include historic fill of unknown origin and railroad track components/ballasts with potential creosote and/or petroleum.
- Ernest Winzer Cleaners, a current dry cleaning facility located on the east-adjacent block at 1828 Cedar Avenue across the Major Deegan Expressway was noted during the Site reconnaissance and is listed in the regulatory database as a registered drycleaner and RCRA SQG (and historic LQG) for the production of spent halogenated solvents between 1989 and 2006.
- A Consolidated Edison substation/garage on the east-adjacent block across the Major Deegan Expressway at 1823 Sedgwick Avenue, with buried gasoline tanks noted on the 1950 through 2007 Sanborn maps, listed as a RCRA generator of wastes including dielectric fluids, glycol, mercury, corrosives and PCB wastes, and on the NY Spills databases with open and closed spills affecting soil and/or groundwater.
- Nu River Cleaners, a current drop-off drycleaners located on the southwest-adjacent block at 45 Richman Plaza, was listed as a RCRA non-generator and a historic SQG for the production of halogenated solvents between 1987 and 1995.
- Sanborn Maps identified a boat engine company with workshops, a planing mill, print/paint shops, a show room and gasoline engine shops on the northwest-adjacent block between 1896 and 1928 that was converted to a technical tape factory, food distribution warehouse and Singer Truck Corporation, as shown on the 1950 map.
- Sanborn maps noted a coal yard and yacht launch and engine company west-adjacent to the Site containing repair/machine shops, a freight house, a mechanic shop, a planing mill, print shop, joiner shops, an auto house, and two buried gasoline tanks on the 1900 through 1928 Sanborn Maps.
- A coal yard containing coal pockets, garages and steel fabrication shops on the southwest-adjacent block on the 1950 Sanborn Map.
- Sanborn Maps identified industrial/automotive uses on the east-adjacent block including a candy factory at 1830 Cedar Avenue, a blind factory at 1800 Cedar Avenue.
- One NYSDEC spill listing on the northeast-adjacent block, one PBS facility on the northeast-adjacent block, and one CBS facility on the west-adjacent block were identified that could have affected the Site subsurface.

- Suspect ACM noted in the on-site structure included chalkboards and associated mastic, resilient floor tile and mastics, ceramic floor and wall tiles and mastics, wallboard assemblies, pipe insulation,

caulking, ceiling tiles, and roofing materials. Additional asbestos-containing materials may be present within pipe chases, behind walls, above recessed ceilings, or in other hidden locations.

- Based on the age of the Site building, interior and exterior painted surfaces are considered suspect LBP.

- Based on the age of the Site building, fluorescent lighting ballasts, electrical fixtures, and caulking associated with the on-site structure may be PCB-containing. Suspected transformer vaults were noted in a concrete area southeast-adjacent to the Site that may contain PCBs.

10.0 CONCLUSIONS AND RECOMMENDATIONS

AKRF has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-05 and the requirements of NYCSCA. Any additions to, exceptions to, or deletions from this practice are described in Section 2.0 of this report.

This assessment has revealed no evidence of on-site RECs/VECs. This Phase I ESA has revealed the following off-site RECs and/or VECs associated with the Site:

Off-site RECs/VECs:

- Potential buried demolition debris associated with the former structures below the Site (train platforms), that could include historic fill of unknown origin and railroad track components/ballasts with potential creosote and/or petroleum.
- A current dry cleaning facility located on the east-adjacent block (1828 Cedar Avenue) across the Major Deegan Expressway listed in the regulatory database as a registered drycleaner, RCRA SQG, and historic LQG for the production of spent halogenated solvents between 1989 and 2006. This facility could also be a potential source of air emissions
- A Consolidated Edison substation/garage on the east-adjacent block (1823 Sedgwick Avenue) with buried gasoline tanks noted on the 1950 through 2007 Sanborn Maps, listed as a RCRA CESQG generator of wastes including dielectric fluids, glycol, mercury, corrosives and PCB wastes, and on the NY Spills databases with open and closed spills affecting soil and/or groundwater.
- A current drop-off drycleaners located on the southwest-adjacent block (45 Richman Plaza) listed as a RCRA non-generator and a historic SQG for the production of halogenated solvents between 1987 and 1995.
- Former industrial/automotive uses including: Coal Yard and Yacht Launch and Engine Co. with machine shops, gasoline tanks and boat repair shops west- and northwest adjacent to the Site (1900-1928); auto parts warehouse, coal pockets, garages and steel fabrication shops west- and southwest-adjacent to the Site (1950); Singer Truck Company and tape factory northwest of the Site (1950).
- A CBS facility (sodium hypochlorite) and SQG (lead) associated with Roberto Clemente State Park, west-adjacent to the Site.
- Former automotive-related/manufacturing uses on the east-adjacent tax blocks (e.g., garages with gasoline tanks, factories).
- One NYSDEC spill listing, one PBS facility, and one CBS facility on nearby properties with the potential to have affected the Site subsurface.

Environmental Concerns

The Phase I ESA has identified the following environmental concerns associated with the Site:

- Suspect ACM noted in the on-site structure included chalkboards and associated mastic, resilient floor tile and mastics, ceramic floor and wall tiles and mastics, wallboard assemblies, pipe insulation, caulking, ceiling tiles, and roofing materials. Additional asbestos-containing materials may be present within pipe chases, behind walls, above recessed ceilings, or in other hidden locations.

- Based on the age of the Site building, interior and exterior painted surfaces are considered suspect LBP.

- Based on the age of the Site building, fluorescent lighting ballasts, electrical fixtures, and caulking associated with the on-site structure may be PCB-containing. Suspected transformer vaults were noted in a concrete area southeast-adjacent to the Site that may contain PCBs.

Recommendations

An IAQ Survey conducted at the Site in August 2011 concluded that VOC levels in indoor and outdoor air do not represent a concern. Based on these findings, no further investigation of the identified RECs/VECs is warranted at this time. Prior to renovations that would disturb the subsurface or if consideration is given to purchasing the property in the future, a comprehensive Phase II Environmental Site Investigation should be completed. Any suspect ACM, suspect LBP, and/or suspect PCB-containing materials must be properly maintained and managed during any renovation or demolition activities in accordance with NYCSCA policies and procedures.

11.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

AKRF Engineering, P.C. (AKRF) has performed a Phase I ESA of Intermediate School (I.S.) 229X (X229), located at 275 Harlem River Park Bridge in Bronx, New York (the "Site"). The scope of the Phase I ESA was consistent with the requirements of ASTM Standard Practice E 1527-05 and of the NYCSCA. Signatures of the Environmental Professionals who participated in conducting this Phase I ESA are provided below. Qualifications for these individuals are provided in *Appendix L*. AKRF declares that to the best of their professional knowledge and belief, they meet (s) the definition of Environmental Professional as defined in § 312.10 of 40 CFR 312. AKRF has the specific qualifications based on education, training and experience to assess the subject property. AKRF has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

PREPARED BY: _____
Neoma Chefalo
Project Scientist (Environmental Professional)

REVIEWED BY: _____
Rebecca A. Kinal, P.E.
Sr. Technical Director (Project Manager)

_____
Michelle Lapin, P.E.
President (QC Officer)

12.0 REFERENCES

Persons Interviews:

- Mr. Celestino Fernandez, Custodial Engineer at Intermediate School (I.S.) 229X (X229), contacted August 29, 2011.

Resources Consulted:

- Environmental Data Resources Inc. (EDR) of Milford, Connecticut, Regulatory Agency Database Report, dated August 5, 2011.
- EDR Aerial Photographs: 1954, 1966, 1975, 1984, 1995 and 2006.
- EDR Historical Sanborn Fire Insurance Maps: 1896, 1900, 1915, 1922, 1928 1950, 1977, 1978, 1979, 1980, 1981, 1984, 1985, 1986, 1989, 1991, 1992, 1993, 1995, 1996, 1998, 2001, 2002, 2003, 2004, 2005, 2006 and 2007.
- EDR Historical USGS topographic quadrangle maps: 1897, 1947, 1966, 1979, 1995 and 1998
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