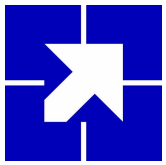
PHASE I
ENVIRONMENTAL SITE ASSESSMENT

KINGSBRIDGE ARMORY
29 WEST KINGSBRIDGE ROAD
BOROUGH OF THE BRONX – CITY OF NEW YORK

Prepared for



NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION
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Table of Contents

EXECUTIVE SUMMARY ..... **III**

1.0 INTRODUCTION **1**

1.1 PURPOSE 1
1.2 REPORT OUTLINE 1

2.0 SCOPE OF WORK **3**

2.1 SCOPE OF ASSESSMENT 3
2.2 SIGNIFICANT ASSUMPTIONS 3
2.3 LIMITATIONS AND EXCEPTIONS 3
2.4 RELIANCE 3

3.0 SITE BACKGROUND **5**

3.1 LOCATION 5
3.2 GEOLOGY/HYDROGEOLOGY 5
3.3 DESCRIPTION OF FACILITIES 6
3.4 FACILITY OPERATIONS 6
3.5 ADJACENT PROPERTIES 7

4.0 SITE HISTORY **8**

4.1 GENERAL SITE HISTORY 8
4.2 HISTORICAL AERIAL PHOTOGRAPHS 8
4.3 SANBORN FIRE INSURANCE MAPS 8
4.4 HISTORICAL TOPOGRAPHIC MAPS 10
4.5 CITY DIRECTORY SEARCH 10
4.6 ENVIRONMENTAL LIEN SEARCH 11
4.7 HISTORICAL INFORMATION CONCERNING ADJACENT PROPERTIES 11

5.0 REGULATORY AGENCY DATABASE REVIEW **12**

5.1 RESULTS OF DATABASE SEARCH 17
5.2 NEARBY SITES 18
5.2.1 RCRIS-SQG Sites 19
5.2.2 LTANKS Sites 19
5.2.3 UST Sites 19
5.2.4 NYSPILLS Sites 20
5.2.5 Orphan Sites 20

6.0 AGENCY REVIEW **22**

6.1 CITY/BOROUGH AGENCIES 22
6.2 STATE AGENCIES 23

7.0 CLIENT PROVIDED INFORMATION **24**

8.0 SITE RECONNAISSANCE 25

8.1 METHODOLOGY AND LIMITING CONDITIONS 25
8.2 SITE CONDITIONS 25
8.3 SITE UTILITIES 27
8.4 SITE DRAINAGE 27
8.5 UNDERGROUND AND ABOVEGROUND STORAGE TANKS 27
8.6 OIL-FILLED EQUIPMENT 27
8.7 HAZARDOUS MATERIALS AND PETROLEUM STORAGE 27
8.8 WASTE GENERATION 28
8.9 NEIGHBORING PROPERTIES 28

9.0 INTERVIEWS WITH FACILITY PERSONNEL 29

10.0 FINDINGS AND CONCLUSIONS 30

11.0 STATEMENT OF LIMITATIONS 32

12.0 REFERENCES 34

Figures

Figure 1 Site Location Map
Figure 2 Site Plan

Appendices

Appendix A Qualifications of Responsible Environmental Professionals
Appendix B EDR Database Search Report and EDR Site Report
Appendix C Historical Aerial Photographs
Appendix D Sanborn Fire Insurance Maps
Appendix E Historical Topographic Maps
Appendix F City Directory Search
Appendix G Environmental Lien Search
Appendix H FOIL/Information Requests
Appendix I NYC Department of Buildings Information
Appendix J Site Photographs

EXECUTIVE SUMMARY

Metcalf & Eddy of New York, Inc. ("M&E") was retained by the New York City Economic Development Corporation ("EDC") to conduct a Phase I Environmental Site Assessment ("ESA") of a property identified as the Kingsbridge Armory (the "Armory") and located at 29 West Kingsbridge Road (the "Site"). The Site is identified by the New York City Department of Finance as Block 3247, Lot 2 and is located on five (5) acres and encompasses four (4) city blocks. The Armory is situated north of West Kingsbridge Road, south of West 195th Street, east of Reservoir Avenue and west of Jerome Avenue in the Kingsbridge Heights section of the Borough of the Bronx in the City of New York (the "City"). The Armory was designed by architects Pilcher and Tachau as a medieval, Romanesque-style fortress with towers and parapets and built between 1913 and 1917. The Armory is comprised of over 475,000 square feet of space and was formerly used as a staging area for military operations and training in the Bronx. Two (2) annex buildings are located north of the Armory along West 195th Street. The building located at 10 West 195th Street is a two (2) story concrete and brick structure and currently houses the State Armory National Guard Recruiting office and the 258th Field Artillery Unit. A one (1) story building located near the intersection of Reservoir Avenue and West 195th Street is used for vehicle storage by the National Guard. Major renovations to the Armory were conducted by Turner Construction between 2000 and 2005. The renovations included the roof above the drill floor, the company rooms and towers south of the drill floor, and asbestos abatement of the roofing material and piping insulation on the mezzanine level of the drill floor. The Site which is owned by the City, was designated a New York City landmark in September 1974 and was placed on the National Register of Historical Places in 1982.

An environmental database provided by Environmental Data Resources ("EDR") identified sites within the search radii where documented environmental impacts have occurred. Although the EDR database information did not include any documentation from which it could be concluded that the sites identified within the search radii have impacted the Site, it is possible that groundwater under the site has been impacted due to the industrial/commercial use of the surrounding area, and by potential contamination in on-site fill materials. However, it should be noted that the groundwater in this area is not used as a potable source.

During the Phase I ESA, a visual inspection of the Site was performed. The visual inspection identified three (3) 275 gallon above ground fuel oil tanks ("ASTs"). One (1) tank is located in the northeast corner of the building on the drill hall floor; the two (2) remaining tanks are located two (2) levels below the drill hall in the southwestern portion of the building, east of the former bowling alley. None of the tanks appeared to contain significant amounts of product. A

petroleum odor was detected in room B-20 located on the first level below the drill floor in the western portion of the building; however, no source for the odor could be located. Several 5-gallon pails of Esguard LubraKote Black, a flashing cement, were observed in several of the rooms on the second level below the drill hall in the western portion of the building. Cans of motor oil, brake fluid and other petroleum-based lubricants as well as empty gasoline cans were observed in the motor pool workshops located along the northern portion of the company rooms on the mezzanine of the second level below the drill floor. Ten (10) 55-gallon steel drums were observed in the parking/vehicle storage area located three (3) levels below the drill hall floor. The drums are beginning to show signs of deterioration with rust and holes present in several of the drums. The content of the drums is unknown, although most appear to be free of liquids. In addition, possible oil staining of the concrete near the center of the parking/vehicle storage area was observed as well as an area where the concrete floor was saw cut and backfilled with sand. This area may have once contained a UST.

Three (3) earthen floored rifle and pistol ranges were observed on the Site and are suspected to contain elevated concentrations of lead from spent munitions. The first pistol range is located on the second level below the motor pool workshops. Spent munitions were observed embedded in the wooden walls of pistol range. The other pistol/rifle ranges are located on the third level below the drill floor in the eastern portion of the building near Jerome Avenue. No spent munitions were observed at these ranges.

Deteriorating equipment such as the boiler located in the southwestern portion of the basement of the company rooms and air conditioning units located in the northeastern portion of the Armory, one (1) level beneath the drill hall may contain asbestos, lubricating oils and refrigerants. Peeling paint that may contain lead, light ballasts possibly containing polychlorinated biphenyls ("PCBs"), potential asbestos containing materials ("ACM") including pipe wrap and floor tiles and extensive mold growth was present in the majority of the company rooms located along the southern portion of the Armory and the company rooms beneath the drill hall. In addition, water damage to the walls, ceilings and floors of the upper level company rooms and turret rooms is prevalent.

In September 2000, ET Environmental submitted an Environmental Survey Report to the EDC prior to the roofing renovations to determine the presence of asbestos, lead-based paint ("LBP") and bird droppings. Samples collected in the vicinity of the work areas indicated non-friable asbestos and LBP were present on the Site. Additional sampling for PACM, LBP and a light ballast survey are recommended for the company rooms and the levels beneath the drill hall. A survey of the 55 gallon drums should be conducted to include an inventory of the drums and a

determination of the contents of the drums. Once completed, the drums and their contents should be properly disposed. It is also recommended that the three (3) ASTs be removed as well as the petroleum products in the motor pool workshops and the lower levels beneath the drill hall. Deteriorating equipment should also be properly removed from the site. In addition, the earthen floors of the pistol and rifle ranges should be remediated and the spent rounds from the walls of the second level pistol range should be removed due to the potential presence of lead.

Additional recommendations could be warranted should potential environmental issues be identified by outstanding FOIL/Information requests submitted to the New York City Department of Environmental Protection, the New York City Department of Health, and the New York State Department of Health.

1.0 INTRODUCTION

Metcalf & Eddy of New York, Inc. ("M&E") was retained by the New York City Economic Development Corporation ("EDC") to conduct a Phase I Environmental Site Assessment ("ESA") of a property identified as the Kingsbridge Armory (the "Armory") and located at 29 West Kingsbridge Road (the "Site"). The Site is identified by the New York City Department of Finance as Block 3247, Lot 2 and is located on five (5) acres and encompasses four (4) city blocks. The Armory is situated north of West Kingsbridge Road, south of West 195th Street, east of Reservoir Avenue and west of Jerome Avenue in the Kingsbridge Heights section of the Borough of the Bronx in the City of New York (the "City"). The Armory was designed by architects Pilcher and Tachau as a medieval, Romanesque-style fortress with towers and parapets and built between 1913 and 1917. The Armory is comprised of over 475,000 square feet of space and was formerly used as a staging area for military operations and training in the Bronx. Two (2) annex buildings are located north of the Armory along West 195th Street. The building located at 10 West 195th Street is a two (2) story concrete and brick structure and currently houses the State Armory National Guard Recruiting office and the 258th Field Artillery Unit. A one (1) story building located near the intersection of Reservoir Avenue and West 195th Street is used for vehicle storage by the National Guard. Major renovations to the Armory were conducted by Turner Construction between 2000 and 2005. The renovations included the roof above the drill floor, the company rooms and towers south of the drill floor, and asbestos abatement of the roofing material and piping insulation on the mezzanine level of the drill floor. The Site which is owned by the City, was designated a New York City landmark in September 1974 and was placed on the National Register of Historical Places in 1982.

1.1 Purpose

The ESA was performed to determine if any potential environmental impacts occurred at or in the vicinity of the Site.

1.2 Report Outline

The report is divided into twelve (12) sections:

- Section 1 presents the introduction to the report;
- Section 2 details M&E's scope of work for this project;
- Section 3 provides information on the site background, setting, and operations;
- Section 4 provides details on the historical use and development of the site;

- Section 5 presents the results of the regulatory agency review;
- Section 6 presents the results of contacts with local agencies;
- Section 7 presents information provided by the client;
- Section 8 provides observations made during the site reconnaissance;
- Section 9 identifies facility personnel who were interviewed;
- Section 10 presents M&E's findings and conclusions;
- Section 11 presents a statement of limitations; and,
- Section 12 contains a list of references.

2.0 SCOPE OF WORK

2.1 Scope of Assessment

The purpose of the ESA was to evaluate the Site conditions with respect to potential impacts to soil or groundwater from petroleum products or hazardous substances. The scope of the ESA consisted of the performance of a site walk-through and visual site inspection with respect to environmental issues, interviews with key personnel, and requesting/reviewing local governmental files relating to environmental issues at the Site. An environmental database search (Appendix B), historical aerial photographs (Appendix C), Sanborn Fire Insurance Maps (Appendix D), historical topographic maps (Appendix E), a city directory search (Appendix F), and an Environmental Lien search (Appendix G) were obtained from Environmental Data Resources, Inc. ("EDR") in Southport, Connecticut.

2.2 Significant Assumptions

This Phase I ESA was prepared using information obtained from/provided by the following sources:

- Information provided by the client;
- Visual inspection of the subject site;
- Available published information;
- EDR database searches;
- Local/State government officials; and,
- Site/Owner representatives.

It is assumed that the information obtained through the above methods is valid and accurate as provided. The passage of time, manifestation of latent conditions, and occurrence of future events or changes to existing codes/regulations may alter the conclusions and recommendations of this report.

2.3 Limitations and Exceptions

Performance of the Phase I ESA was limited to a visual assessment of the site.

2.4 Reliance

This report has been prepared on behalf of and for the exclusive use of the EDC and is subject to

and issued in connection with the Agreement and provisions thereof.

3.0 SITE BACKGROUND

3.1 Location

The Site is located at 29 West Kingsbridge Road on five (5) acres and encompassing four (4) city blocks in the Kingsbridge Heights section of the Borough of the Bronx (Figure 1). The geographic coordinates for the Site are 40° 52' 3.0" N, 73° 53' 51.0" W. The Site is identified by the City of New York Department of Finance as Block 3247, Lot 2.

The Site is comprised of an approximate 900,000 square foot building formerly used as a staging area for military operations and training in the Bronx. Two (2) annex buildings are located north of the Armory along West 195th Street. The building located at 10 West 195th Street is a two (2) story concrete and brick structure and currently houses the State Armory National Guard Recruiting office and the 258th Field Artillery Unit. A one (1) story building located near the intersection of Reservoir Avenue and West 195th Street is used for vehicle storage by the National Guard. The Site is approximately 130-140 feet above mean sea level ("msl"), based upon United States Geological Survey ("USGS") Central Park NY-NJ 7.5 Minute Quadrangle and EDR mapping obtained for the Site. A Site Plan is provided as Figure 2.

3.2 Geology/Hydrogeology

The area containing the Site lies within the glaciated Highlands physiographic province of New York. The bedrock geology in the area described in a report titled Geology and Engineering Geology of the New York Metropolitan Area, Field Trip Guidebook T361 (Baskerville 1989) prepared for the 28th International Geological Congress, consists of the Fordham Gneiss of Proterozoic age. Surficial deposits in the region are mapped as glacial till (Cadwell et al 1986). Depending upon the specific location in the region the overburden material could also include fluvial, marine-tidal marsh, and recent fill deposits. Many low-lying areas have been historically filled to accommodate development. The bedrock surface is reportedly greater than 20 feet below grade near the Site, but large outcrops are visible east of Third Avenue. The outcrop appears to be associated with the Fordham Gneiss, member C, which consists of a fine-grained schist with biotite-muscovite-quartz interlayers.

Soils in New York City are typically classified as "Urban Land", a generic description of soils that have been buried, re-worked, or otherwise altered as a result of human activities. The buried, native soils in the general area of the Site are believed to be composed of loamy sand, silt loam, sandy loam and fine sandy loam. The deeper soil types are believed to consist of very gravelly-loamy sand, and stratified sandy loam. It is likely that the original soils at the Site developed on

glacial material.

3.3 Description of Facilities

The Armory was designed by architects Pilcher and Tachau as a medieval, Romanesque-style fortress with towers and parapets and built between 1913 and 1917. The Armory is located on five (5) acres encompassing four (4) city blocks and was formerly used as a staging area for military operations and training in the Bronx. Two (2) annex buildings are located north of the Armory along West 195th Street. The building located at 10 West 195th Street is a two (2) story concrete and brick structure and currently houses the State Armory National Guard Recruiting office and the 258th Field Artillery Unit. A one (1) story building located near the intersection of Reservoir Avenue and West 195th Street is used for vehicle storage by the National Guard. Major roof renovations to the metal and glass roof spanning the drill hall and to the flat roof behind the parapets above the company rooms located south of the drill hall were conducted between 2000 and 2005.

Three (3) levels exist beneath the drill hall floor. These levels include additional company rooms and work shops, a theater and lecture hall, a former gymnasium and basketball court, a former bowling alley, rifle and pistol ranges, and a subterranean parking/vehicle storage space. The company rooms on the upper levels are largely comprised of living quarters, office/administrative space, dining and entertainment rooms (including a library, bar and sitting rooms). Below the drill floor level, the company rooms consist of work shops, nurses' aid stations, locker rooms and the boiler room.

3.4 Facility Operations

The Site is managed by Apple Industrial who currently employs two (2) full–time workers to maintain the Site. The eastern portion of the drill hall of the Armory is occupied by the City of New York Community Assistance Unit, Anti-Graffiti Task Force. The task force parks vehicles on the Site and occupies several offices. Turner Construction maintains office space in the Armory but does not have any employees currently on Site.

The Armory was home to the New York National Guards 258th Field Artillery Unit until 1984 when the unit relocated to the smaller 2-story building located at 10 West 195th Street. The New York City Department of Homeless Services operated a woman's shelter at 2727 Jerome Avenue; in the northeastern portion of the Site until mid-2000.

3.5 Adjacent Properties

The buildings and land use types surrounding the site are as follows:

- North: West 195th Street south of Public School 86 and Walton High School.
- South: Retail, commercial and residential properties located south of West Kingsbridge Road.
- East: Jerome Avenue and the New York City Transit elevated rail lines west of retail, commercial and residential properties along eastbound Jerome.
- West: Fordham Manor Reformed Church and Apartment buildings further west.

4.0 SITE HISTORY

4.1 General Site History

The Site is located in Kingsbridge Heights section of The Bronx, in an area that was developed in the middle to late 1800s. The area has since included residential, commercial, and small industrial facilities. Historical site information was obtained from historical aerial photographs, Sanborn Fire Insurance Maps, historical topographic maps and a City Directory Search. A review of these sources indicates that the Site was originally below water along the southern portion of the Jerome Park Reservoir in the late 1800's. Construction of Armory began in 1913 and was completed in 1917. A detailed description of the documents reviewed is presented below.

4.2 Historical Aerial Photographs

Historical black and white aerial photographs were reviewed for the years 1954, 1966, 1974, 1984, and 1994. The scale of the photographs prevents detailed analysis; however, the photographs do provide an overall view of history of urbanization of the Site and surrounding area. A description of each photograph is presented below. Aerial photographs are included as Appendix C.

1954 Aerial Photograph (1 inch = 750 feet)

The 1954 aerial photograph shows the Site as completely developed, but fine details cannot be identified. The surrounding areas are also completely developed.

1966, 1974, and 1984 Aerial Photographs (1-inch = 750 feet)

There are no significant changes visible at the Site or surrounding areas since the 1954 Aerial Photograph.

1994 Aerial Photograph (1-inch = 833 feet)

No significant on-site or off-site changes are visible from the previous aerial photographs.

4.3 Sanborn Fire Insurance Maps

The Sanborn Fire Insurance Map database was searched by EDR. Sanborn Maps were reviewed for the years 1896, 1900, 1914, 1950, 1978, 1981, 1984, 1989, 1991, 1992, 1993, 1995, and 1996 (Appendix D). The Sanborn Map findings are summarized below.

1896-1901 Sanborn Maps

The Site is shown to be part of the southern portion of a surface water body identified as the Jerome Park Reservoir (the reservoir was not completed until 1906). The surrounding parcels to the east, west and south are undeveloped.

1914 Sanborn Map

The Site is shown as the Armory, 8th Coast Artillery, District N. G. N. Y. (National Guard New York) in the midst of construction. The Sanborn map notes the roof over the drill room as a steel truss with asbestos on wood planking. A gate house to the Armory is depicted at the northeast corner of Reservoir Avenue and West Kingsbridge Road. The Jerome Park Reservoir, with a notation stating "not yet constructed", is shown to the north of the Site (though the reservoir was completed in 1906). No other surrounding structures are depicted on the Sanborn map.

1950 Sanborn Map

The majority of the Site remains unchanged from the previous Sanborn map; however, the gate house depicted on the 1914 Sanborn map is no longer present and a small outbuilding is present off the northeast corner of the Armory. West 195th Street, Public School 86 and Walton High School are shown in the area previously depicted as the site of the Jerome Park Reservoir. The elevated train station at the corner of West Kingsbridge Road and Jerome Avenue is shown as under construction. Properties located east, west and south of the Armory are no depicted on the 1950 Sanborn map.

1978 Sanborn Map

The 1978 Sanborn map shows the 2-story building located at 10 West 195th Street and states that it was constructed in 1958. The map indicates that the building was used as lockers (first floor) and classrooms (second floor). This building currently houses the New York National Guards 258th Field Artillery Unit. The Armory garage located to the west of this building is also shown, however no date of construction is provided. There are no visible changes to the properties north of the Site.

1981-1984 Sanborn Maps

There are no visible changes to the Site or adjacent lots on the Sanborn Maps for this period.

1989 Sanborn Map

There are no visible changes to the Site from the previous Sanborn maps. An iron structure

containing additional classrooms was constructed east of Public School 86, north of the Site.

1991-1993 Sanborn Maps

There are no visible changes to the Site or adjacent lots on the Sanborn maps for this period.

1995-1996 Sanborn Maps

There are no visible changes to the Site from the Sanborn maps. An Air Balloon Gym is shown on these maps east of the Public School 86 addition first depicted on the 1989 Sanborn map.

4.4 Historical Topographic Maps

Historical topographic maps (USGS 7.5 minute Quadrangle sections) were obtained from EDR, and were reviewed for the years 1897, 1947, 1966, 1979 and 1995. A brief description of each map and the scale is presented below. The maps are included as Appendix E.

1897 Topographic Map (1:62,500)

The Site is shown to be within a surface water identified as the Jerome Park Reservoir (which was completed in 19906). The land surrounding the reservoir is shown as mostly undeveloped.

1947 Topographic Map (1:25,000)

The southern portion of the Jerome Park Reservoir appears to have been filled in and the Site is shown on this map and depicted as the 27th Tank Company Armory. The surrounding areas are shown as completely urbanized and Public School 86 and Walton High School are depicted to the north of the Site.

1966-1995 Topographic Maps (1:24,000)

No significant changes are visible at the Site on any of these maps. The garage building appears on the 1966 and subsequent maps; however, the 2-story building at 10 West 195th Street is not shown on any of these maps. No changes to the properties surrounding the Site are shown on these maps.

4.5 City Directory Search

A City Directory Search was conducted for the years 1927 - 2000, using 1 West Kingsbridge Road as the center point of the search (Appendix E). The Site address was not listed in the

research sources. A search of the neighboring properties identifies retail and commercial businesses at addresses located along East and West Kingsbridge Roads and Jerome Avenue.

4.6 Environmental Lien Search

The EDR Environmental Lien Search Report (Appendix F) is intended to assist in the search for environmental liens filed in land title records. The environmental lien search indicates that there are no liens on the Site.

4.7 Historical Information Concerning Adjacent Properties

Limited site-specific information on the history of the adjoining properties was available through the Sanborn maps, aerial photographs, the city directory search, and historical topographic maps. The majority of the area surrounding the Site since the turn of the twentieth century has been and remains retail and commercial in character.

5.0 REGULATORY AGENCY DATABASE REVIEW

EDR conducted a regulatory file review for the Site and surrounding areas. The search radius for the database review was centered on a point located at 29 West Kingsbridge Road at the coordinates 40° 52' 3.0" N, 73° 53' 51.0" W. A copy of the EDR report is provided in Appendix B. The Phase I ESA discusses only those facilities identified by EDR in the databases searched as of the last agency contact date, and at the distances from the property boundary noted below. The databases were searched and selected by EDR based on the requirements of ASTM E1527-00.

Federal Database Records

- National Priority List ("NPL") for both existing and deleted facilities within a 1-mile boundary of the Site as of April 19, 2006.

- Proposed NPL, sites proposed for inclusion on the NPL as of April 19, 2006.

- The NPL Deletions database for sites approximately 1 mile of the Site as of April 19, 2006. The NPL Deletions database identifies sites meeting the EPA's criteria to delete sites from the NPL per the National Oil and Hazardous Substances Pollution Contingency Plan.

- NPL Recovery database as of October 15, 1991. The NPL Liens database lists those sites where the USEPA has filed liens against real property in order to recover remedial action expenditures. The database search is for only the Site.

- Comprehensive Environmental Response, Compensation, and Liability Information System ("CERCLIS") sites located within approximately 1/2 mile of the boundary of the Site as of February 1, 2006.

- No Further Remedial Action Proposed ("NFRAP") sites located within 1/2 mile of the boundary of the Site as of February 1, 2006.

- RCRA Corrective Action Activity ("CORRACTS") of the subject property within 1 mile of the Site as of March 15, 2006. CORRACTS identifies RCRA facilities under corrective action activity.

- Resource Conservation and Recovery Information System ("RCRIS") Facilities Lists including large and small quantity generators and treatment facilities located within approximately 1/4 mile and storage, transportation, and disposal facilities located within approximately 1/2 mile of the boundary of the Site as of February 21, 2006.

- Emergency Response Notification System ("ERNS") listings for the Site as of December 31, 2005.

- The Hazardous Materials Information Reporting System ("HMIRS") as of December 31, 2005. The HMIRS database contains hazardous materials spill incidents reported to the DOT. The database search is for only the Site.

- US ENG Control as of March 21, 2006 is a listing of sites with engineering controls in place including 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.

- US INST Control as of March 21, 2006 is a listing of sites with institutional controls in place including administrative measures such as groundwater use, construction and property use restrictions, and post remediation care requirements intended to prevent exposure to contaminant remaining on site.

- Department of Defense ("DOD") database include federally owned or lands administered by the DOD that have any area greater than 640 acres. This data set was last updated December 31, 2004.

- Formerly Used Defense Site ("FUDS") database as of December 5, 2005 includes properties where the US Army Corps of Engineers is actively working and will take necessary cleanup measures.

- US Brownfields database as of November 29, 2005 includes sites addressed by Targeted Brownfield Assessments ("TBA") and EPA Cooperative Agreement Recipients.

- The Superfund Consent Decrees ("CONSENT") are major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites including settlements within approximately 1 mile of the boundary of the Site. This data set was last updated December 14, 2004.

- The Record of Decision ("ROD") for sites approximately 1 mile of the Site as of December 7, 2005. The ROD documents mandate a permanent remedy at an NPL site containing technical and health information to aid in the cleanup.

- The Toxic Release Inventory System ("TRIS") Database searches for the Site as of December 31, 2003. The TRIS sites are required to complete a Toxic Chemical Release Form (Form R) for specified chemicals.

- The Toxic Substances Control Act ("TSCA") database as of December 31, 2002. The TSCA database identifies facilities that manufacture or chemical substances included on the TSCA Chemical Substance Inventory list. The database search is for only the Site.

- The FIFRA/TSCA Tracking System ("FTTS") database as of January 17, 2006. The FTTS database tracks administrative cases and pesticide enforcement actions related to the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA"), TSCA, and Emergency Planning and Right to Know ("EPCRA") Act. The database search is for only the Site.

- SSTS database as of December 31, 2003 is the Section Seven Tracking Systems database of the FTTS, which requires all pesticide producing establishments to submit an annual report to the EPA by March 1 of each year.

- The PCB Activity Database System ("PADS") as of December 27, 2005. PADS is maintained by EPA and identifies generators, transporters, commercial storers and /or brokers and disposers of PCB's. The database search is for only the subject site.

- The Material Licensing Tracking System ("MLTS") as of February 10, 2006. MLTS is maintained by the NRC and contains a list of approximately 8,100 sites that possess or use radioactive materials and which are subject to NRC licensing requirements. The database search is for only the Site.

- The Mines Master Index File ("MINES") for sites within 1/4 mile of the Site as of November 8, 2005. MINES is maintained by the Department of Labor, Mine Safety and Health Administration to identify mining issues.

- The Facility Index System/Facility Identification Initiative Program Summary Report ("FINDS") as of January 9, 2006. The FINDS database contains both facility information and "pointers" to other sources that contain more detail. The database search is for only the Site.

- The RCRA Administrative Action Tracking System ("RAATS") database has been discontinued; however the EPA has retained a copy for historical records.

- The Biennial Reporting System ("BRS") as of December 31, 2003. The BRS is a system administered by EPA that collects data on the generation and management of hazardous wastes.

State of New York ASTM Standard Records

- The Hazardous Substance Waste Disposal Site Inventory ("HSWDS") database contains a listing of any known or suspected hazardous waste disposal sites that are within 1/2 mile of the Site. 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. This database is no longer maintained as a separate entity. The last update to the database was made September 1, 2002, and the last EDR contact was February 27, 2006.

- The Inactive Hazardous Waste Disposal Sites ("SHWS") database contains site records within 1 mile of the Site that are the State's equivalent to CERCLIS. The date of the last EDR contact was March 17, 2006.

- DEL SHWS is a database of sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites. The latest update was made December 30, 2005.

- The Solid Waste Facilities/Landfill Sites ("SWF/LF") database contains an inventory of solid waste disposal facilities or landfills in the state within 1/2 mile of the Site. The latest update to the database was May 3, 2006.

- The Registered Recycling Facility List ("SWRCY") as of May 3, 2006. The database lists facilities that are within 1/2 mile of the Site.

- The Registered Waste Tire Storage Facility List ("SWTIRE") as of April 1, 2004. The database identifies if the Site is on the list.

- LTANKS is the Spills Information Database which includes Leaking Storage Tank Incident Reports and contains an inventory as of April 5, 2006 of reported leaking storage tanks

(above or under ground) within 1/2 mile of the Site. The causes include tank test failures, tank failures, or tank overfills. HIST LTANKS is a listing of leaking underground and above ground storage tanks. In 2002 the DEC stopped providing updates to its original Spills Information Database. The date of the last EDR contact was April 6, 2006.

- The Petroleum Bulk Storage database ("PBS UST") identifies underground storage tanks ("UST") sites with capacities ranging from 1,100 gallons to 400,000 gallons that are located within 1/4 mile of the Site. The date of the last EDR contact was May 17, 2006.

- The Chemical Bulk Storage Database ("CBS") identifies facilities within 1/4 mile of the Site that store regulated hazardous substances in USTs of any size. The date of the last EDR contact was October 24, 2005.

- The Major Oil Storage Facilities Database UST ("MOSF") identifies facilities within 1/2 mile of the Site that may be onshore facilities, or vessels, with petroleum storage capacities of 400,000 gallons or greater. The date of the last EDR contact was July 25, 2005.

- The Petroleum Bulk Storage ("PBS AST") database identifies registered aboveground storage tanks ("AST") located at the Site. The date of the last EDR contact was May 17, 2006.

- The Chemical Bulk Storage Database, AST ("CBS AST") identifies facilities within 1/4 mile of the Site that store regulated hazardous substances in ASTs with capacities of 185 gallons or greater, and/or in USTs of any size. The date of the last EDR contact was July 25, 2005.

- The Major Oil Storage Facilities Database AST ("MOSF-AST") identifies AST facilities within 1/2 mile of the Site that may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater. The date of the last EDR contact was July 25, 2005.

- NY MANIFEST as of March 1, 2006 is a database that tracks facility and manifest data.

- The Spills Information Database ("SPILLS") identifies data collected on spills within 1/8 mile of the Site that were reported to NYSDEC as required by one or more of the following: Article 12 of the Navigation Law, 6 NYCRR Section 613.8 (from PBS regs), or 6 NYCRR Section 595.2 (from CBS regs). It includes spills active as of April 1, 1986, as well as spills occurring since this date. The latest update to the database was April 5, 2006. HIST SPILLS is a listing of leaking USTs and ASTs. In 2002 the DEC stopped providing updates to its original Spills Information Database. The date of the last EDR contact was July 7, 2005.

- ENG CONTROL as of December 30, 2005 is a listing of sites with engineering controls in place including 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.

- INST CONTROL as of December 30, 2005 is a listing of sites with institutional controls in place including administrative measures such as groundwater use, construction and property use restrictions, and post remediation care requirements intended to prevent exposure to contaminant remaining on site.

- The Voluntary Cleanup Agreements ("VCP") identifies sites within 1/2 mile of the Site where private monies are being used to remediate contaminated sites to levels allowing for the sites' productive use. The program covers virtually any kind of site and contamination. The date of the last EDR contact was March 12, 2006.

- DRYCLEANERS as of June 15, 2004 is a listing of registered dry cleaning facilities.

- BROWNFIELDS as of December 30, 2005 is the New York State Brownfields site list.

- The State Pollutant Discharge Elimination System ("SPDES") for the control of wastewater and stormwater discharges in accordance with the Clean Water Act. SPDES also controls point source discharges to groundwater as well as surface waters. The last EDR contact was May 9, 2006.

- The Aerometric Information Retrieval System ("AIRS") as of December 31, 2002 includes air emissions data.

The following sections discuss EDR's findings. Only databases for which information was found are presented below.

5.1 Results of Database Search

The Site was identified by street address on the RCRIS-SQG, RCRIS-LQG, FINDS, LTANKS, HIST LTANKS and NY MANIFEST databases searched by EDR. The Site was also identified by street address as NYS DMNA OMS#31 and listed on the RCRIS-SQG and NY MANIFEST databases; however, the Site was not identified as the target property by EDR. In addition, the

annex building located at 10 West 195th Street was identified on the UST and AST databases searched by EDR. The results of the database search are presented below:

Site Name	Address	Database(s)	Comments
Kingsbridge Armory	29 West Kingsbridge Road	RCRIS-SQG FINDS NY MANIFEST	RCRIS-SQG; no violations reported. FINDS indicated that the site has other pertinent environmental activity listed on the RCRIS database; however, no additional information was presented. NY MANIFEST has an additional fifteen (19) records on file.
Kingsbridge Armory	29 West Kingsbridge Road	LTANKS HIST LTANKS	Spill No. 8802461 reported 6/17/88. No. 2 fuel oil tank failed tightness test. Report states that the last of seven tanks was scheduled for removal in 8/04. Spill closed 8/10/04. Spill No. 9211568 reported 1/7/93. Soil contamination from piping detected during tank pull. Spill closed 3/28/05. Spill No. 9308016 reported 10/1/93. Diesel tank failure reported during tank removal. 100 yards of soil stockpiled on site. Spill remains open.
NYC EDC Kingsbridge Armory	29 West Kingsbridge Road-Roof	RCRIS-LQG NY MANIFEST	RCRIS-LQG; no violations reported. NY MANIFEST has an additional seven (7) records on file.
NYS DMNA OMS #31*	29 West Kingsbridge Road	RCRIS-SQG NY MANIFEST	RCRIS-SQG; no violations reported. NY MANIFEST has an additional one (1) record on file.
NYS Armory	10 West 195th Street	UST AST	One (1) 3,000 gallon diesel and one (1) 2,000 gallon unleaded gasoline USTs reported closed-removed on 9/1/93. One (1) 2,000 gallon fuel oil UST reported in service. One (1) 8,000 gallon fuel oil UST reported closed-removed 1/1/99 and one (1) 225 gallon unleaded gasoline UST reported closed-removed on 5/1/95. One (1) 225 gallon diesel fuel AST and one (1) 275 gallon AST with "other" contents reported on site.

* - Not reported by EDR as the target property

5.2 Nearby Sites

EDR identified one hundred sixty (160) sites within the search radii of the Site. The following

identifies the sites that are within 1/4 mile of the Site and have assumed groundwater elevations equal to or higher than the Site (based upon the assumed flow direction of groundwater to the north-northeast). Sites located downgradient of the Site are not included since the potential for these sites to impact the subject property is low. Each of these is identified below with respect to the database in which they appear and the same site may be listed on more than one database.

5.2.1 RCRIS-SQG Sites

EDR identified a total of three (3) listed Small Quantity Generator ("SQG") sites within 1/4 mile of the subject site. Of these, one (1) is listed as an alias for the Site and described in Section 5.1 and one (1) was located at an elevation equal to or higher and hydrogeologically upgradient or sidegradient to the Site with respect to the assumed groundwater flow direction. This SQG is summarized below:

Site Name	Address	Distance / Direction [1]	Comments
MTA NYCT – Kingsbridge Road Sta.	Jerome Avenue and Kingsbridge Road	0-1/8 mile E/sidegradient	No violations found.

1. Upgradient/sidegradient direction based on assumed groundwater flow direction.

5.2.2 LTANKS Sites

EDR identified forty-one (41) sites on the LTANKS database within 1/2 mile of the site. Of these, one (1) was located at an elevation equal to or higher and hydrogeologically upgradient or sidegradient to the Site with respect to the assumed groundwater flow direction and within 1/4 mile of the Site. A summary of the LTANK site is provided below:

Site Name	Address	Distance / Direction [1]	Comments
55 E. 196th Street	55 E. 196th Street	1/8-1/4 mile E/upgradient	Spill No. 9408807 reported 10/3/94. Twenty (20) gallons of #4 fuel oil reported spilled from tank overfill, spill closed 10/30/94.

1. Upgradient/sidegradient direction based on assumed groundwater flow direction.

5.2.3 UST Sites

EDR identified twenty-four (24) sites on the UST database. Of these, seven (7) were within 1/4 mile of the Site and hydrogeologically upgradient or sidegradient with respect to the assumed groundwater flow direction. One (1) of the sites is listed as an alias for the Site and described in Section 5.1. A summary of the remaining six (6) UST sites is provided below:

Site Name	Address	Distance / Direction [1]	Comments
2683 Morris Av Assoc.	2683 Morris Avenue	0-1/8 mile E/sidegradient	One (1) 4,000 gallon vaulted steel fuel oil UST reported in service. Date of installation is not reported.
2690 Morris Ave. Assoc.	2690 Morris Avenue	0-1/8 mile E/sidegradient	One (1) 5,000 gallon vaulted steel fuel oil UST reported in service. Date of installation is not reported.
Neiler Associates, LLC	2771 Morris Avenue	1/8-1/4 mile NE/upgradient	One (1) 3,500 gallon steel fuel oil UST reported in service. Date of installation is not reported.
2754 Grand Concourse	2754 Grand Concourse (2501 40th Avenue)	1/8-1/4 mile E/sidegradient	One (1) 7,000 gallon vaulted steel fuel oil UST reported in service. Date of installation is not reported.
Roban Mgmt	2784 Morris Avenue	1/8-1/4 mile NE/upgradient	One (1) 5,000 gallon vaulted steel fuel oil UST reported in service. Date of installation is not reported.
2786 Jerome Avenue	2786 Jerome Avenue	1/8-1/4 mile NNE/upgradient	One (1) 4,000 gallon vaulted steel fuel oil UST reported in service. Date of installation is not reported.

1. Upgradient/sidegradient direction based on assumed groundwater flow direction.

5.2.4 NYSPILLS Sites

EDR identified one (1) site on the Spills Information database that was within 1/8 mile of the Site. This site is located hydrogeologically upgradient or sidegradient to the Site with respect to groundwater flow. A summary of the NYSPILLS site is provided below:

Site Name	Address	Distance / Direction [1]	Comments
2683 Morris Av Assoc.	2683 Morris Avenue	0-1/8 mile E/sidegradient	Spill No. 0005691 reported on 8/11/00 and closed 8/25/05. Con Ed reported fuel oil contaminated soil found during gas replacement. The site was reported to have recently had the fill line replaced.

1. Upgradient/sidegradient direction based on assumed groundwater flow direction.

5.2.5 Orphan Sites

Orphan sites are those having limited address information that precludes mapping the site. One hundred forty six (146) unmapped sites were identified by EDR. Orphan sites are listed in the EDR report found in Appendix B. One (1) orphan site found on the NY MANIFEST database

was listed as United States Military-Kings Bridge and may be associated with the Site. One (1) additional orphan site, NYC BOE-Walton HS is located approximately 1/8 mile north of the Site. This site was identified on the NY MANIFEST, FINDS and RCRA-SQG databases. However, but the database report did not provide any specific information each of the sites. No additional orphan sites were identified during the site reconnaissance.

6.0 AGENCY REVIEW

M&E contacted several city, borough, and state officials to determine whether they had any knowledge of the Site or environmental concerns in the vicinity of the Site. A brief summary of M&E's correspondence is presented in the following sections, with copies of FOIL requests included in Appendix H and downloaded New York City Department of Buildings ("DOB") information included in Appendix I.

6.1 City/Borough Agencies

The following is a summary of information obtained from several local regulatory agencies.

Fire Department of the City of New York

A Records Search Request was submitted to the Fire Department of the City of New York ("FDNY") for any records related to heating oil tanks and USTs. No response from the FDNY has been received to date.

New York City Department of Buildings

M&E performed a search on the Buildings Information Search ("BIS") on the DOB website on August 3 and 14, 2006. The BIS indicated that there are two Building Information Numbers ("BINs") for the Site at Block 3247 Lot 2. BIN 2098782 corresponds to the 2 West 195th Street address and lists five (5) active DOB violations. BIN 2098784 corresponds to the 29 West Kingsbridge Road address and lists forty-five (45) total Actions at the site. These actions include building notices, miscellaneous, curb cut, elevator, fire protection plans, public assembly, permit, Special Reports and plumbing repair slips. In addition, there are six (6) complaints, eighteen (18) DOB violations, and three (3) ECB violations. All six (6) complaints are reported to be resolved. Of the eighteen (18) DOB violations, seventeen (17) are for boiler violations, and one (1) for a construction violation. All DOB violations remain active. Two (2) of the three (3) ECB violations remain open, failure to maintain exterior building wall has been resolved.

New York City Department of Health and Mental Hygiene

A FOIL letter was submitted to the Records Access Officer of the New York City Department of Health and Mental Hygiene ("NYCDHMH") by M&E on July 20, 2006 requesting a file search for the Site. No response from the NYCDHMH has been received to date. M&E will immediately notify the EDC should the NYCDHMH provide information indicating the presence of additional environmental concerns at the Site.

New York City Department of Environmental Protection

A FOIL letter dated July 20, 2006 was submitted to Mr. Frank Schiano, legal advisor to the New York City Department of Environmental Protection ("NYCDEP") and the New York City Department of Environmental Health ("NYCDEH"). To date, no response has been received from the NYCDEP or the NYCDEH. M&E will notify EDC if additional site information is provided by this agency.

6.2 State Agencies

New York State Department of Environmental Conservation

A FOIL letter was submitted to the Records Access Officer of the New York State Department of Environmental Conservation ("NYSDEC") by M&E on July 20, 2006 requesting a file search for the subject site. NYSDEC has not yet replied to M&E. Should any environmental concerns be noted by the NYSDEC in their reply, M&E will immediately notify the EDC.

7.0 CLIENT PROVIDED INFORMATION

M&E requested that the EDC provide copies of all available information related to the subject site or surrounding area. Mr. Daniel Bruen of Turner Construction was contacted and provided a copy of the ET Environmental Corporation (September 15, 2000) *Kingsbridge Armory Roof Rehabilitation Project Environmental Survey Report*. The report consisted of an asbestos survey report and removal specifications, a LBP survey report and removal specifications and a survey of biological contamination (bird droppings). The findings of the report were used to determine the environmental conditions and potential impacts to scheduled roof renovation activities.

8.0 SITE RECONNAISSANCE

Mr. Ronald Kantor of M&E accompanied by Mr. Carl Gregg of Apple Industrial (an EDC subcontractor) conducted the site reconnaissance on June 30, 2006. A photographic log is located in Appendix J.

8.1 Methodology and Limiting Conditions

Performance of the Phase I ESA was limited to visual inspection of the Site. The Site was completely accessible with the exception of certain rooms in the towers where the floors were compromised from water damage and the floor of the theater and the basement boiler room, both of which were flooded at the time of the site visit.

8.2 Site Conditions

The Site is accessible from a gated entrance off Reservoir Avenue. Entrance to the Armory is monitored by a security guard stationed in a guard shack located at the Reservoir Avenue entrance. All remaining entrances to the Armory are locked and the Armory is surrounded by chain-link security fence. Access to the 2-story annex building is along West 195th Street, and the National Guard garage building west of the annex is also fenced. Grassy areas are present along the northern, southern and western perimeters of the Site; however, the western portion is mostly paved and utilized for parking and access to the Armory drill floor. The eastern portion of the Armory abuts the sidewalk of northbound Jerome Avenue.

Major roof renovations to the metal and glass roof spanning the drill hall and to the flat roof behind the parapets above the company rooms located south of the drill hall were conducted between 2000 and 2005.

Three (3) levels exist beneath the poured concrete drill hall floor, which was originally an earthen floor. These levels include additional company rooms and work shops; a theater and lecture hall; a former gymnasium and basketball court; a former bowling alley; rifle and pistol ranges; and, subterranean parking/vehicle storage space. Peeling paint and mold were prevalent throughout the subterranean levels. Trash and debris is also present in many of the smaller company rooms as well as used clothing left by the former Woman's Shelter. Standing water is present on the former theater/lecture hall floor and is currently pumped to the sanitary sewer. Standing water is also present in the lower level parking/vehicle storage area.

Two (2) 275 gallon above ground fuel oil tanks located two (2) levels below the drill hall in the southwestern portion of the Armory, east of the former bowling alley. The tanks did not appear to contain significant amounts of product. An additional 275 gallon fuel oil tank was observed on the drill hall floor in the northeastern portion of the Armory and also did not appear to contain a significant amount of product. A petroleum odor was detected in room B-20 located on the first level below the drill floor in the western portion of the building; however, no source for the odor could be located. Several 5-gallon pails of Esguard LubraKote Black, a flashing cement, were observed in several of the rooms on the second level below the drill hall in the western portion of the Armory. Cans of motor oil, brake fluid and other petroleum-based lubricants as well as empty gasoline cans were observed in the motor pool workshops located along the northern portion of the company rooms on the mezzanine of the second level below the drill floor. Ten (10) 55-gallon steel drums were observed in the lower level parking/vehicle storage area. The drums show signs of deterioration with rust and holes in several of the drums. The content of the drums is unknown, although most appear to be empty.

Three (3) earthen floored rifle and pistol ranges were observed on the Site and are suspected to contain elevated concentrations of lead from spent munitions. The first pistol range is located on the second level below the motor pool workshops. Spent munitions were observed embedded in the wooden walls of pistol range. The other pistol/rifle ranges are located on the third level below the drill floor in the eastern portion of the building near Jerome Avenue. No spent munitions were observed at these ranges.

On-site equipment such as the boiler located in the southwestern portion of the basement of the company rooms and air conditioning units located in the northeastern portion of the Armory, one (1) level beneath the drill hall are deteriorating and appear to be no longer functional.

The company rooms and tower rooms in the southern portion of the site are largely comprised of living quarters, office/administrative space, dining and entertainment rooms (including a library, bar and sitting rooms). The upper floors of the company rooms are significantly water damaged with walls, floors and ceilings beginning to or already collapsing. Peeling paint, mold and trash and debris are prevalent throughout the company rooms. The boiler room, located in the lowest level in southwestern portion of the company rooms, is flooded. The boiler is no longer operational. An electrical panel was reported to have fallen off the wall and into the water on the boiler room floor. Con Ed responded and took the electric from the fallen panel off-line and ran emergency lighting in the boiler room.

8.3 Site Utilities

The Armory is served in a limited electrical service. The National Guard building is served by electric, natural gas, sewer and water. Public utility features observed in the street and sidewalk areas indicate that the area is served by Con Edison (electricity), Keyspan Energy (natural gas), the NYCDEP (sewer, water), and Verizon (telephone).

8.4 Site Drainage

The site is located within the City's Ward's Island Drainage Area, and is served by the water pollution control plant of the same name. Under normal conditions, drainage from the Site is collected in the surrounding combined sewers, and treated at the plant prior to discharging to the East River.

8.5 Underground and Aboveground Storage Tanks

No evidence of USTs were observed at the Site. Three (3) 275 gallon fuel oil ASTs were observed at the Site during the site reconnaissance. The ASTs appear to be in fair to good condition with some surface oxidation and peeling paint observed on the two (2) tanks located in the vicinity of the former bowling alley. The ASTs did not appear to contain significant amounts of product.

8.6 Oil-Filled Equipment

The boiler and air conditioning units located in the northeastern portion of the Armory, one (1) level beneath the drill hall units may contain residual fuel oil and lubricating oils.

8.7 Hazardous Materials and Petroleum Storage

Peeling lead-based paint ("LBP"), light ballasts possibly containing polychlorinated biphenyls ("PCBs"), and potential asbestos containing materials ("ACM") including pipe wrap and floor tiles are most likely present. Residual fuel oil may be present in the three (3) ASTs. Cans of motor oil, brake fluid and other petroleum-based lubricants as well as empty gasoline cans were observed in the motor pool workshops located along the northern portion of the company rooms on the mezzanine of the second level below the drill floor.

8.8 Waste Generation

Solid wastes generated at the Site are collected by the New York City Department of Sanitation.

8.9 Neighboring Properties

Neighboring properties include PS 86 and Walton High School to the north; retail, commercial and residential properties east along Jerome Avenue and south along West Kingsbridge Road; and, the Fordham Manor Reformed Church and Apartment buildings west of the Site.

9.0 INTERVIEWS WITH FACILITY PERSONNEL

Charles Braswell and Carl Gregg of Apple Industrial provided information regarding the current operations of the Site and additional background information regarding the basement boiler room flooding and electrical panel failure for this Phase I ESA.

10.0 FINDINGS AND CONCLUSIONS

An environmental database provided by EDR identified sites within the search radii where documented environmental impacts have occurred. Although the EDR database information did not include any documentation from which it could be concluded that the sites identified within the search radii have impacted the Site, it is possible that groundwater under the Site has been impacted due to the industrial/commercial use of the surrounding area, and by potential contamination in on-site fill materials. However, it should be noted that the groundwater in this area is not used as a potable source.

During the Phase I ESA, a visual inspection of the Site was performed. The visual inspection identified three (3) 275 gallon above ground fuel oil tanks ("ASTs"). One (1) tank is located in the northeast corner of the building on the drill hall floor; the two (2) remaining tanks are located two (2) levels below the drill hall in the southwestern portion of the building, east of the former bowling alley. None of the tanks appeared to contain significant amounts of product. A petroleum odor was detected in room B-20 located on the first level below the drill floor in the western portion of the building; however, no source for the odor could be located. Several 5-gallon pails of Esguard LubraKote Black, a flashing cement, were observed in several of the rooms on the second level below the drill hall in the western portion of the building. Cans of motor oil, brake fluid and other petroleum-based lubricants as well as empty gasoline cans were observed in the motor pool workshops located along the northern portion of the company rooms on the mezzanine of the second level below the drill floor. Ten (10) 55-gallon steel drums were observed in the parking/vehicle storage area located three (3) levels below the drill hall floor. The drums are beginning to show signs of deterioration with rust and holes present in several of the drums. The content of the drums is unknown, although most appear to be empty. In addition, possible oil staining of the concrete near the center of the parking/vehicle storage area was observed as well as an area where the concrete floor was saw cut and backfilled with sand. This area may have once contained a UST.

Three (3) earthen floored rifle and pistol ranges were observed on the Site and are suspected to contain elevated concentrations of lead from spent munitions. The first pistol range is located on the second level below the motor pool workshops. Spent munitions were observed embedded in the wooden walls of pistol range. The other pistol/rifle ranges are located on the third level below the drill floor in the eastern portion of the building near Jerome Avenue. No spent munitions were observed at these ranges.

Deteriorating equipment such as the boiler located in the southwestern portion of the basement of

the company rooms and air conditioning units located in the northeastern portion of the Armory, one (1) level beneath the drill hall may contain asbestos, lubricating oils and refrigerants. Peeling paint that may contain lead, light ballasts possibly containing PCBs), potential ACM including pipe wrap and floor tiles and extensive mold growth was present in the majority of the company rooms located along the southern portion of the Armory and the company rooms beneath the drill hall. In addition, water damage to the walls, ceilings and floors of the upper level company rooms and turret rooms is prevalent.

In September 2000, ET Environmental submitted an Environmental Survey Report to the EDC prior to the roofing renovations to determine the presence of ACM, LBP and bird droppings. Samples collected in the vicinity of the work areas indicated non-friable asbestos and LBP were present on the Site. Additional sampling for PACM, LBP and a light ballast survey are recommended for the company rooms and the levels beneath the drill hall. A survey of the 55 gallon drums should be conducted to include an inventory of the drums and a determination of the contents of the drums. Once completed, the drums and their contents should be properly disposed. It is also recommended that the three (3) ASTs be removed as well as the petroleum products in the motor pool workshops and the lower levels beneath the drill hall. Deteriorating equipment should also be properly removed from the site. In addition, the earthen floors of the pistol and rifle ranges should be remediated and the spent rounds from the walls of the second level pistol range should be removed due to the potential presence of lead.

Additional recommendations could be warranted should potential environmental issues be identified by outstanding FOIL/Information requests submitted to the New York City Department of Environmental Protection, the New York City Department of Health, and the New York State Department of Health.

Ronald W. Kantor
Senior Scientist

Nelson J. Abrams, P.G.
Project Manager

11.0 STATEMENT OF LIMITATIONS

The data presented and the opinions expressed in this report are qualified as follows:

1. The sole purpose of the investigation and of this report is to assess the physical characteristics of the Site with respect to the presence or absence in the environment of oil or hazardous materials and substances as defined in the applicable state and federal environmental laws and regulations and to gather information regarding current and past environmental conditions at the Site.

2. Metcalf & Eddy (M&E) derived the data in this report primarily from visual inspections, examination of records in the public domain, and interviews with individuals with information about the Site. The passage of time, manifestation of latent conditions or occurrence of future events may require further exploration at the Site, analysis of the data, and reevaluation of the findings, observations, and conclusions expressed in the report.

3. In preparing this report, M&E has relied upon and presumed accurate certain information (or the absence thereof) about the Site and adjacent properties provided by governmental officials and agencies, the Client, and others identified herein. Except as otherwise stated in the report, M&E has not attempted to verify the accuracy or completeness of any such information.

4. The data reported and the findings, observations, and conclusions expressed in the report are limited by the Scope of Services. The Scope of Services was defined by the requests of the Client, the time and budgetary constraints imposed by the Client, and the availability of access to the Site.

5. Because of the limitations stated above, the findings, observations, and conclusions expressed by M&E in this report are not, and should not be considered, an opinion concerning the compliance of any past or present owner or operator of the site with any federal, state or local law or regulation. No warranty or guarantee, whether express or implied, is made with respect to the data reported or findings, observations, and conclusions expressed in this report. Further, such data, findings observations, and conclusions are based solely upon site conditions in existence at the time of investigation.

6. This report has been prepared on behalf of and for the exclusive use of the Client, and is subject to and issued in connection with the Agreement and the provisions thereof.

7. The Phase I ESA was performed using standard engineering practices, with the understanding that environmental professionals can and should use their professional judgment in carrying out environmental site assessments.

12.0 REFERENCES

Baskerville, Charles A. *Bedrock and Engineering Geologic Maps of Staten Island County and Parts of New York and Queens Counties, New York* 1992 United States Geologic Survey

Cadwell, Donald H. et al *Surficial Geologic Map of New York (Lower Hudson Sheet)*, 1986 New York State Museum, Geological Survey

Committee On Economic Development Jointly With Committee On Land Use. (2000). *Oversight Hearing: Kingsbridge Armory Development Plans*. Retrieved August 3, 2006 from http://webdocs.nyccouncil.info/attachments/51707.htm?CFID=1017571&CFTOKEN=20565748

FIGURES

APPENDIX A

QUALIFICATION OF RESPONSIBLE ENVIRONMENTAL PROFESSIONALS

APPENDIX B

EDR DATABASE SEARCH REPORT

APPENDIX C

HISTORICAL AERIAL PHOTOGRAPHS

APPENDIX D

SANBORN MAPS

APPENDIX E

HISTORICAL TOPOGRAPHIC MAPS

APPENDIX F

CITY DIRECTORY SEARCH

APPENDIX G

ENVIRONMENTAL LIEN SEARCH

APPENDIX H

FOIL / INFORMATION REQUESTS

APPENDIX I

NYC DEPT OF BUILDINGS INFORMATION

APPENDIX J

SITE PHOTOGRAPHS