# ASTM PHASE I ENVIRONMENTAL SITE ASSESSMENT MINUTEMAN REGIONAL TECHNICAL HIGH SCHOOL 758 MARRETT ROAD LEXINGTON AND LINCOLN, MASSACHUSETTS

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Kaestle Boos Associates, Inc.

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### **EXECUTIVE SUMMARY**

The following report presents the findings of a Phase I Environmental Site Assessment (ESA) performed by Ransom Consulting, Inc. (Ransom) for Kaestle Boos Associates, Inc. (KBA), for the property identified as the Minuteman Regional Technical High School, located at 758 Marrett Road in the Towns of Lexington and Lincoln, Middlesex County, Massachusetts. For the purposes of this assessment, the Site is defined as three parcels identified by the Town of Lexington Assessor's Office as Lots 1B, 7B, and 8B on Tax Map 52, and one parcel identified by the Town of Lincoln Assessor's Office as Lot 0, Block 4, on Map 19. The Site as defined herein does not include the daycare center and the southern approximately 6.8-acre portion of Lot 7B. This Phase I ESA was conducted in general accordance with the requirements provided by the ASTM International Designation: E 1527-05, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, 2005 (ASTM Standard Practice), the U.S. Environmental Protection Agency (U.S. EPA) All Appropriate Inquiry (AAI) standard, and Ransom's Scope of Work for KBA dated April 1, 2013. The intent of this work was to evaluate environmental conditions at the Site for evidence of recognized environmental conditions (RECs).

The Site is occupied by the Minuteman Regional Highs School building, an "energy house" (a residential structure used as office space by the Massachusetts Association of School Superintendents), storage buildings, parking areas, athletic fields, wooded land, and ponds and wetlands. The high school building, completed in 1975, includes a vocational "Trades Hall," providing classrooms and work space for the automotive repair, plumbing, welding, carpentry, and HVAC training. The high school building is connected to the Town of Lexington municipal water and sewer systems and is currently heated with natural gas; it was converted from oil heat approximately 10 years ago. Two 15,000-gallon No.4 fuel oil tanks remain in a concrete vault located southwest of the building. A 1,000-gallon waste-oil underground storage tank (UST), which was used by the automotive garages at the school building, was removed in 1999. A 5,000-gallon gasoline tank located in an underground concrete vault and an associated pump island were removed from the Site in 1998. No documentation with respect to the conditions of the former tank systems or the environment at the time these systems were removed was available.

Ransom observed aboveground hydraulic vehicle lifts at the Site; these lifts appeared to be in good condition. During the site reconnaissance, Ransom identified evidence of former underground lifts in the plumbing and automotive portions of the Trade Hall. It is unclear how many former underground lifts were located in the high school building and whether the hydraulic fluid oil associated with these lifts has been removed.

During the site reconnaissance, Ransom observed the storage of oil or hazardous material (OHM) including virgin and waste motor oil and fuel oil stored in aboveground storage tanks (ASTs), 55-gallon drums and small containers of vehicle fluids, 55-gallon drums containing fluids recovered from science laboratories in the school, containers of gasoline, pool chemicals, and cleaning chemicals. Ransom also observed equipment which may contain OHM, including hydraulic lifts, elevators, and an electrical transformer. Ransom did not observe a release of OHM to the environment from these sources. Ransom observed floor drains in the high school building; most of these drains discharge directly to the municipal sewer. Floor drains in plumbing and automotive portions of the Trade Hall discharge to oil/water separators, which in turn discharge to the municipal sewer system.

The Site was not identified on the release-related state and federal environmental databases searched for this assessment. None of the surrounding properties identified during the database search are expected to adversely impact environmental conditions at the Site.

Although Ransom did not identify a release of OHM at the Site, based on the information obtained during this ESA, Ransom has identified three RECs:

- 1. Possible releases of petroleum from a former 5,000-gallon gasoline tank and associated pump island and underground piping. The tank was installed in a concrete vault located east and northeast of the high school building. The tank was removed in 1998. No documentation was available for review describing the integrity of the tank and associated piping and soil conditions at the time the tank was removed;
- 2. Possible releases of petroleum from a former 1,000-gallon waste-oil UST located north of the high school building which was removed in 1999. As with the 1998 gasoline tank system removal, no documentation was available for review describing the integrity of the tank and associated piping and soil conditions at the time the tank was removed; and
- 3. Possible releases of hydraulic fluid from former in-ground hydraulic lifts located in the plumbing and automotive portions of the Trade Hall. No documentation was available describing the number, locations, and conditions of the former hydraulic lifts at the Site.

### Ransom also identified two non-ASTM RECs:

- 1. According to the U.S. EPA, caulking (and other building materials) containing polychlorinated biphenyls (PCBs) was commonly used during the construction of school buildings between the 1950s early 1970s. Given the dates of construction of the high school building, it is possible that PCB-containing caulking (or other building materials) was used and remains in place; and
- 2. Asbestos-containing materials (ACM) are present throughout the interior of the high school building.

Based on the outcome of this assessment, Ransom makes the following recommendations:

- 1. A limited subsurface investigation (LSI) should be performed in the vicinity of the former gasoline tank, pump island, and associated underground piping, and in the vicinity of the waste-oil UST to determine whether soil and/or groundwater have been adversely impacted in the vicinity of these former tanks;
- 2. A ground-penetrating radar (GPR) survey of the plumbing and automotive portions of the Trade Hall should be performed to determine the number of underground hydraulic lifts located at the Site, as well as the locations of associated apparatus. Based on the GPR survey, an LSI should be performed in vicinity of the former underground hydraulic lifts to determine whether soil and/or groundwater have been adversely impacted;
- 3. The two out-of-service, 15,000-gallon No. 4 fuel-oil tanks currently located southwest of the high school building should be removed; and
- 4. Before building alterations or renovations are made, Ransom recommends that a hazardous materials inventory (HMI) be performed to evaluate building materials for asbestos, lead-based paint, PCBs, and other hazardous materials.

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### 1.0 INTRODUCTION

The following report presents the findings of a Phase I Environmental Site Assessment (ESA) performed by Ransom Consulting, Inc. (Ransom) for Kaestle Boos Associates, Inc. (KBA) for the property identified as the Minuteman Regional Technical High School, located at 758 Marrett Road in the Towns of Lexington and Lincoln, Middlesex County, Massachusetts. For the purposes of this assessment, the Site is defined as three parcels identified by the Town of Lexington Assessor's Office as Lots 1B, 7B and 8B on Tax Map 52, and one parcel identified by the Town of Lincoln Assessor's Office as Lot 0, Block 4,on Map 19. The Site as defined herein does not include the daycare center and the southern approximately 6.8 acre portion of Lot 7B. The Site is occupied by the Minuteman Regional Highs School building, an "energy house" (a residential structure used as office space by the Massachusetts Association of School Superintendents), storage buildings, parking areas, athletic fields, wooded land, and ponds and wetlands. Refer to Figure 1 (Appendix A), Site Location Map, to view the general location of the Site on a 7.5-minute topographic quadrangle and Figures 2 and 3 (Appendix B) to view a Site Area Plan and Site Plan, respectively.

### 1.1 PURPOSE

The primary purpose of this study was to document the inquiry of the environmental professional for all appropriate inquiries for the Site. Specifically, this document is intended to provide the "all appropriate inquiries" for the purposes of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 101(35)(B). Such is applicable to persons seeking to qualify for (i) the innocent landowner defense pursuant to CERCLA Sections 101(35) and 107(b)(3); (ii) the bona fide prospective purchaser liability protection pursuant to CERCLA Sections 101(40) and 107(r); and, (iii) the contiguous property owner liability protection pursuant to CERCLA Section 107(q). This report was not intended as part of the site characterization and assessment with use of a grant awarded under CERCLA Section 104(k)(2)(B). More specifically, the scope is intended to identify conditions indicative of releases or threatened releases of hazardous substances on, at, in or to the Site. The goal of the assessment was to identify "recognized environmental conditions" (RECs) in connection with the Site. The term RECs means:

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, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

By performing a Phase I ESA of a parcel of real estate with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C. §9601) and petroleum products, a user satisfies one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability.

### 1.2 SCOPE OF WORK

This Phase I ESA was performed in general accordance with the requirements of the ASTM International Designation: E 1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental* 

Site Assessment Process, 2005 (ASTM Standard Practice) as described in Ransom's scope of work for KBA, dated April 1, 2013, and included the completion of the following tasks:

- 1. Review municipal records and search state and federal environmental databases for sites or conditions of environmental concern;
- 2. Review historical land use records to evaluate past use of the Site and adjoining properties;
- 3. Perform a site reconnaissance to visually and/or physically observe current conditions of the Site and the general land use of surrounding properties; and
- 4. Conduct interviews with readily available past and present owners, operators, and occupants of the Site.

### 1.3 SIGNIFICANT ASSUMPTIONS

No significant assumptions were made during the performance of this Phase I ESA.

### 1.4 LIMITATIONS, EXCEPTIONS, AND DEVIATIONS

Along with the limitations set forth in various sections of the ASTM Standard Practice E 1527-05 protocol, the accuracy and completeness of this report is limited by the following:

- 1. Access Limitations: Ransom did not enter the former hazardous-waste storage building, located north of the high school building, as well as several small buildings associated with athletic operations at the Site. According to Site contacts, oil or hazardous material (OHM) are not currently stored in these structures. Ransom did not enter each classroom of the high school building.
- 2. Physical Obstructions to Observations: Due to past renovations and equipment present in technical classroom spaces, Ransom was unable to view all floor and wall surfaces in the Trades Hall portion of the high school building. Woodland areas and dense vegetation prevented clear views of ground surfaces in the west and southwest portions of the Site.
- 3. Outstanding Information Requests: At the time Ransom published this report, the Lexington Fire Department and Lexington Health Division had not responded to information requests with respect to former underground or aboveground storage tanks or releases of OHM at the Site. Should information be received from these offices which results in a material change to the conclusions and recommendations included herein, Ransom will issue an Addendum to this report. Ransom did not receive a completed User Questionnaire at the time this report was published.
- 4. Historical Data Source Failure: None.
- 5. Exceptions: None.
- 6. Deviations: None.
- 7. Other: None.

The findings provided by Ransom in this report are based solely on the information reported in this document. Should additional information become available in the future, this information should be reviewed by Ransom and the findings presented herein may be modified. The information obtained from state and local agencies is not necessarily all-inclusive and that files may have been reviewed and purged by officials prior to review by the public. Ransom conducted a reconnaissance of the Site, and neighboring properties were viewed from publicly accessible areas. Ransom makes no conclusions regarding off-site areas which were not evaluated during our reconnaissance of the Site.

### 1.5 SPECIAL TERMS AND CONDITIONS

This Phase I ESA was conducted in accordance with Ransom's scope of work for KBA, dated April 1, 2013. Authorization was provided in writing by KBA as described above.

### 1.6 USER RELIANCE

The services and the contents of any project reports and associated documents provided to KBA by Ransom are solely for the benefit of KBA, its affiliates and subsidiaries and their successors, assigns, and grantees. Reliance or any use of this report by anyone other than KBA, for whom it was prepared, is prohibited. Reliance or use by any such third party without explicit authorization in the report does not make said third party a third-party beneficiary to Ransom's contract with KBA. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at the third party's risk. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party.

### 2.0 SITE DESCRIPTION

### 2.1 LOCATION AND LEGAL DESCRIPTION

For the purposes of this assessment, the Site consists of four parcels, three of which are located in Lexington and the fourth is located in the Town of Lincoln, as follows:

# 1. Lexington:

- a. Lot 1B on Map 52: an approximately 0.86-acre parcel occupied by the driveway to the school, located west of Marrett Road;
- b. Lot 7B on Map 52: an approximately 13.4-acre parcel occupied by the high school building, the energy house, parking areas, and other improvements. The southern approximately 6.8-acre portion of this parcel which is occupied by a day care center and surrounding wooded area, is not part of the Site as defined herein; and
- c. Lot 8B on Map 52: an approximately 5.7-acre parcel occupied by the high school building, parking areas, a green house, and other improvements.
- 2. Lincoln: Lot 1, Block 4 on Map 19: an approximately 33.7-acre parcel occupied by parking areas, storage buildings, athletic fields, wooded land, and other improvements.

The Site is located on the Maynard, Massachusetts, U.S. Geological Survey (USGS) 7.5-minute series Quadrangle and is located at the approximate Universal Transverse Mercator (UTM) coordinates of 47:01:549 meters north and 03:13:363 meters east. The latitude and longitude of the Site are 42° 26′ 45″ north and 71° 16′ 11″ west, respectively.

Please refer to the appended Figures 1, 2, and 3 (Appendices A and B), Site Location Map, Site Area Plan, and Site Plan for the layout of the Site and adjoining properties.

### 2.2 SITE AND VICINITY CHARACTERISTICS

The Site is located in a residential and commercial area of Lexington. The Site is improved with a 310,000-square-foot concrete and steel-framed school building (the high school building) constructed on a concrete foundation. Remaining portions of the Site include the energy house (occupied by offices), small buildings and storage sheds, parking lots, athletic fields, and undeveloped wooded, wetland, and pond areas.

A Site Area Plan, Site Plan, and Photograph Log are included in Appendices B and C, respectively.

### 2.3 CURRENT USE OF THE PROPERTY

The high school building has been used as a technical vocational high school since it was completed in 1975. The building consists of technical and trades teaching areas focusing on separate industries, including automotive; electrical; welding; carpentry; plumbing; heating, ventilating and air conditioning (HVAC); agriculture; design and visual communication; culinary arts; health technology; cosmetology, dental assistance; biotechnology; and environmental technology. The Site is also occupied by several smaller buildings, including the "energy house," a residential-style building occupied by the Massachusetts Association of School Superintendents (M.A.S.S).

The high school building is heated with natural gas and is connected to electrical utilities provided by Nstar. The high school building is connected to the Town of Lexington municipal water and sewer services.

### 2.4 CURRENT USES OF ADJOINING PROPERTIES

As part of Ransom's reconnaissance, observations were made of adjoining properties from the Site or public rights-of-way. Observations included current uses of adjoining properties and visible evidence of potential environmental impacts. Adjoining properties to the Site include the following:

- 1. North: Undeveloped woodland, part of the Minute Man National Park;
- 2. East: Electrical substation operated by NStar, an office building, and Marrett Road;
- 3. South: Wooded land and residential properties along Mill Street; and
- 4. West: Wooded land and residential properties along Mill Street.

These properties are unlikely to adversely impact environmental conditions at the Site; no adverse environmental conditions were identified at these properties during our reconnaissance, and potentially adverse environmental conditions reported during our review of municipal records and federal and state environmental databases are unlikely to impact the Site.

### 3.0 USER-PROVIDED INFORMATION

Pertinent environmental information, as identified below in this section, was requested from KBA. At the time this report was published, a completed questionnaire had not been received.

#### 3.1 TITLE RECORDS

No title records in connection with the Site were provided by KBA.

### 3.2 Environmental Liens or Activity and Use Limitations (AULs)

No environmental liens or activity/use restrictions in connection with the Site were provided by KBA.

### 3.3 SPECIALIZED KNOWLEDGE

No specialized knowledge in connection with the Site or facility operations was provided by KBA.

#### 3.4 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION

No commonly known or reasonably ascertainable information was provided by KBA.

### 3.5 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

No information pertaining to valuation of the Site was provided by KBA.

### 3.6 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

Ransom was provided with information about the Site by Mr. Michael MacLean, facilities coordinator at the high school, and Mr. Michael Clickstein, Maintenance Supervisor at the high school. Information provided by Mr. MacLean and Mr. Clickstein has been included in applicable sections throughout this report. Mr. MacLean and Mr. Clickstein did not identify documented environmental releases in connection with the Site.

# 3.7 REASON FOR PERFORMING PHASE I ESA

This Phase I ESA was performed in preparation for renovations to be performed at the high school building.

# 3.8 PREVIOUS ENVIRONMENTAL REPORTS

No previous environmental reports in connection with the Site were provided to Ransom.

### 4.0 RECORDS REVIEW

### 4.1 STANDARD ENVIRONMENTAL RECORD SOURCES

Ransom contracted Environmental Data Resources, Inc. (EDR) to conduct a search of federal and state databases containing known and suspected sites of environmental contamination. The number of listed sites identified from the federal and state environmental records within the approximate minimum search distance (AMSD) database listings specified in ASTM Standard Practice E 1527-05 are summarized in the following table. Detailed information for sites identified within the AMSDs is provided in Section 4.1.1, along with an opinion about the significance of the listing to the analysis of RECs in connection with the Site. A copy of the EDR research data and descriptions of the databases is included in Appendix E of this report.

Database Record	AMSD (Miles)	Total Sites Found	On Site	On Adjoining Property
Federal NPL List	1	0	No	No
Federal Delisted NPL List	1	0	No	No
Federal CERCLIS List	1/2	0	No	No
Federal CERC-NFRAP List	1/2	0	No	No
Federal RCRA CORRACTS Facilities List	1	0	No	No
Federal RCRA Non-CORRACTS TSD Facilities List	1/2	0	No	No
Federal RCRA Generators List	1/4	1	Yes	No
Federal Institutional/Engineering Controls Registries	1/2	0	No	No
Federal ERNS List	Property Only	0	No	No
State-Equivalent NPL List (SHWS)	1	19	No	No
State Landfill and/or Solid Waste Disposal Site List	1/2	0	No	No
State Leaking AST List	1/2	0	No	No
State Registered AST List	1/2	0	No	No
State Leaking UST List	1/2	0	No	No
State Registered UST List	1/4	0	No	No
State Institutional/Engineering Controls Registries	1/2	1	No	No
State Drycleaners	1/4	0	No	No
State Release Sites	1	23	No	No
State Spills	Property Only	1	Yes	No
Brownfield Sites	1/2	0	No	No
Manufactured Gas Plants	1	0	No	No

# 4.1.1 Discussion of Database Findings

The Site was identified on the Manifest, Federal Resource Conservation and Recovery Act Conditionally Exempt Small Quantity Generator (RCRA-CESQG), Spills, and FINDS databases. The Manifest database listing indicates that controlled or hazardous waste(s) have been generated at the Site and transported off site for disposal. EDR identifies the hazardous wastes generated at the Site as waste compound cleaning liquid and waste paint. The RCRA-CESQG listing indicates that the Site generates hazardous waste identified as ignitable hazardous wastes and solvents. EDR did not report violations associated with hazardous-waste generation at the Site. The FINDS database listing indicates that the Site is on various non-release information tracking databases.

The Spills database listing pertains to a release of transformer oil in 1987. According to EDR, an unreported quantity of transformer oil was released at the Site on October 8, 1987; Spill Number N87-1258 was assigned to this event. According to EDR, this event was closed in one day and an environmental impact was not reported. The Site is not listed on release or SHWS databases. Based on these considerations, the Spills database listing at the Site does not indicate that adverse environmental impacts occurred at the Site.

As stated in Section 4.3.4, groundwater flow at the Site is presumed to be to the southwest at the majority of the property, and to the northeast in the northeast corner of the property. Cranberry Hill, located to the south-southeast of the Site, is considered to be upgradient relative to the Site.

### Federal NPL Sites

No Federal National Priority List (NPL) or proposed NPL sites were identified by EDR within 1 mile of the Site.

### Federal Delisted NPL Sites

No Federal Delisted NPL sites were identified by EDR within 1 mile of the Site.

# Federal CERCLIS Sites

No Federal Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) sites were identified by EDR within  $\frac{1}{2}$  mile of the Site.

# Federal CERCLIS-NFRAP Sites

No Federal CERCLIS No Further Remedial Action Planned (NFRAP) sites were identified by EDR within ½ mile of the Site.

# Federal RCRA CORRACTS Facilities

No Federal Resource Conservation and Recovery Act (RCRA) Corrective Action (CORRACTS) facilities were identified by EDR within 1 mile of the Site.

# Federal RCRA Non-CORRACTS TSD Facilities

No Federal RCRA Non-CORRACTS Treatment, Storage and Disposal facilities were identified by EDR within ½ mile of the Site.

### Federal RCRA Generators

Apart from Minuteman High School, no RCRA generators of hazardous waste were identified by EDR within ½ mile of the Site.

### Federal Institutional Control/Engineering Control Registries

No Federal Institutional/Engineering Control sites were identified by EDR within ½ mile of the Site.

### Federal ERNS List

No Federal Emergency Response and Notification System (ERNS) sites were identified by EDR on the Site.

# State Equivalent NPL/Hazardous Waste Sites

EDR identified 19 State Equivalent NPL/State Hazardous Waste Sites (SHWS) within 1 mile of the Site. All of the identified SHWS have been closed in accordance with the Massachusetts Contingency Plan (MCP); Response Action Outcome (RAO) Statements have been submitted to the Massachusetts Department of Environmental Protection (MA DEP) for these sites. After a review of the addresses of these facilities, the SHWS identified by EDR are considered to be cross/downgradient from the Site. Therefore, the identified SHWS are unlikely to adversely impact environmental conditions at the Site.

### State Landfill and/or Solid Waste Disposal Sites

No state landfills and/or solid-waste disposal sites were identified by EDR within ½ mile of the Site.

# **State LAST Sites**

No State Leaking Aboveground Storage Tank (LAST) sites were identified within ½ mile of the Site.

# State Registered AST Sites

No state-registered aboveground storage tank (AST) sites were identified by EDR within ¼ mile of the Site.

### State LUST Sites

No State Leaking Underground Storage Tank (LUST) sites were identified by EDR within ½ mile of the Site.

# State Registered UST Sites

No state-registered above ground storage tank (AST) sites were identified by EDR within  $\frac{1}{4}$  mile of the Site.

# State Institutional Control/Engineering Control Registries

One State Institutional Control/Engineering Control (INST) site was identified by EDR within ½ mile of the Site. Although this INST site was mapped by EDR in the vicinity of Cranberry Hill, the actual location of the INST, according to the listed address, is in a downgradient position relative to the Site. Therefore, the identified INST site is unlikely to adversely impact environmental conditions at the Site.

# State Dry Cleaners

No dry cleaners were identified by EDR within ¼ mile of the Site.

### State Release Sites

EDR identified 23 State Release (Release) sites within 1 mile of the Site. The identified Release sites have been closed in accordance with the MCP. After a review of the addresses of these facilities, the Release sites identified by EDR are considered to be cross/downgradient from the Site. Therefore, the identified Release sites are unlikely to adversely impact environmental conditions at the Site.

### **Brownfield Sites**

No Brownfield sites were identified by EDR within ½ mile of the Site.

# **Manufactured Gas Plants**

No Manufactured Gas Plants were identified by EDR within 1 mile of the Site.

### Orphan Properties

An Orphan Property is a listed facility in the same zip code as the Site which cannot be mapped because of inadequate address information. Ransom reviewed the 32 Orphan Properties identified by EDR, and determined that each of the 32 Orphan Properties are located in positions considered to be crossgradient, downgradient, or hydrologically isolated from the Site, have achieved regulatory closure, or are beyond the applicable ASTM search parameters. Therefore, the Orphan Properties are unlikely to adversely impact environmental conditions at the Site.

# 4.1.2 Massachusetts Department of Environmental Protection

Ransom also reviewed the MA DEP online database for information pertaining to Site and/or properties in the vicinity of the Site with known and/or suspected environmental contamination and their potential to adversely impact environmental conditions at the Site. No such release sites were identified during Ransom's review of the MA DEP online database; a copy of the search results is included in Appendix D.

### 4.2 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

### 4.2.1 Municipal Offices

On April 23, 2013, Ransom visited Town of Lexington Municipal Offices to view information pertaining to the ownership, historical use, and environmental status of the Site. The offices reviewed are described below. Pertinent information obtained during the municipal file reviews is incorporated into the site history presented in Section 4.4 of this report, and copies of records are provided in Appendix D.

### Tax Assessor's Office

Ransom obtained property cards and tax maps for the Site from the Town of Lexington and Town of Lincoln Tax Assessor's Offices. The current tax maps document parcel boundaries, the Site's location, and the location of surrounding streets and residential properties. The property cards indicate that the Site is owned by Minuteman Regional Vocational Technology School, which acquired Parcel 7B on February 1, 1972 (Book 12161, Page 443), and Parcel 1B on October 10, 1973 (Book 12534, Page 36). Purchase dates for the remaining two parcel are not listed. Because the high school is a non-profit

organization, the buildings at the Site are not assessed for tax purposes and do not appear on the property cards.

# **Building Department**

Ransom reviewed available records at the Town of Lexington Building Department. Records included figures showing layouts of the high school building and surrounding areas, building alteration permits for the school, building permits and a floor plan for the energy house, and other records pertaining to proposals for alterations at the Site. The building department did not have files pertaining to current or historical heating systems at the Site.

### **Engineering Department**

At the Lexington Engineering Department, Ransom reviewed plans confirming that the Site has historically been connected to municipal sewer systems. Ransom also reviewed historical tax maps which showed the boundaries of parcels at the Site. No information pertaining to releases of OHM was available at the Engineering Department.

# Town of Lexington Fire Department

The Lexington Fire Department Fire Prevention Division did not respond to Ransom's information requests before this report was published. Should information be received from the Fire Prevention Division that results in a material change to the conclusions and recommendations included herein, Ransom will issue an Addendum to this report.

### **Health Division**

The Lexington Heath Division did not respond to Ransom's information requests before this report was published. Should information be received from the Lexington Health Division that results in a material change to the conclusions and recommendations included herein, Ransom will issue an Addendum to this report.

### **Conservation Commission**

The Lexington Conservation Commission identified wetlands at the Site and abutting properties. No files pertaining to releases of OHM at the Site were available at the Lexington Conservation Commission.

### 4.3 PHYSICAL SETTING SOURCES

### 4.3.1 Topography

The topography of the Site is variable, but generally slopes to the southwest. The northeast corner of the Site slopes to the northeast. Based on EDRs research, the general elevation of the Site is approximately 199 feet above mean sea level, as referenced to the National Geodetic Vertical Datum (NGVD). Cranberry Hill is located south of the Site, with an elevation of over 280 feet; regional topography consists of uneven terrain with several hills which have elevations of over 250 feet.

# 4.3.2 Soils/Geology

According to the U.S. Department of Agriculture (USDA) Soil Conservation Service (SCS), surface soils in the vicinity of the Site are identified as Windsor. Windsor soils are classified as loamy sand, which is well drained to excessively well drained, with very high infiltration rates.

Based on information provided on the USGS Bedrock Geologic Map of Massachusetts, bedrock at the Site and vicinity is identified as sedimentary and volcanic rocks consisting of metamorphosed mafic to felsic flow and volcaniclastic and hypabyssal intrusive rocks, including some diorite and gabbro. Ransom did not observe bedrock outcrops at the Site during our reconnaissance.

# 4.3.3 Surface Water Bodies/Floodplains

A small pond is located approximately 350 feet southwest of the high school building. Wetlands and streams were observed on the western portion of the Site. Numerous small, unnamed ponds are located within ½ mile of the Site to the north, south, and west.

Based on the Middlesex County, Massachusetts, National Flood Insurance Program Map (FIRM), Community Panel Number 25017C, the Site is not located within a 100- or 500-year flood zone.

### 4.3.4 Hydrogeology

Based on field observations and Site topography, groundwater at and in the vicinity of the Site is presumed to flow to the southwest, toward nearby wetlands and eventually to Hobbs Brook. Areas in the northeast corner of the Site slope in a northeast direction, toward wetland areas. Cranberry Hill, located to the south-southeast of the Site, is considered to be upgradient from the Site. A groundwater elevation survey was not performed as part of this Phase I ESA; therefore, groundwater flow direction at the Site cannot be confirmed.

### 4.4 HISTORICAL USE INFORMATION FOR THE PROPERTY

The history of the Site was researched to ascertain past use from the present back to the property's first developed use. Reasonably ascertainable historical information sources researched in this assessment allowed uses of the Site to be traced from the present back to 1894, at which time the Site was undeveloped. The following standard historical sources were reviewed by Ransom:

- 1. Historical topographic maps provided by EDR, dated 1894, 1915, 1943, 1949, 1950, 1958, 1970, 1979, and 1987 (Appendix F);
- 2. Aerial Photographs provided by EDR, dated 1952, 1955, 1963, 1969, 1978, 1980, 1985, 1995, 2006, 2008, and 2010 (Appendix F);
- 3. Historical City Directory Image Report provided by EDR (Appendix F); and
- 4. Information reviewed at the Town of Lexington and Town of Lincoln Municipal Offices (Appendix F).

The following table is presented as a summary of the historical use of the Site.

Year(s)	Property Use and Observed Details	Reference Source
circa 1894 to circa 1943	Undeveloped land.	Historical topographic maps
Circa 1943 to 1975	Undeveloped land, residential properties.	Aerial photographs, historical topographic maps, municipal research, interviews
1975 to present	The high school building is completed in 1975. Other structures and features have been added since then, including the energy house circa 1989. A former horticultural storage barn and plastic-covered greenhouse were located southwest of the high school building; these structures have been demolished.	Aerial photographs, historical topographic maps, EDR City Directory Image Report, municipal research, interviews, site visit

# 4.5 HISTORICAL USE INFORMATION FOR ADJOINING PROPERTIES

Historical uses of the adjoining properties are presented in the table below and were identified in the standard historical sources listed above during the course of researching the Site.

Year(s)	Property Use and Observed Details	Reference Source			
North	North				
circa 1894 to present	Residential properties in the early 1900s, undeveloped wooded land (part of Minute Man National Park) in the present day.	Aerial photographs, historical topographic maps, municipal research site visit			
East					
circa 1894 to 1966	Undeveloped wooded land and residential properties located along Marrett Road.	Aerial photographs, historical topographic maps, site visit			
1966 to 1985	Electrical substation, undeveloped wooded land; Marrett Road.	Aerial photographs, historical topographic maps, municipal records			
1985 to present	Electrical substation, office building, Marrett Road.	Aerial photographs, historical topographic maps, EDR city directory image report, municipal records, site visit			
South					
circa 1894 to present	Wooded land and residential properties located along Mill Street.	Aerial photographs, historical topographic maps, city directory image report, site visit			
West					
circa 1894 to present	Undeveloped wooded land and residential properties.	Historical topographic maps, aerial photographs, site visit			

### 5.0 SITE RECONNAISSANCE

On April 19 and 23, 2013, Ransom conducted a reconnaissance of the Site. Ransom was accompanied by Mr. Michael Clickstein, Maintenance Supervisor for the high school during the site visit. A photograph log is included in Appendix C.

### 5.1 METHODOLOGY AND LIMITING CONDITIONS

The reconnaissance included observations at the Site for evidence of releases, potential releases of OHM, or a material threat of releases of OHM. Weather conditions at the time of each reconnaissance were cloudy, with intermittent drizzle on the 23<sup>rd</sup>, and temperatures around 40°–50° Fahrenheit. Ransom's reconnaissance of the Site consisted of a tour of the school building, grounds in the immediate vicinity of the high school building, and walks through some western portions of the Site. Ransom did not access the energy house, the small storage sheds at the site (including a former hazardous-waste storage shed), or all undeveloped areas of the Site. Therefore, Ransom cannot draw conclusions regarding the presence or absence of OHM storage or releases in these areas. According to Mr. MacLean, the former hazardous-waste storage shed has not had a history of a release and is no longer used to store hazardous waste. The building formerly stored waste automotive fluids.

### 5.2 GENERAL SITE SETTING AND OBSERVATIONS

### 5.2.1 Interior of High School Building

The Site is improved with the high school building which was completed in 1975. The building occupies a footprint of approximately 110,000 square feet and has a total interior floor space of approximately 310,000 square feet. The ground floor includes the boiler room (southwest portion of the high school building), swimming pool (west), cafeteria (west central), offices, and the "trades hall" (east) which has technical teaching spaces for plumbing, HVAC, automotive, electrical, welding, and carpentry trades.

In the boiler room, Ransom observed natural-gas-fired boilers. The high school building formerly used oil heat; Ransom observed the cut and capped feed pipes leading to the exterior fuel oil tanks. No OHM staining was observed on soil surfaces below these pipes. Floor drains were observed in the furnace room; no staining was observed in the vicinity of these drains; according to Mr. Clickstein, these drains are connected to the municipal sewer system. Adjacent to the pool, Ransom observed the pool filter and chemical room. Pool chemicals appeared to be properly stored; according to Mr. Clickstein, the drains associated with the pool are connected to the municipal sewer system. In the cafeteria, Ransom observed two grease traps, which appeared to be in good condition. An additional grease trap is located in the baking kitchen on the Mall level of the building. According to Mr. Clickstein, these traps are emptied every six months. Baker's Commodities removes grease from the Site.

In the plumbing area, Ransom observed a trench floor drain and markings on concrete floors which indicate that a former hydraulic lift was likely located in the space. According to Mr. Clickstein, the space was previously used by automotive-repair classes. The trench drain is connected to an oil/water separator exterior to the high school building which discharges to the municipal sewer system. Due to floor surfaces over the concrete in this area, Ransom could not determine the number of former hydraulic lifts which were located in the plumbing room or whether underground lift pistons or hydraulic oil reservoirs have been removed. In the HVAC room, Ransom observed fuel-oil-fired furnaces used for teaching purposes. These furnaces are connected to a fuel oil AST, described below. Ransom observed two automotive technology teaching areas; a garage for adult classes is located in the southeast portion of the building, and an automotive shop for high school classes is located in the northeast portion of the building. In the adult garage, Ransom observed five aboveground hydraulic vehicle lifts; these lifts

appeared to be in good condition. In the high school garage, Ransom observed eleven aboveground hydraulic lifts which also appeared to be in good condition. Ransom observed evidence of former underground hydraulic lifts in the garage; the number and locations of these lifts could not be determined. Ransom observed a hazardous-waste storage room adjacent to the high school automotive garage; Ransom did not observe evidence of a release of OHM in this room. A drain system is present in the high school garage; these drains discharge to an oil/water separator at the exterior of the high school building which is connected to the municipal sewer system.

On the second floor, Ransom observed classrooms, a media/library center, and offices. On the third floor, Ransom observed science labs, dental assisting offices, a machining lab, and other teaching spaces which use or store OHM. This OHM is described below. No evidence of OHM releases was observed.

Ransom observed three hydraulic elevators in the high school building. Minor staining was observed on the concrete surfaces below the reservoirs and machinery in the elevator machine rooms. The concrete floors were observed to be in good condition and no cracks were observed; therefore, no evidence of a release of OHM to the environment was observed in these rooms.

Ransom observed several maintenance rooms and janitor's closets in the high school building containing common cleaning chemicals and liquids used in building maintenance; these materials appeared to be stored properly and no evidence of a release was observed.

### **5.2.2** Other Structures and Exterior Site Observations

North of the high school building, Ransom observed a hazardous-waste storage shed which is used to store waste chemicals used in labs in the high school building. This shed is constructed of wood, with a concrete floor. Ransom observed four unlabeled drums and a fire-safe cabinet in the shed. No evidence of a release was observed in or around the shed. An additional hazardous-waste storage shed, described above in Section 5.1, was not entered by Ransom during the site reconnaissance. Ransom observed manholes associated with the oil/water separators north of the high school building; these structures are reportedly cleaned as needed. Outside the HVAC area, Ransom observed an asphalt patch which is reportedly the former location of a waste-oil UST used by the nearby automotive garage. Also north of the high school building, Ransom observed a pad-mounted transformer. No evidence of a release was observed from this transformer. According to Mr. Clickstein, this transformer was replaced in 2010; no releases were reported from the former transformer.

East of the high school building, Ransom observed the storage of car parts and engines. No evidence of a release of OHM from these materials was observed. Ransom observed a hydraulic trash-compactor attached to a general waste dumpster; no evidence of a release of hydraulic fluid was observed at this dumpster. No evidence of OHM dumping in the dumpster was observed. Also east of the building, Ransom observed a concrete pad which was the former location of gasoline fuel pumps. Mr. Clickstein identified a nearby area where a 5,000-gallon gasoline UST was formerly located.

At the southeast corner of the high school building, Ransom observed a storage structure for compressed gas. Ransom observed a large propane tank, as well as small tanks which contain gases used in trade classrooms and in labs. No evidence of liquid storage was observed in this structure.

The energy house is located southeast of the high school building; Ransom did not enter this structure. This structure reportedly uses electric heat and does not store OHM.

Southwest of the high school building, Ransom observed a greenhouse and small attached classroom building. Small containers of OHM (gasoline, cleaners) were observed in this space; no evidence of a

release of OHM was observed. South of the greenhouse, Ransom observed manhole covers associated with two fuel-oil tanks located in underground concrete vaults. Southwest of the high school building, Ransom observed a maintenance storage garage containing tools, equipment, and materials to maintain the grounds at the Site, including a tractor and Bobcat. The small containers of OHM observed in this garage appeared to be in good condition. No evidence of a release of OHM from the equipment or containers was observed.

West and southwest of the high school building, Ransom observed parking lots, baseball fields, a football field, and landscaped areas. Several small concrete and wood structures were observed which are used to store a variety of dry materials, including sports equipment. A concessions stand is located adjacent to the football field; Ransom did not enter this structure. The remainder of the Site consists of wooded land, access roads, and a pond and wetland in the southwest portion of the Site.

### **5.2.3** Hazardous Substances and Petroleum Products

Ransom observed several locations with hazardous substances or petroleum products throughout the high school building. These substances, along with their locations, are described below. Clean Harbors Environmental Services (CHES) reportedly collects and disposes of hazardous waste generated at the Site on a regular basis.

- 1. ASTs and USTs are located at the Site; these tanks contain petroleum products, and are described in Section 5.2.4, Storage Tanks;
- 2. Ransom observed pool chemicals stored in the pool filter room. The containers appeared to be properly labeled, and no leaking or damage to the containers was observed;
- 3. Ransom observed small containers of virgin and waste oil in the automotive shops, including small drums used to collect waste oil from vehicles. The containers appeared to be properly labeled, and no leaking or damage to the containers was observed;
- 4. In the high school garage, Ransom observed a hazardous-waste storage room, including two 275-gallon virgin motor oil ASTs, one approximately 500-gallon waste-oil AST, one 55-gallon drum containing antifreeze, two 55-gallon drums containing used antifreeze, one 55-gallon drum containing used oil filters, and several smaller containers of oil, lubricants, and other car fluids. No evidence of a release of these chemicals to the environment was observed;
- 5. Flammables cabinets storing greases, lubricants, chemistry lab supplies, paints, oil, and other flammables were found throughout the facility. The cabinets appeared to be in good condition, and containers located in these cabinets were labeled and no evidence of spills or releases was observed;
- 6. In the hazardous-waste storage shed, Ransom observed drums containing liquids reportedly collected from laboratories. These drums were not clearly labeled. No evidence of a release from these drums was observed;
- 7. General cleaning products were found in several maintenance/custodial areas and in janitorial closets located throughout the interior of the high school building. The observed containers appeared to be in good condition;

- 8. Photo-developing chemicals used in the dental assisting classrooms are disposed of using Chemgone. A container of less than 5 gallons is stored in the dental assisting offices;
- 9. In the storage garage located southwest of the high school building, Ransom observed containers of gasoline, 5-gallon buckets of transmission fluid, and small containers of other machinery fluids. The containers appeared to be properly labeled, and no leaking or damage was observed.

# **5.2.4** Storage Tanks

### Underground Storage Tanks (USTs) and/or Aboveground Storage Tanks (ASTs)

Two 15,000-gallon No. 4 fuel oil tanks are currently located southwest of the high school building, in concrete vaults located below an asphalt-paved driveway around the high school building. These tanks are no longer in use; the high school building was converted to natural gas heat approximately 10 years ago. Ransom observed cut and capped underground feed lines entering the boiler room from the tanks. Ransom reviewed the results of tank-tightness tests performed on each tank on March 29, 2013. Both tanks are reported to be tight, with no indication of a release of fuel oil. Approximately 550 gallons and 1,900 gallons of fuel oil remain in these tanks. Ransom did not observe the interior of the tank vaults.

According to available information, a 5,000-gallon gasoline tank, formerly located underground in a concrete vault, was removed from the Site on October 19, 1998. This tank was used to store gasoline for on-site refueling of vehicles owned by the school. The tank was located east of the high school building, and connected via underground pipes to a pump island located northeast of the high school. A permit to remove the tank states that the tank was located in a concrete vault. No information pertaining to potential releases from this tank and distribution system or environmental testing completed at the time of its removal was available.

A 1,000-gallon waste-oil UST was formerly located north of the Trades Hall portion of the high school building. This tank contained waste oil generated in automotive shops in the high school. The tank was reportedly removed in early 1999 and an asphalt patch is visible at this location. No information pertaining to potential releases from this tank or environmental testing completed at the time of its removal, was available.

A 1,000-gallon propane UST, located north of the high school building, formerly serviced the building and is no longer in use. Ransom could not determine whether the propane UST remains in place at the Site. Ransom observed propane ASTs which are currently in service.

Ransom observed a 275-gallon No. 2 fuel-oil AST in the HVAC shop, which services the oil-fired heating units used in the technical classroom. This tank appeared to be in good condition; aboveground fill, vent, and feed lines were observed.

Ransom observed the two 275-gallon virgin motor oil ASTs discussed above and one, approximately 500-gallon, waste-oil AST in the high school garage hazardous-waste room. Significant staining was observed on floor surfaces around the waste-oil AST; however, no evidence of a release of OHM to the environment was observed in this room.

A No. 2 fuel oil AST was reportedly located in the former plastic-covered greenhouse located southwest of the school. This tank fueled a heating system used in the greenhouse. CHES reportedly removed this tank when the greenhouse was demolished sometime within the last few years.

### **5.2.5** Odors

No strong, pungent, or noxious odors, indicative of a release of OHM, were noted at the Site during our reconnaissance.

### **5.2.6** Pools of Liquid

Ransom did not observe areas of standing water and/or pools of liquid, indicative of a release of OHM, at the Site during our reconnaissance.

### **5.2.7** Drums

As previously discussed, Ransom observed 55-gallon drums in the two hazardous-waste areas on Site, as well as small drums used to collect waste oil in the automotive garages. The drums appeared to be in good condition. Apart from stains around drums in the automotive hazardous-waste storage room, no staining and/or leaking were observed on or around the drums at the Site. The drums located in the hazardous-waste storage shed were not clearly labeled.

### **5.2.8** Unidentified Substance Containers

Ransom observed unidentified drums in the hazardous-waste storage shed located north of the high school building. No evidence of a release from these drums was observed. These drums reportedly store chemicals associated with science labs in the high school building.

# **5.2.9** Polychlorinated Biphenyls (PCBs)

Ransom observed one pad-mounted transformer north of the high school building. This transformer was reportedly installed in the last 3 to 4 years. This transformer appeared to be in good condition. Considering the age of this transformer, it is unlikely to contain PCBs in its mineral oil dielectric fluid (MODF). Pad-mounted transformers have reportedly serviced the high school building since it was constructed in 1975. No history of a release from transformers at the Site was reported by Site contacts; concrete surfaces in the vicinity of the current transformer appeared to be in good condition and no staining and/or leaking was observed.

Hydraulic equipment, which may contain PCBs, was observed at the Site. Aboveground hydraulic lifts were observed in the adult and high school garages; these lifts appeared to be in good condition. Former underground lifts were reportedly used in the plumbing Trade Hall and high school garage at the Site. Ransom could not determine the number of lifts or whether the hydraulic reservoirs and pistons have been removed. The high school building has three hydraulic elevators, which use hydraulic reservoirs. Minor staining was observed on the concrete below these reservoirs; no evidence of a release of hydraulic fluid to the environment was observed. Hydraulic systems are also used in several machines used at the Site (i.e., forklift, trash compactor, tractor, Bobcat, etc.). No evidence of a release of hydraulic fluid from this equipment was observed. Considering the age of these machines, Ransom does not anticipate that PCB-containing hydraulic fluid is present in this equipment.

Ransom observed fluorescent lights throughout the high school building; however, the light ballasts were not visible for assessment. Due to the age of the high school building, old ballasts at the Site could contain PCBs.

According to the U.S. Environmental Protection Agency (EPA), caulking (and other building materials) containing PCBs was commonly used during the construction of school buildings between the 1950s

early 1970s. Given the dates of construction of the high school building, it is possible that PCB-containing caulking (or other building materials) was used and remains in place. Ransom did not sample or test caulking or other building materials as part of this assessment.

### 5.2.10 Pits, Ponds or Lagoons

Ransom observed a small pond southwest of the high school building during our reconnaissance. No oily sheens were observed on this pond.

#### **5.2.11** Stained Soil or Pavement

Neither stained soil nor stained pavement, with the exception of *de minimis* staining in parking lots and automotive classrooms, was observed at the Site during our reconnaissance.

### **5.2.12 Stressed Vegetation**

No stressed vegetation, indicative of a release of OHM, was observed at the Site during our reconnaissance.

#### 5.2.13 Solid Waste

Ransom observed one solid-waste dumpster located east of the high school building. Ransom observed a hydraulic trash compactor connected to this dumpster; no staining or other evidence of OHM disposal was observed surrounding the dumpster or hydraulic compactor.

#### **5.2.14** Wells

No drinking water wells or monitoring wells were observed during the site reconnaissance.

### 5.2.15 Other

Ransom observed floor drains in the high school garage and the plumbing shop. According to Mr. Clickstein, and site plans reviewed by Ransom, these drains lead to oil/water separators, which are connected to the municipal sewer system. Other floor drains located throughout the high school building flow directly to municipal sewer lines.

Ransom observed three grease traps located in kitchens in the high school building. Grease from these traps is collected and stored in a container located north of the high school building. Baker Commodities removes grease from the Site.

### 6.0 INTERVIEWS

Ransom interviewed Mr. Michael MacLean, facilities coordinator at the high school, and Mr. Michael Clickstein, Maintenance Supervisor at the high school. Mr. Clickstein provided Ransom with access to the high school building and accompanied Ransom during the site reconnaissance. Information gathered as a result of these interviews has been summarized in this report.

### 6.1 LOCAL GOVERNMENT OFFICIALS

On April 23, 2013, Ransom visited the Lexington Tax Assessor's Office, Building Department, Conservation Commission, Engineering Department, and Fire Department Fire Prevention Office. Ransom also contacted the Lexington Health Division and Lexington Fire Department, although no reply was received from these departments at the time this report was published. Information gathered as a result of these visits and contacts has been summarized in this report.

### 7.0 CONCLUSIONS

We have performed a Phase I ESA in general conformance with the scope and limitations of ASTM Standard Practice E 1527-05 and our scope of work prepared for KBA, dated April 1, 2013. Although Ransom did not identify a release of OHM at the Site, based on the information obtained during this ESA, Ransom has identified three RECs:

- 1. Possible releases of petroleum from a former 5,000-gallon gasoline tank and associated pump island and underground piping. The tank was installed in a concrete vault located east and northeast of the high school building. The tank was removed in 1998. No documentation was available for review describing the integrity of the tank and associated piping and soil conditions at the time the tank was removed;
- 2. Possible releases of petroleum from a former 1,000-gallon waste-oil UST located north of the high school building which was removed in 1999. Consistent with the 1998 gasoline tank system removal, no documentation was available for review describing the integrity of the tank and associated piping and soil conditions at the time the tank was removed; and
- 3. Possible releases of hydraulic fluid from former in-ground hydraulic lifts, located in the plumbing and automotive portions of the Trade Hall. No documentation was available describing the number, locations, and conditions of the former hydraulic lifts at the Site.

### Ransom also identified two non-ASTM RECs:

- According to the U.S. EPA, caulking (and other building materials) containing PCBs was commonly used during the construction of school buildings between the 1950s early 1970s. Given the dates of construction of the high school building, it is possible that PCB-containing caulking (or other building materials) was used and remains in place; and
- 2. Asbestos-containing materials (ACM) are present throughout the interior of the high school building.

### 8.0 RECOMMENDATIONS

Based on the outcome of this assessment, Ransom makes the following recommendations:

- 1. An LSI should be performed in the vicinity of the former gasoline tank, pump island, and associated underground piping; and the waste-oil UST, to determine if soil and/or groundwater have been adversely impacted in the vicinity of these former tanks;
- 2. A GPR survey of the plumbing and automotive portions of the Trade Hall should be performed to determine the number of underground hydraulic lifts located at the Site, as well as the locations of associated apparatus. Based on the GPR survey, an LSI should be performed in vicinity of the former underground hydraulic lifts to determine whether soil and/or groundwater have been adversely impacted;
- 3. The two out-of-service 15,000-gallon No. 4 fuel oil tanks currently located southwest of the high school building should be removed; and
- 4. Before building alterations or renovations are made, Ransom recommends that an HMI be performed to evaluate building materials for asbestos, lead-based paint, PCBs, and other hazardous materials.

### 9.0 ADDITIONAL SERVICES AND NON-SCOPE CONSIDERATIONS

### 9.1 ADDITIONAL SERVICES

No additional services beyond the standard scope of services prescribed by ASTM Standard Practice E 1527-05 were requested by KBA.

# 9.2 NON-SCOPE CONSIDERATIONS

The following environmental issues are outside the scope (non-scope considerations) of the standard practice defined by ASTM Standard Practice E 1527-05. This Phase I ESA does not identify or evaluate these non-scope considerations:

- 1. Asbestos-containing building materials;
- 2. PCBs in building materials;
- 3. Radon;
- 4. Lead-based paint;
- 5. Lead in drinking water;
- 6. Wetlands;
- 7. Regulatory compliance;
- 8. Cultural and historic resources;
- 9. Industrial hygiene;
- 10. Health and safety;
- 11. Ecological resources;
- 12. Endangered species;
- 13. Indoor air quality;
- 14. High-voltage power lines;
- 15. Biological agents; and
- 16. Mold.

### 10. REFERENCES

- 1. Town of Lexington Municipal Offices Ransom Visit: April 23, 2013.
- 2. Massachusetts Department of Environmental Protection Ransom Online Database Review: April 2013.
- 3. U.S. Geological Survey, Topographic 7.5-Minute Series, Maynard, Massachusetts, USGS Quadrangle, 1987.
- 4. Bedrock Geology Map of Massachusetts, Zen et al, 1983.
- 5. Environmental Data Resources (EDR) Radius Map Report, Historical Topographic Map Report, Certified Sanborn Map Report (No Coverage), Aerial Photograph Report, and City Directory Image Report, April 19–22, 2013.

#### 11. SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S)

### Environmental Professional(s)

We declare that, to the best of our professional knowledge and belief, we meet the definition of an Environmental Professional as defined in §312.10 of 40 CFR Part 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Site. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Heather E. Dudley-Tatman, P.G. Project Manager Timothy J. Snay, LSP, LEP

Vice President

# APPENDIX A

Site Location Map

# APPENDIX B

Site Area Plan and Site Plan

# APPENDIX C

Photograph Log

# APPENDIX D

Supplemental Documentation

# **APPENDIX E**

EDR Radius Map with GeoCheck Report

# APPENDIX F

Historical Topographic Maps, Aerial Photographs, Certified Sanborn Map Report (No Coverage), and EDR City Directory Abstract

# **APPENDIX G**

Qualifications