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February 5, 2021

Ms. Jennifer Hughes
Environmental Program Manager
Merrimack Valley Planning Commission
160 Main Street
Haverhill, Massachusetts 01830

Mr. Andrew Port, Director
Office of Planning and Development
City of Newburyport
60 Pleasant Street
Newburyport, Massachusetts 01950

**Subject: Phase I Environmental Site Assessment - Brown School
42 Milk Street, Newburyport, Massachusetts**

Dear Ms. Hughes and Mr. Port:

Enclosed is a copy of the Phase I Environmental Site Assessment (ESA) completed for the above referenced property (the Site). This Phase I ESA was completed in accordance with ASTM International (ASTM) Standard Practice E 1527-13 and the Environmental Protection Agency (EPA) Standards and Practices for All Appropriate Inquiries (AAI); Final Rule (40 CFR Part 312) for Phase I ESAs. This Phase I ESA identified two (2) recognized environmental conditions (REC) and three (3) environmental findings.

Please do not hesitate to contact me at (207) 828-1272 ext. 30 if you have any questions.

Sincerely,
CREDERE ASSOCIATES, LLC

Richard Vandenberg, PG, LG
Senior Project Manager/QC Manager

Cc: Mr. Andrew Port, Office of Planning and Development, Newburyport
Ms. Chris Lombard, U.S. EPA
Ms. Joanne Fagan, MassDEP Brownfields

Enclosure: Phase I ESA



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Phase I Environmental Site Assessment

**Brown School
42 Milk Street
Newburyport, Massachusetts**

Prepared for and Funded by:

**Merrimack Valley Planning Commission
EPA Brownfields RLF: BF96109001
160 Main Street
Haverhill, Massachusetts 01830**



On Behalf of:

**The Town of Newburyport
60 Pleasant Street
Newburyport, Massachusetts**



February 5, 2021

In Reference to:
Project No. 16001377

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EXECUTIVE SUMMARY

Credere Associates, LLC (Credere) has performed a Phase I Environmental Site Assessment (ESA) of the Brown School property located at 42 Milk Street in the City of Newburyport, Essex County, Massachusetts, (Site) in conformance with the ASTM International (ASTM) Standard Practice E 1527-13 for Phase I ESAs, which meets the requirements of the U.S. Environmental Protection Agency (EPA) Standards and Practices for All Appropriate Inquiries (AAI); Final Rule (40 CFR Part 312).

Credere was retained by the Merrimack Valley Planning Commission (MVPC) on behalf of the City of Newburyport (User) to prepare this Phase I ESA using revolved monies from their EPA Brownfields RLF BF96109001.

The 1.21-acre Site is situated within the residentially zoned area of the City. The land consists of two separate lots (Lot 26 and Lot 3). Lot 26 is improved with one approximate 37,000-square foot Site building, known as the Brown Elementary School, a paved parking area, a paved recess area, and a play area. Lot 3 is improved with a paved basketball court and is part of the recess area. The Site is accessed from Milk Street to the north, Lime Street to the west, and Prospect Street to the south.

The Brown School Site building comprises a school with two additions. The northern portion of the Site building consists of the original 1923 U-shaped building and a 1978 addition, which infilled the courtyard of the original building to create a rectangle. The first floor consists of mostly administrative spaces, a kitchen, and the art rooms. The second and third floors consist of classrooms. The southern portion of the Site building consists of the original 1923 boiler room and a circa 1961 gymnasium addition. The Site building is currently occupied by Newburyport City Youth Services on the first floor while the second and third floors are no longer in use.

Historical records reviewed during this Phase I ESA indicated that by 1890 both Site parcels were developed as part of a residential neighborhood with multiple dwellings. On Lot 3, a hot house had been constructed. In the early 1900s, the hot house was removed, and a duplex was built in its place. In 1922, the City of Newburyport seized the dwellings on Lot 26 through eminent domain, and they were torn down. In 1923, the George W. Brown Elementary School was constructed. The original building was an elongated U-shape with the boiler room extending off the back. By 1961, the gymnasium complex was added southwest of the original building. By 1978, a second addition was constructed at the front of the school, which infilled the open space at the front of the Site building. By this time, the duplex dwelling on Lot 3 had been acquired by the City and torn down. Eventually Lot 3 was paved over, and a basketball court was installed for use by children at recess. The Site has stayed in this configuration through to the present day.

Regulatory records reviewed by Credere indicate that a release of No. 2 fuel oil occurred at the Brown School during the weekend of March 24, 2001. It was estimated that approximately 40 gallons of No. 2 fuel oil was released to the boiler room floor from a leaking gauge associated with one of the boilers. It was observed that soil below the concrete floor along the eastern wall was impacted as well as the sediment in a nearby catch basin in the room. ENPRO Services, Inc. conducted site clean-up. In May 2001, sub-slab floor soil sampling was performed and identified



elevated concentrations of petroleum constituents in the soils. In July/August 2001, 83.95 tons of contaminated soil was excavated from below the boiler room floor, just outside the boiler room foundation, and adjacent to the above-mentioned catch basin. A permanent solution was achieved; however, concentrations were not reduced to background during the cleanup indicating a high risk that any future work in this area of the Site could impact residual contamination leading to management of contaminated soil and/or Massachusetts Department of Environmental Protection (MassDEP) notifications.

Site reconnaissance identified the presence of an existing No. 2 fuel oil tank in service at the Site to provide oil to the boilers. Credere interviewed Mr. Michael Bartlett, Facilities Manager for the City of Newburyport, and he was able to confirm the existence of an in-use underground storage tank (UST). However, the age of the tank remains unknown age. Credere could not find any registration information for this current tank. Further, in an interview with the Newburyport Deputy Fire Chief, Steve Bradbury, was able to provide information about the removal and replacement of a 7,000-gallon No. 2 fuel oil UST in 1959 and documentation of an 8,000-gallon UST at the Site in 1985. It is not clear if the referenced 1985 UST is the tank currently in-use at the Site. However, it is clear that there has been a long history of storage of petroleum in USTs at the Site.

Based on review of historical sources, environmental databases, interviews, User provided information, Site reconnaissance, and judgment by the Environmental Professional; the following recognized environmental conditions (REC) have been identified in connection with the Site:

- REC #1 – Residual petroleum impacted soil from a historical release
- REC #2 – Long history of storage of petroleum in USTs and threat of release associated with the current tank

The following environmental findings, which do not meet the definition of a REC, controlled REC (CREC), or *de minimis* condition (DMC), but warrant the opinion of an environmental professional and may represent some degree of business environmental risk, were identified:

- Environmental Finding #1 – Confirmed presence of asbestos-containing materials (ACM) in/on the Site building
- Environmental Finding #2 – Suspected presence of lead paint in/on the Site building
- Environmental Finding #3 – Suspected presence of polychlorinated biphenyl (PCB)-containing building materials in/on the Site building

Based on the identified RECs and environmental findings, Credere recommends the following:

- A Phase II Environmental Site Assessment to aide in the redevelopment planning of the Site including the following:
 - A full Hazardous Building Materials Survey (HBMS) of Site buildings to aide in the redevelopment planning of the Site
 - An assessment of the soil and groundwater in the vicinity of the existing UST

10. FINDINGS AND OPINIONS

Potential findings can include RECs, historical RECs (HRECs), controlled RECs (CRECs), and *de minimis* conditions (DMCs), pursuant to the ASTM E 1527-13 standard. Some RECs may also be considered Vapor Encroachment Conditions⁴ (VECs) and are identified, if applicable. Additionally, Credere has included other environmental findings, which are findings that do not meet the definition of the above; however, warrant an opinion by the environmental professional and may represent some degree of business environmental risk⁵.

10.1 RECS (AND VECs IF APPLICABLE)

A REC is defined as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment, (2) under conditions indicative of a release to the environment, or (3) under conditions that pose a material threat of a future release to the environment. RECs were also evaluated for the potential of a VEC to exist.

REC #1 – Residual petroleum impacted soil from a historical release

In March 2001, a furnace gauge leak released approximately 40 gallons of No. 2 fuel oil into the boiler room. During cleanup, it was discovered that there had been impacts to soil below the boiler room floor and the catch basin. Free oil and oil-impacted sediment (in a catch basin) and soil were removed. Follow up sampling performed in May 2001 was completed that found elevated concentrations of petroleum constituents in the soil beneath the oil-impacted areas. In July/August 2001, 83.95 tons of contaminated soil was excavated from below the boiler room. An A-2 RAO was achieved; however, residual contamination remains in this area of the Site. Based on how the cleanup verification sampling was conducted and how the soil contamination was cleaned up, there is a high risk that some of these residuals may exceed applicable Massachusetts soil standards. While no future assessment or cleanup is required because the Site is administratively closed, any future work that impacts soil in this area will require management of the residual contamination and/or potentially MassDEP notifications. As such, it is Credere's opinion that the presence of residual petroleum impacted soil above background remaining beneath the boiler room floor represents a REC.

REC #2 – Long history of storage of petroleum in USTs and threat of release associated with the current tank

Records reviewed and interviews conducted by Credere have identified at least two USTs have occupied the Site since the construction of Brown School. Neither UST was registered. Currently, an unregistered UST of unknown capacity (somewhere between 6,000 and 8,000-gallons) containing No. 2 fuel oil is present to the east of the boiler room in the recess area. The tank is currently used to provide fuel oil to the boilers within the Site building. Credere has inferred from records reviewed that the UST is likely between 36 and 62 years old. It is Credere's experience,

⁴ Presence of likely presence of COC vapors in the subsurface of the Site caused by the release of vapors from contaminated soil or groundwater or both either on or near the Site as identified by the Tier I or Tier 2 procedures in ASTM E 1600-10.

⁵ Business Environmental Risk – Per Section 3.2.11 or ASTM E 1527-13, a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of the parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice.



that USTs of this vintage have a high risk of failing and releasing petroleum into the environment. At a minimum, the presence of the current tank represents a material threat of release. In addition, there have been at least one UST (pre-1959) on the Site, and no information was identified on the condition of the tank at the time of its removal. Considering this information, it is Credere's opinion that the presence of the current and former storage of petroleum in USTs at the Site has likely led to a material threat of release and/or release(s) of petroleum representing a REC.

10.2 HRECS

HRECs are defined as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.

No HRECs have been identified associated with the Site during this Phase I ESA.

10.3 CRECS

CRECs are defined as a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

No CRECs have been identified associated with the Site during this Phase I ESA.

10.4 DE MINIMIS CONDITIONS

A DMC is an environmental concern that generally does not present a threat to human health or the environment and generally would not be the subject of an enforcement action if brought to the attention of regulatory agencies. A DMC is not a REC.

No DMCs were identified associated with the Site during this Phase I ESA.

10.5 OTHER ENVIRONMENTAL FINDINGS

Other environmental findings do not meet the definition of a REC, HREC, CREC, or DMCs as defined by the ASTM E 1527-13 standard; however, warrant the opinion of the environmental professional and may represent some degree of business environmental risk.

The following environmental findings were identified:

Environmental Finding #1 – Confirmed presence of ACM in/on the Site building

During the 1988 Initial AHERA Inspection and the subsequent AHERA Re-Inspections, ACMs were documented in the Site building. These materials were confirmed to still be present during the Site reconnaissance. Proper handling, management, and cleanup of the ACM during redevelopment represents business environmental risk. There is the potential for other previously



untested suspect ACM to be present within/on the Site building including roofing, flooring, and other miscellaneous materials. The cost to abate the ACM represent business environmental risk.

Environmental Finding #2 – Suspected presence of lead paint in/on the Site building

Based on the age of the Site building, there is the potential for lead containing paint to be present within/on the Site building. The cost associated with the future handling and management of the lead in paint during redevelopment represents business environmental risk.

Environmental Finding #3 – Suspected presence of PCB-containing building materials in/on the Site building

Fluorescent lights and associated ballasts as well as caulk, and paint were observed during the Site reconnaissance. Based on the age of the Site building, there is the potential for other suspect PCB-containing building materials to be present within/on the Site building. Proper handling and management of the PCB-containing building materials during redevelopment represents business environmental risk.



11. CONCLUSIONS & RECOMMENDATIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 of the property located at the Brown School, 42 Milk Street in the City of Newburyport, Essex County, Massachusetts, the property. Any exceptions to or deletions from, this practice are described in **Section 1.1** of this report

11.1 FINDINGS SUMMARY

This assessment has revealed no evidence of REC's in connection with the property except for the following:

- REC #1 – Residual petroleum impacted soil from a historical release
- REC #2 – Long history of storage of petroleum in USTs and threat of release associated with the current UST

The following environmental findings, which may represent some degree of business environmental risk, were identified:

- Environmental Finding #1 – Confirmed presence of ACM in/on the Site building
- Environmental Finding #2 – Suspected presence of lead paint in/on the Site building
- Environmental Finding #3 – Suspected presence of PCB-containing building materials in/on the Site building

11.2 RECOMMENDATIONS

A Phase II ESA is not required to assess REC #1 because although this release has been closed in accordance with Massachusetts Contingency Plan requirements, the presents residual contamination is confirmed. Based on the identified environmental findings, Credere recommends the following:

- A Phase II Environmental Site Assessment to aide in the redevelopment planning of the Site including the following:
 - A full Hazardous Building Materials Survey (HBMS) of Site buildings to aide in the redevelopment planning of the Site
 - An assessment of the soil and groundwater in the vicinity of the existing UST

11.3 CONTINUING OBLIGATIONS⁶

Per ASTM E 1527-13 Section 3.2.49, a Phase I ESA may provide a defense to afford a future purchaser CERCLA landowner liability protections that may also require the future purchaser to perform continuing obligations (ASTM E 1527-13 X1.3.1.2) with regard to the above listed REC's or findings. However, no continuing obligations can be identified without completion of further

⁶ Credere environmental professionals are not qualified as attorneys to provide legal counsel and recommends consulting legal counsel for advice regarding liability protection and continuing obligations when necessary.



assessment. Confirmed RECs may warrant further evaluation and preparation of a continuing obligations plan in accordance with ASTM E 2790-11 for identifying the specific items necessary to implement continuing obligations at the Site.





FIGURES


Figure 1 – Site Location Plan

Figure 2 – Detailed Site Plan





DRAWN BY: MAW CHECKED BY: RSV		DATE: 01/18/2021 PROJECT: 16001377	
 Credere Associates, LLC 776 MAIN STREET WESTBROOK, MAINE Tel. 207.828.1272 Fax 207.887.1051 WWW.CREDERELLC.COM		FIGURE 1 SITE LOCATION PLAN BROWN SCHOOL 42 MILK STREET NEWBURYPORT, MASSACHUSETTS	
		1,000 0 2,000  Feet 1 INCH = 2,000 FEET	










DRAWN BY: MAW/CRE DATE: 02/02/2021
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**FIGURE 2
DETAILED SITE PLAN**

**BROWN SCHOOL
42 MILK STREET
NEWBURYPORT, MASSACHUSETTS**

-  BOILER ROOM
-  1961 ADDITION
-  1978 ADDITION
-  SITE BOUNDARY
-  ORIGINAL 1923 SITE BUILDING

-  BOILER
-  NOVEMBER 2001 EXCAVATION AREA
-  UNKNOWN SIZE #2 FUEL OIL UST
-  PARCEL BOUNDARY

NOTES:
EXISTING CONDITIONS AND FEATURES SHOWN ON THIS PLAN
ARE APPROXIMATE AND ARE BASED ON INFORMATION
OBTAINED FROM THE CITY OF NEWBURYPORT ONLINE GIS
DATA, MASSACHUSETTS GIS PARCEL LAYER, 2013 ORTHO
PHOTOS, AND SITE RECONNAISSANCE PERFORMED ON
JANUARY 8, 2021.