



April 20, 2018

HMFH Architects, Inc.  
130 Bishop Allen Drive  
Boston, MA 02139

Attention: Mr. Lori Cowles

Reference: Arlington High School; Arlington, Massachusetts  
Phase I Environmental Site Assessment Report

Ladies and Gentlemen:

Enclosed herein is our Phase I Environmental Site Assessment Report for the property located at 869 Massachusetts Avenue in Arlington, Massachusetts (subject site). Refer to the Project Location Plan (**Figure 1**) for the general site location.

This report has been prepared and these services were performed in accordance with our proposal dated February 16, 2018 and subsequent authorization of HMFH Architects, Inc. These services are subject to the limitations contained in **Appendix A**.

The subject assessment was conducted for the above-mentioned property in accordance with the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Assessments: Phase I Environmental Assessment Process (ASTM E 1527-13) as referenced in 40 CFR Part 312 (the All Appropriate Inquiries Rule). Standards utilized in our evaluation included the Massachusetts Oil and Hazardous Materials (OHM) Release Prevention and Response Act (MGL Chapter 21E) and the Massachusetts Contingency Plan (310 CMR 40.0000).

The objective of the Phase I Environmental Site Assessment, as defined in the ASTM E 1527-13 Standard, is to identify the potential presence of Recognized Environmental Conditions (RECs), Historical RECs (HRECs), and/or Controlled RECs (CRECs) at the subject site or at surrounding properties that may potentially pose a threat to the subject site.

Our scope of services consisted of the following: (i) a visual inspection of the site and reconnaissance of the surrounding area; (ii) an assessment of the site history relative to the possible presence of oil and hazardous materials; (iii) a search of information on file at the Town of Arlington Municipal Offices including the Town of Arlington Fire Prevention Bureau for records of permits issued for the storage and/or use of oil or hazardous materials at the site; (iv) a search of Federal databases and records using the relevant ASTM specified search radii, including the National Priorities List, SEMs List and the RCRIS Handlers List by EDR Sanborn, Inc. of Shelton, CT; (v) a search of the Massachusetts Department of Environmental Protection (DEP) on-line databases and files for records of incidents involving releases of oil and/or hazardous materials at the subject site and surrounding properties; and (vi) assessing the above and documenting the results in a Phase I Environmental Site Assessment Report.



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Excluded from the scope of work were a title search, a lien search, and an assessment for the presence of radon, lead based paint, urea formaldehyde foam insulation (UFFI), mold, mildew and asbestos containing materials.

In summary, the results of our Phase I Environmental Site Assessment identified the following as RECs with respect to the subject site:

- The release of chlorinated volatile organic compounds (CVOCs) which has affected groundwater at the southern portion of the subject site and indoor air within the southern portion of the school complex to which Release Tracking Number (RTN) 3-RTN 3-30236 has been assigned by the DEP. Assessment activities completed at the subject site indicate that residual concentrations of CVOCs which are present in groundwater and indoor air do not pose a Significant Risk to the current students and staff. However, RTN 3-30236 remains active pursuant to the provisions of the MCP and further compliance is necessary to achieve and maintain regulatory closure.
- The release of oil and hazardous materials listed under RTN 3-4241 which has affected soil and groundwater across the northern portion of the subject site. This release is attributable to historical chrome and gas manufacturing operations that were performed at the 51 Grove Street property which abuts the western portion of the subject site.

From June 2004 through November 2005 response actions were completed at the subject site to address the release which included: (1) relocation of gas and water utility pipelines (i.e., critical utilities) into clean soil corridors; (2) installation of Engineered Barriers (in accordance with 310 CMR 40.0996(4)(c)) over areas with Upper Concentration Limit (UCL) exceedances in soil; (3) construction of Direct Contact Barriers over areas where concentrations in soil were below the UCLs but posed a Significant Risk; (4) performance of in-situ groundwater treatment of groundwater hotspots with hexavalent chromium UCL exceedances; and 5) implementation of a groundwater monitoring program to assess the effectiveness of the groundwater treatment program.

Reportedly, a Condition of No Significant Risk was achieved for soil at the subject site, however, a Permanent Solution was not achieved for groundwater due elevated levels of hexavalent chromium in a localized area beneath an Engineered Barrier. As a result, a Remedy Operation Status was filed for the portion of the RTN 3-4241 site that has affected the northern portion of the subject site which requires periodic inspections of the engineered barrier and monitoring of groundwater. As a result, RTN 3-4241 remains active pursuant to the provisions of the MCP and further compliance is necessary to achieve and maintain regulatory closure.

- The potential presence of abandoned underground storage tanks (USTs) that may remain beneath the courtyard located adjacent to the north of the Collomb House building and beneath the asphalt pavement located adjacent to the northeast of the Downs House building. Additionally the potential presence of an abandoned hydraulic oil reservoir associated with the former auto shop lift. The results of this Phase I



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Environmental Site Assessment did not identify records or information regarding the maintenance or removal of these USTs or lift reservoirs.

- The potential presence of an abandoned historical transformer that is contained within a vault located beneath the southern portion of the Collomb House building. In addition, historical plans pertaining to the school complex indicate that the vault is underlain by a UST. The results of this Phase I Environmental Site Assessment did not identify records or information regarding the maintenance or removal of the transformer or UST.
- The 882-892 Massachusetts Avenue property which is located to the southwest on the opposite side of Massachusetts Avenue from the subject site. This property is listed with the DEP under RTNs 3-31392 & 3-31723 due to a release of CVOCs from a former drycleaners that occupied a portion of the on-site building. Based upon assessment activities that were performed by the DEP, the 882-889 Massachusetts Avenue property is considered the source of CVOC contamination at the subject site.

As a result of the above, a Phase II Site Investigation is considered necessary to further assess the potential impacts to soil and groundwater from the above referenced RECs. With respect to planned scope of development at the subject site the following should be considered;

- The installation of a vapor mitigation system beneath any new buildings that may be constructed and/or existing buildings that may be renovated as part of the planned scope of development at the subject site.
- The implementation of health and safety provisions to prevent exposures to workers and surrounding public. While an elevated level of personal protection equipment may be required for workers working within areas of elevated contamination, hazardous waste training will also be necessary.
- Preparation of a clean building pad and utility corridors prior to the construction of building foundations and above grade structures.
- Bulk excavation of contaminated soil or excavation activities which expose large areas of contaminated soil is not recommended during the school year. Appropriate dust suppression and management methods will be necessary during excavation of contaminated soil.
- Treatment of pumped groundwater will be necessary prior to off-site discharge.
- The decommissioning and off-site removal of abandoned USTs, automotive lift and a transformer that may be present at the site.



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We trust that the above is sufficient for your present requirements. Should you have any questions concerning the information presented herein, please do not hesitate to call us.

Sincerely,

McPHAIL ASSOCIATES, LLC

A handwritten signature in blue ink, appearing to read "William J. Burns", is written over a light blue rectangular background.

William J. Burns, L.S.P.

BFM/wjb