HAZARDOUS MATERIALS
Curtis School

ATC Associates Inc. (ATC) was retained by Dore and Whittier, Inc., to perform a Hazardous Materials Assessment regarding remediation of environmental hazards at the following building located in Hanover, Massachusetts:

?? Curtis School

ATC's representatives performed a site review to determine the locations of hazardous materials that may be affected by the forthcoming proposed renovation work at the school.

Note: ATC's Hazardous Materials Assessment did not include any sampling and analysis of materials as part of this study.

ATC's Scope of Work for this project included a cursory review of the following hazardous materials typically found in school buildings:

1. Lead Paint
2. Asbestos
3. Underground Storage Tanks (UST)
4. Miscellaneous Hazardous Materials (i.e. PCB light ballast's, disposal drums, chemical storage, etc.)

Outlined below is a summary of ATC's findings:

I. Lead Paint Materials

The building was originally constructed in the 1896. The building construction date would indicate a higher potential for lead-containing paint to present within the building than if it were built in early 1970's just prior to the Consumer Product Safety Commission (CPSC) banning the sale of commercial paint that contained greater than 0.006% lead. This is based upon the fact that the Consumer Product Safety Commission (CPSC) did not ban the sale of commercial paint that contained greater than 0.006% lead until 1976. In fact, ATC observed several original architectural features on the building that most likely were painted with lead-based paint when the building was first constructed.

The Occupational Safety and Health Administration (OSHA) under their 29 CFR 1926.62 Regulation, consider elemental lead (i.e. >0.0) to be considered lead containing and subject to their worker protection regulations. Therefore, ATC recommends that appropriate lead testing be performed within the building and all results disclosed to the Contractor as part of the Bid Documents.

In addition, any building components that are found to contain any detectable lead will also be subject to federal Resource Conservation and Recovery Act (RCRA) regulations with regards to disposal. Appropriate Toxicity Characteristic Leaching Procedure (TCLP) sampling shall be required of the waste streams to determine if the material is considered hazardous waste for lead. ATC does recommend that representative TCLP samples be collected of the building components subject to disposal and the results be provided to the Contractor as part of the Bid Documents.

II. Asbestos Materials

ATC performed a cursory review for suspect asbestos-containing materials (ACM) located in accessible areas of the building as well as the Asbestos Hazard Emergency Response Act (AHERA) plan. The AHERA Plan, which was developed for the building in 1988 as required by federal law, included procedures for in-place management of identified asbestos containing materials. However, at the time of the AHERA plan development, the known list of suspect asbestos-containing materials required to be identified were far less than what is required by today standards. In addition, the amount of samples required to be collected and analyzed for each suspect material by the original AHERA regulations was completed to minimal standards as well.

The results of that plan indicated the following asbestos-containing materials to be present within the building:

?? 12" x 12" Spline Ceiling Tile and Daubs
?? 9" x 9" Floor Tile and Mastic
?? Linoleum Wall Covering
?? Linoleum Countertops
?? Linoleum Flooring
?? Wall and Ceiling Plaster
?? Boiler Sealant Inside Unit

The majority of these materials were observed to be present and in fair to good condition. The school maintenance staff presently monitors the condition of the material on a 6- month basis in accordance with the AHERA Management Plan.

ATC would like to also point out that at the time of the AHERA plan development (1988), the known list of suspect asbestos-containing materials required to be identified were far less than what is required by today standards. In addition, the amount of samples collected and analyzed for each suspect material by the original AHERA plan was completed to minimal standards as well.

Therefore, the following additional suspect ACM was observed by ATC and will require sampling to confirm asbestos content:

?? Carpet Mastic
?? Wall Paneling Glue
?? Window Caulking
?? Window Glazing
?? Sheetrock
?? Joint Compound
?? Boiler Unit (Interior)
?? Flue Patch
?? Vinyl Tread Mastic

In accordance with federal Environmental Protection Agency (EPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) Regulations, all materials found to be asbestos-containing in the building must be abated prior to renovation/demolition activities. Therefore, ATC recommends that a comprehensive survey be performed in the school which will (1) identify all suspect ACM subject to potential impact by forthcoming renovation activities which will comply with NESHAP Regulations; and (2) update the overall current AHERA plan for the school.

III. Underground Storage Tanks (UST's), Oil & Hazardous Materials

ATC performed an assessment as to the presence and locations of UST's and oil and other hazardous materials (OHM) at the site. ATC's review included a preliminary site investigation as well as discussions with school personnel and custodial staff on past practices and handling of OHM at the site.

The following is a summary of ATC's findings:

1. One, 750- or 1000-gallon, single-walled steel UST reported to be removed in early 1990s from rear of school. No visible evidence of former location. No fill port or vent currently visible. Recommend obtaining tank removal records. If available documentation is insufficient to support clean removal of UST, recommend subsurface investigation to determine soil and groundwater quality in vicinity of boiler room.

2. Existing boiler was previously No. 2 oil and is currently natural gas. Earlier heating systems for wood and coal removed. Previously existing ATSs (1 or possibly 2 ASTs) were reported to be removed from former coal bin located in boiler room area of cellar. No ASTs observed currently. No fill pipes or vent pipes observed outside. Strong petroleum odor noted in former coal bin area. Floor appears to be concrete. Foundation is mortared stone. No indication of when concrete floor was replaced. Recommend determining source of odor. Recommend subsurface investigation in vicinity of former coal bin to investigate possible releases to the soil and groundwater from the AST(s) formerly located in the coal bin.

3. Copper feedlines to boiler are present on top of slab (under concrete patch) leading from former coal bin area to existing boiler. Oil stains observed on concrete in vicinity of boiler. Recommend removal and proper disposal of feed line.

4. Sump present in former coal bin; second sump in present in another room in basement. Sumps were dry at time of site inspection but contained sediment. Base of sumps may be through the concrete floor. Discharge point(s) for sumps was not determined. However, drywell (concrete block construction) is present at rear of building and may be discharge point. Recommend determining discharge point(s) for sumps. Recommend sampling and analysis of sump sediments and drywell sediments.

5. May have at least one mercury thermostat present in a hallway. Recommend proper disposal of any mercury-containing materials.

6. Chimney stack ash and/or bricks may require disposal as hazardous materials. Recommend testing ash and bricks if disposal is required.

7. Minor quantities of latex and acrylic paint stored in former coal bin area. Recommend proper disposal of unused paints.

8. Scrub sink present in basement. Trap may contain hazardous materials. Recommend proper disposal of trap if to be removed.

9. Light fixtures and ballasts have been replaced recently throughout the building according to School Maintenance. Therefore, no PCB ballasts are present.

The aforementioned information represents ATC's preliminary site investigation work relating to the feasibility study. As noted, additional sampling and investigation may be required in some instances to further determine the extent of the remediation activities required.

If you have any questions regarding this information, please feel free to call me directly at (413) 525-1198.

Sincerely,

ATC Associates Inc.

Derrick Wissman
Senior Project Manager