Wilcox & Barton INC.
ENVIRONMENTAL AND CIVIL ENGINEERING

March 6, 2018

Mr. Henry Woolsey
Selectboard Vice Chair
Town of Petersham
3 South Main Street, P.O. Box 486
Petersham, Massachusetts 01366

RE: Asbestos Abatement Oversight and Clearance
Nichewaug Inn
25 Common Street
Petersham, Massachusetts

Dear Mr. Woolsey:

Wilcox & Barton, Inc. has prepared this letter report to summarize the abatement of asbestos-containing material (ACM) and post-abatement clearance monitoring that has been completed at the above-referenced property. All ACM has been abated and the building is now suitable for renovation/demolition activities.

The abatement contractor was Associated Building Wreckers Inc. (ABW) of Springfield, Massachusetts. Asbestos project monitoring activities were performed by American Environmental Consultants, Inc. (American Environmental) of Weymouth, Massachusetts. Wilcox & Barton, Inc. performed project management activities.

1.0 SCOPE OF ABATEMENT ACTIVITIES

In 2015, Terracon prepared a *Project Manual for Asbestos Abatement and Demolition* for the Nichewaug Inn and Academy Building at 25 Common Street in Petersham, Massachusetts. The project manual recorded the description, location, general condition, and estimated quantity of each suspect ACM, poly-chlorinated biphenyl (PCB)-containing material, and mercury-containing material. Minor changes to the scope of work were made by mutual agreement between the Town of Petersham and ABW (i.e. modifying the number of windows to be covered with plywood and extending the date for substantial project completion). Those changes did not modify the asbestos abatement or hazardous materials abatement aspects of the project.

2.0 PROJECT MANAGEMENT

During the course of the Project, Wilcox & Barton, Inc. performed project management activities including coordination with the abatement contractor, the Town of Petersham, and the project monitor. Wilcox & Barton, Inc. reviewed contractor work submittals, payment applications, and submitted written recommendations for approval; conducted periodic site inspections and attended site meetings; and provided periodic work status updates to the Town of Petersham.

3.0 ASBESTOS ABATEMENT OVERSIGHT AND CLEARANCE

American Environmental provided asbestos project monitoring activities during asbestos abatement activities performed by ABW from May 8 through December 15, 2017. The project monitoring activities included final clearance visual inspections and air monitoring of discrete abatement work areas, periodic inspections of containment areas and oversight of asbestos abatement activities. A copy of the project notifications prepared by ABW and submitted to the Massachusetts Department of Environmental Protection (MassDEP) is contained in Appendix A.

3.1 Pre-abatement Containment Inspection

Prior to initiation of abatement activities, ABW constructed containment structures in accordance with project specifications and MassDEP requirements. The containment structures were inspected by American Environmental to ensure compliance with federal, state, and local regulations and the project specifications prior to the initiation of abatement activities. After the containment structures passed the inspection, American Environmental notified ABW that abatement activities could be initiated.

3.2 Post-abatement Visual Inspection

Following completion of ACM removal in each containment area, a visual inspection was conducted by American Environmental to ensure that all ACM had been removed from the work area and a condition of "no visible debris" had been achieved. Results of the visual inspections for each containment/work area are presented on the *Certificate of Visual Inspection,* a copy of which is provided in Attachment B.

3.3 Final Clearance Air Sampling

Final clearance sampling was performed by American Environmental in each full containment negative-pressure enclosure after the completion of ACM removal and the visual inspection, but prior to dismantling the containments. Prior to sample collection, a leaf blower and/or fan(s) were used to aggressively mix the air inside the containment so that any dust or fibers remaining would become airborne.

All samples were collected using high-volume sampling pumps with Millipore 25-millimeter (mm) diameter, three-piece cassettes with 50-mm electrically-conductive extension cowls and 0.8-mm pore size mixed cellulose ester filters with backup pads. The samples were analyzed by phase contrast microscopy (PCM) in accordance with National Institute for Occupational Safety and Health (NIOSH) Method 7400. The samples were either analyzed on site by American Environmental, transported off-site under chain-of-custody to AEC Laboratories, LLC, of Weymouth, Massachusetts for analysis.

All final clearance sample results were below the applicable MassDEP and U.S. Environmental Protection Agency (EPA) standard of 0.01 fibers per cubic centimeter (f/cc) for re-occupancy after an asbestos abatement response action. Results of the air monitoring performed by American Environmental are provided in Attachment B.

3.4 Background and During Removal Air Sampling

American Environmental also performed periodic monitoring which included the collection of air samples from outside of the containment work areas prior to and during the removal of ACM. The samples were collected to establish background levels and to ensure that abatement activities were not causing elevated fiber levels outside of the containment structures. Sampling and analytical methods were the same as those employed for the final clearance air monitoring with the exception of the mixing of air prior to sampling.

All background and 'during removal' air sample results were below the applicable MassDEP and EPA standard of 0.01 f/cc for re-occupancy after an asbestos abatement response action. Results of the air monitoring performed by American Environmental are provided in Attachment B.

3.5 ACM Disposal

All ACM was properly packaged and containerized in 100-yard roll-off containers for disposal. Over the course of the project, a total of nine 100-yard roll-off containers were transported by RED Technologies LLC under Waste Shipment Records to the Minerva Enterprises landfill in Waynesburg, Ohio for disposal. Waste transport and disposal documentation is presented in Attachment C.

4.0 PCB- and Mercury-Containing Materials Removal

Over the course of the abatement project, ABW removed PCB-containing light ballasts, mercury-containing light tubes and thermostats. The following items were removed from the site:

- Three 55-gallon drums of PCB-containing ballasts (approx. 100 ballasts per drum);
- One large fiber drum with 200 fluorescent light bulbs (4-foot long bulbs);
- Twelve boxes of 4-foot long fluorescent light bulbs; and
- Two boxes of 8-foot long fluorescent light bulbs.

On February 27, 2018, these PCB- and mercury-containing waste materials were properly disposed of at the Complete Recycling Solutions, LLC, facility located in Fall River, Massachusetts. A copy of the Bill-of-Lading is presented in Attachment D.

5.0 BASEMENT WATER ISSUES

Flooding due to seasonal high groundwater required ABW to pump water from portions of the basement to allow for asbestos abatement activities. During construction of the full-containment enclosure within the boiler room, a fuel line to the boiler was damaged and released oil to the water in the basement. A memorandum summarizing the response actions performed and management of the released oil and petroleum-impacted water is provided in Appendix E. Sampling conducted by Wilcox & Barton, Inc. supported the conclusion that the response actions performed addressed the petroleum release prior to any discharge to the environment. The petroleum was contained within the basement and did not discharge to the ground surface or subsurface environmental media. No condition was observed or documented that required notification of the MassDEP in accordance with the Massachusetts Contingency Plan (310 CMR 40.0000).

6.0 CONCLUSIONS

ABW completed the asbestos abatement work in accordance with the *Project Manual for Asbestos Abatement and Demolition* for the Nichewaug Inn and Academy Building at 25 Common Street in Petersham, Massachusetts. All ACM within the building as detailed in abatement work scope has been removed. Post-abatement visual inspections revealed that the "no visible debris" standard had been achieved within each work area. Final clearance air samples collected from inside each negative pressure containment area at the completion of asbestos abatement demonstrated attainment of the clearance criteria of 0.01 f/cc, confirming proper cleanup. All ACM within the project scope has been removed and the affected building areas are suitable for re-occupation or renovation/demolition activities.

ABW completed the abatement of PCB-containing materials, mercury-containing materials, and other hazardous materials in accordance with the *Project Manual for Asbestos Abatement and Demolition* for the Nichewaug Inn and Academy Building at 25 Common Street in Petersham, Massachusetts. Abatement was completed based on the project manual descriptions of the location, general condition, and estimated quantity of each suspect hazardous material. Visible inspection of the work areas was conducted to confirm the removal of hazardous materials from the site building.

It is the opinion of Wilcox & Barton, Inc. that the asbestos and hazardous materials abatement work has been completed in accordance with the *Project Manual for Asbestos Abatement and Demolition* as well as applicable MassDEP regulations and policy. If you have any questions, or require additional information, please contact the undersigned at (603) 369-4190 x523.

Very truly yours,

WILCOX & BARTON, INC.

Paul J. Plagge, E.I.T.
Senior Project Engineer

David JP Foss, CPG, LSP
Vice President / Principal Hydrogeologist

Attachments:

Attachment A AQ 04 – Asbestos Removal Notification Form ANF-001
Attachment B American Environmental Daily Logs and Certificate of Visual Inspection
Attachment C Waste Disposal Documentation
Attachment D Bill-of-Lading
Attachment E Basement Water Issue Memorandum