HAZARDOUS MATERIALS SURVEY
COMMERCIAL BUILDING
10 SOUTH BROADWAY
SALEM, NEW HAMPSHIRE

January 2020

Project 19039

GREEN
ENVIRONMENTAL

HAZARDOUS MATERIALS SURVEY

Commercial Property
10 South Broadway
Salem, New Hampshire

January 9, 2020

Project 19039

Prepared for:

Vanasse Hangen Brustlin
101 Walnut Street
Watertown, MA 02472
ATTN: Katherine Kudzma

Prepared by:

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1.0 INTRODUCTION

Green Environmental, Inc. (GREEN) was retained by Vanasse Hangen Brustlin (VHB) to conduct a hazardous materials survey of the commercial building located at 10 South Broadway in Salem, New Hampshire. GREEN understands the surrounding area is scheduled to be redeveloped and that the existing structure will be demolished. GREEN completed this Hazardous Materials Survey to support the planned redevelopment.

1.1 Building Description

According to the Town of Salem Assessor field card and GREEN's site inspection, the building located at 10 South Broadway is an approximately 3,945 square-foot, two-story, commercial building constructed in 1910.

The building has a concrete and stone foundation, with wood frame construction and an asphalt shingle roof. Representative site photographs for the building are included in **Appendix A**. Floor plans are provided for reference included as **Figure 1** and **Figure 2**.

1.2 Scope of Work

GREEN was retained to conduct a Hazardous Materials Survey to document the presence of oil or hazardous materials at the subject building that may require abatement and/or special handling and disposal prior to building demolition. The Survey included assessment for the presence of asbestos and lead-based paint, and the cataloging of oils and/or hazardous materials located within the building. Bulk samples of suspect building materials were collected using destructive measures, and submitted for laboratory analysis as appropriate. The presence of lead-based paint was evaluated using an X-Ray fluorescence (XRF) field instrument.

2.0 ASBESTOS SURVEY

2.1 Regulatory Background

Regulations for asbestos exposure and/or asbestos release have been promulgated by the United States Environmental Protection Agency (EPA), U.S. Occupational Safety and Health Administration (OSHA), and New Hampshire Department of Environmental Services (NHDES).

OSHA regulates asbestos in the workplace through the Asbestos for General Industry Standard (29 Code of Federal Regulations [CFR] 1910.1001) and the removal of regulated asbestos-containing material (RACM) though the Asbestos Standard for Construction (29 CFR 1926.1101). OSHA regulations are created for the protection of the health of workers who may be occupationally exposed to asbestos. These occupations include asbestos abatement, construction activities, building maintenance, and others. OSHA requires that asbestos ACM be removed or appropriately abated prior to any work which will disturb the material, including demolition and renovation. Additionally, OSHA stipulates that thermal system insulation (TSI), surfacing materials and floor tile installed before 1980 must be presumed to be ACM unless appropriate sampling and analysis prove otherwise.

EPA and NHDES regulate ACM associated with building demolition, renovation, and abatement projects. The regulations are promulgated via the National Emission Standards for Hazardous Air Pollutants (NESHAP 40 CFR part 61) and the New Hampshire Cod of Administrative Rules (Env-A 1800). The regulations are developed to protect public health and the environment and require that buildings be inspected for asbestos prior to any demolition or renovation. Further, the regulations require that all affected friable and non-friable ACM which is damaged or will be damaged as a result of the demolition or renovation activities be properly removed or abated prior to disturbance by the work.

NESHAP defines three types of ACM:

- Friable ACM: ACM that can be reduced to power by hand pressure requiring removal prior to renovation or demolition (e.g., thermal system insulation (TSI), plaster, joint compound, ceiling tiles).
- Category I non-friable ACM: ACM that is not friable and does not require removal prior to demolition, unless these materials have become friable, will become friable if disturbed, or are in poor condition; must be removed prior to renovation (e.g., resilient floor covering, packings, gaskets, asphalt roofing).
- Category II non-friable ACM: ACM that is not friable and does not require removal prior to demolition, unless these materials have become friable, will become friable if disturbed, or are in poor condition; must be removed prior to renovation (all other non-friable ACM).

RACM is friable ACM and non-friable ACM that may become friable during demolition or renovation activities. Practically speaking, both Category I non-friable ACM and Category II non- friable ACM will become friable in a typical commercial demolition or renovation scenario and must be abated prior to the work.

2.2 Sample Collection and Analysis

Bulk samples were collected based on type and quantity of each suspect material following the sampling guidelines set forth in the Asbestos Hazard Emergency Response Act (AHERA 40 CFR 763.86). Green inspected for materials among those defined as suspect ACM by EPA's AHERA regulation which include:

- Thermal system insulation (TSI) (e.g., pipe/boiler lagging, duct insulation);
- Surfacing materials (e.g., spray-on insulation, texturing materials, plaster), and;
- Miscellaneous materials (e.g., ceiling tiles, transite panels, flooring, vibration joints, drywall).

Fiberglass, foam glass, rubber, wood products, plastic products, glass and steel were not sampled since they are not considered suspect ACM.

The asbestos survey was conducted by Mr. Luke Krzyzewski, New Hampshire Accredited Asbestos Inspector AI100882. A copy of personnel accreditation is included as **Appendix B**. A total of 58 bulk samples were collected from the 10 South Broadway building on December 12, 2019. The samples were collected using hand tools, and sampling equipment was cleaned between the collection of each sample. Each sample location was wet with water prior to sampling to avoid creating dust during sampling. Bulk samples were placed in individual air tight plastic bags and transferred to Asbestos Identification Laboratory of Woburn, Massachusetts for analysis via EPA 600/R-93/116 and/or EPA Interim Method 600/M4-82-020 methods using Polarized Light Microscopy (PLM). Asbestos Identification Laboratory is licensed by the National Voluntary Laboratory Accreditation Program (NVLAP) (#200919-00) for bulk asbestos analysis. The field survey, chain of custody documentation and laboratory certificates of analysis are included in **Appendix C**. In accordance with NESHAP and NHDES regulations, materials are considered asbestos-containing if they contain greater than 1% asbestos as determined by PLM.

The following is a list of materials that were determined to be **asbestos-containing**:

- Beige Sheet Floor
- Corrugated Cardboard Pipe Insulation (stored)

The following is a list of materials that were determined to be **non-asbestos-containing**:

Interior:

- Yellow Carpet Mastic
- Gray Floor Paper
- Square Pattern Sheet Floor and Adhesive
- Ceramic Floor Tile Adhesive and Grout
- Drywall
- Textured Ceiling
- 1’ x 1’ Smooth Ceiling Tile
- White Sink Mastic
- Black Floor Paper
- Rock Pattern Sheet Floor and Adhesive
- Diamond Pattern Sheet Floor and Adhesive
- Gray Cove Base and Adhesive
- Joint Compound
- Plaster Base Coat
- 2’ x 2’ Rough Ceiling Tile

Exterior:

- Siding Paper
- Asphalt Shingle
- Roof Paper

Based on the review of analytical data associated with the above bulk sample collection, asbestos was **positively** identified at the 10 South Broadway building. Please refer to **Appendix E** which summarizes the materials, locations, and estimated quantities that tested positive for asbestos at the 14 South Broadway building. Site photographs are included in **Appendix A**. A Site Plan is included as **Figure 1**.

3.0 LEAD BASED PAINT SURVEY

3.1 Regulatory Background

The Occupational Safety and Health Administration (OSHA) worker protection rule has established a permissible exposure limit (PEL) of 0.050 milligrams per cubic meter for airborne lead. OSHA worker protection rules are applicable for any amount of lead. The Resource Conservation and Recovery Act (RCRA) regulates wastes containing lead as hazardous wastes if the leachable lead in the waste exceeds 5 parts per million (ppm) by Toxicity Characteristic Leachate Procedure (TCLP).

The United States Department of Housing and Urban Development (HUD) has established a threshold for in- lace paint of 1 mg/cm^2 lead as measured by X-ray fluorescence (XRF), above which paint is considered lead-containing. Although HUD guidelines are only directly applicable to residential buildings, the threshold is useful as a guideline for identifying exposure and waste disposal issues in non-residential buildings.

3.2 Sample Analysis

A Lead Based Paint (LBP) Survey was conducted on December 12 and 13, 2020 by Mr. David Pesce, New Hampshire Lead Inspector and Risk Assessor No. RA-00059, utilizing an XRF. This is a non-destructive analytical technique used to determine the elemental composition of materials. XRF analyzers determine the chemistry of a sample by measuring the fluorescent (or secondary) X-ray emitted from a sample when it is excited by a primary X-ray source. This release of energy is then registered by the detector in the XRF instrument, which in turn categorizes the energies by element.

The investigation included a survey of painted surfaces for the presence of lead-based paint (LBP) throughout the building. Painted surfaces containing elevated levels of lead were identified during the survey. Please refer to the field inspection log sheets, included as **Appendix F,** which identifies the locations of elevated lead painted surfaces.

The purpose of the LBP survey was to assist the owner and/or contractor in OSHA compliance for worker protection during the planned renovation of the subject building. Survey results may also assist with characterization of construction debris/waste prior to disposal.

4.0 OTHER HAZARDOUS MATERIALS

4.1 Oil, Paints & Cleaners

No cleaning, maintenance supplies, or paints were noted within the property building.

4.2 Mercury Containing Devices

One (1) mercury containing thermostat was identified within the building. Each individual tilt switch contains approximately three grams of mercury. The mercury-containing ampoules should be removed from each applicable thermostat by an environmental professional, prior to building demolition. The removed ampoules are classified as a Universal Waste and must contained/packaged and labeled in accordance with the Federal Universal Waste Rule, and transported off-site for recycling. Please refer to **Appendix G,** for approximate quantities and locations of Mercury Containing Devices.

4.3 Fluorescent Lights & Ballasts

Fluorescent light fixtures were noted throughout the building. Fluorescent lighting tubes can contain both mercury and lead, and have special handling and disposal requirements. Under federal regulations used fluorescent lamp becomes a waste on the day that it is discarded. The disposal of fluorescent lighting tubes is regulated under the Resource Conservation and Recovery Act (RCRA).

Additionally, fluorescent light ballasts manufactured prior to 1979 may contain polychlorinated biphenyls (PCBs). PCB-based oils were used as insulating oil in many types of ballast to provide cooling and electrical isolation. PCBs are regulated by the EPA and also have special handling and disposal requirements, depending on the concentration.

Each light fixture should be inspected for "No PCBs" labeling, prior to removal. Lighting ballasts which contain PCBs should be segregated from non-PCB containing ballasts and properly disposed. Ballasts with no labeling should be considered PCB. The fluorescent tubes should be transported off-site for recycling. Please refer to **Appendix G,** for approximate quantities and locations of fluorescent lights and ballasts.

4.4 Refrigerants

No refrigerants were observed within the property building.

4.5 Emergency Equipment

Emergency lights were observed within the subject building. Batteries associated with these units are an alkaline, NiMH and NiCAD source. The batteries should be either recycled or properly disposed, prior to being disturbed. Emergency exit signs can also contain radioactive components requiring proper disposal. Please refer to **Appendix G,** for approximate quantities and locations of emergency equipment.

5.0 RESULTS AND RECOMMENDATIONS

GREEN has completed a Hazardous Materials Survey of the building located at 10 South Broadway in Salem, New Hampshire. The property building consists of an approximately 3,945 square foot commercial structure. GREEN understands the existing structure will be demolished. GREEN completed this Hazardous Materials Survey to support the planned redevelopment. The Survey included assessment for the presence of asbestos via bulk sample collection and laboratory analysis, a lead-based paint XRF survey, and the cataloging of oils and/or hazardous materials located within the building.

Asbestos was positively identified at the 10 South Broadway building, as summarized in **Section 2** and **Appendix E**. In accordance with NESHAP and NHDES regulations, all friable ACM, or materials made friable by demolition or renovation activities, must be removed from the building by a licensed asbestos abatement contractor, prior to demolition or renovation. Removal of ACM is regulated by NHDES. GREEN recommends the identified ACMs be removed from the buildings in accordance with applicable asbestos abatement regulations prior to the start of planned demolition activities. Asbestos abatement must be done by a New Hampshire licensed Asbestos Abatement Contractor and be properly disposed of offsite at an appropriate receiving facility in compliance with all applicable state and federal regulations. The New Hampshire asbestos regulations require visual inspection and clearance air monitoring at the completion of an asbestos abatement project. Additionally, full-time monitoring of asbestos abatement procedures in compliance with design specifications and regulations is recommended during major asbestos abatement projects.

NHDES regulations require notification to the Department and local government officials using the Asbestos Demolitions/Renovation Notification Form, 201-05-31 at least 10 working days prior to conducting of an asbestos response action of more than 10 linear-feet or 25 square feet of ACM.

Based on the results of the lead-based paint survey, lead concentrations at or greater than 1.0 mg/cm^2 were identified as described in the XRF field inspection sheets included as **Appendix F**. OSHA worker protection rules apply for any amount of lead in paint, GREEN recommends that the owner provide the results of the LBP survey provided in this report to its demolition contractor. The contractor should consider this information in planning for worker protection during the renovation waste disposal. Removal of the paint prior to demolition is not required. However, the contractor may choose to monitor ambient air for lead during demolition, or demonstrate through air monitoring data collected from previous similar projects that the concentrations of lead identified will not result in an exceedance of the OSHA PEL during the demolition. The demolition contractor should also consider whether TCLP characterization of the demolition debris in accordance with RCRA is appropriate. Demolition work must be conducted in accordance with applicable federal, state, and local regulations.

Other oil and hazardous materials were identified within the building and should be properly segregated, disposed/or recycled as appropriate as summarized in **Section 4 and Appendix G** of this Survey report.

6.0 LIMITATIONS

The opinions expressed by GREEN are based solely on the observations, sampling and analysis, and information cited in this report. Observations were made at the subject site under the conditions stated. The purpose of this study was to determine the nature and approximate quantities of hazardous materials prior to demolition activities. This report does not constitute a complete determination of whether past or current owners, operators or occupants of the site have been in compliance with all applicable state, federal or local environmental regulations. This report does not constitute an AHERA survey. GREEN makes no representation regarding material located in inaccessible areas.

Semi-destructive measures were implemented to obtain bulk samples for asbestos analysis. GREEN makes no representation regarding inaccessible materials which may be located within walls, ceilings, ducts, roofs, below grade or other inaccessible areas. Additional field measurements and/or bulk sampling may be required following the exposure/removal of walls, flooring, etc. Should additional material be identified during demolition activities that are not listed in this report the work should be stopped and samples be collected to determine if hazardous classification is warranted.

Our conclusions are based solely on the information described herein and are believed to be representative of conditions at the time of the building survey. If additional information concerning the environmental conditions of the subject site becomes available, GREEN should be notified and presented with that information. Based on the new information, we will reevaluate the conclusions stated in this report to determine whether modifications are warranted.

This report is not a project specification and should not be used as a bidding document, including an asbestos abatement or building demolition specification.

We appreciate the opportunity to provide you with these environmental services. Please contact the undersigned with any questions at 617-479-0550.

Sincerely,
GREEN ENVIRONMENTAL, INC.

Luke Krzyzewski
Project Manager
Environmental Consulting Services

Kristen Awed-Ladas
Senior Project Manager
Environmental Consulting Services

Plans and Figures

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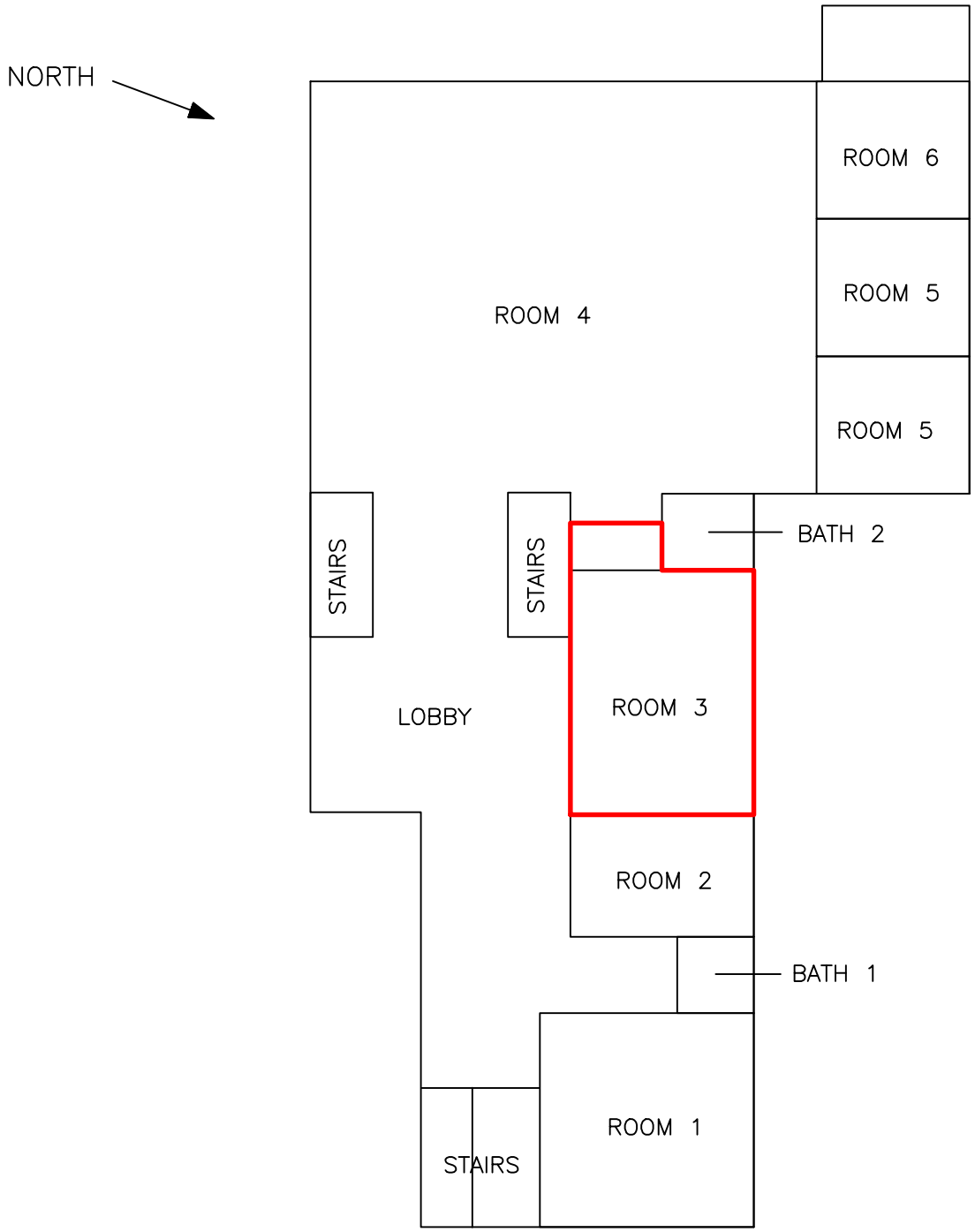

FIRST FLOOR SITE PLAN
10 SOUTH BROADWAY
SALEM, NH

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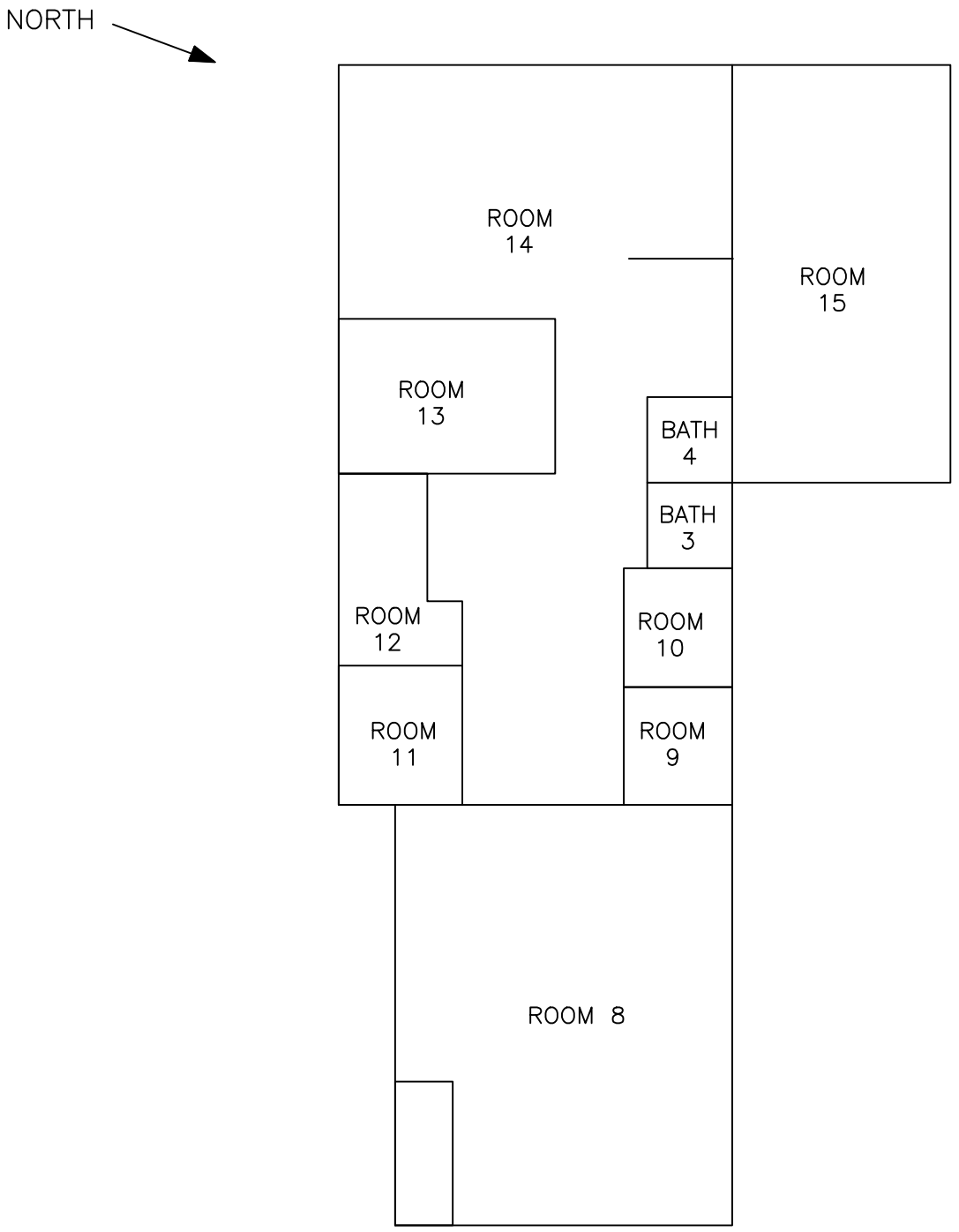
VHB
101 WALNUT STREET
WATERTOWN, MA

FIGURE: 1
PROJECT NO.: 19039
DATE: JANUARY 2020

APPROVED BY: KA
CHECKED BY: KA
DRAWN BY: LK



SECOND FLOOR SITE PLAN
10 SOUTH BROADWAY
SALEM, NH

GREEN ENVIRONMENTAL

VHB
101 WALNUT STREET
WATERTOWN, MA

FIGURE: 2
PROJECT NO.: 19039
DATE: JANUARY 2020

APPROVED BY: KA
CHECKED BY: KA
DRAWN BY: LK

Appendix A

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A view of the south side of the building facing northwest

A view of the north side of the building, facing west

A view of the 1st floor of the 10 South Broadway building

A view of the 1st floor of the 10 South Broadway building

A view of the 2nd floor of the 10 South Broadway building

A view of the 2nd floor of the 10 South Broadway building

Appendix B

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10 S BROADWAY

Location	10 S BROADWAY	**Mblu**	89/ / 1093/ /
Acct#		**Owner**	10 SOUTH BROADWAY LLC
Assessment	$447,600	**Appraisal**	$447,600
PID	6363	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$198,700	$248,900	$447,600
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$198,700	$248,900	$447,600

Owner of Record

Owner	10 SOUTH BROADWAY LLC	**Sale Price**	$0
Co-Owner		**Certificate**	
Address	PO BOX 90 SALEM, NH 03079-0090	**Book & Page**	3339/2943
		Sale Date	10/21/1998

Ownership History

Ownership History				
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Sale Date**
10 SOUTH BROADWAY LLC	$0		3339/2943	10/21/1998
	$0		2584/1364	04/30/1980

Building Information

Building 1 : Section 1

Year Built: 1910
Living Area: 3,945
Replacement Cost: $349,446
Replacement Cost Less Depreciation: $195,700

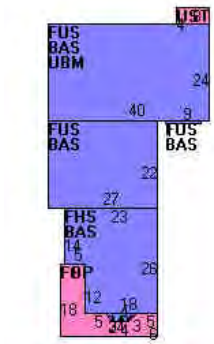
Building Photo

Building Attributes	
Field	**Description**
STYLE	Office Bldg
MODEL	Comm/Ind
Stories:	2

Occupancy	1
Exterior Wall 1	Clapboard
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Carpet
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Forced Air-Duc
AC Type	Central
Bldg Use	OFFICE BLD MDL-94
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	3400
Heat/AC	HEAT/AC PKGS
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	8
% Comn Wall	0

(http://images.vgsi.com/photos/SalemNHPhotos//\00\00\00/96.jpg)

Building Layout



(http://images.vgsi.com/photos/SalemNHPhotos//Sketches/6363

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	2,113	2,113
FUS	Upper Story, Finished	1,563	1,563
FHS	Half Story, Finished	538	269
FOP	Porch, Open, Finished	204	0
UBM	Basement, Unfinished	960	0
UST	Utility, Storage, Unfinished	32	0
		5,410	3,945

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use		Land Line Valuation	
Use Code	3400	**Size (Acres)**	0.2

Description	OFFICE BLD MDL-94	**Frontage**	0
Zone	CA	**Depth**	0
Neighborhood	600	**Assessed Value**	$248,900
Alt Land Appr	No	**Appraised Value**	$248,900
Category			

Outbuildings

Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Assessed Value**	**Bldg #**
PAV1	PAVING-ASPHALT			4000 S.F.	$3,000	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2017	$198,700	$248,900	$447,600
2016	$198,700	$248,900	$447,600
2015	$204,200	$230,900	$435,100

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2017	$198,700	$248,900	$447,600
2016	$198,700	$248,900	$447,600
2015	$204,200	$230,900	$435,100

Appendix C

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GREEN ENVIRONMENTAL, INC.

Personnel Accreditation

Accredited Inspector

Name: Luke Krzyzewski

Accreditation Number: AI100882

Signature: _____

Licensure:

Appendix D

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Asbestos Identification Laboratory

165 New Boston St., Ste 227
Woburn, MA 01801
781-932-9600

Web: www.asbestosidentificationlab.com
Email: mikemanning@asbestosidentificationlab.com

Batch: 49454

NVLAP®
Lab Code: 200919-0

December 31, 2019

Luke Krzyzewski
Green Environmental Inc.
296 C Weymouth St.
Rockland, MA 02370

Project Name: *10 South Broadway, Salem, NH*
Project Number: #19039
Date Sampled: 2019-12-12
Work Received: 2019-12-23
Work Analyzed: 2019-12-30

Analysis Method: BULK PLM ANALYSIS EPA/600/R-93/116

Dear Luke Krzyzewski,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project. The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.
Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. Samples containing subsamples or layers will be analyzed separately when applicable. Reports are kept at Asbestos Identification Laboratory for three years. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

- NVLAP Lab Code: 200919-0
- Massachusetts Certification License: AA000208
- State of Connecticut, Department of Public Health Approved Environmental Laboratory Registration Number: PH-0142
- State of Maine, Department of Environmental Protection Asbestos Analytical Laboratory License Number: LB-0078(Bulk) LA-0087(Air)
- State of Rhode Island and Providence Plantations. Department of Health Certification: AAL-121
- State of Vermont, Department of Health Environmental Health License AL934461

Thank you Luke Krzyzewski for your business.

Michael Manning
Owner/Director

December 31, 2019

Luke Krzyzewski
Green Environmental Inc.
296 C Weymouth St.
Rockland, MA 02370

Project Name: *10 South Broadway, Salem, NH*
Project Number: #19039
Date Sampled: 2019-12-12
Work Received: 2019-12-23
Work Analyzed: 2019-12-30

Analysis Method: BULK PLM ANALYSIS EPA/600/R-93/116

FieldID / LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
1A / 548005	Yellow Carpet Mastic	1st, Lobby	tan	Cellulose 95 Non-Fibrous 5	None Detected
1B / 548006	Yellow Carpet Mastic	2nd, Room 14	tan	Cellulose 95 Non-Fibrous 5	None Detected
2A / 548007	Black Floor Paper	1st, Lobby	black	Cellulose 70 Non-Fibrous 30	None Detected
2B / 548008	Black Floor Paper	1st, Lobby	black	Cellulose 70 Non-Fibrous 30	None Detected
3A / 548009	Black Floor Paper	1st, Lobby	black	Cellulose 80 Non-Fibrous 20	None Detected
3B / 548010	Black Floor Paper	1st, Lobby	black	Cellulose 80 Non-Fibrous 20	None Detected
4A / 548011	Gray Floor Paper	1st, Lobby	tan	Cellulose 95 Non-Fibrous 5	None Detected
4B / 548012	Gray Floor Paper	1st, Lobby	tan	Cellulose 95 Non-Fibrous 5	None Detected
5A / 548013	Beige Sheet Floor	1st, Room 3	gray	Non-Fibrous 98	**Detected** **Chrysotile 2**
5B / 548014	Beige Sheet Floor	1st, Room 3			Not Analyzed
6A / 548015	Rock Pattern Sheet Floor	1st, Room 2	multi	Cellulose 50 Non-Fibrous 50	None Detected
6B / 548016	Rock Pattern Sheet Floor	1st, Room 2	multi	Cellulose 50 Non-Fibrous 50	None Detected
7A / 548017	Rock Pattern Sheet Floor Adhesive	1st, Room 2	brown	Non-Fibrous 100	None Detected
7B / 548018	Rock Pattern Sheet Floor Adhesive	1st, Room 2	brown	Non-Fibrous 100	None Detected

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
8A 548019	Square Pattern Sheet Floor	1st, Bath 2	multi	Cellulose 30 Non-Fibrous 70	None Detected
8B 548020	Square Pattern Sheet Floor	1st, Bath 2	multi	Cellulose 30 Non-Fibrous 70	None Detected
9A 548021	Square Pattern Sheet Floor Adhesive	1st, Bath 2	yellow	Non-Fibrous 100	None Detected
9B 548022	Square Pattern Sheet Floor Adhesive	1st, Bath 2	yellow	Non-Fibrous 100	None Detected
10A 548023	Diamond Pattern Sheet Floor	2nd, Bath 3	multi	Cellulose 20 Non-Fibrous 80	None Detected
10B 548024	Diamond Pattern Sheet Floor	2nd, Bath 4	multi	Cellulose 20 Non-Fibrous 80	None Detected
11A 548025	Diamond Pattern Sheet Floor Adhesive	2nd, Bath 3	yellow	Non-Fibrous 100	None Detected
11B 548026	Diamond Pattern Sheet Floor Adhesive	2nd, Bath 4	yellow	Non-Fibrous 100	None Detected
12A 548027	Ceramic Floor Tile Adhesive	1st, Lobby	yellow	Non-Fibrous 100	None Detected
12B 548028	Ceramic Floor Tile Adhesive	1st, Lobby	yellow	Non-Fibrous 100	None Detected
13A 548029	Ceramic Floor Tile Grout	1st, Lobby	red	Fiberglass 2 Non-Fibrous 98	None Detected
13B 548030	Ceramic Floor Tile Grout	1st, Lobby	red	Fiberglass 2 Non-Fibrous 98	None Detected
14A 548031	Gray Cove Base	1st, Bath 2	gray	Non-Fibrous 100	None Detected
14B 548032	Gray Cove Base	1st, Bath 2	gray	Non-Fibrous 100	None Detected
15A 548033	Gray Cove Base Adhesive	1st, Bath 2	yellow	Cellulose 2 Non-Fibrous 98	None Detected
15B 548034	Gray Cove Base Adhesive	1st, Bath 2	yellow	Cellulose 2 Non-Fibrous 98	None Detected
16A 548035	Drywall	1st, Room 4	multi	Cellulose 20 Non-Fibrous 80	None Detected
16B 548036	Drywall	2nd, Room 9	multi	Cellulose 20 Non-Fibrous 80	None Detected

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
17A 548037	Joint Compound	1st, Room 1	white	Non-Fibrous 100	None Detected
17B 548038	Joint Compound	1st, Lobby	white	Non-Fibrous 100	None Detected
17C 548039	Joint Compound	1st, Room 5	white	Non-Fibrous 100	None Detected
17D 548040	Joint Compound	2nd, Room 8	white	Non-Fibrous 100	None Detected
17E 548041	Joint Compound	2nd, Room 11	white	Non-Fibrous 100	None Detected
18A 548042	Textured Ceiling	2nd, Room 8	white	Non-Fibrous 100	None Detected
18B 548043	Textured Ceiling	2nd, Room 11	white	Non-Fibrous 100	None Detected
18C 548044	Textured Ceiling	2nd, Room 15	white	Non-Fibrous 100	None Detected
19A 548045	Plaster Base Coat	1st, Lobby	multi	Hair 5 Non-Fibrous 95	None Detected
19B 548046	Plaster Base Coat	1st, Room 1	multi	Hair 5 Non-Fibrous 95	None Detected
19C 548047	Plaster Base Coat	1st, Room 2	multi	Hair 5 Non-Fibrous 95	None Detected
20A 548048	1x1 Smooth Ceiling Tile	1st, Room 1	brown	Cellulose 100	None Detected
20B 548049	1x1 Smooth Ceiling Tile	1st, Room 1	brown	Cellulose 100	None Detected
21A 548050	2x2 Smooth Ceiling Plaster	1st, Room 1	gray	Mineral Wool 70 Non-Fibrous 30	None Detected
21B 548051	2x2 Smooth Ceiling Plaster	1st, Room 5	gray	Mineral Wool 70 Non-Fibrous 30	None Detected
22A 548052	White Sink Mastic	1st, Room 4	gray	Cellulose 5 Non-Fibrous 95	None Detected
22B 548053	White Sink Mastic	1st, Room 4	gray	Cellulose 5 Non-Fibrous 95	None Detected
23A 548054	Corrugate Cardboard Pipe Insulation	B, Front Basement	gray	Cellulose 30 Non-Fibrous 40	**Detected** **Chrysotile 30**

FieldID / LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
23B 548055	Corrugate Cardboard Pipe Insulation	B, Front Basement			Not Analyzed
23C 548056	Corrugate Cardboard Pipe Insulation	B, Front Basement			Not Analyzed
24A 548057	Siding Paper	Exterior, North Side	brown	Cellulose 100	None Detected
24B 548058	Siding Paper	Exterior, South Side	brown	Cellulose 100	None Detected
25A 548059	Roof Paper	Exterior, Roof	black	Fiberglass 10 Non-Fibrous 90	None Detected
25B 548060	Roof Paper	Exterior, Roof	black	Fiberglass 10 Non-Fibrous 90	None Detected
26A 548061	Asphalt Shingle	Exterior, Roof	black	Fiberglass 20 Non-Fibrous 80	None Detected
26B 548062	Asphalt Shingle	Exterior, Roof	black	Fiberglass 20 Non-Fibrous 80	None Detected

Tuesday 31

Analyzed by: Erik Gongas

End of Report

Batch: 49454

Due ~~12~~ 12-31-19

CHAIN OF CUSTODY

EPA/600/R-93/116

Page 1 of ___

Client: Green Environmental

Address: _____

Project Site & #: 10 South Broadway

Phone / email address: _____

Contact: _____

Relinquish by/date: _____

Received by/date: 12-23-19

# of Samples Received: 58

Asbestos Identification Lab
165 New Boston St.
Suite 227
Woburn, MA 01801
(781)932-9600
www.asbestosidentificationlab.com

Date Sampled: _____

BATCH# 49454 Rev 06/16

Turnaround Time
- [ ] Less 3 Hrs
- [ ] Same Day
- [ ] Next Day
- [x] ~~Two~~ Day

Sample Method
- [x] Bulk
- [ ] Soil
- [ ] Wipe
- [ ] Point Count

Stop on 1st Positive? (Yes/No)
Notify Method: Mail/E-Mail/Verbal
Analyzed By: [illegible]
Date: 12/30/19

Temp in Celsius = 37

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: =	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
54805	1A	Material	0	T	N	SF	N	Chrysotile											R				
		Location						Amosite															
								Crocidolite															
								Tremolite											95				5
								Anthophyllite															
								Actinolite															
06	1B	Material	0	T	N	SF	N	Chrysotile											R				
		Location						Amosite															
								Crocidolite															
								Tremolite											95				5
								Anthophyllite															
								Actinolite															
07	2A	Material	0	T	N	F	N	Chrysotile											R				
		Location						Amosite															
								Crocidolite															
								Tremolite											20				30
								Anthophyllite															
								Actinolite															

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = RT / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
08	2B	Material	O	blk	~	R	NW	Chrysotile											2				
		Location						Amosite															
								Crocidolite															
								Tremolite											20				30
								Anthophyllite															
								Actinolite															
09	3A	Material	O	blk	~	R	~	Chrysotile											2				
		Location						Amosite															
								Crocidolite															
								Tremolite											80				20
								Anthophyllite															
								Actinolite															
10	3B	Material	O	blk	~	R	~	Chrysotile											2				
		Location						Amosite															
								Crocidolite															
								Tremolite											80				20
								Anthophyllite															
								Actinolite															
11	4A	Material	O	T	~	R	~	Chrysotile											2				
		Location						Amosite															
								Crocidolite															
								Tremolite											95				5
								Anthophyllite															
								Actinolite															
12	4B	Material	O	T	~	R	~	Chrysotile											2				
		Location						Amosite															
								Crocidolite															
								Tremolite											95				5
								Anthophyllite															
								Actinolite															

Temp in Celcius = RT

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Material / Location	Stereo Scope					Asbestos Minerals	Optical Properties						RI		Non-Asbestos Percentage (%)						
			% of Asbestos	Color	Homogeneity	Texture	Friable		Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	||	⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
13	5A	Material	0	gy	~	sm	~	Chrysotile	2	W	=	+	C	~	1.550	1.545							
		Location						Amosite															
								Crocidolite															
								Tremolite															
								Anthophyllite														98	
								Actinolite															
14	5B	Material						Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															
15	6A	Material	0	we	~	sm	~	Chrysotile															
		Location						Amosite															
								Crocidolite											2				
								Tremolite															
								Anthophyllite											50				50
								Actinolite															
16	6B	Material	0	we	~	sm	~	Chrysotile															
		Location						Amosite															
								Crocidolite											2				
								Tremolite															
								Anthophyllite											50				50
								Actinolite															
17	7A	Material	0	br	y	sm	~	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															
								Anthophyllite															100
								Actinolite															

Pink

Temp in Celcius = RT

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Material / Location	Stereo Scope					Asbestos Minerals	Optical Properties						RI		Non-Asbestos Percentage (%)						
			% of Asbestos	Color	Homogeneity	Texture	Friable		Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	∥	⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
18	7B	Material	0	W	H	S	F	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															NA
19	8A	Material	0	VC	H	S	F	Chrysotile															
		Location						Amosite															
								Crocidolite											12				
								Tremolite															
								Anthophyllite											30				20
								Actinolite															
20	8B	Material	0	VC	H	S	F	Chrysotile															
		Location						Amosite															
								Crocidolite											12				
								Tremolite															
								Anthophyllite											30				20
								Actinolite															
21	9A	Material	0	W	H	S	F	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															
								Anthophyllite															NA
								Actinolite															
22	9B	Material	0	W	H	S	F	Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															
								Anthophyllite															NA
								Actinolite															

Temp in Celcius = 27

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
23	10A	Material	0	one	N	95 Fri	N	Chrysotile											2				
								Amosite															
								Crocidolite															
		Location						Tremolite											20				SD
								Anthophyllite															
								Actinolite															
24	10B	Material	one		N	95 Fri	N	Chrysotile											2				
								Amosite															
								Crocidolite															
		Location						Tremolite											20				SD
								Anthophyllite															
								Actinolite															
25	11A	Material	0	y	y	Fri	N	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															100
								Anthophyllite															
								Actinolite															
26	11B	Material	0	y	y	Fri	N	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															100
								Anthophyllite															
								Actinolite															
27	12A	Material	0	y	y	Fri	N	Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															100
								Anthophyllite															
								Actinolite															

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = RT / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: =	⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
28	12B	Material	C	y	y	fi	~	Chrysotile																
								Amosite																
								Crocidolite																
		Location						Tremolite																1%
								Anthophyllite																
								Actinolite																
29	13A	Material	OR		y	fi	~	Chrysotile																
								Amosite																
								Crocidolite									8							
		Location						Tremolite																
								Anthophyllite									2							98
								Actinolite																
30	13B	Material	OR		y	fi	~	Chrysotile																
								Amosite																
								Crocidolite									8							
		Location						Tremolite																
								Anthophyllite									2							98
								Actinolite																
31	14A	Material	OR		y	fi	~	Chrysotile																
								Amosite																
								Crocidolite																
		Location						Tremolite																
								Anthophyllite																1%
								Actinolite																
32	14B	Material	C	y	y	fi	~	Chrysotile																
								Amosite																
								Crocidolite																
		Location						Tremolite																
								Anthophyllite																1%
								Actinolite																

Temp in Celcius = 21

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Material / Location	Stereo Scope					Asbestos Minerals	Optical Properties						RI		Non-Asbestos Percentage (%)						
			% of Asbestos	Color	Homogeneity	Texture	Friable		Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	=	⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
33	15A	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															
								Anthophyllite															
								Actinolite															
34	15B	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															
								Anthophyllite															
								Actinolite															
35	16A	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															
								Anthophyllite															
								Actinolite															
36	16B	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															
								Anthophyllite															
								Actinolite															
37	17A	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															
								Anthophyllite															
								Actinolite															

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = 21 / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: =	⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
58	17B	Material	0	wht	any	any		Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															we
								Anthophyllite															
								Actinolite															
59	17C	Material	0	wht	any	any		Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															we
								Anthophyllite															
								Actinolite															
60	17D	Material	0	Gry	any	any		Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															we
								Anthophyllite															
								Actinolite															
61	17E	Material	0	wht	any	any		Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															we
								Anthophyllite															
								Actinolite															
62	18A	Material	0	wht	any	any		Chrysotile															
								Amosite															
								Crocidolite															
		Location						Tremolite															we
								Anthophyllite															
								Actinolite															

Temp in Celcius = 21

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Material / Location	Stereo Scope					Asbestos Minerals	Optical Properties						RI		Non-Asbestos Percentage (%)						
			% of Asbestos	Color	Homogeneity	Texture	Friable		Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	=	⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
43	18B	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	O	wh	y	gr	y	Tremolite															100
								Anthophyllite															
								Actinolite															
44	18C	Material						Chrysotile															
								Amosite															
								Crocidolite															
		Location	O	wh	y	gr	y	Tremolite															100
								Anthophyllite															
								Actinolite															
45	19A	Material						Chrysotile															
								Amosite															
								Crocidolite												C			
		Location	Ove	r	50	%	y	Tremolite												5			95
								Anthophyllite															
								Actinolite															
46	19B	Material						Chrysotile															
								Amosite															
								Crocidolite												C			
		Location	Ove	r	90	%	y	Tremolite															
								Anthophyllite												5			95
								Actinolite															
47	19C	Material						Chrysotile															
								Amosite															
								Crocidolite												C			
		Location	Ove	r	90	%	y	Tremolite															
								Anthophyllite												5			95
								Actinolite															

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = ____ / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: =	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
48	20A	Material	Ø	Br	Y	F	Y	Chrysotile															
								Amosite															
								Crocidolite											R				
		Location						Tremolite															
								Anthophyllite											100				
								Actinolite															
49	20B	Material	Ø	Br	Y	F	Y	Chrysotile															
								Amosite															
								Crocidolite											R				
		Location						Tremolite															
								Anthophyllite											100				
								Actinolite															
50	21A	Material	Ø	Gy	N	F/Gr	Y	Chrysotile															
								Amosite															
								Crocidolite											Z				
		Location						Tremolite															
								Anthophyllite											70				30
								Actinolite															
51	21B	Material	Ø	Gy	N	F/Gr	Y	Chrysotile															
								Amosite															
								Crocidolite											Z				
		Location						Tremolite															
								Anthophyllite											70				30
								Actinolite															
52	22A	Material	Ø	Gy	Y	Gr	N	Chrysotile															
								Amosite															
								Crocidolite											R				
		Location						Tremolite															
								Anthophyllite											5				95
								Actinolite															

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = ____ / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous	
53	22B	Material	Ø	Gy	Y	Gn	N	Chrysotile																
		Location						Amosite																
								Crocidolite											R					
								Tremolite																
								Anthophyllite											5				95	
								Actinolite																
54	23A	Material	30	Gy	N	F/Gn	Y	Chrysotile	30	W	II	+	0.005	NC	1.555	1.550								
		Location						Amosite											R					
								Crocidolite																
								Tremolite																
								Anthophyllite											30				40	
								Actinolite																
55	23B	Material						Chrysotile																
		Location						Amosite																
								Crocidolite																DNA
								Tremolite																
								Anthophyllite																
								Actinolite																
56	23C	Material						Chrysotile																
		Location						Amosite																
								Crocidolite																DNA
								Tremolite																
								Anthophyllite																
								Actinolite																
57	24A	Material	Ø	Br	Y	F	N	Chrysotile																
		Location						Amosite																
								Crocidolite											R					
								Tremolite																
								Anthophyllite											100					
								Actinolite																

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = ____ / Material / Location	Stereo Scope: % of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Optical Properties: Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	RI: ∥	RI: ⊥	Non-Asbestos Percentage (%): Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
58	24B	Material	0	Br	Y	F	N	Chrysotile															
								Amosite											R				
								Crocidolite															
		Location						Tremolite															
								Anthophyllite											100				
								Actinolite															
59	25A	Material	0	BK	N	F/G	N	Chrysotile															
								Amosite															
								Crocidolite									I						
		Location						Tremolite															
								Anthophyllite									10						90
								Actinolite															
100	25B	Material	0	BK	N	F/G	N	Chrysotile															
								Amosite															
								Crocidolite									I						
		Location						Tremolite															
								Anthophyllite									10						90
								Actinolite															
101	26A	Material	0	BK	N	F/G	N	Chrysotile															
								Amosite															
								Crocidolite									I						
		Location						Tremolite															
								Anthophyllite									20						80
								Actinolite															
5480 02	26B	Material	0	BK	N	F/G	N	Chrysotile															
								Amosite															
								Crocidolite									I						
		Location						Tremolite															
								Anthophyllite									20						80
								Actinolite															

Due Tuesday

GREEN ENVIRONMENTAL

Bulk Sampling Chain-of-Custody

Client: VHB Date: 12/12/2019 Page: 1 of 5

Project Address: 10 South Broadway, Salem, NH Project #: 19039 Inspector: Luke Krzyzewski

Contact: Luke K Analysis: PLM - Positive Stop TAT: 3 days

Email: lkrzyzewski@greenenvironmental.com 58

Building	Floor	Room	Description	Field #	Comments	Fri / Non-Fri
10 South Broadway	1st	Lobby	Yellow carpet mastic	1A		-
	2nd	Room 14	↓	1B		-
	1st	Lobby	Black Floor Paper	2A	Top	-
	↓	↓	↓	2B	↓	-
			Black Floor Paper	3A	Middle	-
			↓	3B	↓	-
			Gray Floor Paper	4A	Bottom	-
			↓	4B	↓	-
	1st	Room 3	Beige Sheet Floor	5A	Below wood Subfloor	-
	↓	↓	↓	5B	↓	-
		Room 2	Rock Pattern Sheet Floor	6A		-
↓	↓	↓	↓	6B		-

Relinquish By	Date	#Samples	Received By	Date	Time	# Samples
	12/16/19	58		12/23/19		

GREEN ENVIRONMENTAL

Bulk Sampling Chain-of-Custody

Client: VHB Date: 12/12/2019 Page: 2 of 5

Project Address: 10 South Broadway, Salem, NH Project #: 19039 Inspector: Luke Krzyzewski

Contact: Luke K Analysis: PLM - Positive Stop TAT: 3 days

Email: lkrzyzewski@greenenvironmental.com

Building	Floor	Room	Description	Field #	Comments	Fri / Non-Fri
10 South Broadway	1st	Room 2	Rock Pattern Sheet Floor Adhesive	7A		
↓	↓	↓	↓	7B		
		Bath 2	Square Pattern Sheet Floor	8A		
		↓	↓	8B		
		↓	Square Pattern Sheet Floor Adhesive	9A		
	↓	↓	↓	9B		
	2nd	Bath 3	Diamond Pattern Sheet Floor	10A		
	↓	Bath 4	↓	10B		
		Bath 3	Diamond Pattern Sheet Floor Adhesive	11A		
		Bath 4	↓	11B		
	1st	Lobby	Ceramic Floor Tile Adhesive	12A		
↓	↓	↓	↓	12B		

Relinquish By	Date	#Samples	Received By	Date	Time	# Samples

GREEN ENVIRONMENTAL

Bulk Sampling Chain-of-Custody

Client: VHB Date: 12/12/2019 Page: 3 of 5

Project Address: 10 South Broadway, Salem, NH - Project #: 19039 Inspector: Luke Krzyzewski

Contact: Luke K Analysis: PLM - Positive Stop TAT: 3 days

Email: lkrzyzewski@greenenvironmental.com

Building	Floor	Room	Description	Field #	Comments	Fri / Non-Fri
10 South Broadway	1st	Lobby	Ceramic Floor Tile Grout	13A		-
↓	↓	↓	↓	13B		-
		Bath 2	Gray Cove Base	14A		-
		↓	↓	14B		-
			Gray Cove Base Adhesive	15A		-
		↓	↓	15B		-
	↓	Room 4	Drywall	16A		-
	2nd	Room 9	↓	16B		-
	1st	Room 1	Joint Compound	17A		-
	↓	Lobby	↓	17B		-
		Room 5		17C		-
↓	2nd	Room 8	↓	17D		-

Relinquish By	Date	#Samples	Received By	Date	Time	# Samples

GREEN ENVIRONMENTAL

Bulk Sampling Chain-of-Custody

Client: VHB Date: 12/12/2019 Page: 4 of 5

Project Address: 10 South Broadway, Salem, NH Project #: 19039 Inspector: Luke Krzyzewski

Contact: Luke K Analysis: PLM - Positive Stop TAT: 3 days

Email: lkrzyzewski@greenenvironmental.com

Building	Floor	Room	Description	Field #	Comments	Fri / Non-Fri
10 South Broadway	2nd	Room 11	Joint Compound	17E		-
↓	2nd	Room 8	Textured Ceiling	18A		-
↓	↓	Room 11	↓	18B		-
↓	↓	Room 15	↓	18C		-
↓	1st	Lobby	Plaster Base Coat	19A		-
↓	↓	Room 1	↓	19B		-
↓	↓	Room 2	↓	19C		-
↓	1st	Room 1	1x1 Smooth Ceiling Tile	20A		-
↓	↓	↓	↓	20B		-
↓	↓	Room 1	2x2 Rough Ceiling Tile	21A		-
↓	↓	Room 5	↓	21B		-
↓	1st	Room 4	White Sink Mastic	22A		-

Relinquish By	Date	#Samples	Received By	Date	Time	# Samples

GREEN ENVIRONMENTAL

Bulk Sampling Chain-of-Custody

Client: VHB Date: 12/12/2019 Page: 5 of 5

Project Address: 10 South Broadway, Salem, NH Project #: 19039 Inspector: Luke Krzyzewski

Contact: Luke K Analysis: PLM - Positive Stop TAT: 3 days

Email: lkrzyzewski@greenenvironmental.com

Building	Floor	Room	Description	Field #	Comments	Fri / Non-Fri
10 South Broadway	1st	Room 4	white Sink mastic	22B		-
↓	B	Front Basement	Corrugate Cardboard Pipe Insulation	23A		-
↓	↓	↓	↓	23B		-
↓	↓	↓	↓	23C		-
↓	Exterior	North side	Siding Paper	24A		-
↓	↓	South Side	↓	24B		-
↓	↓	Roof	Roof Paper	25A		-
↓	↓	↓	↓	25B		-
↓	↓	↓	Asphalt Shingle	26A		-
↓	↓	↓	↓	26B		-

Relinquish By	Date	#Samples	Received By	Date	Time	# Samples

Appendix E

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Appendix E
Locations of the Identified Asbestos-Containing Materials
10 South Broadway
Salem, NH

Location	Material Description	Estimated Quantity
1st Floor		
Room 3	Beige Sheet Floor (below wood subfloor)	228 SF
Basement		
Front Basement	Corrugated Cardboard Pipe Insulation (stored on shelf)	5 LF

Notes:
1. SF = Square Feet
2. LF = Linear Feet

Appendix F

GREEN
ENVIRONMENTAL

Titan Lead Testing, LLC

Titan Lead Testing, LLC
PO Box 760709
Melrose, MA 02176

Tel: 781-799-8763
Fax: 781-662-3300

December 31, 2019
Luke Krzyzewski
Green Environmental
296 Weymouth St., Unit C
Rockland, MA 02370

RE: Lead Paint Testing Results
10 South Broadway
Salem, New Hampshire

Dear Mr. Krzyzewski:

This report presents the results of testing for the presence of lead paint on interior painted at 10 South Broadway, Salem, New Hampshire. Representative of Titan Lead Testing (Titan), Mr. David Pesce performed the testing on December 12, 2019 and December 13, 2019. Mr. Pesce is manufacturer's-trained in the proper use and interpretation of results of the XRF Spectrum Analyzer. Mr. Pesce is also a New Hampshire Department of Health and Human Services licensed Lead Inspector and Risk Assessor (Lic # RA-00059).

Scope of Work

The purpose of the lead testing was to determine the lead content of various painted building substrates prior to renovation and demolition activities. Selected relevant accessible painted surfaces were tested by Titan. Concentrations of lead in paint were measured on site by portable XRF analysis.

Sampling Protocol

The lead content of painted surfaces was determined using a portable X-ray Fluorescence (XRF) Spectrum Analyzer (HEURESIS Pb200i; Serial # 1645). The XRF Spectrum Analyzer uses a radioactive source to excite the electrons of lead atoms (if present) in paints. As the lead atom electrons return to their normal state, they emit X-rays, which are counted by the XRF Spectrum Analyzer. This data is processed and the results are converted to milligrams of lead per square centimeter (mg/cm^2) of sampled surface area.

Results

The XRF testing results indicate that levels of lead on surfaces tested range from less than 0.1 mg/cm^2 (lower limit of quantification of the XRF) to 27.6 mg/cm^2. Renovation and demolition activities that impact surfaces where lead may be present require specific work practices and disposal requirements. A summary of the lead testing results is attached.

Recommendations

The employer of workers who disturb or remove lead paint must comply with OSHA Standard 29 CFR 1926.62 - Lead. This applies to all construction work, alteration, or repair, including painting, where an employee may be occupationally exposed to lead. This standard does not establish a minimum threshold for the lead content, below which an initial exposure assessment is not required. An initial exposure assessment is required for each renovation or demolition activity that will disturb lead. This standard also contains additional requirements concerning the disturbance or removal of lead.

Limitations

Lead paint testing was performed on representative building substrates in selected building areas. Additional lead-containing building substrates and components may be present in other building areas or hidden by floor, wall and ceiling finishes or otherwise may be inaccessible.

Lead paint testing was performed to determine the lead content of painted building components that may be impacted by renovation activities and should **not** be used to determine compliance with the New Hampshire Lead Paint Poisoning Prevention and Control Act (RSA 130-A)

Please call if you have any questions or require additional information.

Sincerely,

David Pesce

Attachment

ATTACHMENT

LEAD TESTING RESULTS BY XRF

Lead Paint Testing Results by XRF
10 South Broadway
Salem, New Hampshire
December 12-13, 2019

Room/Area	Location/Component	Color	Substrate	Results (mg/cm^2)
Front Room 1st Floor	Wall	Gray	Wood	0.4
Front Room 1st Floor	Wall	Beige	Gypsum	0.4
Front Room 1st Floor	Ceiling Tile	White	Wood	< 0.1
Front Room 1st Floor	Ceiling	White	Plaster	< 0.1
Front Room 1st Floor	Door	White	Wood	< 0.1
Front Room 1st Floor	Door Casing	White	Wood	< 0.1
Front Room 1st Floor	Window Sill	White	Wood	< 0.1
Front Room 1st Floor	Window Sash	White	Wood	< 0.1
Main Lobby 1st Floor	Wall	Beige	Gypsum	< 0.1
Main Lobby 1st Floor	Ceiling	White	Metal	< 0.1
Main Lobby 1st Floor	Door	White	Metal	< 0.1
Main Lobby 1st Floor	Door Casing	White	Wood	< 0.1
Main Lobby 1st Floor	Door	White	Wood	< 0.1
Main Lobby 1st Floor	Door Casing	White	Wood	< 0.1
Main Lobby 1st Floor	Window Sill	White	Wood	< 0.1
Main Lobby 1st Floor	Window Casing	White	Wood	< 0.1
Main Lobby 1st Floor	Window Sash	White	Wood	< 0.1
Main Lobby 1st Floor	Baseboard	Beige	Wood	< 0.1
Rear Room 1st Floor	Wall	White	Gypsum	< 0.1
Rear Room 1st Floor	Ceiling	White	Gypsum	< 0.1
Rear Room 1st Floor	Door	White	Wood	< 0.1
Rear Room 1st Floor	Door Casig	White	Wood	< 0.1
Rear Room 1st Floor	Window Sill	White	Wood	< 0.1
Rear Room 1st Floor	Window Sash	White	Wood	< 0.1
Rear Room 1st Floor	Cabinet	White	Wood	< 0.1
Rear Bathroom 1st Floor	Wall	Beige	Gypsum	< 0.1
Rear Bathroom 1st Floor	Door	White	Wood	< 0.1
Rear Bathroom 1st Floor	Door Jamb	White	Wood	< 0.1
Rear Bathroom 1st Floor	Cabinet	White	Wood	< 0.1
Rear Bathroom 1st Floor	Ceiling	White	Metal	1.4
Front Bathroom 1st Floor	Wall	Beige	Plaster	0.2
Front Bathroom 1st Floor	Ceiling	Beige	Plaster	0.2
Front Bathroom 1st Floor	Door	White	Wood	< 0.1
Front Bathroom 1st Floor	Door Casing	White	Wood	< 0.1
Conference Room II - 1st Floor	Wall	Beige	Plaster	< 0.1
Conference Room II - 1st Floor	Ceiling	Beige	Plaster	0.2

Lead Paint Testing Results by XRF
10 South Broadway
Salem, New Hampshire
December 12-13, 2019

Room/Area	Location/Component	Color	Substrate	Results (mg/cm^2)
Conference Room II - 1st Floor	Window Sill	White	Wood	< 0.1
Conference Room II - 1st Floor	Window Casing	White	Wood	< 0.1
Conference Room II - 1st Floor	Window Sash	White	Wood	< 0.1
Conference Room II - 1st Floor	Door	White	Wood	< 0.1
Conference Room II - 1st Floor	Door Jamb	White	Wood	< 0.1
Front Stairs	Wall	Beige	Plaster	< 0.1
Front Stairs	Baseboard	White	Plaster	< 0.1
Front Stairs	Ceiling	White	Wood	< 0.1
Front Room 2nd Floor	Wall	Beige	Gypsum	< 0.1
Front Room 2nd Floor	Ceiling	White	Gypsum	< 0.1
Front Room 2nd Floor	Baseboard	White	Wood	< 0.1
Front Room 2nd Floor	Door	White	Wood	0.2
Front Room 2nd Floor	Door Casing	White	Wood	< 0.1
Front Room 2nd Floor	Window Sill	White	Wood	< 0.1
Front Room 2nd Floor	Window Casing	White	Wood	< 0.1
Front Room 2nd Floor	Wall Top	Brown	Wood	< 0.1
Front Room 2nd Floor	Threshold	Brown	Wood	< 0.1
Front Room 2nd Floor	Floor	Brown	Wood	< 0.1
Central Hall 2nd Floor	Wall	Beige	Gypsum	< 0.1
Central Hall 2nd Floor	Ceiling	White	Gypsum	< 0.1
Central Hall 2nd Floor	Door	White	Wood	< 0.1
Central Hall 2nd Floor	Door Casing	White	Wood	< 0.1
Central Hall 2nd Floor	Baseboard	White	Wood	< 0.1
Small Center Room 2nd Floor	Wall	Beige	Gypsum	< 0.1
Small Center Room 2nd Floor	Ceiling	White	Gypsum	< 0.1
Small Center Room 2nd Floor	Door	White	Wood	< 0.1
Small Center Room 2nd Floor	Door Casing	White	Wood	< 0.1
Small Center Room 2nd Floor	Baseboard	White	Wood	< 0.1
Small Center Room 2nd Floor	Window Sill	White	Wood	< 0.1
Small Center Room 2nd Floor	Window Sash	White	Wood	< 0.1
Small Center Room 2nd Floor	Floor	Brown	Wood	< 0.1
Rear Stairs	Wall	Beige	Gypsum	< 0.1
Rear Stairs	Ceiling	White	Gypsum	< 0.1
Rear Stairs	Chair Rail	Brown	Wood	< 0.1
Rear Stairs	Baseboard	White	Wood	< 0.1

Lead Paint Testing Results by XRF
10 South Broadway
Salem, New Hampshire
December 12-13, 2019

Room/Area	Location/Component	Color	Substrate	Results (mg/cm^2)
Rear Stairs	Door	White	Wood	< 0.1
Rear Stairs	Door Jamb	White	Wood	< 0.1
Rear Stairs	Railing	Brown	Wood	< 0.1
Rear Stairs	Floor	Brown	Wood	0.2
Bathroom 2nd Floor	Wall	Beige	Gypsum	< 0.1
Bathroom 2nd Floor	Ceiling	White	Gypsum	< 0.1
Bathroom 2nd Floor	Door	White	Wood	< 0.1
Bathroom 2nd Floor	Door Casing	White	Wood	< 0.1
Bathroom 2nd Floor	Cabinet	Brown	Wood	0.2
Rear Room 2nd Floor	Wall	Beige	Gypsum	< 0.1
Rear Room 2nd Floor	Ceiling	White	Gypsum	< 0.1
Rear Room 2nd Floor	Floor	Brown	Wood	< 0.1
Rear Room 2nd Floor	Window Sill	White	Wood	< 0.1
Rear Room 2nd Floor	Window Sash	White	Wood	< 0.1
Rear Room 2nd Floor	Door	White	Wood	< 0.1
Rear Room 2nd Floor	Door Casing	White	Wood	< 0.1
Rear Room 2nd Floor	Cabinet	White	Wood	< 0.1
Rear Room 2nd Floor	Closet Shelf	Brown	Wood	< 0.1
Rear Room 2nd Floor	Closet Floor	White	Wood	< 0.1
Basement	Column	Brown	Metal	0.4
Basement	Cel Win Sash	Gray	Metal	0.3
Basement	Oil Tank	Black	Metal	< 0.1
Exterior Front Porch	Siding	Gray	Wood	< 0.1
Exterior Front Porch	Window Sill	White	Wood	< 0.1
Exterior Front Porch	Window Casing	White	Wood	< 0.1
Exterior Front Porch	Window Sash	White	Wood	< 0.1
Exterior Front Porch	Shutter	Green	Vinyl	< 0.1
Exterior Front Porch	Column	White	Wood	0.2
Exterior Front Porch	Railing	White	Wood	< 0.1
Exterior Front Porch	Baluster	White	Wood	< 0.1
Exterior Front Porch	Floor	Gray	Wood	< 0.1
Exterior Front Porch	Ceiling	Gray	Wood	1.8
Exterior Front Porch	Door	Brown	Wood	< 0.1
Exterior Front Porch	Door Casing	White	Wood	< 0.1
Exterior Front Porch	Corner Board	White	Wood	27.6
Exterior Front Porch	Joist	White	Wood	15.0
Exterior Front Porch	Upper Trim	White	Wood	5.9

Lead Paint Testing Results by XRF
10 South Broadway
Salem, New Hampshire
December 12-13, 2019

Room/Area	Location/Component	Color	Substrate	Results (mg/cm^2)
Exterior	Siding	Gray	Wood	< 0.1
Exterior	Corner Board	White	Wood	20.6
Exterior	Upper Trim	White	Wood	6.3
Exterior	Lattice	Gray	Wood	< 0.1
Exterior	Window Sill	White	Wood	< 0.1
Exterior	Window Casing	White	Wood	< 0.1
Exterior	Window Sash	White	Wood	< 0.1
Exterior	Shutters	Blue	Vinyl	< 0.1
Exterior	Foundation	Gray	Brick	< 0.1
Exterior	Cel Win Sash	Gray	Metal	0.3
Exterior	Metal Bars	Brown	Metal	< 0.1
Exterior	T-111 Paneling	Gray	Wood	< 0.1
Exterior	Rear Entry Door	Gray	Wood	< 0.1
Exterior	Rear Entry Door Casing	White	Wood	< 0.1
Exterior	Oil Pipe	Gray	Metal	< 0.1
Exterior	Steps	Gray	Wood	< 0.1
Exterior	Side Door	Gray	Metal	< 0.1
Exterior	Side Door Jamb	White	Wood	< 0.1
Exterior	Railing Cap	White	Wood	< 0.1
Exterior	Newel Post	White	Wood	< 0.1
Exterior	Railing Cap	Black	Metal	< 0.1
Exterior	Baluster	Black	Metal	< 0.1

- <0.1 = less than the limit of quantification of the XRF.
- mg/cm^2 = milligrams of lead per square centimeter of sampled surface area.

Appendix G

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Appendix G Locations of the Regulated Materials 10 South Broadway Salem, NH		
Location	**Material Description**	**Quantity**
1st Floor		
Room 1	4’ Fluorescent Tubes	8
	PCB/Non-PCB Containing Ballasts	2
Room 2	4’ Fluorescent Tubes	4
	PCB/Non-PCB Containing Ballasts	1
Room 3	4’ Fluorescent Tubes	8
	PCB/Non-PCB Containing Ballasts	2
Lobby	4’ Fluorescent Tubes	12
	PCB/Non-PCB Containing Ballasts	3
	Exit Sign/Emergency Light Battery	1
	Mercury Thermostat	1
Room 4	4’ Fluorescent Tubes	12
	PCB/Non-PCB Containing Ballasts	6
	Exit Sign/Emergency Light Battery	1
Room 5	4’ Fluorescent Tubes	2
	PCB/Non-PCB Containing Ballasts	1
Room 6	4’ Fluorescent Tubes	2
	PCB/Non-PCB Containing Ballasts	1
Room 7	4’ Fluorescent Tubes	2
	PCB/Non-PCB Containing Ballasts	1
2nd Floor		
Room 8	4’ Fluorescent Tubes	8
	PCB/Non-PCB Containing Ballasts	4
	Exit Sign/Emergency Light Battery	1
Room 9	4’ Fluorescent Tubes	2
	PCB/Non-PCB Containing Ballasts	1
Room 10	4’ Fluorescent Tubes	2
	PCB/Non-PCB Containing Ballasts	1
Room 11	4’ Fluorescent Tubes	2
	PCB/Non-PCB Containing Ballasts	1
Room 12	4’ Fluorescent Tubes	4
	PCB/Non-PCB Containing Ballasts	2
Stair Lobby	Exit Sign/Emergency Light Battery	1
Room 13	4’ Fluorescent Tubes	4
	PCB/Non-PCB Containing Ballasts	2
Room 14	4’ Fluorescent Tubes	8
	PCB/Non-PCB Containing Ballasts	4
	Exit Sign/Emergency Light Battery	1