



June 9, 2021

Mr. Dave Groom
Groom Constructions
96 Swampscott Road
Salem, MA 01970

Ref. Asbestos Survey Report
Residence
821 Massachusetts Ave.
Arlington, MA

Dear **Mr. Groom**:

Safety Environmental Consultants, (**SEC**) is pleased to present this letter report summarizing the findings of the testing and hazardous materials survey at **above address**.

The purpose of SEC's survey was to identify asbestos-containing materials that may be impacted by planned renovation or demolition activities at **the place**.

At you requested SEC personnel **Erick Estrada (MA Licensed Asbestos Inspector #900737)** conducted an inspection in the area. The asbestos inspection was conducted in accordance with Massachusetts' regulations 453 CMR 6.00 and NESHAP regulations 29 CFR 1926.

On **June 3, 2021**, a total of **63 bulk samples** were collected from materials suspected to contain asbestos.

ASBESTOS SURVEY

A walkthrough visual survey was performed to identify suspect ACM **in the whole place**, that will be impacted by the planned demolition activities. Where feasible, bulk samples of suspect ACM were collected and analyzed to determine asbestos content. Suspect materials that were not sampled are assumed to contain asbestos and must be treated as ACM for removal and disposal purposes. Unless otherwise indicated, SEC's survey was limited to accessible suspect materials that may be impacted during proposed demolition activities.

Methods

The investigative work for the asbestos survey included conducting a limited visual inspection of physically accessible areas of the structure followed by limited destructive testing to allow access to inaccessible locations. Destructive testing included: looking under fiberglass insulation on HVAC units and pipes. Once the visual inspection was completed, the building components were categorized into homogeneous areas.



Bulk Sample Collection and Analysis

SEC collected bulk samples of suspect building materials were collected in a random manner and submitted for laboratory analysis to determine asbestos content. The bulk samples were delivered under chain of custody to Asbestos Identification Laboratory, Inc. (AIL) located in Woburn, Massachusetts, a NVLAP-accredited laboratory for asbestos analysis. Bulk samples were analyzed for asbestos content by polarized light microscopy (PLM) using EPA Method 600/R-93/116. A positive stop method was used – if one sample in a homogeneous group is positive then additional samples of the same material are not analyzed. The asbestos analytical results are attached. Samples analyzed to contain any amount of asbestos are to be treated as ACMs as defined by the USEPA and Commonwealth of Massachusetts Department of Environmental Protection (MassDEP).

Results-Discussion

The US EPA defines ACM as any material that contains greater than one percent asbestos. The Massachusetts Department of Environmental Protection (MassDEP) defines ACM as any material that contains **greater than or equal to one percent** asbestos. The tables below provide a summary of suspect asbestos-containing materials that were observed within the survey area, location, approximate quantities, laboratory analysis results.

Findings

The results of the laboratory analysis are provided in the below table:

Sample ID	Material Description	Location	Analytical Results	Approximate Quantity
1-A, B, C	Floor Tile 9x9	Basement	2 % Chrysotile	1300 SF
2-A, B, C	Mastic	Under Floor Tile 9x9 basement	None Detected	1300 SF
3-A, B, C	Drywall	Kitchen Basement	None Detected	80 SF
4 -A, B, C	Plaster	Ceiling Basement	None Detected	1300 SF
5- A, B, C	Pipe Insulation	Above Ceiling Basement	50 % Chrysotile	70 LF
6-A, B, C	Floor Tile	Front Entrance House	None Detected	30 SF
7-A, B, C	Tar Paper	Under Floor Tile Front Entrance House	None Detected	30 SF
8-A, B, C	Plaster	Walls All rooms 1st Floor	None Detected	5920 SF

NAD = No Asbestos Detected NQ = Not Quantified LF = Linear Feet SF = Square Feet



Sample ID	Material Description	Location	Analytical Results	Approximate Quantity
9-A, B, C	Plaster	Ceiling All rooms 1st Floor	None Detected	1406 SF
10-A, B, C	Glue	Under carpet all rooms 2nd floor	None Detected	1400 SF
11-A, B, C	Plaster	Ceiling 2nd floor	None Detected	1406 SF
12-A, B, C	Plaster	Walls All rooms 2nd Floor	None Detected	4200 SF
13-A, B, C	Glue	Behind ceramic tile wall bathroom 2nd floor	None Detected	70 SF
14-A, B, C	Floor Tiles	Bathroom 2nd floor	None Detected	20 SF
15-A, B, C	Tar Paper	Under floor tile bathroom 2nd floor	None Detected	20 SF
16-A, B, C	Plaster	Walls and ceiling attic	None Detected	3200 SF
17-A, B, C	Shingle Roof	Main roof	None Detected	1400 SF
18-A, B, C	Tar Paper	Under shingle roof	None Detected	1400 SF
19-A, B, C	Glazing	Exterior windows	2 % Chrysotile	36 Units
20-A, B, C	Shingle Roof	Flat roof front and right porch	5 % Chrysotile	300 SF
21-A, B, C	Tar Paper	Behind wood siding exterior house	<1 % Chrysotile	2300 SF

NAD = No Asbestos Detected NQ = Not Quantified LF = Linear Feet SF = Square Feet

Sample results

Floor Tile 9x9 Chrysotile= 2%

Pipe Insulation Chrysotile= 50%

Glazing Chrysotile= 2%



Sample results

Shingle Roof Chrysotile= 5%
 Tar Paper Chrysotile= <1 %

Quantities of results

Approximate quantities tested positive of asbestos:

N	Material Description	Location	Est. Quantity
1	Floor Tile x9	Basement	1300 SF
2	Pipe Insulation	Above Ceiling Basement	70 LF
3	Glazing	Exterior windows	36 Units
4	Shingle Roof	Flat roofs front and right porch	300 SF
5	Tar Paper	Behind wood siding exterior house	2300 SF

Recommendations

- The US EPA and MassDEP require all ACM be removed from a facility prior to the start of renovation or demolition activities if the materials may be disturbed by these activities. A licensed Asbestos Removal Contractor should remove identified ACM prior to the start of renovation or demolition activities in accordance with federal, state, and local regulations.
- All suspect materials that contain **any amount of asbestos** must be considered asbestos if it is scheduled to be removed per the Departments of Environmental Protection (DEP) regulations.
- Additional suspect ACM may be present within the survey area in inaccessible areas (i.e., mechanical chases, behind solid walls, above solid ceilings, etc.) that were not identified during the survey. These areas should be investigated prior to the start of any work activities that may disturb these areas. If additional suspect ACM is encountered, then precautions should be taken to prevent the disturbance of the material and the suspect material should be sampled and analyzed to determine asbestos content.



- SEC recommends that other hazardous materials and items containing hazardous materials be recycled or removed and disposed of appropriately.

Limitations

The conclusions and recommendations are limited to the information available at the time of the field survey and the scope of services as defined. No subsurface soil or groundwater testing was performed. Reasonable measures were taken to detect the presence of all normally suspect materials within the survey area; however, additional materials may be enclosed in solid walls and ceilings or otherwise may be inaccessible and materials that are not normally suspect may contain asbestos.

Where access to portions of the Site or to structures on the site was unavailable or limited, SEC renders no opinion as to the presence of hazardous material or the presence of indirect evidence related to hazardous material in that portion of the site or structure. The testing performed forms the basis for conclusions expressed and areas inaccessible for testing limit those conclusions.

No other conclusions, interpretations or recommendations are contained or implied in this report other than those expressed. No other use of this report is warranted without the written consent of Safety Environmental Consultants,

SEC appreciates the opportunity to provide our services for your project.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Johnnie M. Lituma', is written over a horizontal line.

Safety Environmental Consultants
Johnnie M. Lituma
Services Manager

June 09, 2021

Johnnie M. Lituma
 Safety Environmental Consultants
 P.O. Box 733
 Methuen, MA 01844

Project Name: 821 Massachusetts Ave, Arlington, MA
Project Number:
Date Sampled: 2021-06-03
Work Received: 2021-06-07
Work Analyzed: 2021-06-08

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

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
1A 723075	Floor Tile 9X9	Basement	tan	Non-Fibrous 98	Detected Chrysotile 2
1B 723076	Floor Tile 9X9	Basement			Not Analyzed
1C 723077	Floor Tile 9X9	Basement			Not Analyzed
2A 723078	Mastic	Under Floor Tile 9X9 Basement	black	Fiberglass 2 Non-Fibrous 98	None Detected
2B 723079	Mastic	Under Floor Tile 9X9 Basement	black	Fiberglass 2 Non-Fibrous 98	None Detected
2C 723080	Mastic	Under Floor Tile 9X9 Basement	black	Fiberglass 2 Non-Fibrous 98	None Detected
3A 723081	Drywall	Kitchen Basement	multi	Cellulose 20 Non-Fibrous 80	None Detected
3B 723082	Drywall	Kitchen Basement	multi	Cellulose 20 Non-Fibrous 80	None Detected
3C 723083	Drywall	Kitchen Basement	multi	Cellulose 20 Non-Fibrous 80	None Detected
4A 723084	Plaster	Ceiling Basement	gray	Hair 5 Non-Fibrous 95	None Detected
4B 723085	Plaster	Ceiling Basement	gray	Hair 5 Non-Fibrous 95	None Detected
4C 723086	Plaster	Ceiling Basement	gray	Hair 5 Non-Fibrous 95	None Detected
5A 723087	Pipe Insulation	Above Ceiling Basement	gray	Cellulose 40 Non-Fibrous 10	Detected Chrysotile 50
5B 723088	Pipe Insulation	Above Ceiling Basement			Not Analyzed

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
5C 723089	Pipe Insulation	Above Ceiling Basement			Not Analyzed
6A 723090	Floor Tile	Front Entrance House	gray	Non-Fibrous 100	None Detected
6B 723091	Floor Tile	Front Entrance House	gray	Non-Fibrous 100	None Detected
6C 723092	Floor Tile	Front Entrance House	gray	Non-Fibrous 100	None Detected
7A 723093	Tar Paper	Under Floor Tiles Front Entrance House	black	Cellulose 80 Non-Fibrous 20	None Detected
7B 723094	Tar Paper	Under Floor Tiles Front Entrance House	black	Cellulose 80 Non-Fibrous 20	None Detected
7C 723095	Tar Paper	Under Floor Tiles Front Entrance House	black	Cellulose 80 Non-Fibrous 20	None Detected
8A 723096	Plaster	Walls All Rooms 1st Floor	multi	Hair 5 Non-Fibrous 95	None Detected
8B 723097	Plaster	Walls All Rooms 1st Floor	multi	Hair 10 Non-Fibrous 90	None Detected
8C 723098	Plaster	Walls All Rooms 1st Floor	multi	Hair 5 Non-Fibrous 95	None Detected
9A 723099	Plaster	Ceiling All Room 1st Floor	multi	Hair 5 Non-Fibrous 95	None Detected
9B 723100	Plaster	Ceiling All Rooms 1st Floor	multi	Hair 5 Non-Fibrous 95	None Detected
9C 723101	Plaster	Ceiling All Rooms 1st Floor	multi	Hair 5 Non-Fibrous 95	None Detected
10A 723102	Glue	Under Carpet All Rooms 2nd Floor	yellow	Non-Fibrous 100	None Detected
10B 723103	Glue	Under Carpet All Rooms 2nd Floor	yellow	Non-Fibrous 100	None Detected
10C 723104	Glue	Under Carpet All Rooms 2nd Floor	yellow	Non-Fibrous 100	None Detected
11A 723105	Plaster	Ceiling 2nd Floor	multi	Hair 10 Non-Fibrous 90	None Detected
11B 723106	Plaster	Ceiling 2nd Floor	multi	Hair 10 Non-Fibrous 90	None Detected

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
11C 723107	Plaster	Ceiling 2nd Floor	multi	Hair 5 Non-Fibrous 95	None Detected
12A 723108	Plaster	Walls All Rooms 2nd Floor	multi	Hair 5 Non-Fibrous 95	None Detected
12B 723109	Plaster	Walls All Rooms 2nd Floor	multi	Hair 5 Non-Fibrous 95	None Detected
12C 723110	Plaster	Walls All Rooms 2nd Floor	multi	Hair 5 Non-Fibrous 95	None Detected
13A 723111	Glue	Behind Ceramic Tile Wall Bathroom 2nd Floor	yellow	Non-Fibrous 100	None Detected
13B 723112	Glue	Behind Ceramic Tile Wall Bathroom 2nd Floor	yellow	Non-Fibrous 100	None Detected
13C 723113	Glue	Behind Ceramic Tile Wall Bathroom 2nd Floor	yellow	Non-Fibrous 100	None Detected
14A 723114	Floor Tiles	Bathroom 2nd Floor	gray	Non-Fibrous 100	None Detected
14B 723115	Floor Tiles	Bathroom 2nd Floor	gray	Non-Fibrous 100	None Detected
14C 723116	Floor Tiles	Bathroom 2nd Floor	gray	Non-Fibrous 100	None Detected
15A 723117	Tar Paper	Under Floor Tile Bathroom 2nd Floor	black	Cellulose 80 Non-Fibrous 20	None Detected
15B 723118	Tar Paper	Under Floor Tile Bathroom 2nd Floor	black	Cellulose 80 Non-Fibrous 20	None Detected
15C 723119	Tar Paper	Under Floor Tile Bathroom 2nd Floor	black	Cellulose 80 Non-Fibrous 20	None Detected
16A 723120	Plaster	Walls and Ceiling Attic	multi	Hair 5 Non-Fibrous 95	None Detected
16B 723121	Plaster	Walls and Ceiling Attic	multi	Hair 5 Non-Fibrous 95	None Detected
16C 723122	Plaster	Walls and Ceiling Attic	multi	Hair 5 Non-Fibrous 95	None Detected
17A 723123	Shingle Roof	Main Roof	black	Cellulose 20 Non-Fibrous 80	None Detected
17B 723124	Shingle Roof	Main Roof	black	Cellulose 20 Non-Fibrous 80	None Detected

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
17C 723125	Shingle Roof	Main Roof	black	Cellulose 20 Non-Fibrous 80	None Detected
18A 723126	Tar Paper	Under Shingle Roof	black	Cellulose 70 Non-Fibrous 30	None Detected
18B 723127	Tar Paper	Under Shingle Roof	black	Cellulose 70 Non-Fibrous 30	None Detected
18C 723128	Tar Paper	Under Shingle Roof	black	Cellulose 70 Non-Fibrous 30	None Detected
19A 723129	Glazing	Exterior Windows	multi	Non-Fibrous 98	Detected Chrysotile 2
19B 723130	Glazing	Exterior Windows			Not Analyzed
19C 723131	Glazing	Exterior Windows			Not Analyzed
20A 723132	Shingle Roof	Flat Roof Front and Right Side Porch	black	Cellulose 10 Non-Fibrous 85	Detected Chrysotile 5
20B 723133	Shingle Roof	Flat Roof Front and Right Side Porch			Not Analyzed
20C 723134	Shingle Roof	Flat Roof Front and Right Side Porch			Not Analyzed
21A 723135	Tar Paper	Behind Wood Siding Exterior House	black	Cellulose 70 Non-Fibrous 30	None Detected
21B 723136	Tar Paper	Behind Wood Siding Exterior House	black	Cellulose 70 Non-Fibrous 30	Detected Chrysotile < 1
21C 723137	Tar Paper	Behind Wood Siding Exterior House	black	Cellulose 70 Non-Fibrous 30	Detected Chrysotile < 1

Wednesday 09 June
Analyzed by:

Erik Borgas

End of Report
Batch: 65046

Page 4 of 4

SEC
Safety Environmental Consultants

CHAIN OF CUSTODY

Invoice to: SEC Page Lot: 1

Project Name: Residence Date Sampled: 06-03-21

Address: 821 Massachusetts AV Arlington MA Inspector: Erick Estrada License #: 900737

The scope of work was to identify the suspected material in the whole place. Is it a full inspection? (Yes) / (No)

The scope of work was to identify the suspected material only in the locations determined by the client (Yes) / (No)

Line	Sample ID	Material	Sample Location Description	Quantity
1	1A,B,C	Floor tile 9x9	Basement	1,300 SF
2	2A,B,C	Mastic	under floor tile 9x9 Basement	1,300 SF
3	3A,B,C	Dry wall	Kitchen Basement	80 SF
4	4A,B,C	Plaster	Ceiling Basement	1300 SF
5	5A,B,C	Pipe insulation	Above ceiling Basement	70 LF
6	6A,B,C	Floor Tile	Front Entrance house	30 SF
7	7A,B,C	Tar Paper	under floor tiles front entrance house	30 SF
8	8A,B,C	Plaster	walls all rooms 1st floor	5920 SF
9	9A,B,C	Plaster	Ceiling all rooms 1st floor	1406 SF
10	10A,B,C	Glue	under carpet all rooms 2nd floor	1400 SF
11	11A,B,C	Plaster	ceiling 2nd floor	1406 SF
12	12A,B,C	Plaster	walls all rooms 2nd floor	4200 SF
13	13A,B,C	Glue	Behind ceramic tile wall Bathroom 2nd floor	70 SF
14	14A,B,C	Floor Tiles	Bathroom 2nd floor	20 SF
15	15A,B,C	Tar Paper	under floor tile Bathroom 2nd floor	20 SF
16	16A,B,C	Plaster	walls and ceiling Attic	3200 SF
17	17A,B,C	Shingle roof	Main roof	1400 SF
18	18A,B,C	Tar Paper	under shingle roof	1400 SF
19	19A,B,C	Calazing	Exterior windows	36 units
20	20A,B,C	Shingle roof	Flat roofs front and Right Porche	300 SF
21	21A,B,C	Tar Paper	Behind wood siding Exterior House	2300 SF
22				

Notes or comments: -

Turn Around Time: Less 3 Hours Same Day Next Day Two Days

Sample Method: Bulk Soil Wipe Point Count

No. Samples submitted: 63 Yes or No - Positive stop by Homogeneous # shown

SAMPLED BY: (SIGNATURE) <u>Erick Estrada</u>	DATE/TIME <u>06-03-21</u>	RECEIVED BY: (SIGNATURE)	DATE/TIME
RELINQUISHED BY: (SIGNATURE) <u>Erick</u>	DATE/TIME <u>06-03-21</u>	RECEIVED IN LAB BY: (SIGNATURE) <u>M. B. Murray</u>	DATE/TIME <u>6/7/21</u>

Residence

Job: 821 Massachusetts Ave Arlington MA. – June 3, 2021



Front of the Residence



Basement
Sample #1 A, B, C



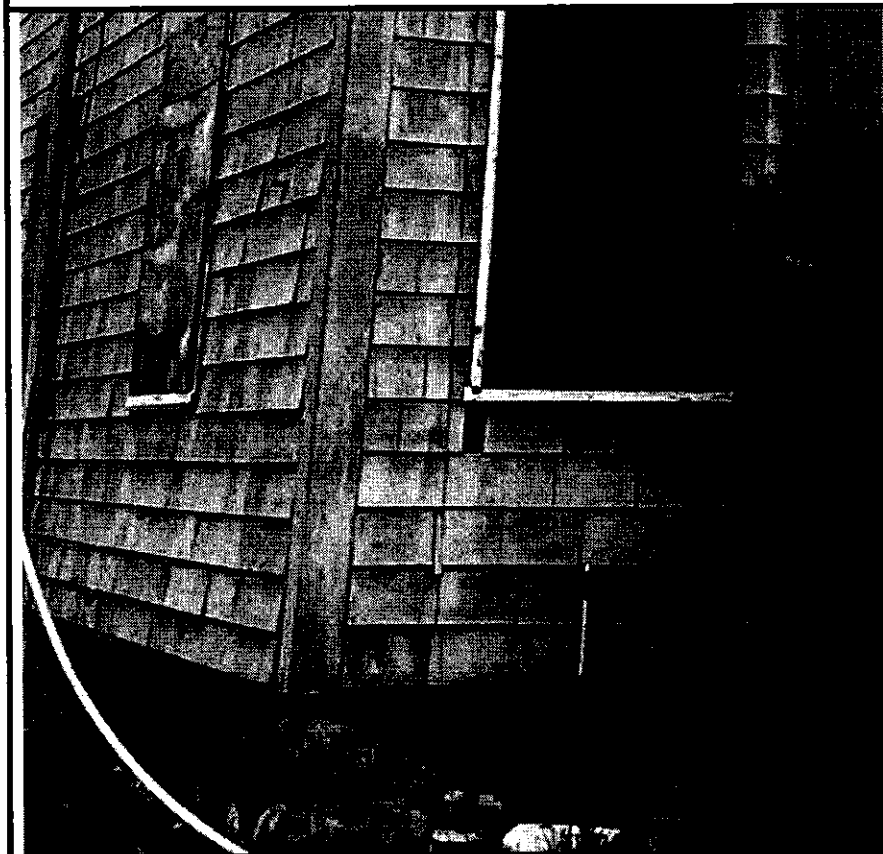
Above Ceiling Basement
Sample #5 A, B, C



Exterior Windows
Sample #19 A, B, C



Flat Roof front and
right-side porch
Sample #20 A, B, C



Behind Wood Siding
Exterior House
Samples #21 A, B, C