

ASBESTOS CONTAINING MATERIAL INVESTIGATION REPORT

COMMERCIAL STRUCTURE
411 LAWAND DRIVE
COLUMBIA, SOUTH CAROLINA 29210

PREPARED FOR:



HDR
C/O Ms. Sheri S. Williamson
SC Transportation Operations Manager
157 E. Main Street, Suite 400
Rock Hill, SC, 29730

PREPARED For:

F&ME Consultants
1825 Blanding Street
Columbia, South Carolina 29201

February 11, 2020

☐ Yes, asbestos was found.
☒ No, asbestos was not found.

F&ME Project No.: G5662.000

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1. EXECUTIVE SUMMARY

This executive summary is intended as an overview for the convenience of the reader. This report should be reviewed in its entirety prior to making any decisions regarding this project.

F&ME Consultants Inc. (FME) completed an Asbestos Containing Material (ACM) Investigation of the interior and exterior portions of the building structure located at 411 Lawand Drive, Columbia, SC, at the request of HDR (Client). This Investigation was conducted in accordance with South Carolina Department of Health and Environmental Control (SCDHEC), United States Environmental Protection Agency (USEPA), National Emission Standards for Hazardous Air Pollutants (NESHAP), and Occupational Safety and Health Administration (OSHA) regulations requiring an ACM Investigation prior to any demolition and/or renovation activities.

It is F&ME's understanding that Client has plans to demolish the structure. Per an agreed upon scope of work, FME performed a full investigation of the interior and exterior of the building, to identify ACM that that might be encountered during the planned demolition to the existing structure, and to make recommendations regarding proper handling and disposal of any ACM found. The field investigation was performed on February 5, 2020.

This ACM Investigation of the structure identified numerous suspect materials. However, laboratory results indicated that none of the suspect materials identified during the investigation contained asbestos.

We appreciate the opportunity to assist you in this matter. If you have any questions or require additional information, please feel free to contact our office at (803) 254-4540.

Sincerely,
F&ME CONSULTANTS



James T. Timmons
Asbestos Consultant/Management Planner
SCDHEC License No. MP-00196
Exp. Date 01/26/2021



Glynn M. Ellen
Environmental Department Manager
Asbestos Consultant/Management Planner
SCDHEC License No: ASB-22641
Expiration Date 01/26/2021



2. INTRODUCTION

F&ME Consultants Inc. (FME) completed an Asbestos Containing Material (ACM) Investigation of the building structure located at 411 Lewand Drive, Columbia, SC, at the request of HDR (Client). This Investigation was conducted in accordance with South Carolina Department of Health and Environmental Control (SCDHEC), United States Environmental Protection Agency (USEPA), National Emission Standards for Hazardous Air Pollutants (NESHAP), and Occupational Safety and Health Administration (OSHA) regulations requiring an ACM Investigation prior to any demolition and/or renovation activities.

It is FME's understanding that Client has plans to demolish the existing structure. Per an agreed upon scope of work, FME performed a full investigation of the interior and exterior of the building, to identify ACM that might be encountered during the planned demolition to the existing structure, and to make recommendations regarding proper handling and disposal of any ACM found. The field investigation was performed on February 5, 2020.

The results, conclusions and recommendations from this Investigation are representative of the conditions observed at the Site on the dates of the field inspections. FME does not assume responsibility for any changes in conditions or circumstances that occur after the inspection. No other environmental issues were addressed as part of this report.

3. EXISTING SITE INFORMATION

The 1400 ft² subject structure was constructed in 1985, according to the Richland County Assessors office and is located at 411 Lawand Dr., in Columbia, South Carolina. It is a single-story, raised foundation brick and mortar structure with a pitched shingled roof, and an eight (8) foot overhang on the front of the structure. The finishes within the interior of the structure are drywall walls, and ceilings with spray applied texture on the ceilings, and wood floors with various floor finishes throughout. See Appendix A – Site Vicinity Map, for the location of the structure. See Appendix B –General Building Plans, for a layout of the building



Current Structure 411 Lewand Drive, Columbia, SC



4. FIELD ASSESSMENT

This structure is an approximate 1,400 ft² single story, raised foundation commercial structure. The structure is wood framed with drywall and masonry block walls, and a exterior brick veneer. The roof is an A-framed shingle roof.

Based on the information provided regarding the timeline of construction, our approach to the ACM investigation was to consider the structure original with no renovations and to sample materials from the building accordingly. See Appendix B – Sample Location Plan, for detailed locations of samples taken from the structure.

4.1 Suspect Materials

The purpose of this investigation was to locate, sample and record the physical characteristics of suspect ACM associated with the interior and exterior portions of the subject structure and roof. Therefore, the quantities and physical condition of suspect materials were assessed, and bulk samples of suspect materials were submitted for laboratory analysis. The following suspect materials and approximate amounts were identified during this ACM Investigation:

- Textured Ceiling Material (~1,400 SF)
- Drywall Wall and Ceiling Systems (~3,000 SF)
- White Sink Undercoating (~ 8 SF)
- Tan Streaked Linoleum Flooring (~ 140 SF)
- Brown Parquet Pattern Linoleum Flooring (~ 900 SF)
- Baseboard Adhesive (~ 300 LF)
- Window Caulking (~150 LF)
- Exterior Door Caulking (~ 40LF)
- White Duct Mastic (~ 100 LF)
- Roofing Shingles (~ 1,600 SF)
- Roofing Underfelt (1,600 SF)
- Countertop Caulking (~20 LF)
- Interior Door Caulking (~ 40 LF)
- Carpet adhesive (~1,100 SF)
- Yellow Square Pattern Linoleum Flooring (~ 300 SF)



5. ASSESSMENT RESULTS

Random samples of the suspect materials identified during the investigation were collected for laboratory analysis, and their physical characteristics were recorded. Building materials such as concrete, metal, wood, brick, carpet, etc., were not considered suspect ACM. Bulk samples of suspect materials were analyzed by Polarized Light Microscopy (PLM) in accordance with EPA 600/R-93/116. Confirmation Transmission Electron Microscopy (TEM) was also performed on any non-friable organically bound materials that tested negative for asbestos content as per SCDHEC regulations effective May 27, 2011. See Appendix C – Summary of Samples, for complete list of all samples taken.

A total of forty-nine (49) samples were collected associated with the structure. A *“first positive stop”* protocol was implemented for this sampling. This protocol establishes that if the first sample of a material tested positive for asbestos content, subsequent samples were not to be analyzed, and would be considered positive as well. Due to multiple layers of some materials, forty-eight (48) samples were analyzed by PLM and fifteen (15) were confirmed by TEM. Analysis of these materials indicated that **none of the materials contained asbestos**.

Appropriate sampling and chain-of-custody protocols were followed during the investigation to ensure proper handling and delivery of samples to the analytical laboratory. Appendix D – Bulk Asbestos Analytical Report and Appendix E – Laboratory Chain of Custody were provided to show laboratory documentation of the analytical results. Appendix F – Photographs, Appendix G – Personnel Certification, provides the qualifications for the F&ME Asbestos Inspectors.

6. RECOMMENDATIONS

The results, conclusions, and recommendations of this Investigation are representative of the conditions observed at the site on the dates of the field inspection. FME does not assume responsibility for any changes in conditions or circumstances that may have occurred after this inspection.

It is our understanding that this investigation was requested to provide the client with Environmental information in regard to ACM that may be encountered during the proposed demolition of the building structure. Based on the results of the Limited ACM Investigation, none of the materials sampled in the building were found to contain ACM. Therefore, no recommendations regarding ACM are necessary at this time.

If any suspect ACM is encountered during demoltion activities other than those identified herein, the affected contractor(s) must stop work, take appropriate actions, and notify the Owner and/or the Asbestos Consultant for an appropriate response action. The SCDHEC must be notified in the event any ACM is discovered.



In addition, destructive or exhaustive measures were not utilized during this investigation to identify suspect ACM that could be concealed in areas to included but not limited to wall cavities, hidden chases, etc. If suspect ACM is identified in concealed spaces during the demolition or construction activities, the affected contractor(s) should stop work and notify the Owner and/or the Environmental Consultant for an appropriate response action.

This report has been prepared exclusively for Client and F&ME and shall not be disseminated in whole or in part to other parties without prior consent from Client or F&ME. In addition, quantities referenced in this report are approximations to aid in establishing the number of samples required to meet the SCDHEC and EPA regulations. If this document is utilized as an aid for bidding of demolition or abatement or other construction or remediation activities the bidder shall verify the quantities.



7. APPENDICES

Appendix A – Site Vicinity Map

Appendix B – General Building Plan

Appendix C – Sample Location Plan

Appendix D – Summary of Samples

Appendix E – Bulk Asbestos Analytical Reports

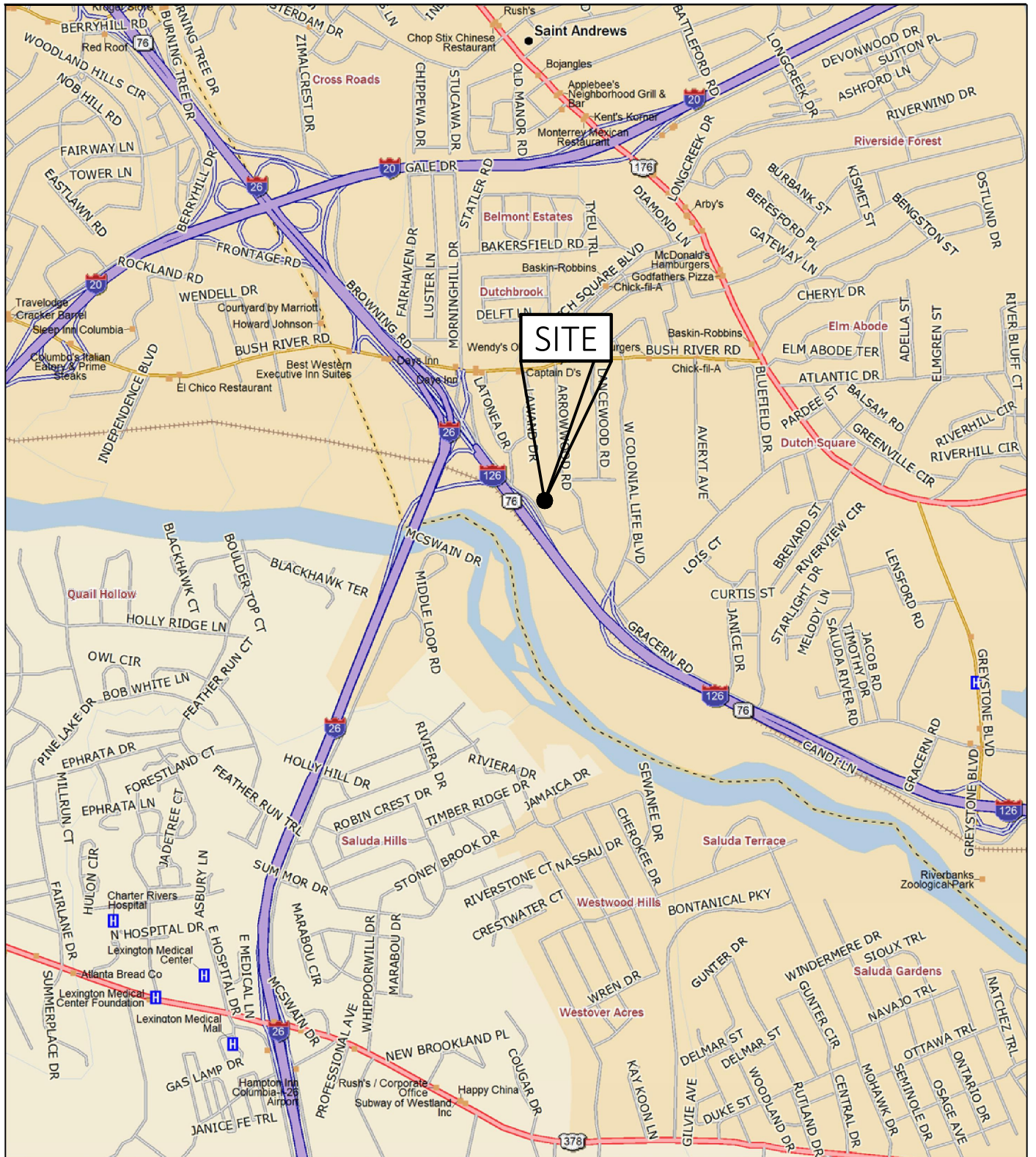
Appendix F – Chain of Custody Form

Appendix G – Personnel Certifications



Appendix A

Site Vicinity Map



Data use subject to license.

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www.delorme.com

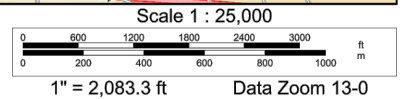


FIGURE
NUMBER:

1

F&ME CONSULTANTS
PROJECT NUMBER:

G5662.000

ACM INVESTIGATION REPORT
411 Lawand Drive
Columbia, SC
Appendix A - Site Vicinity Map

Prepared for:
HDR
157 E. Main Street, Suite 400
Rock Hill, SC 29730



2825 BLANDING STREET
COLUMBIA, SC 29201

ORIGINAL:
February 6, 2020

REVISIONS:

1

2

3

SCALE

As Shown

DRWN. BY: MSM
CHKD. BY: JTT
APPR. BY: GME

NOTES:

Appendix B

General Building Plan

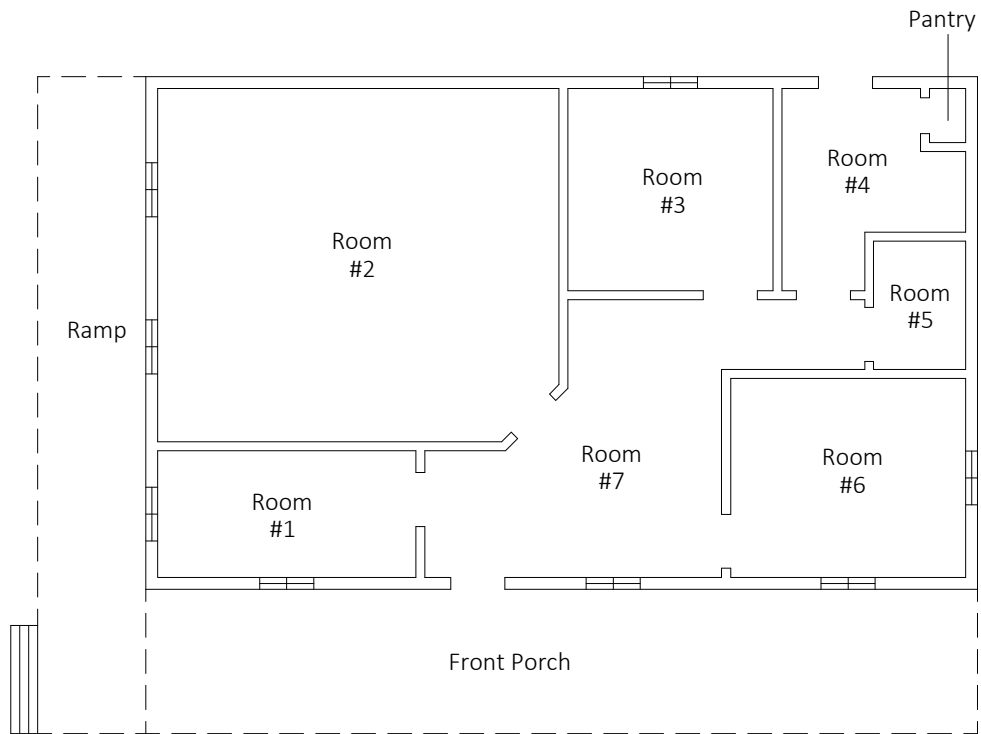


FIGURE
NUMBER:

2

F&ME CONSULTANTS
PROJECT NUMBER:

G5662.000

ACM INVESTIGATION REPORT
411 Lawand Drive
Columbia, SC
Appendix B - General Building Plan

Prepared for:
HDR
157 E. Main Street, Suite 400
Rock Hill, SC 29730



2825 BLANDING STREET
COLUMBIA, SC 29201

ORIGINAL:
February 6, 2020

REVISIONS:

1
2
3

SCALE
 $\frac{1}{8}" = 1'$

DRWN. BY: MSM
CHKD. BY: JTT
APPR. BY: GME

NOTES:

Appendix C

Sample Location Plan

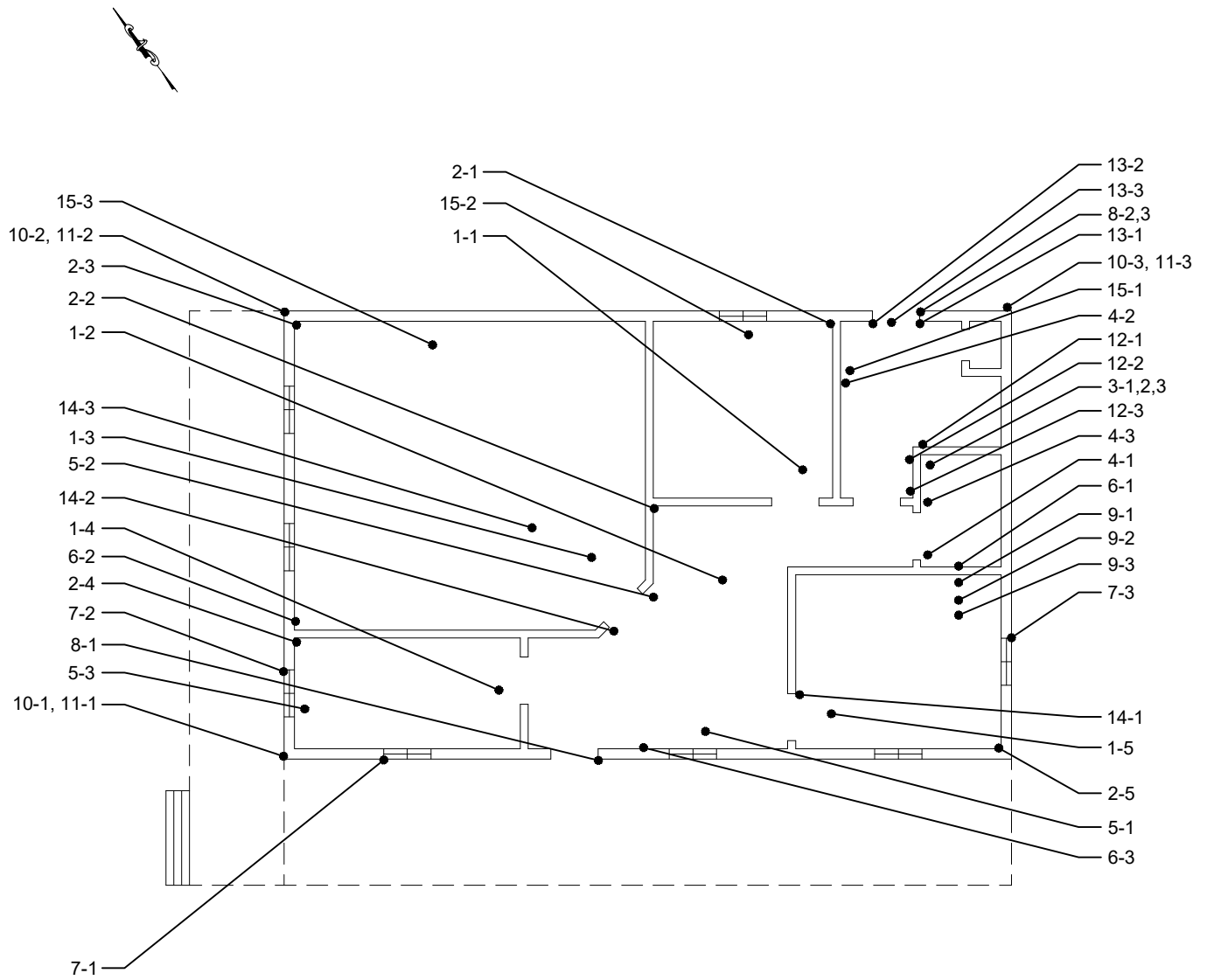


FIGURE
NUMBER:

3

F&ME CONSULTANTS
PROJECT NUMBER:

G5662.000

ACM INVESTIGATION REPORT
411 Lawand Drive
Columbia, SC
Appendix C - Sample Location Plan

Prepared for:
HDR
157 E. Main Street, Suite 400
Rock Hill, SC 29730



2825 BLANDING STREET
COLUMBIA, SC 29201

ORIGINAL:
February 6, 2020

REVISIONS:

1
2
3

SCALE
 $\frac{1}{8}" = 1'$

DRWN. BY: MSM
CHKD. BY: JTT

APPR. BY: GME

NOTES:

Appendix D

Summary of Samples

APPENDIX D: SUMMARY OF SAMPLES

Sample ID	Sample Description
1-1	Textured Ceiling Material
1-2	Textured Ceiling Material
1-3	Textured Ceiling Material
1-4	Textured Ceiling Material
1-5	Textured Ceiling Material
2-1	Drywall and Associated Joint Compound
2-2	Drywall and Associated Joint Compound
2-3	Drywall and Associated Joint Compound
2-4	Joint Compound Associated with Drywall
2-5	Joint Compound Associated with Drywall
3-1	White Sink Undercoating
3-2	White Sink Undercoating
3-3	White Sink Undercoating
4-1	Tan Streaked Linoleum
4-2	Tan Streaked Linoleum
4-3	Tan Streaked Linoleum
5-1	Brown Parquet Pattern Linoleum
5-2	Brown Parquet Pattern Linoleum
5-3	Brown Parquet Pattern Linoleum
6-1	Cove Base Mastic
6-2	Cove Base Mastic
6-3	Cove Base Mastic
7-1	Exterior Window Caulking
7-2	Exterior Window Caulking
7-3	Exterior Window Caulking
8-1	Exterior Door Caulking
8-2	Exterior Door Caulking
8-3	Exterior Door Caulking
9-1	White Duct Mastic
9-2	White Duct Mastic
9-3	White Duct Mastic
10-1	Roofing Shingles
10-2	Roofing Shingles
10-3	Roofing Shingles
11-1	Roofing Underfelt
11-2	Roofing Underfelt

APPENDIX C

APPENDIX D: SUMMARY OF SAMPLES

Sample ID	Sample Description
11-3	Roofing Underfelt
12-1	Countertop Caulking
12-2	Countertop Caulking
12-3	Countertop Caulking
13-1	Interior Door Caulking
13-2	Interior Door Caulking
13-3	Interior Door Caulking
14-1	Carpet Adhesive
14-2	Carpet Adhesive
14-3	Carpet Adhesive
15-1	Yellow Square Pattern Linoleum
15-2	Yellow Square Pattern Linoleum
15-3	Yellow Square Pattern Linoleum

APPENDIX C

Appendix E

Bulk Asbestos Analytical Reports



EMSL Analytical, Inc.

706 Gralin Street Kernersville, NC 27284

Tel/Fax: (336) 992-1025 / (336) 992-4175

<http://www.EMSL.com> / greensborolab@emsl.com

EMSL Order: 022000753

Customer ID: FMEC62

Customer PO: G5662.000

Project ID:

Attention: Glynn M. Ellen
F & ME Consultants
1825 Blanding Street
Columbia, SC 29201

Phone: (803) 254-4540

Fax: (803) 254-4542

Received Date: 02/06/2020 9:00 AM

Analysis Date: 02/07/2020

Collected Date: 02/05/2020

Project: 411 Lewand Drive

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1-1 022000753-0001	Textured Ceiling Material	White/Beige Non-Fibrous Homogeneous	<1% Cellulose	25% Ca Carbonate 5% Mica 70% Non-fibrous (Other)	None Detected
1-2 022000753-0002	Textured Ceiling Material	White/Beige Non-Fibrous Homogeneous	<1% Cellulose	30% Ca Carbonate 1% Mica 69% Non-fibrous (Other)	None Detected
1-3 022000753-0003	Textured Ceiling Material	White/Beige Non-Fibrous Homogeneous	<1% Cellulose	30% Ca Carbonate 1% Mica 69% Non-fibrous (Other)	None Detected
1-4 022000753-0004	Textured Ceiling Material	White/Beige Non-Fibrous Homogeneous	<1% Cellulose	30% Ca Carbonate 1% Mica 69% Non-fibrous (Other)	None Detected
1-5 022000753-0005	Textured Ceiling Material	White Non-Fibrous Homogeneous	<1% Cellulose	30% Ca Carbonate 3% Mica 67% Non-fibrous (Other)	None Detected
2-1-Joint Compound 022000753-0006 <i>No Drywall Present.</i>	DW/JC	White Non-Fibrous Homogeneous	1% Cellulose	30% Ca Carbonate 69% Non-fibrous (Other)	None Detected
2-1-Tape 022000753-0006A	DW/JC	Beige Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
2-2-Drywall 022000753-0007	DW/JC	Brown/Gray Fibrous Heterogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
2-2-Joint Compound 022000753-0007A	DW/JC	White Non-Fibrous Homogeneous	1% Cellulose	30% Ca Carbonate 69% Non-fibrous (Other)	None Detected
2-2-Tape 022000753-0007B	DW/JC	Beige Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
2-3-Drywall 022000753-0008	DW/JC	Brown/Gray Fibrous Heterogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
2-3-Joint Compound 022000753-0008A	DW/JC	White Non-Fibrous Homogeneous	1% Cellulose	30% Ca Carbonate 69% Non-fibrous (Other)	None Detected
2-3-Tape 022000753-0008B	DW/JC	Beige Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
2-4 022000753-0009	Joint Compound Only	White Non-Fibrous Homogeneous	1% Cellulose	30% Ca Carbonate 69% Non-fibrous (Other)	None Detected
2-5 022000753-0010	Joint Compound Only	White Non-Fibrous Homogeneous	<1% Cellulose	30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
3-1 022000753-0011	White Sink Undercoating	Beige Non-Fibrous Homogeneous	1% Cellulose	30% Mica 69% Non-fibrous (Other)	None Detected

Report amended: 02/11/2020 11:54:58 Replaces initial report from: 02/10/2020 08:29:54 Reason Code: Data Entry-Samples Added



EMSL Analytical, Inc.

706 Gralin Street Kernersville, NC 27284

Tel/Fax: (336) 992-1025 / (336) 992-4175

<http://www.EMSL.com> / greensborolab@emsl.com

EMSL Order: 022000753

Customer ID: FMEC62

Customer PO: G5662.000

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
3-2 022000753-0012	White Sink Undercoating	Beige Non-Fibrous Homogeneous	1% Cellulose	30% Mica 69% Non-fibrous (Other)	None Detected
3-3 022000753-0013	White Sink Undercoating	Tan/Beige Non-Fibrous Homogeneous	<1% Cellulose	30% Mica 70% Non-fibrous (Other)	None Detected
4-1-Flooring 022000753-0014	Tan Streaked Linoleum	Tan/Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-1-Mastic 022000753-0014A	Tan Streaked Linoleum	Yellow/Gold Non-Fibrous Homogeneous	<1% Cellulose <1% Synthetic	100% Non-fibrous (Other)	None Detected
4-2-Flooring 022000753-0015	Tan Streaked Linoleum	Gray/Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-2-Mastic 022000753-0015A	Tan Streaked Linoleum	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
5-1 022000753-0016 Flooring Only.	Brown Parkay Linoleum	Brown/Gray/Tan Fibrous Heterogeneous	30% Cellulose 1% Glass	69% Non-fibrous (Other)	None Detected
5-2 022000753-0017 Flooring Only.	Brown Parkay Linoleum	Brown/Tan/Beige Fibrous Heterogeneous	30% Cellulose 1% Glass	69% Non-fibrous (Other)	None Detected
6-1 022000753-0018	Cove Base Mastic	Yellow Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
6-2 022000753-0019	Cove Base Mastic	Beige Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
7-1 022000753-0020	Window Caulking	Brown/Gray Non-Fibrous Homogeneous	<1% Cellulose	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
7-2 022000753-0021	Window Caulking	Gray/Beige Non-Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
8-1 022000753-0022	Exterior Door Caulking	White/Beige Non-Fibrous Homogeneous	<1% Cellulose	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
8-2 022000753-0023	Exterior Door Caulking	White Non-Fibrous Homogeneous	<1% Cellulose	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
9-1 022000753-0024	White Duct Mastic	Gray Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
9-2 022000753-0025	White Duct Mastic	Gray/Beige Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
10-1-Gray Stone Shingle 022000753-0026	Roofing Shingles	Gray/Black Fibrous Heterogeneous	<1% Cellulose 5% Glass	95% Non-fibrous (Other)	None Detected
10-1-Black Stone Shingle 022000753-0026A	Roofing Shingles	Black Fibrous Heterogeneous	<1% Cellulose 5% Glass	95% Non-fibrous (Other)	None Detected

Report amended: 02/11/2020 11:54:58 Replaces initial report from: 02/10/2020 08:29:54 Reason Code: Data Entry-Samples Added



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EMSL Order: 022000753

Customer ID: FMEC62

Customer PO: G5662.000

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
10-2-Gray Stone Shingle	Roofing Shingles	Gray/Black Fibrous Heterogeneous	<1% Cellulose 5% Glass	95% Non-fibrous (Other)	None Detected
022000753-0027					
10-2-Black Stone Shingle	Roofing Shingles	Black Fibrous Heterogeneous	<1% Cellulose 5% Glass	95% Non-fibrous (Other)	None Detected
022000753-0027A					
11-1	Roofing Underfelt	Black Fibrous Homogeneous	70% Cellulose <1% Glass	30% Non-fibrous (Other)	None Detected
022000753-0028					
11-2	Roofing Underfelt	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
022000753-0029					
12-1	Counter Top Caulking	Yellow/Beige Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
022000753-0030					
12-2	Counter Top Caulking	Beige Non-Fibrous Homogeneous	<1% Cellulose	8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
022000753-0031					
13-1	Interior Door Caulking	White Non-Fibrous Homogeneous	<1% Cellulose	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
022000753-0032					
13-2	Interior Door Caulking	White Non-Fibrous Homogeneous	<1% Cellulose	10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
022000753-0033					
14-1	Carpet Mastic	Yellow/Orange Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
022000753-0034					
14-2	Carpet Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
022000753-0035					
15-1-Flooring	Yellow Square Pattern Linoleum	Tan/Yellow/Beige Fibrous Heterogeneous	30% Cellulose 1% Glass	69% Non-fibrous (Other)	None Detected
022000753-0036					
15-1-Mastic	Yellow Square Pattern Linoleum	Yellow/Orange Non-Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	None Detected
022000753-0036A					
15-2-Flooring	Yellow Square Pattern Linoleum	Beige Fibrous Heterogeneous	30% Cellulose 1% Glass	69% Non-fibrous (Other)	None Detected
022000753-0037					
15-2-Mastic	Yellow Square Pattern Linoleum	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
022000753-0037A					

Report amended: 02/11/2020 11:54:58 Replaces initial report from: 02/10/2020 08:29:54 Reason Code: Data Entry-Samples Added



EMSL Analytical, Inc.

706 Gralin Street Kernersville, NC 27284

Tel/Fax: (336) 992-1025 / (336) 992-4175

<http://www.EMSL.com> / greensborolab@emsl.com

EMSL Order: 022000753

Customer ID: FMEC62

Customer PO: G5662.000

Project ID:

Analyst(s)

Ryan Rains (18)

Scott Combs (30)

Stephen Bennett, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Kernersville, NC NVLAP Lab Code 102104-0, CA ELAP 2689, Virginia 3333-000228, West Virginia LT000321

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EMSL Order: 022000753

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Attention: Glynn M. Ellen
F & ME Consultants
1825 Blanding Street
Columbia, SC 29201

Phone: (803) 254-4540

Fax: (803) 254-4542

Received Date: 02/06/2020 9:00 AM

Analysis Date: 02/10/2020

Collected Date: 02/05/2020

Project: 411 Lewand Drive

Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

Sample ID	Description	Appearance	% Matrix Material	% Non-Asbestos Fibers	Asbestos Types
4-3-Flooring 022000753-0038	Tan Streaked Linoleum	Tan/Pink/Green Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
4-3-Mastic 022000753-0039	Tan Streaked Linoleum	Yellow Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
5-3 022000753-0040	Brown Parkay Linoleum	Brown/Gray/Tan Fibrous Heterogeneous	100.0 Other	None	No Asbestos Detected
6-3 022000753-0041	Cove Base Mastic	Yellow/Beige Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
7-3 022000753-0042	Window Caulking	Gray Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
8-3 022000753-0043	Exterior Door Caulking	Tan/Beige Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
9-3 022000753-0044	White Duct Mastic	Gray Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
10-3-Gray Stone Shingle 022000753-0045	Roofing Shingles	Gray/Black Fibrous Heterogeneous	100.0 Other	None	No Asbestos Detected
10-3-Black Stone Shingle 022000753-0046	Roofing Shingles	Black Fibrous Heterogeneous	100.0 Other	None	No Asbestos Detected
11-3 022000753-0047	Roofing Underfelt	Black Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
12-3 022000753-0048	Counter Top Caulking	Beige Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
13-3 022000753-0049	Interior Door Caulking	White Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Kenersville, NC

Initial report from: 02/10/2020 17:03:13



EMSL Analytical, Inc.

706 Gralin Street Kenersville, NC 27284

Tel/Fax: (336) 992-1025 / (336) 992-4175

<http://www.EMSL.com> / greensborolab@emsl.com

EMSL Order: 022000753

Customer ID: FMEC62

Customer PO: G5662.000

Project ID:

Attention: Glynn M. Ellen
F & ME Consultants
1825 Blanding Street
Columbia, SC 29201

Phone: (803) 254-4540

Fax: (803) 254-4542

Received Date: 02/06/2020 9:00 AM

Analysis Date: 02/10/2020

Collected Date: 02/05/2020

Project: 411 Lewand Drive

Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

Sample ID	Description	Appearance	% Matrix Material	% Non-Asbestos Fibers	Asbestos Types
14-3 022000753-0050	Carpet Mastic	Yellow/Beige/Gold Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
15-3-Flooring 022000753-0051	Yellow Square Pattern Linoleum	Tan/Yellow/Beige Fibrous Heterogeneous	100.0 Other	None	No Asbestos Detected
15-3-Mastic 022000753-0052	Yellow Square Pattern Linoleum	Yellow/Orange Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected

Analyst(s)

Stephen Bennett (15)

Stephen Bennett, Laboratory Manager
or other approved signatory

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Kenersville, NC

Initial report from: 02/10/2020 17:03:13

Appendix F

Chain of Custody Forms



EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

753

EMSL ANALYTICAL, INC.
706 GRALIN ST.
KERNERSVILLE, NC 27284
PHONE (336) 992-1025
FAX (336) 992-4175

Company Name : F&ME Consultants		EMSL Customer ID:	
Street: 3112 Devine Street		City: Columbia	State/Province: SC
Zip/Postal Code: 29205	Country: USA	Telephone #: 803-254-4540	Fax #: 803-254-4542
Report To (Name): Glynn Ellen		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
Email Address: gellen@fmecon.com, jtimmons@fmecon.com		Purchase Order: G5662.000	
Project Name/Number: 411 Lewand Drive		EMSL Project ID (Internal Use Only):	
U.S. State Samples Taken: SC		CT Samples: <input checked="" type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	
EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different - If Bill to is Different note instructions in Comments** Third Party Billing requires written authorization from third party			
Turnaround Time (TAT) Options* - Please Check			
<input type="checkbox"/> 3 Hour	<input type="checkbox"/> 6 Hour	<input type="checkbox"/> 24 Hour	<input checked="" type="checkbox"/> 72 Hour <input checked="" type="checkbox"/> 96 Hour <input type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week
*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.			
PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NYS 198.8 SOF-V <input type="checkbox"/> NIOSH 9002 (<1%)		TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312 TEM - Bulk <input checked="" type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	
TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) Soil/Rock/Vermiculite <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<1%) <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<0.25%) <input type="checkbox"/> TEM EPA 600/R-93/116 with milling prep (<0.1%) <input type="checkbox"/> TEM Qualitative via Filtration Prep <input type="checkbox"/> TEM Qualitative via Drop Mount Prep <input type="checkbox"/> Cincinnati Method EPA 600/R-04/004 - PLM/TEM (BC only) Other: <input type="checkbox"/>			
<input checked="" type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group		Filter Pore Size (Air Samples): <input type="checkbox"/> 0.8µm <input type="checkbox"/> 0.45µm	
Samplers Name: James T. Timmons		Samplers Signature:	
Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
1-1 thru 1-5	Textured Ceiling Material		
2-1 thru 2-3	DW/JC		
2-4 thru 2-5	Joint Compound Only		
3-1 thru 3-3	White Sink Undercoating		
4-1 thru 4-3	Tan Streaked Linoleum		3/7/12
Client Sample # (s): 1-1 - 15-3		Total # of Samples: 49	
Relinquished (Client):		Date: 2/5/2020	Time: 17:00
Received (Lab):		Date: 2/16/20	Time: 9:00
Comments/Special Instructions: * TEM 3rd sample, Do not Analyze samples 2-4 or 2-5 if joint compound is positive on any of the first three samples ① EMSL fx 7958 2405 7144			

EMSL Order Number (Lab Use Only):

[illegible]

Page 2 Of 2

Appendix G

Personnel Certifications

SCDHEC ISSUED

Asbestos ID Card

James T Timmons



		Expiration Date:
SUPERAHERA	SA-02244	01/27/21
CONSULTMP	MP-00196	01/26/21
AIRSAMPLER	AS-00423	01/27/21

This card is nontransferable and is considered invalid if loaned or given to another person for identification. This card will also be invalid if altered or defaced. This card is property of SCDHEC. It must be returned to the department if the holder's accreditation is revoked or if this card is invalidated. Any person performing regulated asbestos activities without current accreditation shall be subject to legal sanction. This card must be returned upon expiration and/or issuance of a new card.

YOU MUST HAVE THIS IDENTIFICATION CARD WITH YOU ON THE JOB.

For information of corrections contact: SCDHEC – Asbestos Section
2600 Bull Street
Columbia, SC 29201
(803) 898-4289

SCDHEC ISSUED

Asbestos ID Card

Glynn M Ellen



		Expiration Date:
SUPERAHERA	SA-00455	01/27/21
CONSULTMP	ASB-22641	01/26/21
CONSULTPD	PD-00098	06/06/20
AIRSAMPLER	AS-00079	01/27/21

This card is nontransferable and considered invalid if loaned or given to another person for identification. This card will also be invalid if altered or defaced. This card is property of SCDHEC. It must be returned to the department if the holder's accreditation is revoked or if this card is invalidated. Any person performing regulated asbestos activities without current accreditation shall be subject to legal sanction. This card must be returned upon expiration and/or issuance of a new card.

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