January 2, 2018

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: 840 Harris St., Lansing – Property Accessibility Determination

Dear Ms. Case,

The Mannik & Smith Group, Inc. (MSG) has conducted an evaluation as to the accessibility of the above referenced property structure prior to demolition for the purpose of conducting a Hazardous Material Survey HMS [aka Regulated Material Survey (RMS)], including an asbestos survey.

Based on a site visit conducted on December 7, 2017, MSG has determined that the structure is damaged and unsafe to enter for the purpose of conducting an HMS. Please find the attached photographic logs summarizing photographs of the site structure taken during the site visit on December 7, 2017 documenting the unsafe nature of the site structure. It is MSG's professional opinion that due to the damaged and unsafe condition of the site structure, the structure is inaccessible and an HMS is not required prior to demolition so long as the appropriate National Emission Standards for Hazardous Air Pollutants (NESHAPs) and Michigan Occupational Safety and Health Administration (MIOSHA) regulations and other pertinent local, state and federal regulations are followed. MSG recommends that the Ingham County Land Bank (ICLB) declare that the structure is inaccessible due to its damaged and unsafe condition (if not already done so) so that demolition of the structure can be completed without further delay. The ICLB and its demolition contractor should be aware however of the following associated with the demolition:

- The entire structure will need to be considered asbestos-containing during demolition and appropriate procedures must be followed (i.e. materials must be kept adequately wet at all times, personnel must have appropriate training, etc.);
- Potential for higher disposal costs associated with asbestos contaminated debris;
- Potential for recycling of materials reduced.

Should you have any questions or require additional information, please do not hesitate to contact us at (517) 316-9232.

Sincerely,

Kory McKay
Environmental Scientist
Accreditation Number A47903

Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

Ingham County Land Bank
840 Harris St, Lansing, MI
Photographs taken by: Kory McKay on 12/07/2017

Property Photos

840 Harris St, Front of House

Back of House

Side of House

Side of House

Ingham County Land Bank
840 Harris St, Lansing, MI
Photographs taken by: Kory McKay on 12/07/2017

Property Photos

View of collapsed eastern portion of house

View of southeastern portion of house

Collapsed ceiling in southeastern portion of house

View of collapsed hall in southwestern portion of house

Collapsed floor in southwestern portion of house

CITY OF LANSING

Department of Planning and Neighborhood Development
316 N. Capitol Ave., Suite C-1 – Lansing, MI 48933-1238
(517) 483-4355 – Fax (517) 377-0169
Bob Johnson, **Director**
www.LansingMI.Gov

Mayor Virg Bernero

Office of Building Safety

Unsafe Structures Notice

November 02, 2017

Ingham County Land Bank
Fast Track Authority
3024 Turner Street
Lansing, Michigan 48906

Regarding: 840 Harris Street
Parcel: #33-01-01-03-306-191

Dear ICLB,

This letter is in regard to the unsafe structure and unsafe site conditions at the aforementioned address. After a review of the site and structure this office has declared this site, structure and Use (R-3), unsafe to occupy in any part and is in structural failure. Therefore the site shall be properly secured to prevent anyone from entry and the structure shall be made safe or removed as stated herein. It is imperative and time is of the essence that steps be taken to address these issues. To ensure the health, safety and welfare for neighbors and the public, the City of Lansing and the State of Michigan requires that the building and site be protected, repaired and/or removed immediately.

This letter shall serves as notice that the property shall be made safe as set forth by the STILLE-DEROSSETT-HALE- SINGLE STATE CONSTRUCTION CODE ACT, Act 230 of 1972 known as the Michigan Building Code 2012 with amendments, in particular section 116.1 of the Michigan Building Code 2015; "Structures or existing equipment that are or hereafter become unsafe, insanitary or deficient because of inadequate means of egress facilitates, inadequate light and ventilation, or which constitutes a fire hazard, or are otherwise dangerous to human life or the public welfare, or that involve illegal or improper occupancy or inadequate maintenance, shall be deemed unsafe an unsafe condition. Unsafe structures shall be taken down and removed or made safe, as the Building Official deems necessary and as provided for in this section. A vacant structure that is not secured against entry shall be deemed unsafe."

It is our understanding that measures need to be implemented to abate the structural hazards. This office approves the implementation of any and all measures to abate said hazards as set forth by the code.

Should you have any questions please feel free to contact me at (517) 483-4365 or at Steve.Swan@lansingmi.gov or visit our City web site at cityoflansing.com

Thank you,

Steven M. Swan, C.B.O.
Chief Building Inspector
City of Lansing, Michigan

March 2, 2018

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: Limited Pre-Demolition Regulated Materials Survey
840 E Harris Street, Lansing, Ingham County, Michigan

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited pre- demolition regulated materials survey (RMS) performed at 840 E Harris Street, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") Charlie Bush (Accreditation Number A34293) .

SUMMARY

Building Information	
Property Address	840 E Harris St., Lansing, MI
Parcel #	33-01-01-03-306-191
No. Stories	1
Square Footage (approx.)	830 SF
Siding	Concrete block and Wood
Basement	Yes
Garage	No

Asbestos Containing Material				
Location	Material Group	Friable/Non Friable	Asbestos	Quantity
Samples collected on the exterior of the building contained no asbestos				

PURPOSE AND SCOPE OF WORK

The property has been identified as unsafe to enter and as a result a complete RMS cannot be conducted on the property. The purpose of this limited RMS was to identify, quantify and document the location of regulated materials that could safely be inspected and that may be encountered during demolition of the on-site structure. This limited the inspection to the properties building exterior. To accomplish this purpose, MSG performed the following scope of work:

1) Limited pre-demolition asbestos-containing material (ACM) survey on the safe and accessible areas of the Site building.

METHODOLOGIES

The partial RMS on the exterior of the building was conducted on February 22, 2018. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM located on the exterior of the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of the safe and accessible parts of the Site building, primarily the exterior and roof. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Charlie Bush (Accreditation Number A34293). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM where safely accessible in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG was unable to gain access to the interior of the building to conduct this portion of the survey due to unsafe conditions.

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log*. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG was able to safely collect samples from two (2) homogenous materials from the exterior of the building that were suspect as asbestos containing during the ACM survey. One (1) bulk sample was collected from each suspect homogeneous material and submitted to APEX Research, Inc. (APEX) for laboratory analysis of Bulk Materials by

Polarized Light Microscopy using USEPA Method 600/R-93/116. APEX is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found no material to contain greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. No samples were point counted.

See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

A universal waste, hazardous material, and/or other regulated material waste survey was not completed as part of this RMS report due to MSG's inability to safely enter the Site building.

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the two (2) homogenous materials collected as part of the ACM survey, no material contained asbestos greater than 1%.

MSG recommends that the Ingham County Land Bank (ICLB) declare that the structure is inaccessible due to its damaged and unsafe condition (if not already done so) so that demolition of the structure can be completed without further delay. The ICLB and its demolition contractor should be aware however of the following associated with the demolition:

- The entire structure will need to be considered asbestos-containing during demolition and appropriate procedures must be followed (i.e. materials must be kept adequately wet at all times, personnel must have appropriate training, etc.);
- Potential for higher disposal costs associated with asbestos contaminated debris;
- Potential for recycling of materials reduced.

If you have any questions or concerns regarding the above information please contact us at 734-397-3100.

Sincerely,

Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

TABLES

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		840 HARRIS ST								
Survey Date		February 22, 2018								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
Exterior	1	AS1-1	HA-1	Window Glaze	Non-Friable	Good	Miscellaneous	No	No	8 Windows
Roof	1	AS2-1	HA-2	Roof Shingle	Non-Friable	Good	Miscellaneous	No	No	900 SF

ATTACHMENT A

PHOTO LOG

Ingham County Land Bank
840 Harris St, Lansing, MI
Photographs taken by: Charlie Bush on 2/22/2018

Property Photos

840 Harris St, Front of House

Back of House

Side of House

Side of House

Ingham County Land Bank
840 Harris St, Lansing, MI
Photographs taken by: Charlie Bush on 2/22/2018

Property Photos

View of collapsed eastern portion of house

View of southeastern portion of house

Collapsed ceiling in southeastern portion of house

Roof shingle sample AS2-1

Collapsed floor in southwestern portion of house

Window glaze sample AS1-1

ATTACHMENT B

LIMITATIONS

REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

65 Cadillac Square, Suite 3311, Detroit, Michigan 48226 Tel: 313.961.9500 Fax: 313.961.9509 www.MannikSmithGroup.com

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.

ATTACHMENT C

ANALYTICAL REPORTS AND CHAINS OF CUSTODY

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 840 E. Harris St.
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 18-75186
Date Collected: 02/22/18
Date Received: 02/23/18
Date Analyzed: 02/27/18
Date Reported: 02/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75186 - 01 Cust. #: AS1-1 Material: Window Glaze Location: Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** Chrysotile - <1%	Other - >99%
Lab ID #: 75186 - 02 Cust. #: AS1-2 Material: Roof Shingle Location: Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Apex # **75186**

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Customer Name:	**MANNIK & SMITH GROUP**	Date of Survey:	2/22/2018 14:00
Address:	2193 Association Drive, Suite 200	Project:	840 E. Harris St.
City, St., Zip:	Okemos, MI, 48864	Project #	I1440002
Phone:	(517) 316-9232 Fax: (517) 316-9233	Contact Person:	Charlie Bush
		Email:	cbush@manniksmithgroup.com

Lab Use Only
Log-In:____
Report: ____
Fax: ____
Verbal:____
Email:____

Turn Around Time: (*circle one*)***Terms and conditions on the other side.

Rush
24 Hour
48 Hour
72 Hour
Other: _____
TTP (yes) / no
(Test Till Positive)

Samples received after 3pm logged in next morning

Circle analyses required, indicate type and quantity

(Asbstos):	Bulk X	Wipe ____	Point Count ____	PCM ____			
Lead / Cad / Chrome:	Air ____	Paint ____	Wipe (ASTM) ____	Bulk ____			
Mold:	Bulk ____	Air ____	BioSIS ____	Tape ____			
TEM:	Bulk ____	NIOSH ____	EPA Level II ____	Other ____			

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
1	AS1-1	Window Glaze	Bag	Ex	
2	AS2-1	Roof Shingle	Bag	Ex	

Relinquished By: _____ Received By: _____ Relinquished By: _____ Received By: _____

Date: _____ Time/Date: 2/23/18 Date: _____ Time/Date: _____

RECEIVED FEB 23 2018 APEX RESEARCH

Revision R4 Date: May/2017

ATTACHMENT D

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M

MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM, P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date _____/_____/_____ Rec'd Date ____/____/_____

Emergency Date _____/_____/_____ Valid No. _____

☐ OK ☐ Send Def Ltr. Date of Def Ltr. _____/_____/_____

FOLLOW UP _____/_____/_____ Spoke w/ _____

Comments: _____

Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)

Total Project Cost: _____ x 0.01 = _____

Type of Contractor: _____ License No.: _____

Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____

Date of Revision(s): _____

Notification Type: ☐ Original ☐ Revised ☐ Canceled ☐ Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) ***[260 ln. ft./160 sq. ft. or more is threshold]***

☐ Planned Renovation – 10 **working** days notice
☐ Emergency Renovation
☐ Scheduled Demolition – 10 **working** days notice
☐ Intentional Burn – 10 **working** days notice
☐ Ordered Demolition

LARA (MIOSHA) [*Will not accept annual notifications]*

☐ Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 **calendar** days notice
☐ Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation		
+Asb. Removal		
+Demolition:		
Encapsulation:		

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:		
Demolition:		
Encapsulation:		

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
+Include **only** those dates you are conducting asbestos removal/demo.

☐ Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR: Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR: Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____
Location Address/Description: _____
_____ If Apt. # of units: _____
City/Twp. _____ State: _____ Zip Code: _____
County: _____ Nearest Crossroad: _____
Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
Age: _____ Present Use: _____ Prior Use: _____
Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____
Location Address: _____
City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____
Address: _____
City/State/Zip: _____
Phone: _____

WASTE TRANSPORTER 2:

_____
_____
_____
_____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____
Name/Title of Person Signing Order: _____
_____
Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT? ☐ Yes ☐ No ☐ To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that **will not** be removed prior to demolition. (**NOTE:** In a demolition, cementatious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM **not** removed prior to demo. Category I	Non-friable ACM **not** removed prior to demo. Category II	Units of Measure	
				☐ Ln. Ft.	☐ Ln. M.
				☐ Sq. Ft.	☐ Sq. M.
				☐ Cu. Ft.*	☐ Cu.M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

11. PROJECT DESCRIPTION: Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition:**

A) RENOVATION: Mark all surfaces/types of RACM to be removed:
☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tanks(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Mag Block ☐ Other (describe)_____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:
☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tank(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: A) Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor *Date* *Signature of Owner or Demolition Contractor* *Date*

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)

Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. *I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.*

Signature of Building Owner or Lessee *Date* *Signature of Asbestos Abatement Contractor Representative* *Date*

NOTE: **It is not mandatory that a signed copy be sent to LARA unless requested.** For affected projects, this section of the notification form must be completed, signed, and made part of **your** records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator *Date* *Signature of Owner/Operator* *Date*

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8),** mail to address below. For more info visit: http://www.michigan.gov/asbestos

MIOSHA Asbestos Program
LARA, CSHD
P.O. Box 30671
Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, please use the e-submittal process. For more information visit http://www.michigan.gov/air, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
DEQ, AQD
P.O. Box 30260
Lansing, MI 48909-7760

517.284.6777 (Office)

December 28, 2017

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey – Revised February 7, 2018
419 West Sheridan Rd, Lansing, Ingham County, Michigan

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited pre-demolition regulated materials survey (RMS) performed at 419 West Sheridan Rd, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information	
Property Address	419 W Sheridan, Lansing, MI
Parcel #	33-01-01-04-102-281
No. Stories	1
Square Footage (approx.)	1,000 SF
Siding	Asphalt
Basement	No
Garage	Yes

Asbestos Containing Material				
Location	Material Group	Friable/Non Friable	Asbestos	Quantity
RM-3	Tan floor tile	Non friable	5% Chrysotile	40 SF
RM-1, RM-2, RM-3, RM-4	Window glaze	Non friable	5% Chrysotile	9 Windows

Universal Waste Inventory		
Location	Material Description	Quantity
Garage, RM-1	Tire	10

Hazardous Materials		
Location	Material Description	Quantity
RM-1, RM-2, RM-3	1 Gallon paint can	12
RM-2, RM-3	1 Quart paint can	10
RM-2	1 Gallon water repellent	1
RM-2, RM-3	Spray can	5
RM-1, RM-2, RM-3	Gasoline can	5
Garage	5 Gallon oil bucket	2

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

1) Pre-demolition asbestos-containing material (ACM) survey.
2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 6, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time,

and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
  - DOT - Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
  - IMO - International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
  - IATA - International Air Transport Association; Dangerous Goods Regulations;
  - ICAO - International Civil Aviation Organization; Technical Instructions; and
  - AF - Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of

the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log*. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified eight (8) homogenous materials that were suspect as asbestos containing during the ACM survey. Eighteen (18) bulk samples were collected from these suspect homogeneous materials and were submitted to APEX Research, Inc. (APEX) for laboratory analysis of Bulk Materials by Polarized Light

Microscopy using USEPA Method 600/R-93/116. APEX is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found two (2) materials to contain greater than 1% asbestos (samples 4-1 and 6-1). The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory.*

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the eight (8) homogenous materials collected as part of the ACM survey, two (2) materials contained asbestos greater than 1% (samples 4-1 and 6-1) with these two (2) materials (samples 4-1 and 6-1) being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition

activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 734-397-3100.

Sincerely,

Kory McKay
Environmental Scientist
Accreditation Number A47903

Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

FIGURE

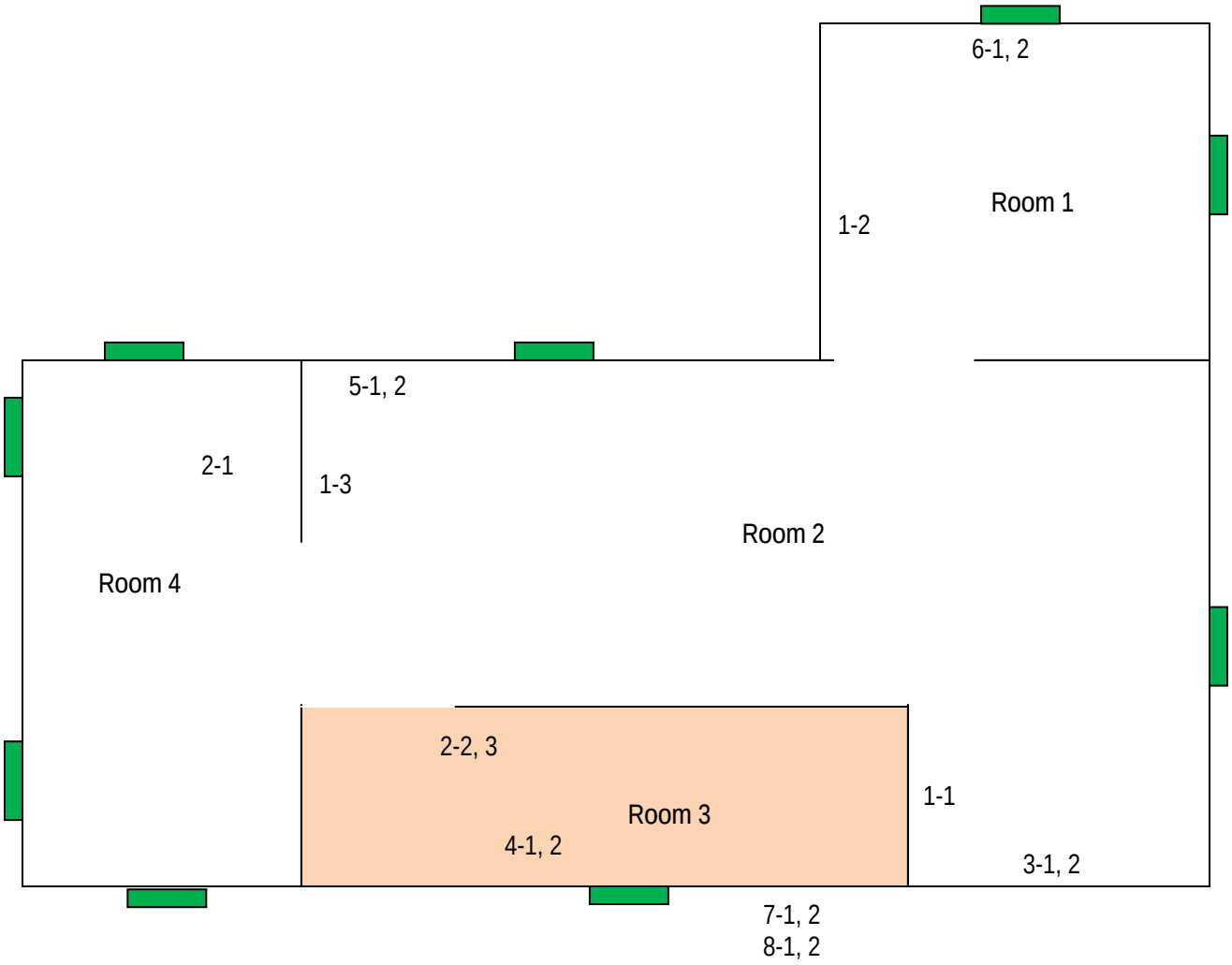
TECHNICAL SKILL.
CREATIVE SPIRIT.

721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

Address: 419 W Sheridan Date: December 11, 2017

Drawing not to scale

1st Floor



Tan Tile (40 SF)

Window Glaze (9 Windows)

#-# = Asbestos Sample

TABLES

TABLE 1
Asbestos Sampling Results

Client	Ingham County Land Bank Authority
Survey Location	419 W Sheridan, Lansing, MI
Survey Date	December 6, 2017

Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-2	1	AS 1-1	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	990 SF
RM-1	1	AS 1-2	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	990 SF
RM-2	1	AS 1-3	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	990 SF
RM-4	1	AS 2-1	HA-2	Ceiling drywall	Non-Friable	Good	Miscellaneous	No	No	500 SF
RM-3	1	AS 2-2	HA-2	Ceiling drywall	Non-Friable	Good	Miscellaneous	No	No	500 SF
RM-3	1	AS 2-3	HA-2	Ceiling drywall	Non-Friable	Good	Miscellaneous	No	No	500 SF
RM-2	1	AS 3-1	HA-3	Red flooring tile	Non-Friable	Good	Miscellaneous	No	No	90 SF
RM-2	1	AS 3-2	HA-3	Red flooring tile	Non-Friable	Good	Miscellaneous	No	No	90 SF
RM-3	1	AS 4-1	HA-4	Tan floor tile	Non-Friable	Good	Miscellaneous	Yes	5% Chrysotile	40 SF
RM-3	1	AS 4-2	HA-4	Tan floor tile	Non-Friable	Good	Miscellaneous	Yes	NA	40 SF
RM-2	1	AS 5-1	HA-5	Cement patch	Non-Friable	Good	Miscellaneous	No	No	No
RM-2	1	AS 5-2	HA-5	Cement patch	Non-Friable	Good	Miscellaneous	No	No	No
RM-2	1	AS 6-1	HA-6	Window glaze	Non-Friable	Good	Miscellaneous	Yes	5% Chrysotile	9 Windows
RM-2	1	AS 6-2	HA-6	Window glaze	Non-Friable	Good	Miscellaneous	Yes	NA	9 Windows
Roof	1	AS 7-1	HA-7	Roof shingles	Non-Friable	Good	Miscellaneous	No	No	No

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		419 W Sheridan, Lansing, MI								
Survey Date		December 6, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
Roof	1	AS 7-2	HA-7	Roof shingles	Non-Friable	Good	Miscellaneous	No	No	No
Exterior	1	AS 8-1	HA-8	Asphalt siding	Non-Friable	Good	Miscellaneous	No	No	No
Exterior	1	AS 8-2	HA-8	Asphalt siding	Non-Friable	Good	Miscellaneous	No	No	No

Table 2
Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory
419 W Sheridan
Lansing, Ingham County, Michigan

Universal Waste Inventory		
Location	Type of Waste	Approximate Quantity
RM-1, Garage	Tire	10
Hazardous Materials Inventory		
Location	Type of Waste	Approximate Quantity
RM-1, RM-2, RM-3	1 Gallon Paint Can	12
RM-2, RM-3	1 Quart Paint Can	10
RM-2	1 Gallon Water Repellent	1
RM-2, RM-3	Spray Paint Can	5
RM-1, RM-2, RM-3	Gas Can	5
Garage	5 Gallon Oil Bucket	2
Other Regulated Materials Inventory		
Location	Type of Waste	Approximate Quantity
-	-	-

ATTACHMENT A

PHOTO LOG

Ingham County Land Bank
419 West Sheridan Rd, Lansing, MI
Photographs taken by: Kory McKay on 12/06/2017

Property Photos

419 West Sheridan Rd, Front of House

Back of House

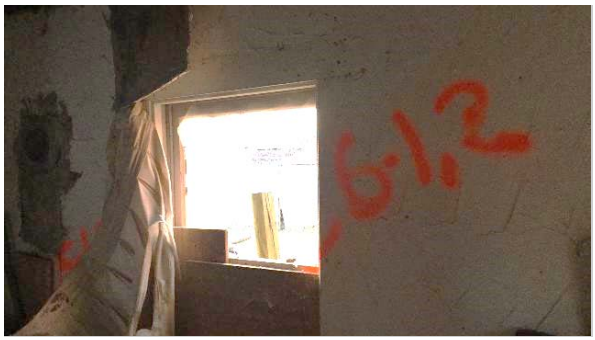
Side of House

Side of House

Ingham County Land Bank
419 West Sheridan Rd, Lansing, MI
Photographs taken by: Kory McKay on 12/06/2017

Sample Photos

Drywall sample from room 2



Window glaze sample from room 1

Red tile flooring sample from room 2

Asphalt siding sample from exterior

Tan tile flooring sample from room 3

ATTACHMENT B

LIMITATIONS

REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

65 Cadillac Square, Suite 3311, Detroit, Michigan 48226 Tel: 313.961.9500 Fax: 313.961.9509 www.MannikSmithGroup.com

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.

ATTACHMENT C

ANALYTICAL REPORTS AND CHAINS OF CUSTODY

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 419 W. Sheridan Rd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73614
Date Collected: 12/06/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73614 - 01 Cust. #: AS1-1 Material: Drywall Location: Room 2 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73614 - 02 Cust. #: AS1-2 Material: Texture Location: Room 1 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73614 - 02a Cust. #: AS1-2 Material: Drywall Location: Room 1 Appearance: beige,fibrous,nonhomogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 419 W. Sheridan Rd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73614
Date Collected: 12/06/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73614 - 03 Cust. #: AS1-3 Material: Drywall Location: Room 2 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73614 - 04 Cust. #: AS2-1 Material: Ceiling Drywall Location: Room 4 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73614 - 04a Cust. #: AS2-1 Material: Joint Compound/Tape Location: Room 4 Appearance: white,fibrous,nonhomogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 15% Other - 85%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 419 W. Sheridan Rd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73614
Date Collected: 12/06/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73614 - 05 Cust. #: AS2-2 Material: Ceiling Drywall Location: Room 3 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73614 - 05a Cust. #: AS2-2 Material: Joint Compound/Tape Location: Room 3 Appearance: white,fibrous,nonhomogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 73614 - 06 Cust. #: AS2-3 Material: Ceiling Drywall/Joint Compound Location: Room 3 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 419 W. Sheridan Rd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73614
Date Collected: 12/06/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73614 - 07 Cust. #: AS3-1 Material: Red Flooring Tile Location: Room 2 Appearance: red,fibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Synthetic - 2% Other - 98%
Lab ID #: 73614 - 07a Cust. #: AS3-1 Material: Glue Location: Room 2 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73614 - 08 Cust. #: AS3-2 Material: Red Flooring Tile Location: Room 2 Appearance: red,fibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Synthetic - 2% Other - 98%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 419 W. Sheridan Rd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73614
Date Collected: 12/06/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73614 - 08a Cust. #: AS3-2 Material: Glue Location: Room 2 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73614 - 09 Cust. #: AS4-1 Material: Tan Floor Tile Location: Room 3 Appearance: beige,fibrous,homogenous Layer: 1 of 2	Asbestos Present: **YES** Chrysotile - 5%	Other - 95%
Lab ID #: 73614 - 09a Cust. #: AS4-1 Material: Glue Location: Room 3 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 419 W. Sheridan Rd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73614
Date Collected: 12/06/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73614 - 10 Cust. #: AS4-2 Material: Tan Floor Tile Location: Room 3 Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	
Lab ID #: 73614 - 10a Cust. #: AS4-2 Material: Glue Location: Room 3 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73614 - 11 Cust. #: AS5-1 Material: Cement Patch Location: Room 2 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 419 W. Sheridan Rd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73614
Date Collected: 12/06/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73614 - 12 Cust. #: AS5-2 Material: Cement Patch Location: Room 2 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73614 - 13 Cust. #: AS6-1 Material: Window Glaze Location: Room 2 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **YES** Chrysotile - 5%	Other - 95%
Lab ID #: 73614 - 14 Cust. #: AS6-2 Material: Window Glaze Location: Room 2 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 419 W. Sheridan Rd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73614
Date Collected: 12/06/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73614 - 15 Cust. #: AS7-1 Material: Roof Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73614 - 16 Cust. #: AS7-2 Material: Roof Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73614 - 17 Cust. #: AS8-1 Material: Texture Location: Exterior Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 419 W. Sheridan Rd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73614
Date Collected: 12/06/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73614 - 17a Cust. #: AS8-1 Material: Asphalt Siding Location: Exterior Appearance: black,fibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73614 - 18 Cust. #: AS8-2 Material: Texture Location: Exterior Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73614 - 18a Cust. #: AS8-2 Material: Asphalt Siding Location: Exterior Appearance: black,fibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Apex # **73614**

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Customer Name:	**MANNIK & SMITH GROUP**	Date of Survey:	12/6/2017 5:00
Address:	2193 Association Drive, Suite 200	Project:	419 W SHERIDAN RD
City, St., Zip:	Okemos, MI, 48864	Project #	I1440002
Phone:	(517) 316-9232 Fax: (517) 316-9233	Contact Person:	Charlie Bush
		Email:	cbush@manniksmithgroup.com

Lab Use Only
Log-In:
Report:
Fax:
Verbal:
Email:

Turn Around Time: (*circle one*)***Terms and conditions on the other side.

Rush
48 Hour
Other: _____
Samples received after 3pm logged in next morning

24 Hour
(72 Hour)
TTP (yes / no)
(Test Till Positive)

Circle analyses required, indicate type and quantity

(Asbstos:) Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Air ____ Paint ____ Wipe (ASTM) ____ Bulk ____
Mold: Bulk ____ Air ____ BioSIS ____ Tape ____
TEM: Bulk ____ NIOSH ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
1	AS 1-1	RM-2 - Drywall	Bag	HA-1	
2	AS 1-2	RM-1 - Drywall	Bag	HA-1	
3	AS 1-3	RM-2 - Drywall	Bag	HA-1	
4	AS 2-1	RM-4 - Ceiling drywall	Bag	HA-2	
5	AS 2-2	RM-3 - Ceiling drywall	Bag	HA-2	
6	AS 2-3	RM-3 - Ceiling drywall	Bag	HA-2	
7	AS 3-1	RM-2 - Red flooring tile	Bag	HA-3	
8	AS 3-2	RM-2 - Red flooring tile	Bag	HA-3	
9	AS 4-1	RM-3 - Tan floor tile	Bag	HA-4	
10	AS 4-2	RM-3 - Tan floor tile	Bag	HA-4	
11	AS 5-1	RM-2 - Cement patch	Bag	HA-5	
12	AS 5-2	RM-2 - Cement patch	Bag	HA-5	

Relinquished By: _____ Received By: _____ Relinquished By: _____ Received By: _____

Date: 12/7/2017 Time/Date: 12/7/17 Date: _____ Time/Date: DEC 08 2017

RECEIVED

Revision R4 Date: May/2017

APEX RESEARCH

73614

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Lab Use Only
Log-In:
Report:
Fax:
Verbal:
Email:

Customer Name: **MANNIK & SMITH GROUP**
Address: 2193 Association Drive, Suite 200
City, St., Zip: Okemos, MI, 48864
Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/6/2017 5:00
Project: 419 W SHERIDAN RD
Project # I1440002
Contact Person: Charlie Bush
Email: cbush@manniksmithgroup.com

Turn Around Time: (*circle one*)***Terms and conditions on the other side.

Rush
48 Hour
Other: _____
Samples received after 3pm logged in next morning

24 Hour
72 Hour
TTP yes / no
(Test Till Positive)

Circle analyses required, indicate type and quantity

Asbstos: Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Air ____ Paint ____ Wipe (ASTM) ____ Bulk ____
Mold: Bulk ____ Air ____ BioSIS ____ Tape ____
TEM: Bulk ____ NIOSH ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
13	AS 6-1	RM-2 - Window glaze	Bag	HA-6	
14	AS 6-2	RM-2 - Window glaze	Bag	HA-6	
15	AS 7-1	Roof - Roof shingles	Bag	HA-7	
16	AS 7-2	Roof - Roof shingles	Bag	HA-7	
17	AS 8-1	Exterior - Asphalt siding	Bag	HA-8	
18	AS 8-2	Exterior - Asphalt siding	Bag	HA-8	

Relinquished By: _____ Received By: _____ Relinquished By: _____ Received By: _____

Date: 12/7/2017 Time/Date: 12/7/17 Date: _____ Time/Date: _____

RECEIVED
DEC 08 2017
APEX RESEARCH

Revision R4 Date: May/2017

ATTACHMENT D

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M

MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM, P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date _____/_____/_____ Rec'd Date ____/____/_____

Emergency Date _____/_____/_____ Valid No. _____

☐ OK ☐ Send Def Ltr. Date of Def Ltr. _____/_____/_____

FOLLOW UP _____/_____/_____ Spoke w/ _____

Comments: _____

Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)

Total Project Cost: _____ x 0.01 = _____

Type of Contractor: _____ License No.: _____

Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____

Date of Revision(s): _____

Notification Type: ☐ Original ☐ Revised ☐ Canceled ☐ Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) ***[260 ln. ft./160 sq. ft. or more is threshold]***

☐ Planned Renovation – 10 **working** days notice
☐ Emergency Renovation
☐ Scheduled Demolition – 10 **working** days notice
☐ Intentional Burn – 10 **working** days notice
☐ Ordered Demolition

LARA (MIOSHA) [*Will not accept annual notifications]*

☐ Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 **calendar** days notice
☐ Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation		
+Asb. Removal		
+Demolition:		
Encapsulation:		

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:		
Demolition:		
Encapsulation:		

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
+Include **only** those dates you are conducting asbestos removal/demo.

☐ Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR: Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR: Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____
Location Address/Description: _____
_____ If Apt. # of units: _____
City/Twp. _____ State: _____ Zip Code: _____
County: _____ Nearest Crossroad: _____
Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
Age: _____ Present Use: _____ Prior Use: _____
Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____
Location Address: _____
City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____
Address: _____
City/State/Zip: _____
Phone: _____

WASTE TRANSPORTER 2:

_____
_____
_____
_____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____
Name/Title of Person Signing Order: _____
_____
Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT? ☐ Yes ☐ No ☐ To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that **will not** be removed prior to demolition. (**NOTE:** In a demolition, cementatious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM **not** removed prior to demo. Category I	Non-friable ACM **not** removed prior to demo. Category II	Units of Measure	
				☐ Ln. Ft.	☐ Ln. M.
				☐ Sq. Ft.	☐ Sq. M.
				☐ Cu. Ft.*	☐ Cu.M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

11. PROJECT DESCRIPTION: Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition:**

A) RENOVATION: Mark all surfaces/types of RACM to be removed:
☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tanks(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Mag Block ☐ Other (describe)_____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:
☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tank(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: A) Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor *Date* *Signature of Owner or Demolition Contractor* *Date*

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)

Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. *I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.*

Signature of Building Owner or Lessee *Date* *Signature of Asbestos Abatement Contractor Representative* *Date*

NOTE: **It is not mandatory that a signed copy be sent to LARA unless requested.** For affected projects, this section of the notification form must be completed, signed, and made part of **your** records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator *Date* *Signature of Owner/Operator* *Date*

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8),** mail to address below. For more info visit: http://www.michigan.gov/asbestos

MIOSHA Asbestos Program
LARA, CSHD
P.O. Box 30671
Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, please use the e-submittal process. For more information visit http://www.michigan.gov/air, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
DEQ, AQD
P.O. Box 30260
Lansing, MI 48909-7760

517.284.6777 (Office)

December 28, 2017

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey
422 West Fairfield Ave, Lansing, Ingham County, Michigan

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited pre-demolition regulated materials survey (RMS) performed at 422 West Fairfield Ave, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information	
Property Address	422 W Fairfield, Lansing, MI
Parcel #	33-01-01-04-105-071
No. Stories	1
Square Footage (approx.)	1,020 SF
Siding	Metal
Basement	Yes
Garage	No

Asbestos Containing Material				
Location	Material Group	Friable/Non Friable	Asbestos	Quantity
Basement	Pipe wrap	Friable	50% Chrysotile	2 SF

Universal Waste Inventory		
Location	Material Description	Quantity
RM-2, RM-3, RM-4	Large speaker	4
Basement	Bike tire	2

Hazardous Materials		
Location	Material Description	Quantity
RM-3, RM-4, RM-6	Spray can	6
Basement	5 Gallon paint can	1

Other Regulated Materials Inventory		
RM-1	Window air-conditioning unit	1

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

1) Pre-demolition asbestos-containing material (ACM) survey.
2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 6, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
  - DOT - Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
  - IMO - International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
  - IATA - International Air Transport Association; Dangerous Goods Regulations;
  - ICAO - International Civil Aviation Organization; Technical Instructions; and
  - AF - Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-

acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log*. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified eleven (11) homogenous materials that were suspect as asbestos containing during the ACM survey. Twenty-four (24) bulk samples were collected from these suspect homogeneous materials and were submitted to APEX Research, Inc. (APEX) for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. APEX is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found one (1) material to contain greater than 1% asbestos (sample 10-1). The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. No Samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory.*

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the eleven (11) homogenous materials collected as part of the ACM survey, one (1) material contained asbestos greater than 1% (sample 10-1) with this one (1) material (sample 10-1) being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 734-397-3100.

Sincerely,

Kory McKay
Environmental Scientist
Accreditation Number A47903

Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

FIGURE

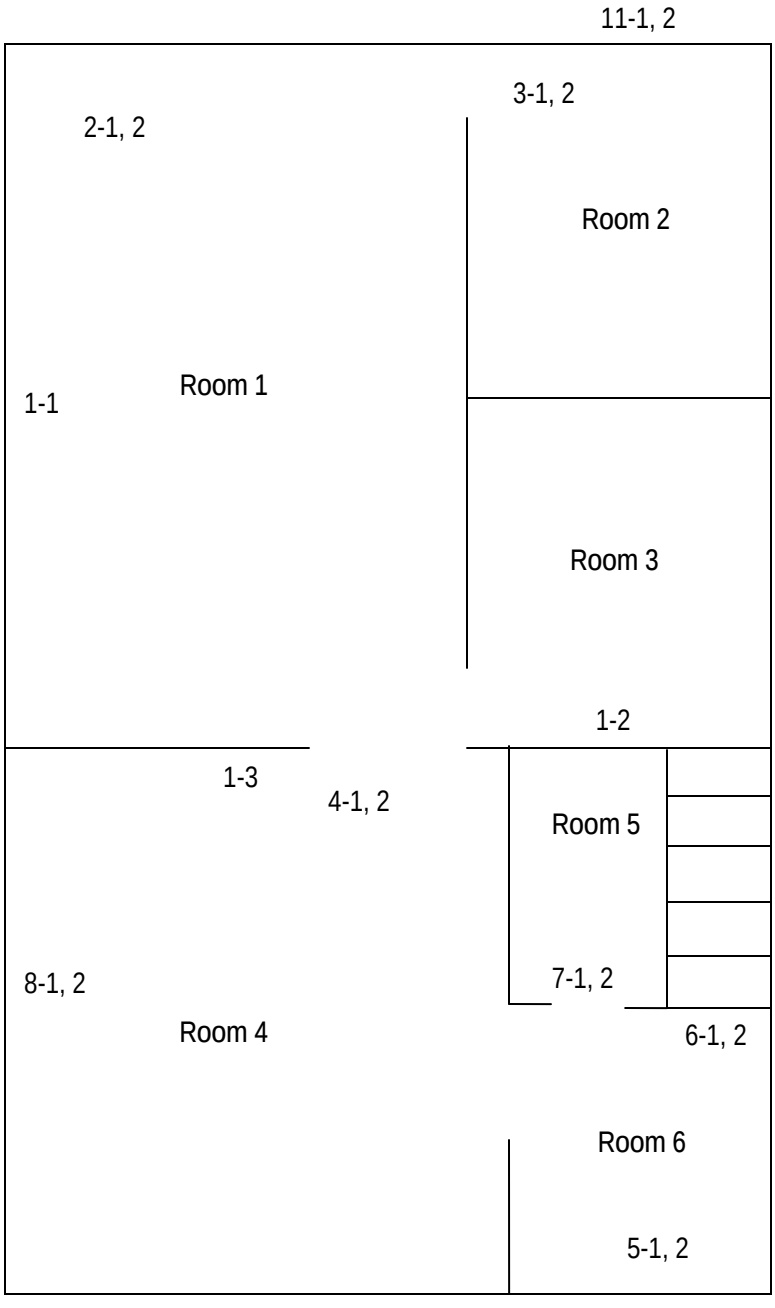
TECHNICAL SKILL.
CREATIVE SPIRIT.

721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

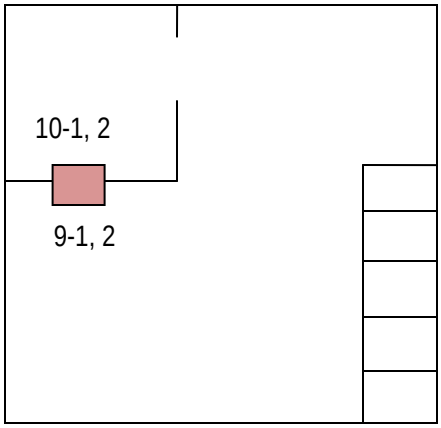
Address: 422 W Fairfield Ave Date: December 11, 2017

Drawing not to scale

1st Floor



Basement



Pipe Wrap (2 SF)

#-# = Asbestos Sample

TABLES

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		422 W. Fairfield Ave.								
Survey Date		December 6, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-1	1	AS 1-1	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	2400 SF
RM-3	1	AS 1-2	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	2400 SF
RM-4	1	AS 1-3	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	2400 SF
RM-1	1	AS 2-1	HA-2	Red tile	Non-Friable	Good	Miscellaneous	No	No	25 SF
RM-1	1	AS 2-2	HA-2	Red tile	Non-Friable	Good	Miscellaneous	No	No	25 SF
RM-2	1	AS 3-1	HA-3	Faux wood 12x12	Non-Friable	Good	Miscellaneous	No	No	288 SF
RM-2	1	AS 3-2	HA-3	Faux wood 12x12	Non-Friable	Good	Miscellaneous	No	No	288 SF
RM-4	1	AS 4-1	HA-4	White tile 12x12	Non-Friable	Good	Miscellaneous	No	No	270 SF
RM-4	1	AS 4-2	HA-4	White tile 12x12	Non-Friable	Good	Miscellaneous	No	No	270 SF
RM-6	1	AS 5-1	HA-5	Tan linoleum	Non-Friable	Good	Miscellaneous	No	No	54 SF
RM-6	1	AS 5-2	HA-5	Tan linoleum	Non-Friable	Good	Miscellaneous	No	No	54 SF
RM-6	1	AS 6-1	HA-6	Checker faux wood	Non-Friable	Good	Miscellaneous	No	No	54 SF
RM-6	1	AS 6-2	HA-6	Checker faux wood	Non-Friable	Good	Miscellaneous	No	No	54 SF
RM-5	1	AS 7-1	HA-7	Faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	72 SF
RM-5	1	AS 7-2	HA-7	Faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	72 SF

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		422 W. Fairfield Ave.								
Survey Date		December 6, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-4	1	AS 8-1	HA-8	Window glaze	Non-Friable	Good	Miscellaneous	No	No	8 SF
RM-4	1	AS 8-2	HA-8	Window glaze	Non-Friable	Good	Miscellaneous	No	No	8 SF
Basement	B	AS 9-1	HA-9	Cement patch	Non-Friable	Good	Miscellaneous	No	No	20 SF
Basement	B	AS 9-2	HA-9	Cement patch	Non-Friable	Good	Miscellaneous	No	No	20 SF
Basement	B	AS 10-1	HA-10	Pipe wrap	Friable	Good	Miscellaneous	Yes	50% Chrysotile	2 SF
Basement	B	AS 10-2	HA-10	Pipe wrap	Friable	Good	Miscellaneous	Yes	NA	2 SF
Basement	B	AS 10-3	HA-10	Pipe wrap	Friable	Good	Miscellaneous	Yes	NA	2 SF
Roof	E	AS 11-1	HA-11	Shingles	Non-Friable	Good	Miscellaneous	No	No	500 SF
Roof	E	AS 11-2	HA-11	Shingles	Non-Friable	Good	Miscellaneous	No	No	500 SF

Table 2
Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory
422 W. Fairfield Ave.
Lansing, Ingham County, Michigan

Universal Waste Inventory		
Location	Type of Waste	Approximate Quantity
RM-2, RM-3, RM-4	Large Speaker	4
Basement	Bike Tire	2
Hazardous Materials Inventory		
Location	Type of Waste	Approximate Quantity
RM-3, RM-4, RM-6	Spray Paint Can	6
Basrment	5 Gallon Paint Can	1
Other Regulated Materials Inventory		
Location	Type of Waste	Approximate Quantity
RM-1	Window Air-Conditioning Unit	1

ATTACHMENT A

PHOTO LOG

Ingham County Land Bank
422 West Fairfield Ave, Lansing, MI
Photographs taken by: Kory McKay on 12/06/2017

Property Photos

422 West Fairfield Ave, Front of House

Back of House

Side of House

Side of House

Ingham County Land Bank
422 West Fairfield Ave, Lansing, MI
Photographs taken by: Kory McKay on 12/06/2017

Sample Photos

Drywall sample from room 3

Red tile sample from room 1

White 12x12 tile sample from room 4

Checker faux wood flooring sample from room 6

Window glaze sample from room 4

Pipe wrap sample from basement

ATTACHMENT B

LIMITATIONS

REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

65 Cadillac Square, Suite 3311, Detroit, Michigan 48226 Tel: 313.961.9500 Fax: 313.961.9509 www.MannikSmithGroup.com

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.

ATTACHMENT C

ANALYTICAL REPORTS AND CHAINS OF CUSTODY

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 422 W. Fairfield Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73615
Date Collected: 12/06/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73615 - 01 Cust. #: AS1-1 Material: Drywall Location: Room 1 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73615 - 02 Cust. #: AS1-2 Material: Joint Compound Location: Room 3 Appearance: white,nonfibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73615 - 02a Cust. #: AS1-2 Material: Drywall Location: Room 3 Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 422 W. Fairfield Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73615
Date Collected: 12/06/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73615 - 03 Cust. #: AS1-3 Material: Drywall Location: Room 4 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73615 - 04 Cust. #: AS2-1 Material: Red Tile Location: Room 1 Appearance: pink,nonfibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73615 - 05 Cust. #: AS2-2 Material: Red Tile Location: Room 1 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 422 W. Fairfield Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73615
Date Collected: 12/06/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73615 - 06 Cust. #: AS3-1 Material: Faux Wood 12x12 Location: Room 2 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73615 - 07 Cust. #: AS3-2 Material: Faux Wood 12x12 Location: Room 2 Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73615 - 08 Cust. #: AS4-1 Material: White Tile 12x12 Location: Room 4 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 422 W. Fairfield Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73615
Date Collected: 12/06/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73615 - 09 Cust. #: AS4-2 Material: White Tile 12x12 Location: Room 4 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73615 - 10 Cust. #: AS5-1 Material: Tan Linoleum Location: Room 6 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 73615 - 11 Cust. #: AS5-2 Material: Tan Linoleum Location: Room 6 Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 60% Other - 40%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 422 W. Fairfield Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73615
Date Collected: 12/06/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73615 - 12 Cust. #: AS6-1 Material: Checker Faux Wood Location: Room 6 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73615 - 13 Cust. #: AS6-2 Material: Checker Faux Wood Location: Room 6 Appearance: grey,nonfibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73615 - 14 Cust. #: AS7-1 Material: Faux Wood Linoleum Location: Room 5 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 422 W. Fairfield Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73615
Date Collected: 12/06/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73615 - 15 Cust. #: AS7-2 Material: Faux Wood Linoleum Location: Room 5 Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 73615 - 16 Cust. #: AS8-1 Material: Window Glaze Location: Room 4 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73615 - 17 Cust. #: AS8-2 Material: Window Glaze Location: Room 4 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 422 W. Fairfield Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73615
Date Collected: 12/06/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73615 - 18 Cust. #: AS9-1 Material: Cement Patch Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73615 - 19 Cust. #: AS9-2 Material: Cement Patch Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73615 - 20 Cust. #: AS10-1 Material: Pipe Wrap Location: Basement Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **YES** Chrysotile - 50%	Other - 50%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 422 W. Fairfield Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73615
Date Collected: 12/06/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73615 - 21 Cust. #: AS10-2 Material: Pipe Wrap Location: Basement Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73615 - 22 Cust. #: AS10-3 Material: Pipe Wrap Location: Basement Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73615 - 23 Cust. #: AS11-1 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Fiberglass - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 422 W. Fairfield Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73615
Date Collected: 12/06/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73615 - 24 Cust. #: AS11-2 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Apex # **73615**

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Lab Use Only
Log-In:
Report:
Fax:
Verbal:
Email:

Customer Name: **MANNIK & SMITH GROUP**
Address: 2193 Association Drive, Suite 200
City, St., Zip: Okemos, MI, 48864
Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/6/2017 5:00
Project: 422 W FAIRFIELD AVE
Project # I1440002
Contact Person: Charlie Bush
Email: cbush@manniksmithgroup.com

Turn Around Time: (*circle one*) ***Terms and conditions on the other side.

Rush
48 Hour
Other: _____
Samples received after 3pm logged in next morning

24 Hour
(72 Hour)
TTP (yes / no)
(Test Till Positive)

Circle analyses required, indicate type and quantity

(Asbstos:) Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Air ____ Paint ____ Wipe (ASTM) ____ Bulk ____
Mold: Bulk ____ Air ____ BioSIS ____ Tape ____
TEM: Bulk ____ NIOSH ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
1	AS 1-1	RM-1 - Drywall	Bag	HA-1	
2	AS 1-2	RM-3 - Drywall	Bag	HA-1	
3	AS 1-3	RM-4 - Drywall	Bag	HA-1	
4	AS 2-1	RM-1 - Red tile	Bag	HA-2	
5	AS 2-2	RM-1 - Red tile	Bag	HA-2	
6	AS 3-1	RM-2 - Faux wood 12x12	Bag	HA-3	
7	AS 3-2	RM-2 - Faux wood 12x12	Bag	HA-3	
8	AS 4-1	RM-4 - White tile 12x12	Bag	HA-4	
9	AS 4-2	RM-4 - White tile 12x12	Bag	HA-4	
10	AS 5-1	RM-6 - Tan linoleum	Bag	HA-5	
11	AS 5-2	RM-6 - Tan linoleum	Bag	HA-5	
12	AS 6-1	RM-6 - Checker faux wood	Bag	HA-6	

Relinquished By: _____ Received By: _____ Relinquished By: _____ Received By: _____
Date: 12/7/2017 Time/Date: 12/7/17 Date: _____ Time/Date: _____

RECEIVED
DEC 08 2017
APEX RESEARCH

Revision R4 Date: May/2017

73615

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Lab Use Only
Log-In:
Report:
Fax:
Verbal:
Email:

Customer Name: **MANNIK & SMITH GROUP**
Address: 2193 Association Drive, Suite 200
City, St., Zip: Okemos, MI, 48864
Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/6/2017 5:00
Project: 422 W FAIRFIELD AVE
Project # I1440002
Contact Person: Charlie Bush
Email: cbush@manniksmithgroup.com

Turn Around Time: (*circle one*) ***Terms and conditions on the other side.

Rush
24 Hour
48 Hour
(72 Hour)
Other: _____
TTP (yes) / no
(Test Till Positive)

Samples received after 3pm logged in next morning

Circle analyses required, indicate type and quantity

(Asbstos:) Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Air ____ Paint ____ Wipe (ASTM) ____ Bulk ____
Mold: Bulk ____ Air ____ BioSIS ____ Tape ____
TEM: Bulk ____ NIOSH ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
13	AS 6-2	RM-6 - Checker faux wood	Bag	HA-6	
14	AS 7-1	RM-5 - Faux wood Linoleum	Bag	HA-7	
15	AS 7-2	RM-5 - Faux wood Linoleum	Bag	HA-7	
16	AS 8-1	RM-4 - Window glaze	Bag	HA-8	
17	AS 8-2	RM-4 - Window glaze	Bag	HA-8	
18	AS 9-1	Basement - Cement patch	Bag	HA-9	
19	AS 9-2	Basement - Cement patch	Bag	HA-9	
20	AS 10-1	Basement - Pipe wrap	Bag	HA-10	
21	AS 10-2	Basement - Pipe wrap	Bag	HA-10	
22	AS 10-3	Basement - Pipe wrap	Bag	HA-10	
23	AS 11-1	Roof - Shingles	Bag	HA-11	
24	AS 11-2	Roof - Shingles	Bag	HA-11	

Relinquished By: _____ Received By: _____ Relinquished By: _____ Received By: _____

Date: 12/7/2017 Time/Date: 12/7/17 Date: _____ Time/Date: _____

RECEIVED
DEC 0 8 2017
APEX RESEARCH

Revision R4 Date: May/2017

ATTACHMENT D

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M

MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM, P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date _____/_____/_____ Rec'd Date ____/____/_____

Emergency Date _____/_____/_____ Valid No. _____

☐ OK ☐ Send Def Ltr. Date of Def Ltr. _____/_____/_____

FOLLOW UP _____/_____/_____ Spoke w/ _____

Comments: _____

Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)

Total Project Cost: _____ x 0.01 = _____

Type of Contractor: _____ License No.: _____

Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____

Date of Revision(s): _____

Notification Type: ☐ Original ☐ Revised ☐ Canceled ☐ Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) ***[260 ln. ft./160 sq. ft. or more is threshold]***

☐ Planned Renovation – 10 **working** days notice
☐ Emergency Renovation
☐ Scheduled Demolition – 10 **working** days notice
☐ Intentional Burn – 10 **working** days notice
☐ Ordered Demolition

LARA (MIOSHA) [*Will not accept annual notifications]*

☐ Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 **calendar** days notice
☐ Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation		
+Asb. Removal		
+Demolition:		
Encapsulation:		

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:		
Demolition:		
Encapsulation:		

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
+Include **only** those dates you are conducting asbestos removal/demo.

☐ Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR: Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR: Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____
Location Address/Description: _____
_____ If Apt. # of units: _____
City/Twp. _____ State: _____ Zip Code: _____
County: _____ Nearest Crossroad: _____
Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
Age: _____ Present Use: _____ Prior Use: _____
Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____
Location Address: _____
City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____
Address: _____
City/State/Zip: _____
Phone: _____

WASTE TRANSPORTER 2:

_____
_____
_____
_____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____
Name/Title of Person Signing Order: _____
_____
Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT? ☐ Yes ☐ No ☐ To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that **will not** be removed prior to demolition. (**NOTE:** In a demolition, cementatious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM **not** removed prior to demo. Category I	Non-friable ACM **not** removed prior to demo. Category II	Units of Measure	
				☐ Ln. Ft.	☐ Ln. M.
				☐ Sq. Ft.	☐ Sq. M.
				☐ Cu. Ft.*	☐ Cu.M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

11. PROJECT DESCRIPTION: Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition:**

A) RENOVATION: Mark all surfaces/types of RACM to be removed:
☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tanks(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Mag Block ☐ Other (describe)_____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:
☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tank(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: A) Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor *Date* *Signature of Owner or Demolition Contractor* *Date*

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)

Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. *I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.*

Signature of Building Owner or Lessee *Date* *Signature of Asbestos Abatement Contractor Representative* *Date*

NOTE: **It is not mandatory that a signed copy be sent to LARA unless requested.** For affected projects, this section of the notification form must be completed, signed, and made part of **your** records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator *Date* *Signature of Owner/Operator* *Date*

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8),** mail to address below. For more info visit: http://www.michigan.gov/asbestos

MIOSHA Asbestos Program
LARA, CSHD
P.O. Box 30671
Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, please use the e-submittal process. For more information visit http://www.michigan.gov/air, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
DEQ, AQD
P.O. Box 30260
Lansing, MI 48909-7760

517.284.6777 (Office)

December 5, 2017

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: 2915 Turner St., Lansing – Property Accessibility Determination

Dear Ms. Case,

The Mannik & Smith Group, Inc. (MSG) has conducted an evaluation as to the accessibility of the above referenced property structure prior to demolition for the purpose of conducting a Hazardous Material Survey HMS [aka Regulated Material Survey (RMS)], including an asbestos survey.

Based on a site visit conducted on December 4, 2017, MSG has determined that the structure is damaged and unsafe to enter for the purpose of conducting an HMS. Please find the attached photographic logs summarizing photographs of the site structure taken during the site visit on December 4, 2017 documenting the unsafe nature of the site structure. It is MSG's professional opinion that due to the damaged and unsafe condition of the site structure, the structure is inaccessible and an HMS is not required prior to demolition so long as the appropriate National Emission Standards for Hazardous Air Pollutants (NESHAPs) and Michigan Occupational Safety and Health Administration (MIOSHA) regulations and other pertinent local, state and federal regulations are followed. MSG recommends that the Ingham County Land Bank (ICLB) declare that the structure is inaccessible due to its damaged and unsafe condition (if not already done so) so that demolition of the structure can be completed without further delay. The ICLB and its demolition contractor should be aware however of the following associated with the demolition:

- The entire structure will need to be considered asbestos-containing during demolition and appropriate procedures must be followed (i.e. materials must be kept adequately wet at all times, personnel must have appropriate training, etc.);
- Potential for higher disposal costs associated with asbestos contaminated debris;
- Potential for recycling of materials reduced.

Should you have any questions or require additional information, please do not hesitate to contact us at (517) 316-9232.

Sincerely,

Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

2915 Turner St
Lansing, Ingham County, Michigan
Photographs taken by Charlie Bush on December 4, 2017

Front of house facing west

North side of house

South side of house.

Back side of house

Inside of house through east window.

CITY OF LANSING

Department of Planning and Neighborhood Development
316 N. Capitol Ave., Suite C-1 – Lansing, MI 48933-1238
(517) 483-4355 – Fax (517) 377-0169
Bob Johnson, **Director**
www.LansingMI.Gov

Mayor Virg Bernero

Office of Building Safety

Unsafe Structures Notice

November 02, 2017

Ingham County Land Bank
Fast Track Authority
3024 Turner Street
Lansing, Michigan 48906

Regarding: 2915 Turner Street
Parcel: #33-01-01-04-155-231

Dear ICLB,

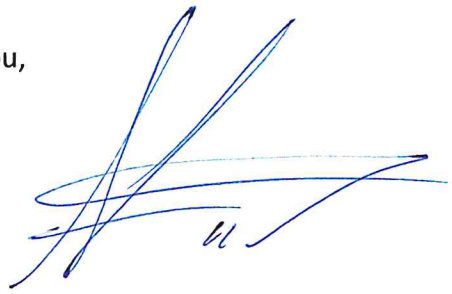
This letter is in regard to the unsafe structure and unsafe site conditions at the aforementioned address. After a review of the site and structure this office has declared this site, structure and Use (R-3), unsafe to occupy in any part and is in structural failure. Therefore the site shall be properly secured to prevent anyone from entry and the structure shall be made safe or removed as stated herein. It is imperative and time is of the essence that steps be taken to address these issues. To ensure the health, safety and welfare for neighbors and the public, the City of Lansing and the State of Michigan requires that the building and site be protected, repaired and/or removed immediately.

This letter shall serves as notice that the property shall be made safe as set forth by the STILLE-DEROSSETT-HALE- SINGLE STATE CONSTRUCTION CODE ACT, Act 230 of 1972 known as the Michigan Building Code 2012-15 with amendments, in particular section 116.1 of the Michigan Building Code 2015; "Structures or existing equipment that are or hereafter become unsafe, insanitary or deficient because of inadequate means of egress facilitates, inadequate light and ventilation, or which constitutes a fire hazard, or are otherwise dangerous to human life or the public welfare, or that involve illegal or improper occupancy or inadequate maintenance, shall be deemed unsafe an unsafe condition. Unsafe structures shall be taken down and removed or made safe, as the Building Official deems necessary and as provided for in this section. A vacant structure that is not secured against entry shall be deemed unsafe."

It is our understanding that measures need to be implemented to abate the structural hazards. This office approves the implementation of any and all measures to abate said hazards as set forth by the code.

Should you have any questions please feel free to contact me at (517) 483-4365 or at Steve.Swan@lansingmi.gov or visit our City web site at cityoflansing.com

Thank you,



Steven M. Swan, C.B.O.
Chief Building Inspector
City of Lansing, Michigan

March 2, 2018

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: Limited Pre-Demolition Regulated Materials Survey
2915 Turner Street, Lansing, Ingham County, Michigan

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited pre-demolition regulated materials survey (RMS) performed at 2915 Turner Street, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Charlie Bush (Accreditation Number A34293)

SUMMARY

Building Information	
Property Address	2915 Turner St., Lansing, MI
Parcel #	33-01-01-04-155-231
No. Stories	2
Square Footage (approx.)	1,140 SF
Siding	Wood
Basement	Yes
Garage	No

Asbestos Containing Material				
Location	Material Group	Friable/Non Friable	Asbestos	Quantity
Samples collected on the exterior of the building contained no asbestos				

PURPOSE AND SCOPE OF WORK

The property has been identified as unsafe to enter and as a result a complete RMS cannot be conducted on the property. The purpose of this limited RMS was to identify, quantify and document the location of regulated materials that could safely be inspected and that may be encountered during demolition of the on-site structure. This limited the inspection to the properties building exterior. To accomplish this purpose, MSG performed the following scope of work:

1) Limited pre-demolition asbestos-containing material (ACM) survey on the safe and accessible areas of the Site building.

METHODOLOGIES

The partial RMS on the exterior of the building was conducted on February 22, 2018. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM located on the exterior of the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of the safe and accessible parts of the Site building, primarily the exterior and roof. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Charlie Bush (Accreditation Number A34293). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM where safely accessible in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG was unable to gain access to the interior of the building to conduct this portion of the survey due to unsafe conditions

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log*. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG was able to safely collect samples from two (2) homogenous materials from the exterior of the building that were suspect as asbestos containing during the ACM survey. One (1) bulk sample was collected from each suspect homogeneous material and submitted to APEX Research, Inc. (APEX) for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. APEX is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found no material to contain greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. No samples were point counted.

See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

A universal waste, hazardous material, and/or other regulated material waste survey was not completed as part of this RMS report due to MSG's inability to safely enter the Site building.

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the two (2) homogenous materials collected as part of the ACM survey, no material contained asbestos greater than 1%.

MSG recommends that the Ingham County Land Bank (ICLB) declare that the structure is inaccessible due to its damaged and unsafe condition (if not already done so) so that demolition of the structure can be completed without further delay. The ICLB and its demolition contractor should be aware however of the following associated with the demolition:

- The entire structure will need to be considered asbestos-containing during demolition and appropriate procedures must be followed (i.e. materials must be kept adequately wet at all times, personnel must have appropriate training, etc.);
- Potential for higher disposal costs associated with asbestos contaminated debris;
- Potential for recycling of materials reduced.

If you have any questions or concerns regarding the above information please contact us at 734-397-3100.

Sincerely,

Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

TABLES

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		2915 Turner St								
Survey Date		February 22, 2018								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
Roof	1	AS1-1	HA-1	Roof Shingle	Non-Friable	Good	Miscellaneous	No	No	1,300 SF
Exterior	1	AS2-1	HA-2	Exterior Siding Tar Paper	Non-Friable	Good	Miscellaneous	No	No	2,100 SF

ATTACHMENT A

PHOTO LOG

Ingham County Land Bank
2915 Turner St, Lansing, MI
Photographs taken by: Charlie Bush on 2/22/2018

Property Photos

2915 Turner St, Front of House

Back of House

Side of House

Side of House

Ingham County Land Bank
2915 Turner St, Lansing, MI
Photographs taken by: Charlie Bush on 2/22/2018

Property Photos

Inside of house through east window

Roof shingle sample AS1-1

Exterior siding tar paper sample AS2-1

ATTACHMENT B

LIMITATIONS

REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

65 Cadillac Square, Suite 3311, Detroit, Michigan 48226 Tel: 313.961.9500 Fax: 313.961.9509 www.MannikSmithGroup.com

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.

ATTACHMENT C

ANALYTICAL REPORTS AND CHAINS OF CUSTODY

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2915 Turner St.
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 18-75184
Date Collected: 02/22/18
Date Received: 02/23/18
Date Analyzed: 02/27/18
Date Reported: 02/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75184 - 01 Cust. #: AS1-1 Material: Roof Shingle Location: Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 75184 - 02 Cust. #: AS1-2 Material: Exterior Siding Tar Paper Location: Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Apex # **75184**

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Customer Name:	**MANNIK & SMITH GROUP**	Date of Survey:	2/22/2018 14:00
Address:	2193 Association Drive, Suite 200	Project:	2915 Turner St.
City, St., Zip:	Okemos, MI, 48864	Project #	I1440002
Phone:	(517) 316-9232 Fax: (517) 316-9233	Contact Person:	Charlie Bush
		Email:	cbush@manniksmithgroup.com

Lab Use Only
Log-In:____
Report: ____
Fax: ____
Verbal:____
Email:____

Turn Around Time: (*circle one*)***Terms and conditions on the other side.

Rush — 24 Hour
48 Hour — (72 Hour)
Other: _____ — TTP (yes / no) (Test Till Positive)

Samples received after 3pm logged in next morning

Circle analyses required, indicate type and quantity

(Asbstos:) Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Air ____ Paint ____ Wipe (ASTM) ____ Bulk ____
Mold: Bulk ____ Air ____ BioSIS ____ Tape ____
TEM: Bulk ____ NIOSH ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
1	AS1-1	Roof Shingle	Bag	Ex	
2	AS2-1	Exterior Siding Tar Paper	Bag	Ex	

Relinquished By: _____ Received By: _____ Relinquished By: _____ Received By: _____

Date: _____ Time/Date: 2/23/18 FEB 23 2018 Date: _____ Time/Date: _____

Revision R4 Date: May/2017

APEX RESEARCH

ATTACHMENT D

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M

MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM, P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date _____/_____/_____ Rec'd Date ____/____/_____

Emergency Date _____/_____/_____ Valid No. _____

☐ OK ☐ Send Def Ltr. Date of Def Ltr. _____/_____/_____

FOLLOW UP _____/_____/_____ Spoke w/ _____

Comments: _____

Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)

Total Project Cost: _____ x 0.01 = _____

Type of Contractor: _____ License No.: _____

Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____

Date of Revision(s): _____

Notification Type: ☐ Original ☐ Revised ☐ Canceled ☐ Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) ***[260 ln. ft./160 sq. ft. or more is threshold]***

☐ Planned Renovation – 10 **working** days notice
☐ Emergency Renovation
☐ Scheduled Demolition – 10 **working** days notice
☐ Intentional Burn – 10 **working** days notice
☐ Ordered Demolition

LARA (MIOSHA) [*Will not accept annual notifications]*

☐ Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 **calendar** days notice
☐ Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation		
+Asb. Removal		
+Demolition:		
Encapsulation:		

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:		
Demolition:		
Encapsulation:		

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
+Include **only** those dates you are conducting asbestos removal/demo.

☐ Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR: Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR: Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____
Location Address/Description: _____
_____ If Apt. # of units: _____
City/Twp. _____ State: _____ Zip Code: _____
County: _____ Nearest Crossroad: _____
Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
Age: _____ Present Use: _____ Prior Use: _____
Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____
Location Address: _____
City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____
Address: _____
City/State/Zip: _____
Phone: _____

WASTE TRANSPORTER 2:

_____
_____
_____
_____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____
Name/Title of Person Signing Order: _____
_____
Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT? ☐ Yes ☐ No ☐ To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that **will not** be removed prior to demolition. (**NOTE:** In a demolition, cementatious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM **not** removed prior to demo. Category I	Non-friable ACM **not** removed prior to demo. Category II	Units of Measure	
				☐ Ln. Ft.	☐ Ln. M.
				☐ Sq. Ft.	☐ Sq. M.
				☐ Cu. Ft.*	☐ Cu.M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

11. PROJECT DESCRIPTION: Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition:**

A) RENOVATION: Mark all surfaces/types of RACM to be removed:
☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tanks(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Mag Block ☐ Other (describe)_____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:
☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tank(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: A) Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor *Date* *Signature of Owner or Demolition Contractor* *Date*

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)

Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. *I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.*

Signature of Building Owner or Lessee *Date* *Signature of Asbestos Abatement Contractor Representative* *Date*

NOTE: **It is not mandatory that a signed copy be sent to LARA unless requested.** For affected projects, this section of the notification form must be completed, signed, and made part of **your** records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator *Date* *Signature of Owner/Operator* *Date*

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8),** mail to address below. For more info visit: http://www.michigan.gov/asbestos

MIOSHA Asbestos Program
LARA, CSHD
P.O. Box 30671
Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, please use the e-submittal process. For more information visit http://www.michigan.gov/air, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
DEQ, AQD
P.O. Box 30260
Lansing, MI 48909-7760

517.284.6777 (Office)

December 28, 2017

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey
309 Douglas Ave, Lansing, Ingham County, Michigan

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited pre-demolition regulated materials survey (RMS) performed at 309 Douglas Ave, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information	
Property Address	309 Douglas Ave, Lansing, MI
Parcel #	33-01-01-04-457-031
No. Stories	2
Square Footage (approx.)	650 SF
Siding	Vinyl
Basement	Yes
Garage	No

Asbestos Containing Material				
Location	Material Group	Friable/Non Friable	Asbestos	Quantity
No asbestos containing materials were found on site				

Hazardous Materials		
Location	Material Description	Quantity
RM-2	1 Gallon paint can	5

Universal Waste Inventory		
Location	Material Description	Quantity
RM-1, Basement	CFL bulb	6
RM-1	Fluorescent bulb	1
RM-1	Smoke detector	1
Rm-1	Thermostat	1

Other Regulated Materials Inventory		
Location	Material Description	Quantity
Exterior	Air-conditioning unit	1

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

1) Pre-demolition asbestos-containing material (ACM) survey.
2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 8, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);

- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
  - DOT - Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
  - IMO - International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
  - IATA - International Air Transport Association; Dangerous Goods Regulations;
  - ICAO - International Civil Aviation Organization; Technical Instructions; and
  - AF - Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items

cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log*. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified seven (7) homogenous materials that were suspect as asbestos containing during the ACM survey. Sixteen (16) bulk samples were collected from these suspect homogeneous materials and were submitted to APEX Research, Inc. (APEX) for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. APEX is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found no materials to contain greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. A trace amount of asbestos was identified in sample AS 2-3 therefore the laboratory conducted a point count analysis on this sample and identified the sample did not contain greater than 1% asbestos.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory.*

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the seven (7) homogenous materials collected as part of the ACM survey, no materials contained asbestos greater than 1% with no samples being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 734-397-3100.

Sincerely,

Kory McKay
Environmental Scientist
Accreditation Number A47903

Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

FIGURE

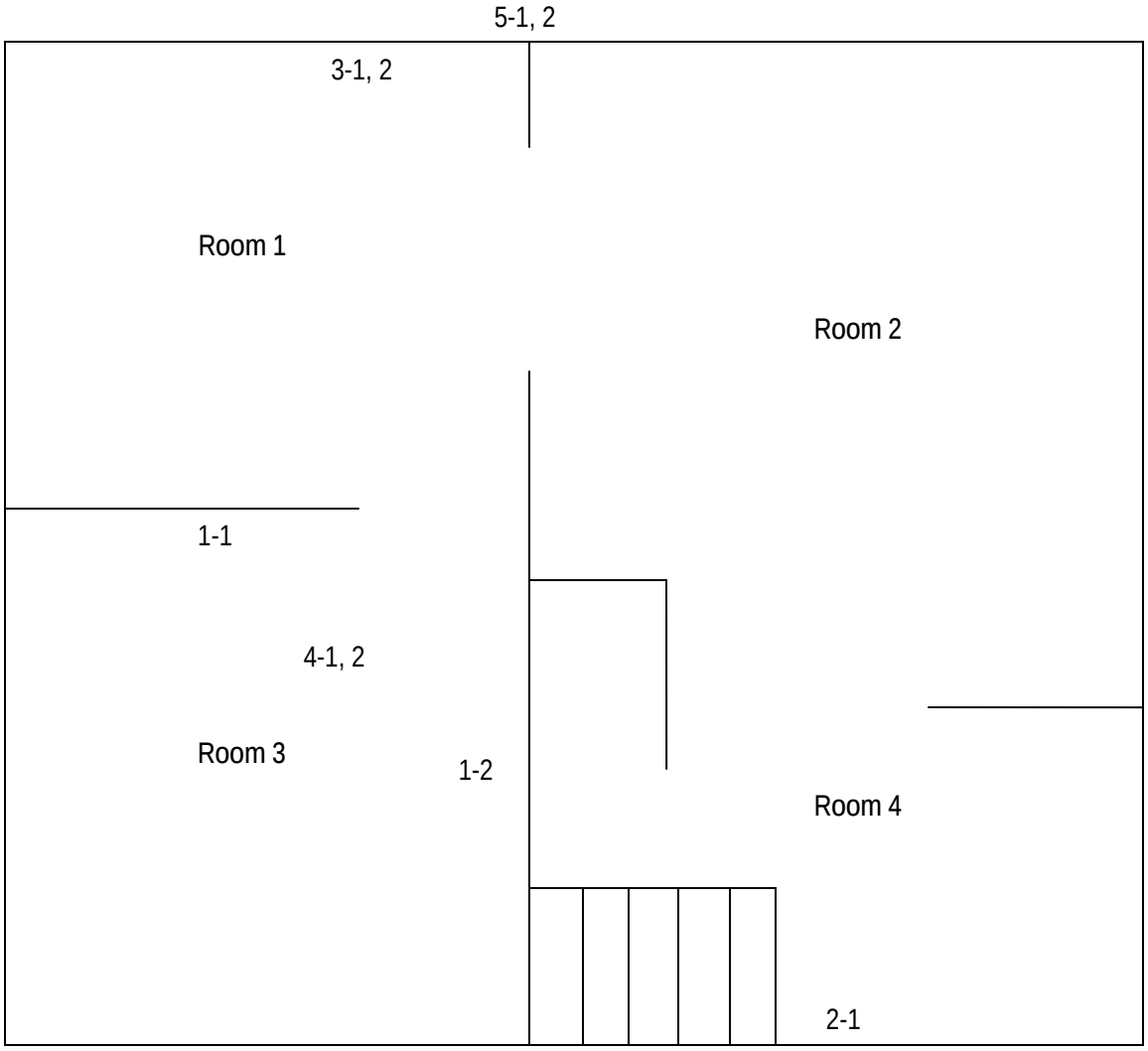
TECHNICAL SKILL.
CREATIVE SPIRIT.

721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

Address: 309 Douglas Ave Date: December 11, 2017

Drawing not to scale

1st Floor



#-# = Asbestos Sample

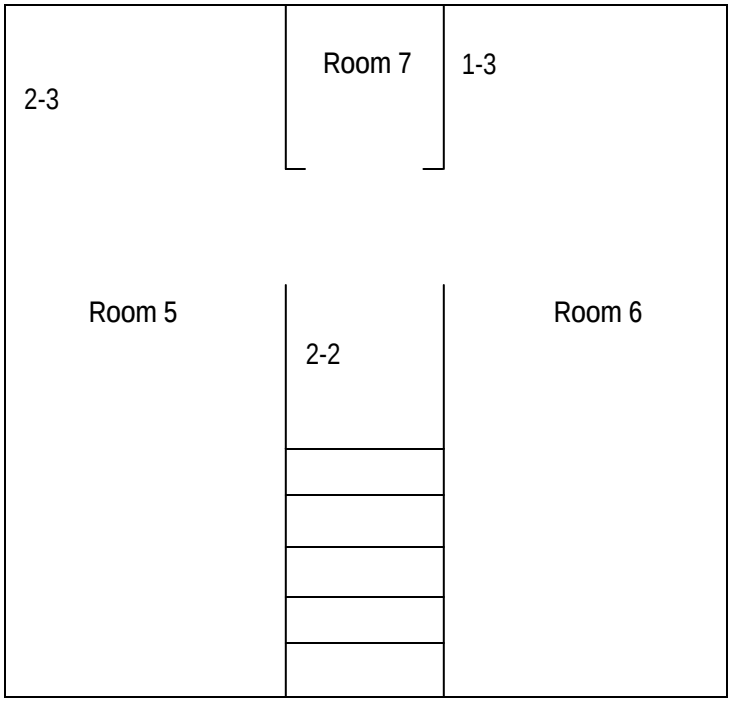
TECHNICAL SKILL.
CREATIVE SPIRIT.

721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

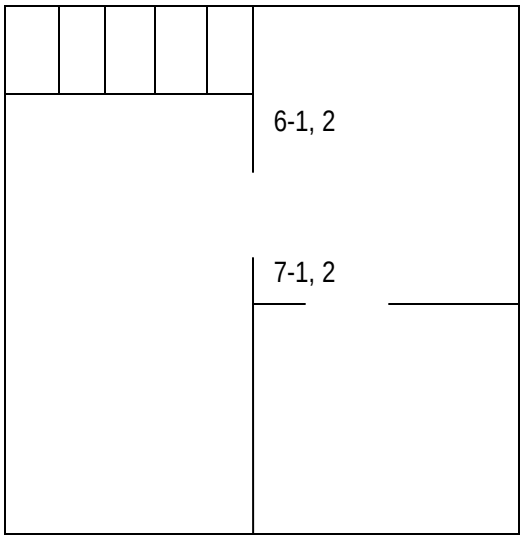
Address: 309 Douglas Ave Date: December 11, 2017

Drawing not to scale

2nd Floor



Basement



#-# = Asbestos Sample

TABLES

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		309 Douglas Ave.								
Survey Date		December 8, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-3	1	AS 1-1	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-3	1	AS 1-2	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-6	2	AS 1-3	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-4	1	AS 2-1	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-5	2	AS 2-2	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-5	2	AS 2-3	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-1	1	AS 3-1	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	115 SF
RM-1	1	AS 3-2	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	115 SF
RM-3	1	AS 4-1	HA-4	Black and green linoleum	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-3	1	AS 4-2	HA-4	Black and green linoleum	Non-Friable	Good	Miscellaneous	No	No	100 SF
Roof	E	AS 5-1	HA-5	Shingles	Non-Friable	Good	Miscellaneous	No	No	350 SF
Roof	E	AS 5-2	HA-5	Shingles	Non-Friable	Good	Miscellaneous	No	No	350 SF
Basement	B	AS 6-1	HA-6	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	150 SF
Basement	B	AS 6-2	HA-6	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	150 SF
Basement	B	AS 7-1	HA-7	Stack cement	Non-Friable	Good	Miscellaneous	No	No	3 SF
Basement	B	AS 7-2	HA-7	Stack cement	Non-Friable	Good	Miscellaneous	No	No	3 SF

Table 2
Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory
309 Douglas Ave.
Lansing, Ingham County, Michigan

Universal Waste Inventory		
Location	Type of Waste	Approximate Quantity
RM-1, Basement	CFL Bulb	6
RM-1	Fluorescent Bulb	1
RM-1	Smoke Detector	1
RM-1	Thermostat	1
Hazardous Materials Inventory		
Location	Type of Waste	Approximate Quantity
RM-2	1 Gallon Paint Can	5
Other Regulated Materials Inventory		
Location	Type of Waste	Approximate Quantity
Exterior	Air-Conditioning Unit	1

ATTACHMENT A

PHOTO LOG

Ingham County Land Bank
309 Douglas Ave, Lansing, MI
Photographs taken by: Kory McKay on 12/08/2017

Property Photos

309 Douglas Ave, Front of House

Back of House

Side of House

Side of House

Ingham County Land Bank
309 Douglas Ave, Lansing, MI
Photographs taken by: Kory McKay on 12/08/2017

Sample Photos

Drywall sample from room 3

Plaster sample from room 4

Window glaze sample from room 1

Black and green linoleum sample from room 3

ATTACHMENT B

LIMITATIONS

REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

65 Cadillac Square, Suite 3311, Detroit, Michigan 48226 Tel: 313.961.9500 Fax: 313.961.9509 www.MannikSmithGroup.com

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.

ATTACHMENT C

ANALYTICAL REPORTS AND CHAINS OF CUSTODY

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 309 Douglas Ave.
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73722
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73722 - 01 Cust. #: AS 1-1 Material: Drywall Location: Room 3 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Fiberglass - 10% Other - 70%
Lab ID #: 73722 - 02 Cust. #: AS 1-2 Material: Drywall Location: Room 3 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Fiberglass - 5% Other - 75%
Lab ID #: 73722 - 03 Cust. #: AS 2-1 Material: Plaster Location: Room 4 Appearance: grey,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Hair - 2% Other - 98%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 309 Douglas Ave.
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73722
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73722 - 04 Cust. #: AS 3-1 Material: Window Glaze Location: Room 1 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73722 - 05 Cust. #: AS 3-2 Material: Window Glaze Location: Room 1 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73722 - 06 Cust. #: AS 4-1 Material: Black/Green Linoleum Location: Room 3 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 309 Douglas Ave.
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73722
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73722 - 07 Cust. #: AS 4-2 Material: Black/Green Linoleum Location: Room 3 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 73722 - 08 Cust. #: AS 2-2 Material: Plaster Location: Room 5 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 73722 - 09 Cust. #: AS 1-3 Material: Drywall Location: Room 6 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Fiberglass - 5% Other - 75%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 309 Douglas Ave.
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73722
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73722 - 10 Cust. #: AS 2-3 Material: Plaster Location: Room 5 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** Chrysotile - 1.0% POINT COUNT RESULT	Hair - 2% Other - 97.0%
Lab ID #: 73722 - 11 Cust. #: AS 6-1 Material: Basement Cement Floor Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73722 - 12 Cust. #: AS 6-2 Material: Basement Cement Floor Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 309 Douglas Ave.
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73722
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73722 - 13 Cust. #: AS 7-1 Material: Stack Cement Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73722 - 14 Cust. #: AS 7-2 Material: Stack Cement Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73722 - 15 Cust. #: AS 5-1 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 309 Douglas Ave.
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73722
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73722 - 16 Cust. #: AS 5-2 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Apex # **73722**

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Customer Name:	**MANNIK & SMITH GROUP**	Date of Survey:	12/8/2017 5:00
Address:	2193 Association Drive, Suite 200	Project:	309 DOUGLAS AVE
City, St., Zip:	Okemos, MI, 48864	Project #	I1440002
Phone:	(517) 316-9232 Fax: (517) 316-9233	Contact Person:	Charlie Bush
		Email:	cbush@manniksmithgroup.com

Lab Use Only
Log-In:____
Report: ____
Fax: ____
Verbal:____
Email:____

Turn Around Time: (*circle one*)***Terms and conditions on the other side.

Rush
24 Hour
48 Hour
72 Hour
Other: _____
TTP (yes / no)
(Test Till Positive)

Samples received after 3pm logged in next morning

Circle analyses required, indicate type and quantity

(Asbstos:)	Bulk X	Wipe ____	Point Count ____	PCM ____	
Lead / Cad / Chrome:	Air ____	Paint ____	Wipe (ASTM) ____	Bulk ____	
Mold:	Bulk ____	Air ____	BioSIS ____	Tape ____	
TEM:	Bulk ____	NIOSH ____	EPA Level II ____	Other ____	

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
1	AS 1-1	RM-3 - Drywall	Bag	HA-1	
2	AS 1-2	RM-3 - Drywall	Bag	HA-1	
3	AS 2-1	RM-4 - Plaster	Bag	HA-2	
4	AS 3-1	RM-1 - Window glaze	Bag	HA-3	
5	AS 3-2	RM-1 - Window glaze	Bag	HA-3	
6	AS 4-1	RM-3 - Black and green linoleum	Bag	HA-4	
7	AS 4-2	RM-3 - Black and green linoleum	Bag	HA-4	
8	AS 2-2	RM-5 - Plaster	Bag	HA-2	
9	AS 1-3	RM-6 - Drywall	Bag	HA-1	
10	AS 2-3	RM-5 - Plaster	Bag	HA-2	
11	AS 6-1	Basement - Basement cement floor	Bag	HA-6	
12	AS 6-2	Basement - Basement cement floor	Bag	HA-6	

Relinquished By: _____
Date: 12-13-17

Received By: _____
Time/Date: (2/13 17 900

RECEIVED
DEC 13 2017
APEX RESEARCH

Relinquished By: _____ Received By: _____
Date: _____ Time/Date: _____

Revision R4 Date: May/2017

73722

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Lab Use Only
Log-In:____
Report: ____
Fax: ____
Verbal:____
Email:____

Customer Name: **MANNIK & SMITH GROUP**
Address: 2193 Association Drive, Suite 200
City, St., Zip: Okemos, MI, 48864
Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/8/2017 5:00
Project: 309 DOUGLAS AVE
Project # I1440002
Contact Person: Charlie Bush
Email: cbush@manniksmithgroup.com

Turn Around Time: (*circle one*)***Terms and conditions on the other side.

Rush 24 Hour
48 Hour (72 Hour)
Other: _____ TTP (yes / no)
(Test Till Positive)

Samples received after 3pm logged in next morning

Circle analyses required, indicate type and quantity

(Asbstos:) Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Air ____ Paint ____ Wipe (ASTM) ____ Bulk ____
Mold: Bulk ____ Air ____ BioSIS ____ Tape ____
TEM: Bulk ____ NIOSH ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
13	AS 7-1	Basement - Stack cement	Bag	HA-7	
14	AS 7-2	Basement - Stack cement	Bag	HA-7	
15	AS 5-1	Roof - Shingles	Bag	HA-5	
16	AS 5-2	Roof - Shingles	Bag	HA-5	

Relinquished By: _____
Date: 12-13-17

Received By: _____
Time/Date: 12/13/17

RECEIVED
DEC 13 2017
APEX RESEARCH

Relinquished By: _____ Received By: _____
Date: _____ Time/Date: _____

Revision R4 Date: May/2017

ATTACHMENT D

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M

MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM, P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date _____/_____/_____ Rec'd Date ____/____/_____

Emergency Date _____/_____/_____ Valid No. _____

☐ OK ☐ Send Def Ltr. Date of Def Ltr. _____/_____/_____

FOLLOW UP _____/_____/_____ Spoke w/ _____

Comments: _____

Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)

Total Project Cost: _____ x 0.01 = _____

Type of Contractor: _____ License No.: _____

Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____

Date of Revision(s): _____

Notification Type: ☐ Original ☐ Revised ☐ Canceled ☐ Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) ***[260 ln. ft./160 sq. ft. or more is threshold]***

☐ Planned Renovation – 10 **working** days notice
☐ Emergency Renovation
☐ Scheduled Demolition – 10 **working** days notice
☐ Intentional Burn – 10 **working** days notice
☐ Ordered Demolition

LARA (MIOSHA) [*Will not accept annual notifications]*

☐ Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 **calendar** days notice
☐ Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation		
+Asb. Removal		
+Demolition:		
Encapsulation:		

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:		
Demolition:		
Encapsulation:		

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
+Include **only** those dates you are conducting asbestos removal/demo.

☐ Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR: Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR: Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____
Location Address/Description: _____
_____ If Apt. # of units: _____
City/Twp. _____ State: _____ Zip Code: _____
County: _____ Nearest Crossroad: _____
Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
Age: _____ Present Use: _____ Prior Use: _____
Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____
Location Address: _____
City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____
Address: _____
City/State/Zip: _____
Phone: _____

WASTE TRANSPORTER 2:

_____
_____
_____
_____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____
Name/Title of Person Signing Order: _____
_____
Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT? ☐ Yes ☐ No ☐ To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that **will not** be removed prior to demolition. (**NOTE:** In a demolition, cementatious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM **not** removed prior to demo. Category I	Non-friable ACM **not** removed prior to demo. Category II	Units of Measure	
				☐ Ln. Ft.	☐ Ln. M.
				☐ Sq. Ft.	☐ Sq. M.
				☐ Cu. Ft.*	☐ Cu.M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

11. PROJECT DESCRIPTION: Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition:**

A) RENOVATION: Mark all surfaces/types of RACM to be removed:
☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tanks(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Mag Block ☐ Other (describe)_____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:
☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tank(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: A) Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor *Date* *Signature of Owner or Demolition Contractor* *Date*

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)

Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. *I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.*

Signature of Building Owner or Lessee *Date* *Signature of Asbestos Abatement Contractor Representative* *Date*

NOTE: **It is not mandatory that a signed copy be sent to LARA unless requested.** For affected projects, this section of the notification form must be completed, signed, and made part of **your** records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator *Date* *Signature of Owner/Operator* *Date*

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8),** mail to address below. For more info visit: http://www.michigan.gov/asbestos

MIOSHA Asbestos Program
LARA, CSHD
P.O. Box 30671
Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, please use the e-submittal process. For more information visit http://www.michigan.gov/air, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
DEQ, AQD
P.O. Box 30260
Lansing, MI 48909-7760

517.284.6777 (Office)

December 29, 2017

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey
1713 N M L King Jr Boulevard, Lansing, Ingham County, MI

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited pre-demolition regulated materials survey (RMS) performed at 1713 N M L King Jr Blvd, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information	
Property Address	1713 N M L King Jr Blvd, Lansing, MI
Parcel #	33-01-01-08-202-271
No. Stories	1
Square Footage (approx.)	1,000 SF
Siding	Wood
Basement	Yes
Garage	No

Asbestos Containing Material				
Location	**Material Group**	**Friable/Non Friable**	**Asbestos**	**Quantity**
No asbestos containing materials were found on site				

Hazardous Materials		
Location	**Material Description**	**Quantity**
No hazardous materials were found on site		

Universal Waste Inventory		
Location	**Material Description**	**Quantity**
RM-6	CFL bulb	1
RM-3	Fluorescent bulb	2
RM-1	Thermostat	1

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

1) Pre-demolition asbestos-containing material (ACM) survey.
2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 7, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number

A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
    - DOT - Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
    - IMO - International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
    - IATA - International Air Transport Association; Dangerous Goods Regulations;
    - ICAO - International Civil Aviation Organization; Technical Instructions; and
    - AF - Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log*. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified thirteen (13) homogenous materials that were suspect as asbestos containing during the ACM survey. Twenty-eight (28) bulk samples were collected from these suspect homogeneous materials and were submitted to Apex Research, Inc. for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. Apex is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found no homogenous

materials contained greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory.*

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the thirteen (13) homogenous materials collected as part of the ACM survey, no homogenous materials contained asbestos greater than 1%. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 517-316-9232.

Sincerely,

Kory McKay
Environmental Scientist
Accreditation Number A47903

Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

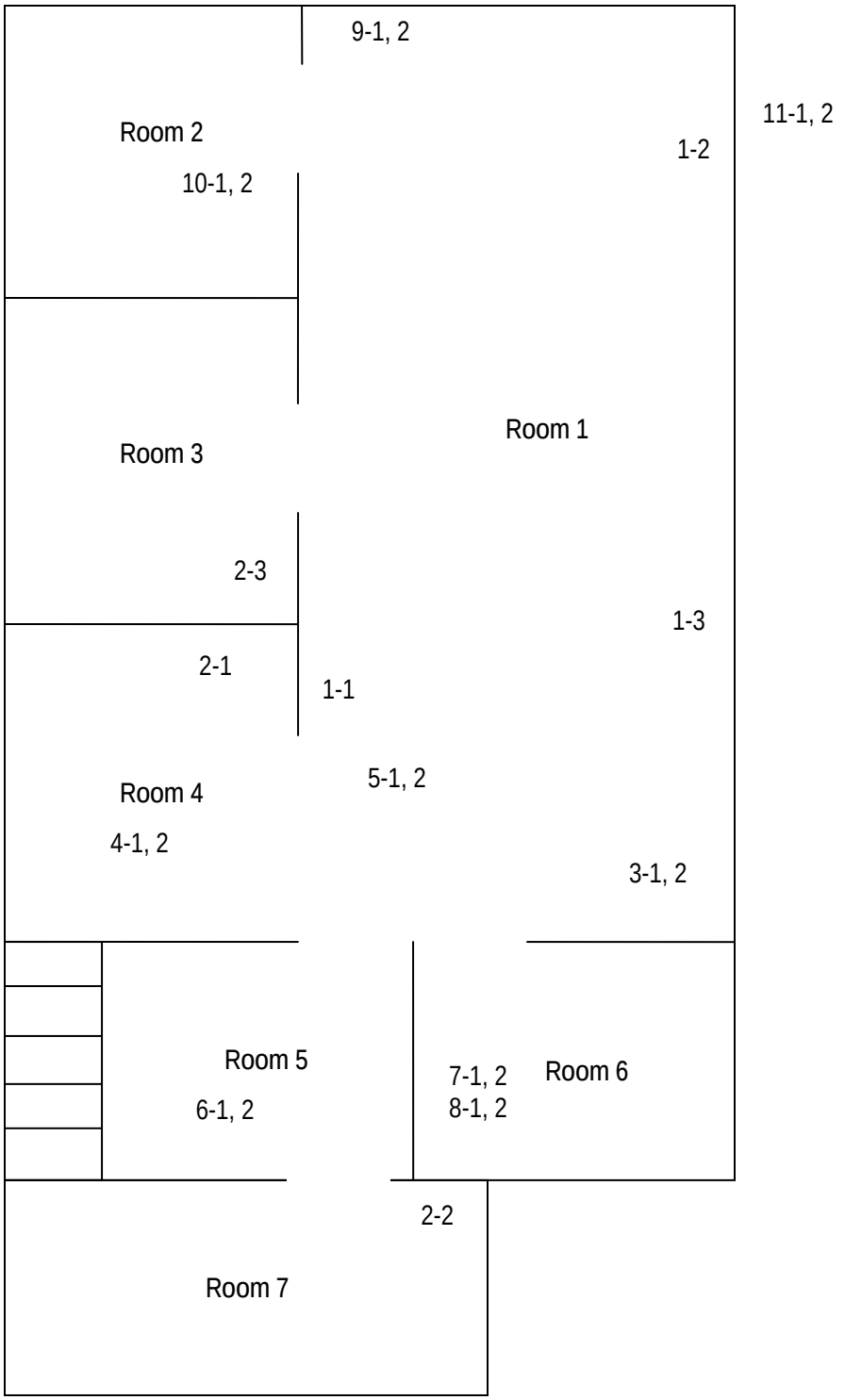
FIGURE

Mannik Smith GROUP
TECHNICAL SKILL.
CREATIVE SPIRIT.
721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

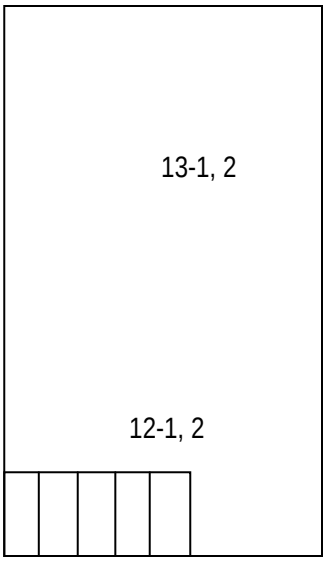
Address: 1713 N MLK Date: December 15, 2017

Drawing not to scale

1st Floor



Basement



#-# = Asbestos Sample

TABLES

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		1713 N M L King Jr. Blvd., Lansing, MI								
Survey Date		December 7, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-1	1	AS 1-1	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1200 SF
RM-1	1	AS 1-2	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1200 SF
RM-1	1	AS 1-3	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1200 SF
RM-4	1	AS 2-1	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	1200 SF
RM-7	1	AS 2-2	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	1200 SF
RM-3	1	AS 2-3	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	1200 SF
RM-1	1	AS 3-1	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-1	1	AS 3-2	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-4	1	AS 4-1	HA-4	White tile	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-4	1	AS 4-2	HA-4	White tile	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-1	1	AS 5-1	HA-5	Beige tile	Non-Friable	Good	Miscellaneous	No	No	288 SF
RM-1	1	AS 5-2	HA-5	Beige tile	Non-Friable	Good	Miscellaneous	No	No	288 SF
RM-5	1	AS 6-1	HA-6	Patterned tan tile	Non-Friable	Good	Miscellaneous	No	No	36 SF
RM-5	1	AS 6-2	HA-6	Patterned tan tile	Non-Friable	Good	Miscellaneous	No	No	36 SF
RM-6	1	AS 7-1	HA-7	Faux wood	Non-Friable	Good	Miscellaneous	No	No	36 SF

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		1713 N M L King Jr. Blvd., Lansing, MI								
Survey Date		December 7, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-6	1	AS 7-2	HA-7	Faux wood	Non-Friable	Good	Miscellaneous	No	No	36 SF
RM-6	1	AS 8-1	HA-8	Cream tile	Non-Friable	Good	Miscellaneous	No	No	36 SF
RM-6	1	AS 8-2	HA-8	Cream tile	Non-Friable	Good	Miscellaneous	No	No	36 SF
RM-1	1	AS 9-1	HA-9	Brown tile	Non-Friable	Good	Miscellaneous	No	No	288 SF
RM-1	1	AS 9-2	HA-9	Brown tile	Non-Friable	Good	Miscellaneous	No	No	288 SF
RM-2	1	AS 10-1	HA-10	Faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-2	1	AS 10-2	HA-10	Faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	100 SF
Roof	E	AS 11-1	HA-11	Shingles	Non-Friable	Good	Miscellaneous	No	No	1150 SF
Roof	E	AS 11-2	HA-11	Shingles	Non-Friable	Good	Miscellaneous	No	No	1150 SF
Basement	B	AS 12-1	HA-12	Cement basement floor	Non-Friable	Good	Miscellaneous	No	No	480 SF
Basement	B	AS 12-2	HA-12	Cement basement floor	Non-Friable	Good	Miscellaneous	No	No	480 SF
Basement	B	AS 13-1	HA-13	Stack Cement	Non-Friable	Good	Miscellaneous	No	No	2 SF
Basement	B	AS 13-2	HA-13	Stack Cement	Non-Friable	Good	Miscellaneous	No	No	2 SF

Table 2
Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory
1713 N M L King Jr. Blvd.
Lansing, Ingham County, Michigan

Universal Waste Inventory		
Location	Type of Waste	Approximate Quantity
RM-6	CFL Bulb	1
RM-3	Fluorescent Bulb	2
RM-1	Thermostat	1
Hazardous Materials Inventory		
Location	Type of Waste	Approximate Quantity
-	-	-
Other Regulated Materials Inventory		
Location	Type of Waste	Approximate Quantity
-	-	-

ATTACHMENT A

PHOTO LOG

Ingham County Land Bank
1713 N M L King Jr Blvd, Lansing, MI
Photographs taken by: Kory McKay on 12/07/2017

Property Photos

1713 N M L King Jr Blvd, Front of House

Back of House

Side of House

Side of House

Ingham County Land Bank
1713 N M L King Jr Blvd, Lansing, MI
Photographs taken by: Kory McKay on 12/07/2017

Sample Photos

Drywall sample from room 4

White tile sample from room 4

Tan pattern tile from room 5

Cream tile sample from room 6

Brown tile sample from room 1

Faux wood linoleum sample from room 2

ATTACHMENT B

LIMITATIONS

REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

65 Cadillac Square, Suite 3311, Detroit, Michigan 48226 Tel: 313.961.9500 Fax: 313.961.9509 www.MannikSmithGroup.com

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.

ATTACHMENT C

ANALYTICAL REPORTS AND CHAINS OF CUSTODY

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1713 N. ML King Jr. Blvd.
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73616
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73616 - 01 Cust. #: AS1-1 Material: Plaster Location: Room 1 Appearance: grey,nonfibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73616 - 02 Cust. #: AS1-2 Material: Plaster Location: Room 1 Appearance: grey,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73616 - 03 Cust. #: AS1-3 Material: Plaster Location: Room 1 Appearance: grey,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Hair - 2% Other - 98%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1713 N. ML King Jr. Blvd.
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73616
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73616 - 04 Cust. #: AS2-1 Material: Joint Compound Location: Room 4 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73616 - 04a Cust. #: AS2-1 Material: Drywall Location: Room 4 Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73616 - 05 Cust. #: AS2-2 Material: Joint Compound Location: Room 7 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1713 N. ML King Jr. Blvd.
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73616
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73616 - 05a Cust. #: AS2-2 Material: Drywall Location: Room 7 Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73616 - 06 Cust. #: AS2-3 Material: Drywall Location: Room 3 Appearance: grey,fibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73616 - 07 Cust. #: AS3-1 Material: Window Glaze Location: Room 1 Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1713 N. ML King Jr. Blvd.
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73616
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73616 - 08 Cust. #: AS3-2 Material: Window Glaze Location: Room 1 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73616 - 09 Cust. #: AS4-1 Material: White Tile Location: Room 4 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73616 - 10 Cust. #: AS4-2 Material: White Tile Location: Room 4 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1713 N. ML King Jr. Blvd.
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73616
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73616 - 11 Cust. #: AS5-1 Material: Beige Tile Location: Room 1 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73616 - 12 Cust. #: AS5-2 Material: Beige Tile Location: Room 1 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73616 - 13 Cust. #: AS6-1 Material: Patterened Tan Tile Location: Room 5 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1713 N. ML King Jr. Blvd.
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73616
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73616 - 14 Cust. #: AS6-2 Material: Patterened Tan Tile Location: Room 5 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73616 - 15 Cust. #: AS7-1 Material: Faux Wood Location: Room 6 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73616 - 16 Cust. #: AS7-2 Material: Faux Wood Location: Room 6 Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Fiberglass - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1713 N. ML King Jr. Blvd.
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73616
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73616 - 17 Cust. #: AS8-1 Material: Cream Tile Location: Room 6 Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73616 - 18 Cust. #: AS8-2 Material: Cream Tile Location: Room 6 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73616 - 19 Cust. #: AS9-1 Material: Brown Tile Location: Room 1 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1713 N. ML King Jr. Blvd.
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73616
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73616 - 20 Cust. #: AS9-2 Material: Brown Tile Location: Room 1 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73616 - 21 Cust. #: AS10-1 Material: Faux Wood Linoleum Location: Room 2 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73616 - 22 Cust. #: AS10-2 Material: Faux Wood Linoleum Location: Room 2 Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1713 N. ML King Jr. Blvd.
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73616
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73616 - 23 Cust. #: AS11-1 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 73616 - 24 Cust. #: AS11-2 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 73616 - 25 Cust. #: AS12-1 Material: Cement Basement Floor Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1713 N. ML King Jr. Blvd.
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73616
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73616 - 26 Cust. #: AS12-2 Material: Cement Basement Floor Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73616 - 27 Cust. #: AS13-1 Material: Stack Cement Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73616 - 28 Cust. #: AS13-2 Material: Stack Cement Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Apex # **73616**

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Customer Name:	MANNIK & SMITH GROUP	Date of Survey:	12/7/2017 5:00
Address:	2193 Association Drive, Suite 200	Project:	1713 N M L KING JR BLVD
City, St., Zip:	Okemos, MI, 48864	Project #	I1440002
Phone:	(517) 316-9232 Fax: (517) 316-9233	Contact Person:	Charlie Bush
		Email:	cbush@manniksmithgroup.com

Lab Use Only
Log-In:
Report:
Fax:
Verbal:
Email:

Turn Around Time: (*circle one*) ***Terms and conditions on the other side.

Rush
48 Hour
Other: _____
Samples received after 3pm logged in next morning

24 Hour
(72 Hour)
TTP (yes / no)
(Test Till Positive)

Circle analyses required, indicate type and quantity

(Asbstos:)	Bulk X	Wipe ____	Point Count ____	PCM ____			
Lead / Cad / Chrome:	Air ____	Paint ____	Wipe (ASTM) ____	Bulk ____			
Mold:	Bulk ____	Air ____	BioSIS ____	Tape ____			
TEM:	Bulk ____	NIOSH ____	EPA Level II ____	Other ____			

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
1	AS 1-1	RM-1 - Plaster	Bag	HA-1	
2	AS 1-2	RM-1 - Plaster	Bag	HA-1	
3	AS 1-3	RM-1 - Plaster	Bag	HA-1	
4	AS 2-1	RM-4 - Drywall	Bag	HA-2	
5	AS 2-2	RM-7 - Drywall	Bag	HA-2	
6	AS 2-3	RM-3 - Drywall	Bag	HA-2	
7	AS 3-1	RM-1 - Window glaze	Bag	HA-3	
8	AS 3-2	RM-1 - Window glaze	Bag	HA-3	
9	AS 4-1	RM-4 - White tile	Bag	HA-4	
10	AS 4-2	RM-4 - White tile	Bag	HA-4	
11	AS 5-1	RM-1 - Beige tile	Bag	HA-5	
12	AS 5-2	RM-1 - Beige tile	Bag	HA-5	

Relinquished By: _____ Received By: _____ Relinquished By: _____ Received By: _____

Date: 12/7/17 Time/Date: 12/7/17 Date: _____ Time/Date: _____

RECEIVED DEC 08 2017 APEX RESEARCH

Revision R4 Date: May/2017

73616

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Customer Name:	MANNIK & SMITH GROUP	Date of Survey:	12/7/2017 5:00
Address:	2193 Association Drive, Suite 200	Project:	1713 N M L KING JR BLVD
City, St., Zip:	Okemos, MI, 48864	Project #	I1440002
Phone:	(517) 316-9232 Fax: (517) 316-9233	Contact Person:	Charlie Bush
		Email:	cbush@manniksmithgroup.com

Lab Use Only
Log-In:
Report:
Fax:
Verbal:
Email:

Turn Around Time: (*circle one*) ***Terms and conditions on the other side.

Rush
48 Hour
Other: _____
Samples received after 3pm logged in next morning

24 Hour
(72 Hour)
TTP (yes) / no
(Test Till Positive)

Circle analyses required, indicate type and quantity

(Asbstos:) Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Air ____ Paint ____ Wipe (ASTM) ____ Bulk ____
Mold: Bulk ____ Air ____ BioSIS ____ Tape ____
TEM: Bulk ____ NIOSH ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
13	AS 6-1	RM-5 - Patterned tan tile	Bag	HA-6	
14	AS 6-2	RM-5 - Patterned tan tile	Bag	HA-6	
15	AS 7-1	RM-6 - Faux wood	Bag	HA-7	
16	AS 7-2	RM-6 - Faux wood	Bag	HA-7	
17	AS 8-1	RM-6 - Cream tile	Bag	HA-8	
18	AS 8-2	RM-6 - Cream tile	Bag	HA-8	
19	AS 9-1	RM-1 - Brown tile	Bag	HA-9	
20	AS 9-2	RM-1 - Brown tile	Bag	HA-9	
21	AS 10-1	RM-2 - Faux wood Linoleum	Bag	HA-10	
22	AS 10-2	RM-2 - Faux wood Linoleum	Bag	HA-10	
23	AS 11-1	Roof - Shingles	Bag	HA-11	
24	AS 11-2	Roof - Shingles	Bag	HA-11	

RECEIVED
DEC 08 2017
APEX RESEARCH

Relinquished By: _____ Received By: _____ Relinquished By: _____ Received By: _____

Date: 12/7/17 Time/Date: 12/7/17 Date: _____ Time/Date: _____

Revision R4 Date: May/2017

63616

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Lab Use Only
Log-In:
Report:
Fax:
Verbal:
Email:

Customer Name: **MANNIK & SMITH GROUP**
Address: 2193 Association Drive, Suite 200
City, St., Zip: Okemos, MI, 48864
Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/7/2017 5:00
Project: 1713 N M L KING JR BLVD
Project # I1440002
Contact Person: Charlie Bush
Email: cbush@manniksmithgroup.com

Turn Around Time: (*circle one*)***Terms and conditions on the other side.

Rush 24 Hour
48 Hour (72 Hour)
Other: _____ TTP (yes / no)
(Test Till Positive)

Samples received after 3pm logged in next morning

Circle analyses required, indicate type and quantity

(Asbstos:) Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Air ____ Paint ____ Wipe (ASTM) ____ Bulk ____
Mold: Bulk ____ Air ____ BioSIS ____ Tape ____
TEM: Bulk ____ NIOSH ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
25	AS 12-1	Basement - Cement basement floor	Bag	HA-12	
26	AS 12-2	Basement - Cement basement floor	Bag	HA-12	
27	AS 13-1	Basement - Stack Cement	Bag	HA-13	
28	AS 13-2	Basement - Stack Cement	Bag	HA-13	

Relinquished By: _____ Received By: _____ Relinquished By: _____ Received By: _____
Date: 12/7/17 Time/Date: 12/7/17 Date: _____ Time/Date: _____

RECEIVED DEC 08 2017 APEX RESEARCH

Revision R4 Date: May/2017

ATTACHMENT D

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M

MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM, P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date _____/_____/_____ Rec'd Date ____/____/_____

Emergency Date _____/_____/_____ Valid No. _____

☐ OK ☐ Send Def Ltr. Date of Def Ltr. _____/_____/_____

FOLLOW UP _____/_____/_____ Spoke w/ _____

Comments: _____

Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)

Total Project Cost: _____ x 0.01 = _____

Type of Contractor: _____ License No.: _____

Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____

Date of Revision(s): _____

Notification Type: ☐ Original ☐ Revised ☐ Canceled ☐ Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) ***[260 ln. ft./160 sq. ft. or more is threshold]***

☐ Planned Renovation – 10 **working** days notice
☐ Emergency Renovation
☐ Scheduled Demolition – 10 **working** days notice
☐ Intentional Burn – 10 **working** days notice
☐ Ordered Demolition

LARA (MIOSHA) [*Will not accept annual notifications]*

☐ Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 **calendar** days notice
☐ Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation		
+Asb. Removal		
+Demolition:		
Encapsulation:		

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:		
Demolition:		
Encapsulation:		

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
+Include **only** those dates you are conducting asbestos removal/demo.

☐ Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR: Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR: Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____
Location Address/Description: _____
_____ If Apt. # of units: _____
City/Twp. _____ State: _____ Zip Code: _____
County: _____ Nearest Crossroad: _____
Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
Age: _____ Present Use: _____ Prior Use: _____
Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____
Location Address: _____
City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____
Address: _____
City/State/Zip: _____
Phone: _____

WASTE TRANSPORTER 2:

_____
_____
_____
_____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____
Name/Title of Person Signing Order: _____
_____
Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT? ☐ Yes ☐ No ☐ To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that **will not** be removed prior to demolition. (**NOTE:** In a demolition, cementatious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM **not** removed prior to demo. Category I	Non-friable ACM **not** removed prior to demo. Category II	Units of Measure	
				☐ Ln. Ft.	☐ Ln. M.
				☐ Sq. Ft.	☐ Sq. M.
				☐ Cu. Ft.*	☐ Cu.M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

11. PROJECT DESCRIPTION: Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition:**

A) RENOVATION: Mark all surfaces/types of RACM to be removed:
☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tanks(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Mag Block ☐ Other (describe)_____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:
☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tank(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: A) Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor *Date* *Signature of Owner or Demolition Contractor* *Date*

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)

Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. *I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.*

Signature of Building Owner or Lessee *Date* *Signature of Asbestos Abatement Contractor Representative* *Date*

NOTE: **It is not mandatory that a signed copy be sent to LARA unless requested.** For affected projects, this section of the notification form must be completed, signed, and made part of **your** records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator *Date* *Signature of Owner/Operator* *Date*

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8),** mail to address below. For more info visit: http://www.michigan.gov/asbestos

MIOSHA Asbestos Program
LARA, CSHD
P.O. Box 30671
Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, please use the e-submittal process. For more information visit http://www.michigan.gov/air, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
DEQ, AQD
P.O. Box 30260
Lansing, MI 48909-7760

517.284.6777 (Office)

December 29, 2017

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey – Revised February 7, 2018
1311 N MLK, Lansing, Ingham County, Michigan

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited pre-demolition regulated materials survey (RMS) performed at 1311 N MLK, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information	
Property Address	1311 N MLK, Lansing, MI
Parcel #	33-01-01-08-256-141
No. Stories	2
Square Footage (approx.)	1,100 SF
Siding	Wood
Basement	No
Garage	Yes

Asbestos Containing Material				
Location	Material Group	Friable/Non Friable	Asbestos	Quantity
RM-1, RM-2, RM-3, RM-4, RM-5, RM-6, RM-7	Window glaze	Non friable	2% Chrysotile	11 Windows
RM-2	Green tile	Non friable	5% Chrysotile	144 SF
RM-7	Brown 9x9 tile	Non friable	5% Chrysotile	130 SF

Universal Waste Inventory		
Location	Material Description	Quantity
RM-1, RM-2, RM-4, RM-5, RM-6	Thermostat	5
RM-6	CFL bulb	1
Garage	Tire	15

Hazardous Materials		
Location	Material Description	Quantity
** No hazardous materials were found on site**		

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

1) Pre-demolition asbestos-containing material (ACM) survey.
2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 7, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
    - DOT - Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
    - IMO - International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
    - IATA - International Air Transport Association; Dangerous Goods Regulations;
    - ICAO - International Civil Aviation Organization; Technical Instructions; and
    - AF - Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-

acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log*. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified nine (9) homogenous materials that were suspect as asbestos containing during the ACM survey. Twenty (20) bulk samples were collected from these suspect homogeneous materials and were submitted to APEX Research, Inc. (APEX) for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. APEX is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found three (3) homogenous materials to contain greater than 1% asbestos (samples 2-1, 4-1, and 7-1). The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory.*

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the nine (9) homogenous materials collected as part of the ACM survey, three (3) materials contained asbestos greater than 1% (samples 2-1, 4-1, and 7-1) with these three (3) materials (samples 2-1, 4-1, and 7-1) being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 734-397-3100.

Sincerely,

Kory McKay
Environmental Scientist
Accreditation Number A47903

Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

FIGURE

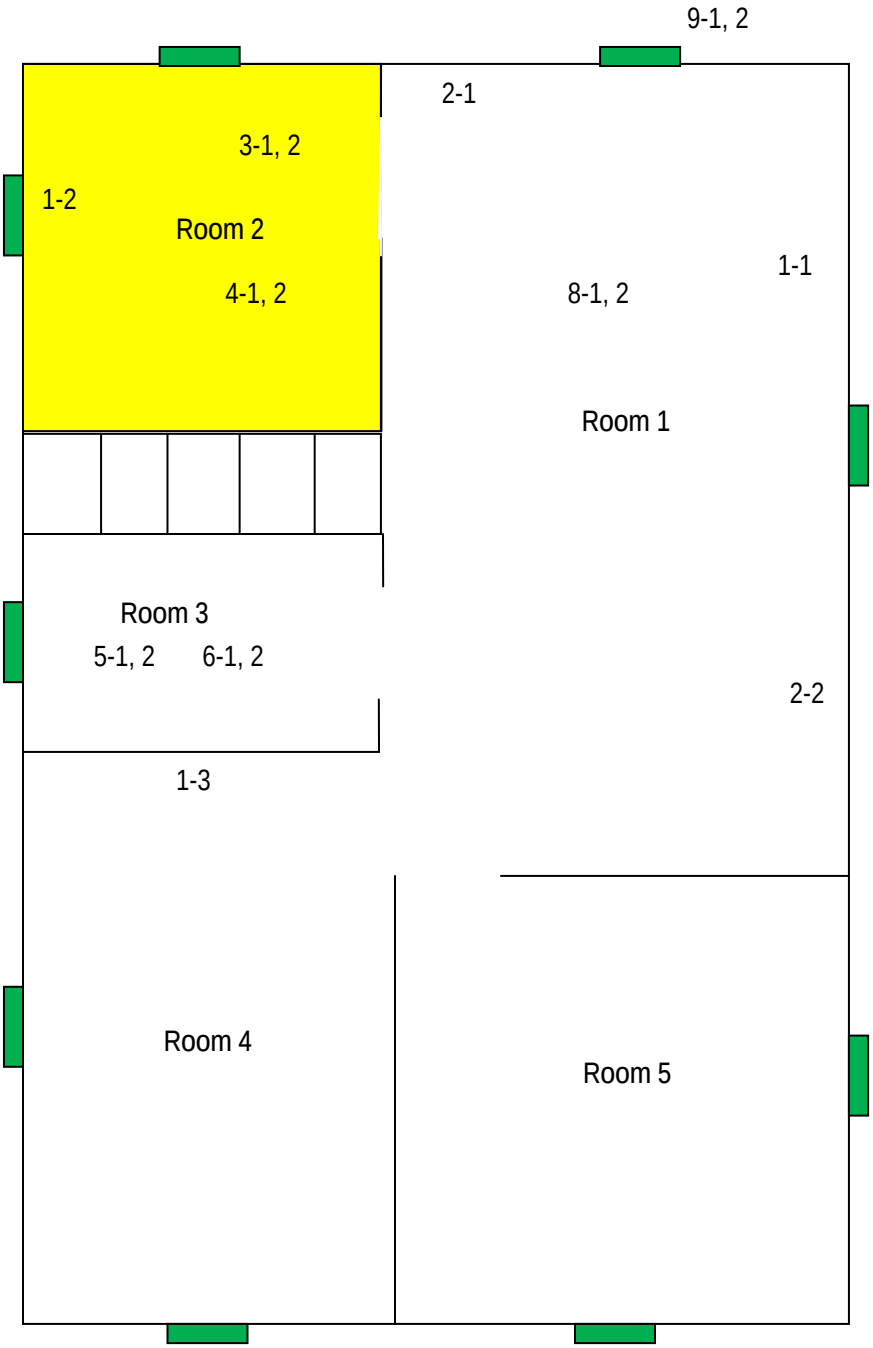
TECHNICAL SKILL.
CREATIVE SPIRIT.

721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

Address: 1311 N MLK Date: December 11, 2017

Drawing not to scale

1st Floor



Window Glaze (9 Windows)

Green Tile (144 SF)

#-# = Asbestos Sample

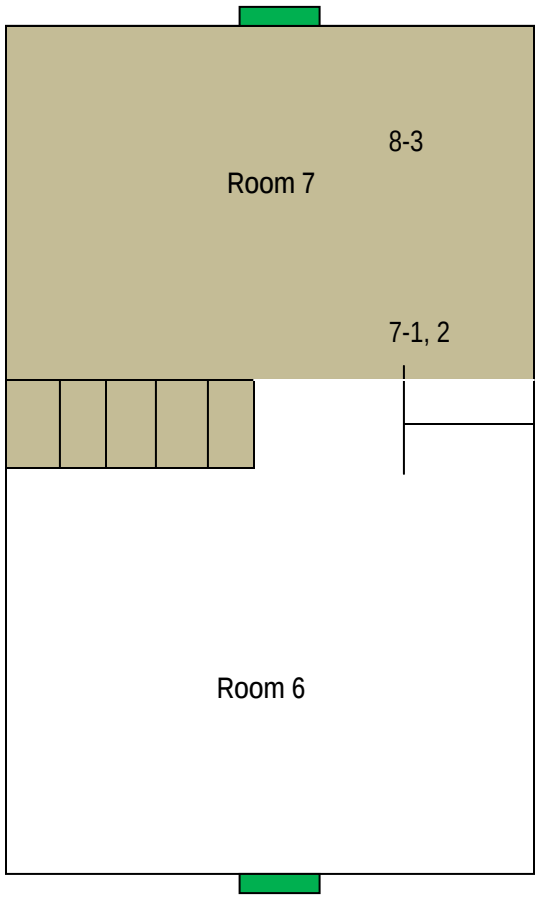
TECHNICAL SKILL.
CREATIVE SPIRIT.

721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

Address: 1311 N MLK Date: December 11, 2017

Drawing not to scale

2nd Floor



Brown 9x9 Tile (130 SF)

Window Glaze (2 Windows)

#-# = Asbestos Sample

TABLES

TABLE 1
Asbestos Sampling Results

Client	Ingham County Land Bank Authority
Survey Location	1311 N MLK Jr Blvd
Survey Date	December 7, 2017

Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-1	1	AS 1-1	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	2300 SF
RM-2	1	AS 1-2	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	2300 SF
RM-4	1	AS 1-3	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	2300 SF
RM-1	1	AS 2-1	HA-2	Window glaze	Non-Friable	Good	Miscellaneous	Yes	2% Chrysotile	11 Windows
RM-1	1	AS 2-2	HA-2	Window glaze	Non-Friable	Good	Miscellaneous	Yes	NA	11 Windows
RM-2	1	AS 3-1	HA-3	White tile	Non-Friable	Good	Miscellaneous	No	No	144 SF
RM-2	1	AS 3-2	HA-3	White tile	Non-Friable	Good	Miscellaneous	No	No	144 SF
RM-2	1	AS 4-1	HA-4	Green tile	Non-Friable	Good	Miscellaneous	Yes	5% Chrysotile	144 SF
RM-2	1	AS 4-2	HA-4	Green tile	Non-Friable	Good	Miscellaneous	Yes	NA	144 SF
RM-3	1	AS 5-1	HA-5	Cream tile	Non-Friable	Good	Miscellaneous	No	No	50 SF
RM-3	1	AS 5-2	HA-5	Cream tile	Non-Friable	Good	Miscellaneous	No	No	50 SF
RM-3	1	AS 6-1	HA-6	Faux stone tile	Non-Friable	Good	Miscellaneous	No	No	50 SF
RM-3	1	AS 6-2	HA-6	Faux stone tile	Non-Friable	Good	Miscellaneous	No	No	50 SF
RM-7	2	AS 7-1	HA-7	Brown 9x9 tile	Non-Friable	Good	Miscellaneous	Yes	5% Chrysotile	130 SF
RM-7	2	AS 7-2	HA-7	Brown 9x9 tile	Non-Friable	Good	Miscellaneous	Yes	NA	130 SF

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		1311 N MLK Jr Blvd								
Survey Date		December 7, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-7	2	AS 8-3	HA-8	Ceiling	Friable	Good	Miscellaneous	No	No	500 SF
RM-1	1	AS 8-1	HA-8	Ceiling	Friable	Good	Miscellaneous	No	No	500 SF
RM-1	1	AS 8-2	HA-8	Ceiling	Friable	Good	Miscellaneous	No	No	500 SF
Roof	E	AS 9-1	HA-9	Shingles	Non-Friable	Good	Miscellaneous	No	No	850 SF
Roof	E	AS 9-2	HA-9	Shingles	Non-Friable	Good	Miscellaneous	No	No	850 SF

Table 2
Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory
1311 N MLK.
Lansing, Ingham County, Michigan

Universal Waste Inventory		
Location	Type of Waste	Approximate Quantity
RM-1, RM-2, RM-4, RM-5, RM-6	Thermostat	5
RM-6	CFL Bulb	1
Garage	Tires	15
Hazardous Materials Inventory		
Location	Type of Waste	Approximate Quantity
-	-	-
Other Regulated Materials Inventory		
Location	Type of Waste	Approximate Quantity
-	-	-

ATTACHMENT A

PHOTO LOG

Ingham County Land Bank
1311 N MLK Jr Blvd, Lansing, MI
Photographs taken by: Kory McKay on 12/07/2017

Property Photos

1311 N MLK Jr Blvd, Front of House

Back of House

Side of House

Side of House

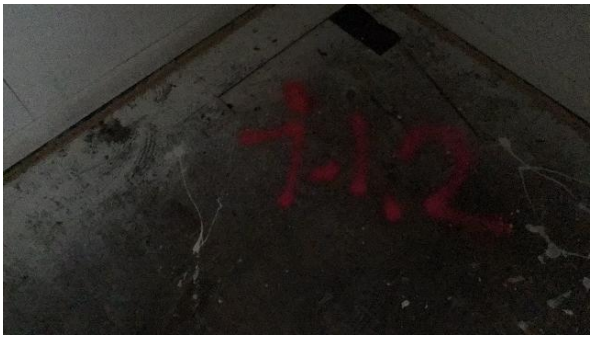
Ingham County Land Bank
1311 N MLK Jr Blvd, Lansing, MI
Photographs taken by: Kory McKay on 12/07/2017

Sample Photos

Drywall sample from room 1

Window glaze sample from room 1

Green tile sample from room 2



Brown 9x9 tile sample from room 7

Textured ceiling sample from room 1

Shingle sample from roof

ATTACHMENT B

LIMITATIONS

REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

65 Cadillac Square, Suite 3311, Detroit, Michigan 48226 Tel: 313.961.9500 Fax: 313.961.9509 www.MannikSmithGroup.com

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.

ATTACHMENT C

ANALYTICAL REPORTS AND CHAINS OF CUSTODY

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1311 N. MLK Jr. Blvd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73617
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/12/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73617 - 01 Cust. #: AS1-1 Material: Drywall Location: Room 1 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73617 - 02 Cust. #: AS1-2 Material: Drywall Location: Room 2 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73617 - 03 Cust. #: AS1-3 Material: Drywall Location: Room 4 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1311 N. MLK Jr. Blvd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73617
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/12/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73617 - 04 Cust. #: AS2-1 Material: Window Glaze Location: Room 1 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **YES** Chrysotile - 2%	Other - 98%
Lab ID #: 73617 - 05 Cust. #: AS2-2 Material: Window Glaze Location: Room 1 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73617 - 06 Cust. #: AS3-1 Material: White Tile Location: Room 2 Appearance: grey,nonfibrous,homogenous Layer: 1 of 4	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1311 N. MLK Jr. Blvd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73617
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/12/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73617 - 06a Cust. #: AS3-1 Material: Mastic Location: Room 2 Appearance: clear,nonfibrous,homogenous Layer: 2 of 4	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73617 - 06b Cust. #: AS3-1 Material: Floor Tile Location: Room 2 Appearance: beige,nonfibrous,homogenous Layer: 3 of 4	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73617 - 06c Cust. #: AS3-1 Material: Mastic Location: Room 2 Appearance: yellow,nonfibrous,homogenous Layer: 4 of 4	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1311 N. MLK Jr. Blvd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73617
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/12/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73617 - 07 Cust. #: AS3-2 Material: White Tile Location: Room 2 Appearance: grey,nonfibrous,homogenous Layer: 1 of 4	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73617 - 07a Cust. #: AS3-2 Material: Mastic Location: Room 2 Appearance: clear,nonfibrous,homogenous Layer: 2 of 4	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73617 - 07b Cust. #: AS3-2 Material: Floor Tile Location: Room 2 Appearance: beige,nonfibrous,homogenous Layer: 3 of 4	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1311 N. MLK Jr. Blvd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73617
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/12/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73617 - 07c Cust. #: AS3-2 Material: Mastic Location: Room 2 Appearance: yellow,nonfibrous,homogenous Layer: 4 of 4	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73617 - 08 Cust. #: AS4-1 Material: Green Tile Location: Room 2 Appearance: green,fibrous,homogenous Layer: 1 of 2	Asbestos Present: **YES** Chrysotile - 5%	Other - 95%
Lab ID #: 73617 - 08a Cust. #: AS4-1 Material: Mastic Location: Room 2 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1311 N. MLK Jr. Blvd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73617
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/12/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73617 - 09 Cust. #: AS4-2 Material: Green Tile Location: Room 2 Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	
Lab ID #: 73617 - 09a Cust. #: AS4-2 Material: Mastic Location: Room 2 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73617 - 10 Cust. #: AS5-1 Material: Cream Tile Location: Room 3 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1311 N. MLK Jr. Blvd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73617
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/12/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73617 - 10a Cust. #: AS5-1 Material: Mastic Location: Room 3 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73617 - 11 Cust. #: AS5-2 Material: Cream Tile Location: Room 3 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73617 - 11a Cust. #: AS5-2 Material: Mastic Location: Room 3 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1311 N. MLK Jr. Blvd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73617
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/12/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73617 - 12 Cust. #: AS6-1 Material: Faux Stone Tile Location: Room 3 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73617 - 12a Cust. #: AS6-1 Material: Mastic Location: Room 3 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73617 - 13 Cust. #: AS6-2 Material: Faux Stone Tile Location: Room 3 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1311 N. MLK Jr. Blvd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73617
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/12/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73617 - 13a Cust. #: AS6-2 Material: Mastic Location: Room 3 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73617 - 14 Cust. #: AS7-1 Material: Brown 9x9 Tile Location: Room 7 Appearance: brown,fibrous,homogenous Layer: 1 of 2	Asbestos Present: **YES** Chrysotile - 5%	Other - 95%
Lab ID #: 73617 - 14a Cust. #: AS7-1 Material: Mastic Location: Room 7 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1311 N. MLK Jr. Blvd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73617
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/12/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73617 - 15 Cust. #: AS7-2 Material: Brown 9x9 Tile Location: Room 7 Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	
Lab ID #: 73617 - 15a Cust. #: AS7-2 Material: Mastic Location: Room 7 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73617 - 16 Cust. #: AS8-3 Material: Ceiling Location: Room 7 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1311 N. MLK Jr. Blvd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73617
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/12/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73617 - 17 Cust. #: AS8-1 Material: Ceiling Location: Room 1 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73617 - 18 Cust. #: AS8-2 Material: Ceiling Location: Room 1 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73617 - 19 Cust. #: AS9-1 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Fiberglass - 15% Other - 85%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1311 N. MLK Jr. Blvd
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73617
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/12/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73617 - 20 Cust. #: AS9-2 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Apex # **73617**

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Customer Name:	**MANNIK & SMITH GROUP**	Date of Survey:	12/7/2017 5:00
Address:	2193 Association Drive, Suite 200	Project:	1311 N MLK Jr Blvd
City, St., Zip:	Okemos, MI, 48864	Project #	I1440002
Phone:	(517) 316-9232 Fax: (517) 316-9233	Contact Person:	Charlie Bush
		Email:	cbush@manniksmithgroup.com

Lab Use Only
Log-In:____
Report: ____
Fax: ____
Verbal:____
Email:____

Turn Around Time: (*circle one*)***Terms and conditions on the other side.

Rush — 24 Hour
48 Hour — (72 Hour)
Other: _____ — TTP (yes / no) (Test Till Positive)

Samples received after 3pm logged in next morning

Circle analyses required, indicate type and quantity

(Asbstos:) Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Air ____ Paint ____ Wipe (ASTM) ____ Bulk ____
Mold: Bulk ____ Air ____ BioSIS ____ Tape ____
TEM: Bulk ____ NIOSH ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
1	AS 1-1	RM-1 - Drywall	Bag	HA-1	
2	AS 1-2	RM-2 - Drywall	Bag	HA-1	
3	AS 1-3	RM-4 - Drywall	Bag	HA-1	
4	AS 2-1	RM-1 - Window glaze	Bag	HA-2	
5	AS 2-2	RM-1 - Window glaze	Bag	HA-2	
6	AS 3-1	RM-2 - White tile	Bag	HA-3	
7	AS 3-2	RM-2 - White tile	Bag	HA-3	
8	AS 4-1	RM-2 - Green tile	Bag	HA-4	
9	AS 4-2	RM-2 - Green tile	Bag	HA-4	
10	AS 5-1	RM-3 - Cream tile	Bag	HA-5	
11	AS 5-2	RM-3 - Cream tile	Bag	HA-5	
12	AS 6-1	RM-3 - Faux stone tile	Bag	HA-6	

Relinquished By: _____ Received By: _____ Relinquished By: _____ Received By: _____

Date: 12/7/17 Time/Date: 12/7/17 Date: _____ Time/Date: _____

RECEIVED
DEC 0 8 2017
APEX RESEARCH

Revision R4 Date: May/2017

73617

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Lab Use Only
Log-In:____
Report: ____
Fax: ____
Verbal:____
Email:____

Customer Name: **MANNIK & SMITH GROUP**
Address: 2193 Association Drive, Suite 200
City, St., Zip: Okemos, MI, 48864
Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/7/2017 5:00
Project: 1311 N MLK Jr Blvd
Project # I1440002
Contact Person: Charlie Bush
Email: cbush@manniksmithgroup.com

Turn Around Time: (*circle one*)***Terms and conditions on the other side.

Rush
24 Hour
48 Hour
72 Hour
Other: _____
TTP (yes / no)
(Test Till Positive)

Samples received after 3pm logged in next morning

Circle analyses required, indicate type and quantity

Asbstos: Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Air ____ Paint ____ Wipe (ASTM) ____ Bulk ____
Mold: Bulk ____ Air ____ BioSIS ____ Tape ____
TEM: Bulk ____ NIOSH ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
13	AS 6-2	RM-3 - Faux stone tile	Bag	HA-6	
14	AS 7-1	RM-7 - Brown 9x9 tile	Bag	HA-7	
15	AS 7-2	RM-7 - Brown 9x9 tile	Bag	HA-7	
16	AS 8-3	RM-7 - Ceiling	Bag	HA-8	
17	AS 8-1	RM-1 - Ceiling	Bag	HA-8	
18	AS 8-2	RM-1 - Ceiling	Bag	HA-8	
19	AS 9-1	Roof - Shingles	Bag	HA-9	
20	AS 9-2	Roof - Shingles	Bag	HA-9	

Relinquished By: _____
Date: 12/7/17

Received By: _____
Time/Date: 12/7/17

Relinquished By: _____
Date: _____

Received By: _____
Time/Date: _____

RECEIVED
DEC 08 2017
APEX RESEARCH

Revision R4 Date: May/2017

ATTACHMENT D

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M

MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM, P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date _____/_____/_____ Rec'd Date ____/____/_____

Emergency Date _____/_____/_____ Valid No. _____

☐ OK ☐ Send Def Ltr. Date of Def Ltr. _____/_____/_____

FOLLOW UP _____/_____/_____ Spoke w/ _____

Comments: _____

Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)

Total Project Cost: _____ x 0.01 = _____

Type of Contractor: _____ License No.: _____

Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____

Date of Revision(s): _____

Notification Type: ☐ Original ☐ Revised ☐ Canceled ☐ Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) ***[260 ln. ft./160 sq. ft. or more is threshold]***

☐ Planned Renovation – 10 **working** days notice
☐ Emergency Renovation
☐ Scheduled Demolition – 10 **working** days notice
☐ Intentional Burn – 10 **working** days notice
☐ Ordered Demolition

LARA (MIOSHA) [*Will not accept annual notifications]*

☐ Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 **calendar** days notice
☐ Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation		
+Asb. Removal		
+Demolition:		
Encapsulation:		

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:		
Demolition:		
Encapsulation:		

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
+Include **only** those dates you are conducting asbestos removal/demo.

☐ Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR: Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR: Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____
Location Address/Description: _____
_____ If Apt. # of units: _____
City/Twp. _____ State: _____ Zip Code: _____
County: _____ Nearest Crossroad: _____
Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
Age: _____ Present Use: _____ Prior Use: _____
Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____
Location Address: _____
City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____
Address: _____
City/State/Zip: _____
Phone: _____

WASTE TRANSPORTER 2:

_____
_____
_____
_____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____
Name/Title of Person Signing Order: _____
_____
Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT? ☐ Yes ☐ No ☐ To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that **will not** be removed prior to demolition. (**NOTE:** In a demolition, cementatious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM **not** removed prior to demo. Category I	Non-friable ACM **not** removed prior to demo. Category II	Units of Measure	
				☐ Ln. Ft.	☐ Ln. M.
				☐ Sq. Ft.	☐ Sq. M.
				☐ Cu. Ft.*	☐ Cu.M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

11. PROJECT DESCRIPTION: Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition:**

A) RENOVATION: Mark all surfaces/types of RACM to be removed:
☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tanks(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Mag Block ☐ Other (describe)_____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:
☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tank(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: A) Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor *Date* *Signature of Owner or Demolition Contractor* *Date*

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)

Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. *I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.*

Signature of Building Owner or Lessee *Date* *Signature of Asbestos Abatement Contractor Representative* *Date*

NOTE: **It is not mandatory that a signed copy be sent to LARA unless requested.** For affected projects, this section of the notification form must be completed, signed, and made part of **your** records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator *Date* *Signature of Owner/Operator* *Date*

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8),** mail to address below. For more info visit: http://www.michigan.gov/asbestos

MIOSHA Asbestos Program
LARA, CSHD
P.O. Box 30671
Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, please use the e-submittal process. For more information visit http://www.michigan.gov/air, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
DEQ, AQD
P.O. Box 30260
Lansing, MI 48909-7760

517.284.6777 (Office)

December 29, 2017

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey
1147 Princeton Ave, Lansing, Ingham County, MI

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited pre-demolition regulated materials survey (RMS) performed at 1147 Princeton Ave, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information	
Property Address	1147 Princeton Ave, Lansing, MI
Parcel #	33-01-01-08-426-121
No. Stories	2
Square Footage (approx.)	1,100 SF
Siding	Transite
Basement	Yes
Garage	Yes

Asbestos Containing Material				
Location	**Material Group**	**Friable/Non Friable**	**Asbestos**	**Quantity**
RM-6, RM-7, RM-8, RM-9	Vent wrap	Friable	50% Chrysotile	220 SF
Exterior	Transite siding	Non friable	25% Chrysotile	2,100 SF

Hazardous Materials		
Location	**Material Description**	**Quantity**
No hazardous materials were found on site		

Universal Waste Inventory		
Location	**Material Description**	**Quantity**
RM-8	CFL bulb	1
RM-1	Thermostat	1

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

1) Pre-demolition asbestos-containing material (ACM) survey.
2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 12, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number

A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
    - DOT - Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
    - IMO - International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
    - IATA - International Air Transport Association; Dangerous Goods Regulations;
    - ICAO - International Civil Aviation Organization; Technical Instructions; and
    - AF - Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log*. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified ten (10) homogenous materials that were suspect as asbestos containing during the ACM survey. Twenty-six (26) bulk samples were collected from these suspect homogeneous materials and were submitted to Apex Research, Inc. for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. Apex is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found two (2) homogenous

materials (samples 7-1 and 10-1) contained greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory.*

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the ten (10) homogenous materials collected as part of the ACM survey, two (2) homogenous materials contained asbestos greater than 1% (samples 7-1 and 10-1) with these two (2) homogenous materials being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 517-316-9232.

Sincerely,

Kory McKay
Environmental Scientist
Accreditation Number A47903

Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

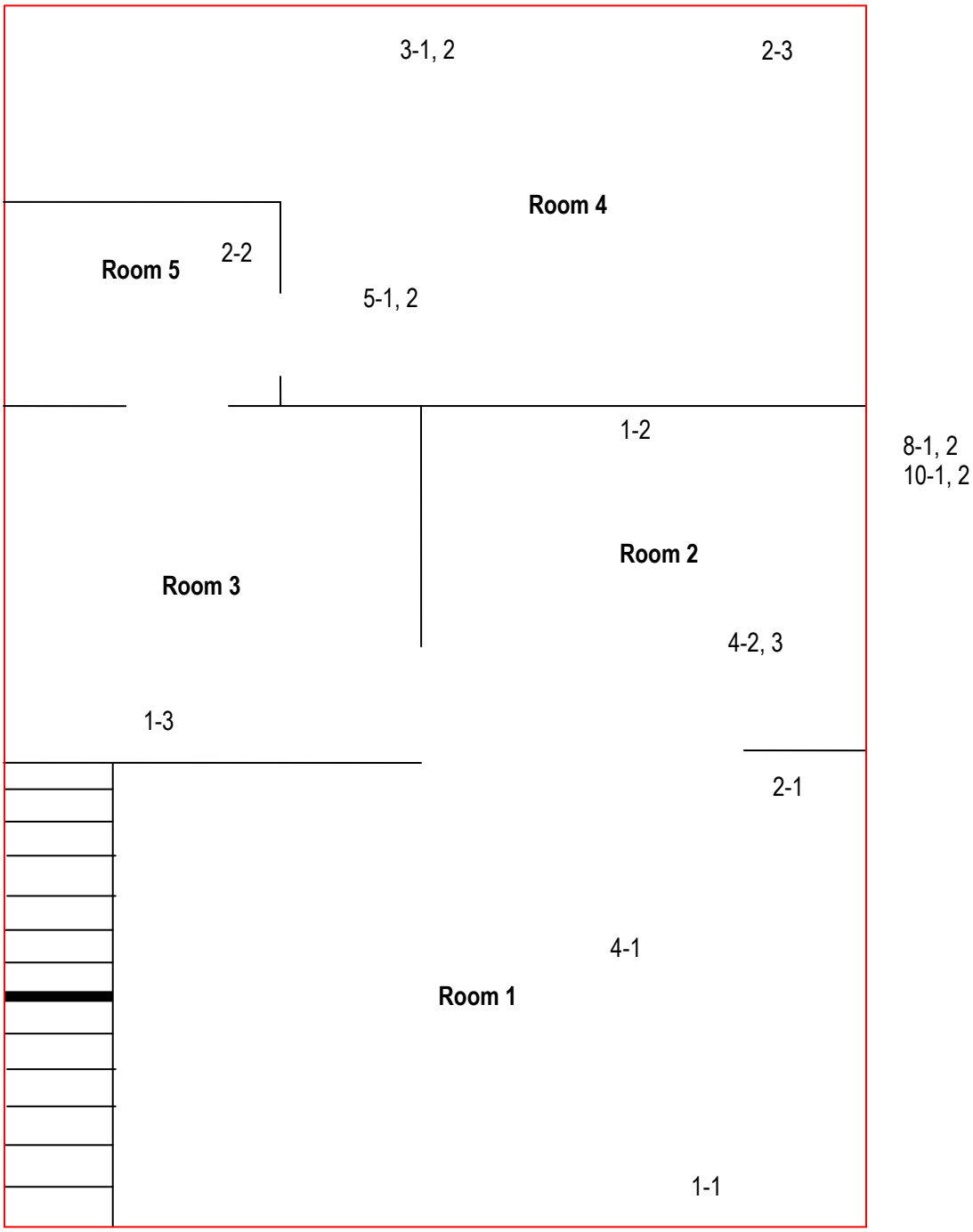
FIGURE

Mannik Smith GROUP
TECHNICAL SKILL.
CREATIVE SPIRIT.
721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

Address: 1147 Princeton **Date**: December 15, 2017

Drawing not to scale

1st Floor



#-# = Asbestos Sample

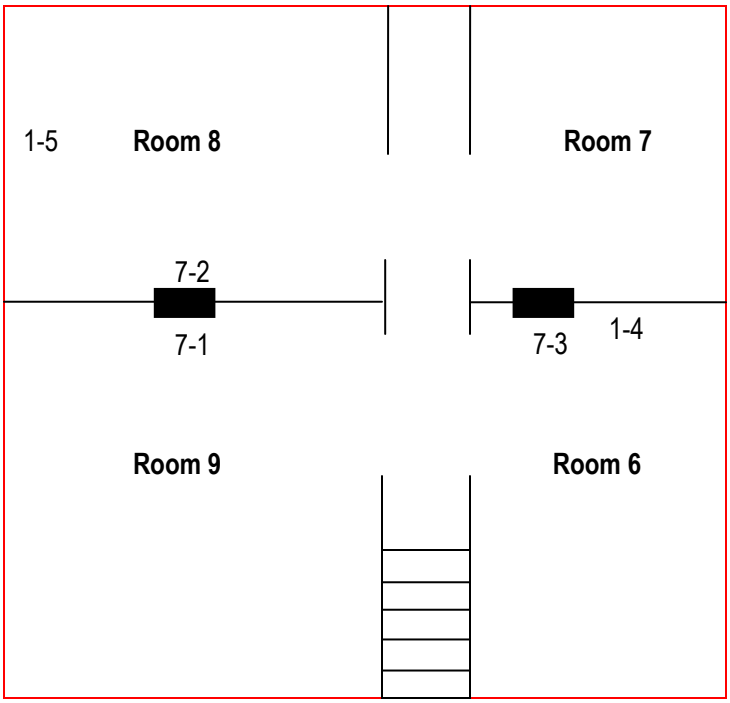
Transite Siding (2,100 SF)

Mannik Smith GROUP
TECHNICAL SKILL.
CREATIVE SPIRIT.
721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

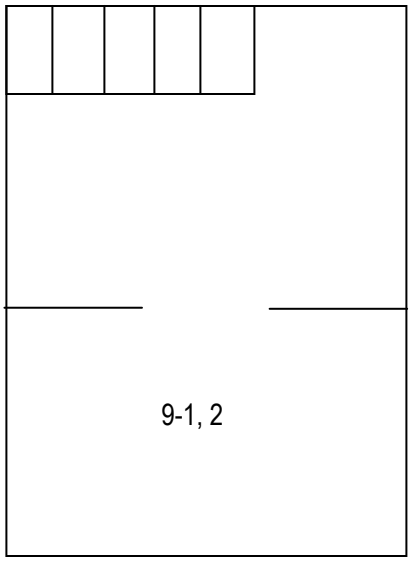
Address: 1147 Princeton **Date**: December 15, 2017

Drawing not to scale

2nd Floor



Basement



Transite Siding (2,100 SF)

Vent with wrap (220 SF)

#-# = Asbestos Sample

TABLES

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		1147 Princeton Ave.								
Survey Date		December 12, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-1	1	AS 1-1	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1735 SF
RM-2	1	AS 1-2	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1735 SF
RM-3	1	AS 1-3	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1735 SF
RM-6	2	AS 1-4	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1735 SF
RM-8	2	AS 1-5	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1735 SF
RM-1	1	AS 2-1	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	865 SF
RM-5	1	AS 2-2	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	865 SF
RM-4	1	AS 2-3	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	865 SF
RM-4	1	AS 3-1	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	225 SF
RM-4	1	AS 3-2	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	225 SF
RM-1	1	AS 4-1	HA-4	Textured ceiling	Friable	Good	Miscellaneous	No	No	805 SF
RM-2	1	AS 4-2	HA-4	Textured ceiling	Friable	Good	Miscellaneous	No	No	805 SF
RM-2	1	AS 4-3	HA-4	Textured ceiling	Friable	Good	Miscellaneous	No	No	805 SF
RM-4	1	AS 5-1	HA-5	Black tile	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-4	1	AS 5-2	HA-5	Black tile	Non-Friable	Good	Miscellaneous	No	No	150 SF

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		1147 Princeton Ave.								
Survey Date		December 12, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-9	2	AS 6-1	HA-6	Black flooring	Non-Friable	Good	Miscellaneous	No	No	20 SF
RM-9	2	AS 6-2	HA-6	Black flooring	Non-Friable	Good	Miscellaneous	No	No	20 SF
RM-9	2	AS 7-1	HA-7	Vent wrap	Friable	Good	Miscellaneous	Yes	50% Chrysotile	220 SF
RM-8	2	AS 7-2	HA-7	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	220 SF
RM-6	2	AS 7-3	HA-7	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	220 SF
Roof	E	AS 8-1	HA-8	Shingles	Non-Friable	Good	Miscellaneous	No	No	600 SF
Roof	E	AS 8-2	HA-8	Shingles	Non-Friable	Good	Miscellaneous	No	No	600 SF
Basement	B	AS 9-1	HA-9	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	280 SF
Basement	B	AS 9-2	HA-9	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	280 SF
Exterior	E	AS 10-1	HA-10	Transite siding	Non-Friable	Good	Miscellaneous	Yes	25% Chrysotile	2100 SF
Exterior	E	AS 10-2	HA-10	Transite siding	Non-Friable	Good	Miscellaneous	Yes	NA	2100 SF

Table 2
Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory
1147 Princeton Ave.
Lansing, Ingham County, Michigan

Universal Waste Inventory		
Location	Type of Waste	Approximate Quantity
RM-8	CFL bulb	1
RM-1	Thermostat	1
Hazardous Materials Inventory		
Location	Type of Waste	Approximate Quantity
-	-	-
Other Regulated Materials Inventory		
Location	Type of Waste	Approximate Quantity
-	-	-

ATTACHMENT A

PHOTO LOG

Ingham County Land Bank
1147 Princeton Ave, Lansing, MI
Photographs taken by: Kory McKay on 12/12/2017

Property Photos

1147 Princeton Ave, Front of House

Back of House

Side of House

Side of House

Ingham County Land Bank
1147 Princeton Ave, Lansing, MI
Photographs taken by: Kory McKay on 12/12/2017

Sample Photos

Drywall sample from room 1

Window glaze sample from room 4

Textured ceiling sample from room 2

Black tile sample from room 4

Vent wrap sample from room 9

Transite siding sample from exterior

ATTACHMENT B

LIMITATIONS

REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

65 Cadillac Square, Suite 3311, Detroit, Michigan 48226 Tel: 313.961.9500 Fax: 313.961.9509 www.MannikSmithGroup.com

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.

ATTACHMENT C

ANALYTICAL REPORTS AND CHAINS OF CUSTODY

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1147 Princeton Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73724
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/15/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73724 - 01 Cust. #: AS1-1 Material: Plaster/Joint Compound Location: Room 1 Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73724 - 01a Cust. #: AS1-1 Material: Drywall Location: Room 1 Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73724 - 02 Cust. #: AS1-2 Material: Plaster Location: Room 2 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1147 Princeton Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73724
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/15/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73724 - 02a Cust. #: AS1-2 Material: Mortar Location: Room 2 Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 73724 - 03 Cust. #: AS1-3 Material: Plaster/Mortar Location: Room 3 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73724 - 04 Cust. #: AS2-1 Material: Drywall Location: Room 1 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1147 Princeton Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73724
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/15/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73724 - 05 Cust. #: AS2-2 Material: Drywall Location: Room 5 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Fiberglass - 5% Other - 75%
Lab ID #: 73724 - 06 Cust. #: AS2-3 Material: Drywall Location: Room 4 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73724 - 07 Cust. #: AS3-1 Material: Window Glaze Location: Room 4 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1147 Princeton Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73724
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/15/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73724 - 08 Cust. #: AS3-2 Material: Window Glaze Location: Room 4 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73724 - 09 Cust. #: AS4-1 Material: Textured Ceiling Location: Room 1 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73724 - 10 Cust. #: AS4-2 Material: Textured Ceiling Location: Room 2 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1147 Princeton Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73724
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/15/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73724 - 11 Cust. #: AS4-3 Material: Textured Ceiling Location: Room 2 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73724 - 12 Cust. #: AS5-1 Material: Black Tile Location: Room 4 Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: 73724 - 13 Cust. #: AS5-2 Material: Black Tile Location: Room 4 Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1147 Princeton Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73724
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/15/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73724 - 14 Cust. #: AS6-1 Material: Black Flooring Location: Room 9 Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73724 - 15 Cust. #: AS6-2 Material: Black Flooring Location: Room 9 Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 73724 - 16 Cust. #: AS7-1 Material: Vent Wrap Location: Room 9 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **YES** Chrysotile - 50%	Other - 50%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1147 Princeton Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73724
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/15/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73724 - 17 Cust. #: AS8-1 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Cellulose - 10% Fiberglass - 30% Other - 70%
Lab ID #: 73724 - 18 Cust. #: AS8-2 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 73724 - 19 Cust. #: AS7-2 Material: Vent Wrap Location: Room 8 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1147 Princeton Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73724
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/15/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73724 - 20 Cust. #: AS1-5 Material: Plaster Location: Room 8 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73724 - 21 Cust. #: AS7-3 Material: Vent Wrap Location: Room 6 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73724 - 22 Cust. #: AS1-4 Material: Plaster Location: Room 6 Appearance: grey,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Hair - 2% Other - 98%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1147 Princeton Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73724
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/15/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73724 - 23 Cust. #: AS10-1 Material: Transite Siding Location: Exterior Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: **YES** Chrysotile - 25%	Other - 75%
Lab ID #: 73724 - 24 Cust. #: AS10-2 Material: Transite Siding Location: Exterior Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73724 - 25 Cust. #: AS9-1 Material: Basement Cement Floor Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1147 Princeton Ave
Project # I1440002

Report To:
Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73724
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/15/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73724 - 26 Cust. #: AS9-2 Material: Basement Cement Floor Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: **NO** No Asbestos Observed	Other - 100%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

NVLAP Lab Code 102118-0

Apex # **73724**

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Lab Use Only
Log-In:____
Report: ____
Fax: ____
Verbal:____
Email:____

Customer Name:	**MANNIK & SMITH GROUP**	Date of Survey:	12/12/2017 5:00
Address:	2193 Association Drive, Suite 200	Project:	1147 PRINCETON AVE
City, St., Zip:	Okemos, MI, 48864	Project #	I1440002
Phone:	(517) 316-9232 Fax: (517) 316-9233	Contact Person:	Charlie Bush
		Email:	cbush@manniksmithgroup.com

Turn Around Time: (*circle one*)***Terms and conditions on the other side.

Rush 24 Hour
48 Hour (72 Hour)
Other: _____ TTP (yes / no)
(Test Till Positive)

Samples received after 3pm logged in next morning

Circle analyses required, indicate type and quantity

(Asbstos:) Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Air ____ Paint ____ Wipe (ASTM) ____ Bulk ____
Mold: Bulk ____ Air ____ BioSIS ____ Tape ____
TEM: Bulk ____ NIOSH ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
1	AS 1-1	RM-1 - Plaster	Bag	HA-1	
2	AS 1-2	RM-2 - Plaster	Bag	HA-1	
3	AS 1-3	RM-3 - Plaster	Bag	HA-1	
4	AS 2-1	RM-1 - Drywall	Bag	HA-2	
5	AS 2-2	RM-5 - Drywall	Bag	HA-2	
6	AS 2-3	RM-4 - Drywall	Bag	HA-2	
7	AS 3-1	RM-4 - Window glaze	Bag	HA-3	
8	AS 3-2	RM-4 - Window glaze	Bag	HA-3	
9	AS 4-1	RM-1 - Textured ceiling	Bag	HA-4	
10	AS 4-2	RM-2 - Textured ceiling	Bag	HA-4	
11	AS 4-3	RM-2 - Textured ceiling	Bag	HA-4	
12	AS 5-1	RM-4 - Black tile	Bag	HA-5	

Relinquished By: _____ Received By: _____ Relinquished By: _____ Received By: _____

Date: 12-13-17 Time/Date: 12/13/17 Date: _____ Time/Date: _____

RECEIVED DEC 13 2017 APEX RESEARCH

Revision R4 Date: May/2017

73724

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Lab Use Only
Log-In:
Report:
Fax:
Verbal:
Email:

Customer Name: **MANNIK & SMITH GROUP**
Address: 2193 Association Drive, Suite 200
City, St., Zip: Okemos, MI, 48864
Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/12/2017 5:00
Project: 1147 PRINCETON AVE
Project # I1440002
Contact Person: Charlie Bush
Email: cbush@manniksmithgroup.com

Turn Around Time: (*circle one*)***Terms and conditions on the other side.

Rush
24 Hour
48 Hour
(72 Hour)
Other: _____
TTP (yes / no)
(Test Till Positive)

Samples received after 3pm logged in next morning

Circle analyses required, indicate type and quantity

(Asbstos:) Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Air ____ Paint ____ Wipe (ASTM) ____ Bulk ____
Mold: Bulk ____ Air ____ BioSIS ____ Tape ____
TEM: Bulk ____ NIOSH ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
13	AS 5-2	RM-4 - Black tile	Bag	HA-5	
14	AS 6-1	RM-9 - Black flooring	Bag	HA-6	
15	AS 6-2	RM-9 - Black flooring	Bag	HA-6	
16	AS 7-1	RM-9 - Vent wrap	Bag	HA-7	
17	AS 8-1	Roof - Shingles	Bag	HA-8	
18	AS 8-2	Roof - Shingles	Bag	HA-8	
19	AS 7-2	RM-8 - Vent wrap	Bag	HA-7	
20	AS 1-5	RM-8 - Plaster	Bag	HA-1	
21	AS 7-3	RM-6 - Vent wrap	Bag	HA-7	
22	AS 1-4	RM-6 - Plaster	Bag	HA-1	
23	AS 10-1	Exterior - Transite siding	Bag	HA-10	
24	AS 10-2	Exterior - Transite siding	Bag	HA-10	

Relinquished By: _____ Received By: _____ Relinquished By: _____ Received By: _____

Date: 12-13-17 Time/Date: 12/13/17 Date: _____ Time/Date: _____

RECEIVED DEC 13 2017 APEX RESEARCH

Revision R4 Date: May/2017

73724

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com

Lab Use Only
Log-In:
Report:
Fax:
Verbal:
Email:

Customer Name: **MANNIK & SMITH GROUP**
Address: 2193 Association Drive, Suite 200
City, St., Zip: Okemos, MI, 48864
Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/12/2017 5:00
Project: 1147 PRINCETON AVE
Project # I1440002
Contact Person: Charlie Bush
Email: cbush@manniksmithgroup.com

Turn Around Time: (*circle one*)***Terms and conditions on the other side.

Rush 24 Hour
48 Hour (72 Hour)
Other: _____ TTP (yes / no)
(Test Till Positive)

Samples received after 3pm logged in next morning

Circle analyses required, indicate type and quantity

(Asbstos:) Bulk X Wipe ____ Point Count ____ PCM ____
Lead / Cad / Chrome: Air ____ Paint ____ Wipe (ASTM) ____ Bulk ____
Mold: Bulk ____ Air ____ BioSIS ____ Tape ____
TEM: Bulk ____ NIOSH ____ EPA Level II ____ Other ____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
25	AS 9-1	Basement - Basement cement floor	Bag	HA-9	
26	AS 9-2	Basement - Basement cement floor	Bag	HA-9	

Relinquished By: _____ Received By: _____ Relinquished By: _____ Received By: _____

Date: 12-13-17 Time/Date: 12/13/17 Date: _____ Time/Date: _____

RECEIVED
DEC 13 2017
APEX RESEARCH

Revision R4 Date: May/2017

ATTACHMENT D

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M

MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM, P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date _____/_____/_____ Rec'd Date ____/____/_____

Emergency Date _____/_____/_____ Valid No. _____

☐ OK ☐ Send Def Ltr. Date of Def Ltr. _____/_____/_____

FOLLOW UP _____/_____/_____ Spoke w/ _____

Comments: _____

Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)

Total Project Cost: _____ x 0.01 = _____

Type of Contractor: _____ License No.: _____

Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____

Date of Revision(s): _____

Notification Type: ☐ Original ☐ Revised ☐ Canceled ☐ Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) ***[260 ln. ft./160 sq. ft. or more is threshold]***

☐ Planned Renovation – 10 **working** days notice
☐ Emergency Renovation
☐ Scheduled Demolition – 10 **working** days notice
☐ Intentional Burn – 10 **working** days notice
☐ Ordered Demolition

LARA (MIOSHA) [*Will not accept annual notifications]*

☐ Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 **calendar** days notice
☐ Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation		
+Asb. Removal		
+Demolition:		
Encapsulation:		

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:		
Demolition:		
Encapsulation:		

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
+Include **only** those dates you are conducting asbestos removal/demo.

☐ Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR: Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR: Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____
Location Address/Description: _____
_____ If Apt. # of units: _____
City/Twp. _____ State: _____ Zip Code: _____
County: _____ Nearest Crossroad: _____
Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
Age: _____ Present Use: _____ Prior Use: _____
Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____
Location Address: _____
City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____
Address: _____
City/State/Zip: _____
Phone: _____

WASTE TRANSPORTER 2:

_____
_____
_____
_____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____
Name/Title of Person Signing Order: _____
_____
Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT? ☐ Yes ☐ No ☐ To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that **will not** be removed prior to demolition. (**NOTE:** In a demolition, cementatious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM **not** removed prior to demo. Category I	Non-friable ACM **not** removed prior to demo. Category II	Units of Measure	
				☐ Ln. Ft.	☐ Ln. M.
				☐ Sq. Ft.	☐ Sq. M.
				☐ Cu. Ft.*	☐ Cu.M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

11. PROJECT DESCRIPTION: Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition:**

A) RENOVATION: Mark all surfaces/types of RACM to be removed:
☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tanks(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Mag Block ☐ Other (describe)_____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:
☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tank(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: A) Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor *Date* *Signature of Owner or Demolition Contractor* *Date*

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)

Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. *I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.*

Signature of Building Owner or Lessee *Date* *Signature of Asbestos Abatement Contractor Representative* *Date*

NOTE: **It is not mandatory that a signed copy be sent to LARA unless requested.** For affected projects, this section of the notification form must be completed, signed, and made part of **your** records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator *Date* *Signature of Owner/Operator* *Date*

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8),** mail to address below. For more info visit: http://www.michigan.gov/asbestos

MIOSHA Asbestos Program
LARA, CSHD
P.O. Box 30671
Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, please use the e-submittal process. For more information visit http://www.michigan.gov/air, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
DEQ, AQD
P.O. Box 30260
Lansing, MI 48909-7760

517.284.6777 (Office)