

AE REDEVELOPMENT

Asbestos Survey and Report

**West Lafayette City Hall
609 W Navajo Street
West Lafayette, IN 47906**

August 30, 2016

AE REDEVELOPMENT

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1. Introduction

AE Redevelopment (AER) was authorized by the City of West Lafayette to conduct asbestos testing and supply an Asbestos Survey and Report for the former West Lafayette City Hall located at 609 W Navajo Street, West Lafayette, Tipton County, Indiana (“Site”). The following survey and report presents information obtained during the investigation and provides conclusions, opinions, and recommendations based on our findings.

2. Background

The Site is situated on the north side of West Lafayette, Indiana, and on the south side of Navajo Street. The Site consists of a rectangular lot parcel (Parcel 79-07-07-327-011.000-026) that totals approximately one acre of land (Appendix A – Site Location Map).

The Site is occupied by one building: an approximate 19,059 square foot, three story structure (6,353 s.f. per floor) consisting of both office and storage space and was used as the prior West Lafayette City Hall. There is an area with grass and trees north of the building, a paved parking/driveway area interspersed with some trees east and south of the building, and a single row of additional paved parking spaces with driveway area west of the building. The parking lot is also surrounded by trees (Appendix A – Site Location Map).

The structure was built in 1970 and a portion (2,357 s.f.) of the lower level was renovated in 2005. The building is slated for demolition subsequent to asbestos abatement. Planned reuse of the Site after that is unknown at this time.

The following observations were made during a walk through on April 20th, 2016, with City of West Lafayette Facilities Director Tim Clark:

- Pipe wrapping or thermal system insulation (TSI) that appeared to be asbestos containing materials (ACM) were observed in the mechanical room on the lower level and throughout the chases from the lower level to the third level of the building. Based on the age of the building and the system, this is likely to be ACM.
- There were several areas of 9” x 9” tile visible on the lower level, upper level and stairwells, which is also likely to be ACM based on the age of the building.

Some areas were not accessible during the initial walk through but all areas were made accessible prior to the inspection and testing on August 4th, 2016.

3. Methodology

Asbestos Containing Materials (ACM)

AER personnel conducted an ACM survey on August 4th, 2016. This was completed by initially conducting a visual inspection of the structure and areas described above and then collecting representative samples of suspect ACMs. AER conducted the ACM survey in general accordance with the American Society of Testing and Materials (ASTM) E2356 Standard Practice for Comprehensive Building Asbestos Surveys. ASTM E2356 meets the applicable requirements of current EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) Standard 40 CFR 61, Subpart M (Asbestos), EPA AHERA Standard 40 CFR 763, Subpart E, and Occupational Safety and Health Administration (OSHA) asbestos survey and/or sampling regulations. The asbestos inspector qualifications are included in Appendix F.

The ACM survey included an inspection that provided a breakdown of the overall location, type, quality, and condition of suspect ACMs present. The survey consisted of an inspection of accessible functional spaces within the Site and normally inaccessible areas such as pipe chases, wall cavities, under primary flooring surfaces, etc. through destructive, intrusive and/or exploratory testing. AER identified suspect ACMs, as possible, defined homogeneous areas (HAs), and took bulk samples of suspect material observed. HAs are materials that appear similar in terms of color, texture, and date of material application.

AER inventoried and collected representative bulk samples from 30 suspect HAs and submitted the samples for analysis. The condition, location, and approximate quantity of each identified ACM were documented and are presented in Appendixes B and D. Photographs of the identified and/or suspect ACMs are presented in Appendix C.

AER collected bulk samples from suspect ACMs at the Site and submitted under chain of custody to Micro Air, Inc., a National Voluntary Laboratory Accreditation Program (NVLAP) laboratory. The samples were analyzed using Polarized Light Microscopy (PLM) coupled with dispersion staining as outlined in the EPA's "Method for the Determination of Asbestos in Bulk Building Materials (EPA Method/600/R-93/116 (1993)).

4. Asbestos Assessment Findings

ACMS were identified from the samples collected from piping insulation, floors tiles (the majority covered with carpet), and associated mastic during AER's survey.

The EPA regulation, NESHAP, 40 CFR 61 Subpart M, requires that regulated ACMs (RACMs) be properly removed prior to performing renovation and demolition activities which would disturb them. RACMs are generally defined as materials which contain greater than one percent (1%) asbestos by laboratory analysis and are one of the following:

1. Friable (i.e., when dry, can be reduced to powder by hand pressure).
2. Non-friable materials which have become friable.
3. Category I non-friable materials which have been sanded, ground, cut or abraded.
4. Category II non-friable materials which are expected to become friable due to the forces expected to act on them during the course of demolition.

A friable ACM is defined as any material that contains more than one percent asbestos by weight that hand pressure can crumble, pulverize, or reduce to powder, when dry. A non-friable material is a material that cannot be crumbled, pulverized, or reduced to powder, when dry, by hand pressure. The EPA further categorizes non-friable material into two categories. Category I non-friable materials are specifically defined as packings (and flexible sealants), gaskets, asphalt roofing products, and resilient floor coverings. Category II non-friable materials include all other non-friable materials such as hard siding shingles, duct cloth at joints, drywall, plaster walls, “transite” soffits, vinyl base molding, etc. A summary table of the asbestos analytical reports are included in Appendix E.

The following table summarizes our findings and recommendations regarding the identified ACMs:

Summary of Recommendations

Code	Name	Description	Type	NESHAP Friability Class	Reference Photo(s)	Reference Locations	If Disturbed or Impacted
FT02	Floor Tile 02	9" x 9" beige bark	M/O	Category I	HA #15	103, 106, 107, 124-125, 212, 310-312, 322, 324-334	Remove prior to demolition
TI04	Thermal Insulation 04	White/yellow cast	T/T	H	HA #22	103, chase	Remove prior to demolition
TI05	Thermal Insulation 05	Beige cast	T/T	H	HA #23	103, chase	Remove prior to demolition
TM02	Tile Mastic 02	Brownish-yellow	S/O	Category I	HA #26	108, 118, 213, 223, 313, 323	Remove prior to demolition

Key:

T/T – Thermal System Insulation (TSI)

M/O – EPA Miscellaneous/OSHA Other

S/O – EPA Surfacing/OSHA Other

H – Hand Friable

Category I – Non-friable NESHAP (special four) materials

- a) packings (and flexible sealants)
- b) gaskets
- c) asphalt roof coverings
- d) resilient floor coverings

Reference Locations – see Asbestos Location Maps in Appendix D

5. Conclusions

Based on the laboratory results of the samples collected, AER identified ACMs at the Site during our survey. These include the thermal system insulation (TSI) on the tank in the mechanical room on the lower level and on the pipes in the chase from that room to the upper level, the 9" x 9" beige tile found in several areas on the lower level and a large portion of the upper level, the majority of which is under the carpet, and the mastic on the green 9" x 9" tile in the stairwells from the lower to the upper level. The green tiles

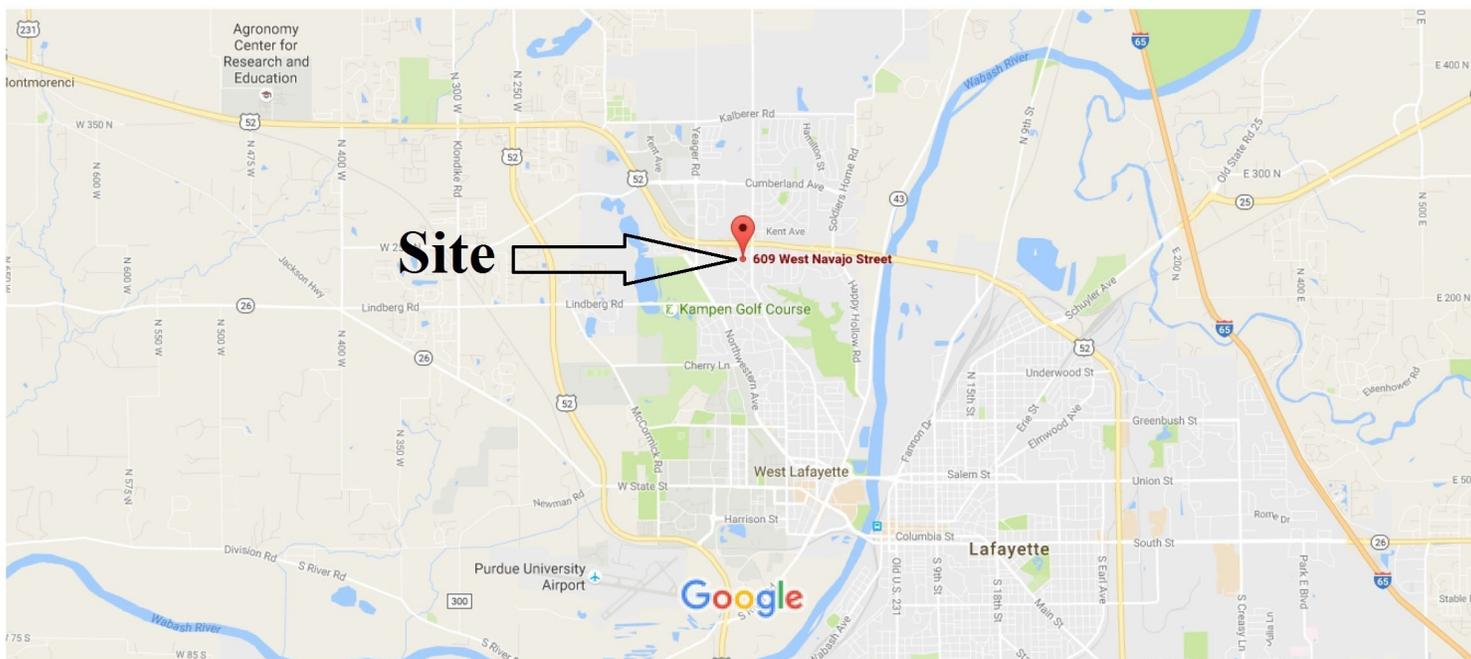
themselves tested negative for ACM; however, since the associated mastic tested positive, they will have to be abated prior to demolition.

The TSI has the highest asbestos content (15%) of the ACMs and is friable. This has the potential to present a significant health hazard to anyone entering the building. Thus, once abatement work has started, access to the building must be limited to licensed abatement workers in proper protective equipment only.

6. Limitations

This work was conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. The observations and conclusions presented in this document are professional opinions based on the scope of activities, work schedule, and information obtained, and has been prepared for the exclusive use of the City of West Lafayette. No representations express or implied, and no warranty or guarantee is included or intended, including reuse of this document for purposes other than originally intended.

Appendix A – Site Location Map



Map data ©2016 Google 1 mi



Imagery ©2016 Google

Appendix B – Suspect Asbestos-Containing Materials

Suspect Asbestos Containing Materials												
HA #	HA Description	Sample ID	Sample Location(s)	Lab Result (%)	Type of Asbestos	Friability	NESHAP Designation	QTY	QTY UOM	Condition	Recommended Action	OSHA Asbestos Work Classification
1	Base mastic - dirty white	BM01	103, 207, 220, 302, 326, 331	ND	-	NF	Non-ACM	2,770	LF	Good	-	-
2	Base mastic - brown	BM02	307, 319, 321	ND	-	NF	Non-ACM	584	LF	Good	-	-
3	Base mastic - yellow ochre	BM03	108, 115, 119, 128, 139	ND	-	NF	Non-ACM	1,142	LF	Good	-	-
4	Carpet mastic - yellow	CM01	121, 129, 205, 222, 304, 326, 330	ND	-	NF	Non-ACM	9,444	SF	Good	-	-
5	Carpet mastic - green	CM02	214, 210, 214, 215, 222	ND	-	NF	Non-ACM	3,719	SF	Good	-	-
6	Carpet pad - brown w/ red & white flecks	CP01	307 (x3)	ND	-	F	Non-ACM	63	SF	Good	-	-
7	Ceiling tile - 4' x 2' off white w/ gouges & pinpricks	CT01	102, 106, 111, 115, 116	ND	-	F	Non-ACM	2,541	SF	Good	-	-
8	Ceiling tile - 4' x 2' off white w/ bumps & pinpricks	CT02	202, 204, 301, 302, 303	ND	-	F	Non-ACM	2,011	SF	Good	-	-
9	Ceiling tile - 4' x 2' off white textured, no holes	CT03	102, 115, 130, 204, 302	ND	-	F	Non-ACM	4,552	SF	Good	-	-
10	Ceiling tile - 4' x 2' off white w/ worm tracks & pinpricks	CT04	217, 211, 305, 326, 327	ND	-	F	Non-ACM	4,553	SF	Good	-	-
11	Drywall - off white w/ brown speckles, orange peel texture	DW01	106, 212 (x2)	ND	-	NF	Non-ACM	522	SF	Good	-	-
12	Drywall - off white w/ smooth texture	DW02	112, 115, 202, 205, 222, 329, 305	ND	-	NF	Non-ACM	31,199	SF	Good	-	-
13	Drywall - beige raw	DW03	118, 294, 308, 309 (x2)	ND	-	NF	Non-ACM	2,866	SF	Good	-	-
14	Floor tile - 12" x 12" speckled cream	FT01	102, 109, 112, 136, 303	ND	-	NF	Non-ACM	2,216	SF	Good	-	-
15	Floor tile - 9" x 9" beige bark	FT02	103, 107, 322, 331, 332	6%	Chrysotile	NF	ACM	2,774	SF	Damaged	Remove prior to demolition	Class II

Suspect Asbestos Containing Materials												
16	Floor tile - 9" x 9" green/white speckles	FT03	118, 213, 223	ND	-	NF	Non-ACM	1,116	SF	Good	-	-
17	Foam board - yellow	FB01	107, 112, 222 (x2), 205, 303, 328	ND	-	F	Non-ACM	9,267	SF	Good	-	-
18	Roofing material - black rubber	RM01	Roof	ND	-	NF	Non-ACM	6,353	SF	Good	-	-
19	Thermal insulation - black	TI01	103, 139, 318	ND	-	F	Non-ACM	71	LF	Good	-	-
20	Thermal insulation - yellow furry	TI02	103, 318, 333	ND	-	F	Non-ACM	20	LF	Good	-	-
21	Thermal insulation - yellow w/ foil	TI03	103 (x2), 318	ND	-	F	Non-ACM	22	LF	Good	-	-
22	Thermal insulation - white/yellow cast	TI04	103 (x2), chase	15%	Chrysotile	F	ACM	42	LF	Good	Remove prior to demolition	Class I
23	Thermal insulation - beige cast	TI05	103, chase (x2)	15%	Chrysotile	F	ACM	28	LF	Good	Remove prior to demolition	Class I
24	Thermal insulation - tan furry	TI06	211 (x3)	ND	-	F	Non-ACM	54	SF	Good	-	-
25	Tile mastic - black	TM01	106, 107, 324, 332, 329	ND	-	NF	Non-ACM	2,084	SF	Good	-	-
26	Tile mastic - brownish-yellow	TM02	108, 213, 223, 313, 323	5%	Chrysotile	NF	ACM	1,116	SF	Good	Remove prior to demolition	Class II
27	Tile mastic - yellowish-white	TM03	102, 111, 130, 135, 303	ND	-	NF	Non-ACM	2,216	SF	Good	-	-
28	Wallpaper - cream, small grid texture	WP01	107, 108, 127, 211, 213, 214, 303	ND	-	NF	Non-ACM	12,040	SF	Good	-	-
29	Wallpaper - light grey squares	WP02	118 (x3), 313 (x2), 323 (x2)	ND	-	NF	Non-ACM	6,090	SF	Good	-	-
30	Wallpaper - green, orange peel texture	WP03	207 (x2), 223 (x3)	ND	-	NF	Non-ACM	2,324	SF	Good	-	-

Key:

ACM = Asbestos Containing Material
 ND = No Asbestos Detected
 SF = Square Feet
 LF = Linear Feet
 NF = Non-Friable
 F = Friable
 UOM = Unit of Measure

Appendix C – Photographic Log



HA #1 – Base Mastic 01



HA #2 – Base Mastic 02



HA #3 – Base Mastic 03



HA #4 – Carpet Mastic 01



HA #4 – Carpet Mastic 01 (2nd photo)



HA #5 – Carpet Mastic 02



HA #6 – Carpet Pad 01



HA #7 – Ceiling Tile 01



HA #8 – Ceiling Tile 02



HA #9 – Ceiling Tile 03



HA #10 – Ceiling Tile 04



HA #11 – Drywall 01



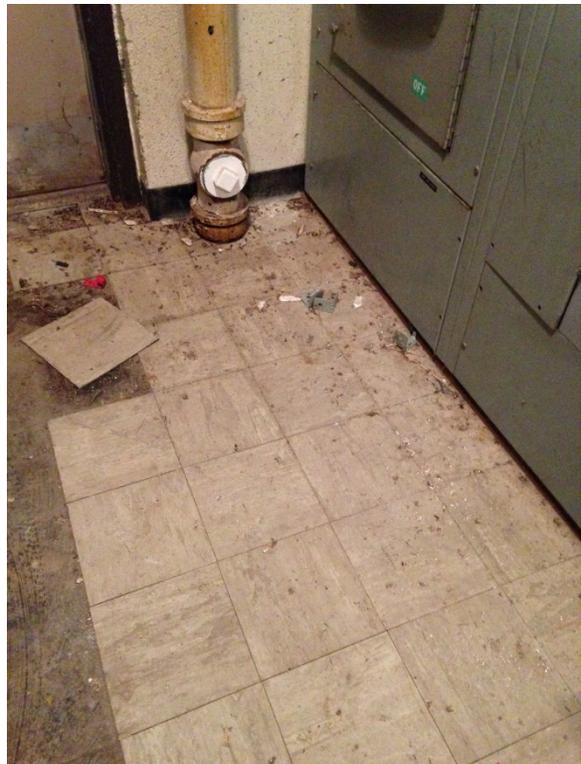
HA #12 – Drywall 02



HA #13 – Drywall 03



HA #14 – Floor Tile 01



HA #15 – Floor Tile 02



HA #16 – Floor Tile 03



HA #17 – Foam Board 01



HA #19 – Thermal Insulation 01



HA #20 – Thermal Insulation 02



HA #21 – Thermal Insulation 03



HA #22 – Thermal Insulation 04



HA #22 – Thermal Insulation 04 (2nd photo)



HA #22 – Thermal Insulation 04 (3rd photo)



HA #23 – Thermal Insulation 05



HA #23 – Thermal Insulation 05 (2nd photo)



HA #23 – Thermal Insulation 05 (3rd photo)



HA #24 – Thermal Insulation 06



HA #24 – Thermal Insulation 06 (2nd photo)



HA #25 – Tile Mastic 01



HA #25 – Tile Mastic 01 (2nd photo)



HA #26 – Tile Mastic 02



HA #26 – Tile Mastic 02 (3rd photo)



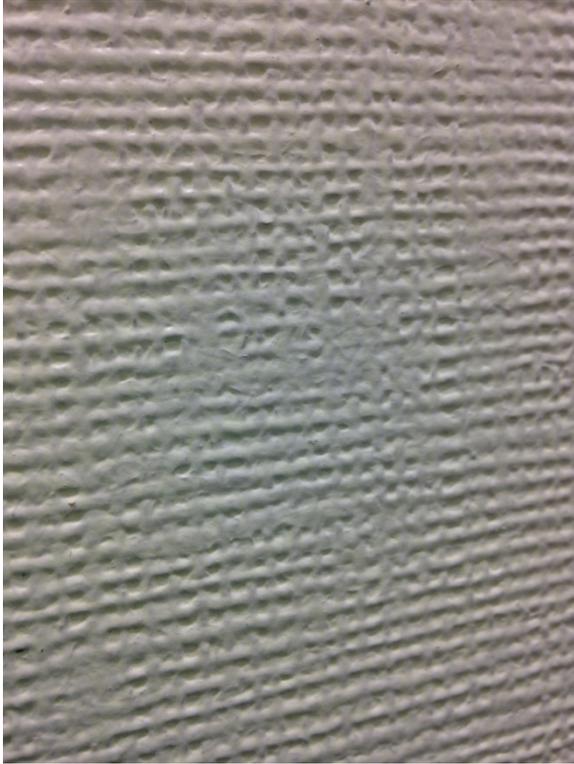
HA #26 – Tile Mastic 02 (4th photo)



HA #26 – Tile Mastic 02 (5th photo)



HA #27 – Tile Mastic 03



HA #28 – Wallpaper 01

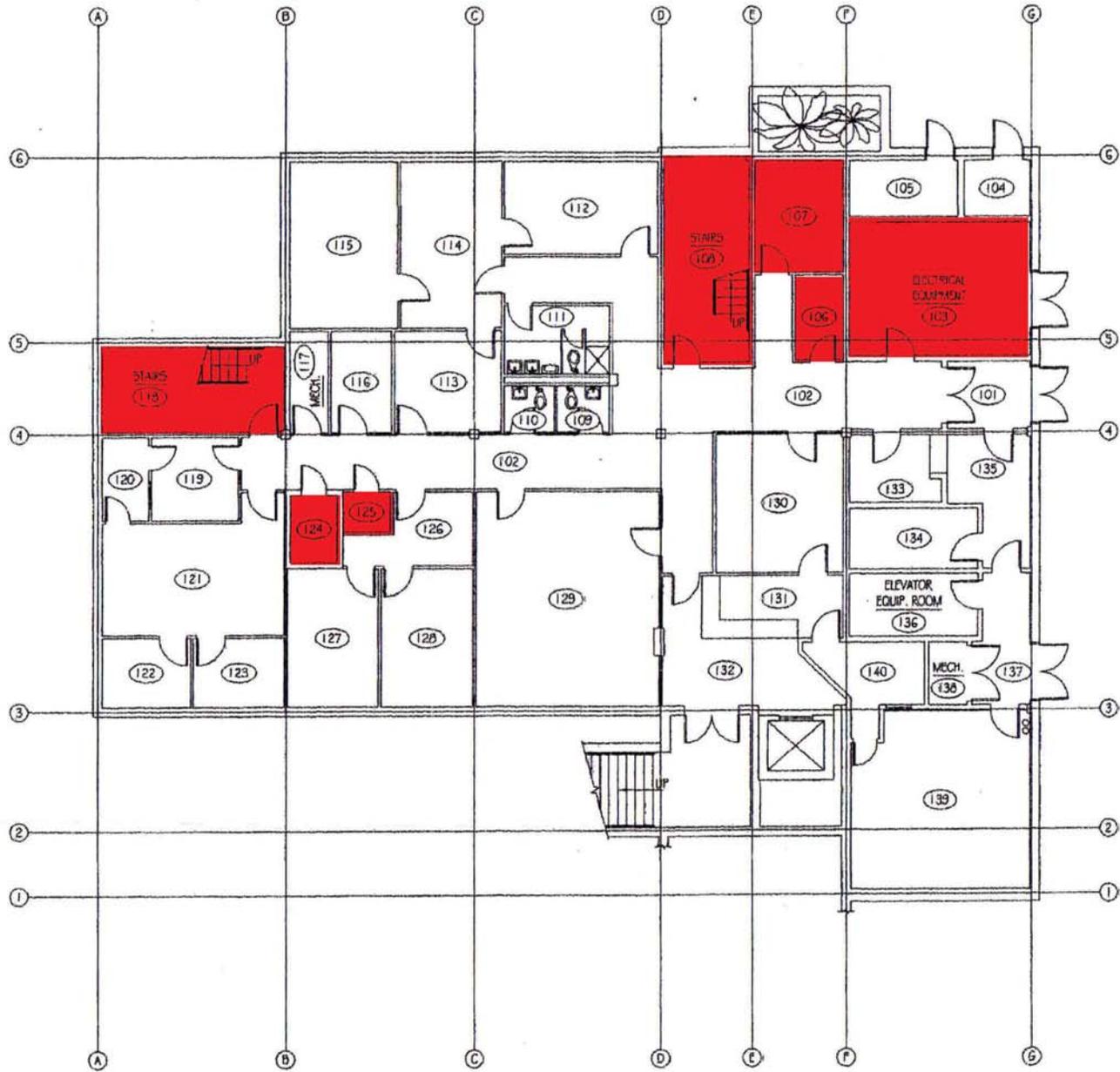


HA #29 – Wallpaper 02



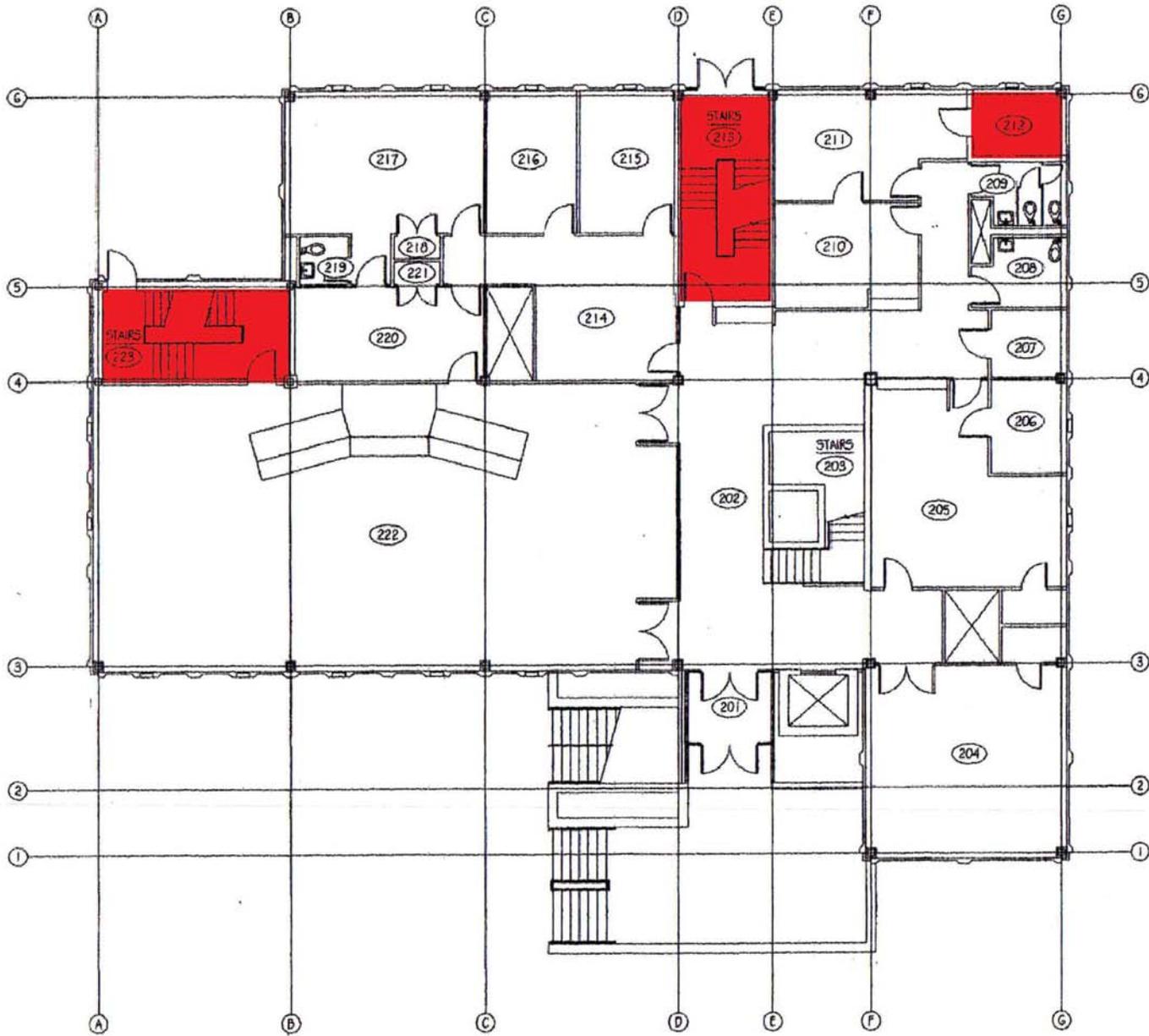
HA #30 – Wallpaper 03

Appendix D – Asbestos Location Maps



LOWER LEVEL FLOOR PLAN 

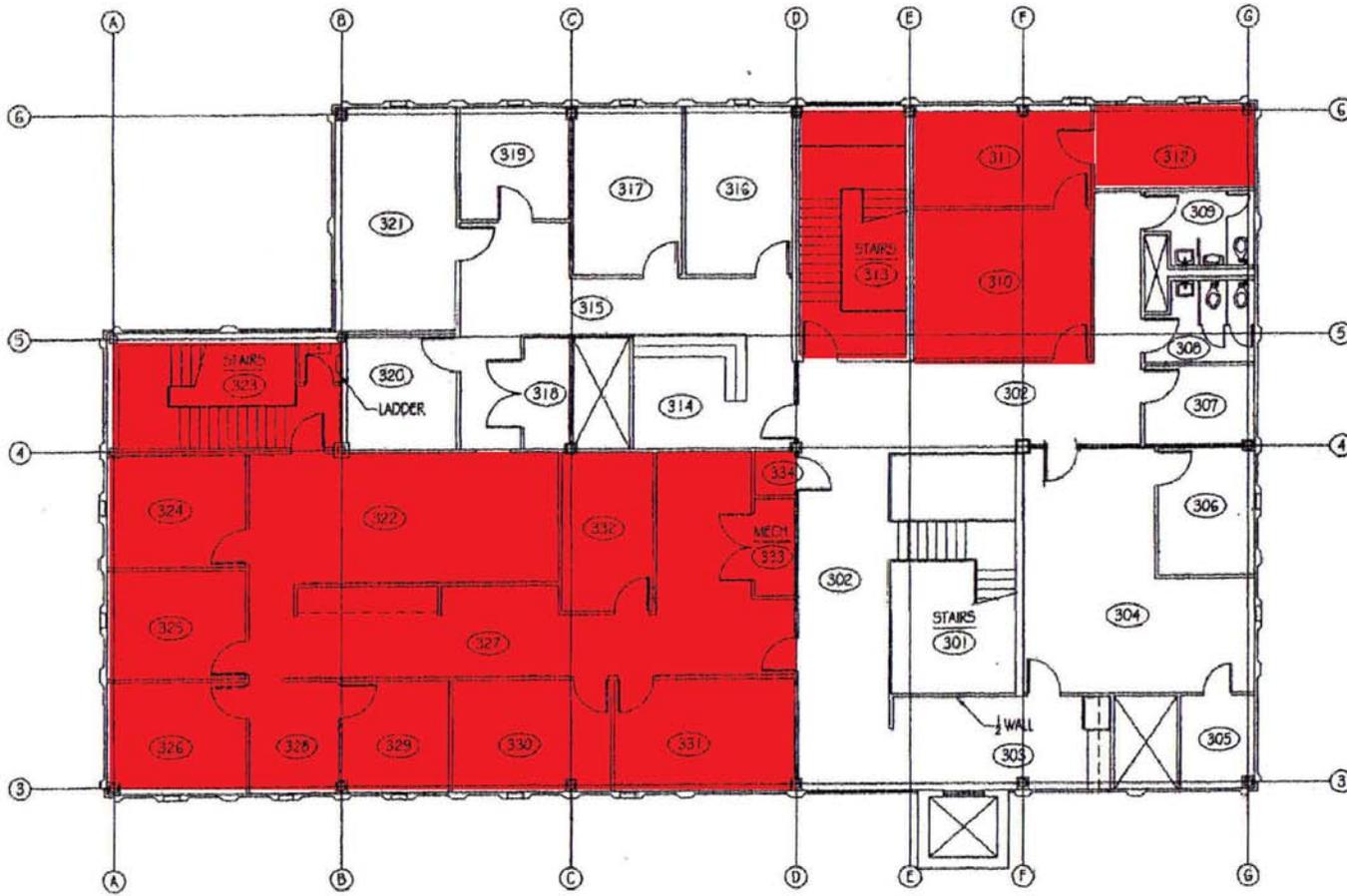
SCALE: 1/8" = 1'-0"



MAIN LEVEL FLOOR PLAN

SCALE: 1/8" = 1'-0"





UPPER LEVEL FLOOR PLAN  NORTH
 SCALE: 1/8" = 1'-0"

Appendix E – Asbestos Laboratory Analytical Reports



6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268
TELEPHONE: (317) 293-1533 FAX: (317) 290-3569
E-MAIL: microair@microair.com
WEB SITE: www.microair.com

Indoor Air Quality
Catastrophe Services
Microbiology
Asbestos Surveys
Air Monitoring
Industrial Hygiene
Epidemiology
Radon Testing
Water Testing
Lead Testing

August 11, 2016

AE Redevelopment
Gretchen Szostak
1428 S. New Jersey St.
Indianapolis, IN 46225

RE: Polarized Light Microscopy (PLM) Bulk Sample Results

Project Name: West Lafayette City Hall
Project Number: 320

Location: 609 W. Navajo St. - West Lafayette, IN
Date Received: August 5, 2016

Dear Ms. Szostak:

Enclosed is(are) the result(s) of the analysis performed on the sample(s) received by Micro Air, Inc.

Method of Analysis:

Polarized Light Microscopy (PLM) with Dispersion Staining using EPA-600-M4-82-020 & EPA Method/600/R-93/116 (1993). All samples may be heated to release fibrous material.

Negative PLM results of non-friable organic bound (NOB) materials, such as floor tiles and roofing materials, can be inconclusive due to analytical difficulties in standard bulk sample analysis techniques. If desired, negative results can be confirmed with transmission electron microscopy (TEM) to ensure that asbestos has not been missed during PLM analysis.

Asbestos regulations and EPA methods state that distinct layers must be analyzed and reported separately. If composite analysis is requested and performed on multi-layered samples, the sample is considered asbestos containing material (ACM) if any quantity of asbestos is found.

This report may not be reproduced, except in full, without written approval from Micro Air, Inc., and only relates to the items tested. This report should not be used to imply product or service endorsement by NVLAP or any agency of the U.S. Government.

If you have any questions concerning this report please do not hesitate to contact us.

Sincerely,

Betsie L. McAfee
Technical Manager



micro air, inc.

6320 La Pas Trail
 Indianapolis, IN 46268
 Telephone: (317) 293-1533
 Fax: (317) 290-3566
 e-mail: microair@microair.com
 Website: www.microair.com

Client: AE Redevelopment
 Project Number: 320
 Project Name: West Lafayette City Hall
 Report Date: 8/11/2016
 Lab Number: 97975
 Date Received: 8/5/2016



Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 609 W. Navajo St. - West Lafayette, IN

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
001	BM01	8/4/2016	8/10/2016	Base Mastic	NO	W	NO	N/A	Cellulose <1% Binder 100%
002	BM02	8/4/2016	8/10/2016	Base Mastic	NO	BR	NO	N/A	Cellulose 2% Binder 98%
003	BM03	8/4/2016	8/10/2016	Base Mastic	NO	T	NO	N/A	Cellulose <1% Binder 100%
004	CM01	8/4/2016	8/10/2016	Carpet Mastic	NO	Y	NO	N/A	Cellulose 3% Binder 97%
005	CM02	8/4/2016	8/10/2016	Carpet Mastic	NO	GR	NO	N/A	Cellulose 2% Synthetics <1% Binder 98%

Client: AE Redevelopment
 Report Date: 8/11/2016
 Lab Number: 97975

Project Number: 320
 Project Name: West Lafayette City Hall

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 609 W. Navajo St. - West Lafayette, IN

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
006	CP01	8/4/2016	8/10/2016	Carpet Pad	NO	BR	YES	N/A	Cellulose 8% Hair 90% Binder 2%
007	CT01	8/4/2016	8/10/2016	Ceiling Tile	NO	G-W	YES	N/A	Cellulose 33% Fiberglass 65% Binder 2%
008	CT02	8/4/2016	8/10/2016	Ceiling Tile	NO	G-W	YES	N/A	Cellulose 43% Fiberglass 55% Binder 2%
009	CT03	8/4/2016	8/10/2016	Ceiling Tile	NO	BR-W	YES	N/A	Cellulose 90% Fiberglass 5% Binder 5%
010	CT04	8/4/2016	8/10/2016	Ceiling Tile	NO	G-W	YES	N/A	Cellulose 28% Fiberglass 70% Binder 2%
011	FT01	8/4/2016	8/10/2016	Floor Tile	NO	W	NO	N/A	Cellulose <1% Binder 100%

Client: AE Redevelopment
 Report Date: 8/11/2016
 Lab Number: 97975

Project Number: 320
 Project Name: West Lafayette City Hall

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 609 W. Navajo St. - West Lafayette, IN

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
012	FT02	8/4/2016	8/10/2016	Floor Tile	YES	G	NO	Chrysotile 6%	Cellulose <1% Binder 94%
013	FT03	8/4/2016	8/10/2016	Floor Tile	NO	GR	NO	N/A	Cellulose 2% Binder 98%
014	DW01	8/4/2016	8/10/2016	Drywall	NO	BR-W	NO	N/A	Cellulose 7% Fiberglass 2% Binder 91%
015	DW02	8/4/2016	8/10/2016	Drywall	NO	BR-W	NO	N/A	Cellulose 5% Binder 95%
016	DW03	8/4/2016	8/10/2016	Drywall	NO	BR-W	NO	N/A	Cellulose 10% Fiberglass 2% Binder 88%
017	WP01	8/4/2016	8/10/2016	Wallpaper	NO	W	NO	N/A	Cellulose 70% Binder 30%

Client: AE Redevelopment
 Report Date: 8/11/2016
 Lab Number: 97975

Project Number: 320
 Project Name: West Lafayette City Hall

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 609 W. Navajo St. - West Lafayette, IN

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
018	WP02	8/4/2016	8/10/2016	Wallpaper	NO	W	NO	N/A	Cellulose 80% Binder 20%
019	WP03	8/4/2016	8/10/2016	Wallpaper	NO	GR-BR	NO	N/A	Cellulose 80% Binder 20%
020	FB01	8/4/2016	8/10/2016	Foam Board	NO	Y	YES	N/A	Binder 100%
021	TI01	8/4/2016	8/10/2016	Thermal Insulation	NO	B	YES	N/A	Binder 100%
022	TI02	8/4/2016	8/10/2016	Thermal Insulation	NO	Y	YES	N/A	Cellulose <1% Fiberglass 100% Binder <1%
023	TI03	8/4/2016	8/10/2016	Thermal Insulation	NO	Y-S	NO	N/A	Fiberglass 100% Binder <1%

Client: AE Redevelopment
 Report Date: 8/11/2016
 Lab Number: 97975

Project Number: 320
 Project Name: West Lafayette City Hall

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 609 W. Navajo St. - West Lafayette, IN

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
024	TI04	8/4/2016	8/10/2016	Thermal Insulation	YES	T-W	NO	Chrysotile 15%	Cellulose 5% Binder 80%
025	TI05	8/4/2016	8/10/2016	Thermal Insulation	NO	W	NO	N/A	Cellulose 10% Fiberglass 65% Binder 25%
026	TI06	8/4/2016	8/10/2016	Thermal Insulation	NO	BR	YES	N/A	Cellulose <1% Fiberglass 100% Binder <1%
027	TM01	8/4/2016	8/10/2016	Tile Mastic	NO	B	NO	N/A	Cellulose <1% Fiberglass <1% Binder 100%
028	TM02	8/4/2016	8/10/2016	Tile Mastic	YES	BR	NO	Chrysotile 2%	Cellulose 3% Binder 95%
029	RM01	8/4/2016	8/10/2016	Roofing Material	NO	B	YES	N/A	Binder 100%

Client: AE Redevelopment
Report Date: 8/11/2016
Lab Number: 97975

Project Number: 320
Project Name: West Lafayette City Hall

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 609 W. Navajo St. - West Lafayette, IN

A concentration of greater than one (1) percent of any type of asbestos means a sample meets the EPA definition of an asbestos-containing material
Color: B-Black, BL-Blue, BR-Brown, GL-Gold, G-Gray, GR-Green, O-Orange, P-Pink, PR-Purple, R-Red, S-Silver, T-Tan, W-White, Y-Yellow

FT01, FT02 and FT03 - Tile contained mastic. Only the floor tile was analyzed.

Sample(s) received in good condition and acceptable.

TM01 and TM02 - Mastic adhered to floor tile. Only the mastic was analyzed.

Analyst: Barbara J. Russell

Analytical Method: EPA Method 600-M4-82-020 & EPA Method 600-R-93-116 (1993)



6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268
TELEPHONE: (317) 293-1533 FAX: (317) 290-3569
E-MAIL: microair@microair.com
WEB SITE: www.microair.com

Indoor Air Quality
Catastrophe Services
Microbiology
Asbestos Surveys
Air Monitoring
Industrial Hygiene
Epidemiology
Radon Testing
Water Testing
Lead Testing

August 23, 2016

AE Redevelopment
Gretchen Szostak
1428 S. New Jersey St.
Indianapolis, IN 46225

RE: Polarized Light Microscopy (PLM) Bulk Sample Results

Project Name: West Lafayette City Hall
Project Number: 320

Location: 609 W. Navajo St. - West Lafayette, IN
Date Received: August 22, 2016

Dear Ms. Szostak:

Enclosed is(are) the result(s) of the analysis performed on the sample(s) received by Micro Air, Inc.

Method of Analysis:

Polarized Light Microscopy (PLM) with Dispersion Staining using EPA-600-M4-82-020 & EPA Method/600/R-93/116 (1993). All samples may be heated to release fibrous material.

Negative PLM results of non-friable organic bound (NOB) materials, such as floor tiles and roofing materials, can be inconclusive due to analytical difficulties in standard bulk sample analysis techniques. If desired, negative results can be confirmed with transmission electron microscopy (TEM) to ensure that asbestos has not been missed during PLM analysis.

Asbestos regulations and EPA methods state that distinct layers must be analyzed and reported separately. If composite analysis is requested and performed on multi-layered samples, the sample is considered asbestos containing material (ACM) if any quantity of asbestos is found.

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If you have any questions concerning this report please do not hesitate to contact us.

Sincerely,

Betsie L. McAfee
Technical Manager



micro air, inc.

6320 La Pas Trail
 Indianapolis, IN 46268
 Telephone: (317) 293-1533
 Fax: (317) 290-3566
 e-mail: microair@microair.com
 Website: www.microair.com

Client: AE Redevelopment
 Project Number: 320
 Project Name: West Lafayette City Hall
 Report Date: 8/23/2016
 Lab Number: 98668
 Date Received: 8/22/2016



Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 609 W. Navajo St. - West Lafayette, IN

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
001	TI04B	8/21/2016	8/23/2016	Thermal Insulation	NO	T	NO	N/A	Cellulose 15% Fiberglass 15% Binder 70%
002	TI05B	8/21/2016	8/23/2016	Thermal Insulation	YES	G	NO	Chrysotile 15%	Cellulose <1% Fiberglass 40% Binder 45%
003	TM02B	8/21/2016	8/23/2016	Tile Mastic	YES	O	YES	Chrysotile 5%	Cellulose 3% Binder 92%
004	TM02C	8/21/2016	8/23/2016	Tile Mastic	NO	O	YES	N/A	Cellulose 3% Binder 97%
005	TM03	8/21/2016	8/23/2016	Tile Mastic	NO	Y	YES	N/A	Cellulose 3% Binder 97%

Client: AE Redevelopment
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Lab Number: 98668

Project Number: 320
Project Name: West Lafayette City Hall

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 609 W. Navajo St. - West Lafayette, IN

A concentration of greater than one (1) percent of any type of asbestos means a sample meets the EPA definition of an asbestos-containing material
Color: B-Black, BL-Blue, BR-Brown, GL-Gold, G-Gray, GR-Green, O-Orange, P-Pink, PR-Purple, R-Red, S-Silver, T-Tan, W-White, Y-Yellow

Barbara J. Russell has reviewed this final report.

Sample(s) received in good condition and acceptable.

TM02B, TM02C and TM03 - Attached floor tile was not analyzed.

Analyst: Darren A. Parsons

Analytical Method: EPA Method 600-M4-82-020 & EPA Method 600-R-93-116 (1993)

Appendix F – Asbestos Inspector Qualifications



Indiana Dept. of Environmental Management

Gretchen Szostak

Asbestos Inspector License #: 19A008405

Effective: 05/31/2016	Expiration: 05/31/2017
Birth Date: 03/20/1978	Gender: F
Height: 5-09	Eye Color: Blue
Weight: 155	Hair Color: Brown



Indiana Dept. of Environmental Management

Gretchen Szostak

Asbestos Worker License #: 19A008406

Effective: 05/31/2016	Expiration: 05/31/2017
Birth Date: 03/20/1978	Gender: F
Height: 5-09	Eye Color: Blue
Weight: 155	Hair Color: Brown