SECTION 022000
ASSESMENT

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Asbestos Containing Material Survey
   1. Refer to Skyhawk Hall ACM Report here-in included following this page.

ENSOLUM

December 9, 2022

Mr. Joe Gallagher
Fort Lewis College
1000 Rim Drive
Durango, Colorado 81301

Re: Asbestos Containing Material Survey
Skyhawk Hall, FLC
1000 Rim Drive
Durango CO, 81301

Dear Mr. Gallagher:

Ensolum, LLC (Ensolum), has prepared this report for Fort Lewis College (FLC) following an asbestos containing material (ACM) survey conducted at Skyhawk Hall, located on FLC's campus at 1000 Rim Drive, Durango Colorado (Site Building, Figure 1). The ACM survey included sampling of materials that may be impacted by future renovations. However, additional sampling may be required once a formal renovation plan has been developed.

SAMPLING OBJECTIVES

Ensolum personnel completed an ACM survey on November 21, 2022, at the Site Building. Only materials specified by FLC were included in this survey. Additional sampling may be required once a formal renovation plan has been developed or prior to demolition of the building. Hidden materials, materials that would impact the integrity of the building by sampling and materials beyond reasonable access to the inspectors during the site visit were not evaluated as part of the survey.

The United States Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAP), prohibits the release of asbestos fibers to the atmosphere during renovation or demolition activities. The asbestos NESHAP rule requires that potentially regulated asbestos-containing material (RACM) be identified, classified, and quantified prior to planned disturbance, renovation, or demolition activities. In addition, the Colorado Department of Public Health and Environment (CDPHE) Regulation 8 Part B (Reg 8) require buildings be inspected for asbestos prior to demolition or renovation.

The survey was conducted by Mr. Reece Hanson and Mr. Zach Myers, Colorado-certified Asbestos Building Inspectors (CABI). A copy of Reece's and Zach's certifications and the Ensolum Asbestos Consulting Firm Certification are included as Appendix A. The surveys were completed in accordance with EPA 40 CFR Part 763, CDPHE Regulation 8, and AHERA.

Visual Assessment

The asbestos survey activities within the Site Building began with a visual observation of the work area to identify functional spaces and homogeneous materials that may be affected during planned demolition activities. Building materials and components observed in the building consisted of various linoleum flooring, carpet mastic, cove base mastic, drywall systems, various adhesives, pipe insulation, and flooring sealant.

Asbestos Sample Collection

A physical assessment of each suspect homogeneous ACM was conducted to assess the condition of the material as friable or non-friable. The EPA defines friable material as one that, when dry, can be crumbled, pulverized, or reduced to a powder by hand pressure. Friability was assessed by physically touching suspect ACM. Ensolum classified the current condition of the suspect ACM and the potential for damage to the suspect ACM.

Bulk samples of suspect ACM were collected in general conformance with CDPHE Regulation 8, AHERA, and *Table 2* of EPA *Asbestos in Buildings: Simplified Sampling Scheme for Friable Surfacing Materials*, also known as the Pink Book, but discretion of sample locations was used when applicable. The suspect ACM samples collected were obtained by physically removing a small portion of the suspect material using a sharp instrument. Disturbance of adjacent material was kept to a minimum during the sampling program. Appropriately attired inspectors collected bulk samples using wet methods as applicable to reduce the potential for fiber release. Each sample was placed into a separate labeled container with a sample number, which was then sealed. The sampling instrument was cleaned after each sample was collected. After sample collection, any surficial damage was repaired, as applicable, to seal the disturbed area.

The asbestos sample locations are depicted on the Homogeneous Sampling Area Diagrams included as Appendix B. A total of 39 bulk samples of suspect ACM were collected during Ensolum's survey.

The suspect ACM samples were submitted to Eurofins Reservoirs Environmental (Reservoirs), Inc. in Denver, Colorado, an independent laboratory that has successfully participated in the National Voluntary Laboratory Accreditation Program and is accredited by the American Industrial Hygiene Association. The bulk samples were submitted under chain-of-custody procedures to Reservoirs for analysis by polarized light microscopy (PLM) per EPA methodology (EPA-600/R-93/116). Visual estimation was used to obtain the percentage of asbestos present within the bulk samples and the point counting method was used when applicable.

REGULATORY OVERVIEW

The CDPHE Regulation 8, Hazardous Air Pollutants Control, Part B, Asbestos, and 5 Code of Colorado Regulations (CCR) 1001-10, Part B applies, in general, to buildings, facilities, and associated components. The CDPHE Air Quality Control Division (AQCC) is the implementing regulatory agency for NESHAP regulations.

The Occupational Safety and Health Administration (OSHA) asbestos standard for the construction industry (29 CFR 1926.1101) regulates workplace exposure to asbestos. The OSHA standard requires that employee exposure to airborne asbestos fibers be maintained below 0.1 asbestos fibers per cubic centimeter (0.1 f/cc) of air for an 8-hour day. The OSHA standard classifies construction and maintenance activities that could disturb ACM, and specifies work practices and precautions, which employers must follow when engaging in each class of regulated work.

The asbestos NESHAP rule (40 CFR Part 61) regulates asbestos fiber emissions and asbestos waste disposal practices. It requires the identification and classification of existing building

materials prior to renovation or demolition activities. Under NESHAP, asbestos-containing building materials are classified as either friable, Category I non-friable, or Category II non-friable ACM.

Friable materials are those that, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. Category I non-friable ACM includes packings, gaskets, resilient flooring covering, and asphalt roofing products. Category II non-friable ACM are any materials other than Category I materials that contain more than 1 percent (%) asbestos.

RACM is defined by CDPHE Regulation 8 as friable ACM and Category I and Category II non-friable ACM that is in poor condition and has become friable or will be subjected to sanding, grinding, cutting, or abrading. In addition, RACM includes Category II non-friable ACM 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 during demolition or renovation operations.

RACM must be removed prior to renovation or demolition activities. If the amount of RACM exceeds the threshold levels of 260 linear feet (LF), 160 square feet (SF), or the volume equivalent of one 55-gallon drum, the owner or operator must provide the CDPHE-APCD with written notification of planned removal activities at least 10 working days prior to the commencement of asbestos abatement activities. Removal of RACM must be conducted by a trained and appropriately licensed asbestos abatement contractor.

ACM SURVEY FINDINGS

In the 39 samples collected by Ensolum, no asbestos was detected. Homogenous Materials are defined in Table 1. The sample locations and homogenous sampling area diagrams are included in Appendix B. Specific sample locations and the results of the physical and visual assessment are described in the Sample Collection Forms (Appendix C). The laboratory analytical reports are included in Appendix D.

RESULTS

Based on the results of the laboratory analysis of the survey conducted by Ensolum, no sampled materials are defined as ACM or RACM.

RECOMMENDATIONS

Based on the analytical results, Ensolum recommends the following prior to the planned renovation:

- Areas that were inaccessible at the time of inspection must be surveyed prior to demolition or renovation.
- The Site Building should be surveyed in its entirety prior to demolition; and
- The findings of this survey should be incorporated into an Asbestos Management Plan.

LIMITATIONS

Ensolum performed its services consistent with the level of care and expertise exercised by asbestos professionals performing the same or similar services at the same time and in the same geographic area. No express or implied warranties apply to these services or this report. Due to the limited extent of the assessment and sampling activities at the Site, Ensolum cannot and does not imply, warranty or guarantee that materials not sampled contain no asbestos. This Asbestos

Survey was intended to identify reasonably accessible materials most likely to contain asbestos in quantities subject to regulation. Please note that due to the non-destructive nature of the survey, the potential exists for additional materials to be present in hidden or concealed areas (i.e. beneath carpet, above ceilings, in voids, chases, behind wall coverings, etc.).

The quantity estimates presented in the report were based upon observations during the survey. While it is believed that the estimated quantities are reasonable, unanticipated conditions could be present in inaccessible or un-surveyed areas. Ensolum does not warrant or guarantee the quantity estimates, and the use of such estimates shall be at the user's own risk and shall constitute a release and agreement to defend and indemnify Ensolum from and against any liability.

All conclusions and recommendations in this report represent the professional opinions of the Ensolum personnel involved with the project. The results, findings, conclusions and recommendations expressed in this report are based on access provided and conditions observed, and samples taken during Ensolum's survey of the building. The information contained in this report is relevant as of the date on which the field work was performed and should not be relied upon to represent site conditions at a later date. This study and report were prepared on behalf of and for the exclusive use of FLC solely for their use and reliance in determining the presence of asbestos in identified areas of the Site. The results of this report are not intended or to be construed as legal interpretation of existing federal, state or local environmental, health and safety laws or regulations. Ensolum assumes no responsibility or liability for errors in information or data provided to Ensolum by the Client or any third party or developments resulting from activities or situations outside the scope of this project.

Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. Ensolum does not warrant the work of regulatory agencies, laboratories or other third parties supplying information, which may have been used in the preparation of this report. No warranty expressed or implied is made. Drawings and diagrams contained in this report are for informational purposes only, and proportion and scales are approximate. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. This report is not to be considered as a bid specification or bid document.

Ensolum appreciates the opportunity to provide environmental services to FLC. If you have any questions, please contact the undersigned at (303) 517-8437.

Sincerely,

ENSOLUM, LLC

Reece Hanson
Staff Geologist
CABI (cert #27130)

Josh Adams, P.G.,
Project Geologist
CABI, AMS (cert #22835)

APPENDICES

Figure 1 – Site Location Map

Table 1 – Homogenous Materials

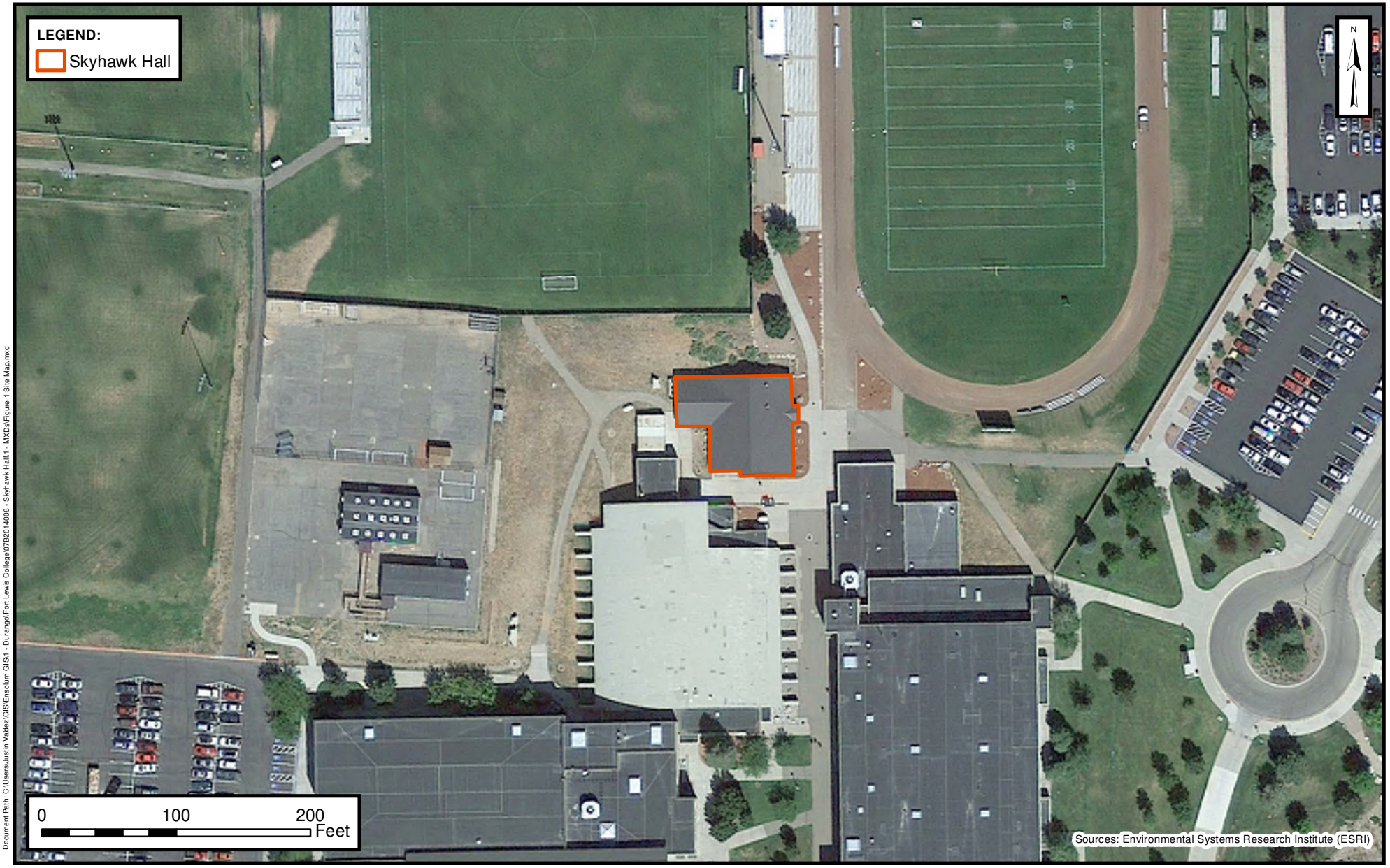
Appendix A – Ensolum Certifications

Appendix B – Homogenous Sampling Area Diagrams

Appendix C – Sample Collection Forms

Appendix D – Laboratory Analytical Reports

FIGURE



Document Path: C:\Users\Justin Vatlez\GIS\Ensolum GIS\1 - Durango\Fort Lewis College\07B2014006 - Skyhawk Hall\1 - MXDs\Figure 1 Site Map.mxd

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Map

FORT LEWIS COLLEGE
SKYHAWK HALL
1000 Rim Drive, Durango, Colorado
37.278021° N, 107.869209° W

PROJECT NUMBER: 07B2014006

FIGURE
1

TABLE

TABLE 1
IDENTIFIED HOMOGENEOUS MATERIALS
Skyhawk Hall
Fort Lewis College
Durango, Colorado

Material	HA #	Type (Surf, TSI, Misc)	Asbestos Containing (Y or N)	Sample numbers
Wood pattern linoleum + tan brittle mastic	1	Misc	N	SH-LF1-01 through SH-LF1-03
12"x12" white linoleum tile w/ blue streaks with yellowish, dry crumbly mastic	2	Misc	N	SH-LF2-01 through SH-LF2-03
Sticky, brownish mastic	3	Misc	N	SH-CM1-01 through SH-CM1-03
Cream colored, pliable mastic	4	Misc	N	SH-CBM1-01 through SH-CBM1-03
Orange peel texture on drywall with white or tan pain	5	Surf	N	SH-DWT1-01 through SH-DWT1-09
White drywall composite with brown paper and texture	6	Misc	N	SH-DWC1-01 through SH-DWC1-03
Smooth texture with white paint	7	Surf	N	SH-DWT2-01 through SH-DWT2-03
White drywall under white paint	8	Misc	N	SH-DWC2-01 through SH-DWC2-03
White, pliable, silicone-like caulk	9	Misc	N	SH- MA1-01 through SH-MA1-03
Grey sticky mastic and old Teflon tape	10	Misc	N	SH-MA2-01 through SH-MA2-03
Yellow, fibrous insulation TSI	11	TSI	N	SH-TSI1-01 and SH-TSI1-02
Old, off-white flooring sealant on concrete	12	Surf	N	SH-FS1-01 and SH-FS1-02

Notes:
HA - homogenous area
M - Miscellaneous
N - No
S - Surfacing Material
TSI - thermal system insulation
Y- Yes

APPENDIX A

Ensolum Certifications

Colorado Department
of Public Health
and Environment

ASBESTOS CONSULTING FIRM

This certifies that

Ensolum, LLC

Registration No.: ACF - 27624

has met the registration requirements of 25-7-507, C.R.S. and the Air Quality Control Commission Regulation No. 8, Part B, and is hereby authorized to perform asbestos consulting activities as required under Regulation No 8, Part B, in the state of Colorado.

Issued: March 23, 2022
Expires: March 23, 2023

Authorized APCD Representative

SEAL

Colorado Department
of Public Health
and Environment

ASBESTOS CERTIFICATION*

This certifies that

Reece Hanson

Certification No.: 27130

has met the requirements of 25-7-507, C.R.S. and Air Quality Control Commission Regulation No. 8, Part B, and is hereby certified by the state of Colorado in the following discipline:

Building Inspector*

Issued: **August 17, 2021**

Expires: **August 17, 2022**

**** This certificate is valid only with the possession of a current Division-approved training course certification in the discipline specified above.***

Authorized APCD Representative

Colorado Department
of Public Health
and Environment

ASBESTOS CERTIFICATION*

This certifies that

Zachary Myers

Certification No.: 27978

has met the requirements of 25-7-507, C.R.S. and Air Quality Control Commission Regulation No. 8, Part B, and is hereby certified by the state of Colorado in the following discipline:

Building Inspector*

Issued: **June 10, 2022**

Expires: **June 17, 2023**

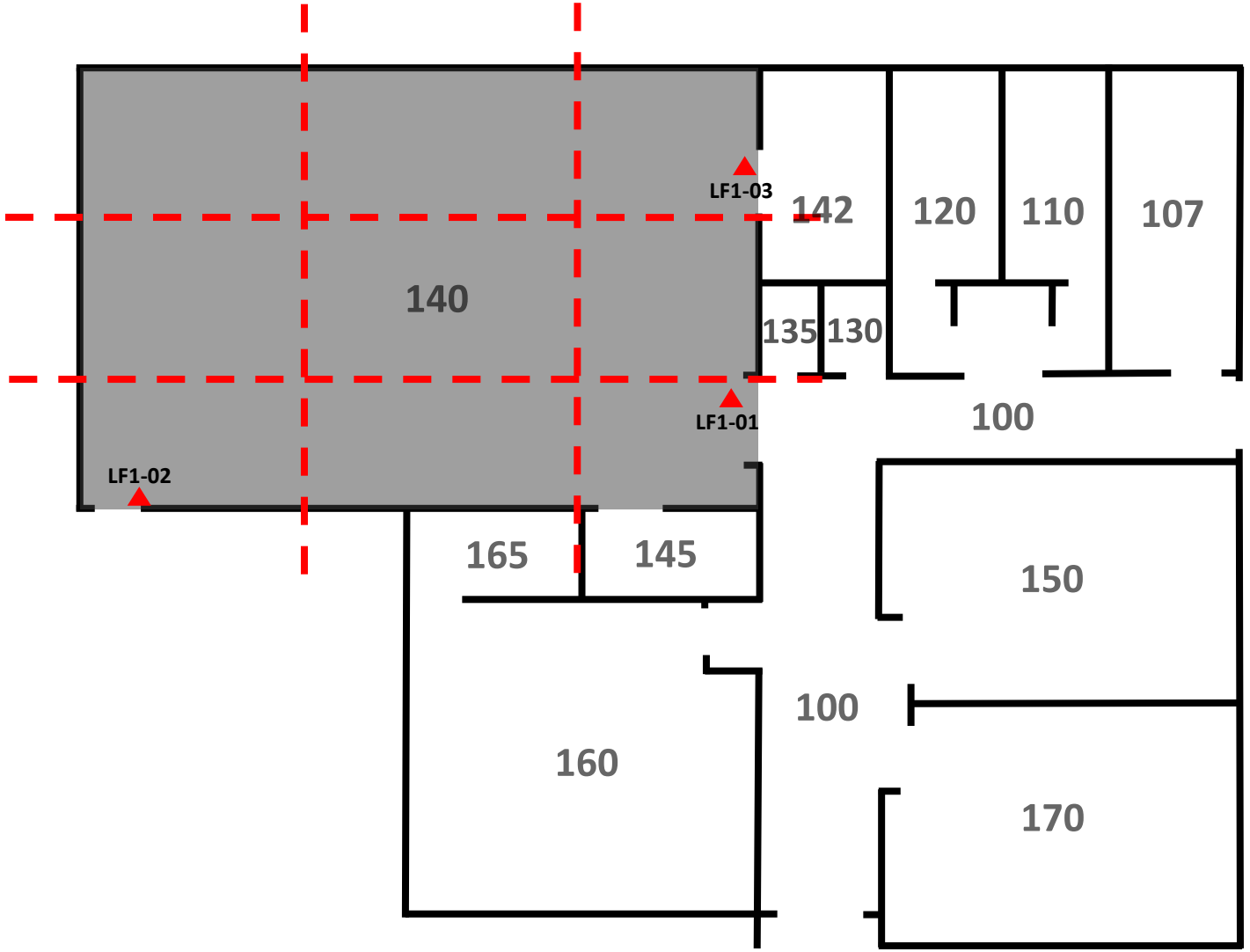
**** This certificate is valid only with the possession of a current Division-approved training course certification in the discipline specified above.***

Authorized APCD Representative

SEAL

APPENDIX B

Homogenous Sampling Area Diagrams



N

LEGEND

- Areas with LF1
- Sample location
- Random sampling diagram #1

LF1 – Fake wood pattern linoleum + tan brittle mastic ~ 1510 SF

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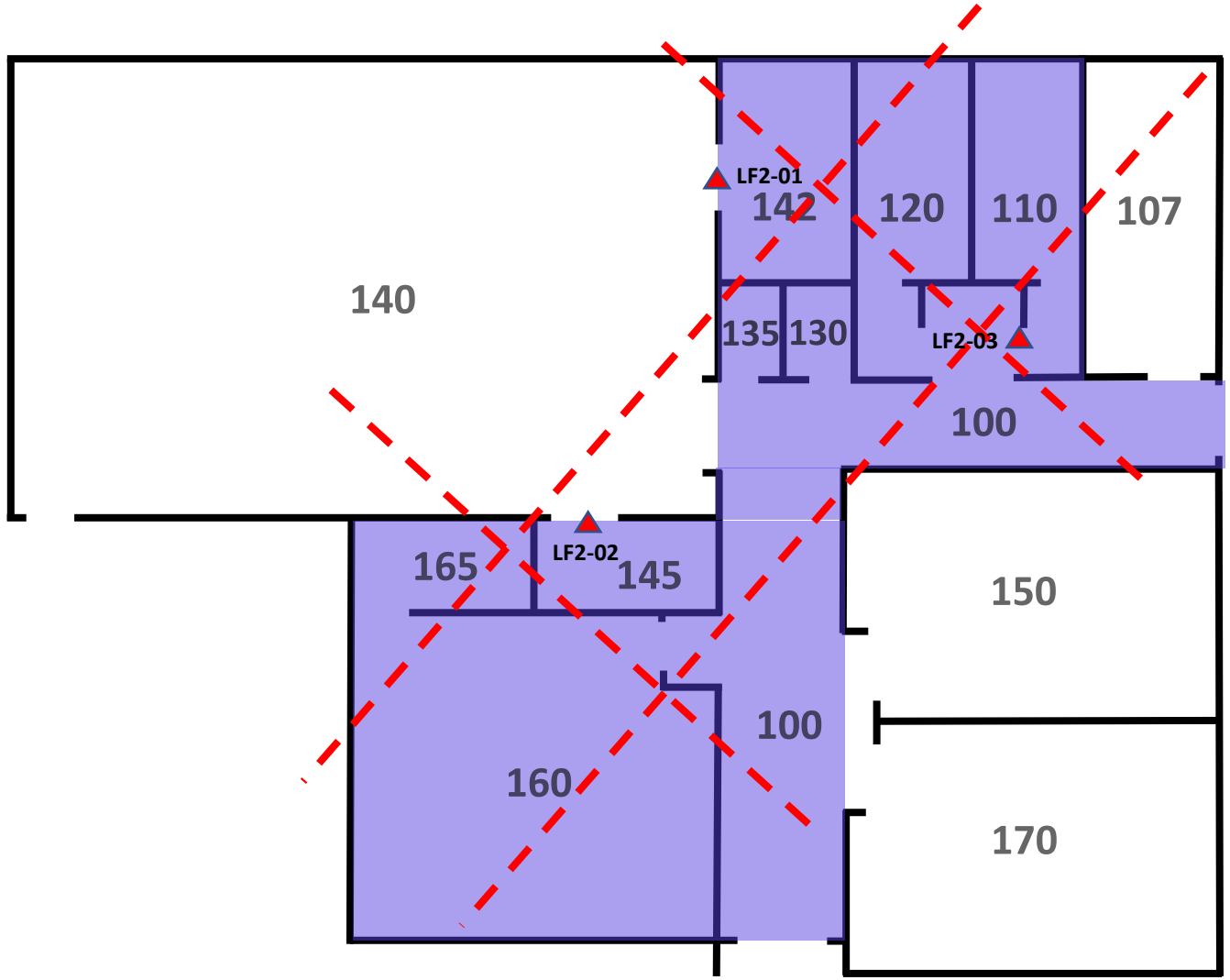
50 SKYHAWK HALL

Zach Myers

Cert # 27978

HA # 1



N

LEGEND

- Areas with LF2
- Sample location
- Random sampling diagram #2

LF2 – 12"x12" white linoleum tile w/ blue streaks with yellowish, dry crumbly mastic ~ 1950 SF

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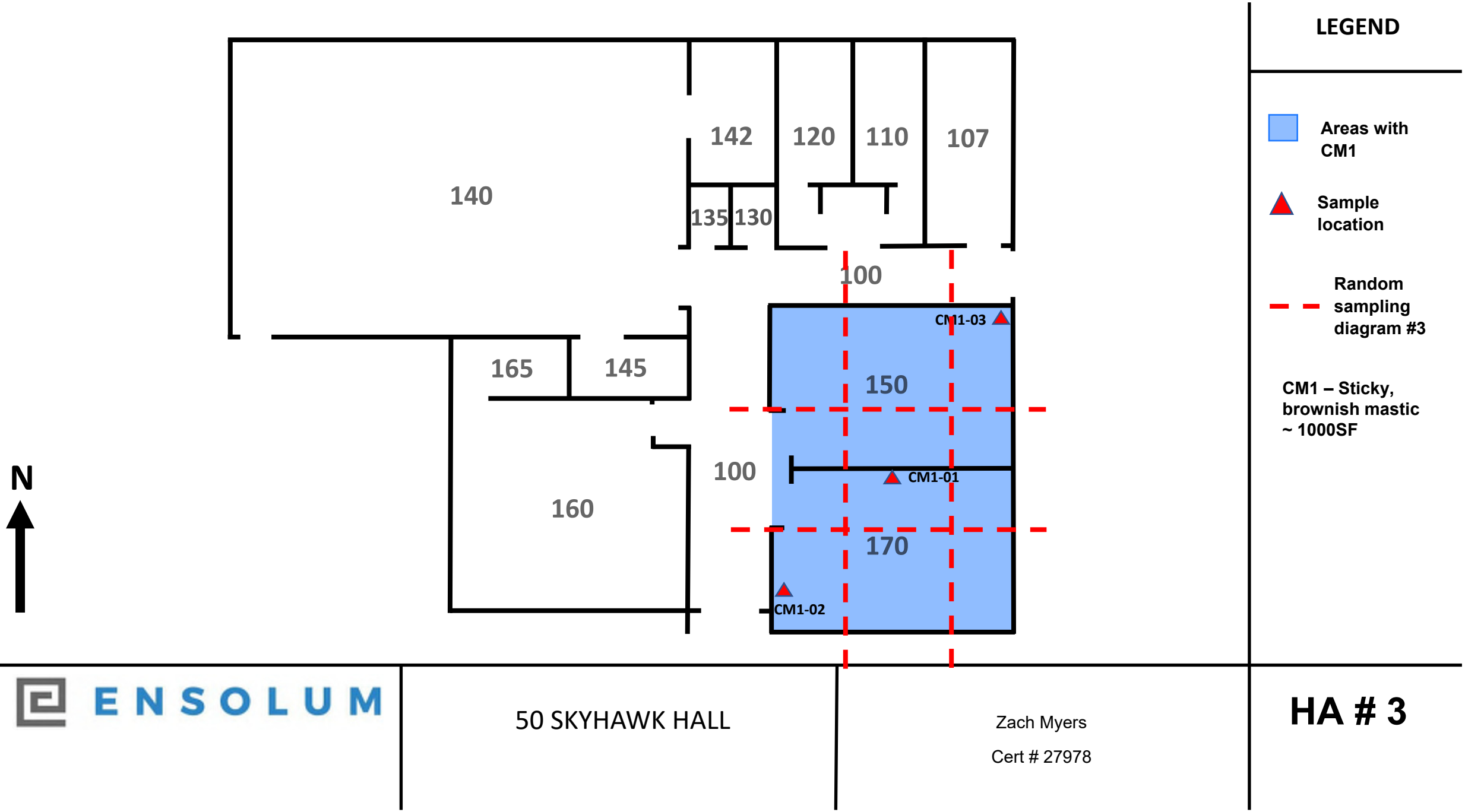
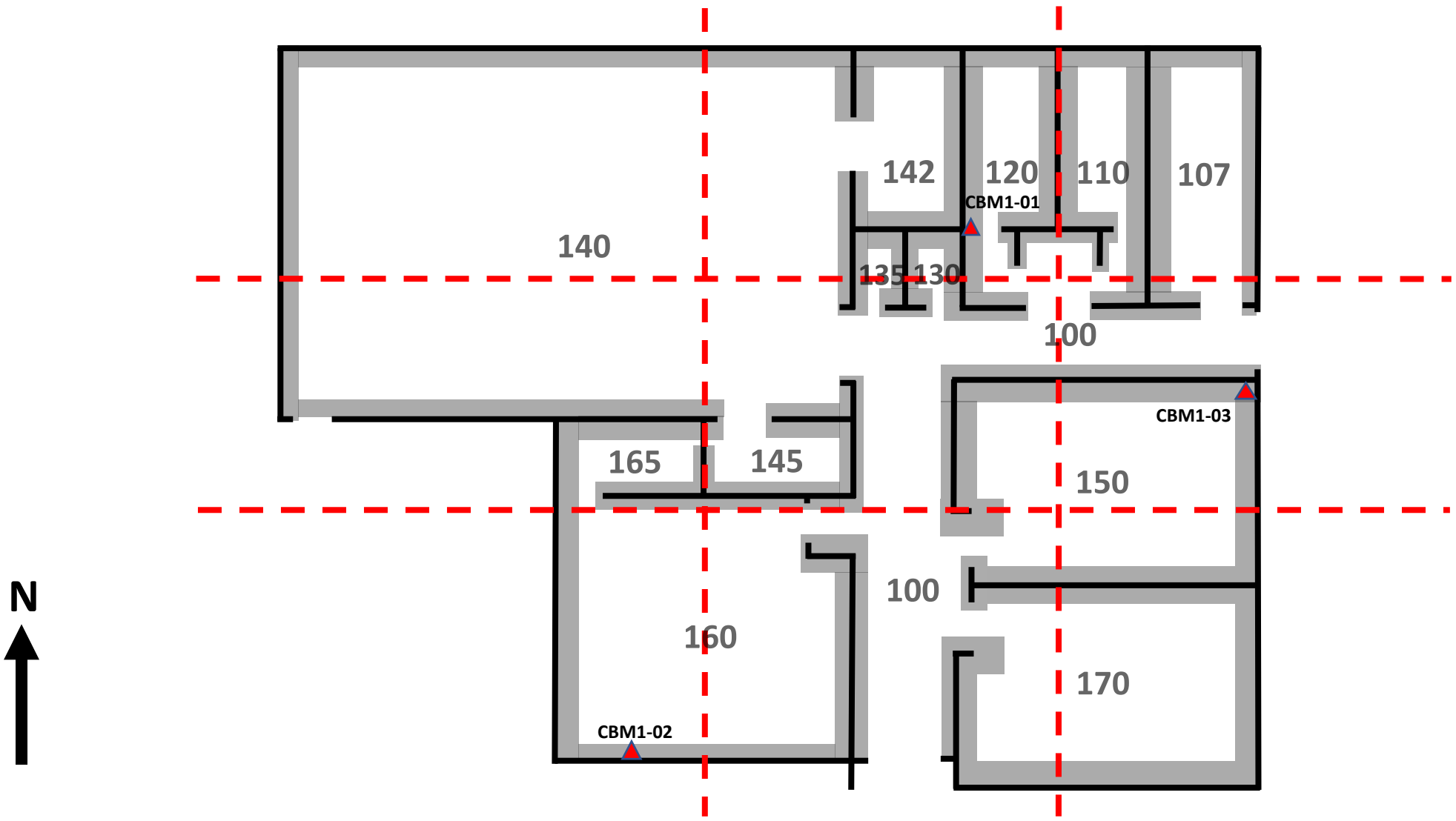
Zach Myers

Cert # 27978

HA # 2


LEGEND
Areas with CM1
Sample location
Random sampling diagram #3
CM1 – Sticky, brownish mastic ~ 1000SF
140
142
120
110
107
135
130
100
165
145
150
CM1-03
100
CM1-01
160
170
CM1-02
N
ENSOLUM
50 SKYHAWK HALL
Zach Myers
Cert # 27978
HA # 3



LEGEND

- Areas with CBM1
- Sample location
- Random sampling diagram #4

CBM1- 4” Cream colored, pliable cove base mastic ~ 227 SF

ENSOLUM

50 SKYHAWK HALL

Zach Myers

Cert # 27978

HA # 4

N

LEGEND

- Areas with DWT1
- Sample location
- Random sampling diagram #5

DWT1 - Orange peel texture on drywall with white or tan paint
~11,635 SF

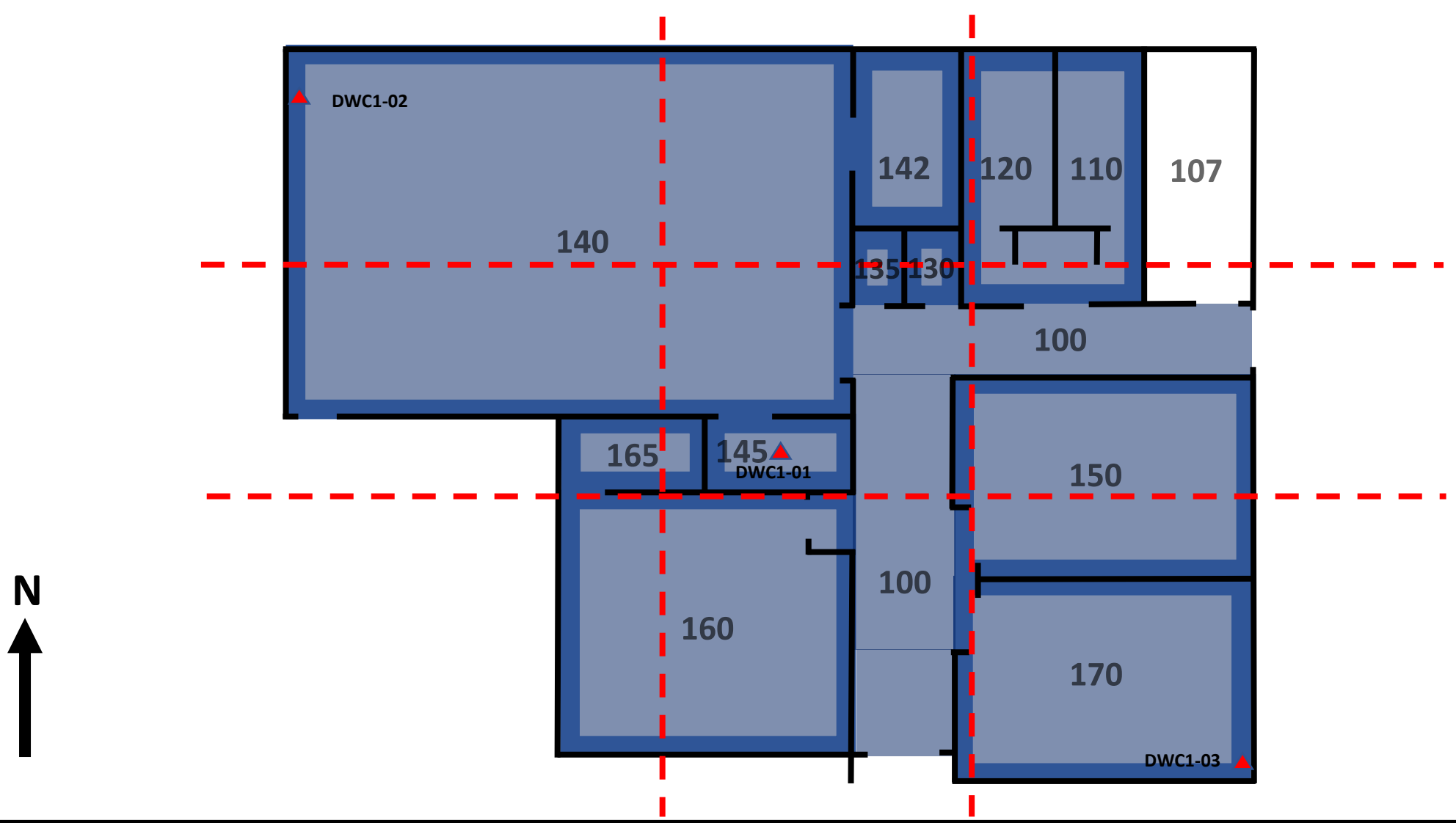
ENSOLUM

50 SKYHAWK HALL

Zach Myers

Cert # 27978

HA # 5



LEGEND

- Areas with DWC1
- Sample location
- Random sampling diagram #6

DWC1- White drywall composite with brown paper and texture
~11,635 SF

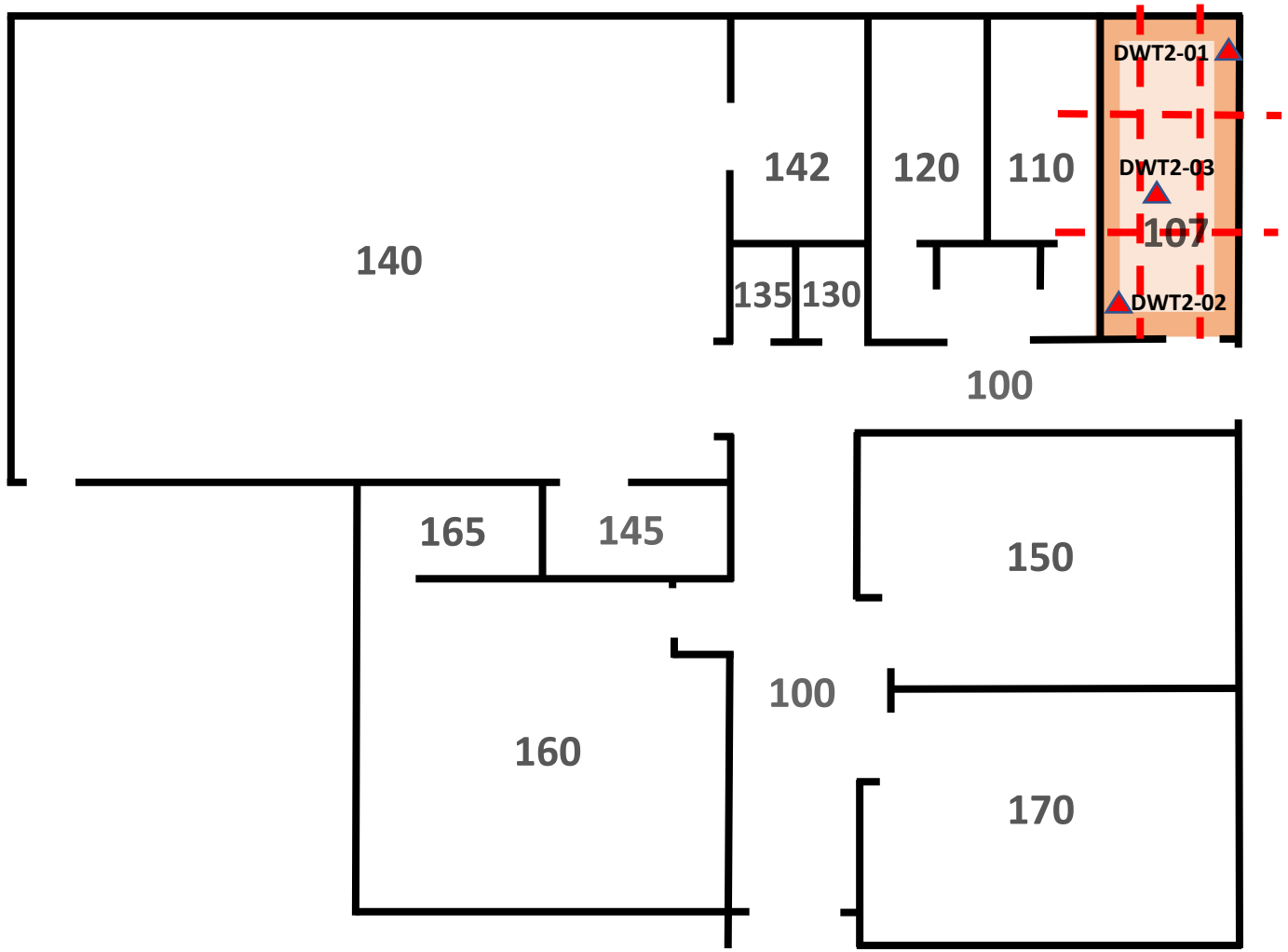
ENSOLUM

50 SKYHAWK HALL

Zach Myers

Cert # 27978

HA # 6



LEGEND

- Areas with DWT2
- Sample location
- Random sampling diagram #7

DWT2 – Smooth texture on walls and ceiling of room #107 ~ 780 SF

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Cert # 27978

HA # 7

LEGEND

Areas with DWC2

Sample location

Random sampling diagram #8

DWC2 – White drywall under white paint
~780 SF

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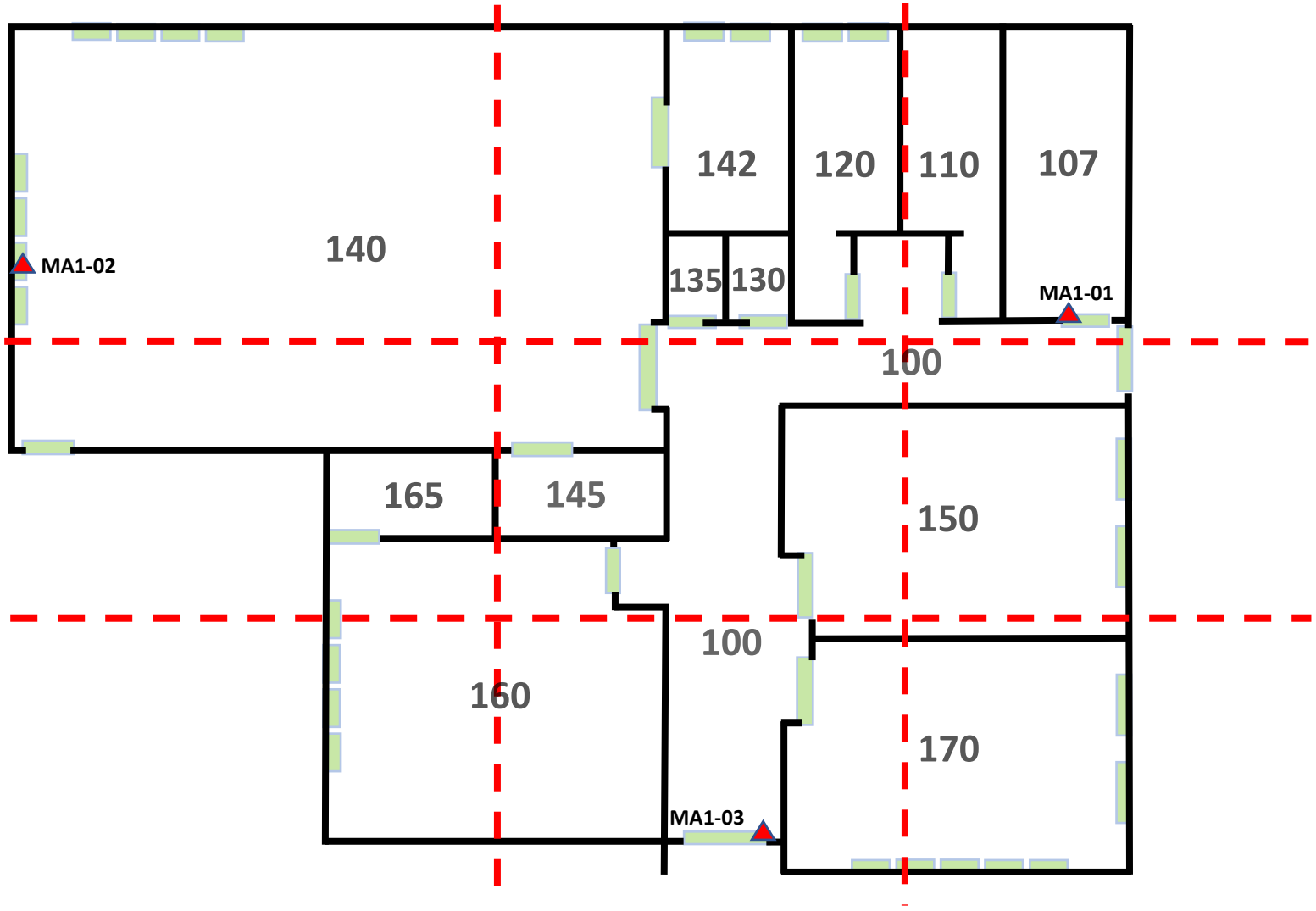
Cert # 27978

HA # 8



N

LEGEND

Areas with MA1

Sample location

Random sampling diagram #9

MA1 - 4" white, pliable, silicone-like caulking around doors & windows
~ 5 SF

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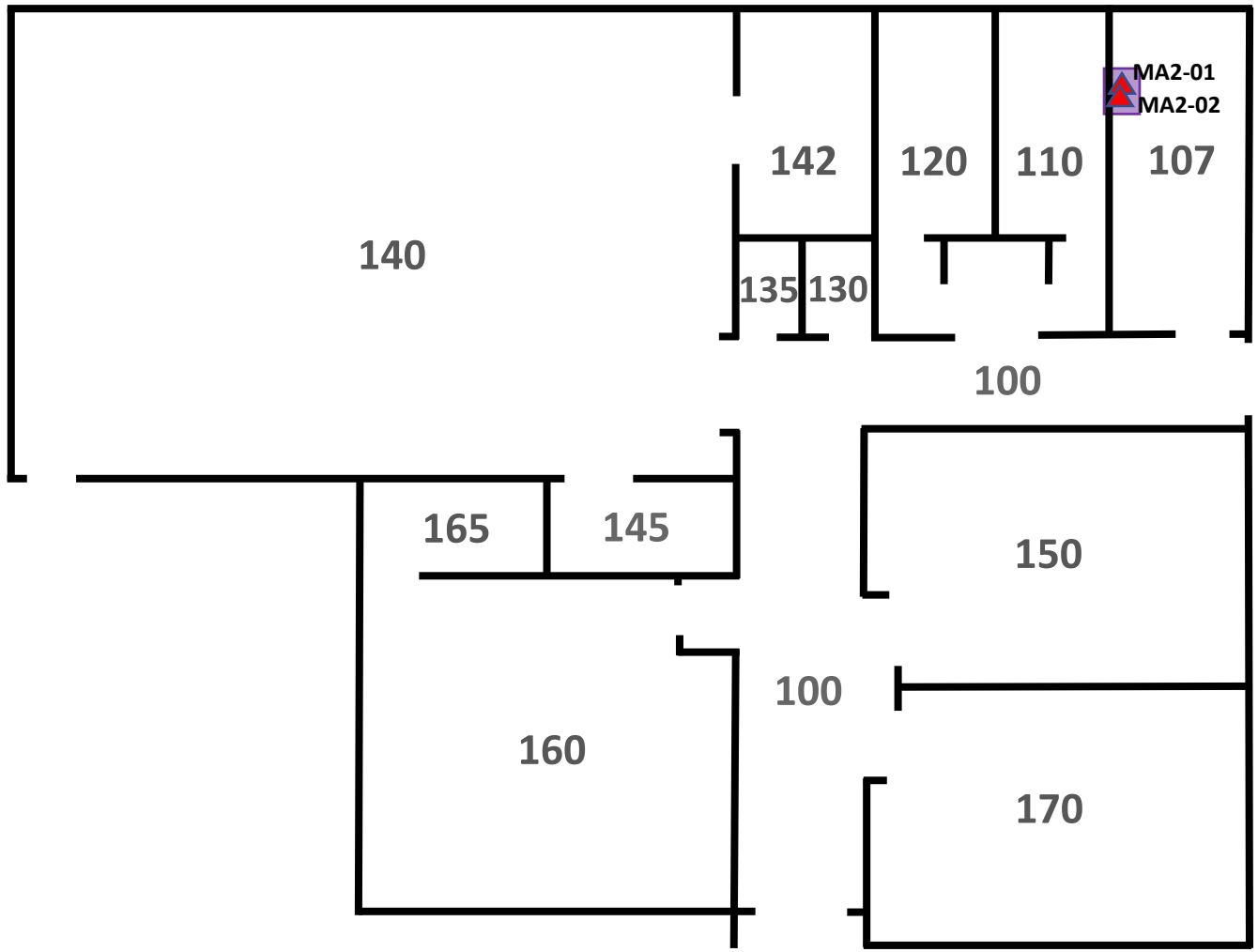
Zach Myers

Cert # 27978

HA # 9



N

LEGEND

Areas with MA2

Sample location

No diagram, samples taken from pipe connections

MA2 – Gray, sticky mastic & old Teflon tape, on steel pipe "air-line" connections >1 SF

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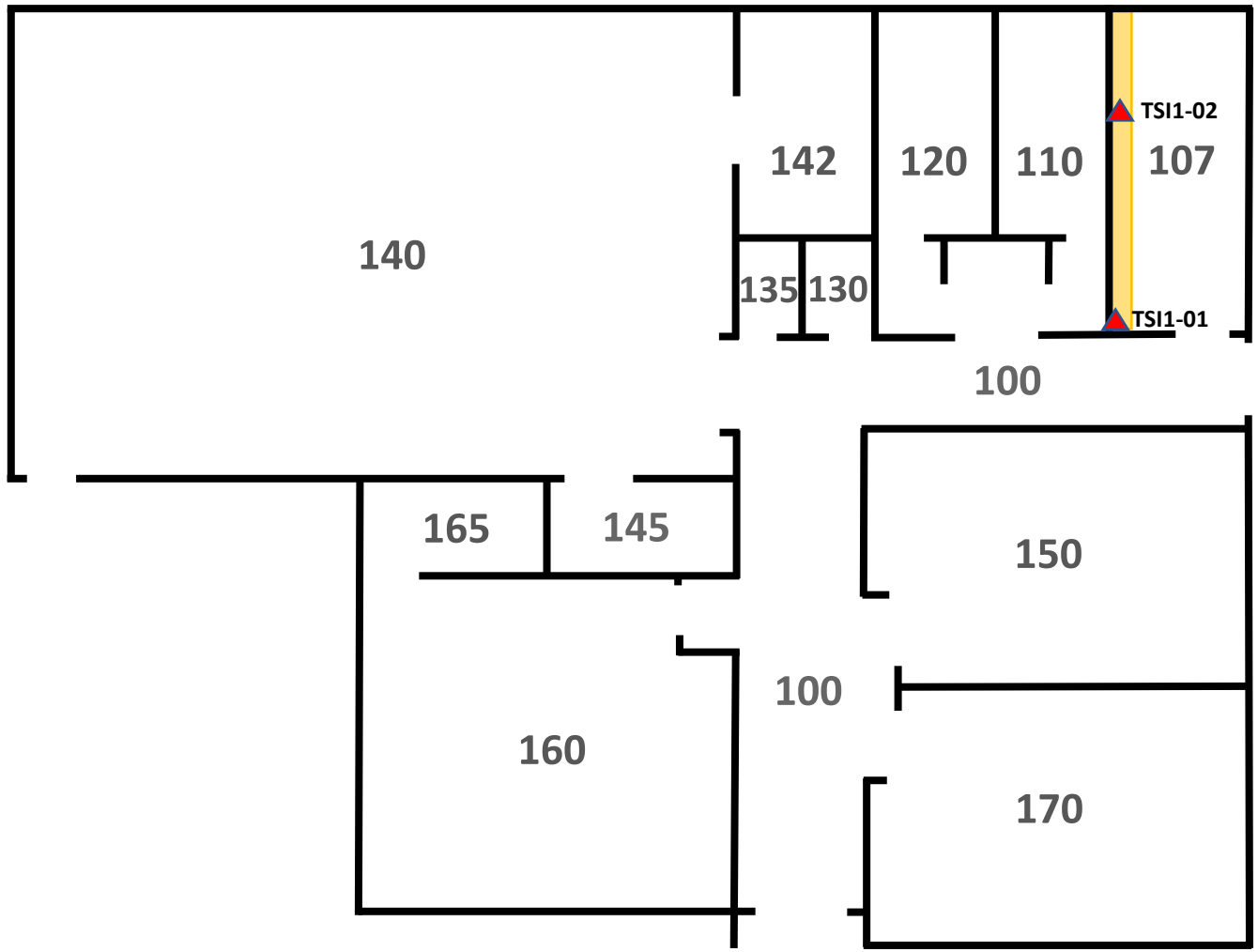
Cert # 27978

HA # 10



N

LEGEND

- Areas with TSI1
- Sample location

No diagram, samples taken from insulation

TSI1 - Yellow fibrous insulation on 1” copper pipe ~92 LF

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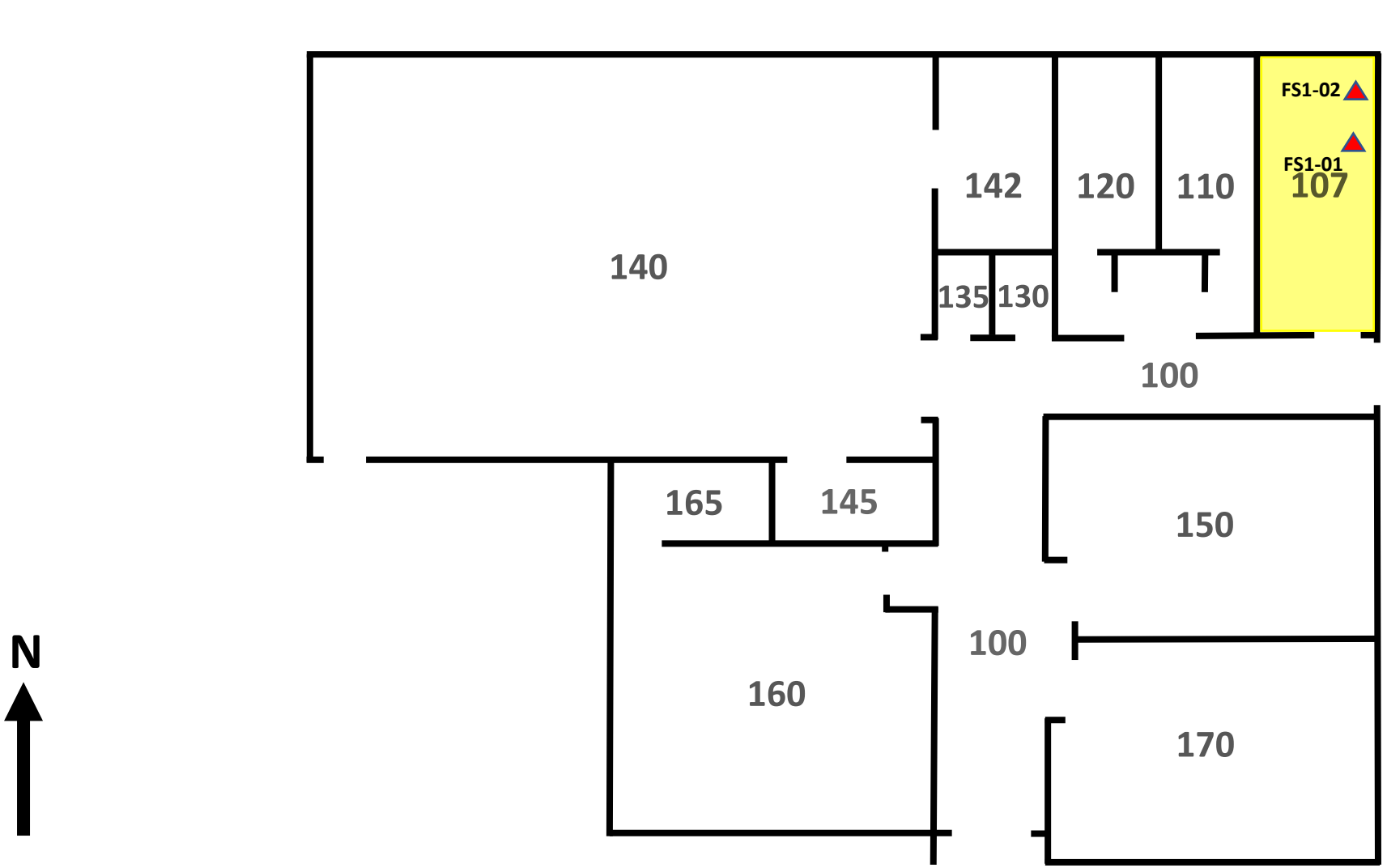
Zach Myers

Cert # 27978

HA # 11



LEGEND

Areas with FS1

Sample location

No diagram, samples taken from sealant

FS1 - Old, Off-white flooring sealant on concrete
~10 SF

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50 SKYHAWK HALL

Zach Myers

Cert # 27978

HA # 12

APPENDIX C

Sample Collection Forms

SAMPLE COLLECTION FORMS
Site: FLC Skyhawk Hall
Date: 11/21/2022
Sampler: Zach Myers, Reece Hanson
Cert #: 27978, 27130
Ensolum Project No. 07B2014006

Sample ID	Date	Sample Location	Field Description	HA #	Type (Surf, TSI, MISC)	Condition (G, D, SD)	Potential for Damage (L, M, H)	Friable? (Y or N)	AHERA Category	Quantity (SF or LF)
SH-LF1-01	11/21/2022	E doorway to Room 140	Fake wood pattern linoleum + tan brittle mastic	1	MISC	G	L	N	7	1,510 SF
SH-LF1-02		SW exit doorway to Room 140								
SH-LF1-03		Doorway between Room 140 and Storage Room 142								
SH-LF2-01	11/21/2022	Doorway between Room 140 and Storage Room 142	12"x12" white linoleum tile w/ blue streaks with yellowish, dry crumbly mastic	2	MISC	G	L	N	7	1,950 SF
SH-LF2-02		Doorway between Room 140 and Storage Room 145								
SH-LF2-03		By doorway to Women's restroom								
SH-CM1-01	11/21/2022	Room 170, N wall (base) 11.7' W of E	Sticky, brownish mastic	3	MISC	G	L	N	7	1,000 SF
SH-CM1-02		Room 170, 4.6' N of S, 1' E of W								
SH-CM1-03		Room 150, 1' S of N, 0.5' W of E								
SH-CBM1-01	11/21/2022	Men's restroom, W wall, 9.7' N of S	Cream colored, pliable mastic	4	MISC	G	L	N	7	227 SF
SH-CBM1-02		Room 160, S wall, 6.9' E of W								
SH-CBM1-03		Room 150, NE corner								

SAMPLE COLLECTION FORMS
Site: FLC Skyhawk Hall
Date: 11/21/2022
Sampler: Zach Myers, Reece Hanson
Cert #: 27978, 27130
Ensolum Project No. 07B2014006

Sample ID	Date	Sample Location	Field Description	HA #	Type (Surf, TSI, MISC)	Condition (G, D, SD)	Potential for Damage (L, M, H)	Friable? (Y or N)	AHERA Category	Quantity (SF or LF)
SH-DWT1-01	11/21/2022	SW corner of room 140, 5' E of W, 1.5' AFL	Orange peel texture on drywall with white or tan paint	5	Surf.	G	M	Y	5	11,635 SF
SH-DWT1-02		N-S hallway 100, S end, W wall, 5.5' N of S, 2.5' AFL								
SH-DWT1-03		Men's restroom ceiling, 8' S of N, 2' E of W								
SH-DWT1-04		NW corner of room 142, W wall, 3' S of N, 5' AFL								
SH-DWT1-05		Room 145, ceiling, 4.5' N of S, 4' E of W								
SH-DWT1-06		Room 140, N wall, 14' of W, 2.5' AFL								
SH-DWT1-07		Room 170, SE corner, 0.5' N of S, E wall, 3' AFL								
SH-DWT1-08		E-W hallway 100, 10' W of E, 9.5' AFL								
SH-DWT1-09		W wall of room 160, 4' N of S, 2' AFL								
SH-DWC1-01	11/21/2022	Room 145, ceiling, 4.5' N of S, 4' E of W	White drywall composite with brown paper and texture	6	MISC	G	M	Y	5	11,635 SF
SH-DWC1-02		NW corner of room 140, W wall, 1.5' S of N, 4' AFL								
SH-DWC1-03		Room 170, SE corner, 0.5' N of S, E wall, 3' AFL								
SH-DWT2-01	11/21/2022	Room 107, E wall, 3.5' S of N, 7.5' AFL	Smooth texture with white paint	7	Surf.	G	M	Y	5	780 SF
SH-DWT2-02		Room 107, W wall, 3' N of S, 3' AFL								
SH-DWT2-03		Room 107, ceiling, 10.5' N of S, 3' E of W								
SH-DWC2-01	11/21/2022	Room 107, E wall, 3.5' S of N, 7.5' AFL	White drywall under white paint	8	MISC	G	M	Y	5	780SF
SH-DWC2-02		Room 107, W wall, 3' N of S, 3' AFL								
SH-DWC2-03		Room 107, ceiling, 10.5' N of S, 3' E of W								

SAMPLE COLLECTION FORMS
Site: FLC Skyhawk Hall
Date: 11/21/2022
Sampler: Zach Myers, Reece Hanson
Cert #: 27978, 27130
Ensolum Project No. 07B2014006

Sample ID	Date	Sample Location	Field Description	HA #	Type (Surf, TSI, MISC)	Condition (G, D, SD)	Potential for Damage (L, M, H)	Friable? (Y or N)	AHERA Category	Quantity (SF or LF)
SH-MA1-01	11/21/2022	Doorway to room 107, W side of door trim, 5.5' AFL	White, pliable, silicone-like caulk	9	MISC	G	L	N	7	5 SF
SH-MA1-02		Room 140, window frame, 2nd window N of S, S side of frame, 1.5' up								
SH-MA1-03		Inner doorway of S entrance/exit, E side of frame, 6' AFL								
SH-MA2-01	11/21/2022	On steel pipe near "Air line" @ connections with Teflon tape	Grey sticky mastic and old Teflon tape	10	MISC	D	M	N	4	<1 SF
SH-MA2-02		On steel pipe near "Air line" @ connections with Teflon tape								
SH-TSI1-01	11/21/2022	Around 1" copper pipe, vertical run from WH	Yellow, fibrous insulation TSI	11	TSI	G	L	Y	7	92 LF
SH-TSI1-02		Around 3" pipe, just E of backflow preventor								
SH-FS1-01	11/21/2022	Room 107 near E wall, 6' S of N	Old, off-white flooring sealant on concrete	12	Surf.	SD	H	Y	3	10 SF
SH-FS1-02		Room 107 near E wall, 3' S of N								

Notes:

' - feet
" - inches
AFL - above floor level
D - damaged
G - good
H - high
HA - homogenous area
L - low
LF - linear feet
M - moderate
MISC - miscellaneous material
SD - significantly damaged
SF - square feet
Surf - Surfacing material
TSI - Thermal System Insulation
N - North E - East
S - South W - West

APPENDIX D

Laboratory Analytical Reports

eurofins | Built Environment Testing Reservoirs

November 29, 2022

Subcontractor Number:
Laboratory Report: **RES 543190-1**
Project #/P.O. #: **07B2014006**
Project Description: **Fort Lewis College Skyhawk Hall**

Reece Hanson
Ensolum, LLC
2351 W. Northwest Hwy, #1203
Dallas TX 75220

Dear Reece,

Eurofins Reservoirs is an analytical laboratory accredited for the analysis of Industrial Hygiene and Environmental matrices by the National Voluntary Laboratory Accreditation Program (NVLAP), Lab Code 101896-0 for Transmission Electron Microscopy (TEM) and Polarized Light Microscopy (PLM) analysis and the American Industrial Hygiene Association (AIHA LAP, LLC), Lab ID 101533 for Phase Contrast Microscopy (PCM) analysis. This laboratory is currently proficient in both Proficiency Testing and PAT programs respectively.

Eurofins Reservoirs has analyzed the following samples for asbestos content as per your request. The analysis has been completed in general accordance with the appropriate methodology as stated in the attached analysis table. The results have been submitted to your office.

RES 543190-1 is the job number assigned to this study. This report is considered highly confidential and the sole property of the customer. Eurofins Reservoirs will not discuss any part of this study with personnel other than those of the client. The results described in this report only apply to the samples analyzed, as received by the customer. This report must not be used to claim endorsement of products or analytical results by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without written approval from Eurofins Reservoirs Samples will be disposed of after sixty days unless longer storage is requested. If you have any questions about this report, please feel free to call 303-964-1986.

Sincerely,

Jeanne Spencer
by Liu Wenlong

Jeanne Spencer
President

DATA QA
11/29/2022

EUROFINS RESERVOIRS ENVIRONMENTAL, INC

NVLAP Lab Code 101896-0
AIHA LAP, LLC. LAB ID 101533

TABLE: I ANALYSIS: PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME

RES Job Number: **RES 543190-1**
Client: **Ensolum, LLC**
Client Project/P.O.: **07B2014006**
Client Project Description: **Fort Lewis College Skyhawk Hall**
Date Samples Received: **November 22, 2022**
Analysis Type: **EPA 600/R-93/116 - Short Report, Bulk**
Turnaround: **Standard**
Date Samples Analyzed: **November 29, 2022**

NA = Not Analyzed
NR = Not Received
ND = None Detected
TR = Trace; <1 % Visual Estimate
Trem-Act = Tremolite-Actinolite

Laboratory Sample ID / Client Sample Number	LAYER	Physical Description	Sub Part (%)	Asbestos Content: Mineral	Asbestos Content: Visual Estimate (%)	Non-Asbestos Fibrous Components (%)	Non-Fibrous Components (%)
543190 - SH-LF1-01	A	Brown sheet vinyl w/ white fibrous woven material & cream mastic	100		ND	4	96
543190 - SH-LF1-02	A	Brown sheet vinyl w/ white fibrous woven material & brown mastic	100		ND	5	95
543190 - SH-LF1-03	A	Brown sheet vinyl w/ white fibrous woven material & brown mastic	100		ND	5	95
543190 - SH-LF2-01	A	Orange mastic	1		ND	0	100
	B	Off white/blue tile	99		ND	0	100
543190 - SH-LF2-02	A	Orange mastic	2		ND	0	100
	B	Off white/blue tile	98		ND	0	100
543190 - SH-LF2-03	A	Orange mastic	3		ND	0	100
	B	Off white/blue tile	97		ND	0	100
543190 - SH-CM1-01	A	Brown mastic	100		ND	0	100
543190 - SH-CM1-02	A	Brown/tan mastic	100		ND	0	100
543190 - SH-CM1-03	A	Brown/tan mastic	100		ND	0	100
543190 - SH-CBM1-01	A	Black cove base	20		ND	0	100
	B	Cream mastic	80		ND	0	100

TEM Analysis recommended for organically bound material (i.e. floor tile) if PLM results are <1%.

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Laboratory Sample ID / Client Sample Number	LAYER	Physical Description	Sub Part (%)	Asbestos Content: Mineral	Asbestos Content: Visual Estimate (%)	Non-Asbestos Fibrous Components (%)	Non-Fibrous Components (%)
543190 - SH-CBM1-02	A	Off white mastic	45		ND	0	100
	B	Black cove base	55		ND	0	100
543190 - SH-CBM1-03	A	Cream mastic	100		ND	0	100
543190 - SH-DWT1-01	A	White texture w/ pink paint	35		ND	0	100
	B	Tan/white drywall w/ white paint	65		ND	60	40
543190 - SH-DWT1-02	A	Tan paper w/ white paint	40		ND	70	30
	B	White texture w/ off white paint	60		ND	0	100
543190 - SH-DWT1-03	A	White texture w/ pink paint	30		ND	0	100
	B	Tan/pink drywall w/ white paint	70		ND	40	60
543190 - SH-DWT1-04	A	Tan paper	5		ND	90	10
	B	White texture w/ pink paint	20		ND	0	100
	C	White compound w/ white paint	75		ND	0	100
543190 - SH-DWT1-05	A	White texture w/ pink paint	20		ND	0	100
	B	Tan/white drywall w/ white paint	80		ND	25	75
543190 - SH-DWT1-06	A	White texture w/ pink paint	40		ND	0	100
	B	Tan/white drywall w/ white paint	60		ND	55	45

TEM Analysis recommended for organically bound material (i.e. floor tile) if PLM results are <1%.

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Laboratory Sample ID / Client Sample Number	LAYER	Physical Description	Sub Part (%)	Asbestos Content: Mineral	Asbestos Content: Visual Estimate (%)	Non-Asbestos Fibrous Components (%)	Non-Fibrous Components (%)
543190 - SH-DWT1-07	A	Tan paper w/ white paint	35		ND	75	25
	B	White texture w/ pink paint	65		ND	0	100
543190 - SH-DWT1-08	A	Tan/white drywall w/ white paint	45		ND	70	30
	B	White texture w/ pink paint	55		ND	0	100
543190 - SH-DWT1-09	A	White texture w/ pink paint	50		ND	0	100
	B	Tan/white drywall w/ white paint	50		ND	65	35
543190 - SH-DWC1-01	A	White compound w/ pink paint	4		ND	0	100
	B	Tan/pink drywall w/ white paint	96		ND	10	90
543190 - SH-DWC1-02	A	White tape	7		ND	95	5
	B	White compound w/ pink paint	13		ND	0	100
	C	White joint compound	15		ND	0	100
	D	Tan/pink drywall	65		ND	25	75
543190 - SH-DWC1-03	A	White compound w/ pink paint	3		ND	0	100
	B	Tan/pink drywall w/ white paint	97		ND	15	85

TEM Analysis recommended for organically bound material (i.e. floor tile) if PLM results are <1%.

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Laboratory Sample ID / Client Sample Number	LAYER	Physical Description	Sub Part (%)	Asbestos Content: Mineral	Asbestos Content: Visual Estimate (%)	Non-Asbestos Fibrous Components (%)	Non-Fibrous Components (%)
543190 - SH-DWT2-01	A	White joint compound	25		ND	0	100
	B	White compound w/ pink paint	35		ND	0	100
	C	White tape	40		ND	95	5
543190 - SH-DWT2-02	A	Tan/white drywall w/ pink paint	100		ND	30	70
543190 - SH-DWT2-03	A	Pink paint w/ white texture	100		ND	0	100
543190 - SH-DWC2-01	A	White compound w/ pink paint	5		ND	0	100
	B	White tape	5		ND	95	5
	C	White joint compound	10		ND	0	100
	D	Tan/pink drywall	80		ND	15	85
543190 - SH-DWC2-02	A	Tan/white drywall w/ pink paint	100		ND	12	88
543190 - SH-DWC2-03	A	White compound w/ pink paint	5		ND	0	100
	B	Tan/pink drywall	95		ND	8	92
543190 - SH-MA1-01	A	White resinous material w/ pink paint	100		ND	0	100
543190 - SH-MA1-02	A	White resinous material	100		ND	0	100
543190 - SH-MA1-03	A	White resinous material w/ pink paint	100		ND	0	100

TEM Analysis recommended for organically bound material (i.e. floor tile) if PLM results are <1%.

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Laboratory Sample ID / Client Sample Number	LAYER	Physical Description	Sub Part (%)	Asbestos Content: Mineral	Asbestos Content: Visual Estimate (%)	Non-Asbestos Fibrous Components (%)	Non-Fibrous Components (%)
543190 - SH-MA2-01	A	Gray resinous material	100		ND	TR	100
543190 - SH-MA2-02	A	Gray resinous material	100		ND	TR	100
543190 - SH-TSI1-01	A	Orange insulation	100		ND	90	10
543190 - SH-TSI1-02	A	Off white sealant	20		ND	0	100
	B	Orange insulation	80		ND	90	10
543190 - SH-FS1-01	A	Off white resinous material	100		ND	0	100
543190 - SH-FS1-02	A	Off white resinous material	100		ND	0	100

TEM Analysis recommended for organically bound material (i.e. floor tile) if PLM results are <1%.

Liu Wenlong
Analyst

eurofins | Built Environment Testing Reservoirs

RES Job #: 543190

SUBMITTED BY		INVOICE TO		CONTACT INFORMATION		SERIES
Company:	Ensolum, LLC	Company:	Ensolum, LLC	Contact:	Reece Hanson	-1 PLM Standard
Address:	2351 W. Northwest Hwy, #1203	Address:	2351 W. Northwest Hwy, #1203	Phone:	(970) 210-9803	
				Fax:		
	Dallas, TX 75220		Dallas, TX 75220	Cell:		
Project Number and/or P.O. #:	07B2014006			Final Data Deliverable Email Address:		
Project Description/Location:	Fort Lewis College Skyhawk Hall			rhanson@ensolum.com (+ 3 ADDNL. CONTACTS)		

ASBESTOS LABORATORY HOURS: Weekdays: 7am - 7pm & Sat. 8am - 5pm

PLM / PCM / TEM DTL RUSH PRIORITY STANDARD

CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm

Dust RUSH PRIORITY STANDARD

Metals RUSH PRIORITY STANDARD *PRIOR NOTICE REQUIRED FOR SAME DAY TAT

Organics* SAME DAY RUSH PRIORITY STANDARD

MICROBIOLOGY LABORATORY HOURS: Weekdays: 8am - 5pm

Viable Analysis** PRIORITY STANDARD

Medical Device Analysis RUSH STANDARD **TAT DEPENDENT ON SPEED OF MICROBIAL GROWTH

Mold Analysis RUSH PRIORITY STANDARD

Turnaround times establish a laboratory priority, subject to laboratory volume and are not guaranteed. Additional fees apply for afterhours, weekends and holidays.

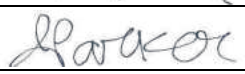
Special Instructions:

VALID MATRIX CODES

Air = A	Bulk = B
Dust = D	Food = F
Paint = P	Soil = S
Surface = SU	Swab = SW
Tape = T	Wipe = W
Drinking Water = DW	
Waste Water = WW	
ASTM E1792 approved wipe media only	

Client Sample ID Number (Sample ID's must be unique)	REQUESTED ANALYSIS: ASBESTOS			CHEMISTRY			MICROBIOLOGY			Sample Volume (L) / Area	Length (or Aliquots) x Width (or Area per Aliquot)	Matrix Code	# of Containers	Date Collected mm/dd/yy	Time Collected hh:mm	LAB NOTES: Laboratory Analysis Instructions
	PLM - PLM Short Report (EPA/600/R-93/116)	TEM - AHERA (+/- or Quantified), Microvac (+/- or Quantified), Wipe (+/- or Quantified), NIOSH 7402, Yamate Level II, ISO 10312, ISO 13794, Chatfield, Drinking Water, Waste Water, Bulk +/-, CARB Modified Ahera	PCM - 7400A, 7400B, OSHA	DUST - Total, Respirable	METALS - Analyte(s) Lead Only (7082, 7420, Waste Water, Foodware), Multi Metals (7303,6020A, 200.8, Waste Water, Foodware, OSHA ID-125G), pH (Liquid or Non-Liquid), TCLP, RCRA 8 Scan, Welding Fume Scan, Full Metals Scan	ORGANICS - Methamphetamine, TSS	VIABLES - Campylobacter, Bacillus, Salmonella (Culturable or 1-2), Listeria, E.coli O157:H7, E.coli/Coliforms - Plated, S.aureus, Yeast & Mol, Aerobic Plate Count, Coliforms/E.coli - (State Water, Drinking Water, Non-Drinking Water, +/-, Quantification), Lactic Acid, Viable Microbial Count (w/oID or w/ID), Enterococcus (+/- or Quantification), Legionella (P, NP, C)	MEDICAL - Bioburden, LAL	MOLD - Spore Trap, Bulk Mold, Particulate Identification						
1 SH-LF1-01	X											B				
2 SH-LF1-02	X											B				
3 SH-LF1-03	X											B				
4 SH-LF2-01	X											B				
5 SH-LF2-02	X											B				
6 SH-LF2-03	X											B				
7 SH-CM1-01	X											B				
8 SH-CM1-02	X											B				
9 SH-CM1-03	X											B				
10 SH-CBM1-01	X											B				
11 SH-CBM1-02	X											B				
12 SH-CBM1-03	X											B				
13 SH-DWT1-01	X											B				

EREI establishes a unique Lab Sample ID, for each sample, by preceding each unique Client Sample ID with the laboratory RES Job Number.
EREI will analyze incoming samples based on information received and will not be responsible for errors or omissions in calculations resulting from the inaccuracy of original data. By signing, client/company representative agrees that submission of the following samples for requested analysis as indicated on this Chain of Custody shall consitute an analytical services agreement with payment terms of NET 30 days. Failure to comply with payment terms may result in a 1.5% monthly interest surcharge.

Relinquished By:		Reece Hanson	Date/Time: 11/21/2022 14:23:50	Sample Condition: Acceptable
Received By:		Jessica Parker	Date/Time: 11/22/2022 10:49:46	Carrier: Fed-Ex

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Res Job#: **543190**

Submitted By: **Ensolum, LLC**

		REQUESTED ANALYSIS												VALID MATRIX CODES						LAB NOTES
		PLM - PLM Short Report (EPA/600/R-93/116)	TEM - AHERA (+/- or Quantified), Microvac (+/- or Quantified), Wipe (+/- or Quantified), NIOSH 7402, Yamate Level II, ISO 10312, ISO 13794, Chatfield, Drinking Water, Waste Water, Bulk +/-, CARB Modified Ahera	PCM - 7400A, 7400B, OSHA	DUST - Total, Respirable	METALS - Analyte(s) Lead Only (7082, 7420), Waste Water, Foodware), Multi Metals (7303,6020A, 200.8, Waste Water, Foodware, OSHA ID-125G), pH (Liquid or Non-Liquid), TCLP, RCRA 8 Scan, Welding Fume Scan, Full Metals Scan	ORGANICS - Methamphetamine, TSS	VIABLES - Campylobacter, Bacillus, Salmonella (Culturable or 1-2), Listeria, E.coli O157:H7, E.coli/Coliforms - Plated, S.aureus, Yeast & Mol, Aerobic Plate Count, Coliforms/E.coli - (State Water, Drinking Water, Non-Drinking Water, +/-, Quantification), Lactic Acid, Viable Microbial Count (wo/ID or w/ID), Enterococcus (+/- or Quantification), Legionella (P, NP, C)	MEDICAL - Bioburden, LAL	MOLD - Spore Trap, Bulk Mold, Particulate Identification	Air = A	Bulk = B					
														Dust = D	Food = F					
														Paint = P	Soil = S					
														Surface = SU	Swab = SW					
														Tape = T	Wipe = W					
														Drinking Water = DW						
														Waste Water = WW						
														ASTM E1792 approved wipe media only						
	Client Sample ID Number (Sample ID's must be unique)	ASBESTOS			CHEMISTRY			MICROBIOLOGY						Sample Volume (L) / Area	Length (or Aliquots) x Width (or Area per Aliquot	Matrix Code	# of Containers	Date Collected mm/dd/yy	Time Collected hh:mm	Laboratory Analysis Instructions
14	SH-DWT1-02	X														B				
15	SH-DWT1-03	X														B				
16	SH-DWT1-04	X														B				
17	SH-DWT1-05	X														B				
18	SH-DWT1-06	X														B				
19	SH-DWT1-07	X														B				
20	SH-DWT1-08	X														B				
21	SH-DWT1-09	X														B				
22	SH-DWC1-01	X														B				
23	SH-DWC1-02	X														B				
24	SH-DWC1-03	X														B				
25	SH-DWT2-01	X														B				
26	SH-DWT2-02	X														B				
27	SH-DWT2-03	X														B				
28	SH-DWC2-01	X														B				
29	SH-DWC2-02	X														B				
30	SH-DWC2-03	X														B				
31	SH-MA1-01	X														B				
32	SH-MA1-02	X														B				
33	SH-MA1-03	X														B				
34	SH-MA2-01	X														B				
35	SH-MA2-02	X														B				
36	SH-TSI1-01	X														B				
37	SH-TSI1-02	X														B				
38	SH-FS1-01	X														B				
39	SH-FS1-02	X														B				

SECTION 024100
DEMOLITION

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Selective demolition of built site elements.

B. Selective demolition of building elements for alteration purposes.

1.02 RELATED REQUIREMENTS

A. Section 011000 - Summary: Limitations on Contractor's use of site and premises.

B. Section 015000 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.

C. Section 017000 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products; temporary bracing and shoring.

1.03 DEFINITIONS

A. Demolition: Dismantle, raze, destroy or wreck any building or structure or any part thereof.

B. Remove: Detach or dismantle items from existing construction and dispose of them off site, unless items are indicated to be salvaged or reinstalled.

C. Remove and Salvage: Detach or dismantle items from existing construction in a manner to prevent damage. Clean, package, label and deliver salvaged items to Owner in ready-for-reuse condition.

D. Remove and Reinstall: Detach or dismantle items from existing construction in a manner to prevent damage. Clean and prepare for reuse and reinstall where indicated.

E. Existing to Remain: Designation for existing items that are not to be removed and that are not otherwise indicated to be salvaged or reinstalled.

1.04 REFERENCE STANDARDS

A. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations 2022, with Errata (2021).

PART 3 EXECUTION

2.01 GENERAL PROCEDURES AND PROJECT CONDITIONS

A. Prior to any demolition work, coordinate with the Owner and/or Architect items to be salvaged and reinstalled. Those items that are to be salvaged, and not being reinstalled, shall be turned over to the Owner; items to be reinstalled shall be securely and safely stored until which time the item can be reinstalled, as directed by the Owner and/or Architect.

B. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
   1. Obtain required permits.
   2. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
   3. Provide, erect, and maintain temporary barriers and security devices.
   4. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
   5. Do not close or obstruct roadways or sidewalks without permits from authority having jurisdiction.
   6. Conduct operations to minimize obstruction of public and private entrances and exits. Do not obstruct required exits at any time. Protect persons using entrances and exits from removal operations.

C. Protect existing structures and other elements to remain in place and not removed.
   1. Provide bracing and shoring.

2.02 SELECTIVE DEMOLITION FOR ALTERATIONS

A. Existing construction and utilities indicated on drawings are based on casual field observation and existing record documents only.
   1. Verify construction and utility arrangements are as indicated.
   2. Report discrepancies to Architect before disturbing existing installation.
   3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.

B. Remove existing work as indicated and required to accomplish new work.
   1. Remove items indicated on drawings.

C. Services including, but not limited to, HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications: Remove existing systems and equipment as indicated.
   1. Maintain existing active systems to remain in operation, and maintain access to equipment and operational components.
   2. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
   3. Verify that abandoned services serve only abandoned facilities before removal.
   4. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings. Remove back to source of supply where possible, otherwise cap stub and tag with identification.

D. Protect existing work to remain.
   1. Prevent movement of structure. Provide shoring and bracing as required.
   2. Perform cutting to accomplish removal work neatly and as specified for cutting new work.
   3. Repair adjacent construction and finishes damaged during removal work.
   4. Patch to match new work.

2.03 DEBRIS AND WASTE REMOVAL

A. Remove debris, junk, and trash from site.

B. Leave site in clean condition, ready for subsequent work.

C. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION