ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES PLAN
REVISION 0

CARLISLE COMMERCIAL PROPERTY
216 & 218 WEST MAIN STREET
CARLISLE, ARKANSAS 72024

EnSafe Project Number
0888840689

Prepared for:

Arkansas Department of Energy and Environment
Division of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118

May 9, 2025

1603 Lyndon B Johnson Freeway, Suite 700
Farmers Branch, Texas 75234
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Prepared by:

Jasmine Estrada
Environmental Geologist

Reviewed by:

Emily J. Brickman, PG
Senior Project Manager/Geologist

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APPENDICES

1.0 INTRODUCTION

1.1 Distribution List

This Analysis of Brownfield Cleanup Alternatives (ABCA) Plan has been prepared for the Carlisle Commercial Property properties located at 216 & 218 West Main Street in Carlisle, Lonoke County, Arkansas (Site). This ABCA Plan was prepared to evaluate commercial cleanup alternatives. Table 1 contains the distribution list of recipients for the approved ABCA Plan. The approved ABCA Plan can be provided in hard copy or electronic (PDF format) versions, as requested.

Table 1
Analysis of Brownfield Cleanup Alternatives Plan Distribution List

Name	Title	Organization	Phone	Email
Addie McClain	Brownfield and Site Assessment Program Supervisor	ADEE-DEQ	501-682-0616	addie.mcclain@arkansas.gov
Emily Brickman, PG	Senior Project Manager/ Contract Manager/ Project Manager	EnSafe Inc.	214-529-5600	ebrickman@ensafe.com
Dean Stoker	Site Safety Officer/ Asbestos Inspector	EnSafe Inc.	501-517-4751	dstoker@ensafe.com
Bryan Brister	Senior Environmental Technician/ Field Team Member/ Asbestos Inspector	EnSafe Inc.	901-937-4343	bbrister@ensafe.com
Frank O'Connell	Senior Environmental Technician/ Field Team Member/ Asbestos Inspector	EnSafe Inc.	901-937-4445	joconnell@ensafe.com
Dana Miller	Project Chemist/ Data Validator/ Quality Assurance Officer	EnSafe Inc.	972-865-4857	dmiller@ensafe.com
Gary Nooner	Project Manager	Environmental Protection Associates of Russellville, Inc.	501-516-3959	gnooner@epaonline.biz

Note:
ADEE-DEQ = Arkansas Department of Energy and Environment, Division of Environmental Quality

The Site formerly housed a commercial building; however, the property and building were in disrepair and the building and onsite structures collapsed and have been demolished. Information provided by the Arkansas Department of Energy and Environment, Division of Environmental Quality (ADEE-DEQ) indicates the onsite building debris pile is scheduled for repurposing with participation and assistance being provided through the Arkansas Brownfield Program. The project will require remediation and/or management of identified asbestos-containing materials (ACM). This project will

help facilitate renovation of the building, as well as support the goals of the ADEE-DEQ and United States Environmental Protection Agency (U.S. EPA) Brownfield Programs. This ABCA Plan includes information regarding:

- The characteristics of the building and the environmental issues that have been documented, including identification of contaminants, potential exposure pathways, sources of contamination, applicable or relevant and appropriate laws, and regulations and standards;

- Analysis of potential cleanup alternatives, including *no action* as an alternative;

- A discussion of the proposed scope of cleanup activities to be considered in evaluating and recommending the cleanup plan; and

- A determination of what controls will be required to implement the cleanup.

2.0 SITE BACKGROUND

EnSafe has been contracted by the ADEE-DEQ to complete an ABCA Plan to cover the remediation and/or management of ACM identified at the Site.

2.1 Site Location and Description

The Site property consists of multiple parcels totaling a 0.26-acre area[1]. Figure 1 (Appendix A) is a topographic map showing the location of the Site.

EnSafe understands the Site formerly housed a commercial building; however, the building and onsite structures collapsed and have been demolished. The original one-story building was constructed prior to 1955, with several additions through the years. Based on review of aerial imagery, the Site is adjoined by vacant commercial buildings to the east and west; grass-covered landscaped areas to the north and a concrete sidewalk and asphalt-paved parking areas to the south. West Main Street borders the subject property to the south. Figure 2 (Appendix A) is an aerial image showing the Site and its relationship to surrounding properties.

The Central Arkansas Planning and Development District, Inc. applied to be part of the Arkansas Brownfield Program, with the application completed by Mr. Rodney Larsen, Executive Director, dated September 19, 2024.[2] Historical application information and property access documents are in Appendix B.

2.2 Source of Contamination

The Site formerly housed a commercial building functioning as the Old Chamber of Commerce. The Site has been scheduled for repurposing and the existing structure has been demolished and remains in place. ACM were identified in a previous asbestos survey conducted by Environmental Protection Associates (EPA) in April 2023. Previous inspections and surveys have identified the presence of ACM as summarized in Section 3 of this report.

[1] Parcel data retrieved from Arkansas GIS Office Tax Parcel website (https://agio.maps.arcgis.com/home/webmap/viewer.html?webmap=81960b350dc04284b35046e6a54ed5b2). 2025, April 3.

[2] Arkansas Brownfield Program Application Form; submitted by Mr. Rodney Larsen (rodney.larsen@capdd.org), Central Arkansas Planning and Development District, Inc. City of West Memphis Community Development Specialist. 2024, September 19.

3.0 SITE ASSESSMENT

This section presents previous assessment activities conducted in preparation for future planned building renovations. The following summary was prepared based on findings presented in the EPA *Asbestos Survey Report* dated April 5, 2023, and email communication from the ADEE-DEQ.

3.1 Asbestos Inspection

An asbestos survey conducted by EPA in April to May 2023 included the collection of 19 bulk samples collected from suspect asbestos-containing building materials, which were submitted to Crisp Analytical, LLC and CA Labs, LLC in Carrollton, Texas, for analysis using polarized light microscopy. The survey identified ACM in floor tile and mastic and roofing systems throughout the structure.

In total, three homogeneous areas of ACM were identified, including 9-inch-by-9-inch floor tile and mastic, as well as roofing materials. The following approximate quantities of ACM were identified:

- 1,530 square feet of asbestos-containing 9-inch-by-9-inch floor tile and mastic (non-friable)
- 880 square feet of assumed asbestos-containing 9-inch-by-9-inch floor tile and mastic in collapsed/unsafe areas (non-friable)
- 1,760 square feet of asbestos-containing roofing materials (non-friable)

Additionally, sheetrock and joint compound materials were sampled and determined to contain less than 1% chrysotile asbestos. These materials are not considered ACMs under Federal and state regulations; however, Occupational Safety and Health Administration (OSHA) regulations still apply if the materials are disturbed during renovation or demolition. It was noted in the report that some areas of the building had collapsed and were unsafe to enter. The building has since been demolished and now all the remaining debris is considered asbestos-contaminated waste requiring disposal by a licensed asbestos contractor at an approved landfill. Photographs of the Site provided by the ADEE-DEQ are in Appendix B. The Arkansas Brownfield Program has been approved to facilitate remediation of the ACM from the Site.

4.0 REGULATORY CONSIDERATIONS

The ADEE-DEQ, U.S. EPA National Emissions Standard for Hazardous Air Pollutants, Asbestos Hazard Emergency Response Act, OSHA, and Arkansas Department of Health laws and regulations are applicable to the proposed remedies and are outlined herein. Below is a summary of applicable regulatory requirements considered pertinent to the proposed remedies.

4.1 Asbestos-containing Materials Abatement

- The presence of ACM (including Category I and II non-friable materials) must be determined prior to any renovation or demolition activities in regulated structures, as mandated in 40 Code of Federal Regulations, Part 61, Subpart M, Section 61.145, Paragraph (a).

- Category I and II friable and non-friable ACM in poor condition and Category I and II non-friable ACM that becomes friable during renovation or demolition activities that is present in quantities greater than 160 square feet, 260 linear feet, or 35 cubic feet are considered to be regulated asbestos-containing material (RACM); Federal, state, and local regulations are applicable to removal, containerization, and disposal of RACM.

- Additionally, ACM that will be removed by sanding, grinding, cutting, or abrading shall be considered RACM per ADEE-DEQ Rule 21 and shall be removed prior to any renovation or demolition activities.

- Removal of RACM from regulated structures will follow ADEE-DEQ, U.S. EPA, and OSHA regulations. The removal of these materials must be performed by an asbestos abatement contractor licensed by the ADEE-DEQ who employs properly trained and certified workers and personnel.

- A written asbestos abatement design is required by the ADEE-DEQ prior to renovation, demolition, or response action that is not a small-scale short-duration activity or minor release episode that involves RACM. The project design must be a written document, specific to the job in question. A copy of the design must be maintained at the job site and be made available to regulatory agency representatives upon request.

- The abatement design for this project will be prepared by an Arkansas-licensed Asbestos Abatement Designer; for this project, EPA will provide these services.

- Final clearance air sampling is required by the ADEE-DEQ for all contained work areas when regulated materials are removed. Final clearance air monitoring for this project will be performed by an Arkansas-licensed Air Monitor.

- As required by ADEE-DEQ Regulation 21, an appropriate 10-day notification for the project will be filed with the ADEE-DEQ.

- The disposal of RACM is regulated by the ADEE-DEQ Solid Waste Division and must be transported and disposed of as an asbestos-containing waste at a Class I licensed and permitted landfill. Disposal of Category I and II non-friable ACMs in good condition can be disposed of at either a Class I or Class III licensed and permitted landfill.

5.0 BROWNSFIELD CLEANUP ALTERNATIVES

ACM has been identified in the floor tile and mastic and roofing through the building prior to its demolition, which is now a debris pile, that will require remediation and/or management prior to redevelopment. Four remedial alternatives were identified for this project:

Alternative 1: In-place management of the ACM
Alternative 2: Encapsulation of the ACM
Alternative 3: Removal of ACM
Alternative 4: No action

The remedial alternatives were evaluated with consideration of the following:

- Feasibility
- Effectiveness
- Cost

The feasibility of an alternative involves a determination whether the alternative is a practical solution for addressing the cleanup objective. The factors associated with the feasibility of the alternatives considered included:

- Technical feasibility
- Administrative feasibility
- Community and regulatory acceptance

The effectiveness of an alternative involves its ability to meet the objectives of the overall project. The criteria considered in evaluating the effectiveness of the alternatives included:

- Protection of public health and the environment
- Compliance with applicable or relevant and appropriate regulatory requirements
- Long-term effectiveness and permanence
- Reduction of the hazard
- Short-term effectiveness

5.1 Alternative 1 — In-place Management of Asbestos-containing Materials

Alternative 1 consists of in-place management of ACM. This option does not include removal of any of the ACM.

5.1.1 Feasibility

The proposed work at the Site involves removal of the ACM debris pile and clearing of the Site for future repurposing; in-place management of ACM in the current state and condition is not considered technically and/or administratively feasible. Regulatory constraints designed to protect workers who may disturb these materials, along with the general public, prevent building renovation where RACM and non-friable ACM that may become friable are present. Therefore, in-place management is not a feasible alternative for addressing the cleanup objectives for the Site.

5.1.2 Effectiveness

While the in-place management alternative could be in compliance with regulatory requirements, the in-place management of ACM would not reduce the associated hazard and would not be protective of human health for the long term. This cleanup alternative would be ineffective in preventing exposure to the identified ACM, would not provide long-term effectiveness, and would hinder planned renovation and future use of the Site.

5.1.3 Cost

The in-place management of ACM was not considered as a viable remedy, and estimated costs for this remedy were not evaluated due to the fact that this remedy would not include consideration of costs associated with the possibility of future abatement needs relating to ongoing building/debris pile maintenance activities.

5.2 Alternative 2 — Encapsulation of Asbestos-containing Materials

Alternative 2 consists of encapsulation of the ACM confirmed in the Site building. This option does not include removal of identified ACM. Encapsulation of the ACM debris pile is not considered a viable option to provide long-term management and stabilization of identified ACM material.

5.2.1 Feasibility

The encapsulation to cleanup to prevent exposure to the ACM in the demolition debris pile is not considered technically and/or administratively feasible. This encapsulation alternative would be ineffective and hinder planned reuse of the Site.

5.2.2 Effectiveness

While this alternative would comply with regulatory requirements, the encapsulation of ACM would not completely reduce the associated hazard and would not be protective of human health for the long-term management of the Site. This alternative would be ineffective and hinder planned reuse of the Site.

5.2.3 Cost

The encapsulation of ACM was not considered as a viable option for cleanup, and estimated costs were not evaluated.

5.3 Alternative 3 — Removal of Asbestos-containing Materials

Alternative 3 consists of removal of all ACM.

5.3.1 Feasibility

The removal of all ACM would provide a long-term solution to prevent exposure to the ACM and would be completed in accordance with state and Federal requirements. Removal is technically and administratively feasible and has community and regulatory acceptance.

The removal of ACM would be achieved by isolation of the work area with asbestos barrier tape and "Danger Asbestos" signs, ACM abatement via removal, and proper transportation and disposal of generated waste material. Negative exposure air monitoring will be performed to ensure the safety of the equipment operators and ground crew. Debris will be kept wet during the loading for offsite transportation via a lined dumpster and or tailers. After the debris has been removed, the remaining asbestos floor tile and mastic will be wet and scraped from the floor using spud hoes and/or a tile machine. As needed, ACM floor tile mastic will be removed using application of solvents. When the debris and flooring is removed, the work area will be wet wiped down. A visual inspection of the area will be conducted to ensure the ACM have been remediated and removed from the Site.

5.3.2 Effectiveness

The removal of all ACM would be the most effective remedial option as it provides a long-term solution to protect public health. Additionally, the removal of all ACM would eliminate the potential for future exposure to the hazard if additional renovations of the Site's building are completed in the future.

5.3.3 Cost

The removal of identified ACM is considered the most cost-effective remedy. The total cost to remove the ACM is estimated at $60,000 to $70,000.

5.4 Alternative 4 — No Action Related to Asbestos-containing Material Remediation

Alternative 4 consists of no action related to remediation of ACM. This option does not include removal or encapsulation of any of the ACM, but instead would leave the confirmed ACM in place.

5.4.1 Feasibility

This option is not suggested as it would leave the confirmed ACM in place, would not eliminate the potential exposure scenario, would prevent additional renovation of the building, and limit future use of the structure. No action does not achieve community and regulatory acceptance.

5.4.2 Effectiveness

This alternative would be ineffective as it does not adequately protect human health, does not achieve compliance with applicable or relevant requirements, or provide reduction of the hazard.

5.4.3 Cost

The total cost for no action is estimated to be $0. The estimate does not include costs associated with future building maintenance or future renovation activities.

5.5 Selected Remedial Alternative

The selected remedial alternative for the confirmed ACM is Alternative 3 (Removal of ACM).

Specific tasks involved in the selected remedies include:

- Preparation of cost estimations and planning documents such as this ABCA Plan, a Quality Assurance Project Plan, and ACM Project Designs;
- Removal, containerization, and disposal of ACM; and
- Project summary reporting.

The total estimated costs developed by EnSafe Inc. for the ADEE-DEQ, as presented in the *Scope of Services and Fee Estimate* dated March 6, 2025, for the selected ACM remedial alternatives is approximately $68,398.36 to implement these tasks.[3]

[3] EnSafe Inc. *Scope of Services and Fee Estimate — Asbestos Abatement, Revision 0, Carlisle Commercial Property, 216 & 218 West Main Street, Carlisle, Arkansas 72024. Contract No.: 4600054169*. Memphis, Tennessee. 2025, March 6.

Appendix A
Figures

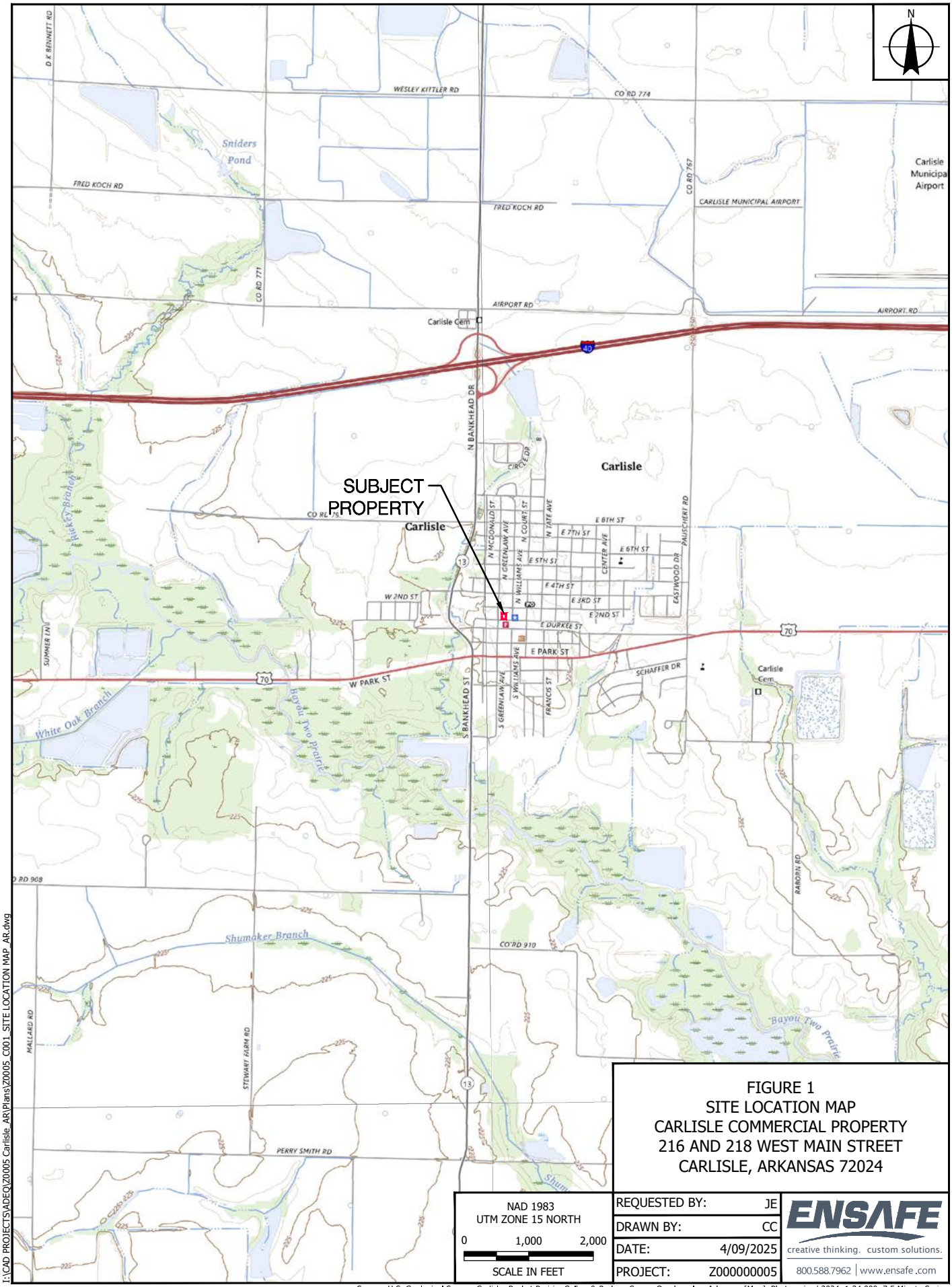

FIGURE 1
SITE LOCATION MAP
CARLISLE COMMERCIAL PROPERTY
216 AND 218 WEST MAIN STREET
CARLISLE, ARKANSAS 72024

NAD 1983
UTM ZONE 15 NORTH

0 1,000 2,000
SCALE IN FEET

REQUESTED BY:	JE
DRAWN BY:	CC
DATE:	4/09/2025
PROJECT:	Z000000005

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I:\CAD PROJECTS\ADEQ\Z0005 Carlisle AR\Plans\Z0005_C001_SITE LOCATION MAP_AR.dwg

Source: U.S. Geological Survey. Carlisle, Pocket Prairie, Culler, & Parkers Corner Quadrangles, Arkansas [Map]. Photorevised 2024. 1:24,000. 7.5 Minute Series.

FIGURE 2
SITE MAP
CARLISLE COMMERCIAL PROPERTY
216 AND 218 WEST MAIN STREET
CARLISLE, ARKANSAS 72024

LEGEND

APPROXIMATE SUBJECT PROPERTY BOUNDARY

NAD 1983 STATE PLANE
ARKANSAS SOUTH FEET

0 30 60

SCALE IN FEET

REQUESTED BY:	JE
DRAWN BY:	CC
DATE:	4/09/2025
PROJECT:	Z000000005

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Source: Google Earth Pro Imagery Date: 11/09/2023

I:\CAD PROJECTS\ADEQ\Z0005 Carlisle_AR\Plans\Z0005_C002_SITE MAP_AR.dwg

Appendix B
Historical Documentation

Environmental Protection Associates

#9 Remington Cove
Little Rock, Arkansas 72204
Phone: 501-562-3818
Fax: 501-562-5701
Toll Free: 1-800-530-7706

Asbestos Survey

To: Trudy Drye
City of Carlisle

From: Gary Nooner

Email:
Fax:

Date: April 5, 2023

Phone:

Pages: 17 Including cover sheet

Re: Vacant Business
218-220 W. Main St

cc:

Comments

Vacant Business
218 to 220 West Main Street
Carlisle, AR

Environmental Protection Associates

#9 Remington Cove
Little Rock, Arkansas 72204
501-562-3818
Fax 501-562-5701

April 5, 2023

City of Carlisle

RE: Asbestos Survey
Vacant Business
218-220 W. Main St
Carlisle, Ar

Mrs. Trudy Drye

On March 21, 2023 at your request I collected samples from the above referenced location to determine if asbestos was present. Nineteen (19) samples were collected for laboratory analysis.

Laboratory analysis of these samples have determined the following:

		Asbestos Detected in the following Materials	
	Description	**Location**	
Sample # 01	9"X9" Floor tile and mastic (Under Carpet)	See Drawing Area # 5	Approx. 315 Sft.
Sample # 02	9"X9" Floor tile and mastic	See Drawing Area # 4	Approx. 30 Sft.
Sample # 03	9"X9" Floor tile and mastic (Under Carpet)	See Drawing Area # 3	Approx. 70 Sft.
Sample # 04	9"X9" Floor tile and mastic	See Drawing Area # 2	Approx. 235 Sft.
Sample # 05 & 06	~~Sheetrock & Joint Compound~~	~~See Drawing Areas # 1-5~~	~~Approx. 1,800 Sft.~~
Sample # 11 & 12	~~Sheetrock & Joint Compound~~	~~See Drawing Area # 6~~	~~Unknown~~
Sample # 15 & 16	Roofing	Roof Area # 6	Approx. 880 Sft.
Sample # 19	Roofing	Roof Area # 7	Approx. 880 Sft.
Assumed	9"X9" Floor tile and mastic	Areas # 6 & 7	Approx. 880 Sft.

Note that Areas 6 & 7 are mostly collapsed and unsafe to enter.

I had the Laboratory perform a composite sample of the sheetrock and joint compound. This additional sampling has determined that the sheetrock and joint compound contains less than 1% (<1%) Chrysotile asbestos.

Federal and state regulations with the exception of OSHA, determine a material to be asbestos containing if it contains 1% or more asbestos. OSHA states that any amount is an asbestos material.

Therefore the following materials must be removed by a licensed asbestos contractor if disturbed by renovation or demolition.

Areas # 1-7 floor tile and mastic, Areas # 6 & 7 roofing

However the sheetrock and joint compound may now be considered an Non-Asbestos material and left in place for renovation/demolition. The Renovation / Demolition contractor will be required to follow OSHA regulations concerning asbestos, if this material is left in place.

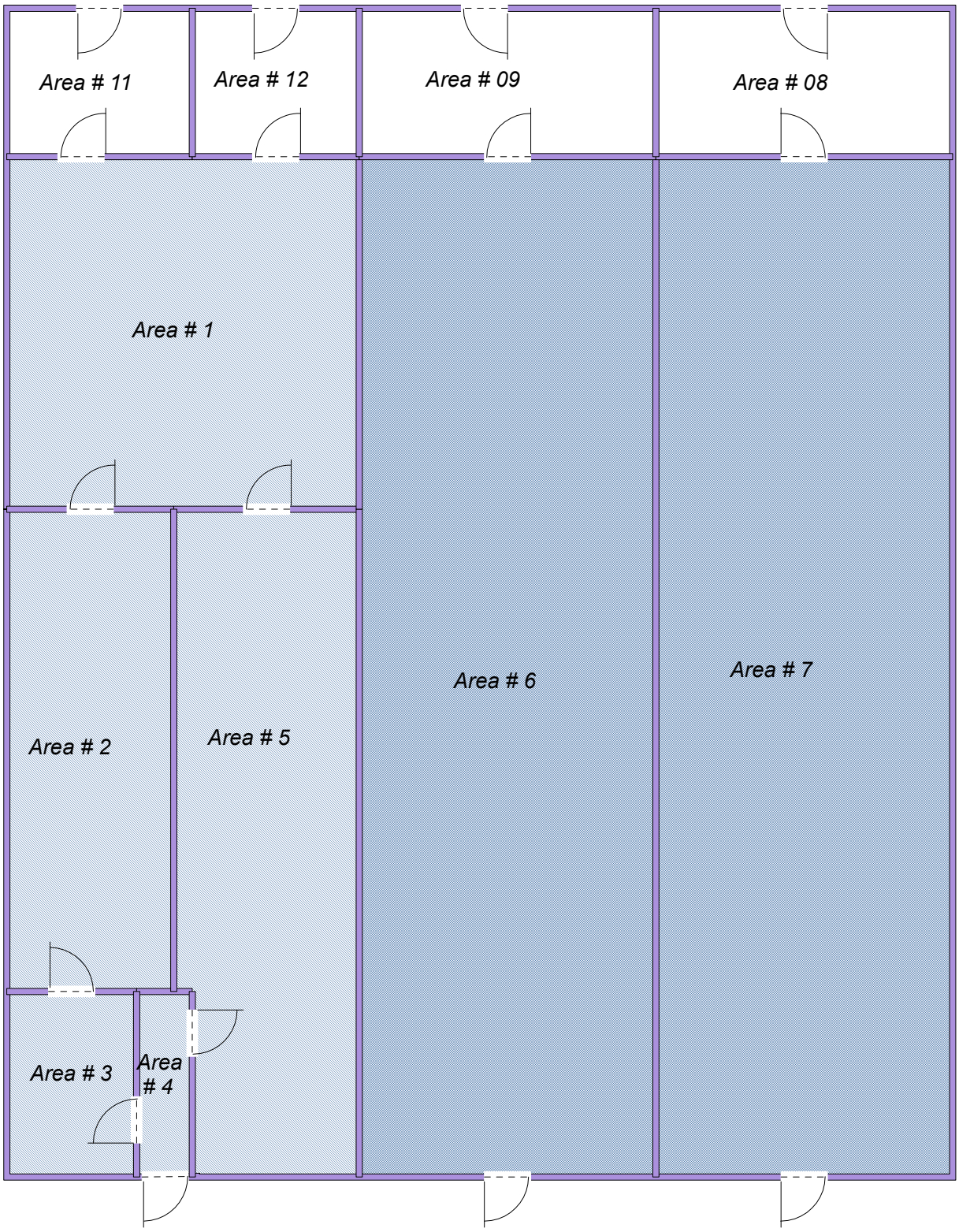
For further clarification of the Arkansas asbestos regulation 21. You may contact the Arkansas Department of Environmental Quality (ADEQ) Phone - 501-682-0718 or visit their website at - www.adeq.state.ar.us

I have attached my chain of custody and laboratory findings. Please contact me with any Questions you may have.

Sincerely,

Gary Nooner
Inspector
License No. 005065

Enclosures



Vacant Business
218-220 West Main Street
Carlisle, AR

Asbestos Containing Floor tile and mastic

Asbestos containing Roofing and ASSUMED floor tile and mastic

Environmental Protection Associates

#9 Remington Cove
Little Rock, Arkansas 72204
501-562-3818
Fax 501-562-5701

Asbestos Sampling Chain of Custody
Field Data Sheet

CAL23032423

Client
Trudy Drye
City of Carlisle

Property
Vacant Business
218-220 W. Main St
Carlisle, Ar

Inspector Gary Nooner
Building ID Old Chamber of Commerce
Date 3/21/2023
Turnaround Time Normal

SAMPLE ID	HA	Sample Description Example: FT1- 12 x 12 white Floor tile	Sample Location	A	C	♦	Class (S,T,M)	Friability (F, NF)	Condition (G, D, SD)	Damage (%)	POT. DAM (L, M, H)	Quantity
01		9"x9" Floor tile and mastic (under carpet)	See Drawing Area # 5	X			M	NF	G	15%	H	315 Sft
02		9"x9" Floor tile and mastic	See Drawing Area # 4	X			M	NF	G	15%	H	30 Sft
03		9"x9" Floor tile and mastic (under carpet)	See Drawing Area # 3	X			M	NF	G	15%	H	70 Sft
04		9"x9" Floor tile and mastic	See Drawing Area # 2	X			M	NF	G	15%	H	235 Sft
05		Sheetrock & Joint Compound	See Drawing Areas #1 - # 5	X			M	F	D	40%	H	1,800 Sft
06		Sheetrock & Joint Compound	See Drawing Areas #1 - # 5			X	M	F	D	40%	H	See Above
07		Coating / Plaster	See Drawing Areas #1 - # 5	X			S	F	D	40%	H	Unknown
08		Coating / Plaster	See Drawing Areas #1 - # 5			X	S	F	D	40%	H	See Above
09		Roofing	Roof Areas #1 - #5	X			M	NF	D	30%	H	1,050 Sft
10		Roofing	Roof Areas #1 - #5			X	M	NF	D	30%	H	See Above
11		Sheetrock & Joint Compound	See Drawing Area # 6	X			M	F	D	40%	H	Unknown
12		Sheetrock & Joint Compound	See Drawing Area # 6			X	M	F	D	40%	H	See Above
13		Coating / Plaster	See Drawing Area # 6	X			S	F	D	40%	H	Unknown
14		Coating / Plaster	See Drawing Area # 6			X	S	F	D	40%	H	See Above
15		Roofing	Roof Area #6	X			M	NF	D	30%	H	880 Sft
16		Roofing	Roof Area #6			X	M	NF	D	30%	H	See Above
17		Peg Board	See Drawing Area #	X			M	NF	D	30%	H	Unknown
18		Roof Shingle	Front Awning	X			M	NF	D	30%	H	400 Sft
19		Roofing	Roof Area #7	X			M	NF	D	30%	H	880 Sft

HA - Homogeneous Area **A - Analyze** **C - Catalogue** **♦ - Analyze only if the previous sample was found to be negative.**

10:30AM

Class: S-surfacing, **T**-thermal, **M**-miscellaneous. **Friability:** F-friable, **NF**-non-friable. **Condition: G**-good, **D**-damaged, **SD**-severely damaged. **POT. DAM** (Potential Damage)**: L**-low, **M**-moderate, **H**-high

Relinquished By Jeremy Blaylock	Time 13:10	Date 3-21-23	Relinquished By	Time	Date MAR 22 2023
Received By	Time	Date	Received By	Time	Date

Comments: **Composite Sample all positive Sheetrock and Joint Compound Samples**

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Attn: Gary Nooner
Customer Project: Vacant Business 218-220 W Main St
Reference #: CAL23032423RL Date: 03/24/23

Analysis and Method

Summary of polarized light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of a stereomicroscope. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may contain trace amounts of actinolite/tremolite. When not detected by PLM, these samples should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may contain a regulated asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be detectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Since allowable variation in quantification of samples close to 1% is high, <1% may be reported. Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos or "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have completed college courses or hold a degree in a natural science (geology, biology, or environmental science). Recognition by a state professional board in one these disciplines is preferred, but not required. Extensive in-house training programs are used to augment the educational background of the analyst. The Laboratory Director and Quality Manager have received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

CA Labs
Dedicated to Quality

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CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: Vacant Business 218-220 W Main St **CA Labs Project #:** CAL23032423RL

Laboratory Sample ID	Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
27111	01	*01-2*	*tan floor tile*	***3% Chrysotile***	***tan floor tile***
27111		*01-3*	*black mastic with debris*	***2% Chrysotile***	***black mastic with debris***
27112	02	*02-1*	***Floor tile and mastic**/ tan floor tile*	***2% Chrysotile***	***white surfaced off-white compound***
27113	03	*03-2*	*tan floor tile*	***2% Chrysotile***	***composite of layers 1 and 2***
27114	04	*04-1*	***Floor tile and mastic**/ tan floor tile*	***2% Chrysotile***	***white surfaced tan compound***
27115	05	*05-1*	***Sheetrock and joint compound**/ white surfaced off-white compound*	***2% Chrysotile***	***various black tar and black felt layers***
27115		*05-3*	*composite of layers 1 and 2*	***<1% Chrysotile***	
27121	11	*11-1*	***Sheetrock and joint compound**/ white surfaced tan compound*	***2% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

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Overview of Project Sample Material Containing Asbestos

Customer Project: Vacant Business 218-220 W Main St **CA Labs Project #:** CAL23032423RL

Laboratory Sample ID	Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
27121		*11-3*	*composite of layers 1 and 2*	***<1% Chrysotile***	
27125	15	*15-1*	***Roofing**/ various black tar and black felt layers*	***13% Chrysotile***	
27129	19	*19-1*	***Roofing**/ various black tar and black felt layers*	***3% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235
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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Gary Nooner
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax #

Customer Project:
Vacant Business 218-220 W Main St

Turnaround Time:
3 Days

CA Labs Project #:
CAL23032423RL

Date: 3/24/2023
Samples Rec'd: 3/22/23 10:30am
Date Of Sampling: 3/21/2023
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
27111	01		*01-1*	***Floor tile and mastic**/ tan mastic*	*y*	***None Detected***		100% qu,gy,bi
27111			*01-2*	*tan floor tile*	*y*	***3% Chrysotile***		97% qu,ca
27111			*01-3*	*black mastic with debris*	*y*	***2% Chrysotile***		98% gy,bi
27112	02		*02-1*	***Floor tile and mastic**/ tan floor tile*	*y*	***2% Chrysotile***		98% qu,ca
27112			*02-2*	*black mastic*	*y*	***None Detected***		100% gy,bi
27113	03		*03-1*	***Floor tile and mastic**/ tan mastic*	*y*	***None Detected***		100% qu,gy,bi
27113			*03-2*	*tan floor tile*	*y*	***2% Chrysotile***		98% qu,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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bi - binder	ot - other	wo - wollastonite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Jose Matute
Analyst

Robert Olivarez
Analyst

Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
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4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

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Polarized Light Asbestiform Materials Characterization

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#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax #

Customer Project:
Vacant Business 218-220 W Main St

Turnaround Time:
3 Days

CA Labs Project #:
CAL23032423RL

Date: 3/24/2023
Samples Rec'd: 3/22/23 10:30am
Date Of Sampling: 3/21/2023
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
27113			*03-3*	*black mastic*	*y*	***None Detected***	2% ce	98% gy,bi
27114	04		*04-1*	***Floor tile and mastic**/ tan floor tile*	*y*	***2% Chrysotile***		98% qu,ca
27114			*04-2*	*black mastic*	*y*	***None Detected***	2% ce	98% gy,bi
27115	05		*05-1*	***Sheetrock and joint compound**/ white surfaced off-white compound*	*n*	***2% Chrysotile***		98% qu,bi,ca
27115			*05-2*	*white drywall with brown paper*	*n*	***None Detected***	21% ce	79% qu,gy
27115			*05-3*	*composite of layers 1 and 2*	*n*	***<1% Chrysotile***	12% ce	88% qu,bi,gy
27116	06		*06-1*	***Sheetrock and joint compound**/ white surfaced off-white compound*		*Positive Stop*		

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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gy - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot - other	wo - wollastonite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

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Analyst

Robert Olivarez
Analyst

Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

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10. TEM analysis suggested

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Polarized Light Asbestiform Materials Characterization

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Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax #

Customer Project:
Vacant Business 218-220 W Main St

Turnaround Time:
3 Days

CA Labs Project #:
CAL23032423RL

Date: 3/24/2023
Samples Rec'd: 3/22/23 10:30am
Date Of Sampling: 3/21/2023
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
27116			*06-2*	*white drywall with brown paper*		*Not Analyzed*		
27117	07		*07-1*	***Coating** / **plaster**/ off-white surfaced tan plaster*	*n*	***None Detected***		100% qu,bi,ca
27118	08		*08-1*	***Coating** / **plaster**/ off-white surfaced tan plaster*	*n*	***None Detected***		100% qu,bi,ca
27119	09		*09-1*	***Roofing**/ black tar and black felt layers*	*n*	***None Detected***	21% ce	79% qu,bi
27120	10		*10-1*	***Roofing**/ black tar and black felt layers*	*n*	***None Detected***	23% ce	77% qu,bi
27121	11		*11-1*	***Sheetrock and joint compound**/ white surfaced tan compound*	*n*	***2% Chrysotile***		98% qu,bi,ca
27121			*11-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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Technical Manager
Tanner Rasmussen

Senior Analyst
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Environmental Protection Associates
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Little Rock, AR 72204

Phone # 501-562-3818
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Vacant Business 218-220 W Main St

Turnaround Time:
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CA Labs Project #:
CAL23032423RL

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Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
27121			*11-3*	*composite of layers 1 and 2*	*n*	***<1% Chrysotile***	10% ce	90% qu,gy,bi,ca
27122	12		*12-1*	***Sheetrock and joint compound**/ white surfaced tan compound*		*Positive Stop*		
27122			*12-2*	*white drywall with brown paper*		*Not Analyzed*		
27123	13		*13-1*	***Coating** / **plaster**/ white surfaced tan plaster*	*n*	***None Detected***		100% qu,bi,ca
27124	14		*14-1*	***Coating** / **plaster**/ white surfaced tan plaster*	*n*	***None Detected***		100% qu,bi,ca
27125	15		*15-1*	***Roofing**/ various black tar and black felt layers*	*n*	***13% Chrysotile***	2% fg	85% qu,bi
27126	16		*16-1*	***Roofing**/ various black tar and black felt layers*		*Positive Stop*		

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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27127	17		*17-1*	***Peg board**/ white surfacing*	*y*	***None Detected***		100% qu,bi
27127			*17-2*	*brown fibrous paneling*	*y*	***None Detected***	100% ce	
27128	18		*18-1*	***Roof shingle**/ black roofing shingle with tan gravel*	*n*	***None Detected***	15% ce 10% fg	75% qu,bi
27129	19		*19-1*	***Roofing**/ various black tar and black felt layers*	*n*	***3% Chrysotile***	20% ce	77% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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STATE OF ARKANSAS DEPARTMENT OF ENERGY AND ENVIRONMENT

Division of Environmental Quality

OFFICE OF AIR QUALITY, ASBESTOS PROGRAM

GARY NOONER

having satisfied the requirements necessary to meet the provisions of AHERA/ASHARA under TSCA Title II and the Arkansas Pollution Control and Ecology Commission's Rule 21 pursuant to AC.A. § 20-27-1001, et seq., within the State of Arkansas is hereby certified to perform activities related to asbestos containing material in the following discipline(s)

Discipline	Issue Date	Effective Date	Expiration Date
Air Monitor	12/06/2022	12/08/2022	12/31/2023
Contractor Supervisor	12/06/2022	12/08/2022	12/31/2023
Inspector	12/05/2022	12/08/2022	12/31/2023
Project Designer	12/07/2022	12/08/2022	12/31/2023

Certification Number: **005065**

Julie Linck
Chief Administrator, Environment
Arkansas Department of Energy and Environment

STATE OF ARKANSAS DEPARTMENT OF ENERGY AND ENVIRONMENT

Division of Environmental Quality

OFFICE OF AIR QUALITY, ASBESTOS PROGRAM

ENVIRONMENTAL PROTECTION ASSOCIATES (EPA)

having qualified as required by law in accordance with the rules adopted by the Arkansas Pollution Control and Ecology Commission's Rule 21 pursuant to AC.A 20-27-1001, et seq., relative to performing asbestos related work within the State of Arkansas is licensed as an

Asbestos Abatement Contractor

License Number: 000020

Issue Date: 11/28/2022
Expiration Date: 12/1/2023

Julie Linck
Chief Administrator, Environment
Arkansas Department of Energy and Environment

License No. 0003060423

ID #1964

State of Arkansas

Commercial Contractors Licensing Board

ENVIRONMENTAL PROTECTION ASSOCIATES OF RUSSELLVILLE, INC.
9 REMINGTON COVE
LITTLE ROCK, AR 72204

This is to Certify That ENVIRONMENTAL PROTECTION ASSOCIATES OF RUSSELLVILLE, INC.

is duly licensed under the provisions of Ark. Code Ann. § 17-25-101 et. seq. as amended and is entitled to practice Contracting in the State of Arkansas within the following classifications/specialties:

BUILDING
- (COMMERCIAL & RESIDENTIAL)
SPECIALTY
Asbestos
Environmental General

This contractor has an unlimited suggested bid limit.

from May 20, 2022 **until** April 30, 2023 **when this Certificate expires.**

Witness our hands of the Board, dated at North Little Rock, Arkansas:

GREAT SEAL OF THE STATE OF ARKANSAS

CHAIRMAN

SECRETARY

May 20, 2022 - dsa

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 1/31/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Sterling Seacrest Pritchard, Inc.
4601 East McCain Blvd
Suite B
North Little Rock AR 72117

CONTACT NAME:
PHONE (A/C, No, Ext): 501-588-0857 FAX (A/C, No):
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Arch Specialty Insurance Company	21199
INSURER B : Lafayette Insurance	18295
INSURER C : American Interstate Insurance Co	31895
INSURER D :	
INSURER E :	
INSURER F :	

INSURED ENVIPRO-02
Environmental Protection Associates of Russellville, Inc.
9 Remington Cove
Little Rock AR 72204

COVERAGES **CERTIFICATE NUMBER:** 1408450671 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY	Y	Y	12EMP2232803	12/31/2022	12/31/2023	EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 100,000
	X Blkt Contractual						MED EXP (Any one person)	$ 5,000
	X XCU Included						PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	POLICY X PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:							$
B	AUTOMOBILE LIABILITY	Y	Y	60521561	12/31/2022	12/31/2023	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS ONLY / X NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
A	X UMBRELLA LIAB X OCCUR	Y	Y	12EMX2232903	12/31/2022	12/31/2023	EACH OCCURRENCE	$ 5,000,000
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$ 5,000,000
	DED X RETENTION $ 0							$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N	N / A	Y	AVWCAR3147012022	12/31/2022	12/31/2023	X PER STATUTE OTH-ER	
	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)						E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
A	Pollution Incl Mold Professional Liability			12EMP2232803	12/31/2022	12/31/2023	Limit Per Incident Aggregate	1,000,000 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
The following applies when required in a written contract or agreement: Certificate holder and owner are included as additional insureds on a primary and non-contributory basis with respect to General Liability (including completed operations), Auto Liability, Professional Liability, and Umbrella. Waiver of subrogation is provided on General Liability, Auto Liability, Umbrella, Professional Liability, and Workers Compensation.

CERTIFICATE HOLDER

For Bidding Purposes

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

PHOTO NO. 1 **DESCRIPTION:**	View of demolished building - remaining debris is considered asbestos-contaminated waste requiring disposal by a licensed asbestos contractor at an approved landfill. Photo provided by Arkansas DEQ.

PHOTO NO. 2 **DESCRIPTION:**	View of demolished building. Photo provided by Arkansas DEQ.

PHOTO NO. 3 DESCRIPTION:	View of demolished building. Photo provided by Arkansas DEQ.

PHOTO NO. 4 DESCRIPTION:	View of demolished building. Photo provided by Arkansas DEQ.

PHOTO NO. 5 **DESCRIPTION:**	View of demolished building. Photo provided by Arkansas DEQ.

PHOTO NO. 6 **DESCRIPTION:**	View of demolished building. Photo provided by Arkansas DEQ.