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## ASBESTOS SURVEY REPORT

### PREPARED FOR THE FOLLOWING PROPERTY:

1412 NW 20<sup>th</sup> Court  
Ocala, FL 34475

### PERFORMED ON:

August 23, 2022

### PREPARED FOR:

City of Ocala  
Community Development Services  
201 SE 3<sup>rd</sup> Street, 2<sup>nd</sup> Floor  
Ocala, FL 34471

### PERFORMED AND PREPARED BY:

Chris Ritko  
Asbestos Building Inspector  
187357

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## **I. INTRODUCTION**

**Property Address:** 1412 NW 20<sup>th</sup> Court  
Ocala, FL 34475

**Property Owner:** Earnestine Boone

**Survey Performed By:** Chris Ritko, Asbestos Building Inspector

**Company:** DK Environmental & Construction Services  
9007 Paolos Place  
Kissimmee, FL 34747  
(321)401-5094

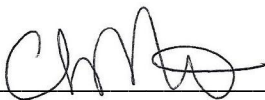
**Date of On-Site Survey:** August 23, 2022

**Date of Report:** September 01, 2022

DK Environmental & Construction Services, Inc. (DKE) has completed a limited Asbestos Survey at the property address listed above. This report contains the results of the Survey. The purpose of this Survey was to identify the presence of asbestos-containing materials that may be disturbed during planned renovation. This limited Asbestos Survey report presents data that describes the location of asbestos-containing material (ACM) identified in the subject property. This Survey was conducted on site by an EPA trained professional asbestos building inspector.

This report is intended for the exclusive use of our client. The findings are relevant to the conditions observed during the physical process of performing the Survey. These findings should not be treated as absolute, nor should they be relied upon to represent conditions at significantly later dates.

We appreciate the opportunity to provide environmental consulting services to your organization. If you have any questions or need additional assistance, please call (321)401-5094.



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Chris Ritko  
Asbestos Building Inspector  
187357

## **II. SURVEY SUMMARY**

On August 23, 2022 an Asbestos Survey was performed at 1412 NW 20<sup>th</sup> Court, Ocala, FL 34475. The property is a single-family detached dwelling. It is approximately 1,008 square feet and was constructed in 1966.

The purpose of this Survey was to identify the presence of asbestos-containing materials that may be disturbed during planned renovation. Limited bulk samples were collected and AHERA protocols were adhered to.

The Asbestos Survey consisted of three basic procedures: 1) conducting a visual inspection of the property; 2) identifying homogeneous areas (HAs) of suspect surfacing, thermal system insulation, and miscellaneous materials; and 3) sampling accessible, friable, and non-friable suspect materials. Some building components may have been inaccessible at the time of this screening, or were not tested because they were covered by other building materials (paneling, tile, siding, etc.). It is possible that ACBMs may be hidden by these materials.

The property was visually inspected for the presence of building materials that are suspected to contain asbestos. With regard to asbestos, bulk material samples were collected and analyzed for asbestos content. These services were performed exercising the customary skill and competence of consulting professionals in the relevant disciplines in this region.

Bulk samples of identified suspect ACM were collected and placed into individual containers for transport to a National Voluntary Lab Accreditation Program (NVLAP)/American Industrial Hygiene Association (AIHA)-accredited laboratory for analysis. The collection of bulk samples consisted of physically removing a small piece of material and placing it in a marked, airtight container. The sample container identification numbers were also recorded in the field notes.

## **III. ASBESTOS OVERVIEW**

Asbestos is a generic name given to a fibrous variety of naturally occurring minerals that have been used for many years in commercial products, based on specific properties of the minerals. Asbestos occurs in fiber bundles, which are composed of long and thin fibers that can be easily separated from one another. These mineral products possess high tensile strength, flexibility, resistance to chemical and thermal degradation, and high electrical resistance. The minerals are easily woven into various types of textiles, fabrics, cloths, sheets, panels, or mixed into adhesives, coatings, surfacing materials and cement products. Typically asbestos-containing building materials (ACBM) are segregated into three categories: Thermal System Insulation (TSI) usually found on pipes, boilers, and HVAC ducts; surfacing materials such as sprayed or troweled-on fireproofing and insulation, and plasters; and miscellaneous materials including vinyl composite floor tiles, floor sheeting, adhesives, roofing materials, window glazing and cement products.

*Friable* asbestos-containing material (ACM), is defined as any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM), that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure. (Sec. 61.141)

*Nonfriable* ACM is any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM), that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. EPA also defines two categories of nonfriable ACM, Category I and Category II nonfriable ACM, which are described later in this guidance.

*"Regulated Asbestos-Containing Material"* (RACM) is (a) friable asbestos material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II nonfriable 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 in the course of demolition or renovation operations.

The EPA's National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations and the Florida Department of Environmental Protection (FDEP) Asbestos program regulate the removal and disposal of asbestos-containing building materials (any material containing more than 1% asbestos).

Potential effects on workers or occupants in buildings where asbestos-containing materials (ACM) are present may occur when exposure to asbestos fibers is caused by deterioration, damage or renovation disturbance of ACMs. Federal regulations pertaining to asbestos include 40 Code of Federal Regulations (CFR) 763 (a subchapter of the Toxic Substance Control Act (TSCA)); Occupational Safety and Health Act (OSHA) 29 CFR 1910 Subpart Z and 29 CFR 1926 Subpart Z.

***Asbestos NESHAP regulations must be followed for demolitions and/or renovations of facilities with at least 260 linear feet of regulated asbestos-containing materials (RACM) on pipes, 160 square feet of regulated asbestos-containing materials on other facility components, or at least 35 cubic feet of facility components where the amount of RACM previously removed from pipes and other facility components could not be measured before stripping. If dimensions fall below these thresholds, Asbestos NESHAP regulations need not be followed for demolition and/or renovation activities.***

#### **IV. LIMITATIONS**

This report has been prepared to assist in evaluating the potential presence of asbestos-containing material in the property. The objective of this assessment was to perform the work with care, exercising the customary skill and competence of consulting professionals in the relevant disciplines in this region. The conclusions presented in this report are professional opinions based upon visual observations of the site at the time of DKE's investigation and the results of laboratory analysis. The opinions presented herein apply to site conditions existing at the time of our investigation and those reasonably foreseeable. DKE cannot act as insurers, and no express or implied representation or warrant is included or intended in our report except that our work was performed, within the limits prescribed by our client, with the customary thoroughness and competence of our profession at the time and place the services were rendered. DKE cannot and will not warrant that this Asbestos Survey that was requested by the client will satisfy the dictates of, or provide a legal defense in connection with, any environmental laws or regulations. It is the responsibility of the client to know and abide by all applicable laws, regulations, and standards. The results reported and conclusions reached by DKE are solely for the benefit of the client. The results and opinions in this report, based solely upon the conditions found on the property as of the date of the Survey, will be valid only as of the date of the Survey.

Please note that the test results relate only to those homogeneous materials tested. If conditions or materials, other than those addressed in this report are encountered during the planned renovation/demolition activities, DKE should be contacted to assess the potential impact of these materials or conditions relative to the findings or recommendations included herein. The survey was performed by observing suspect materials throughout the structure where accessible. DKE must emphasize that it is not possible to look within every location of a building. The visual survey documents only general locations of suspect materials but does not determine exact boundaries. Concealed locations of asbestos may exist at the subject property, and the levels may vary from those stated in this report. There may be variations in the composition of materials which appear similar. Materials may be hidden from view and not accessible. No attempt was made to disassemble equipment or demolish structural elements and finishes as this is beyond the scope of our authorized services. Visual observations were made only at safe and convenient locations. Due to these limitations, wall voids, flooring under carpet, building cavities and mechanical equipment, and other areas may contain unreported asbestos-containing materials. Suspect materials not previously identified in this report may be encountered during any renovation/demolition activity. These materials should be assumed asbestos containing material until sample collection and subsequent analysis prove otherwise. Unsafe structures should be assumed to contain asbestos materials unless the suspect material is noted as sampled. All fire doors should be assumed asbestos containing material since disassembly of locks and/or other work to access the door insulation is not possible.

## V. ANALYTICAL RESULTS

Samples were analyzed by Hayes Microbial Consulting in Midlothian, VA. Hayes Microbial Consulting is an American Industrial Hygiene Association (AIHA)-accredited laboratory.

All samples were analyzed utilizing Polarized Light Microscopy (PLM) according to EPA Method 600/R-93/116. Any material that contains greater than one percent asbestos is considered an ACM and must be handled according to the Occupational Safety and Health Administration (OSHA), EPA and applicable state and local regulations.

The following table contains information regarding bulk samples found to contain asbestos by definition. The laboratory report has also been included at the end of this report.

| <b>Bulk Collection and Sample Analysis Results</b> |                                    |                  |                |                                  |                                 |                        |
|--|------------------------------------|------------------|----------------|----------------------------------|---------------------------------|------------------------|
| <i>Sample Number</i>                               | <i>Description</i>                 | <i>Condition</i> | <i>Friable</i> | <i>Asbestos Percent and Type</i> | <i>Location/ Amount</i>         | <i>NESHAP Category</i> |
| 1412-1-1   | Asphalt Shingle/Gray               | Intact           | No             | None Detected                    | Typical Exterior Roof           | NA                     |
| 1412-1-1   | Tar/Black                          | Intact           | No             | None Detected                    | Typical Exterior Roof           | NA                     |
| 1412-1-2   | Asphalt Shingle/Gray               | Intact           | No             | None Detected                    | Typical Exterior Roof           | NA                     |
| 1412-1-2   | Tar/Black                          | Intact           | No             | None Detected                    | Typical Exterior Roof           | NA                     |
| 1412-2-1   | Drywall/Jnt Compound Cream         | Intact           | Yes            | <1% Chrysotile                   | Typical Interior Walls/Ceilings | NA                     |
| 1412-2-2   | Drywall/Jnt Compound Multi-colored | Intact           | Yes            | None Detected                    | Typical Interior Walls/Ceilings | NA                     |
| 1412-3-1   | 9"x9" Floor Tile Tan               | Intact           | No             | 3% Chrysotile                    | Hall Closet 15 sq. ft.          | Category I             |
| 1412-3-1   | Mastic/Black                       | Intact           | No             | 2% Chrysotile                    | Hall Closet 15 sq. ft.          | Category I             |
| 1412-3-2   | 9"x9" Floor Tile Tan               | Intact           | No             | Not Analyzed/ Positive Stop      | Hall Closet 15 sq. ft.          | Category I             |
| 1412-3-2   | Mastic/Black                       | Intact           | No             | Not Analyzed/ Positive Stop      | Hall Closet 15 sq. ft.          | Category I             |

### ***Bulk Collection and Sample Analysis Results***

| <i>Sample Number</i> | <i>Description</i>     | <i>Condition</i> | <i>Friable</i> | <i>Asbestos Percent and Type</i>  | <i>Location/ Amount</i>  | <i>NESHAP Category</i> |
|----------------------|------------------------|------------------|----------------|-----------------------------------|--------------------------|------------------------|
| 1412-4-1             | 12"x12" Floor Tile Tan | Intact           | No             | 2%<br>Chrysotile                  | Bedroom B<br>15 sq. ft.  | Category I             |
| 1412-4-1             | Mastic/Black           | Intact           | No             | 2%<br>Chrysotile                  | Bedroom B<br>15 sq. ft.  | Category I             |
| 1412-4-2             | 12"x12" Floor Tile Tan | Intact           | No             | Not<br>Analyzed/<br>Positive Stop | Bedroom B<br>15 sq. ft.  | Category I             |
| 1412-4-2             | Mastic/Black           | Intact           | No             | Not<br>Analyzed/<br>Positive Stop | Bedroom B<br>15 sq. ft.  | Category I             |
| 1412-5-1             | Rolled Roofing/Gray    | Intact           | No             | None<br>Detected                  | Typical<br>Exterior Roof | NA                     |
| 1412-5-2             | Rolled Roofing/Gray    | Intact           | No             | None<br>Detected                  | Typical<br>Exterior Roof | NA                     |



## VI. ASBESTOS RECOMMENDATIONS

***Asbestos NESHAP regulations must be followed for demolitions and/or renovations of facilities with at least 260 linear feet of regulated asbestos-containing materials (RACM) on pipes, 160 square feet of regulated asbestos-containing materials on other facility components, or at least 35 cubic feet of facility components where the amount of RACM previously removed from pipes and other facility components could not be measured before stripping. If dimensions fall below these thresholds, Asbestos NESHAP regulations need not be followed for demolition and/or renovation activities.***

The EPA and NESHAP recommend that a point-counting procedure be utilized for confirmation of asbestos percentage in friable materials that are visually estimated by PLM methodology to contain less than 10% asbestos. The 400 Point Count Procedure referenced in EPA 600/M4-82-020 (1987) and EPA 600/R-93/116 (1993) is commonly employed. Without the material being point counted or if point counting determined that material contains greater than one percent asbestos, it would be deemed an asbestos containing material and would need to be removed by a Florida licensed asbestos contractor prior to disturbance.

Disturbances to Asbestos Containing Materials:

- Should be performed by a Florida Licensed Asbestos Abatement Contractor
- U.S. Occupational Safety and Health Administration (OSHA) regulations apply to the disturbance of material; containing any percentage of asbestos fibers as outlined in 29 CFR 1926.1101-OSHA's Asbestos Standard for the Construction Industry. The contractor will need to comply with the specific training, duties and responsibilities outlined in this CFR.
- OSHA 29 CFR 1910.1001. OSHA 29 CFR 1910.1001 requires the communication of information concerning asbestos hazards. Employees engaged in work activities with installed ACM may be exposed to asbestos fibers. The owner or operator should take the necessary steps to reduce the potential for disturbance.

EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) is applicable to amounts of asbestos that contains at least 260 linear feet on pipes or at least 160 square feet on other facility components, or (ii) At least 35 cubic feet off facility components where the length or area could not be measured previously.

The EPA's National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations and the Florida Department of Environmental Protection (DEP) Asbestos program regulate the removal and disposal of asbestos-containing building materials. The Florida Department of Environmental Protection (DEP) administers an asbestos removal program under Chapter 62-257, Florida

Administrative Code. The Asbestos NESHAP has been adopted by reference in section 62-204.800, Florida Administrative Code. The program's intent is to minimize the release of asbestos fibers during activities involving the processing, handling, and disposal of asbestos-containing material.

The regulations of these agencies require the removal of friable asbestos-containing materials prior to extensive renovation or demolition projects, and the removal of non-friable asbestos-containing materials that may be rendered friable in the course of renovation or demolition projects. Only a Florida licensed asbestos contractor using properly trained, certified, and licensed asbestos workers can perform asbestos removal projects in Florida. Air monitoring during and after abatement activities is also recommended to document the fiber levels inside and outside the abatement work area.

The asbestos NESHAP requires that an asbestos trained person be on site i.e. 40 CFR 61.145 (c) (8) states in part "no RACM shall be stripped, removed, or otherwise handled or disturbed at a facility regulated by this section unless at least one on-site representative, such as a foreman or management level person or other authorized person, trained in the provisions of this regulation and the means of complying with them is present."

DEP recommends that this "trained person" be on site when non-friable ACM is present so that developing problems can be caught early and corrected without delay. In addition, the regulations require the owner of the building and/or the operator to notify the applicable DEP District Office or Local Pollution Control Agency before any demolition, or before renovations of buildings that contain a certain threshold amount of asbestos or asbestos containing materials.

Florida requires the submission of a 10-Day Notification for all renovations and demolitions of facilities with at least 260 linear feet of regulated asbestos-containing materials (RACM), 160 square feet of regulated asbestos containing materials on other facility components, or at least 35 cubic feet off facility components. Asbestos waste requires disposal at an approved solid waste disposal facility.

Local agencies may also have specific requirements for demolition/renovation projects involving asbestos-containing building materials.

OSHA 29 CFR 1910.1001 requires the communication of information concerning asbestos hazards. Employees engaged in work activities with installed ACM may be exposed to asbestos fibers. The owner or operator should take the necessary steps to reduce the potential for disturbance.

29 CFR 1926.1101- OSHA's Asbestos Standard for the Construction Industry does apply to the abatement, renovation and/or demolition of all buildings identified with asbestos containing material. The contractor will need to comply with the specific training, duties and responsibilities outlined in this CFR.

If asbestos containing materials identified within, or on, the property will be disturbed or otherwise caused to become friable within the scope of the renovation, they should be removed from the structures prior to the maneuvers taking place according to applicable regulations.

No other recommendations regarding asbestos containing materials are required at this time. In the event concealed building materials are discovered during future renovation or demolition activities, which are suspected to contain asbestos, the materials should be sampled and analyzed to confirm the presence of asbestos prior to the disturbing such materials.

**OK**  
CONSTRUCTION SERVICES, INC.

**SITE:**

**SITE:**

**ADDRESS:**

1412 NW 26<sup>TH</sup> COURT, Ocala, FL 34475

1412 NW 2

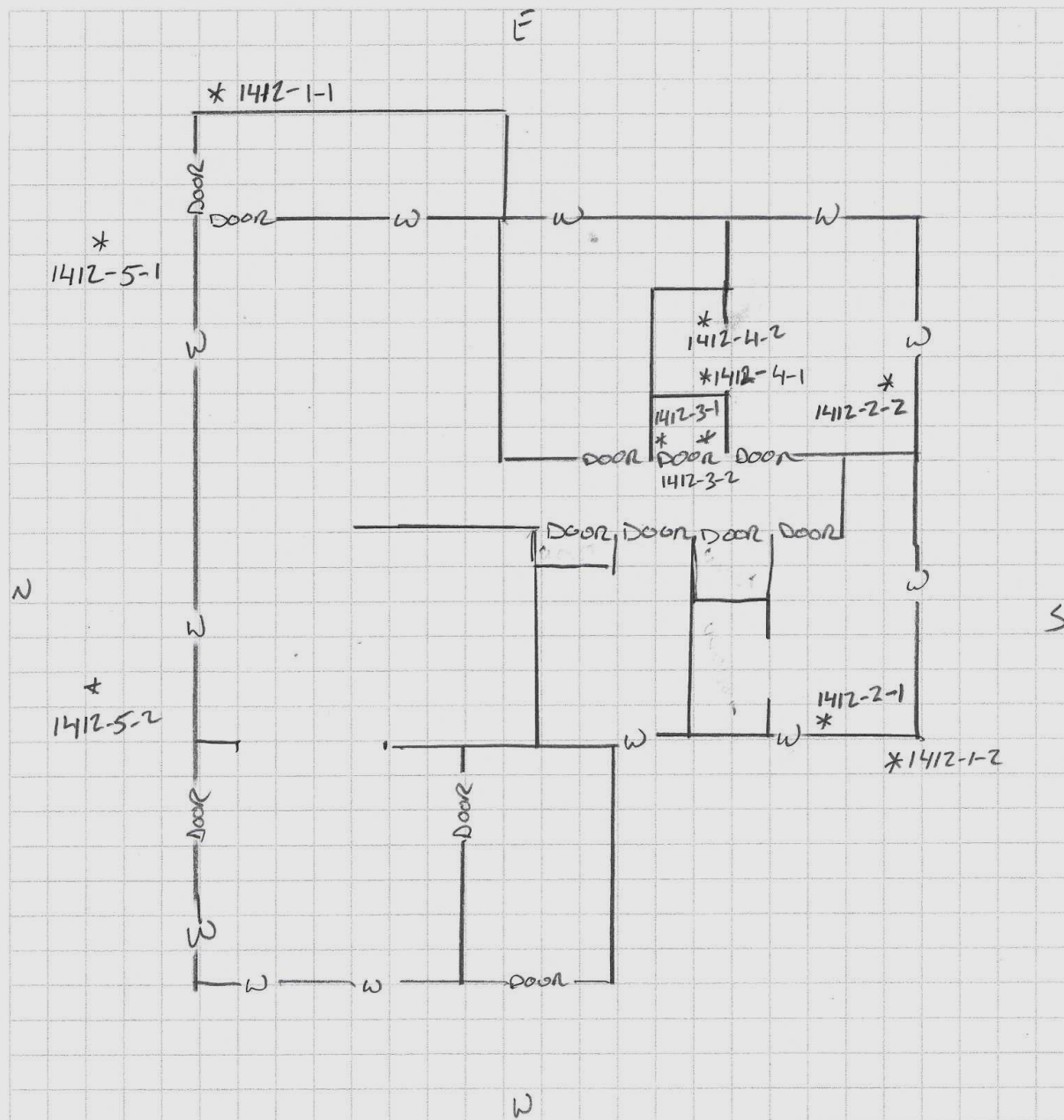
INSPECTOR NAME: Chris 2/7/20

INSPECTOR LICENSE #: 187357

PROJECT #:

[illegible]

# SITE PLAN



Case # 08231251

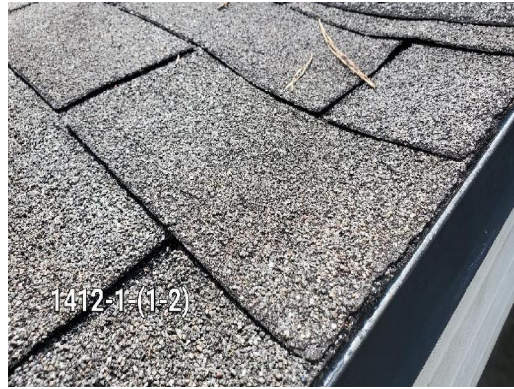
Address 1412 NW 20th Court  
Ocala, FL, 34475



## VIII. SITE PHOTOGRAPHS



1412 NW 20<sup>th</sup> Court  
Ocala, FL 34475



1412-1  
Asphalt Shingle/Gray, Tar/Black  
Typical Exterior Roof



1412-2  
Drywall/Joint Compound  
Typical Interior Walls/Ceilings



1412-3  
9"x9" Floor Tile/Tan (3% Chrysotile)  
Mastic/Black (2% Chrysotile)  
Interior Hall Closet (15 sq. ft.)



1412-4  
12"x12" Floor Tile/Tan (2% Chrysotile)  
Mastic/Black (2% Chrysotile)  
Interior Bedroom B (15 sq. ft.)



1412-5  
Rolled Roofing/Gray  
Typical Exterior Roof

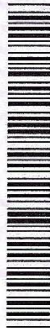


# Asbestos Consulting & Training Systems

2835 N.W. 12TH Avenue, Fort Lauderdale, Florida 33311

***This is to Certify that***

Chris Ritko



X X X - X X - 5 5 1 0

9007 Paolos Place, Kissimmee, FL 34747

**has successfully completed an English**

# Asbestos Building Inspection Refreshers

28-Sep-21 TO 28-Sep-21

and has completed the requisite training for TSCA

Meets state requirements of FL49-0001020/CN-00062.73 and UT (6.0 core).

NDAAC Provider #451

Trainer(s): Alberto Ania

Training Address: 2233 Park Ave, Suite 202, Orange Park, FL 32075

Successful course completion based on exam score on: 28-Sep-21

***This Certificate Expires:***



28-Sep-22  
09 / 28 / 22

**Course Number: JE2140**

**Certificate Number:**

**James F. Stump, Course Sponsor**



Processed By:



To Authenticate Certificate

[www.seagulltraining.com](http://www.seagulltraining.com)

1-800-966-9933



Ron DeSantis, Governor



Halsey Beshears, Secretary



**STATE OF FLORIDA**  
**DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION**

**ASBESTOS LICENSING UNIT**

THE ASBESTOS CONSULTANT HEREIN IS LICENSED UNDER THE  
PROVISIONS OF CHAPTER 469, FLORIDA STATUTES

**BLACKLEDGE, KRISTA DAWN**

THE BLACKLEDGE GROUP, INC.  
408 15TH STREET SOUTH  
JACKSONVILLE BEACH FL 32250

**LICENSE NUMBER: AX96**

**EXPIRATION DATE: NOVEMBER 30, 2022**

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## X. ASBESTOS CONSULTANT LETTER



September 1, 2022

City of Ocala  
Community Development Services  
201 SE 3rd Street, 2nd Floor  
Ocala, FL 34471

**RE: Limited Asbestos Survey  
Single-Family Detached Dwelling  
1412 NW 20<sup>th</sup> Court  
Ocala, Marion County, Florida 34475**

Dear Client:

Pursuant to your request, a limited Asbestos Survey was performed at the referenced property. The survey was performed to visually identify homogenous areas that need to have bulk samples collected for laboratory analysis in order to determine the presence of Asbestos-Containing Building Materials within the structure. The scope of work for this survey included sampling and analysis of suspect building materials. On August 23, 2022, a limited Asbestos Survey was performed at 1412 NW 20<sup>th</sup> Court, Ocala, Florida. The property consists of an approximate 1,008 square-foot single-family dwelling constructed in 1966. The structure is scheduled for renovation.

Ten (10) samples of suspect materials were collected and submitted to Hayes Microbial Consulting (Hayes), an American Industrial Hygiene Association (AIHA)-accredited laboratory in, Midlothian, VA, for laboratory analysis. Due to the presence of additional layers in the collected samples, twelve (12) samples were identified and analyzed by the laboratory. All samples were analyzed utilizing Polarized Light Microscopy (PLM) according to EPA Method 600/R-93/116. Materials must contain greater than 1% asbestos to be regulated.

Analytical results of the samples revealed that four of the sampled materials contained asbestos in concentrations >1% by PLM analysis, as follows:

- 9" x 9" Vinyl Floor Tile (Tan), Hall Closet, Homogeneous Sample Area 1412-3-1, showed 3% Chrysotile Asbestos
- Mastic (Black) Associated with 9" x 9" Vinyl Floor Tile (Tan), Hall Closet, Homogeneous Sample Area 1412-3-1-A, showed 2% Chrysotile Asbestos
- 12" x 12" Vinyl Floor Tile (Tan), Bedroom B, Homogeneous Sample Area 1412-4-1, showed 2% Chrysotile Asbestos
- Mastic (Black) Associated with 12" x 12" Vinyl Floor Tile (Tan), Bedroom B, Homogeneous Sample Area 1412-4-1-A, showed 2% Chrysotile Asbestos

Vinyl floor tile and mastics associated with vinyl floor tile are NESHAP Category I non-friable ACMs. NESHAP Category I non-friable ACMs are not required to be removed prior to demolition of the building.

City of Ocala  
September 1, 2022  
Page 2

provided that wet-demolition practices are implemented during renovations and resulting debris from the structure is properly transported to a landfill permitted for disposal of ACM. If NESHAP Category I non-friable ACMs are in poor condition and become friable during demolition, the material must be treated as a RACM and be removed by a licensed asbestos abatement contractor and disposed of at a class one landfill prior to renovation, remodeling, or demolition of the building.

Asbestos fibers <1% were detected in one homogeneous area, Homogeneous Area 1412-2-1 Drywall/ Joint Compound, Cream, Typical Interiors Walls and Ceilings. The detection limit for PLM is approximately 1%. Due to the detection of asbestos fibers less than 1% by PLM, additional analysis by Transmission Electron Microscope (TEM) or Point Counting for samples with <1% is recommended. Materials containing less than 1% asbestos are not regulated as an ACM; however, all renovation activities should be performed following the applicable Occupational Safety and Health Administration (OSHA) regulations. This includes, but is not limited to, having appropriate asbestos training for the type of material being removed/disturbed, having a properly trained supervisor onsite, using wet removal methods, wearing adequate personal protective equipment (HEPA-filtered particulate respirators), performing medical surveillance of workers, performing personal-exposure air monitoring, and area air monitoring in occupied buildings.

Due to the presence of ACM, OSHA's Asbestos Standard for the Construction Industry (29 CFR 1926.1101) must be followed. Any renovation, remodeling, or demolition of RACMs must be handled by a State Licensed Contractor under Florida Administrative Code (F.A.C.) Title XXXII Chapter 469 for Asbestos Abatement. If the materials contain asbestos that is less than or equal to 1%, the contractor must observe the asbestos permissible exposure limits (PELs) and 29 CFR 1926.1101.

In accordance with the OSHA Asbestos Standard for the Construction Industry (29 CFR 1926.1101), demolition of a building with ACM left in place falls under the definition of removal of installed ACM. The removal of installed ACM is either Class I or Class II asbestos work, and all applicable requirements of this standard apply. Whether such demolition is Class I asbestos work or Class II asbestos work is determined by the type of ACM left in place. If any asbestos-containing thermal system insulation or surfacing material is left installed in the building, then the work being performed is Class I asbestos work. If the ACM left installed in the building does not include any thermal system insulation or surfacing material, then the work being performed is Class II asbestos work.

Suspect ACMs encountered during renovation/demolition activities that are not identified in this survey should be assumed to contain asbestos or be sampled by an AHERA-certified inspector and analyzed by an accredited laboratory.

Sincerely,



K. Dawn Blackledge, P.G., LAC  
Senior Project Engineer  
Licensed Asbestos Consultant AX96  
Asbestos Consulting License #ZA539

## **XI. GLOSSARY**

**Active waste disposal site:** any disposal site other than an inactive site.

**Adequately wet:** sufficiently mix or penetrate with liquid to prevent the release of particulates. If visible emissions are observed coming from asbestos-containing material, then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being adequately wet.

**Asbestos:** the asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, anthophyllite, and actinolite-tremolite.

**Asbestos-containing waste materials:** mill tailings or any waste that contains commercial asbestos and is generated by a source subject to the provisions of this subpart. This term includes filters from control devices, friable asbestos waste material, and bags or other similar packaging contaminated with commercial asbestos. As applied to demolition and renovation operations, this term also includes regulated asbestos-containing material waste and materials contaminated with asbestos including disposable equipment and clothing.

**Asbestos mill:** any facility engaged in converting, or in any intermediate step in converting, asbestos ore into commercial asbestos. Outside storage of asbestos material is not considered a part of the asbestos mill.

**Asbestos tailings:** any solid waste that contains asbestos and is a product of asbestos mining or milling operations.

**Asbestos waste from control devices:** any waste material that contains asbestos and is collected by a pollution control device.

**Category I nonfriable asbestos-containing material (ACM):** asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy.

**Category II nonfriable ACM:** any material, excluding Category I nonfriable ACM, containing more than 1 percent asbestos as determined using the methods specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

**Commercial asbestos:** any material containing asbestos that is extracted from ore and has value because of its asbestos content.

**Cutting:** to penetrate with a sharp-edged instrument and includes sawing, but

does not include shearing, slicing, or punching.

**Demolition:** the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.

**Emergency renovation operation:** a renovation operation that was not planned but results from a sudden, unexpected event that, if not immediately attended to, presents a safety or public health hazard, is necessary to protect equipment from damage, or is necessary to avoid imposing an unreasonable financial burden. This term includes operations necessitated by nonroutine failures of equipment.

**Fabricating:** any processing (e.g., cutting, sawing, drilling) of a manufactured product that contains commercial asbestos, with the exception of processing at temporary sites (field fabricating) for the construction or restoration of facilities. In the case of friction products, fabricating includes bonding, debonding, grinding, sawing, drilling, or other similar operations performed as part of fabricating.

**Facility:** any institutional, commercial, public, industrial, or residential structure, installation, or building (including any structure, installation, or building containing condominiums or individual dwelling units operated as a residential cooperative, but excluding residential buildings having four or fewer dwelling units); any ship; and any active or inactive waste disposal site. For purposes of this definition, any building, structure, or installation that contains a loft used as a dwelling is not considered a residential structure, installation, or building. Any structure, installation or building that was previously subject to this subpart is not excluded, regardless of its current use or function.

**Facility component:** any part of a facility including equipment.

**Friable asbestos material:** any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 section 1, Polarized Light Microscopy, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. If the asbestos content is less than 10 percent as determined by a method other than point counting by polarized light microscopy (PLM), verify the asbestos content by point counting using PLM.

**Fugitive source:** any source of emissions not controlled by an air pollution control device.

**Glove bag:** a sealed compartment with attached inner gloves used for the handling of asbestos-containing materials. Properly installed and used, glove bags provide a small work area enclosure typically used for small-scale asbestos stripping operations. Information on glove-bag installation, equipment and supplies, and work practices is contained in the Occupational Safety and Health

Administration's (OSHA's) final rule on occupational exposure to asbestos (appendix G to 29 CFR 1926.58).

**Grinding:** to reduce to powder or small fragments and includes mechanical chipping or drilling.

**In poor condition:** the binding of the material is losing its integrity as indicated by peeling, cracking, or crumbling of the material.

**Inactive waste disposal site:** any disposal site or portion of it where additional asbestos-containing waste material has not been deposited within the past year. Installation means any building or structure or any group of buildings or structures at a single demolition or renovation site that are under the control of the same owner or operator (or owner or operator under common control).

**Leak-tight:** solids or liquids cannot escape or spill out. It also means dust-tight.

**Malfunction:** any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner so that emissions of asbestos are increased. Failures of equipment shall not be considered malfunctions if they are caused in any way by poor maintenance, careless operation, or any other preventable upset conditions, equipment breakdown, or process failure.

**Manufacturing:** the combining of commercial asbestos-or, in the case of woven friction products, the combining of textiles containing commercial asbestos-with any other material(s), including commercial asbestos, and the processing of this combination into a product. Chlorine production is considered a part of manufacturing.

**Natural barrier:** a natural object that effectively precludes or deters access. Natural barriers include physical obstacles such as cliffs, lakes or other large bodies of water, deep and wide ravines, and mountains. Remoteness by itself is not a natural barrier.

**Nonfriable asbestos-containing material:** any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

**Nonscheduled renovation operation:** a renovation operation necessitated by the routine failure of equipment, which is expected to occur within a given period based on past operating experience, but for which an exact date cannot be predicted.



**Outside air:** the air outside buildings and structures, including, but not limited to, the air under a bridge or in an open air ferry dock.

**Owner or operator of a demolition or renovation activity:** any person who owns, leases, operates, controls, or supervises the facility being demolished or renovated or any person who owns, leases, operates, controls, or supervises the demolition or renovation operation, or both.

**Particulate asbestos material:** finely divided particles of asbestos or material containing asbestos.

**Planned renovation operations:** a renovation operation, or a number of such operations, in which some RACM will be removed or stripped within a given period of time and that can be predicted. Individual nonscheduled operations are included if a number of such operations can be predicted to occur during a given period of time based on operating experience.

**Regulated asbestos-containing material (RACM):** (a) Friable asbestos material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II nonfriable 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 in the course of demolition or renovation operations regulated by this subpart.

**Remove:** to take out RACM or facility components that contain or are covered with RACM from any facility.

**Renovation:** altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.

**Resilient floor covering:** asbestos-containing floor tile, including asphalt and vinyl floor tile, and sheet vinyl floor covering containing more than 1 percent asbestos as determined using polarized light microscopy according to the method specified in appendix E, subpart E, 40 CFR part 763, Section 1, Polarized Light Microscopy.

**Roadways:** surfaces on which vehicles travel. This term includes public and private highways, roads, streets, parking areas, and driveways.

**Strip:** to take off RACM from any part of a facility or facility components.

**Structural member:** any load-supporting member of a facility, such as beams and load supporting walls; or any nonload-supporting member, such as ceilings and nonload-supporting walls.

**Visible emissions:** any emissions, which are visually detectable without the aid of instruments, coming from RACM or asbestos-containing waste material, or from any asbestos milling, manufacturing, or fabricating operation. This does not include condensed, uncombined water vapor.

**Waste generator:** any owner or operator of a source covered by this subpart whose act or process produces asbestos-containing waste material.

**Waste shipment record:** the shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.

**Working day:** Monday through Friday and includes holidays that fall on any of the days Monday through Friday.

Analysis Report prepared for

## DK Environmental & Construction Services, Inc.

9007 Paolos Place  
Kissimmee, FL 34747

Phone: (814) 243-1927

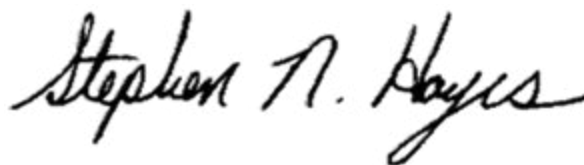
1412 NW 20th Court  
Ocala, FL 34475

Collected: **August 23, 2022**  
Received: **August 29, 2022**  
Reported: **August 30, 2022**

We would like to thank you for trusting Hayes Microbial for your analytical needs!  
We received 10 samples by US Mail in good condition for this project on August 29th, 2022.

The results in this analysis pertain only to this job, collected on the stated date, and should not be used in the interpretation of any other job. This report may not be duplicated, except in full, without the written consent of Hayes Microbial Consulting, LLC..

This laboratory bears no responsibility for sample collection activities, analytical method limitations, or your use of the test results. Interpretation and use of test results are your responsibility. Any reference to health effects or interpretation of mold levels is strictly the opinion of Hayes Microbial. In no event, shall Hayes Microbial or any of its employees be liable for lost profits or any special, incidental or consequential damages arising out of the use of these test results.



Steve Hayes, BSMT(ASCP)  
Laboratory Director  
Hayes Microbial Consulting, LLC.



EPA Laboratory ID: VA01419



Lab ID: #188863



DPH License: #PH-0198



| # | Sample  | Material Description                     | Non-Asbestos Fibers | Asbestos Fibers                 |
|---|---|--|---------------------|---------------------------------|
| 1 | 1412-1-1 - Roof Shingle/ Tar/ Exterior                    | Shingle / Gray                           | 12% Fiberglass      | None Detected                   |
|   |   | Tar / Black                              |                     | None Detected                   |
| 2 | 1412-1-2 - Roof Shingle/ Tar/ Exterior                    | Shingle / Gray                           | 12% Fiberglass      | None Detected                   |
|   |   | Tar / Black                              |                     | None Detected                   |
| 3 | 1412-2-1 - Drywall/ Joint Compound (Interior)             | Joint Compound / Drywall / Cream         | 8% Cellulose Fibers | <1% Chrysotile                  |
| 4 | 1412-2-2 - Drywall/ Joint Compound (Interior)             | Joint Compound / Drywall / Multi-colored | 8% Cellulose Fibers | None Detected                   |
| 5 | 1412-3-1 - 9x9 Floor Tile/ Mastic/ Hall Closet (Interior) | Tile / Tan                               |                     | 3% Chrysotile                   |
|   |   | Mastic / Black                           |                     | 2% Chrysotile                   |
| 6 | 1412-3-2 - 9x9 Floor Tile/ Mastic/ Hall Closet (Interior) | Tile                                     |                     | ( Not Analyzed, Positive Stop ) |
|   |   | Mastic                                   |                     | ( Not Analyzed, Positive Stop ) |
| 7 | 1412-4-1 - 12x12 Floor Tile/ Mastic/ Bedroom B (Interior) | Tile / Tan                               |                     | 2% Chrysotile                   |
|   |   | Mastic / Black                           |                     | 2% Chrysotile                   |
|   | Lab Note: Insufficient Material for Accurate Analysis.    |  |                     |                                 |

| #  | Sample  | Material Description | Non-Asbestos Fibers | Asbestos Fibers                 |
|----|---|----------------------|---------------------|---------------------------------|
| 8  | 1412-4-2 - 12x12 Floor Tile/ Mastic/ Bedroom B (Interior) | Tile                 |                     | ( Not Analyzed, Positive Stop ) |
|    |   | Mastic               |                     | ( Not Analyzed, Positive Stop ) |
| 9  | 1412-5-1 - Rolled Roofing/ Tar (Exterior)                 | Shingle / Gray       | 12% Fiberglass      | None Detected                   |
| 10 | 1412-5-2 - Rolled Roofing/ Tar (Exterior)                 | Shingle / Gray       | 12% Fiberglass      | None Detected                   |

## Asbestos Analysis Information

|                         |   |
|-------------------------|---|
| <b>Analysis Details</b> | All samples were received in acceptable condition unless otherwise noted on the report. This report must not be used by the client to claim product certification, approval, or endorsement by AIHA, NIST, NVLAP, NY ELAP, or any agency. The results relate only to the items tested. Hayes Microbial Consulting reserves the right to dispose of all samples after a period of 60 days in compliance with state and federal guidelines. |
| <b>PLM Analysis</b>     | All Polarized Light Microscopy (PLM) results include an inherent uncertainty of measurement associated with estimating percentages by PLM. Materials with interfering matrix, low asbestos content, or small fiber size may require additional analysis via TEM Analysis.   |
| <b>TEM Analysis</b>     | Analysis by TEM is capable of providing positive identification of asbestos type(s) and semi-quantitation of asbestos content.  |
| <b>Definitions</b>      | 'None Detected' - Below the detected reporting limit of 1% unless point counting is performed, then the detected reporting limit is .25%.   |
| <b>New York ELAP</b>    | <p>Per NY ELAP198.6 (NOB), TEM is the only reliable method to declare an NOB material as Non-Asbestos Containing.</p> <p>Any NY ELAP samples that are subcontracted to another laboratory will display the name and ELAP Lab Identification number in the report page heading of those samples. The original report provided to Hayes Microbial Consulting is available upon request.</p>   |

