

# IDOT WORK ORDER 627

---

April 23, 2018

**Illinois Department of Transportation**

Bureau of Land Acquisition  
IDOT Administration Building, Room 212  
2300 South Dirksen Parkway  
Springfield, IL 62764

Attn: Ms. Laura Mlacnik, P.G.  
Engineer of Land Acquisition  
Bureau of Land Acquisition

Re: Asbestos Survey Report  
**Work Order No: 627**  
Parcel No. 1MF0127  
Single Family Residence  
409 Elm Road  
Barrington, Illinois 60010  
PSI Project No. 00472669

Dear Ms. Mlacnik:

In accordance with our agreement, Professional Service Industries, Inc. (PSI) has performed an Asbestos Survey of the above referenced property. Please find one copy of the final report enclosed.

Thank you for choosing PSI as your consultant for this project. If you have any questions, or if we can be of additional service, please call us at (708) 236-0720.

Respectfully submitted,  
**PROFESSIONAL SERVICE INDUSTRIES, INC.**



Ronald Tulke  
Project Executive/ Administrator

Enclosures Mr. Michael Cullian, District 1

## **ASBESTOS SURVEY REPORT**

Route: US 14  
Section: At CN RR  
County: Lake  
Parcel No: 1MF0127  
IDOT Job No: R-91-001-15  
IDOT Work Order No: 627

Single Family Residence  
409 Elm Road  
Barrington, Illinois 60010

### **PREPARED FOR**

Illinois Department of Transportation  
Bureau of Land Acquisition  
2300 South Dirksen Parkway  
Springfield, Illinois 62764

### **PREPARED BY**

Professional Service Industries, Inc.  
4421 W. Harrison Street  
Hillside, IL 60162  
Phone: (708) 236-0720  
Fax: (708) 236-0721

**Intertek-PSI Project No. 00472669**

April 23, 2018



# ASBESTOS SURVEY REPORT

Route: US 14  
Section: At CN RR  
County: Lake  
Parcel No: 1MF0127  
IDOT Job No: R-91-001-15  
IDOT Work Order No: 627

## PREPARED FOR

Illinois Department of Transportation  
Bureau of Land Acquisition  
2300 South Dirksen Parkway  
Springfield, Illinois 62764

April 23, 2018

  
\_\_\_\_\_ for  
**Ciaran McGowan, IDPH Inspector**  
Inspector License No: 100-18958

  
\_\_\_\_\_  
**Ronald Tulke**  
Project Coordinator  
Project Executive

  
\_\_\_\_\_  
**Jeff Chapman**  
Quality Assurance Manager

This report has been prepared for the exclusive use of the Illinois Department of Transportation (IDOT) and affiliates thereof. Results are based solely on the methodology stated in this report and the report should be relied upon in its entirety. Any reliance a third party makes of this report is the responsibility of such third party



# CONTENTS

	SECTION
<b>SURVEY SUMMARY AND RESULTS.....</b>	<b>1</b>
<b>INTRODUCTION .....</b>	<b>2</b>
<b>WARRANTY.....</b>	<b>3</b>
<b>METHODS .....</b>	<b>4</b>
<b>UNIQUE STATE AND/OR LOCAL REQUIREMENTS .....</b>	<b>5</b>
<b>PHOTOGRAPHS.....</b>	<b>6</b>
<b>FIGURES .....</b>	<b>7</b>
<b>APPENDICES.....</b>	<b>8</b>
 Laboratory Results and Chain of Custody Documentation Inspector & Laboratory Certifications Abatement Cost Estimates	



**SITE INFORMATION:**

Route:	<u>US 14</u>	Address:	<u>409 Elm Road</u>
County:	<u>Lake</u>	Address:	
IDOT Job No:	<u>R-91-001-15</u>	City, State Zip	<u>Barrington, Illinois 60010</u>
Section:	<u>At CN RR</u>	Property Type:	<u>Single Family Residence</u>
Parcel No:	<u>1MF0127</u>	Construction Date:	<u>1933</u>
IDOT Work Order No:	<u>627</u>	Building Size (sqft):	<u>2,463 SF</u>

<b>ASBESTOS CONTAINING MATERIALS</b>	
Survey Date	<u>3-28-18</u>
By Whom:	<u>PSI, Inc.</u> Firm
	<u>Ciaran McGowan</u> Inspector
	<u>100-18958</u> IDPH License No.
<b>Results:</b>	
Number of Material Types Sampled:	<u>9</u>
Number of Samples Collected:	<u>29</u>
Number of Materials Testing Positive:	<u>1</u>
Was Friable ACM Found?	<u>No</u>
Were Roofing Materials Sampled?	<u>Yes</u>
Are There Unique State or Local Requirements?	<u>Yes</u>
<b>Laboratory Utilized:</b>	
Name:	<u>PSI, Inc.</u>
Address:	<u>850 Poplar Street</u> <u>Pittsburgh, PA 15220</u>
<b>Building Access Limitations:</b>	
<u>None</u>	



**ACM SURVEY RESULTS - Parcel No. 1MF0127**  
**Single Family Residence**  
**409 Elm Road**  
**Barrington, Illinois 60010**

The following homogeneous building material types were sampled as part of this survey and their results are summarized in the table below:

MTL #	MATERIAL DESCRIPTION	LOCATION	F/NF <sup>1</sup>	COND. <sup>2</sup>	% ACM <sup>3</sup>	# SAMPLES	QUANTITY (ENG/MET)
01	Drywall/joint compound	Throughout	NF	Good	Drywall ND Joint Compound <1%*	3	500 SF 46.5 SM
02	Black felt paper	Under hardwood flooring	NF	Good	ND	3	2,000 SF 185.8 SM
03	Plaster	North west area, walls and ceilings	NF	Good	ND/ND	3	1,900 SF 176.5 SM
04	Exterior black felt paper	Below exterior siding, north west area	F	Good	DN	3	2,000 SF 185.8 SM
<b>05</b>	<b>Beige caulk</b>	<b>Around windows and doors, at edges of siding</b>	<b>NF</b>	<b>Good</b>	<b>3%</b>	<b>3</b>	<b>550 LF</b> <b>167.6 IM</b>
06	White window glaze	Windows	NF	Good	ND	3	300 LF 91.4 IM
07	Black felt paper, below wood shingles	Below wood shingles	F	Good	ND	3	2,000 SF 185.8 SM
08	Black tar	Around chimney and roof penetrations	NF	Good	ND	3	10 LF 3.0 IM
09	Roofing material	Balcony	NF	Good	ND	3	500 SF 46.5 SM
<b>TOTAL QUANTITY OF ACM</b>							<b>550 LF</b>
<b>ESTIMATED ABATEMENT COST</b>							<b>\$3,975.00</b>

<sup>1</sup> F = Friable; NF = Nonfriable      Friability is further defined in section 4.  
<sup>2</sup> Cond. = Condition Of Materials      Either good, fair or poor.  
<sup>3</sup> ND = None Detected  
 \* Point Count Analysis



## **PURPOSE**

The purpose of this study was to identify those building materials that contain asbestos.

## **ESCORT**

The inspector was escorted through the facility by Mrs. Chris Maloney, IDOT District 1.

## **AUTHORIZATION**

Authorization to perform this study was given by the Illinois Department of Transportation in the form of Work Order Authorization 627, dated July 18, 2017 and executed by Ms. Laura R. Mlacnik, P.E., Acting Bureau Chief of Land Acquisitions, Illinois Department of Transportation.

This report has been prepared for the exclusive use of the Illinois Department of Transportation and governmental affiliates thereof.

## **BUILDING OBSERVATIONS**

The facility inspected is a two-story wood structure with a basement and an asphalt shingled roof. The heating, ventilation, and air conditioning (HVAC) system is a forced air system operated by natural gas. Interior walls and ceilings are drywall and plaster. Floors are wood and covered with ceramic tile. The building exterior is sheathed wood siding.



Intertek-PSI warrants that the findings contained herein have been prepared with the level of care and skill exercised by experienced and knowledgeable environmental consultants who are appropriately licensed or otherwise trained to perform asbestos assessments pursuant to OSHA and NESHAP as well as state and local requirements as applicable.

The survey included inspection of materials above or behind suspended ceilings or other non-permanent structures. Intertek-PSI attempted to inspect or sample inaccessible areas such as behind walls or within ductwork and did attempt to dismantle parts of the structure as necessary to gain access to materials and to survey inaccessible areas.

Inaccessible is defined as areas of the building that could not be tested (sampled) without destruction of the structure or a portion of the structure. In the event that access to a portion of the building was not obtained (which otherwise would have been tested), such limitations are specifically identified in Section 1 of this report.

As directed by the client, Intertek-PSI did not provide any service to investigate or detect the presence of moisture, mold or other biological contaminants in or around any structure, or any service that was designed or intended to prevent or lower the risk of the occurrence of the amplification of the same. Client acknowledges that mold is ubiquitous to the environment with mold amplification occurring when building materials are impacted by moisture. Client further acknowledges that site conditions are outside of Intertek-PSI's control, and that mold amplification will likely occur, or continue to occur, in the presence of moisture. As such, PSI cannot and shall not be held responsible for the occurrence or recurrence of mold amplification.



Inspection and sampling procedures were performed in accordance with the guidelines published by the Environmental Protection Agency (EPA) in 40 CFR Part 763 Subpart E, October 30, 1987. Sampling procedures include collection of at least three (3) samples of all suspect materials as recommended by EPA Guidance document 700/B-92/001, February 1992. The inspection and survey described below was performed by an EPA accredited inspector.

## GENERAL ORGANIZATION

Before commencing the survey, the inspector spoke with the Client, to discuss the survey approach, the need for unrestricted access and construction related information issues such as building age as well as, prior construction activities.

The survey consisted of three major activities: visual inspection, sampling, and quantification of building materials. Although these activities are listed separately, they are integrated tasks.

## VISUAL INSPECTION

An initial building walkthrough was conducted to determine the presence and condition of suspect materials that were accessible and/or exposed. Materials that were similar in general appearance were grouped into homogeneous sampling areas.

### ■ Homogeneous Material Classifications

A preliminary walkthrough of the building was conducted to determine areas of materials that were visually similar in color; texture, general appearance, and which appeared to have been installed at the same time. Such materials are termed "homogeneous materials" by the EPA. During this walkthrough, the approximate locations of these homogeneous materials were also noted.

Following the EPA inspection protocol, each identified suspect homogeneous material was placed in one of the following EPA classifications:

1. **Surfacing Materials** (spray or trowel applied to building members)
2. **Thermal System Insulation** (materials generally applied to various mechanical systems)
3. **Miscellaneous Materials** (any materials which do not fit either of the above categories)



## ■ Friability Classifications

A regulated asbestos-containing material (RACM) as defined by National Emissions Standard for Hazardous Air Pollutants (NESHAP) is any (a) Friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

Following the EPA inspection protocol, each identified suspect homogeneous material was placed in one of the following EPA classifications:

- **Friable ACM Materials** NESHAP defines a friable ACM as any material containing more than one percent asbestos, which, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.
- **Category I Non-friable ACM** NESHAP defines a Category I non-friable ACM as packing, gaskets, resilient floor covering (except vinyl sheet flooring products which are considered friable), and asphalt roofing products which contain more than one percent asbestos.
- **Category II Non-friable ACM** NESHAP defines a Category II non-friable ACM as any material, except for a Category I non-friable ACM, which contains more than one-percent asbestos and cannot be reduced to a powder by hand pressure when dry.

## SAMPLING PROCEDURES

Following the walkthrough, the inspector collected selected samples of accessible materials identified as suspect asbestos-containing materials (ACM). Samples were collected in general accordance with EPA AHERA (40 CFR 763) guidelines. A minimum of three (3) samples were collected of each material. Samples of materials were taken as randomly as possible while again attempting to sample already damaged areas so as to minimize disturbance of the material.

## QUANTIFICATION

Quantities of accessible and/or exposed materials that were suspected of containing asbestos were estimated using visual estimation by an IDPH licensed asbestos inspector. This visual estimation was performed in accordance with generally accepted practices in



the asbestos industry. These values are sufficiently accurate for the purpose of documenting the presence of asbestos within its space for the purpose of identifying abatement control conditions or for general policy considerations. Actual quantities may differ between visually estimated values and physical measurements. If a licensed asbestos abatement contractor is engaged to remove asbestos containing materials, the abatement contractor is responsible for verifying reported quantities of ACM.

## LABORATORY PROCEDURES

### Method of Analysis

Analysis was performed at Intertek-PSI's NVLAP accredited Laboratory in Pittsburgh, PA. A chain-of-custody, documenting the possession of the samples from the time they were collected until they have been analyzed and stored, was submitted with the bulk samples. The original chain-of-custody accompanied the materials at all times. Custody documentation began at the time the sample was collected and a copy of the chain-of-custody record was retained by each transferor.

Analysis was performed by using the bulk sample for visual observation and slide preparation(s) for microscopic examination and identification. The samples were mounted on slides and then analyzed for asbestos (chrysotile, amosite, crocidolite, anthophyllite, and actinolite/tremolite), fibrous non-asbestos constituents (mineral wool, paper, etc.) and non-fibrous constituents. Asbestos was identified by refractive indices, morphology, color, pleochroism, birefringence, extinction characteristics, and signs of elongation. The same characteristics were used to identify the non-asbestos constituents.

The microscopist visually estimated relative amounts of each constituent by determining the volume of each constituent in proportion to the total volume of the sample, using a stereoscope.

All bulk samples were analyzed by Polarized Light Microscopy (PLM) with dispersion staining as described by the method of the determination of asbestos in bulk insulation, EPA/600/R-93/116, July 1993. This is a standard method of analysis in optical mineralogy and the currently accepted method for the determination of asbestos in bulk samples. A suspect material is immersed in a solution of known refractive index and subjected to illumination by polarized light. The characteristic color displays which result enable mineral identification.

It should be noted that some ACM may not be accurately identified and/or quantified by PLM. As an example, the original fabrication of vinyl floor tiles routinely involved milling of asbestos fibers to extremely small sizes. As a result, these fibers may go undetected



under the standard polarized light microscopy method. Transmission Electron Microscopy (TEM) is required for a more definitive analysis of these materials.

For bulk samples of friable materials which are found to contain <10% asbestos, Point Count Analysis as described by the method for the determination of asbestos in accordance with Environmental Protection Agency's (EPA) "Interim Method for Identification of Asbestos in Bulk Insulation Samples" (40 CFR 763, Appendix A, Subpart F), is often utilized. As part of this method, a bulk sample is reduced, in an effort to dissolve any non-asbestos constituents, such as calcite. As a result of this reduction process, a concentrated sample is then obtained and analyzed. A minimum number of counts for each sample are 400. The number of identified asbestos points is divided by 400, then multiplied by 100 in order to calculate the percentage. Each asbestos type is quantified individually.

#### **Laboratory Quality Control Program**

Intertek-PSI laboratories maintain an in-house quality control program. This program involves blind reanalysis of ten percent of all samples, precision and accuracy controls, and use of standard bulk reference materials.

#### **LIMITATIONS**

Based on our project understanding, the limitations of this survey are as follows:

- Intertek-PSI did not provide sampling on any system which may present a hazard to the inspection team such as energized electrical systems or within confined spaces,



If the asbestos-containing materials identified in this report will be disturbed through future maintenance, renovation or demolition activities, they will be subject to the requirements set forth in all applicable local, state, and federal regulations. In addition, prior to any future maintenance, renovation or demolition activities, the areas noted as inaccessible during this project will require a survey for asbestos containing materials.

Prior to the initiation of a project that would involve abatement of asbestos containing materials, a detailed engineering cost estimate and project design is recommended. The engineering cost estimate will incorporate such variables as scheduling and phasing of the project, the size and extent of the project, seasonal factors, operational factors and other restrictions, respiratory protection, alternate abatement options, and type of replacement material. These are considerations that were not included in this scope of work or were unknown at the time of development of budgetary estimate. An engineering cost estimate would also include professional fees, such as for project design, project management, air monitoring and other expenses such as construction supervision.

It should be noted that some ACM might not be accurately identified and/or quantified by PLM. As an example, the original fabrication of vinyl floor tiles routinely involved milling of asbestos fibers to extremely small sizes. As a result, these fibers may go undetected under the standard polarized light microscopy methods. Transmission Electron Microscopy (TEM) is required for a more definitive analysis of these materials. This survey revealed the presence of floor tile with less than 1% asbestos via PLM analysis. Intertek-PSI recommends additional analysis by TEM as described above and recommended by the Illinois Department of Public Health. Please contact Intertek-PSI to request additional testing within 30 days of this report.

The following notices, permits and licenses are necessary for abatement work as of the date of this report. The contractor is cautioned to verify these requirements as applicable to the final project scope and confirm that no new requirements exist.

#### **Local Air Quality Board**

Written notification is required by the Illinois Environmental Protection Agency at least 10 working days prior to beginning any asbestos abatement project activities on regulated asbestos-containing materials where the quantities are at least 160 square feet, 260 linear feet, or 35 cubic feet. IEPA is the state contact for the federal EPA (NESHAP) on these matters.



**IDPH**

Written notification is required by the Illinois Department of Public Health (IDPH) at least two (2) working days prior to beginning any asbestos abatement project activities on friable or non-friable asbestos-containing materials whose quantities exceed 3 square feet or 3 linear feet, but do not exceed 160 square feet or 260 linear feet.

**Permits**

Contractor must obtain all county and/or local municipal permits or licenses required for asbestos abatement work.

**Licenses**

Contractor must maintain current licenses as required by the Illinois Department of Public Health (IDPH) and Illinois Department of Transportation (IDOT) for the removal, transporting, disposal, or other regulated activity.

Federal regulations which govern asbestos abatement work or hauling and disposal of asbestos waste materials include but are not limited to the following:

U.S. Department of Labor, Occupational Safety and Health Administration:

Asbestos Regulations

Title 29, Part 1910, Section 1001 of the Code of Federal Regulations

Final Rule

Title 29, Part 1926, Section 1101 of the Code of Federal Regulations

Respiratory Protection

Title 29, Part 1910, Section 134 of the Code of Federal Regulations

Construction Industry

Title 29, Part 1926, of the Code of Federal Regulations

Access to Employee Exposure & Medical Records

Title 29, Part 1910, Section 20 of the Code of Federal Regulations

Hazard Communication

Title 29, Part 1910, Section 1200 of the Code of Federal Regulations

Specifications for Accident Prevention Signs and Tags

Title 29, Part 1910, Section 145 of the Code of Federal Regulations

Environmental Protection Agency (EPA) including but not limited to:

Worker Protection Rule

40 CFR Part 763, Subpart G

CPTS 62044, FLR 2843-9

Federal Register, Vol. 50, No. 134, 7/12/85

P28530-28540



Regulation for Asbestos

Title 40, Part 61, Subpart A of the  
Code of Federal Regulations

National Emission Standard for Asbestos

Title 40, Part 61, Subpart M of the Code of Federal Regulations including NESHAP  
Revision; Final Rule, Federal Register; Tuesday, November 20, 1990.

Asbestos Hazard Emergency Response Act (AHERA)

Regulations 40 CFR 763 Subpart E

U.S. Department of Transportation (DOT) including but not limited to:

Hazardous Substances: Final Rule

Regulation 49 CFR, Parts 171 and 172

State of Illinois

Asbestos Abatement Act

(105 ILCS 105)

Commercial and Public Building Asbestos Abatement Act

(225 ILCS 207)

Rules for Asbestos Abatement for Public and Private Schools  
And Commercial and Public Buildings in Illinois

(77 Ill. Adm.Code 855)

Standards which govern asbestos abatement work or hauling and disposal of asbestos  
waste materials include but are not limited to the following:

American National Standards Institute (ANSI)

Fundamentals Governing the Design and  
Operation of Local Exhaust Systems  
Publication Z9.2-79

Practices for Respiratory Protection  
Publication Z88.2-80



SECTION 6  
PHOTOGRAPHS

---



North Face/Roof



South Face

409 Elm Road  
Lake, County  
Barrington, Illinois

Parcel No.	1MF0127
Work Order No.	627
PSI Project No.	00472669



East Face



West Face

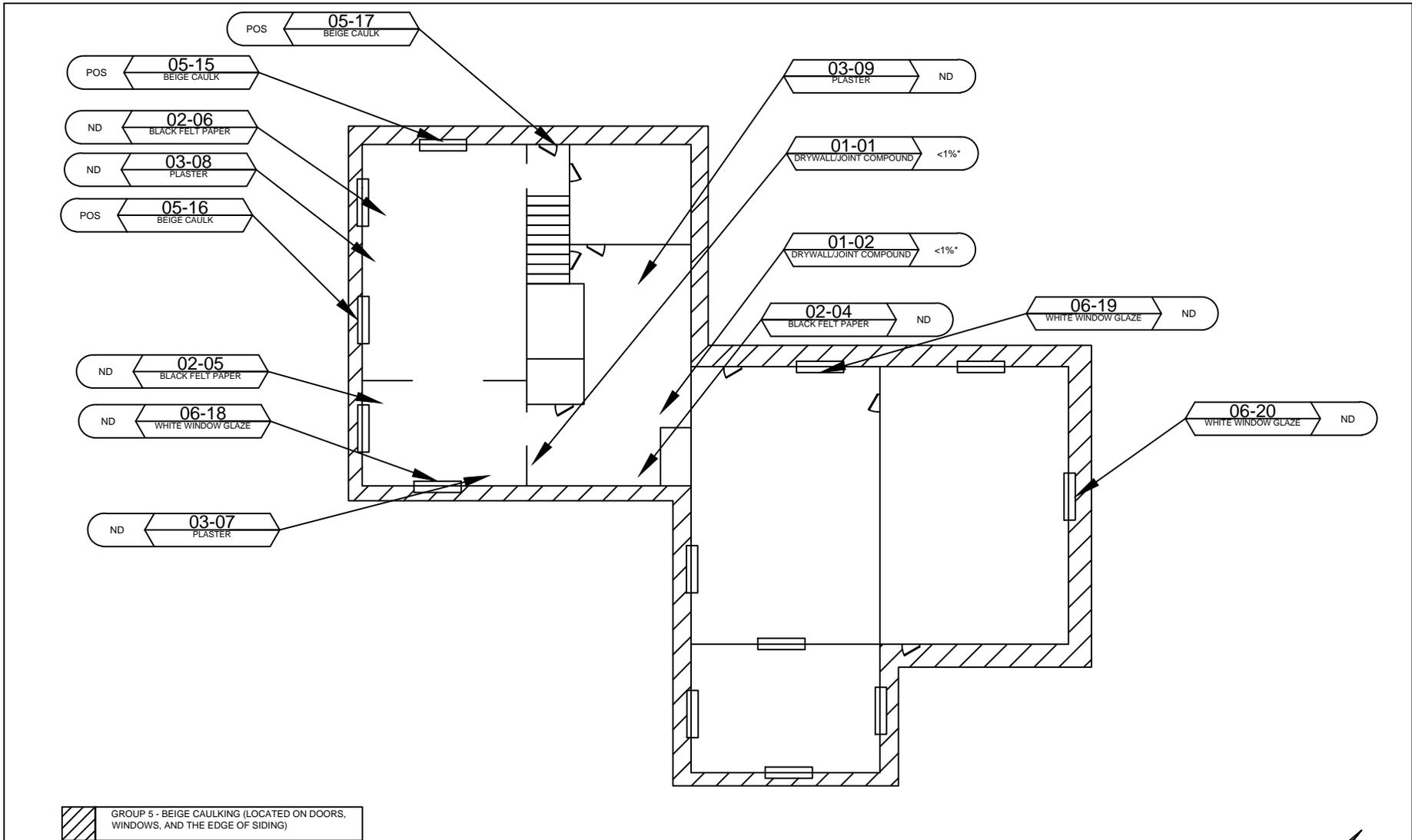
409 Elm Road  
Lake, County  
Barrington, Illinois

Parcel No.	1MF0127
Work Order No.	627
PSI Project No.	0042669



SECTION 7  
FIGURES

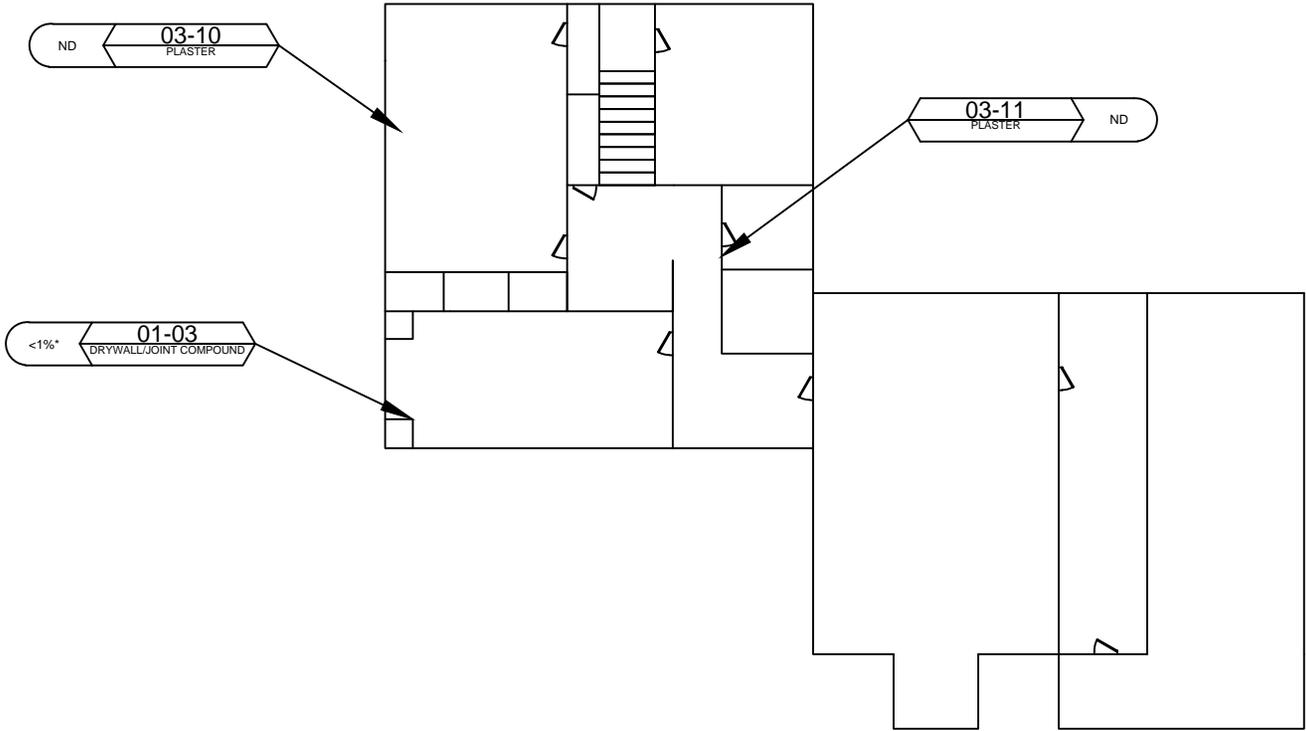
---



# FIRST FLOOR



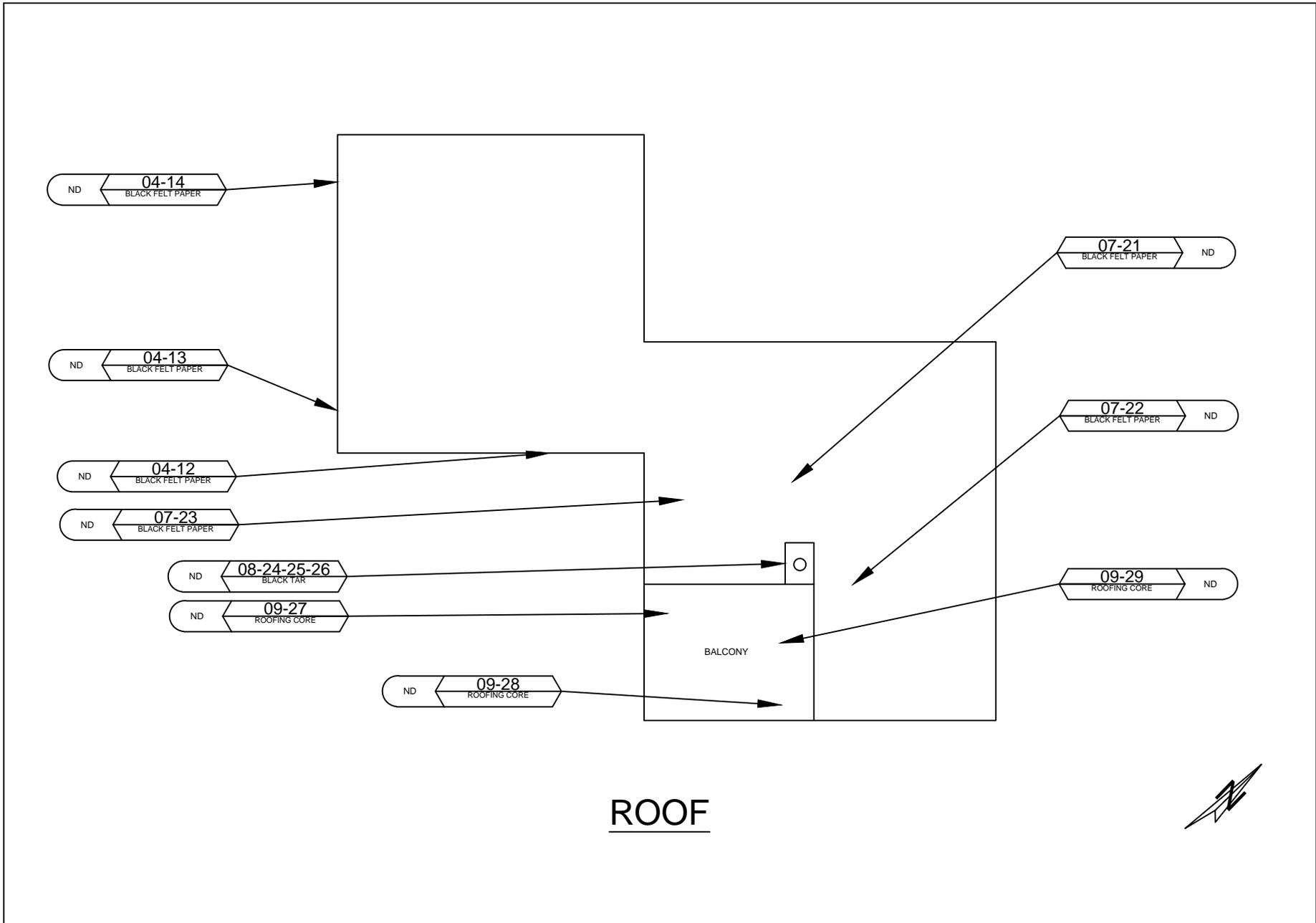
<p>4421 W. Harrison St. Hillside, Illinois 60162 (708) 236-0720</p>	<p>ASBESTOS SAMPLE GROUP</p> <p>01-53AV Floor Tile/Mastic</p> <p>MATERIAL DESCRIPTION</p>	<p>SAMPLE NUMBER</p> <p>N/TR</p>	<p><b>SAMPLE LEGEND</b></p> <p>NA = NOT ANALYZED N or ND = NONE DETECTED P or POS = POSITIVE TR = TRACE * = POINT COUNT ANALYSIS</p>		<p>PARCEL NO. 1MF0127 409 ELM ROAD BARRINGTON, ILLINOIS 60010</p>	<p>DRAWN: SJL</p>	<p>CHECKED: JC</p>	<p>DATE: 4-23-18</p>	<p>FIGURE: 1</p>
					<p>ILLINOIS DEPARTMENT OF TRANSPORTATION 2300 SOUTH DIRKSEN PARKWAY SPRINGFIELD, ILLINOIS 62764</p>	<p>PROJECT NO: 00472669</p>	<p>SCALE: NTS</p>	<p>WO # 627</p>	



**SECOND FLOOR**



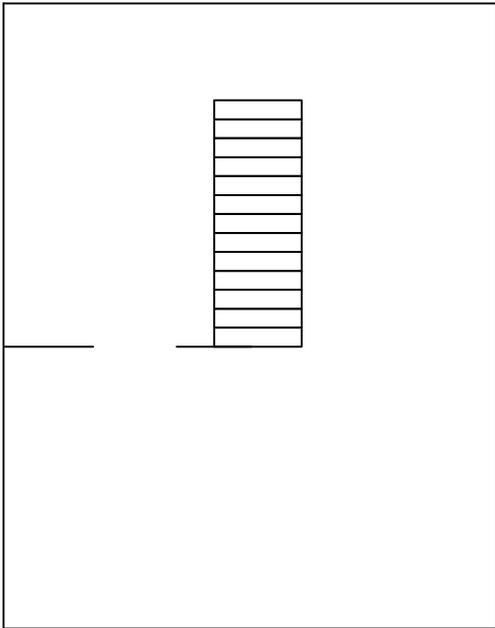
<p>4421 W. Harrison St. Hillside, Illinois 60162 (708) 236-0720</p>	<p>ASBESTOS</p> <p>SAMPLE GROUP</p> <p>01-53AV</p> <p>Floor Tile/Mastic</p> <p>N/TR</p> <p>MATERIAL DESCRIPTION</p> <p>SAMPLE RESULT</p>	<p><b>SAMPLE LEGEND</b></p> <p>NA = NOT ANALYZED</p> <p>N or ND = NONE DETECTED</p> <p>P or POS = POSITIVE</p> <p>TR = TRACE</p> <p>* = POINT COUNT ANALYSIS</p>		<p>PARCEL NO. 1MF0127</p> <p>409 ELM ROAD</p> <p>BARRINGTON, ILLINOIS 60010</p>	<p>DRAWN: SJL</p>	<p>CHECKED: JC</p>	<p>DATE: 4-23-18</p>	<p>FIGURE: 2</p>
				<p>ILLINOIS DEPARTMENT OF TRANSPORTATION</p> <p>2300 SOUTH DIRKSEN PARKWAY</p> <p>SPRINGFIELD, ILLINOIS 62764</p>	<p>PROJECT NO: 00472669</p>	<p>SCALE: NTS</p>	<p>WO # 627</p>	



# ROOF



<p>4421 W. Harrison St. Hillside, Illinois 60162 (708) 236-0720</p>	<p>ASBESTOS</p> <p>SAMPLE GROUP</p> <p>01-53AV</p> <p>Floor Tile/Mastic</p> <p>N/TR</p> <p>MATERIAL DESCRIPTION</p> <p>SAMPLE RESULT</p>	<p><b>SAMPLE LEGEND</b></p> <p>NA = NOT ANALYZED</p> <p>N or ND = NONE DETECTED</p> <p>P or POS = POSITIVE</p> <p>TR = TRACE</p> <p>* = POINT COUNT ANALYSIS</p>		<p>PARCEL NO. 1MF0127</p> <p>409 ELM ROAD</p> <p>BARRINGTON, ILLINOIS 60010</p>	<p>DRAWN: SJL</p>	<p>CHECKED: JC</p>	<p>DATE: 4-23-18</p>	<p>FIGURE:</p>
				<p>ILLINOIS DEPARTMENT OF TRANSPORTATION</p> <p>2300 SOUTH DIRKSEN PARKWAY</p> <p>SPRINGFIELD, ILLINOIS 62764</p>	<p>PROJECT NO: 00472669</p>	<p>SCALE: NTS</p>	<p>WO # 627</p>	<p><b>3</b></p>



NO SUSPECT MATERIAL

BASEMENT



 4421 W. Harrison St. Hillside, Illinois 60162 (708) 236-0720	ASBESTOS SAMPLE GROUP: 01-53AV Material: Floor Tile/Mastic Sample Number: N/TR	<b>SAMPLE LEGEND</b> NA = NOT ANALYZED N or ND = NONE DETECTED P or POS = POSITIVE TR = TRACE * = POINT COUNT ANALYSIS		PARCEL NO. 1MF0127 409 ELM ROAD BARRINGTON, ILLINOIS 60010	DRAWN: SJL CHECKED: JC DATE: 4-23-18	PROJECT NO.: 00472669 SCALE: NTS WO # 627	FIGURE: <b>4</b>
	MATERIAL DESCRIPTION: Floor Tile/Mastic SAMPLE RESULT: N/TR	ILLINOIS DEPARTMENT OF TRANSPORTATION 2300 SOUTH DIRKSEN PARKWAY SPRINGFIELD, ILLINOIS 62764					



**LABORATORY RESULTS  
&  
CHAIN OF CUSTODY  
DOCUMENTATION**

## REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

**TESTED FOR:** PSI, Inc.  
 4421 Harrison St., Ste. 510  
 Hillside, IL 60162  
 Attn: Ron Tulke

**Project ID:** 00472669  
 IDOT  
 WO#627

**Date Received:** 3/29/2018

**Date Completed:** 4/4/2018

**Date Reported:** 4/5/2018

**Analyst:** Preston Hunt

**Work Order:** 1803782

**Page:** 1 of 2

Client ID	Lab ID (Layer)	Sample Description (Color, Texture, Etc.) <i>Analyst's Comment</i>	Asbestos Content (Percent and Type)	Non-asbestos Fibers (Percent and Type)
1-1	001A	(1) Gray, Drywall, Homogeneous (2) White, Joint Compound, Homogeneous	<b>NO ASBESTOS DETECTED</b> < 1% <b>Chrysotile</b>	10% Cellulose Fiber None Reported
1-2	002A	(1) Gray, Drywall, Homogeneous (2) White, Joint Compound, Homogeneous	<b>NO ASBESTOS DETECTED</b> < 1% <b>Chrysotile</b>	10% Cellulose Fiber None Reported
1-3	003A	(1) Gray, Drywall, Homogeneous (2) White, Joint Compound, Homogeneous	<b>NO ASBESTOS DETECTED</b> < 1% <b>Chrysotile</b>	10% Cellulose Fiber None Reported
2-4	004A	(1) Black, Felt, Homogeneous	<b>NO ASBESTOS DETECTED</b>	70% Cellulose Fiber
2-5	005A	(1) Black, Felt, Homogeneous	<b>NO ASBESTOS DETECTED</b>	70% Cellulose Fiber
2-6	006A	(1) Black, Felt, Homogeneous	<b>NO ASBESTOS DETECTED</b>	70% Cellulose Fiber
3-7	007A	(1) White, Plaster, Homogeneous (2) Gray, Plaster, Homogeneous	<b>NO ASBESTOS DETECTED</b> <b>NO ASBESTOS DETECTED</b>	None Reported 2% Hair
3-8	008A	(1) White, Plaster, Homogeneous (2) Gray, Plaster, Homogeneous	<b>NO ASBESTOS DETECTED</b> <b>NO ASBESTOS DETECTED</b>	None Reported 2% Hair
3-9	009A	(1) White, Plaster, Homogeneous (2) Gray, Plaster, Homogeneous	<b>NO ASBESTOS DETECTED</b> <b>NO ASBESTOS DETECTED</b>	None Reported 2% Hair
3-10	010A	(1) White, Plaster, Homogeneous (2) Gray, Plaster, Homogeneous	<b>NO ASBESTOS DETECTED</b> <b>NO ASBESTOS DETECTED</b>	None Reported 2% Hair

Quantitation is based on a visual estimation of the relative area of bulk sample components, unless otherwise noted in the "Comments" section of this report. The results are valid only for the item tested. This report may not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. Method used: E.P.A. Interim Method for the Determination of Asbestos in Bulk Insulation Samples (EPA 600/M4-82-020). Polarized Light Microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative Transmission Electron Microscopy is currently the only method that can be used to determine if the material can be considered or treated as non-asbestos containing. Samples will be disposed of within 30 days unless notified in writing by the client. No part of this report may be reproduced, except in full, without written permission of the laboratory. The reporting limit is 1% by weight. NVLAP Lab Code 101350-0.

Respectfully submitted,  
 PSI, Inc.

  
 Approved Signatory  
 George Skarupa

Client ID	Lab ID (Layer)	Sample Description (Color, Texture, Etc.) <i>Analyst's Comment</i>	Asbestos Content (Percent and Type)	Non-asbestos Fibers (Percent and Type)
3-11	011A	(1) White, Plaster, Homogeneous (2) Gray, Plaster, Homogeneous	NO ASBESTOS DETECTED NO ASBESTOS DETECTED	None Reported 2% Hair
4-12	012A	(1) Black, Felt, Homogeneous	NO ASBESTOS DETECTED	70% Cellulose Fiber
4-13	013A	(1) Black, Felt, Homogeneous	NO ASBESTOS DETECTED	70% Cellulose Fiber
4-14	014A	(1) Black, Felt, Homogeneous	NO ASBESTOS DETECTED	70% Cellulose Fiber
5-15	015A	(1) Beige, Caulking, Homogeneous	3% Chrysotile	None Reported
5-16	016A	Sample Not Tested		
5-17	017A	Sample Not Tested		
6-18	018A	(1) White, Glazing, Homogeneous	NO ASBESTOS DETECTED	None Reported
6-19	019A	(1) White, Glazing, Homogeneous	NO ASBESTOS DETECTED	None Reported
6-20	020A	(1) White, Glazing, Homogeneous	NO ASBESTOS DETECTED	None Reported
7-21	021A	(1) Black, Felt, Homogeneous	NO ASBESTOS DETECTED	70% Cellulose Fiber
7-22	022A	(1) Black, Felt, Homogeneous	NO ASBESTOS DETECTED	70% Cellulose Fiber
7-23	023A	(1) Black, Felt, Homogeneous	NO ASBESTOS DETECTED	70% Cellulose Fiber
8-24	024A	(1) Black, Tar, Homogeneous	NO ASBESTOS DETECTED	None Reported
8-25	025A	(1) Black, Tar, Homogeneous	NO ASBESTOS DETECTED	None Reported
8-26	026A	(1) Black, Tar, Homogeneous	NO ASBESTOS DETECTED	None Reported
9-27	027A	(1) Silver, Roofing, Homogeneous	NO ASBESTOS DETECTED	5% Synthetic Fiber 50% Cellulose Fiber
9-28	028A	(1) Silver, Roofing, Homogeneous	NO ASBESTOS DETECTED	5% Synthetic Fiber 50% Cellulose Fiber
9-29	029A	(1) Silver, Roofing, Homogeneous	NO ASBESTOS DETECTED	5% Synthetic Fiber 50% Cellulose Fiber

**Report Notes: (PT) Point Count Results**

Quantitation is based on a visual estimation of the relative area of bulk sample components, unless otherwise noted in the "Comments" section of this report. The results are valid only for the item tested. This report may not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. Method used: E.P.A. Interim Method for the Determination of Asbestos in Bulk Insulation Samples (EPA 600/M4-82-020). Polarized Light Microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative Transmission Electron Microscopy is currently the only method that can be used to determine if the material can be considered or treated as non-asbestos containing. Samples will be disposed of within 30 days unless notified in writing by the client. No part of this report may be reproduced, except in full, without written permission of the laboratory. The reporting limit is 1% by weight. NVLAP Lab Code 101350-0.

Respectfully submitted,  
PSI, Inc.

  
Approved Signatory  
George Skarupa

**REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS**

**TESTED FOR:** PSI, Inc.  
 4421 Harrison St., Ste. 510  
 Hillside, IL 60162  
 Attn: Ron Tulke

**Project ID:** 00472669  
 IDOT  
 WO#627  
 Original WO#1803782

**Date Received:** 4/16/2018

**Date Completed:** 4/17/2018

**Date Reported:** 4/19/2018

**Analyst:** Dan Anderson

**Work Order:** 1804358

**Page:** 1 of 1

Client ID	Lab ID (Layer)	Sample Description (Color, Texture, Etc.) <i>Analyst's Comment</i>	Asbestos Content (Percent and Type)	Non-asbestos Fibers (Percent and Type)
1-1	001A	(1) White, Joint Compound, Homogeneous	< 1% CHRYBOTILE (PT)	None Reported
1-2	002A	(1) White, Joint Compound, Homogeneous	< 1% CHRYBOTILE (PT)	None Reported
1-3	003A	(1) White, Joint Compound, Homogeneous	< 1% CHRYBOTILE (PT)	None Reported

**Report Notes:** (PT) Point Count Results

Quantitation is based on a visual estimation of the relative area of bulk sample components, unless otherwise noted in the "Comments" section of this report. The results are valid only for the item tested. This report may not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. Method used: E.P.A. Interim Method for the Determination of Asbestos in Bulk Insulation Samples (EPA 600/M4-82-020). Polarized Light Microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative Transmission Electron Microscopy is currently the only method that can be used to determine if the material can be considered or treated as non-asbestos containing. Samples will be disposed of within 30 days unless notified in writing by the client. No part of this report may be reproduced, except in full, without written permission of the laboratory. The reporting limit is 1% by weight. NVLAP Lab Code 101350-0.

Respectfully submitted,  
 PSI, Inc.

*George Skarupa*  
 Approved Signatory  
 George Skarupa





## **INSPECTOR & LABORATORY CERTIFICATIONS**



**ASBESTOS  
PROFESSIONAL  
LICENSE**

ID NUMBER  
100 - 18958

ISSUED  
2/23/2018

EXPIRES  
05/15/2019

**CIARAN P MCGOWAN**  
25W380 ARMBRUST AVE  
WHEATON, IL 60187



Environmental Health

**ENDORSEMENTS**

**TC EXPIRES**

INSPECTOR

1/19/2019

PROJECT MANAGER  
AIR SAMPLING PROFESSIONAL

10/5/2018

**Alteration of this license shall result in legal action**  
This license issued under authority of the State of Illinois  
Department of Public Health  
This license is valid only when accompanied by a valid  
training course certificate.



**EARTHTECH, INC.** • 435 SHADOW WOOD DRIVE, YORKVILLE, IL 60560

## Asbestos Building Inspector Refresher

THIS CERTIFIES THAT  
**Ciaran McGowan**

Has successfully completed the IL Approved Asbestos Training Course and passed the Examination for purposes of accreditation under section 206 of Title II of the Toxic Substances Control Act (TSCA).  
Conducted at Amerisafe 3990 Enterprise Court, Aurora, IL 60554 630-862-2604

CLASS DATES: 1/19/2018

EXAMINATION: 1/19/2018

LOCATION: Amerisafe

EXPIRATION: 1/19/2019

CERTIFICATE NUMBER: 108764X13S102911



**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005**

**PSI**

PSI, Inc.

850 Poplar Street

Pittsburgh, PA 15220

Ms. Catherine McNamee

Phone: 412-922-4010 x286 Fax: 412-922-4014

Email: [cathy.mcnamee@psiusa.com](mailto:cathy.mcnamee@psiusa.com)

<http://www.psiusa.com>

**ASBESTOS FIBER ANALYSIS**

**NVLAP LAB CODE 101350-0**

**Bulk Asbestos Analysis**

**Code**

**Description**

18/A01

EPA -- Appendix E to Subpart E of Part 763 -- Interim Method of the Determination of Asbestos in Bulk Insulation Samples

18/A03

EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

**Airborne Asbestos Analysis**

**Code**

**Description**

18/A02

U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

For the National Voluntary Laboratory Accreditation Program



## ABATEMENT COST ESTIMATE



## ABATEMENT BUDGET ESTIMATE

Provided below is a summary of budget estimates for removal of asbestos containing materials. A detailed table is attached.

- **Estimate for abatement of all asbestos containing material** **\$3,975.00**

Costs for abatement may increase depending on materials that may reside within areas that were inaccessible at the time of this survey.

## ABATEMENT BUDGET ESTIMATE METHODOLOGY

Quantification of suspect asbestos-containing materials was conducted using visual estimation by an IDPH licensed asbestos inspector. This visual estimation was performed in accordance with generally accepted practices in the asbestos industry. These values are sufficiently accurate for the purpose of documenting the presence of asbestos within its space for the purpose of identifying abatement control conditions or for general policy considerations. Actual quantities may differ between visually estimated values and physical measurements. If a licensed asbestos abatement contractor is engaged to remove asbestos containing materials, the abatement contractor is responsible for verifying reported quantities of ACM.

PSI used recognized standard engineering principles in developing the unit cost budgetary estimate for removal of the listed asbestos-containing materials (ACM) and assumed ACM contained in this facility. This is an estimate for removal only, intended for general policy decisions regarding program development and planning. The figures are as of the date of the report and cover only the removal contractor's fees. Not included are items such as indirect or hidden costs, such as employee relocation during the project, lost revenues, etc. These items are considered during the development of an engineering cost estimate, which is beyond the scope of this study. Other variables included in an engineering cost estimate are the project schedule and phasing, size of the project, and other factors that can affect project cost.

Prior to the initiation of a project that would involve abatement, a detailed engineering cost estimate and project design is recommended. The engineering cost estimate will incorporate such variables as scheduling and phasing of the project, the size and extent of the project, seasonal factors, operational factors and other restrictions, respiratory protection, alternate abatement options, and type of replacement material. An engineering cost estimate would also include professional fees, such as for project design and management, and other expenses, such as on-site air monitoring and construction supervision.



## **ABATEMENT COST SCHEDULE**

Material Description - Description of the homogenous asbestos-containing material.

Quantity - This indicates the quantity of material present, expressed in appropriate units. Quantities have been determined by on-site measurement or plan take-offs. Where access is restricted, best estimates were determined from whatever information was available.

Unit Cost - The cost of removal per linear foot or square foot or other unit.

Removal Cost - (Quantity) x (Unit Cost)



## ABATEMENT COST SCHEDULE FOR ASBESTOS CONTAINING MATERIALS

Parcel No. 1MF0127  
Single Family Residence  
409 Elm Road  
Barrington, Illinois 60010

The following costs are an estimate only for the removal of asbestos-containing materials. Please refer to Removal Budget Estimate Methodology for clarification.

Asbestos-Containing Materials	Quantity	Unit Cost	Removal Cost
Beige Caulk	550 LF	\$4.50	\$2,475.00
Contractor mobilization	1	\$750.00	\$750.00
Subtotal			\$3,225.00
Consultant Fee			\$750.00
<b>Total:</b>	----	----	<b>\$3,975.00</b>