

# Limited Hazardous Materials Survey Report

Carlyon House (formerly Shumaker Building)  
1417 Columbia St. SW  
Olympia, WA 98501  
State of Washington Project No. 2021-244

Prepared for:  
State of Washington  
Department of Enterprise Services (DES)  
Engineering & Architectural Services (E&AS)  
P.O. Box 41476  
Olympia, WA 98504

**REVISED** July 29, 2021  
PBS Project No. 40535.494



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## 1 INTRODUCTION

### 1.1 Project Background

PBS Engineering and Environmental, Inc. (PBS) performed a limited hazardous materials survey of the Carlyon House (formerly Shumaker Building) located at 1417 Columbia Street SW in Olympia, Washington. The intent of this investigation is to ensure that the State of Washington is in compliance with applicable regulatory requirements that a "good faith inspection" for ACMs be performed prior to renovation or demolition activities.

At the request of DES E&AS, all accessible areas of the building were inspected for the presence of Asbestos-Containing Materials (ACMs), Lead Containing Paint (LCP), polychlorinated biphenyls (PCBs) and mercury-containing components.

The Carlyon House consists of a two-story wood-framed former residential structure with a concrete basement foundation, currently used as office space. Interior finishes generally consist of carpet over hardwood floors in most rooms and hallways, with sheet flooring at entries and ceramic tile in restrooms. Walls consist of both plaster/lath and gypsum wallboard, with cellulose fiberboard substrates in various locations. A distinct skimcoat exists on walls in the west central room north of the restrooms. Ceilings have been retrofitted with textured gypsum wallboard in most spaces on the main level. The upper level has been stripped to wood components except for one room at the east side. Exterior siding and windows are wood, and roofing consists of composition shingles.

PBS previously inspected the Shumaker House in 1994 for the presence of accessible OSHA target ACMs. Pertinent information has been incorporated into this investigation.

### 1.2 Survey Process

Accessible areas included in the project scope were inspected by AHERA Certified Building Inspector Cel Alvarez (Cert. No. 176590 Exp. 1/22/2021) and Martin Estira (Cert. No. 175867 Exp. 12/4/2020) on April 9, 2020. PBS endeavored to inspect all accessible areas within the scope of work. Inaccessible areas consist of those requiring selective demolition, fall protection, or confined space entry protocols in order to gain access.

When observed, suspect materials were sampled, or presumed to contain asbestos. Fifty-four (54) bulk samples were collected of suspect asbestos-containing materials as part of this investigation. All samples were assigned a unique identification number and transmitted for analysis to Seattle Asbestos Test (NVLAP #201057-0) under chain-of-custody protocols. Samples were analyzed according to EPA Method 600R-93/116 using Polarized Light Microscopy (PLM), which has a reliable limit of quantification of 1% asbestos by volume. Information regarding the type and location of sampled materials can be found on the attached PLM Sample Inventory.

Suspect ACMs may exist in inaccessible areas of the building. PBS endeavored to determine the presence and estimate the condition of suspect materials in all accessible areas. While PBS has endeavored to identify the ACM that may be found in concealed locations, additional unidentified ACM may exist.

## 2 FINDINGS

### 2.1 Asbestos-Containing Materials (ACMs)

The following materials were found to contain **greater than 1% asbestos**:

- Skimcoat on walls, and on ceiling concealed by replacement gypsum wallboard – West central room north of restrooms, approx. 650 SF;
- Insulating Packing – Boiler Unit Doors - approx. 6 SF
- Sheet Floor Covering – Kitchen Counter (previous data) – approx. 15 SF;
- Window Putty – Throughout Exterior – approx. 30 ea. of various size, +/-450 LF (previous data);

Sampling of window putty at the North restroom in 1995 detected 2% asbestos. Confirmation sampling performed as part of this investigation did not detect asbestos in three samples of window putty. Based on the inherent variability in window putty applications all window putty is considered asbestos-containing pending further testing to determine if portions of the material are non-asbestos.

The following materials were sampled as part of this investigation and found to contain no asbestos:

- Carpet Mastic – various locations throughout;
- 12" Glued-on Ceiling Tile/Mastic – various locations throughout;
- Window Putty – Throughout (Excluding Basement);
- Yellow Ceramic Tile/Mortar – Kitchen;
- Pink Ceramic Tile/Mortar – Restrooms;
- Gypsum Wallboard/Joint Compound – various locations throughout
- Wall Plaster – various locations throughout;
- Ceiling Plaster/fiberboard – various locations throughout.

The following materials were sampled as part of PBS' previous investigation and found to contain no asbestos:

- Wall Plaster – various locations throughout;
- Sheet Floor Covering – First Floor West Hallway;
- Gypsum Wallboard/Joint Compound – various locations throughout;
- Gray Flue Cement – North Basement;
- White Flue Cement – South Basement;
- Window Putty – Basement North;

Refer to Appendix A for a complete listing of current PLM bulk sampling and associated laboratory analysis.

## 2.2 Lead-Containing Paint (LCP)

Five (5) representative painted coatings were sampled for lead content during this survey. The samples were assigned a unique identification number and transmitted to NVL Laboratories (AIHA IH #101861) in Seattle, Washington under chain-of-custody protocols for analysis using Flame Atomic Absorption.

Lead was detected in four (4) of the samples collected:

- Gray paint on west entry door frame – 13.0%.
- White paint on interior wood window frame – 0.064%
- Off-white paint on exterior wood siding – 1.50%
- White wood on exterior wood window frame – 6.90%

For a complete listing of representative bulk sampling and associated laboratory analysis, refer to Appendix B.

## 2.3 Mercury-Containing Components

All fluorescent light tubes are presumed to contain mercury. Approximately forty (40) four-foot fluorescent lamps and five (5) compact fluorescent light bulbs were observed during our investigation. Caution should be exercised during demolition to not break these lamps/bulbs.

## 2.4 PCB-Containing Components

PBS inspected representative fluorescent light fixture ballasts that are to be removed to facilitate the planned demolition. Fluorescent light fixtures throughout the building were inspected and found to contain electronic ballasts. Electronic ballasts do not contain PCB-laden oil.

### 3 RECOMMENDATIONS

#### 3.1 ACMs

Prior to impact by renovation or demolition, all ACMs should be removed and properly disposed of by a qualified State of Washington licensed asbestos abatement contractor in accordance with all applicable local, state and federal regulations. Any ACMs that may be impacted by demolition activities should only be impacted by properly trained and protected personnel using appropriate work practices.

The possibility exists that suspect ACM may be present in equipment, wall, and ceiling cavities, and in select areas included in the scope of renovations. These may include, but are not limited to pipe insulation, below slab components vapor barriers, and construction adhesives and wall mastics. In the event that suspect ACM is uncovered during demolition, contractors should stop work immediately and inform the owner promptly for confirmation testing. All untested materials should be presumed asbestos-containing or tested for asbestos content prior to impact.

#### 3.2 LCP

Representative paint coatings were found to contain detectable lead. Paint coatings may exist in inaccessible areas of the building or in secondary coatings on building components. Any previously unidentified painted coatings should be considered lead containing until sampled and proven otherwise.

Impact of paint with detectable concentrations of lead requires construction activities to be performed in accordance with the State of Washington Department of Labor and Industries regulation for Lead in Construction (WAC 296-155-176).

#### 3.3 Mercury-Containing Components

All fluorescent lamps and CFL bulbs at this site are presumed to be mercury-containing. PBS recommends that all fluorescent lamps be carefully handled and recycled/disposed of in accordance with the contract documents and applicable regulations during demolition activities. Breakage of lamps should be avoided to prevent potential exposures to mercury. Washington Department of Safety and Health requires specific training, handling, engineering controls and disposal practices when performing this work. All waste shall be handled in accordance with WAC 173-303.

#### 3.4 PCB-Containing Components

PBS recommends all light ballasts be inspected prior to disposal. Magnetic ballasts should be presumed to contain PCBs and properly removed, stored, transported and disposed of in accordance with Washington Administrative Code (WAC) 173-303 Dangerous Waste Regulations and 40 CFR Part 761 Subpart D. Electronic ballasts do not contain PCBs and can be disposed of as general debris in compliance with applicable codes and endpoint facility requirements.

Report prepared by:

Report reviewed by:

Ferman Fletcher  
AHERA Building Inspector  
Cert. #IR-21\_8539B Exp. 4/01/2022

Tim Ogden  
Principal/ Sr. Project Manager,  
AHERA Building Inspector  
Cert. #IR-21-2008A, exp. 4/01/2022

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## **APPENDIX A**

### **PLM Asbestos Bulk Sampling Information**

PLM Asbestos Bulk Sample Inventory

PLM Asbestos Bulk Sample Laboratory Data Sheets

Chain of Custody

Historical Asbestos Survey Information - PBS, April 1995

**PLM ASBESTOS SAMPLE INVENTORY**

<u>PBS Sample #</u>	<u>Material Type</u>	<u>Sample Location</u>	<u>Lab Description</u>	<u>Lab Result</u>	<u>Lab</u>
40535.494 -C01	Firebrick	Basement; Boiler box	Layer 1: Red/tan sandy/brittle material	NAD	SAT
40535.494 -C02	Firebrick	Basement; Boiler box	Layer 1: Red sandy/brittle material	NAD	SAT
40535.494 -C03	Firebrick	Basement; Boiler box	Layer 1: Red sandy/brittle material	NAD	SAT
40535.494 -C04	Packing	Basement; Boiler door	Layer 1: Tan brittle material	5% Chrysotile	SAT
40535.494 -C05	Packing	Basement; Boiler door	Layer 1: Tan brittle material	7% Chrysotile	SAT
40535.494 -C06	Packing	Basement; Boiler door	Layer 1: Tan brittle material	7% Chrysotile	SAT
40535.494 -C07	Wall texture	1st Floor; West central room; Southwest corner	Layer 1: White powdery material with paint	2% Chrysotile	SAT
40535.494 -C08	Wall texture	1st Floor; West central room; North wall	Layer 1: White powdery material with paint and paper	2% Chrysotile	SAT
40535.494 -C09	Wall texture	1st Floor; West central room; Southeast corner	Layer 1: White powdery material with paint and paper Layer 2: Gray sandy/brittle material	2% Chrysotile NAD	SAT
40535.494 -C10	Ceramic floor tile Mortar	1st floor; North bathroom	Layer 1: Blue ceramic Layer 2: Gray sandy/brittle material Layer 3: Off-white/yellow mastic	NAD NAD NAD	SAT
40535.494 -C11	Window putty	Basement; West elevation, South-most window	Layer 1: White soft material with paint Layer 2: Tan brittle material	NAD NAD	SAT
40535.494 -C12	Window putty	1st Floor; South elevation, 2nd window from East end	Layer 1: Gray brittle material with paint	NAD	SAT
40535.494 -C13	Window putty	1st Floor; West elevation 2nd window from North end	Layer 1: Off-white/beige brittle material with paint	NAD	SAT
40535.494 -C14	Orange peel texture on ceiling plaster	1st Floor; West central room	Layer 1: White powdery material with paint and paper Layer 2: Gray sandy/brittle material	3% Chrysotile NAD	SAT

<u>PBS Sample #</u>	<u>Material Type</u>	<u>Sample Location</u>	<u>Lab Description</u>	<u>Lab Result</u>	<u>Lab</u>
40535.494 -C15	Orange peel texture on ceiling plaster	1st Floor kitchen	Layer 1: Trace white powdery material with paint Layer 2: White brittle material with paint Layer 3: Gray sandy/brittle material	NAD NAD NAD	SAT
40535.494 -C16	Orange peel texture on ceiling plaster	1st Floor; Northwest room, Northwest corner	Layer 1: Trace white powdery material with paint Layer 2: Yellow mastic Layer 3: White brittle material with paint Layer 4: Gray sandy/brittle material	NAD NAD NAD NAD	SAT
40535.494 -C17	Orange peel texture on ceiling plaster	1st Floor; North entry hallway, Northeast corner	Layer 1: Trace white powdery material with paint Layer 2: Yellow mastic Layer 3: Gray sandy/brittle material	NAD NAD NAD	SAT
40535.494 -C18	Orange peel texture on ceiling plaster	1st Floor; Southeast corner office	Layer 1: White powdery material with paint Layer 2: Yellow woven fibrous material Layer 3: White chalky material with paper	NAD NAD NAD	SAT
40535.494 -C19	Shingles and felt paper	South roof area	Layer 1: Black asphaltic material with sand Layer 2: Black asphaltic fibrous material	NAD NAD	SAT
40535.494 -C20	Shingles and felt paper	North roof area	Layer 1: Black asphaltic material with sand Layer 2: Black asphaltic material with sand Layer 3: Black asphaltic fibrous material	NAD NAD NAD	SAT



## SEATTLE ASBESTOS TEST, LLC

Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

[www.seattleasbestostest.com](http://www.seattleasbestostest.com), [admin@seattleasbestostest.com](mailto:admin@seattleasbestostest.com)

Project Manager:	Mr. Ferman Fletcher, Ms. Michelle Dodson, Mr. Tim Ogden	Date Analyzed:	6/30/2021
Client:	PBS Engineering and Environmental, Seattle	Client Job#:	40535.494
Address:	214 E Galer Street, Suite 300, Seattle, WA 98102	Project Location:	Carlyon House
Tel:	206.233.9639	Laboratory batch#:	202110564
Date Report Issued:	6/30/2021	Samples Received:	18

Enclosed please find the test results for the bulk samples submitted to our laboratory for asbestos analysis. Analysis was performed using polarized light microscopy (PLM) in accordance with Test Method US EPA - 40 CFR Appendix E of Part 763, Interim Method of Determination of Asbestos in Bulk Insulation Samples and Test Method US EPA/600/R-93/116.

Percentages for this report are done by visual estimate and relate to the suggested acceptable error ranges by the method. Since variation in data increases as the quantity of asbestos decreases toward the limit of detection, the EPA recommends point counting for samples containing between <1% and 10% asbestos (NESHAP, 40 CFR Part 61). Statistically, point counting is a more accurate method. If you feel a point count might be beneficial, please feel free to call and request one.

The test results refer only to the samples or items submitted and tested. The accuracy with which these samples represent the actual materials is totally dependent on the acuity of the person who took the samples. This report must not be used by the client to claim product certification, approval, or endorsement by Seattle Asbestos Test, LLC, NVLAP, NIST, or any agency of the Federal government. The test report or calibration certificate shall not be reproduced except in full, without written approval of the laboratory. If the sample is inhomogeneous the sub-samples of the components are analyzed separately as layers. This report in its entirety consists of this cover letter, the customer sampling COC or data sheet, and the analytical report which is page numbered.

This report is highly confidential and will not be released without your consent. Samples are archived for 30 days after the analysis, and disposed of as hazardous waste thereafter.

Thank you for using our service and let us know if we can further assist you.

Sincerely



Steve (Fanyao) Zhang  
Approved Signatory

202110564

Project: Carlyon HouseProject #: 40535.494Analysis requested: PLMDate: 6/29/21Relinqu'd by/Signature: Date/Time: 6/29/21Received by/Signature: Carolyn Yea Date/Time: 6/29/21 16:31

## E-mail results to:

- Brian Stanford  
 Willem Mager  
 Gregg Middaugh  
 Mark Hiley  
 Tim Ogden  
 Prudy Stoudt-McRae

- Cel Alvarez  
 Janet Murphy  
 Kaitlin Soukup  
 Martin Estira  
 Justin Day  
 Michelle Dodson

- Mike Smith  
 Ferman Fletcher  
 Holly Tuttle  
 Ryan Hunter  
 Eman Jabali

E-mail all invoices to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

## TURN AROUND TIME:

- 1 Hour  
 2 Hours  
 4 Hours

- 24 Hours  
 48 Hours

- 3-5 Days  
 Other \_\_\_\_\_

## SAMPLE DATA FORM

Sample #	Material	Location	Lab
40535.494-C01	Firebrick	Basement; Boiler Box	SAT
-C02	"	Basement; Boiler Box	
-C03	"	Basement; Boiler Box	
-C04	Packing	Basement; Boiler Door	
-C05	"	Basement; Boiler Door	
-C06	"	Basement; Boiler Door	
-C07	Wall Texture	1 <sup>st</sup> Floor; W. Central Room; SW corner	
-C08	"	1 <sup>st</sup> Floor; W. Central Room; N. Wall	
-C09	"	1 <sup>st</sup> Floor; W. Central Room; SE corner	
C10	Ceramic Floor Tile/Mortar	1 <sup>st</sup> Floor; N. Bathroom	
-C11	Window Putty	Basement; W. Elevation, S. most window	
-C12	"	1 <sup>st</sup> Floor; S. Elevation, 2 <sup>nd</sup> Window from E. end	
-C13	Window Putty	1 <sup>st</sup> Floor; W. elevation 2 <sup>nd</sup> Window from N. End	
-C14	Orange Peel Texture on Ceiling Plaster	1 <sup>st</sup> Floor; W. Central Room	
-C15	"	1 <sup>st</sup> Floor. Kitchen	
-C16	"	1 <sup>st</sup> Floor; NW Room, NW corner	
-C17	"	1 <sup>st</sup> Floor; N entry hallway, NE corner	
-C18	"	1 <sup>st</sup> Floor; SE Corner Office	

# SEATTLE ASBESTOS TEST

Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

Disclaimer: This report must not be used by the client to claim product certification, approval, or endorsement by Seattle Asbestos Test, LLC, NVLAP, NIST, or any agency of the Federal government.

## ANALYTICAL LABORATORY REPORT

[PLM] EPA – 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples; EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

[PLM]

Mr. Ferman  
Fletcher, Ms.  
Michelle Dodson,  
Mr. Tim Ogden

Client: PBS Engineering and  
Environmental, Seattle

Address: 214 E Galer Street, Suite 300, Seattle, WA 98102

Job#: 40535.494

Batch#: 202110564

Date Received: 6/29/2021

Samples Rec'd: 18

Date Analyzed: 6/30/2021

Samples Analyzed: 18

Project Loc.: Carlyon House

Analyzed by:   
Carolyn Yoo

Approved Signatory:   
Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
1	40535.494-C01	1	Red/tan sandy/brittle material		None detected	Sand, Filler, Binder	2	Cellulose
2	40535.494-C02	1	Red sandy/brittle material		None detected	Sand, Filler, Binder	3	Cellulose
3	40535.494-C03	1	Red sandy/brittle material		None detected	Sand, Filler, Binder	3	Cellulose
4	40535.494-C04	1	Tan brittle material	5	Chrysotile	Binder, Filler	2	Cellulose
5	40535.494-C05	1	Tan brittle material	7	Chrysotile	Binder, Filler	3	Cellulose
6	40535.494-C06	1	Tan brittle material	7	Chrysotile	Binder, Filler	2	Cellulose
7	40535.494-C07	1	White powdery material with paint	2	Chrysotile	Binder, Filler, Paint	2	Cellulose
8	40535.494-C08	1	White powdery material with paint and paper	2	Chrysotile	Binder, Filler, Paint	24	Cellulose
9	40535.494-C09	1	White powdery material with paint and paper	2	Chrysotile	Binder, Filler, Paint	21	Cellulose
		2	Gray sandy/brittle material		None detected	Sand, Filler, Binder	2	Cellulose
10	40535.494-C10	1	Blue ceramic		None detected	Ceramic/binder		None detected
		2	Gray sandy/brittle material		None detected	Sand, Filler, Binder	3	Cellulose
		3	Off-white/yellow mastic		None detected	Mastic/binder	2	Cellulose
11	40535.494-C11	1	White soft material with paint		None detected	Binder, Filler, Paint	2	Cellulose
		2	Tan brittle material		None detected	Binder, Filler	3	Cellulose
12	40535.494-C12	1	Gray brittle material with paint		None detected	Binder, Filler, Paint	3	Cellulose
13	40535.494-C13	1	Off-white/beige brittle material with paint		None detected	Binder, Filler, Paint	2	Cellulose
14	40535.494-C14	1	White powdery material with paint and paper	3	Chrysotile	Binder, Filler, Paint	25	Cellulose
		2	Gray sandy/brittle material		None detected	Sand, Filler, Binder	3	Cellulose
15	40535.494-C15	1	Trace white powdery material with paint		None detected	Binder, Filler, paint	2	Cellulose
		2	White brittle material with paint		None detected	Binder, Filler, Paint	2	Cellulose
		3	Gray sandy/brittle material		None detected	Sand, Filler, Binder	3	Cellulose

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## ANALYTICAL LABORATORY REPORT

[PLM] EPA – 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples; EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

[PLM]

Mr. Ferman  
Fletcher, Ms.  
Michelle Dodson,  
Mr. Tim Ogden

Client: PBS Engineering and  
Environmental, Seattle

Address: 214 E Galer Street, Suite 300, Seattle, WA 98102

Job#: 40535.494

Batch#: 202110564

Date Received: 6/29/2021

Samples Rec'd: 18

Date Analyzed: 6/30/2021

Samples Analyzed: 18

Project Loc.: Carlyon House

Analyzed by:   
Carolyn Yoo

Approved Signatory:   
Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
16	40535.494-C16	1	Trace white powdery material with paint		None detected	Binder, Filler, paint	3	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	3	Cellulose
		3	White brittle material with paint		None detected	Binder, Filler, Paint	2	Cellulose
		4	Gray sandy/brittle material		None detected	Sand, Filler, Binder	2	Cellulose
17	40535.494-C17	1	Trace white powdery material with paint		None detected	Binder, Filler, paint	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	3	Cellulose
		3	Gray sandy/brittle material		None detected	Sand, Filler, Binder	2	Cellulose
18	40535.494-C18	1	White powdery material with paint		None detected	Binder, Filler, Paint	3	Cellulose
		2	Yellow woven fibrous material		None detected	Filler	90	Glass fibers
		3	White chalky material with paper		None detected	Binder/filler, Gypsum/binder	27	Cellulose

## SEATTLE ASBESTOS TEST, LLC

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[www.seattleasbestostest.com](http://www.seattleasbestostest.com), [admin@seattleasbestostest.com](mailto:admin@seattleasbestostest.com)

Project Manager:	Mr. Tim Ogden, Mr. Ryan Hunter, Ms. Michelle Dodson	Date Analyzed:	7/26/2021
Client:	PBS Engineering and Environmental, Seattle	Client Job#:	40535.494
Address:	214 E Galer Street, Suite 300, Seattle, WA 98102	Project Location:	Carl Yon House
Tel:	206.233.9639	Laboratory batch#:	202110781
Date Report Issued:	7/26/2021	Samples Received:	2

Enclosed please find the test results for the bulk samples submitted to our laboratory for asbestos analysis. Analysis was performed using polarized light microscopy (PLM) in accordance with Test Method US EPA - 40 CFR Appendix E of Part 763, Interim Method of Determination of Asbestos in Bulk Insulation Samples and Test Method US EPA/600/R-93/116.

Percentages for this report are done by visual estimate and relate to the suggested acceptable error ranges by the method. Since variation in data increases as the quantity of asbestos decreases toward the limit of detection, the EPA recommends point counting for samples containing between <1% and 10% asbestos (NESHAP, 40 CFR Part 61). Statistically, point counting is a more accurate method. If you feel a point count might be beneficial, please feel free to call and request one.

The test results refer only to the samples or items submitted and tested. The accuracy with which these samples represent the actual materials is totally dependent on the acuity of the person who took the samples. This report must not be used by the client to claim product certification, approval, or endorsement by Seattle Asbestos Test, LLC, NVLAP, NIST, or any agency of the Federal government. The test report or calibration certificate shall not be reproduced except in full, without written approval of the laboratory. If the sample is inhomogeneous the sub-samples of the components are analyzed separately as layers. This report in its entirety consists of this cover letter, the customer sampling COC or data sheet, and the analytical report which is page numbered.

This report is highly confidential and will not be released without your consent. Samples are archived for 30 days after the analysis, and disposed of as hazardous waste thereafter.

Thank you for using our service and let us know if we can further assist you.

Sincerely



Steve (Fanyao) Zhang  
Approved Signatory



# SEATTLE ASBESTOS TEST

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## ANALYTICAL LABORATORY REPORT

[PLM] EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples; EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

[PLM]

Mr. Tim Ogden, Mr.  
Attn.: Ryan Hunter, Ms.  
Michelle Dodson  
Job#: 40535.494

Client: PBS Engineering and  
Environmental, Seattle

Address: 214 E Galer Street, Suite 300, Seattle, WA 98102

Batch#: 202110781

Date Received: 7/23/2021

Samples Rec'd: 2

Date Analyzed: 7/26/2021

Samples Analyzed: 2

Project Loc.: Carl Yon House

Analyzed by:   
Carolyn Yeo

Approved Signatory:   
Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
1	C19	1	Black asphaltic material with sand		None detected	Asphalt/binder, Sand	25	Glass fibers
		2	Black asphaltic fibrous material		None detected	Asphalt/binder, Filler	68	Cellulose
2	C20	1	Black asphaltic material with sand		None detected	Asphalt/binder, Sand	23	Glass fibers
		2	Black asphaltic material with sand		None detected	Asphalt/binder, Sand	20	Glass fibers
		3	Black asphaltic fibrous material		None detected	Asphalt/binder, Filler	65	Cellulose

**SEATTLE ASBESTOS TEST**

NVLAP Accreditation Lab Codes: 200768 and 201057

19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel:425.673.9850, Fax:425.673.9810  
4500 9th Ave., NE, Suite 300, Seattle, WA 98105  
Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

**PLM by Point Count (400 points)**

Attention: Mr. Ferman Fletcher, Ms. Michelle Dodson, Mr. Tim Ogden  
Client: PBS Engineering and Environmental, Seattle  
Address: 214 E Galer Street, Suite 300, Seattle, WA 98102

Client Job #: 40535.494  
Laboratory Batch #: 202110604  
Date Received: 7/2/2021  
Samples Received: 4  
Date Analyzed: 7/6/2021

Project: Carlyon House

Sample Requested for Point Count 40535.494-C07

Previous Analytical Information

Previously Analyzed by: Carolyn Yeo  
Previous Batch #: 202110564  
Previous Lab ID: 7  
Previous Description: White powdery material with paint  
Layer to be Point Counted: 1  
Asbestos Type Found: Chrysotile  
Asbestos Percentage Found: 2

Point Count Analytical Procedures

New Lab ID: 1

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	1	49	50
Slide 2	1	49	50
Slide 3	0	50	50
Slide 4	1	49	50
Slide 5	0	50	50
Slide 6	0	50	50
Slide 7	1	49	50
Slide 8	1	49	50
<b>Total</b>	<b>5</b>	<b>395</b>	<b>400</b>

Point Count Summary Results

Type of Asbestos: Chrysotile  
Percentage of Asbestos: 1.25%

Analyzed By: Carolyn Yeo



Reviewed by: Steve Zhang, President



**SEATTLE ASBESTOS TEST**

NVLAP Accreditation Lab Codes: 200768 and 201057

19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel:425.673.9850, Fax:425.673.9810  
4500 9th Ave., NE, Suite 300, Seattle, WA 98105  
Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

**PLM by Point Count (400 points)**

Attention: Mr. Ferman Fletcher, Ms. Michelle Dodson, Mr. Tim Ogden	Client Job #: 40535.494
Client: PBS Engineering and Environmental, Seattle	Laboratory Batch #: 202110604
Address: 214 E Galer Street, Suite 300, Seattle, WA 98102	Date Received: 7/2/2021
	Samples Received: 4
	Date Analyzed: 7/6/2021

Project: Carlyon House

Sample Requested for Point Count 40535.494-C14

Previous Analytical Information

Previously Analyzed by: Carolyn Yeo  
 Previous Batch #: 202110564  
 Previous Lab ID: 14  
 Previous Description: White powdery material with paint and paper  
 Layer to be Point Counted: 1  
 Asbestos Type Found: Chrysotile  
 Asbestos Percentage Found: 3

Point Count Analytical Procedures

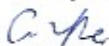
New Lab ID: 2

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	1	49	50
Slide 2	1	49	50
Slide 3	1	49	50
Slide 4	0	50	50
Slide 5	1	49	50
Slide 6	0	50	50
Slide 7	1	49	50
Slide 8	0	50	50
<b>Total</b>	<b>5</b>	<b>395</b>	<b>400</b>

Point Count Summary Results

Type of Asbestos: Chrysotile  
 Percentage of Asbestos: 1.25%

Analyzed By: Carolyn Yeo



Reviewed by: Steve Zhang, President

<b>CODE</b>	<b>MATERIAL / LOCATION</b>	<b>ANALYSIS / LAB</b>
7045.20-001	Gypsum/Joint Compound First floor north end	<b>NAD</b> (All layers) <b>PBS</b>
7045.20-002	Gypsum/Joint Compound First floor north end at door frame	<b>NAD</b> <b>PBS</b>
7045.20-003	Vinyl Floor Tile (1)/Mastic 12" x 12" white/yellow mastic 1st floor south	<b>NAD</b> <b>PBS</b>
7045.20-004	Sheet Floor Covering (1) Asphaltic - 1st floor south at entry	<b>NAD</b> <b>PBS</b>
7045.20-005	Sheet Floor Covering (2) Pink - Kitchen Counter	<b>NAD</b> (Pink sheet vinyl) <b>75% Chrysotile</b> (Gray felt backing) <b>PBS</b>
7045.20-006	Grout/Felt Kitchen ceramic tile counter	<b>NAD</b> (All layers) <b>PBS</b>
7045.20-007	Window Putty Glazing putty - north restroom	<b>2% Chrysotile</b> (gray) <b>PBS</b>
7045.20-008	Wall and Ceiling Plaster Southeast corner ceiling - 1st floor	<b>NAD</b> <b>PBS</b>
7045.20-009	Wall and Ceiling Plaster Basement stairwell	<b>NAD</b> <b>PBS</b>
7045.20-010	Wall and Ceiling Plaster Basement stairwell	<b>NAD</b> <b>R.J. Lee Group</b>

\***NAD** = No Asbestos Detected

\*Samples will be disposed of after 3/30/95 unless Owner notifies PBS.

**PBS ENVIRONMENTAL**  
1220 S.W. MORRISON STREET  
PORTLAND, OREGON 97205  
(503) 248-1939

**BULK SAMPLE ASBESTOS ANALYSIS**

Client: Washington Department of General Ser Report Date: 2/08/95  
1058 Capitol Way Date Received: 2/08/95  
Olympia, WA 98504 Client Project ID: N/A  
PBS Project No.: 7045.20  
Page No.: 1 of 5

Client Sample ID : 7045.20-001  
PBS Lab ID: 95-00-467

	<u>LAYER 1</u>	<u>LAYER 2</u>
Percent of Sample:	70%	30%
<u>Asbestiform Mineral Fibers</u>		
Total % Asbestos Fibers:	NAD	NAD
<u>Other Fibers</u>		
Cellulose	10%	75%

**NO ASBESTOS DETECTED**

COMMENTS: Layer 1: White friable, Layer 2: Beige/white paper.  
Sample ashed.

Client Sample ID : 7045.20-002  
PBS Lab ID: 95-00-468

Percent of Sample:	100%
<u>Asbestiform Mineral Fibers</u>	
Total % Asbestos Fibers:	NAD
<u>Other Fibers</u>	
None Detected	

**NO ASBESTOS DETECTED**

COMMENTS: Friable, White.

BULK SAMPLE ASBESTOS ANALYSIS

---

Client: Washington Department of General Ser Report Date: 2/08/95  
1058 Capitol Way Date Received: 2/08/95  
Olympia, WA 98504 Client Project ID: N/A  
PBS Project No.: 7045.20  
Page No.: 2 of 5

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Client Sample ID : 7045.20-003  
PBS Lab ID: 95-00-469

Percent of Sample: 100%

Asbestiform Mineral Fibers

Total % Asbestos Fibers: NAD

Other Fibers

None Detected

NO ASBESTOS DETECTED

COMMENTS: Tile, Mottled-beige.

---

Client Sample ID : 7045.20-004  
PBS Lab ID: 95-00-470

Percent of Sample: 100%

Asbestiform Mineral Fibers

Total % Asbestos Fibers: NAD

Other Fibers

Cellulose 55%

NO ASBESTOS DETECTED

COMMENTS: Tar paper, Black. Sample ashed.

---

**BULK SAMPLE ASBESTOS ANALYSIS**

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**Client:** Washington Department of General Ser Report Date: 2/08/95  
1058 Capitol Way Date Received: 2/08/95  
Olympia, WA 98504 Client Project ID: N/A  
PBS Project No.: 7045.20  
Page No.: 3 of 5

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**Client Sample ID : 7045.20-005**  
PBS Lab ID: 95-00-471

	<u>LAYER 1</u>	<u>LAYER 2</u>
Percent of Sample:	45%	55%
<u>Asbestiform Mineral Fibers</u>		
Chrysotile	-	75%
<b>Total % Asbestos Fibers:</b>	<b>NAD</b>	<b>75%</b>
<u>Other Fibers</u>		
Cellulose	-	15%

**COMBINED TOTAL % ASBESTOS: 42%**

**COMMENTS:** Layer 1: Pink sheet vinyl, Layer 2: Gray felt backing.

---

**Client Sample ID : 7045.20-006**  
PBS Lab ID: 95-00-472

	<u>LAYER 1</u>	<u>LAYER 2</u>
Percent of Sample:	50%	50%
<u>Asbestiform Mineral Fibers</u>		
<b>Total % Asbestos Fibers:</b>	<b>NAD</b>	<b>NAD</b>
<u>Other Fibers</u>		
Cellulose	1%	60%

**NO ASBESTOS DETECTED**

**COMMENTS:** Layer 1: Gray cementitious, Layer 2: Brown/black tar paper.  
Sample ashed.

---

**BULK SAMPLE ASBESTOS ANALYSIS**

---

**Client:** Washington Department of General Ser Report Date: 2/08/95  
1058 Capitol Way Date Received: 2/08/95  
Olympia, WA 98504 Client Project ID: N/A  
PBS Project No.: 7045.20  
Page No.: 4 of 5

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**Client Sample ID : 7045.20-007**

PBS Lab ID: 95-00-473

Percent of Sample: 100%

Asbestiform Mineral Fibers

Chrysotile 2%

Total % Asbestos Fibers: 2%

Other Fibers

Cellulose 1%

**TOTAL % ASBESTOS: 2%**

COMMENTS: Compoundlike, Gray. Sample ashed.

---

**Client Sample ID : 7045.20-008**

PBS Lab ID: 95-00-474

Percent of Sample: 100%

Asbestiform Mineral Fibers

Total % Asbestos Fibers: NAD

Other Fibers

Cellulose 1%

Hair 1%

**NO ASBESTOS DETECTED**

COMMENTS: Plaster, White/gray.

---

**BULK SAMPLE ASBESTOS ANALYSIS**

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Client: Washington Department of General Ser Report Date: 2/08/95  
1058 Capitol Way Date Received: 2/08/95  
Olympia, WA 98504 Client Project ID: N/A  
PBS Project No.: 7045.20  
Page No.: 5 of 5

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Client Sample ID : 7045.20-009  
PBS Lab ID: 95-00-475

Percent of Sample: 100%

Asbestiform Mineral Fibers

Total % Asbestos Fibers: NAD

Other Fibers

Cellulose 3%  
Hair 1%

**NO ASBESTOS DETECTED**

COMMENTS: Plaster, White/gray.

---

Reviewed by: Rollie A. Champe Analyst(s): Lisa Jones  
Approved Signatory Man Ninh

NAD = No Asbestos Detected. NIST accreditation may not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested. Testing method is per 40 CFR 763 Subpart F, Appendix A, PLM. Samples will be disposed of in 90 days.

# Table I

## Polarized Light Analysis Results Project

Sample Number / Sample Appearance	Client Sample Number	Asbestos-----										Nonasbestos-----					Run Date	
		Chrysotile	Amosite	Crocidolite	Anthophyllite	Tremolite	Actinolite	Cellulose	Wool	Glass	Fibers	Fibers	Synthetic	Other	NonFibrous			
1524565CPL White coarse plaster	7045.20-010	-	-	-	-	-	<1 Tr %	-	-	-	-	-	-	-	-	-	100 %	1/31/95
NFM: Qtz, Carb, Opaq, Hbl, Gyp, F-Spar, Paint, Fine Grains, Misc. Part. KZ Homogeneous																		

**RJ Lee Group, Inc.**  
Berkeley

2424 Sixth Street  
Berkeley, CA 94710  
Page: 1 of 1

Authorized Signature: *Valerie B. Johnson*  
Date: Friday, February 3, 1995  
Phone: (510) 486-8319  
Fax: (510) 486-0927



P B S  
ENVIRONMENTAL

TRANSMITTAL AND CHAIN OF CUSTODY  
FOR  
BULK SAMPLES

Project No. 7045.20

Individuals signing this form warrant that the information that is applicable to their title is correct and complete. The Sender should keep a copy and send the original. The Receiver should complete the form, keep a copy and return the original to the sender. Receiver shall report damage of package immediately to Sender.

SENDER

Date Sent: January 27, 1995  
PBS Environmental  
Attn:  
120 South Findlay Street  
Seattle, WA 98108  
(206) 233-9639

Deborah Minassian  
Maynard Business Services  
Deborah Minassian 1/27/95  
Authorized Signature Date

RECEIVER

DATE RECEIVED 30 JAN 1995  
COMPANY PBS Laboratory  
ADDRESS 1220 S.W. Morrison #600  
Portland, OR 97205

Condition of Package: OK

Rollie Champe  
Name Rollie A Champe 30 JAN 1995  
Authorized Signature Date

Sender's  
ID No.

Brief Description  
(May be left blank when sending bulk samples)

Receiver's  
ID No.

7045.20-001	_____
7045.20-002	_____
7045.20-003	_____
7045.20-004	_____
7045.20-005	_____
7045.20-006	_____
7045.20-007	_____
7045.20-008	_____
7045.20-009	_____

95-00-467  
-468  
-469  
-470  
-471  
-472  
-473  
-474  
-475

Please analyze the enclosed 9 samples for asbestos content using PLM with dispersion staining. PBS requests prior notification if samples will be disposed. Request fax results by: \_\_\_\_\_ AM/PM \_\_\_\_\_ Date

## **APPENDIX B**

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### **AA Lead Paint Chip Sampling Information**

AA Lead Paint Chip Bulk Sample Inventory

AA Lead Paint Chip Sample Laboratory Data Sheets

Chain of Custody

**AA LEAD PAINT CHIP SAMPLE INVENTORY**

<u>PBS Sample #</u>	<u>Paint Color / Component or Substrate</u>	<u>Sample Location</u>	<u>Results (mg/kg)</u>	<u>Results (%)</u>	<u>Lab</u>
40535.494 -CPb01	Off-white / Wood / Covebase	1st Floor; South entry	13000	1.3	NVL
40535.494 -CPb02	White / Wood / Window frame	1st Floor; West elevation	60000	6.0	NVL
40535.494 -CPb03	Blue / Wood / Siding	1st Floor; West elevation	260000	26	NVL
40535.494 -CPb04	Off-white / Plaster / Wall	1st Floor; West central room, closet	290	0.029	NVL
40535.494 -CPb05	Cream / Wood / Stairs	Top of attic stairwell	540000	54	NVL
40535.494 -CPb06	Off-white / Plaster / Wall	Attic room; South wall	370	0.037	NVL
40535.494 -CPb07	Off-white / Wood / Base	1st Floor; West central room	190	0.019	NVL
40535.494 -CPb08	Off-white / Fiberboard / Wall	1st Floor; South entry	320	0.032	NVL

June 30, 2021

Ferman Fletcher  
**PBS Environmental - Seattle**  
214 E Galer St. Suite. 300  
Seattle, WA 98102



**NVL Batch # 2111527.00**

**RE: Total Metal Analysis**  
**Method: EPA 7000B Lead by FAA <paint>**  
**Item Code: FAA-02**

Client Project: 40535.494  
Location: Carlyon House

Dear Mr. Fletcher,

NVL Labs received 8 sample(s) for the said project on 6/30/2021. Preparation of these samples was conducted following protocol outlined in EPA 3051/7000B , unless stated otherwise. Analysis of these samples was performed using analytical instruments in accordance with EPA 7000B Lead by FAA <paint>. The results are usually expressed in mg/Kg and percentage (%). Test results are not blank corrected.

For recent regulation updates pertaining to current regulatory levels or permissible exposure levels, please call your local regulatory agencies for more detail.

At NVL Labs all analyses are performed under strict guidelines of the Quality Assurance Program. This report is considered highly confidential and will not be released without your approval. Samples are archived after two weeks from the analysis date. Please feel free to contact us at 206-547-0100, in case you have any questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Shalini Patel".

Shalini Patel, Lab Supervisor



Enc.: Sample results



Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)  
4708 Aurora Avenue North | Seattle, WA 98103-6516

# Analysis Report

## Total Lead (Pb)



Client: PBS Environmental - Seattle  
Address: 214 E Galer St. Suite. 300  
Seattle, WA 98102

**Batch #: 2111527.00**

Matrix: Paint  
Method: EPA 3051/7000B  
Client Project #: 40535.494  
Date Received: 6/30/2021  
Samples Received: 8  
Samples Analyzed: 8

**Attention: Mr. Ferman Fletcher**

Project Location: Carlyon House

Lab ID	Client Sample #	Sample Weight (g)	RL in mg/Kg	Results in mg/Kg	Results in percent
21076325	40535.494-CPb01	0.1933	52	13000	1.3
21076326	40535.494-CPb02	0.1811	55	60000	6.0
21076327	40535.494-CPb03	0.2025	49	260000	26
21076328	40535.494-CPb04	0.1844	54	290	0.029
21076329	40535.494-CPb05	0.1930	52	540000	54
21076330	40535.494-CPb06	0.1949	51	370	0.037
21076331	40535.494-CPb07	0.1829	55	190	0.019
21076332	40535.494-CPb08	0.1955	51	320	0.032


Sampled by: Client

Analyzed by: Yasuyuki Hida

Reviewed by: Shalini Patel

Date Analyzed: 06/30/2021

Date Issued: 06/30/2021

  
Shalini Patel, Lab Supervisor

mg/ Kg =Milligrams per kilogram

Percent = Milligrams per kilogram / 10000

Note : Method QC results are acceptable unless stated otherwise.

Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.

RL = Reporting Limit

'<' = Below the reporting Limit

Bench Run No: 2021-0630-7

FAA-02

# LEAD LABORATORY SERVICES



<b>Company</b> PBS Environmental - Seattle	<b>NVL Batch Number</b> 2111527.00
<b>Address</b> 214 E Galer St. Suite. 300 Seattle, WA 98102	<b>TAT</b> 1 Day <b>AH</b> No
<b>Project Manager</b> Mr. Ferman Fletcher	<b>Rush TAT</b>
<b>Phone</b> (206) 233-9639	<b>Due Date</b> 7/1/2021 <b>Time</b> 8:00 AM
<b>Cell</b> (206) 491-1389	<b>Email</b> ferman.fletcher@pbsusa.com
	<b>Fax</b> (866) 727-0140

**Project Name/Number:** 40535.494      **Project Location:** Carlyon House

**Subcategory** Flame AA (FAA)  
**Item Code** FAA-02      EPA 7000B Lead by FAA <paint>

**Total Number of Samples** 8      **Rush Samples**

Lab ID	Sample ID	Description	A/R
1	21076325	40535.494-CPb01	A
2	21076326	40535.494-CPb02	A
3	21076327	40535.494-CPb03	A
4	21076328	40535.494-CPb04	A
5	21076329	40535.494-CPb05	A
6	21076330	40535.494-CPb06	A
7	21076331	40535.494-CPb07	A
8	21076332	40535.494-CPb08	A

	Print Name	Signature	Company	Date	Time
<b>Sampled by</b>	Client				
<b>Relinquished by</b>	Drop Box				

Office Use Only	Print Name	Signature	Company	Date	Time
<b>Received by</b>	Fatima Khan		NVL	6/30/21	800
<b>Analyzed by</b>	Yasuyuki Hida		NVL	6/30/21	
<b>Results Called by</b>					
<input type="checkbox"/> <b>Faxed</b> <input type="checkbox"/> <b>Emailed</b>					

**Special Instructions:**

Date: 6/30/2021  
 Time: 8:48 AM  
 Entered By: Kelly AuVu



---

**APPENDIX C**  
**Certifications**



THIS IS TO CERTIFY THAT

**FERMAN L FLETCHER**  
**HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE**  
**for**  
**ASBESTOS INSPECTOR REFRESHER**

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 04/01/2021  
Course Location: Portland, OR  
Certificate: IR-21-8539B



**CCB #SRA0615 4-Hr Training**

4-Hour AHERA Inspector Refresher Training; AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

**Expiration Date:** 04/01/2022

For verification of the authenticity of this certificate contact:  
PBS Engineering and Environmental Inc.  
4412 S Corbett Avenue  
Portland, Oregon 97239  
503.248.1939

A handwritten signature in black ink that reads "Andy Fridley".

Andy Fridley, Instructor

THIS IS TO CERTIFY THAT

**TIM OGDEN**

**HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE**  
for  
**ASBESTOS INSPECTOR REFRESHER**

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

**CCB #SRA0615 4-Hr Training**

4-Hour AHERA Inspector Refresher  
Training; AHERA is the Asbestos Hazard  
Emergency Response Act enacting Title II  
of Toxic Substance Control Act (TSCA)

**Expiration Date:** 04/01/2022



Course Date: 04/01/2021  
Course Location: Portland, OR  
Certificate: IR-21-2008A

For verification of the authenticity of this  
certificate contact:  
PBS Engineering and Environmental Inc.  
4412 S Corbett Avenue  
Portland, Oregon 97239  
503.248.1939

A handwritten signature in black ink that reads "Andy Fridley".

Andy Fridley, Instructor