



## Wenatchee Public Library Phase II Modernization

### BID SET – ADDENDUM NUMBER 1

ISSUED: September 22, 2023

This Addendum supersedes and supplements all portions of the Site Bid Set dated August 28, 2023, with which it concerns. The Addendum becomes part of the Contract Documents upon issuance. Receipt of the addendum must be acknowledged on bid for bid to be considered valid.

This Addendum includes the following Sections and Attachments:

Section 1: Engineer's Estimate

Section 2: Bid Document Clarifications, Revisions, and Additions

Section 3: Bidder's Questions

Section 4: Substitution Requests

Section 5: Pre-Bid Walk Attendee List

Summary of Attachments

#### **SECTION 1: Engineer's Estimate**

The engineer's estimate for this project is \$725,000

#### **SECTION 2: Bid Document Clarifications, Revisions, and Additions**

1. **Project Manual Section 00 03 00**

**Remove:** "A mandatory pre-bid meeting will be conducted on Tuesday, September 12, 2023 at 8:00am PDT at the Library"

**Replace with:** "Two pre-bid meetings will be held at the Library for bidders to review existing site conditions. While attendance is **not** mandatory to submit a bid for this project, bidders are highly encouraged to attend. Meetings will be conducted on Tuesday, September 12, 2023 at 8:00am PDT and Monday October 2<sup>nd</sup> 2023 at 9:00am PDT"

2. **Project Manual Section 00 50 00 has been revised. Contract is to be "Stipulated Sum"**

**Remove:** Section 00 05 00 (Draft Contract AIA 104 2007)

**Replace with:** Attached Section 00 05 00 (Revised Draft Contract AIA 104 2007)



3. **Project Manual Appendix**

**Revision:** Project Manual Appendix A “Hazardous Materials Report” and associated post abatement clearance memoranda are issued as an attachment to this Addendum.

**SECTION 3: Bidders Questions**

1. **Question:** How high is the structural lid above the finished ceiling at the lower level of the building?

**Answer:** Per original building drawings from 1957:

Lower Level finish floor to ACT:	10'-0"
Lower Level finish floor to B.O. conc joists:	11'-7"
Lower Level finish floor to underside of slab:	12'-9"

**SECTION 4: Substitution Requests**

1. **Request:** Provide Saniflow Speedflow Plus electric hand dryer in lieu of Basis of Design Dyson Airflow V in Toilet Room

**Answer:** No exceptions for Saniflow Speedflow Plus M17A-UL hand-dryer (white epoxy, ADA compliant depth for surface mount) to be provided in lieu of Basis of Design hand dryer. Coordinate all required electrical and install per ADA reach requirements.

**SECTION 5: List of Pre-bid Attendees, 9/12/23 walk.**

See attached

**Summary of Attachments:**

1. Revised Specification Section 00 50 00 (draft contract)
2. Specification Appendix A (Hazardous Materials report and post abatement clearance memoranda)
3. List of Pre-Bid Attendees from 9/24/23 walk

**END OF ADDENDUM NUMBER 1**

# DRAFT AIA® Document A104® – 2017

## Standard Abbreviated Form of Agreement Between Owner and Contractor

**AGREEMENT** made as of the « » day of « » in the year « »  
(In words, indicate day, month and year.)

**BETWEEN** the Owner:  
(Name, legal status, address and other information)

« » « » NCW Libraries  
16 North Columbia Street« »  
Wenatchee, WA 98801« »  
« » (509) 630-1117

and the Contractor:  
(Name, legal status, address and other information)

« » « »  
« »  
« »  
« »

for the following Project:  
(Name, location and detailed description)

« » « » Wenatchee Public Library Phase 2 Modernization  
310 Douglas Street  
Wenatchee, WA 98801  
« »  
« »

The Architect:  
(Name, legal status, address and other information)

« » « » « » BuildingWork LLC  
159 Western Avenue West, Suite 486« »  
Seattle, WA 98119  
(206) 775-8668« »  
« »

The Owner and Contractor agree as follows.

**ADDITIONS AND DELETIONS:**  
The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

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### ARTICLE 1 THE WORK OF THIS CONTRACT

The Contractor shall execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

### ARTICLE 2 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 2.1 The date of commencement of the Work shall be:

*(Check one of the following boxes.)*

☐ ~~—The date of this Agreement.~~

☐ ~~—A date set forth in a notice to proceed issued by the Owner.~~

[ ☒ ] Established as follows:  
(Insert a date or a means to determine the date of commencement of the Work.)

☒ Not more than (14) fourteen calendar days after execution of this Agreement.

If a date of commencement of the Work is not selected, then the date of commencement shall be the date of this Agreement.

§ 2.2 The Contract Time shall be measured from the date of commencement.

### § 2.3 Substantial Completion

§ 2.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work:

(Check the appropriate box and complete the necessary information.)

[ ☐ ] Not later than  (  ) calendar days from the date of commencement of the Work.

[ ☒ ] By the following date:  May 3, 2024

§ 2.3.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work are to be completed prior to Substantial Completion of the entire Work, the Contractor shall achieve Substantial Completion of such portions by the following dates:

Portion of Work

N/A

Substantial Completion Date

§ 2.3.3 If the Contractor fails to achieve Substantial Completion as provided in this Section 2.3, liquidated damages, if any, shall be assessed as set forth in Section 3.5.

## ARTICLE 3 CONTRACT SUM

§ 3.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be one of the following:

(Check the appropriate box.)

[ ☒ ] Stipulated Sum, in accordance with Section 3.2 below

(Based on the selection above, complete Section 3.2, 3.3 or 3.4 below.)

§ 3.2 The Stipulated Sum shall be  (\$  ), subject to additions and deductions as provided in the Contract Documents.

§ 3.2.1 The Stipulated Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner:

(State the numbers or other identification of accepted alternates. If the bidding or proposal documents permit the Owner to accept other alternates subsequent to the execution of this Agreement, attach a schedule of such other alternates showing the amount for each and the date when that amount expires.)

§ 3.2.2 Unit prices, if any:

(Identify the item and state the unit price and the quantity limitations, if any, to which the unit price will be applicable.)

Item

Units and Limitations

Price per Unit (\$0.00)

§ 3.2.3 Allowances, if any, included in the stipulated sum:

(Identify each allowance.)

Item	Price

**§ 3.5** Liquidated damages, if any:

*(Insert terms and conditions for liquidated damages, if any.)*

\$500.00 per calendar day after May 3, 2024.

**ARTICLE 4 PAYMENT**

**§ 4.1 Progress Payments**

**§ 4.1.1** Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

**§ 4.1.2** The period covered by each Application for Payment shall be one calendar month ending on the last day of the month.

**§ 4.1.3** Provided that an Application for Payment is received by the Owner not later than the last Wednesday of a month, the Owner shall make payment of the certified amount to the Contractor not later than the 20th day of the same month. If an Application for Payment is received by the Architect after the date fixed above, payment shall be made by the Owner not later than thirty (30) days after the Architect receives the Application for Payment. *(Federal, state or local laws may require payment within a certain period of time.)*

**§ 4.1.4** For each progress payment made prior to Substantial Completion of the Work, the Owner may withhold retainage from the payment otherwise due as follows:  
*(Insert a percentage or amount to be withheld as retainage from each Application for Payment and any terms for reduction of retainage during the course of the Work. The amount of retainage may be limited by governing law.)*

Five percent (5%)

**§ 4.1.5** Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.  
*(Insert rate of interest agreed upon, if any.)*

1% (one percent)

**§ 4.2 Final Payment**

**§ 4.2.1** Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

- .1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Section 18.2, and to satisfy other requirements, if any, which extend beyond final payment;
- .2 the Contractor has submitted a final accounting for the Cost of the Work, where payment is on the basis of the Cost of the Work with or without a Guaranteed Maximum Price; and
- .3 a final Certificate for Payment has been issued by the Architect in accordance with Section 15.7.1.

**§ 4.2.2** The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows:

As described in the Specifications

## ARTICLE 5 DISPUTE RESOLUTION

### § 5.1 Binding Dispute Resolution

For any claim subject to, but not resolved by, mediation pursuant to Section 21.5, the method of binding dispute resolution shall be as follows:

*(Check the appropriate box.)*

☒ Litigation in a Chelan County Superior Court

If the Owner and Contractor do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, claims will be resolved in a court of competent jurisdiction.

## ARTICLE 6 ENUMERATION OF CONTRACT DOCUMENTS

§ 6.1 The Contract Documents are defined in Article 7 and, except for Modifications issued after execution of this Agreement, are enumerated in the sections below.

§ 6.1.1 The Agreement is this executed AIA Document A104™–2017, Standard Abbreviated Form of Agreement Between Owner and Contractor.

§ 6.1.2 AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:

*(Insert the date of the E203–2013 incorporated into this Agreement.)*

N/A

§ 6.1.3 The Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages

§ 6.1.4 The Specifications:

*(Either list the Specifications here or refer to an exhibit attached to this Agreement.)*

« »

Section	Title	Date	Pages

§ 6.1.5 The Drawings:

*(Either list the Drawings here or refer to an exhibit attached to this Agreement.)*

« »

Number	Title	Date

§ 6.1.6 The Addenda, if any:

Number	Date	Pages

Portions of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are enumerated in this Article 6.

§ 6.1.7 Additional documents, if any, forming part of the Contract Documents:

.1 Other Exhibits:

(Check all boxes that apply.)

[ « » ] Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages

- .2 Other documents, if any, listed below:

(List here any additional documents that are intended to form part of the Contract Documents.)

« »

## ARTICLE 7 GENERAL PROVISIONS

### § 7.1 The Contract Documents

The Contract Documents are enumerated in Article 6 and consist of this Agreement (including, if applicable, Supplementary and other Conditions of the Contract), Drawings, Specifications, Addenda issued prior to the execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Architect. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

### § 7.2 The Contract

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind between any persons or entities other than the Owner and the Contractor.

### § 7.3 The Work

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

### § 7.4 Instruments of Service

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

### § 7.5 Ownership and use of Drawings, Specifications and Other Instruments of Service

§ 7.5.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and will retain all common law, statutory and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

§ 7.5.2 The Contractor, Subcontractors, Sub-subcontractors and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to the protocols established pursuant to Sections 7.6 and 7.7, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, Architect and the Architect's consultants.



#### § 7.6 Digital Data Use and Transmission

The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form.

#### § 7.8 Severability

The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and

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enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.

## **§ 7.9 Notice**

**§ 7.9.1** Except as otherwise provided in Section 7.9.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission, or as otherwise set forth below:

*(If other than in accordance with AIA Document E203–2013, insert requirements for delivering Notice in electronic format such as name, title and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)*

« »

**§ 7.9.2** Notice of Claims shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

## **§ 7.10 Relationship of the Parties**

Where the Contract is based on the Cost of the Work plus the Contractor's Fee, with or without a Guaranteed Maximum Price, the Contractor accepts the relationship of trust and confidence established by this Agreement and covenants with the Owner to cooperate with the Architect and exercise the Contractor's skill and judgment in furthering the interests of the Owner; to furnish efficient business administration and supervision; to furnish at all times an adequate supply of workers and materials; and to perform the Work in an expeditious and economical manner consistent with the Owner's interests. The Owner agrees to furnish and approve, in a timely manner, information required by the Contractor and to make payments to the Contractor in accordance with the requirements of the Contract Documents.

## **ARTICLE 8 OWNER**

### **§ 8.1 Information and Services Required of the Owner**

**§ 8.1.1** Prior to commencement of the Work, at the written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such evidence. If commencement of the Work is delayed under this Section 8.1.1, the Contract Time shall be extended appropriately.

**§ 8.1.2** The Owner shall furnish all necessary surveys and a legal description of the site.

**§ 8.1.3** The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

**§ 8.1.4** Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 9.6.1, the Owner shall secure and pay for other necessary approvals, easements, assessments, and charges required for the construction, use, or occupancy of permanent structures or for permanent changes in existing facilities.

### **§ 8.2 Owner's Right to Stop the Work**

If the Contractor fails to correct Work which is not in accordance with the requirements of the Contract Documents, or repeatedly fails to carry out the Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order is eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity.

### **§ 8.3 Owner's Right to Carry Out the Work**

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents, and fails within a ten-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to any other remedies the Owner may

have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect and the Architect may, pursuant to Section 15.4.3, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including the Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect, or failure. If the Contractor disagrees with the actions of the Owner or the Architect, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 21.

## **ARTICLE 9 CONTRACTOR**

### **§ 9.1 Review of Contract Documents and Field Conditions by Contractor**

**§ 9.1.1** Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents.

**§ 9.1.2** Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 8.1.2, shall take field measurements of any existing conditions related to that portion of the Work and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies, or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional unless otherwise specifically provided in the Contract Documents.

**§ 9.1.3** The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

### **§ 9.2 Supervision and Construction Procedures**

**§ 9.2.1** The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters.

**§ 9.2.2** The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for or on behalf of the Contractor or any of its Subcontractors.

### **§ 9.3 Labor and Materials**

**§ 9.3.1** Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

**§ 9.3.2** The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

**§ 9.3.3** The Contractor may make a substitution only with the consent of the Owner, after evaluation by the Architect and in accordance with a Modification.

### **§ 9.4 Warranty**

The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects,

except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation or normal wear and tear under normal usage. All other warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 15.6.3.

#### **§ 9.5 Taxes**

The Contractor shall pay sales, consumer, use, and other similar taxes that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

#### **§ 9.6 Permits, Fees, Notices, and Compliance with Laws**

**§ 9.6.1** Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.

**§ 9.6.2** The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work. If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

#### **§ 9.8 Contractor's Construction Schedules**

**§ 9.8.1** The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work.

**§ 9.8.2** The Contractor shall perform the Work in general accordance with the most recent schedule submitted to the Owner and Architect.

#### **§ 9.9 Submittals**

**§ 9.9.1** The Contractor shall review for compliance with the Contract Documents and submit to the Architect Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents in coordination with the Contractor's construction schedule and in such sequence as to allow the Architect reasonable time for review. By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them; (2) determined and verified materials, field measurements, and field construction criteria related thereto, or will do so; and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents. The Work shall be in accordance with approved submittals.

**§ 9.9.2** Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents.

**§ 9.9.3** The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents or unless the Contractor needs to provide such services in order to carry out the Contractor's own responsibilities. If professional design services or certifications by a design professional are specifically required, the Owner and the Architect will specify the performance and design criteria that such services must satisfy. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional. If no criteria are specified, the design shall comply with applicable codes and ordinances. Each Party shall be entitled to rely upon the information provided by the other Party. The Architect will review and approve or take other appropriate action on submittals for the limited purpose of checking for conformance with information provided and the design concept expressed in the Contract Documents. The Architect's review of Shop Drawings, Product Data, Samples, and similar submittals shall be for the limited purpose of checking for conformance with information given and the design concept expressed in

the Contract Documents. In performing such review, the Architect will approve, or take other appropriate action upon, the Contractor's Shop Drawings, Product Data, Samples, and similar submittals.

#### **§ 9.10 Use of Site**

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

#### **§ 9.11 Cutting and Patching**

The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly.

#### **§ 9.12 Cleaning Up**

The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus material from and about the Project.

#### **§ 9.13 Access to Work**

The Contractor shall provide the Owner and Architect with access to the Work in preparation and progress wherever located.

#### **§ 9.14 Royalties, Patents and Copyrights**

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for defense or loss when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents or where the copyright violations are contained in Drawings, Specifications or other documents prepared by the Owner or Architect. However, if an infringement of a copyright or patent is discovered by, or made known to, the Contractor, the Contractor shall be responsible for the loss unless the information is promptly furnished to the Architect.

#### **§ 9.15 Indemnification**

**§ 9.15.1** To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Section 9.15.1.

**§ 9.15.2** In claims against any person or entity indemnified under this Section 9.15 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 9.15.1 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

### **ARTICLE 10 ARCHITECT**

**§ 10.1** The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction, until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified in writing in accordance with other provisions of the Contract.

**§ 10.2** Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

§ 10.3 The Architect will visit the site at intervals appropriate to the stage of the construction to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general, if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

§ 10.4 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of and will not be responsible for acts or omissions of the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 10.5 Based on the Architect's evaluations of the Work and of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 10.6 The Architect has authority to reject Work that does not conform to the Contract Documents and to require inspection or testing of the Work.

§ 10.7 The Architect will review and approve or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 10.8 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect will make initial decisions on all claims, disputes, and other matters in question between the Owner and Contractor but will not be liable for results of any interpretations or decisions rendered in good faith.

§ 10.9 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

## **ARTICLE 11 SUBCONTRACTORS**

§ 11.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site.

§ 11.2 Unless otherwise stated in the Contract Documents, the Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the Subcontractors or suppliers proposed for each of the principal portions of the Work. The Contractor shall not contract with any Subcontractor or supplier to whom the Owner or Architect has made reasonable written objection within ten days after receipt of the Contractor's list of Subcontractors and suppliers. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 11.3 Contracts between the Contractor and Subcontractors shall (1) require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by the terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by the Contract Documents, assumes toward the Owner and Architect, and (2) allow the Subcontractor the benefit of all rights, remedies and redress against the Contractor that the Contractor, by these Contract Documents, has against the Owner.

## **ARTICLE 12 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS**

§ 12.1 The term “Separate Contractor(s)” shall mean other contractors retained by the Owner under separate agreements. The Owner reserves the right to perform construction or operations related to the Project with the Owner’s own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation.

§ 12.2 The Contractor shall afford the Owner and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor’s activities with theirs as required by the Contract Documents.

§ 12.3 The Owner shall be reimbursed by the Contractor for costs incurred by the Owner which are payable to a Separate Contractor because of delays, improperly timed activities, or defective construction of the Contractor. The Owner shall be responsible to the Contractor for costs incurred by the Contractor because of delays, improperly timed activities, damage to the Work, or defective construction of a Separate Contractor.

## **ARTICLE 13 CHANGES IN THE WORK**

§ 13.1 By appropriate Modification, changes in the Work may be accomplished after execution of the Contract. The Owner, without invalidating the Contract, may order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, with the Contract Sum and Contract Time being adjusted accordingly. Such changes in the Work shall be authorized by written Change Order signed by the Owner, Contractor, and Architect, or by written Construction Change Directive signed by the Owner and Architect. Upon issuance of the Change Order or Construction Change Directive, the Contractor shall proceed promptly with such changes in the Work, unless otherwise provided in the Change Order or Construction Change Directive.

§ 13.2 Adjustments in the Contract Sum and Contract Time resulting from a change in the Work shall be determined by mutual agreement of the parties or, in the case of a Construction Change Directive signed only by the Owner and Architect, by the Contractor’s cost of labor, material, equipment, and reasonable overhead and profit, unless the parties agree on another method for determining the cost or credit. Pending final determination of the total cost of a Construction Change Directive, the Contractor may request payment for Work completed pursuant to the Construction Change Directive. The Architect will make an interim determination of the amount of payment due for purposes of certifying the Contractor’s monthly Application for Payment. When the Owner and Contractor agree on adjustments to the Contract Sum and Contract Time arising from a Construction Change Directive, the Architect will prepare a Change Order.

§ 13.3 The Architect will have authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order and shall be binding on the Owner and Contractor. The Contractor shall carry out such written orders promptly. If the Contractor believes that the proposed minor change in the Work will affect the Contract Sum or Contract Time, the Contractor shall notify the Architect and shall not proceed to implement the change in the Work.

§ 13.4 If concealed or unknown physical conditions are encountered at the site that differ materially from those indicated in the Contract Documents or from those conditions ordinarily found to exist, the Contract Sum and Contract Time shall be equitably adjusted as mutually agreed between the Owner and Contractor; provided that the Contractor provides notice to the Owner and Architect promptly and before conditions are disturbed.

## **ARTICLE 14 TIME**

§ 14.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing this Agreement the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 14.2 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 14.3 The term “day” as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 14.4 The date of Substantial Completion is the date certified by the Architect in accordance with Section 15.6.3.

§ 14.5 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) changes ordered in the Work; (2) by labor disputes, fire, unusual delay in deliveries, abnormal adverse weather conditions not reasonably anticipatable, unavoidable casualties, or any causes beyond the Contractor's control; or (3) by other causes that the Contractor asserts, and the Architect determines, justify delay, then the Contract Time shall be extended for such reasonable time as the Architect may determine, subject to the provisions of Article 21.

## **ARTICLE 15 PAYMENTS AND COMPLETION**

### **§ 15.1 Schedule of Values**

§ 15.1.1 The Contractor shall submit a schedule of values to the Architect before the first Application for Payment, allocating the entire Guaranteed Maximum Price to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy required by the Architect. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 15.1.2 The allocation of the Guaranteed Maximum Price under this Section 15.1 shall not constitute a separate stipulated sum or guaranteed maximum price for each individual line item in the schedule of values.

### **§ 15.3 Applications for Payment**

§ 15.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 15.1, for completed portions of the Work. The application shall be notarized, if required; be supported by all data substantiating the Contractor's right to payment that the Owner or Architect require; shall reflect retainage if provided for in the Contract Documents; and include any revised cost control information required by Section 15.2.4. Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 15.3.2 With each Application for Payment where the Contract Sum is based upon the Cost of the Work, or the Cost of the Work with a Guaranteed Maximum Price, the Contractor shall submit payrolls, petty cash accounts, receipted invoices or invoices with check vouchers attached, and any other evidence required by the Owner to demonstrate that cash disbursements already made by the Contractor on account of the Cost of the Work equal or exceed progress payments already received by the Contractor plus payrolls for the period covered by the present Application for Payment, less that portion of the progress payments attributable to the Contractor's Fee.

§ 15.3.3 Payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment stored, and protected from damage, off the site at a location agreed upon in writing.

§ 15.3.4 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, claims, security interests or other encumbrances adverse to the Owner's interests.

### **§ 15.4 Certificates for Payment**

§ 15.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the Architect determines is properly due, or notify the Contractor and Owner of the Architect's reasons for withholding certification in whole or in part as provided in Section 15.4.3.

§ 15.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluations of the Work and the data in the Application for Payment, that, to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment in the amount certified. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract



Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion and to specific qualifications expressed by the Architect. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

**§ 15.4.3** The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 15.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 15.4.1. If the Contractor and the Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 9.2.2, because of

- .1 defective Work not remedied;
- .2 third-party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a Separate Contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.

**§ 15.4.4** When either party disputes the Architect's decision regarding a Certificate for Payment under Section 15.4.3, in whole or in part, that party may submit a Claim in accordance with Article 21.

### **§ 15.5 Progress Payments**

**§ 15.5.1** The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to sub-subcontractors in a similar manner.

**§ 15.5.2** Neither the Owner nor Architect shall have an obligation to pay or see to the payment of money to a Subcontractor or supplier except as may otherwise be required by law.

**§ 15.5.3** A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

**§ 15.5.4** Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

## **§ 15.6 Substantial Completion**

**§ 15.6.1** Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

**§ 15.6.2** When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

**§ 15.6.3** Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. When the Architect determines that the Work or designated portion thereof is substantially complete, the Architect will issue a Certificate of Substantial Completion which shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

**§ 15.6.4** The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance and consent of surety, if any, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

## **§ 15.7 Final Completion and Final Payment**

**§ 15.7.1** Upon receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection and, when the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions stated in Section 15.7.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

**§ 15.7.2** Final payment shall not become due until the Contractor has delivered to the Owner a complete release of all liens arising out of this Contract or receipts in full covering all labor, materials and equipment for which a lien could be filed, or a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including costs and reasonable attorneys' fees.

**§ 15.7.3** The making of final payment shall constitute a waiver of claims by the Owner except those arising from

- .1 liens, claims, security interests or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents;
- .3 terms of special warranties required by the Contract Documents; or
- .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment.

**§ 15.7.4** Acceptance of final payment by the Contractor, a Subcontractor or supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of the final Application for Payment.

## **ARTICLE 16 PROTECTION OF PERSONS AND PROPERTY**

### **§ 16.1 Safety Precautions and Programs**

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract. The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to

- .1 employees on the Work and other persons who may be affected thereby;

- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation, or replacement in the course of construction.

The Contractor shall comply with, and give notices required by, applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities bearing on safety of persons and property and their protection from damage, injury, or loss. The Contractor shall promptly remedy damage and loss to property caused in whole or in part by the Contractor, a Subcontractor, a sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 16.1.2 and 16.1.3. The Contractor may make a claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 9.15.

## § 16.2 Hazardous Materials and Substances

§ 16.2.1 The Contractor is responsible for compliance with the requirements of the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents, and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner and Architect of the condition. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased in the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up.

§ 16.2.2 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area, if in fact, the material or substance presents the risk of bodily injury or death as described in Section 16.2.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.

§ 16.2.3 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall indemnify the Contractor for all cost and expense thereby incurred.

## ARTICLE 17 INSURANCE AND BONDS

### § 17.1 Contractor's Insurance

§ 17.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in this Section 17.1 or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the insurance required by this Agreement from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Contractor shall maintain the required insurance until the expiration of the period for correction of Work as set forth in Section 18.4, unless a different duration is stated below:

« »

§ 17.1.2 Commercial General Liability insurance for the Project written on an occurrence form with policy limits of not less than one million (\$ 1,000,000.00 ) each occurrence, one million (\$ 1,000,000.00 ) general aggregate, and one million (\$ 1,000,000.00 ) aggregate for products-completed operations hazard, providing coverage for claims including

- .1 damages because of bodily injury, sickness or disease, including occupational sickness or disease, and death of any person;
- .2 personal and advertising injury;

- .3 damages because of physical damage to or destruction of tangible property, including the loss of use of such property;
- .4 bodily injury or property damage arising out of completed operations; and
- .5 the Contractor's indemnity obligations under Section 9.15.

§ 17.1.3 Automobile Liability covering vehicles owned by the Contractor and non-owned vehicles used by the Contractor, with policy limits of not less than **one million (\$ 1,000,000.00 )** per accident, for bodily injury, death of any person, and property damage arising out of the ownership, maintenance, and use of those motor vehicles along with any other statutorily required automobile coverage.

§ 17.1.4 The Contractor may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided such primary and excess or umbrella insurance policies result in the same or greater coverage as those required under Section 17.1.2 and 17.1.3, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require the exhaustion of the underlying limits only through the actual payment by the underlying insurers.

§ 17.1.5 Workers' Compensation at statutory limits.

§ 17.1.6 Employers' Liability with policy limits not less than **one million (\$ 1,000,000.00 )** each accident, **one million (\$ 1,000,000.00 )** each employee, and **two million (\$ 2,000,000.00 )** policy limit.

§ 17.1.7 If the Contractor is required to furnish professional services as part of the Work, the Contractor shall procure Professional Liability insurance covering performance of the professional services, with policy limits of not less than **one million (\$ 1,000,000.00 )** per claim and **two million (\$ 2,000,000.00 )** in the aggregate.

§ 17.1.8 If the Work involves the transport, dissemination, use, or release of pollutants, the Contractor shall procure Pollution Liability insurance, with policy limits of not less than **one million (\$ 1,000,000.00 )** per claim and **two million (\$ 2,000,000.00 )** in the aggregate.

§ 17.1.9 Coverage under Sections 17.1.7 and 17.1.8 may be procured through a Combined Professional Liability and Pollution Liability insurance policy, with combined policy limits of not less than **one million (\$ 1,000,000.00 )** per claim and **two million (\$ 2,000,000.00 )** in the aggregate.

§ 17.1.10 The Contractor shall provide certificates of insurance acceptable to the Owner evidencing compliance with the requirements in this Section 17.1 at the following times: (1) prior to commencement of the Work; (2) upon renewal or replacement of each required policy of insurance; and (3) upon the Owner's written request. An additional certificate evidencing continuation of liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment and thereafter upon renewal or replacement of such coverage until the expiration of the period required by Section 17.1.1. The certificates will show the Owner as an additional insured on the Contractor's Commercial General Liability and excess or umbrella liability policy.

§ 17.1.11 The Contractor shall disclose to the Owner any deductible or self-insured retentions applicable to any insurance required to be provided by the Contractor.

§ 17.1.12 To the fullest extent permitted by law, the Contractor shall cause the commercial liability coverage required by this Section 17.1 to include (1) the Owner, the Architect, and the Architect's Consultants as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions for which loss occurs during completed operations. The additional insured coverage shall be primary and non-contributory to any of the Owner's general liability insurance policies and shall apply to both ongoing and completed operations. To the extent commercially available, the additional insured coverage shall be no less than that provided by Insurance Services Office, Inc. (ISO) forms CG 20 10 07 04, CG 20 37 07 04, and, with respect to the Architect and the Architect's Consultants, CG 20 32 07 04.

§ 17.1.13 Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by this Section 17.1, the Contractor shall provide notice to the

Owner of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

**§ 17.1.14 Other Insurance Provided by the Contractor**

*(List below any other insurance coverage to be provided by the Contractor and any applicable limits.)*

**Coverage**

**Limits**

**§ 17.2 Owner's Insurance**

**§ 17.2.1 Owner's Liability Insurance**

The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance.

**§ 17.2.2 Property Insurance**

**§ 17.2.2.1** The Owner shall purchase and maintain, from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located, property insurance written on a builder's risk "all-risks" completed value or equivalent policy form and sufficient to cover the total value of the entire Project on a replacement cost basis. The Owner's property insurance coverage shall be no less than the amount of the initial Contract Sum, plus the value of subsequent Modifications and labor performed or materials or equipment supplied by others. The property insurance shall be maintained until Substantial Completion and thereafter as provided in Section 17.2.2.2, unless otherwise provided in the Contract Documents or otherwise agreed in writing by the parties to this Agreement. This insurance shall include the interests of the Owner, Contractor, Subcontractors, and Sub-subcontractors in the Project as insureds. This insurance shall include the interests of mortgagees as loss payees.

**§ 17.2.2.2** Unless the parties agree otherwise, upon Substantial Completion, the Owner shall continue the insurance required by Section 17.2.2.1 or, if necessary, replace the insurance policy required under Section 17.2.2.1 with property insurance written for the total value of the Project that shall remain in effect until expiration of the period for correction of the Work set forth in Section 18.4.

**§ 17.2.2.3** If the insurance required by this Section 17.2.2 is subject to deductibles or self-insured retentions, the Owner shall be responsible for all loss not covered because of such deductibles or retentions.

**§ 17.2.2.4** If the Work involves remodeling an existing structure or constructing an addition to an existing structure, the Owner shall purchase and maintain, until the expiration of the period for correction of Work as set forth in Section 18.4, "all-risks" property insurance, on a replacement cost basis, protecting the existing structure against direct physical loss or damage, notwithstanding the undertaking of the Work. The Owner shall be responsible for all co-insurance penalties.

**§ 17.2.2.5** Prior to commencement of the Work, the Owner shall secure the insurance, and provide evidence of the coverage, required under this Section 17.2.2 and, upon the Contractor's request, provide a copy of the property insurance policy or policies required by this Section 17.2.2. The copy of the policy or policies provided shall contain all applicable conditions, definitions, exclusions, and endorsements.

**§ 17.2.2.6** Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any insurance required by this Section 17.2.2, the Owner shall provide notice to the Contractor of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the insurance shall be charged to the Owner by an appropriate Change Order. The

furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

#### **§ 17.2.2.7 Waiver of Subrogation**

**§ 17.2.2.7.1** The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other; (2) the Architect and Architect's consultants; and (3) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by this Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Architect, Architect's consultants, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this Section 17.2.2.7 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

**§ 17.2.2.7.2** If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of Section 17.2.2.7.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

**§ 17.2.2.8** A loss insured under the Owner's property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause. The Owner shall pay the Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements, written where legally required for validity, the Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

#### **§ 17.2.3 Other Insurance Provided by the Owner**

*(List below any other insurance coverage to be provided by the Owner and any applicable limits.)*

Coverage	Limits
----------	--------

#### **§ 17.3 Performance Bond and Payment Bond**

**§ 17.3.1** The Owner shall have the right to require the Contractor to furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in the Contract Documents on the date of execution of the Contract.

**§ 17.3.2** Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

### **ARTICLE 18 CORRECTION OF WORK**

**§ 18.1** The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed, or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

**§ 18.2** In addition to the Contractor's obligations under Section 9.4, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 15.6.3, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct

it promptly after receipt of notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty.

**§ 18.3** If the Contractor fails to correct nonconforming Work within a reasonable time, the Owner may correct it in accordance with Section 8.3.

**§ 18.4** The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

**§ 18.5** The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Article 18.

## **ARTICLE 19 MISCELLANEOUS PROVISIONS**

### **§ 19.1 Assignment of Contract**

Neither party to the Contract shall assign the Contract without written consent of the other, except that the Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate such assignment.

### **§ 19.2 Governing Law**

The Contract shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules. If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 21.6.

### **§ 19.3 Tests and Inspections**

Tests, inspections, and approvals of portions of the Work required by the Contract Documents or by applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities shall be made at an appropriate time. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

### **§ 19.4 The Owner's representative:**

*(Name, address, email address and other information)*

Amanda Lawson  
NCW Libraries, Facilities Manager  
16 North Columbia Street  
Wenatchee, WA 98801  
509-630-2176  
alawson@ncwlibraries.org

### **§ 19.5 The Contractor's representative:**

*(Name, address, email address and other information)*

<< >>  
<< >>  
<< >>  
<< >>  
<< >>

**§ 19.6** Neither the Owner's nor the Contractor's representative shall be changed without ten days' prior notice to the other party.

### **§ 19.7 Prevailing Wage**

This agreement is subject to prevailing wages according to RCW 39.12.020. The Vendor shall file an Intent to Pay Prevailing Wage form and Affidavit of Wages paid for, with the Washington State Department of Labor and Industries and pay for all fees associated with filing the forms. Vendor shall submit the Intent and Affidavit forms, approved by Washington State Department of Labor and Industries to Owner with the final invoice for the Work. No payment will be issued to the Vendor until the Owner received the approved forms. If any Work is subcontracted, an approved Intent and Affidavit form must be submitted for each subcontractor. If progress payments are made for this scope of Work, an approved Intent form must be received prior to issuing the first payment. An approved Affidavit form must be received prior to issuing final payment.

### **§ 19.8 Access to Records**

The Owner and authorized representatives of the State and Federal Governments shall have access to any books, documents, papers, and records of the Contractor which are pertinent to this Agreement for the purposes of making audits, examination, excerpts, and transcriptions. All such records and all other records pertinent to this Agreement and Work undertaken pursuant to this Agreement shall be retained for a period of six (6) years after completion and acceptance of the Work by Owner, unless a longer period is required to resolve audit findings or litigation. In such cases, Owner may request, and the Contractor shall abide by, such longer period for record retention.

### **§ 19.9 Independent Contractor**

The Contractor and Owner agree that the Contractor is an independent contractor with respect to the Work performed or services provided pursuant to this Agreement. Nothing in this Agreement shall be considered to create the relationship of employer and employee between the parties hereto. Neither Contractor nor any employee or subcontractor shall be entitled to any benefits afforded to Owner's employees by virtue of the services provided under this Agreement.

## **ARTICLE 20 TERMINATION OF THE CONTRACT**

### **§ 20.1 Termination by the Contractor**

If the Architect fails to certify payment as provided in Section 15.4.1 for a period of 30 days through no fault of the Contractor, or if the Owner fails to make payment as provided in Section 4.1.3 for a period of 30 days, the Contractor may, upon seven additional days' notice to the Owner and the Architect, terminate the Contract and recover from the Owner payment for Work executed, including reasonable overhead and profit, costs incurred by reason of such termination, and damages.

### **§ 20.2 Termination by the Owner for Cause**

#### **§ 20.2.1** The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

**§ 20.2.2** When any of the reasons described in Section 20.2.1 exists, the Owner, upon certification by the Architect that sufficient cause exists to justify such action, may, without prejudice to any other remedy the Owner may have and after giving the Contractor seven days' notice, terminate the Contract and take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever reasonable method the Owner may deem expedient. Upon request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.



§ 20.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 20.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 20.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Architect, upon application, and this obligation for payment shall survive termination of the Contract.

### § 20.3 Termination by the Owner for Convenience

The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause. The Owner shall pay the Contractor for Work executed; and costs incurred by reason of such termination, including costs attributable to termination of Subcontracts; and a termination fee, if any, as follows:

*(Insert the amount of or method for determining the fee payable to the Contractor by the Owner following a termination for the Owner's convenience, if any.)*

« »

## ARTICLE 21 CLAIMS AND DISPUTES

§ 21.1 Claims, disputes, and other matters in question arising out of or relating to this Contract, including those alleging an error or omission by the Architect but excluding those arising under Section 16.2, shall be referred initially to the Architect for decision. Such matters, except those waived as provided for in Section 21.11 and Sections 15.7.3 and 15.7.4, shall, after initial decision by the Architect or 30 days after submission of the matter to the Architect, be subject to mediation as a condition precedent to binding dispute resolution.

### § 21.2 Notice of Claims

§ 21.2.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 18.2, shall be initiated by notice to the Architect within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.

§ 21.2.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 18.2, shall be initiated by notice to the other party.

### § 21.3 Time Limits on Claims

The Owner and Contractor shall commence all claims and causes of action against the other and arising out of or related to the Contract in accordance with the requirements of the final dispute resolution method selected in this Agreement whether in contract, tort, breach of warranty, or otherwise, within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all claims and causes of action not commenced in accordance with this Section 21.3.

§ 21.4 If a claim, dispute or other matter in question relates to or is the subject of a mechanic's lien, the party asserting such matter may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 21.5 The parties shall endeavor to resolve their disputes by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with their Construction Industry Mediation Procedures in effect on the date of this Agreement. A request for mediation shall be made in writing, delivered to the other party to this Agreement, and filed with the person or entity administering the mediation. The request may be made concurrently with the binding dispute resolution but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 21.6 If the parties have selected arbitration as the method for binding dispute resolution in this Agreement, any claim, subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association, in accordance with the Construction Industry Arbitration Rules in effect on the date of this Agreement. Demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 21.7 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party, at its sole discretion, may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation; (2) the arbitrations to be consolidated substantially involve common questions of law or fact; and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 21.8 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, any party to an arbitration may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of a Claim not described in the written Consent.

§ 21.9 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to this Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

**§ 21.10 Continuing Contract Performance**

Pending final resolution of a Claim, except as otherwise agreed in writing, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

**§ 21.11 Waiver of Claims for Consequential Damages**

The Contractor and Owner waive claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- .1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 20. Nothing contained in this Section 21.11 shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

This Agreement entered into as of the day and year first written above.

**OWNER** (Signature)

« »« »

(Printed name and title)

**CONTRACTOR** (Signature)

« »« »

(Printed name and title)

**Hazardous Building Materials**  
**Inspection Report**

Wenatchee Public Library  
310 Douglas Street  
Wenatchee, Washington 98801

Project Number: 182524.00

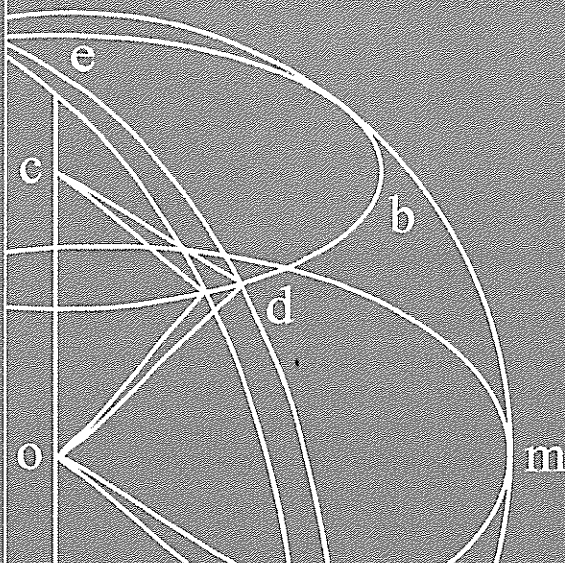
Septemeber 21, 2018

**Prepared for:**

North Central Regional Library  
c/o: Forte Architects  
Attn: Tom Bassett, AIA  
240 North Wenatchee Avenue  
Wenatchee, Washington, 98801

**Prepared by:**

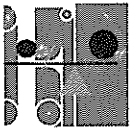
Fulcrum Environmental Consulting, Inc.  
406 North 2nd Street  
Yakima, Washington, 98901



experience | balance | commitment

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509.459.9220

yakima, washington  
509.574.0839



**Report Title:** Hazardous Building Materials Inspection Report

**Project Number:** 182524.00

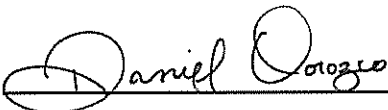
**Date:** September 21, 2018

**Site:** Wenatchee Public Library  
310 Douglas Street  
Wenatchee, Washington 98801

**Prepared for:** North Central Regional Library  
c/o: Forte Architects  
Attn: Tom Bassett, AIA  
240 North Wenatchee Avenue  
Wenatchee, Washington 98801

**Prepared by:** Fulcrum Environmental Consulting, Inc.  
406 North 2nd Street  
Yakima, Washington 98901  
509.574.0839

The professionals who completed site services, prepared, and reviewed this report include but are not limited to:

**Authored by:**  **Date:** 9/21/2018

Daniel Orozco, Environmental Scientist  
Fulcrum Environmental Consulting, Inc.

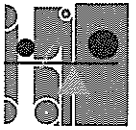
**Reviewed by:**  **Date:** 9/21/2018

Ryan K. Mathews, CIH, CHMM, Principal  
Fulcrum Environmental Consulting, Inc.



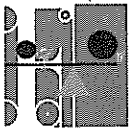
**Report Integrity:**

*Fulcrum Environmental Consulting, Inc.'s scope of service for this project was limited to those services as established in the proposal, contract, verbal direction, and/or agreement. This report is subject to applicable federal, state, and local regulations governing project-specific conditions and was performed using recognized procedures and standards of the industry. Scientific data collected in situ may document conditions that may be specific to the time and day of service, and subject to change as a result of conditions beyond Fulcrum's control or knowledge. Fulcrum makes no warranties, expressed or implied as to the accuracy or completeness of other's work included herein. Fulcrum has performed these services in accordance with generally accepted environmental science standards of care at the time of the inspection. No warranty, expressed or implied, is made.*



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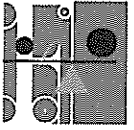
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## 1.0 INTRODUCTION

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This report provides the methods, results, and summary of an inspection for hazardous building materials (HBM) completed by Fulcrum Environmental Consulting, Inc. (Fulcrum) of the Wenatchee Public Library (Library), located at 310 Douglas Street in Wenatchee, Washington. Refer to Figure 1 for Site Location Map. Fulcrum was retained by the North Central Regional Library to provide a hazardous building materials inspection of the Library building.

The purpose this inspection was to accomplish two objectives: first to document site conditions for long-term facility management, and second to provide necessary information to determine HBM presence in preparation for building modernizations activities.

On August 15, 2018, Daniel Orozco, Kyle Ames, and Avery Foltz, all employees with Fulcrum completed the HBM inspection, see Appendix A for applicable certifications.

### 1.1 Background

Incomplete records have been identified by the North Central Regional Library (NCRL) that relate to past asbestos abatement activities in Wenatchee Public Library. Records indicate that presence of asbestos containing acoustical ceiling texture was identified in about 1986 and that quotes were gathered to complete either repair to damaged areas of the ceiling or complete abatement. Two abatement contractors, Kemp Enterprises and A.A. Contractors, Inc. provided abatement cost estimates; however no specific City of Wenatchee or NCRL directed work is documented from these two contractors. Two separate documents were identified by NCRL which specifies a contractor for “removal of asbestos in ceiling/ceiling replacement” with the work awarded to Specialty Asbestos, Inc. This document suggests that ceiling abatement was completed. Fulcrum’s initial walkthrough identified suspect acoustical texturing where easily observed on the upper mezzanine and in the basement of the building.

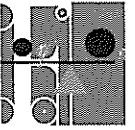
Additional documentation was also provided which describe the abatement of localized areas of vinyl floor tile on the basement level of the building. These two projects occurred in 2006 and 2012.

## 2.0 SCOPE OF WORK

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Fulcrum was retained by North Central Regional Library, to complete a hazardous building materials (HBM) inspection of the Wenatchee Public Library located in 310 Douglas Street in Wenatchee, Washington. Fulcrum’s inspection was limited to the following HBM:

- Asbestos Containing Materials (ACM)
- Lead Containing Materials (LCM)
- Lighting and Electrical Components (LEC)
- Refrigerant Containing Systems (RCS)



Fulcrum's scope of work consisted of site inspections, material sampling, sample analysis, and reporting. All inspection tasks were completed by accredited, certified, or qualified professionals. Fulcrum did not dismantle onsite equipment to determine if potentially hazardous material components were present.

### **3.0 PURPOSE**

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The purpose this inspection was to accomplish two objectives: first to document site conditions for long-term facility management, and second to provide necessary information to determine HBM presence in preparation for pending building modernizations activities.

### **4.0 BUILDING DESCRIPTIONS**

---

The Wenatchee Public Library was built in 1973 with renovations potentially completed in 1986, 2006, and 2012. The Library consists of a main floor, upper mezzanine, lower main floor, and basement floor. A loading dock can be accessed along the east portion of the building at the basement. An elevator and interval stairs provide access to each floor. Outdoor stairway are used primarily for emergency egress. See Appendix D for Site Photographs.

The exterior of the building is constructed of painted concrete walls placed on top a below grade concrete and concrete masonry unit block (CMU) foundation. Large metal frame windows are present in the building exterior walls.

#### **4.1 Main Floor**

The Library main floor is the currently utilized as the public book check out and reading area. The main floor is approximately 7,768 square feet with an upper mezzanine area approximately 2,008 square feet. The interior of the building was observed to have modern finished components such as painted plaster walls; metal frame light fixtures and 2 foot by 4 foot suspended ceiling tile over a rough plaster ceiling, carpet tile floor coverings over vinyl tile and original black adhesive. Large round air ventilation vents were observed throughout the Library ceiling.

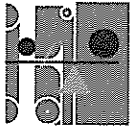
Mezzanine floor is also utilized as a reading area but has access to the upper mechanical room. The mezzanine area was observed to have a combination of multi-color 12-inch vinyl tile and carpet floor coverings.

The mechanical room is occupied by the heating, ventilation, and air conditioning (HVAC) duct systems and water line systems. The interior of the mechanical room is constructed of exposed concrete floors and walls and localized areas of foam padding on walls near surrounding the air handling unit. The mechanical room ceilings were covered in a white soft/fluffy sprayed on surfacing material.

#### **4.2 Lower Main Floor**

The lower floor is utilized as the computer lab with access to the public restrooms. The lower main floor is approximately 2,157 square feet. The interior of the building was observed to have modern finished components such as painted plaster walls; metal frame light fixtures and 2 foot by 2 foot rough textured





suspended ceiling tile over a rough plaster ceiling. The floor system is composed of carpet tile floor coverings and sheet vinyl flooring over black adhesive a concrete substrate.

#### 4.3 Basement Floor

The basement floor area is occupied by the following, the children's book area, conference room, office spaces, staff break room, restrooms, book storage, shipping garage, and two mechanical rooms. The basement is approximately 7,981 square feet.

The children's area, offices, and hallway areas are a combination of painted gypsum wallboard walls and plaster. The mechanical rooms and shipping garage were observed to have exposed concrete masonry unit (CMU) block walls. One of the mechanical rooms were observed to contain mercury switches associated with an electrical switch board. Pipe insulation was observed to be of a white wrapping paper over fiberglass type insulation material with plastic coverings on the joints, elbows, and tees (JETS).

### 5.0 ASBESTOS CONTAINING MATERIALS

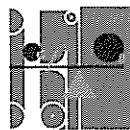
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Asbestos containing materials (ACM) were used extensively from the early 1900s to the late 1970s, when the manufacture of most asbestos products was banned in the U.S. The ban did not include all products nor the use and application of asbestos products. Therefore, suspect ACM may be present in structures built after the initial ACM ban and in newly constructed facilities. Since the 1990s, importation of building materials from foreign countries, perhaps unknowingly, has resulted in the use of ACM in new construction.

#### 5.1 Regulatory Basis

Asbestos inspection purpose is in compliance with regulatory requirements enforced by local, state and federal agencies, including: Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulations (CFR) 1926.1101, *Asbestos*; U.S. Environmental Protection Agency (EPA) 40 CFR Part 61, *National Emissions Standard for Hazardous Air Pollutants* (NESHAPs), and 40 CFR Part 763 *Asbestos Hazard Emergency Response Act (AHERA)*; and Washington State Department of Labor and Industries Division of Occupational Safety and Health (DOSH), Washington Administrative Code (WAC) 296-62-077, *Asbestos, Tremolite, Anthophyllite, and Actinolite* asbestos. Under these regulations an ACM is defined as any material containing greater than one (1) percent (%) asbestos.

These regulations require the owner to inspect a facility for the presence of ACM prior to undertaking a construction, remodel, renovation, maintenance, or demolition project, and to provide inspection results to affected contractors or employees.



## 5.2 Sampling Methodology

The asbestos inspection was conducted by the AHERA accredited Building Inspector(s), as specified in pertinent regulatory references.

Fulcrum's ACM sampling method consists of the following tasks:

- Visual inspection of the area of investigation for the presence of suspect ACM, determination of friability, and any damage to highly suspect ACM.
- Identification of homogeneous materials present within the area of investigation and the AHERA classification of the material as either a surfacing material (SUR), thermal system insulation (TSI), or miscellaneous (MSC) material.
- Establishment of the homogeneous material identifier and a description of the homogeneous material, such as, dimensions, color, texture, etc.
- Collection of representative sample(s) of the homogeneous material per AHERA sampling requirements.

### 5.2.1 Visual Inspection

A visual inspection of all accessible spaces within the building was conducted in accordance with applicable regulatory and industry standards. The scope of work limited the visual inspection to the interior of the building, with the sole exception being the bathrooms, as those are going to be un-impacted during the renovation process.

Fulcrum's scope of work excluded any work from the Wenatchee Public Library roof.

### 5.2.2 Asbestos Hazard Emergency Response Act Material Classification

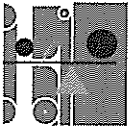
Under Asbestos Hazard Emergency Response Act (AHERA), suspect ACM are classified as surfacing (SUR), thermal system insulation (TSI), or Miscellaneous (MSC). As defined in AHERA, 40 CFR 763:

*"Surfacing Material"* (SUR) means material in a school building that is sprayed-on, troweled-on, or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, or other purposes.

*"Thermal System Insulation"* (TSI) means material in a school building applied to pipes, fittings, boilers, breeching, tanks, ducts, or other interior structural components to prevent heat loss or gain, or water condensation, or for other purposes.

*"Miscellaneous Material"* (MSC) means interior building material on structural components, structural members or fixtures, such as floor and ceiling tiles, and does not include SUR or TSI.

Subsequent revisions and regulatory guidance has applied these definitions to all buildings, regardless of use, and inclusion of exterior ACM based on their material type. For instance, pipe insulation in an exterior tunnel is considered TSI.



### 5.2.3 Homogeneous Areas

An AHERA material classification was further subdivided into “Homogeneous Areas”. Homogeneous Areas are those materials that are consistent throughout a building and are based on color, texture and/or construction era. Identification of suspect building materials using this homogeneous area definition is the current industry standard, and is the process used by federal, state, and local agencies for determining regulatory compliance.

Homogeneous Areas are often then subcategorized into general material type groups or systems, such as vinyl tile, that can be indexed with an abbreviation, such as VT, for ease of reference in summary data tables.

### 5.2.4 Representative Samples

Fulcrum collected samples of suspect materials per AHERA regulations, the industry standard for both sample collection and analysis. Except where the AHERA accredited Building Inspector has identified a limited quantity of suspect MSC, Fulcrum’s standard sampling method requires that analytical results from three (3) samples of each suspect material are collected to determine if a material is non-ACM. Of each suspect ACM, a representative, full depth sample of the material is sampled and placed into a labeled resealable bag.

Where Fulcrum’s AHERA accredited Building Inspector identifies a suspect ACM to be unique, the total area/length of the suspect ACM to be limited, or simply an additional confirmatory sample is useful to conclude a report, less than three may be determined by the inspector to be sufficient.

### 5.2.5 Friability

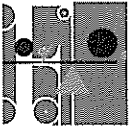
Friability is an indicator of a material’s potential to release asbestos fibers. Materials are divided into two general friability categories, friable or non-friable.

“*Friable*” means that the material, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. Friable material also includes previously non-friable material that has become damaged to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure.

“*Non-friable*” materials are defined as materials which when dry may not be crumbled, pulverized, or reduced to a powder by hand pressure.

Friable materials are the most hazardous form of ACM. Their physical composition lends them more susceptible to releasing asbestos fibers into the air when they are disturbed.

Non-friable ACM are generally associated with materials that have the asbestos fibers bound within a protective covering or in an asphalt or concrete/mortar matrix. The release of asbestos fibers by these materials is typically associated with an external force or aggressive action being applied to the material: sawing, grinding, chipping, sanding, etc. Non-friable ACM are considered the less hazardous of these two categories.



The friability of a material is an important consideration when assessing and recommending a material's response action. In addition to the assessment considerations, the friability of a material is important with respect to regulatory compliance. Compliance considerations include, but not limited to, worker certification and protection, engineering controls, notification and disposal requirements.

When determining the friability of a material, Fulcrum inspectors utilize the "hand pressure or touch" test as required by law. However, this friability test was further supplemented by visual observations as to the material's matrix structure and judging whether an external aggressive action (cutting, sawing, grinding, sanding, etc.) would be required to release asbestos fibers. If a non-aggressive action, such as striking or bumping the material with a sharp object, water damage, delamination, etc. is anticipated to release fibers, the material is classified as a friable material by Fulcrum.

### 5.3 Homogeneous Materials Identified During the Inspection

The following summary presents the homogeneous areas identified during the inspection by AHERA material classification:

SUR: The AHERA accredited Building Inspectors classified the following suspect ACM as surfacing materials and assigned the associated homogenous abbreviation

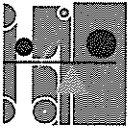
- Residual sprayed on acoustical surfacing (SUR-01)
- Sprayed on white fluffy fireproofing material (SUR-02)
- Plaster on ceilings (PL-01)
- Plaster on walls (PL-02)

TSI: The AHERA accredited Building Inspectors classified the following suspect ACM as thermal system insulation materials and assigned the associated homogenous abbreviation:

- White paper wrapping over yellow fiberglass type insulation (TSI-01)

MSC: The AHERA accredited Building Inspectors classified the following suspect ACMs as miscellaneous materials and assigned the associated homogenous abbreviation:

- Ceiling Tile (CT)
- Adhesive (ADV)
- Window Putty (WP)
- Floor Base (FB)
- Vinyl Tile (VT)
- Sheet Vinyl Flooring (SVF)
- Gypsum Wallboard (GWB)
- Miscellaneous (MSC)
- Building Putty (BP)
- Door Putty (DP)
- Window Glazing (WG)



### 5.3.1 Assumed Asbestos Containing Materials

An assumed ACM is any material that the inspector assumes contains greater than 1 percent asbestos based on previous inspection results; manufacturers' labels, age, appearance; or inspector's expertise. Due to the inaccessibility or other means, all materials not sampled by Fulcrum are assumed to be ACM unless otherwise tested.

Fulcrum's scope of work excluded any sampling to be completed on the Wenatchee Public Library roof. Fulcrum assumes the roof system to be ACM, until materials are sampled by and accredited AHERA building inspector and identified non-ACM by an EPA accredited laboratory.

### 5.3.2 Assumed Non-Asbestos Containing Materials

Under AHERA inspection criteria, some materials can be assumed to be non-ACM based on manufacturers' labels, age, appearance, or inspector's expertise. The following materials were identified and were assumed to be non-ACM based on manufacturers' labels, age, appearance, or inspector's expertise:

- Wood components – shelves, doors, trim, framing, throughout
- Glass – windows, exterior/interior, throughout
- Concrete – exterior/interior walls, foundation, throughout
- Metal – framing, plumbing, ducting, throughout

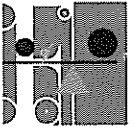
## 5.4 Laboratory Methodologies

Fulcrum collected 138 suspect ACM samples during the inspection. Samples were shipped by common carrier under chain of custody to Seattle Asbestos Test, LLC (SAT), located in Lynnwood, Washington. SAT is a National Voluntary Laboratory Accreditation Program (NVLAP) certified laboratory (#200768-0). Samples were analyzed using Polarized Light Microscopy (PLM) method EPA 600/R-93/116.

Select duplicate samples were sent to NVL Laboratories, a NVLAP accredited laboratory (#102063) located in Seattle, Washington for PLM analysis.

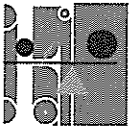
### 5.4.1 Asbestos Containing Materials

By regulatory definition an asbestos containing material (ACM) is any homogeneous areas that contains greater than one (1) percent (%) asbestos in one or more of the samples analyzed, or were classified as ACM based on the inability to differentiate between ACM and non-ACM areas. See Table 1 for Summary of Asbestos Containing Results. Laboratory results indicated that all samples submitted for laboratory analysis were below one (1) percent (%) asbestos. Refer to Figures 2A-2B for Sample Locations Maps.



**Table 1: Asbestos Containing Materials**

Sample Number	Index	Description	Location <sup>1</sup>	Comment
81518-001 81518-002 81518-003 81518-004 81518-005 81518-006 81518-007	SUR-01	Yellow hard and rough textured residual spray on plaster ceilings	Main floor, northeast Main floor, southeast Main floor, northwest Lower main floor, west Auditorium, center Auditorium, east	3% to 5% Chrysotile in yellow powdery material
81518-008 81518-009 81518-010 81518-011 81518-012 81518-013 81518-014	PL-01	White hard thin plaster material on ceilings	Main floor, northeast Main floor, southeast Main floor, northwest Lower main floor, west Auditorium, west Auditorium, center	3% Chrysotile in trace of yellow powdery material
81518-064 81518-065 81518-066	ADV-03	Black carpet adhesive over concrete	Lower main floor, northeast Lower main floor, west Lower main floor, south	2% to 4% Chrysotile in black/gray adhesive
81518-082 81518-083	ADV-04	Black carpet adhesive over concrete	Auditorium, north Auditorium, north	2% Chrysotile in black adhesive
81518-085 81518-086 81518-087	ADV-05	Yellow brown carpet adhesive	Staff break room Auditorium, hallway restroom, Auditorium, center	3% Chrysotile in black adhesive
81518-088 81518-089 81518-090	VT-03	Dark brown carpet adhesive over 9-inch white vinyl tile over black adhesive	Basement storage, northeast Basement storage, center Basement storage, west	2% Chrysotile in white tile, 3% to 4% Chrysotile in black adhesive
81518-103 81518-104 81518-105	VT-04	Gray floor tile over black adhesive	Lower main floor, west Lower main floor, east Lower main floor, south	2% to 4% Chrysotile in gray/beige tile and 3% to 4% Chrysotile in black adhesive
81518-200 81518-201 81518-202	BP-01	White thick hard building putty on rock wall	Exterior, south Exterior, south Exterior, south	2% Chrysotile in white brittle material
81518-203 81518-204 81518-205	BP-02	Thin soft white building putty	Exterior, south Exterior, southeast Exterior, southeast	5% Chrysotile in white soft material



Sample Number	Index	Description	Location <sup>1</sup>	Comment
81518-206 81518-207 81518-208	WP-01	Gray soft window putty	Exterior, southwest Exterior, southwest Exterior, southeast	3% to 6% Chrysotile in gray soft material with pink paint
81518-209 81518-210 81518-211	DP-01	Red/brown paint over white soft door putty	Exterior, west Exterior, north Exterior, southeast	6% Chrysotile in white soft material with paint
81518-212 81518-213 81518-214	WG-01	White soft window glazing	Exterior, northwest Exterior, northwest Exterior, northwest	3% Chrysotile in white/gray soft material with paint
81518-215 81518-216 81518-217	WG-02	Gray soft window glazing (lower level mezzanine)	Exterior, north Exterior, north Exterior, northwest	2% Chrysotile in gray soft material

1. Locations identified in the table reflect locations sampled and may not represent all locations identified material.

#### 5.4.2 Materials Containing Less than 1% Asbestos

By regulatory definition a non-ACM is any materials that contains 1 percent or less asbestos. However, materials with no asbestos identified are managed differently than materials where asbestos is present though at concentrations below the threshold for a regulated asbestos material. The following materials were identified with less than 1% asbestos:

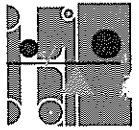
There are no homogenous materials for this project that have tested positive containing less than or equal to 1% asbestos.

#### 5.4.3 Non-Asbestos Containing Materials

By regulatory definition a non-ACM is any materials that contains 1 percent or less asbestos. However for purposes of this inspection, only homogeneous materials where all samples collected were reported by the project laboratory to contain no detectable asbestos fibers are regarded as non-ACM. The following materials were found by the project laboratory to contain no asbestos fibers: See Appendix B for Summary of Non-ACM results.

### 5.5 Asbestos Inspection Quality Assurance and Quality Control

Select duplicate samples were sent to NVL Laboratories, a NVLAP accredited laboratory (#102063) located in Seattle, Washington for PLM analysis. The purpose of duplicate sample analysis was to evaluate quality assurance and quality control procedures of sample collection process and the selected primary laboratory analysis.



A total of 13 samples, approximately 10% of the 138 samples collected, were submitted to NVL for analysis and review by Fulcrum. Generally the duplicate results were consistent with the original analysis, with variation primarily in the areas of sample layer description and identification of variations in the samples, not in the difference between ACM and non-ACM designation with the exception of a couple samples. See Appendix B for the quality assurance and quality control results.

## 5.6 Asbestos Containing Materials Summary

Fulcrum collected 138 samples of suspect ACM during the Wenatchee Public Library inspection. Initial laboratory analysis identified the following materials to be ACM:

- Yellow powdery material associated with plaster ceilings – approximately 17,906 square feet
- Black adhesive associated with vinyl tile underlying carpet flooring – approximately 5,016 square feet
- White building putty – approximately 75 linear feet
- Thin white soft building putty – approximately 75 linear feet
- Window putty – approximately 40 units
- Window glazing – approximately 36 units
- White soft door putty – approximately 3 each
- Roof system – approximately 12,000 square feet

## 6.0 Lead Containing Materials

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Lead containing materials (LCM) are any product, with naturally occurring lead, or manufactured, or produced with lead. Lead materials can include, but are not limited to, paint, varnish, mortar, alloys, etc. Lead containing material inspections may be performed using paint chip sampling and laboratory analysis, field x-ray fluorescence (XRF) instrumentation, or a combination of both approaches. Fulcrum utilized paint chip collection approach for this inspection.

### 6.1 Regulatory Basis

The purpose of the LCM investigation is to facilitate pending modernization and demolition activities in compliance with pertinent regulations while protecting workers, the public, and the environment. For purposes of this investigation, LCM are being evaluated under or based upon the following regulations:

- **Worker Protection:** WAC 296-155-176, *Lead*; and 29 CFR 1910.1025(a)(2), *Lead*
- **Consumer Protection:** 16 CFR 1303 Ban of Lead-Containing Paint and Certain Consumer Products Bearing Lead-Containing Paint and 16 CFR 1500 Federal Hazardous Substance Act
- **Target Housing and Occupants:** WAC 365-230 Accreditation of Lead-Based Paint Training Programs and the Certification of Firms and Individuals Conducting Lead-Based Paint Activities and Renovation and 40 CFR Part 745 Lead-Based Paint Poisoning Prevention in Certain Residential Structures, Subpart E, Residential Property Renovation, commonly referred to as the Renovation, Repair, and Painting (RRP) regulations
- **Lead Safe Housing:** 24 CFR Part 35 Lead-Based Paint Poisoning Prevention in Certain Residential Structures





- **Waste Characterization:** WAC 173-303, Dangerous Waste; and 40 CFR 261, Identification and Listing of Hazardous Waste

The most stringent lead regulations are found in the lead in construction regulations administered by the Occupational Safety and Health Administration (OSHA), in federally managed areas, and the Department of Occupational Safety and Health (DOSH) in Washington State. Under these worker protection regulations any material containing a detectable concentration of lead is a LCM. Lead in construction regulations apply to all work environments during many types of tasks including, but not limited to, the following:

- Demolition or salvage of structures where lead or materials containing lead are present;
- Removal or encapsulation of materials containing lead;
- New construction, alteration, repair, or renovation of structures, substrates, or portions thereof, that contain lead, or materials containing lead;
- Installation of products containing lead;
- Lead contamination/emergency cleanup;
- Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed; and
- Maintenance operations associated with the construction activities described in this section.

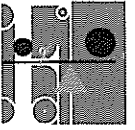
In 1978, the Consumer Product Safety Commission (CPSC), under 16 CFR Part 1303, enacted limits on the lead concentration in household paints to not more than 0.06% lead by weight, or 600 mg/Kg. Under the Consumer Product Safety Improvement Act of 2008, the acceptable concentration of lead in consumer products was lowered to 0.009% or 90 mg/Kg. While the OSHA has not identified a specific lead concentration below which the lead in construction regulations do not apply, they have issued guidance that the CPSC established values are a reasonable lower concentration for determining applicability of the lead in construction regulations.

Except under specific allowance for some residential renovation debris, all demolition debris must be evaluated for potential toxicity to the environment and evaluated by a process referred to as waste characterization. Under Ecology's Dangerous Waste regulations any waste must be analyzed for the known and potential constituents, including lead, to determine if the material is leachable above acceptable levels. Demolition debris containing lead must be characterized for leachable lead prior to transport, recycling, or disposal. Lead concentration above 5.0 milligrams per Liter (mg/L) as measured by the Toxic Characterization Leaching Procedure (TCLP) analytical methodology is considered dangerous waste and must be disposed of at a Resource, Conservation, and Recovery Act (RCRA) Subtitle C landfill.

## 6.2 Inspection and Sampling Methodology

A visual inspection of accessible portions of the investigation area was conducted. The inspection was conducted in substantial conformance with applicable regulatory and industry standards. Relevant portions of the 1995 HUD guidance (Revised in 2012) and Washington State lead-based paint regulations. The LCM inspection consists of following basic steps:

- Identification of homogenous areas and components
- Paint Chip sample collection for laboratory analysis



Characteristic painted surfaces were classified as homogeneous areas based on color of surface paint, substrate, construction era, and in some cases, color of sublayers. Homogeneous materials are one of the key elements for referencing both lead and non-lead materials identified during the inspection and used within this report. Sample locations in the facility were selected to be representative of the various homogeneous areas. Full-layer thicknesses of existing paint were evaluated to obtain a historical representation of all paints applied to the tested component.

Paints that appear homogeneous for a given substrate may have been manufactured during different time periods and by different companies or may obscure the underlying variations in paint history and application areas. To counterbalance this possibility, multiple paint chip samples of suspect homogeneous components with surface areas greater than (>) 1,000 square feet were collected in different locations and analytical results compared to confirm lead content conclusions.

For this inspection report, homogeneous areas/materials were developed using the site figures, surface color, and component composition as primary considerations, supported by visual observations made in the field regarding material appearance, texture, size, color, and/or manufacturers' labels. Suspect painted surfaces were then sampled to determine if they contain lead or are non-lead containing based on laboratory results. Once the analytical results were received and reviewed, additional samples may be collected for materials with inconsistent results.

#### 6.2.1 Paint Chip Sample Collection for Laboratory Analysis

Fulcrum's certified Lead Inspector or Risk Assessor collected paint chip samples of select building materials where homogenous materials were visually identified. Paint chip sample analytical results are used to determine if the lead concentrations in the paint or varnish is above 600 mg/Kg and appropriate for disclosure to the project contractor for worker protection purposes.

Lead paint chip samples were submitted to NVL Laboratories, Inc., a NVLAP accredited laboratory (#102063-0) located in Seattle, Washington, an Environmental Lead Proficiency Analytical Testing (ELPAT) Program certified laboratory. Submitted samples are analyzed by EPA Method 7000B for total lead. See Appendix E for complete Lead Analytical Results.

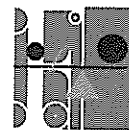
### 6.3 Components Identified During the Inspection

Painted components identified during the inspection are identified in Table 2.

#### 6.3.1 Assumed Lead Containing Materials Identified

The following materials are assumed to contain lead greater than the limit of detection:

- Metal pipe caps and plumbing
- Plumbing components
- Solder or plumbing and metal brazed components



### 6.3.2 Assumed Non-Lead Containing Materials

The following materials are assumed to be non-lead containing materials:

- Glass
- Unpainted wood
- Unpainted concrete
- Unpainted pipe
- Unpainted plastics
- Carpet

### 6.4 Paint Chip Results

Results of this inspection indicate that lead was detected in concentrations greater than or equal to the method reporting limit of detection for the following homogenous area. Sample results shown in **Bold** represent analytical results greater than 600 mg/Kg for total lead and a potential worker protection concern. See Appendix C for all paint chip laboratory analysis. See Figures 3A-3B for Paint Chip Sample Locations

Table 2: Paint Chip Analytical Results

Sample Number	Sampled Location	Paint Color	Identified Component	Reporting Limit	Results in mg/kg	Results in Percent
PCL-01	Library, exterior	Pink	Concrete	59	<b>810</b>	<b>0.081</b>
PCL-02	Library, exterior retaining wall	White	Concrete	59	<59	<0.0059
PCL-03	Library, door	Red/brown	Metal	51	<b>2,000</b>	<b>0.20</b>
PCL-04	Library, exterior walls	White	Concrete	56	<56	<0.0056
PCL-05	Library, exterior railing	Brown	Metal	150	250	0.025
PCL-06	Library, interior	White	GWB	48	<b>1,200</b>	<b>0.12</b>
PCL-07	Library, interior shipping door	Black/red	Metal	130	<b>1,200</b>	<b>0.12</b>
PCL-08	Library, interior walls	Tan	Plaster	49	100	0.010
PCL-09	Library, interior basement walls	Green	GWB	52	<52	<0.0052
PCL-10	Library, interior walls	Dark Tan	Plaster	75	170	0.017
PCL-11	Library, interior walls	Light Tan	Plaster	99	180	0.018

### 6.5 Lead Containing Materials Summary

Fulcrum's LCM inspection included field sampling for laboratory paint chip analysis. Paint chip sampling consisted sample collection on painted components such as exterior concrete, exterior railing components, interior plaster and gypsum wallboard walls, metal. Results of the inspection indicate that the 8 out of the 11 paint chip samples collected had lead detected above the method limit of reporting.



Out of those 8 samples, 4 contain lead greater than or equal to 600 mg/Kg, which is the general guideline for worker exposure risk. These materials are classified as a lead containing material and are regulated under DOSH worker safety regulations specified in Washington Administrative Code 296-155-176.

Depending upon contractor elected demolition methods, additional waste characterization of composite, building components are sampled for lead in conformance with ASTM Standard E 1908-16 *Standard Guide for Sample Selection of Debris Waste from a Building Renovation or Lead Abatement Project for Toxicity Characteristic Leaching Procedure (TCLP) Testing for Leachable Lead (Pb)* may be required.

## 7.0 Lighting and Electrical Components

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Lighting and electrical components (LEC) is a general term that refers to potential waste streams associated with all electrical equipment when components fail, are replaced, or are removed during renovation or demolition activities. Waste can include transformers and ballasts with polychlorinated biphenyl (PCB), non-PCB ballasts, di(2-ethylhexyl) phthalate (DEHP) ballasts, mercury vapor lamps and bulbs, mercury switches, and other waste streams.

Electrical transformers have utilized mineral oil mixed with varying quantities of PCB as dielectric fluid since the early 1950s. This mixture was also commonly used in fluid filled light ballasts prior to 1978 the end of the PCB phase out enforced by congress due to its toxicity. In 1979 DEHP was used to replace PCBs as a dielectric in ballasts. By 1985, the dangers of DEHP were realized and all ballasts for four foot fixtures were manufactured without DEHP, it took six more years, until 1991, to phase out the use of DEHP in ballasts for eight foot fixtures and high intensity fixtures. Light ballasts have also been shown to contain other hazardous materials besides PCB and DEHP, both in newer and older ballasts.

Ballasts that have been manufactured without PCB are labeled as "No PCB" or "Non-PCB," approximately half of all ballast labeled non-PCB have been known to contain DEHP. Individual ballasts that are not labeled are assumed to be PCB containing. Sampling of individual ballasts is not traditionally completed as the testing costs exceed disposal costs.

Fluorescent lamps and bulbs have historically contained mercury. Lamps and bulbs that have low concentrations of mercury may be designated with green ends or caps. Although typically of a low quantity, the mercury present in these lamps and bulbs should be captured and recycled, not disposed of in landfills; mercury lamps and bulbs can be managed as universal waste.

Thermostatic switches have historically utilized a mercury containing device to reflect the temperature within a zone or area. Switches include wall mounted thermostats, and switches incorporated within heating and cooling systems.

### 7.1 Lighting and Electrical Components Regulatory Basis

This investigation was designed to identify LEC that may require segregation and special handling or waste characterization prior to disposal as a result of modernization and demolition activities. Requirements for waste characterization are identified in Ecology's *Dangerous Waste Regulations*, WAC 173-303; EPA's *Toxic Substance Control Act* (TSCA), 40 CFR Part 761; EPA's *Identification and*



*Listing of Hazardous Waste in 40 CFR Part 261; and EPA's Designation, Reportable Quantities, and Notification in 40 CFR Part 302.*

## 7.2 Lighting and Electrical Components Inspection Methodology

Fulcrum's Hazardous Waste Operations and Emergency Response (HAZWOPER) trained inspector conducted a visual inspection of LEC to determine potential hazardous constituents such as polychlorinated biphenyl PCB, DEHP or mercury. Fulcrum completed the following inspection procedure during this LEC inspection:

- Record and identify the work space or functional area being inspected.
- Identify the type and number of all lighting fixtures and record tube length, size, and number.
- Determine if each light fixture reports as an electronic or magnetic ballast(s) with a Philips Advanced Ballast Checker. All magnetic ballasts are assumed to be PCB or DEHP fluid containing.
- Observe any plastic or metal diffusers or other covers for indications of oil staining or discoloration that may be associated with an oil release, electrical fire or sparking, failed ballast, etc.
- Identify number of other bulb or fixture types.
- Record observations.

## 7.3 Lighting and Electrical Components Components Identified During Inspection

Fulcrum's inspection identified predominantly fluorescent lighting fixtures throughout the HBM inspection area. All lighting fixtures contained four-foot fluorescent lamps. All fluorescent lamps and bulbs inspected were mercury containing. See Table 3 for a summary of fluorescent lighting components identified during the inspection.

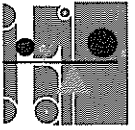
**Table 3: Lighting and Electrical Component Quantities**

Component	Quantity
4-foot lamps	1,451
Ballast <sup>1</sup>	500
Mercury containing switches <sup>2</sup>	3

1. Fulcrum identified approximately 60% of the ballast to be magnetic and assumed to contain PCBs.
2. Mercury containing switches were observed down in the basement on an electrical switch board.

## 7.4 Lighting and Electrical Components Summary

Fulcrum confirmed the presence of mercury containing fluorescent lamps and mercury containing switches. Approximately 60% of the ballast were identified as magnetic an indication that the ballast could potentially contain PCBs.



All fluorescent lamps, ballast, fluorescent bulbs, and mercury encountered during demolition activities should be removed and recycled or disposed of in accordance with local, state, and federal requirements.

## 8.0 Refrigerant Containing Systems

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Refrigerant containing systems (RCS) contain some man-made chemicals, generally referred to as ozone depleting compounds (ODC) that are believed to impair the ability of Earth's ozone layer to filter out ultraviolet (UV) radiation. Ozone depleting compounds include a class of chemicals consisting of chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), Halons, and some chlorinated solvents. Most refrigeration systems, from mini-fridges to cooling chillers and automobile air conditioners, use some type ODCs, typically a CFC. Some aerosol cans use CFCs or HCFCs as propellants. Halon is a common gaseous agent in fire extinguishing systems common to rooms with electronic and computer systems.

New refrigerants utilize a different chemical process for cooling and included pure hydrofluorocarbon (HFC) and perfluorocarbon (PFC) substitutes. The HFC and PFC class of chemicals are generally not considered to be ODC.

### 8.1 Refrigerant Containing Systems Regulatory Basis

The 1990 Clean Air Act Amendments, codified in 42 CFR Part 85, and titled *Air Pollution Prevention and Control*, commonly known as the Clean Air Act, phase out manufacture of some ODCs. The primary targets of the cutback are CFCs, Halon, carbon tetrachloride, and methyl chloroform. The goal of the program is to prevent releases of ODCs to the atmosphere. In addition to restricting the production of these materials, EPA's Protection of Stratospheric Ozone Program, 40 CFR Part 82, *Protection of Stratospheric Ozone: Substitute Refrigerant Recycling; Amendment to the Definition of Refrigerant*, includes requirements for reporting, tracking, and registration.

Effective November 15, 1995, the Clean Air Act prohibited the knowing venting, release, or disposal of any CFC and HCFC refrigerants by any person maintaining, servicing, repairing, or disposing of air conditioning and refrigeration equipment. Recovery and reuse or disposal of CFCs and HCFC is required.

Further, under Washington State's Dangerous Waste Regulations, WAC 173-303-506 *Special requirements for the recycling of spent CFC or HCFC refrigerants*, refrigerants are to be recycled and when recycled, are not considered dangerous wastes. Refrigerants eligible for these special requirements are those CFCs and HCFCs that were used as heat transfer material in a refrigeration cycle in totally enclosed heat transfer equipment and are subsequently reclaimed or recycled.

### 8.2 Refrigerant Containing Systems Inspection

Potential refrigerant containing systems identified and included roof mounted air conditioning units, refrigerator, and chilled drinking fountains. See Table 4 for Summary of Refrigerant Containing Systems.



**Table 4: Summary of Refrigerant Containing Systems**

Component	Quantity
Roof mounted HVAC system	3
Refrigerator	1
Chilled Drinking Fountain	1

### 8.3 Refrigerant Containing Systems Summary

Fulcrum's RCS inspection identified three fluid containing cooling system located on the roof, refrigerator in the staff break room, and one chilled drinking fountain. Fulcrum recommends that the unit be decommissioned by a qualified contractor prior to demolition.

## 9.0 CONCLUSIONS

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### 9.1 Asbestos Containing Materials

Fulcrum collected 138 samples of suspect ACM during the Wenatchee Public Library inspection. Fulcrum submitted 13 duplicate samples to a separate laboratory for quality assurance. Initial laboratory analysis identified the following materials to be ACM:

- Yellow powdery material associated with plaster ceilings – approximately 17,906 square feet
- Black adhesive associated with vinyl tile underlying carpet flooring – approximately 5,016 square feet
- White building putty – approximately 75 linear feet
- Thin white soft building putty – approximately 75 linear feet
- Window putty – approximately 40 units
- Window glazing – approximately 36 units
- White soft door putty – approximately 3 each
- Roof system – approximately 12,000 square feet

All ACM materials will require abatement by a Washington State licensed Asbestos Contractor following all pertinent regulations prior to building demolition. If any new suspect materials are identified during demolition, work should be halted until the material(s) is sampled to confirm asbestos absence or presence.

### 9.2 Lead Containing Materials

Fulcrum's LCM inspection included field sampling for laboratory paint chip analysis. Results of the inspection indicate that the 8 out of the 11 paint chip samples collected had lead detected above the method limit of reporting. Out of those 8 samples, 4 contain lead greater than or equal to 600 mg/Kg, which is the general guideline for worker exposure risk. These materials are classified as a lead



containing material and are regulated under DOSH worker safety regulations specified in Washington Administrative Code 296-155-176.

Fulcrum assumed the metal building components to be coated with lead containing paint and that all metal windows, glazed tile and wall block, metal pipe caps and plumbing, roof jackets, plumbing components, and solder or plumbing and metal brazed components were lead containing.

The identified materials contained in this report are classified as a lead containing material and are regulated under DOSH worker safety regulations specified in Washington Administrative Code 296-155-176.

### 9.3 Lighting and Electrical Components

Fulcrum confirmed the presence of mercury containing fluorescent lamps and mercury containing switches. Approximately 60% of the ballast were identified as magnetic an indication that the ballast could potentially contain PCBs.

All fluorescent lamps, ballast, fluorescent bulbs, and mercury encountered during demolition activities should be removed and recycled or disposed of in accordance with local, state, and federal requirements prior to building demolition.

### 9.4 Refrigerant Containing Systems

Fulcrum's RCS inspection identified three fluid containing cooling system located on the roof, refrigerator in the staff break room, and one chilled drinking fountain. Fulcrum recommends that the unit be decommissioned by a qualified contractor prior to demolition.

## 10.0 LIMITATIONS

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Fulcrum Environmental Consulting, Inc.'s scope of services for this project was limited to a Hazardous Building Materials inspection of the Wenatchee Public Library located at 310 Douglas Street in Wenatchee, Washington as outlined in the preceding sections. Results are specific to the time and day of inspection and may not reflect conditions at other times. Fulcrum makes no warranties, expressed or implied as to the accuracy or completeness of other's work included herein. Fulcrum has performed these services in accordance with generally accepted industry standards of care at the time of the inspection. No warranty, expressed or implied, is made.

If the scope of work should change, including impact to materials not tested during this inspection or if new suspect materials are identified, the contractor(s) should stop work and contact Fulcrum to conduct additional sampling and analysis.





## FIGURES

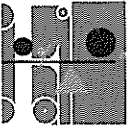
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Figure 1	Site Location Map
Figure 2A	ACM Sample Locations for Main Floor
Figure 2B	ACM Sample Locations for Lower Main and Basement Floor
Figure 3A	Paint Chip Sample Locations for Main Floor
Figure 3B	Paint Chip Sample Locations for Lower Main and Basement Floor

## APPENDICES

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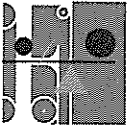
Appendix A	Professional Certifications
Appendix B	Asbestos Containing Material Results
Appendix C	Lead Containing Materials
Appendix D	Site Photographs



## INSPECTOR CERTIFICATION SUMMARY

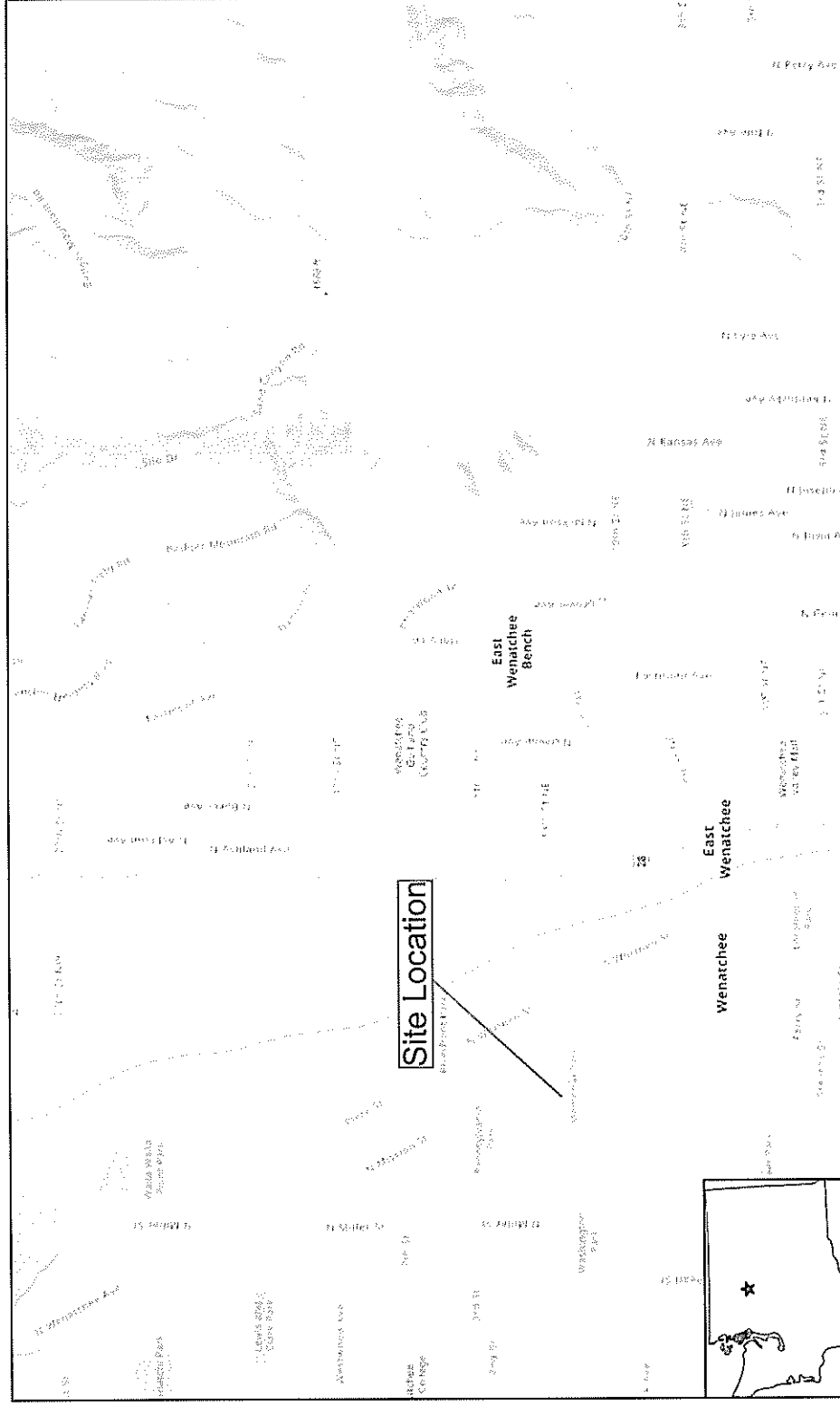
The following summarizes the relevant professionals and their certification(s) responsible for the completion of field inspection services for this project. See certificates in Appendix A.

Inspector	License Type	License	Expiration
Daniel Orozco	AHERA Building Inspector	#167536	05/16/2019
	WA State Department of Commerce Lead Risk Assessor	#6642	04/28/2021
Avery Foltz	AHERA Building Inspector	#167805	06/01/2019
Kyle Ames	AHERA Building Inspector	#164625	12/06/2018
	Hazwoper 8-hour Refresher	1541548-1030	04/19/2019
Ryan K. Mathews	AHERA Building Inspector	#167291	05/09/2019
	WA State Department of Commerce Lead Risk Assessor	#163365	09/19/20
	AHERA Project Designer	#163761	10/19/2018
	Certified Hazardous Materials Manager	# 14149	01/31/2023
	Certified Industrial Hygienist	#9916	12/1/2021



## **FIGURES**

Figure 1	Site Location Map
Figure 2A	ACM Sample Locations for Main Floor
Figure 2B	ACM Sample Locations for Lower Main and Basement Floor
Figure 3A	Paint Chip Sample Locations for Main Floor
Figure 3B	Paint Chip Sample Locations for Lower Main and Basement Floor



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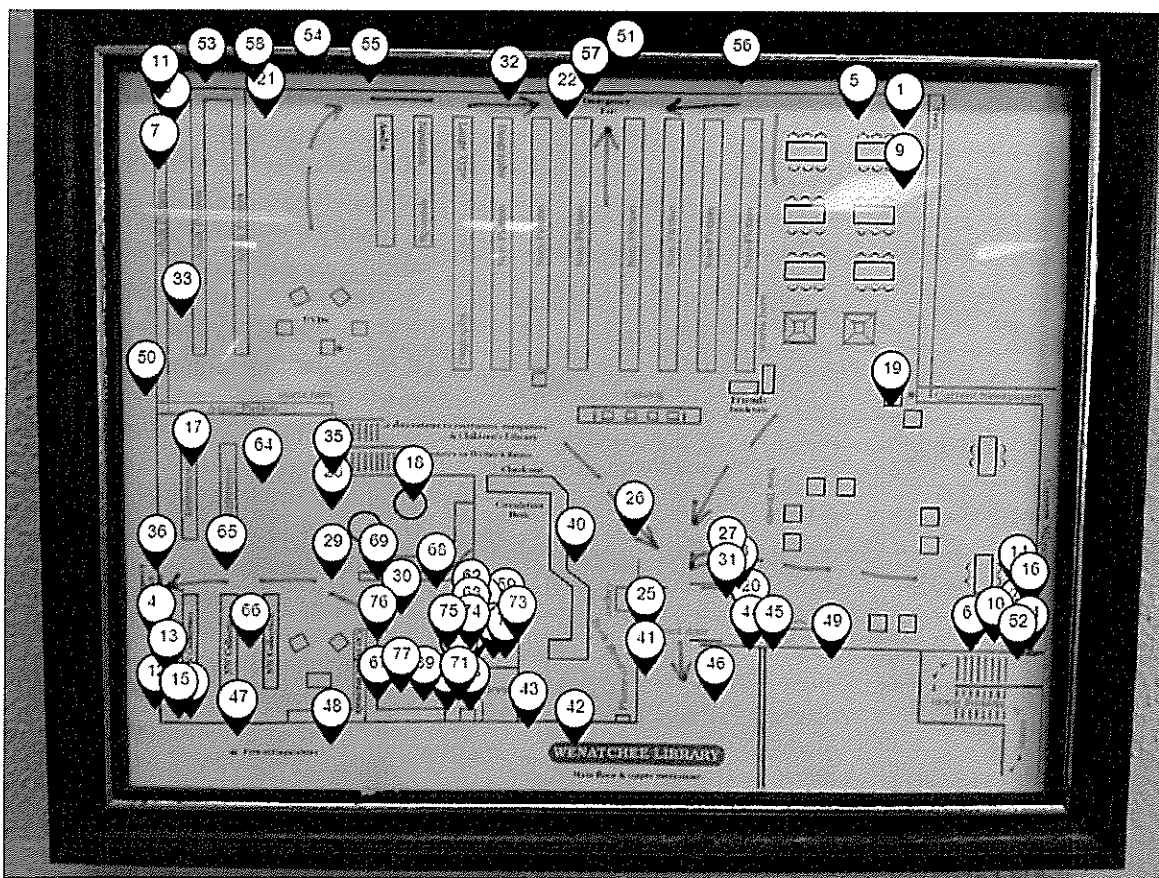
FIGURE  
1

Site Location Map

310 Douglas Street  
Wenatchee, Washington

Fulcrum Environmental Consulting, Inc.  
406 North Second Street, Yakima, Washington 98901  
p: 509.574.0839 f: 509.575.8453 [fulcrum.net](http://fulcrum.net)  
Wenatchee Library HBM. 182524. LMW. 090218

Figure 2A ACM Sample Locations for Main Floor



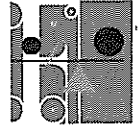
Map ID	Sample ID	Index	Space Name	Material
1	81518-001	SUR-01	Main floor, northeast	Yellow hard and rough textured residual spray on plaster
2	81518-002	SUR-01	Main floor, southeast	Yellow hard and rough textured residual spray on plaster
3	81518-003	SUR-01	Main floor, northwest	Yellow hard and rough textured residual spray on plaster
4	81518-004	SUR-01	Upper mezzanine, southwest	Yellow hard and rough textured residual spray on plaster
5	81518-008	PL-01	Main Floor, northeast	White hard thin plaster material
6	81518-009	PL-01	Main Floor, southeast	White hard thin plaster material
7	81518-010	PL-01	Main Floor, northwest	White hard thin plaster material
8	81518-011	PL-01	Upper mezzanine, southwest	White hard thin plaster material
9	81518-015	PL-02	Main Floor, northeast	Tan paint on hard rough textured plaster wall panels



Map ID	Sample ID	Index	Space Name	Material
10	81518-016	PL-02	Main Floor, southeast	Tan paint on hard rough textured plaster wall panels
11	81518-017	PL-02	Main Floor, northwest	Tan paint on hard rough textured plaster wall panels
12	81518-018	PL-02	Upper mezzanine, southwest	Tan paint on hard rough textured plaster wall panels
13	81518-022	CT-01	Upper mezzanine, southwest	2 foot by 4 foot white ceiling tile with squiggles and pin holes
14	81518-023	CT-01	Main floor, southeast	2 foot by 4 foot white ceiling tile with squiggles and pin holes
15	81518-024	CT-01	Upper mezzanine, southwest	2 foot by 4 foot white ceiling tile with squiggles and pin holes
16	81518-025	CT-02	Main floor, southeast	2 foot by 4 foot white with only pin holes ceiling tile
17	81518-026	CT-02	Upper mezzanine, northwest	2 foot by 4 foot white with only pin holes ceiling tile
18	81518-027	CT-02	Upper mezzanine, northeast	2 foot by 4 foot white with only pin holes ceiling tile
19	81518-028	ADV-01	Main floor, east	Yellow carpet adhesive underlying gray carpet tiles
20	81518-029	ADV-01	Main floor, south	Yellow carpet adhesive underlying gray carpet tiles
21	81518-030	ADV-01	Main floor, northwest	Yellow carpet adhesive underlying gray carpet tiles
22	81518-031	FB-01	Main floor, north	4-inch dark gray floor base over white adhesive
23	81518-032	FB-01	Main floor, southeast	4-inch dark gray floor base over white adhesive
24	81518-033	FB-01	Main floor, south	4-inch dark gray floor base over white adhesive
25	81518-037	ADV-02	Main floor, south	Dark brown carpet adhesive
26	81518-038	ADV-02	Upper mezzanine, northeast	Dark brown carpet adhesive
27	81518-039	ADV-02	Main floor, south	Dark brown carpet adhesive
28	81518-040	CT-04	Upper mezzanine, southeast	12-inch white ceiling tile over brown glue dot
29	81518-041	CT-04	Upper mezzanine, center	12-inch white ceiling tile over brown glue dot
30	81518-042	CT-04	Upper mezzanine, southeast	12-inch white ceiling tile over brown glue dot
31	81518-043	VT-01	Main floor, entry	Yellow carpet adhesive over a 12-inch white vinyl tile over black adhesive over concrete
32	81518-044	VT-01	Main floor, north	Yellow carpet adhesive over a 12-inch white vinyl tile over black adhesive over concrete



Map ID	Sample ID	Index	Space Name	Material
33	81518-045	VT-01	Main floor, west	Yellow carpet adhesive over a 12-inch white vinyl tile over black adhesive over concrete
34	81518-046	FB-02	Upper mezzanine, southeast	4-inch green floor base over beige adhesive
35	81518-047	FB-02	Upper mezzanine, northeast	4-inch green floor base over beige adhesive
36	81518-048	FB-02	Upper mezzanine, west	4-inch green floor base over beige adhesive
37	81518-049	FB-03	Upper mezzanine	4-inch pink floor base over yellow adhesive
38	81518-050	FB-03	Upper mezzanine	4-inch pink floor base over yellow adhesive
39	81518-051	FB-03	Upper mezzanine	4-inch pink floor base over yellow adhesive
40	81518-034	CT-03	Main Floor, south	2 foot by 2 foot white ceiling tile
41	81518-200	BP-01	Exterior, south	White thick hard building putty on rock wall
42	81518-201	BP-01	Exterior, south	White thick hard building putty on rock wall
43	81518-202	BP-01	Exterior, south	White thick hard building putty on rock wall
44	81518-203	BP-02	Exterior, south	Thin soft white building putty
45	81518-204	BP-02	Exterior, southeast	Thin soft white building putty
46	81518-205	BP-02	Exterior, southeast	Thin soft white building putty
47	81518-206	WP-01	Exterior, southwest	Gray soft window putty
48	81518-207	WP-01	Exterior, southwest	Gray soft window putty
49	81518-208	WP-01	Exterior, southeast	Gray soft window putty
50	81518-209	DP-01	Exterior, west	Red/brown paint over white soft door putty
51	81518-210	DP-01	Exterior, north	Red/brown paint over white soft door putty
52	81518-211	DP-01	Exterior, southeast	Red/brown paint over white soft door putty
53	81518-212	WG-01	Exterior, northwest	White soft window glazing
54	81518-213	WG-01	Exterior, northwest	White soft window glazing
55	81518-214	WG-01	Exterior, northwest	White soft window glazing
56	81518-215	WG-02	Exterior, north	Gray soft window glazing (lower level mezzanine)
57	81518-216	WG-02	Exterior, north	Gray soft window glazing (lower level mezzanine)
58	81518-217	WG-02	Exterior, northwest	Gray soft window glazing (lower level mezzanine)
59	81518-096	TSI-01	Upper mechanical room	White paper over yellow fiberglass-type pipe insulation



Map ID	Sample ID	Index	Space Name	Material
59	81518-097	SUR-02	Upper mechanical room, ceiling	White fluffy soft sprayed on fireproofing material
60	81518-098	SUR-02	Upper mechanical room, ceiling	White fluffy soft sprayed on fireproofing material
61	81518-099	SUR-02	Upper mechanical room, ceiling	White fluffy soft sprayed on fireproofing material
62	81518-094	TSI-01	Upper mechanical room	White paper over yellow fiberglass-type pipe insulation
63	81518-095	TSI-01	Upper mechanical room	White paper over yellow fiberglass-type pipe insulation
64	81518-055	VT-02	Upper mezzanine, elevator landing	Adhesive over yellow vinyl tile over adhesive
65	81518-056	VT-02	Upper mezzanine, elevator landing	Adhesive over yellow vinyl tile over adhesive
66	81518-057	VT-02	Upper mezzanine, elevator landing	Adhesive over yellow vinyl tile over adhesive
67	81518-112	VT-05	Upper mezzanine, elevator landing	12-inch pink vinyl tile over adhesive
68	81518-113	VT-05	Upper mezzanine, elevator landing	12-inch pink vinyl tile over adhesive
69	81518-114	VT-05	Upper mezzanine, elevator landing	12-inch pink vinyl tile over adhesive
70	81518-115	VT-06	Upper mezzanine, elevator landing	12-inch white vinyl tile over adhesive
70	81518-116	VT-06	Upper mezzanine, elevator landing	12-inch white vinyl tile over adhesive
71	81518-117	VT-06	Upper mezzanine, elevator landing	12-inch white vinyl tile over adhesive
72	81518-118	MSC-02	Upper mechanical room, walls	Blue foam insulation on walls over concrete
73	81518-119	MSC-02	Upper mechanical room, walls	Blue foam insulation on walls over concrete
74	81518-120	MSC-02	Upper mechanical room, walls	Blue foam insulation on walls over concrete
75	81518-052	FB-04	Upper mezzanine	4-inch tan floor base over adhesive
76	81518-053	FB-04	Upper mezzanine	4-inch tan floor base over adhesive
77	81518-054	FB-04	Upper mezzanine	4-inch tan floor base over adhesive



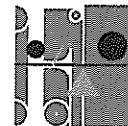
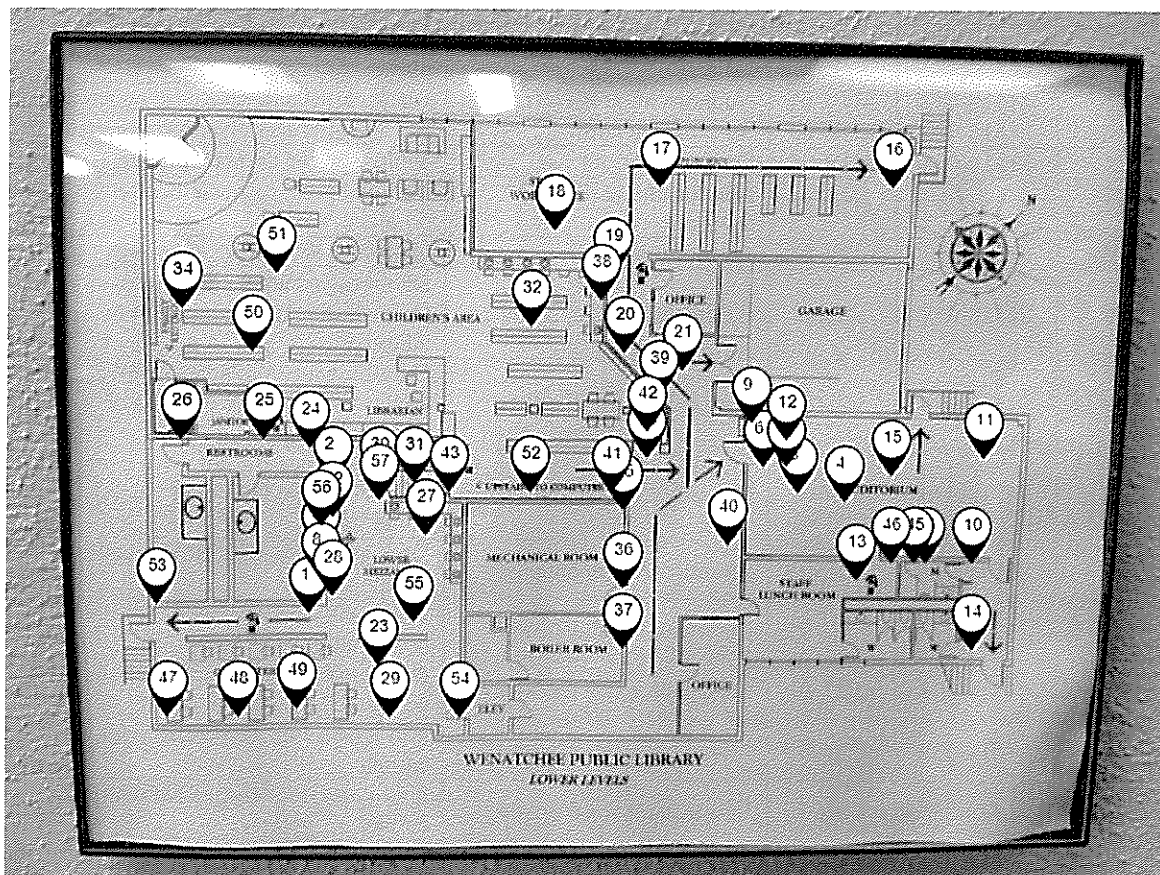
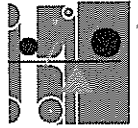


Figure 2B ACM Sample Locations for Lower Main and Basement Floor's

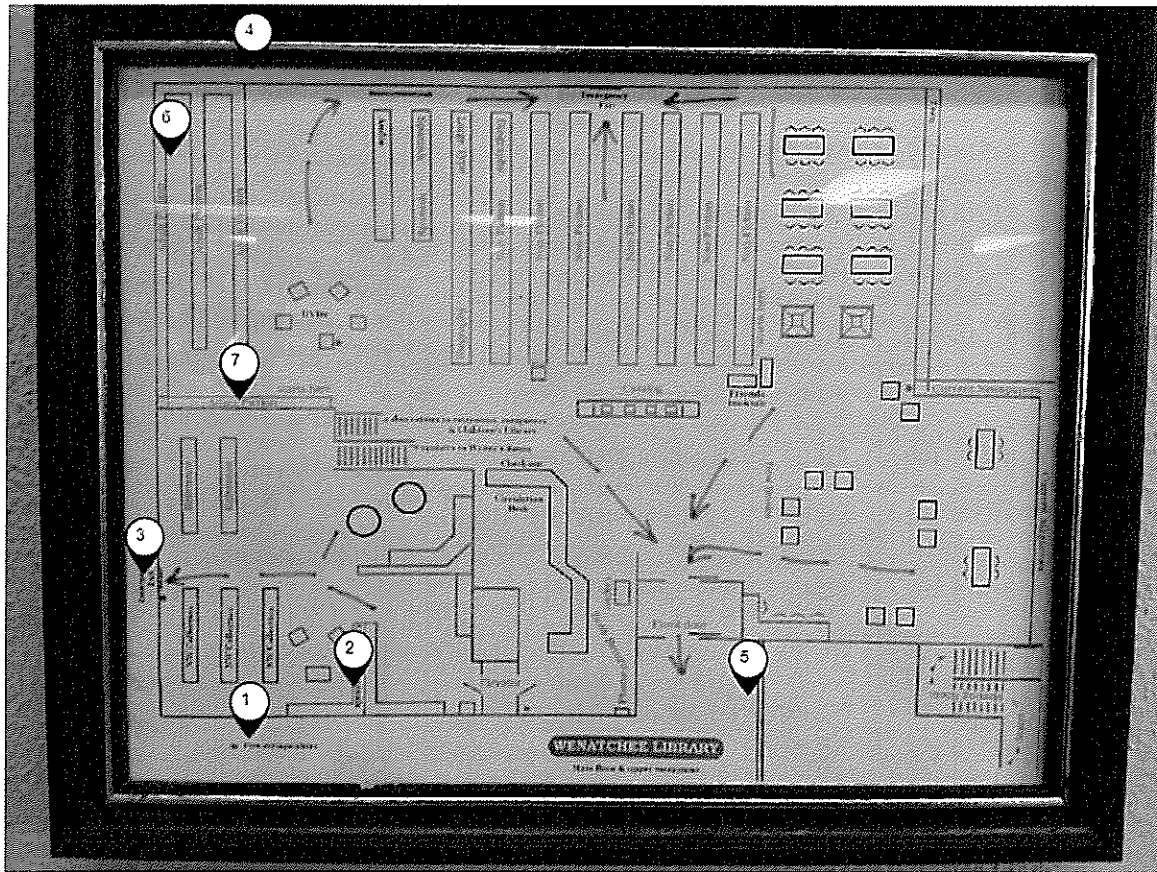


Map ID	Sample ID	Index	Space Name	Material
1	81518-103	VT-04	Lower main floor, west	Gray floor tile over black adhesive
2	81518-005	SUR-01	Lower main floor, west	Yellow hard and rough textured residual spray on fireproofing material
3	81518-006	SUR-01	Auditorium, center	Yellow hard and rough textured residual spray on fireproofing material
4	81518-007	SUR-01	Auditorium, east	Yellow hard and rough textured residual spray on fireproofing material
5	81518-012	PL-01	Lower main floor, west	White hard thin plaster material on ceilings
6	81518-013	PL-01	Auditorium, west	White hard thin plaster material on ceilings
7	81518-014	PL-01	Auditorium, center	White hard thin plaster material on ceilings
8	81518-019	PL-02	Lower main floor, west	Tan paint on hard rough textured plaster wall panels

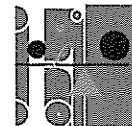


Map ID	Sample ID	Index	Space Name	Material
9	81518-020	PL-02	Auditorium, south	Tan paint on hard rough textured plaster wall panels
10	81518-021	PL-02	Auditorium, restroom hallway	Tan paint on hard rough textured plaster wall panels
11	81518-082	ADV-04	Auditorium, north	Black carpet adhesive over concrete
12	81518-083	ADV-04	Auditorium, north	Black carpet adhesive over concrete
13	81518-085	ADV-05	Staff break room	Yellow brown carpet adhesive
14	81518-086	ADV-05	Auditorium, hallway restroom	Yellow brown carpet adhesive
15	81518-087	ADV-05	Auditorium, center	Yellow brown carpet adhesive
16	81518-088	VT-03	Basement storage, northeast	Dark brown carpet adhesive over 9-inch white vinyl tile over black adhesive
17	81518-089	VT-03	Basement storage, center	Dark brown carpet adhesive over 9-inch white vinyl tile over black adhesive
18	81518-090	VT-03	Basement storage, west	Dark brown carpet adhesive over 9-inch white vinyl tile over black adhesive
19	81518-091	MSC-01	Basement, north hallway	Dark gray hard and brittle levelling compound
20	81518-092	MSC-01	Basement, north hallway	Dark gray hard and brittle levelling compound
21	81518-093	MSC-01	Basement, north hallway	Dark gray hard and brittle levelling compound
22	81518-035	CT-03	Lower main floor, west	2 foot by 2 foot suspended white ceiling
23	81518-036	CT-03	Lower main floor, south	2 foot by 2 foot suspended white ceiling
24	81518-061	SVF-01	Lower main floor, restroom hallway	Gray with blue and black specks sheet vinyl flooring over adhesive
25	81518-062	SVF-01	Lower main floor, restroom hallway	Gray with blue and black specks sheet vinyl flooring over adhesive
26	81518-063	SVF-01	Lower main floor, restroom hallway	Gray with blue and black specks sheet vinyl flooring over adhesive
27	81518-064	ADV-03	Lower main floor, northeast	Black carpet adhesive over concrete
28	81518-065	ADV-03	Lower main floor, west	Black carpet adhesive over concrete
29	81518-066	ADV-03	Lower main floor, south	Black carpet adhesive over concrete
30	81518-067	CT-05	Lower main floor, stair case	12-inch white smooth with pin holes ceiling tile over glue dot
31	81518-068	CT-05	Lower main floor, stair case	12-inch white smooth with pin holes ceiling tile over glue dot
32	81518-070	CT-06	Children's area, southeast	2 foot by 4 foot white smooth over yellow fiberglass-type ceiling tile
33	81518-071	CT-06	Children's area, northeast	2 foot by 4 foot white smooth over yellow fiberglass-type ceiling tile
34	81518-072	CT-06	Children's area, west	2 foot by 4 foot white smooth over yellow fiberglass-type ceiling tile
35	81518-073	FB-06	Basement, hallway	4-inch black floor base over yellow beige adhesive

Figure 3A Paint Chip Sample Locations Main Floor

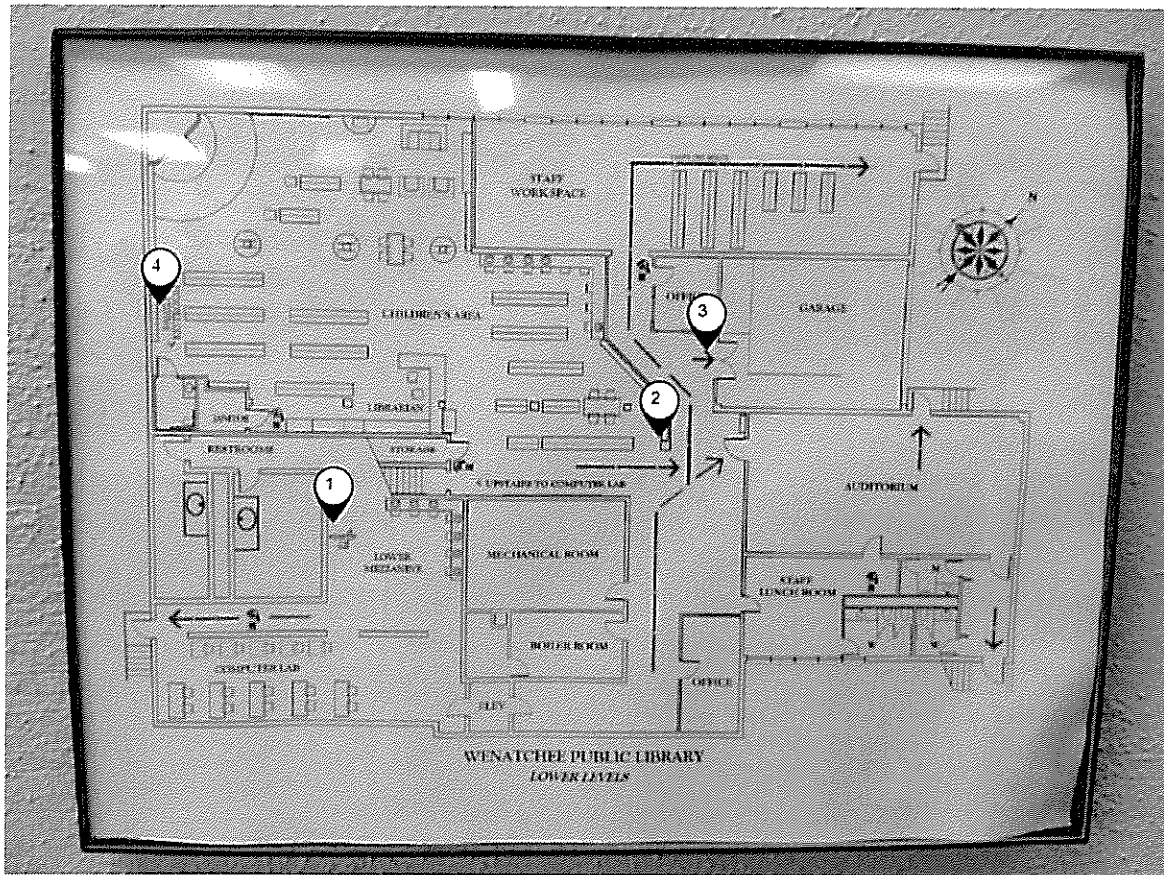


Map ID	Sample ID	Location	Color	Substrate	Material
1	PCL-02	Exterior, south area retaining wall	White	Concrete	White paint on concrete wall
2	PCL-01	Exterior, southeast area	Pink	Concrete	Pink paint on concrete wall
3	PCL-03	Exterior, southwest area emergency door	Red/Brown	Metal	Red/Brown paint on metal door
4	PCL-04	Exterior, west area	White	Concrete	White paint on concrete wall
5	PCL-05	Exterior, east area railing, near entrance	Brown	Metal	Brown paint on metal railing
6	PCL-10	Interior, west area	Dark Tan	Plaster	Dark tan paint on plaster
7	PCL-11	Interior, west center area	Light Tan	Plaster	Light tan paint on plaster

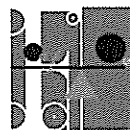


Map ID	Sample ID	Index	Space Name	Material
36	81518-074	FB-06	Basement, hallway	4-inch black floor base over yellow beige adhesive
37	81518-075	FB-06	Basement, hallway	4-inch black floor base over yellow beige adhesive
38	81518-076	GWB-01	Basement, hallway	White orange peel textured over white gypsum wallboard material
39	81518-077	GWB-01	Basement, hallway	White orange peel textured over white gypsum wallboard material
40	81518-078	GWB-01	Basement, hallway	White orange peel textured over white gypsum wallboard material
41	81518-079	FB-07	Children's area, south	4-inch Light brown floor base over beige adhesive
42	81518-080	FB-07	Children's area, south	4-inch Light brown floor base over beige adhesive
43	81518-081	FB-07	Children's area, south	4-inch Light brown floor base over beige adhesive
44	81518-100	FB-08	Basement, staff break room	4-inch dark brown floor base over dark brown adhesive floor base
45	81518-101	FB-08	Basement, staff break room	4-inch dark brown floor base over dark brown adhesive floor base
46	81518-102	FB-08	Basement, staff break room	4-inch Brown FB-08: 4-inch dark brown floor base over dark brown adhesive floor base
47	81518-106	WG-03	Lower main floor, southeast	White interior window glazing
48	81518-107	WG-03	Lower main floor, southeast	White interior window glazing
49	81518-108	WG-03	Lower main floor, southeast	White interior window glazing
50	81518-109	ADV-06	Children's area, west	Gray carpet adhesive
51	81518-110	ADV-06	Children's area, west	Gray carpet adhesive
52	81518-111	ADV-06	Children's area, south	Gray carpet adhesive
53	81518-059	FB-05	Lower main floor, west	4-inch dark brown over yellow adhesive floor base
54	81518-060	FB-05	Lower main floor, south	4-inch dark brown over yellow adhesive floor base
55	81518-104	VT-04	Lower main floor, south center	Gray floor tile over black adhesive
56	81518-105	VT-04	Lower main floor, north	Gray floor tile over black adhesive
57	81518-058	FB-05	Lower main floor, west	4-inch dark brown over yellow adhesive floor base

Figure 3B Paint Chip Sample Locations Lower Level



Map ID	Sample ID	Location	Color	Substrate	Material
1	PCL-08	Interior, lower mezzanine, center area	Tan	Metal	Red/Brown paint on metal door
2	PCL-06	Interior, center area	White	Concrete	Pink paint on concrete wall
3	PCL-07	Interior, center area, door to garage	Black/Red	Concrete	White paint on concrete wall
4	PCL-09	Interior, southwest area	Green	Concrete	White paint on concrete wall



## **APPENDIX A**

### Professional Certifications



# Certificate of Completion

This is to certify that

**Daniel A. Orozco**

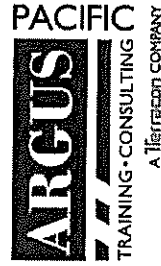
has satisfactorily completed  
4 hours of refresher training as an  
AHERA Building Inspector

to comply with the training requirements of  
TSCA Title II, 40 CFR 763 (AHERA)

EPA Provider # 1085

167536

Certificate Number



May 16, 2018 Expires in 1 year.

Date(s) of Training

Exam Score:  
if appropriate:

*Mary C. Zappa*

Instructor

ARGUS PACIFIC, INC. / 1900 WEST NICKERSON ST, SUITE 315 / SEATTLE, WASHINGTON 98119 / 206.285.3373 / ARGUSPACIFIC.COM

**STATE OF WASHINGTON**

**Department of Commerce**

Lead-Based Paint Abatement Program

**Daniel A Orozco**

*Has fulfilled the certification requirements of  
WAC 365-230  
and has been certified to conduct lead-based  
paint activities as a  
Risk Assessor*

<b><u>Certification #</u></b>	<b><u>Issuance Date</u></b>	<b><u>Expiration Date</u></b>
6642	04/23/2018	04/28/2021



# Certificate of Completion

This is to certify that

**Avery J. Foltz**

has satisfactorily completed  
24 hours of training as an

**AHERA Building Inspector**

to comply with the training requirements of  
TSCA Title II, 40 CFR 763 (AHERA)

EPA Provider # 1085

167805  
Certificate Number



A handwritten signature in black ink, appearing to be "J. Foltz", written over a horizontal line.

Instructor

May 30 - Jun 1, 2018 Expires in 1 year.

Date(s) of Training

Exam Score: N/A 90  
if appropriate:

ARGUS PACIFIC, INC. / 1900 WEST NICKERSON ST. SUITE 315 / SEATTLE, WASHINGTON 98119 / 206.285.3373 / ARGUSPACIFIC.COM

# Certificate of Completion

This is to certify that

**Kyle D. Ames**

has satisfactorily completed  
24 hours of training as an

**AHERA Building Inspector**

to comply with the training requirements of  
TSCA Title II, 40 CFR 763 (AHERA)

164625

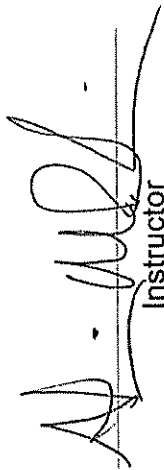
Certificate Number



Dec 4 - 6, 2017 Expires in 1 year.

Date(s) of Training

Exam Score: 96%  
if appropriate:

  
Instructor

ARGUS PACIFIC, INC. / 1900 WEST NICKERSON ST, SUITE 315 / SEATTLE, WASHINGTON 98119 / 206.285.3373 / ARGUSPACIFIC.COM

Region X OSHA Training Institute

# *Certificate of Completion*

**Kyle Ames**

has met the online course completion requirements for

## **HAZWOPER 8-Hour Refresher**

in accordance with 29 CFR 1910.120 and 1926.65

**Certificate ID 1541548-1030**  
**Continuing Education Units 0.8**  
AdvanceOnline Solutions, Inc. is  
authorized by IACET to offer 0.8  
CEUs for this program.

*AdvanceOnline Solutions, Inc. is accredited by the International  
Association for Continuing Education and Training (IACET) and is  
authorized to issue the IACET CEU.*



**Date** 4/19/2018 7:19:00 PM  
**Time Online** 08:07:42

**AdvanceOnline Solutions, Inc.**  
1811 Bering Drive, Suite 430  
Houston, Texas 77057  
[www.advanceonline.com](http://www.advanceonline.com)  
(713) 621-1100

**AdvanceOnline**  
S O L U T I O N S

# Certificate of Completion

This is to certify that

**Ryan K. Mathews**

has satisfactorily completed  
4 hours of refresher training as an  
AHERA Building Inspector

to comply with the training requirements of  
TSCA Title II, 40 CFR 763 (AHERA)

EPA Provider # 1085

167281

Certificate Number



May 9, 2018

Expires in 1 year.

Date(s) of Training

Exam Score: N/A  
If appropriate:

A handwritten signature in black ink, appearing to be "R. Mathews", written over a horizontal line.

Instructor

ARGUS PACIFIC, INC. / 1900 WEST NICKERSON ST, SUITE 315 / SEATTLE, WASHINGTON 98119 / 206.285.3373 / ARGUSPACIFIC.COM

**STATE OF WASHINGTON**

**Department of Commerce**  
Lead-Based Paint Abatement Program

**Ryan K Mathews**

*Has fulfilled the certification requirements of  
WAC 365-230  
and has been certified to conduct lead-based  
paint activities as a  
**Risk Assessor***

<b><u>Certification #</u></b>	<b><u>Issuance Date</u></b>	<b><u>Expiration Date</u></b>
0158	10/03/2017	10/15/2020

# Certificate of Completion

This is to certify that

**Ryan K. Mathews**

has satisfactorily completed  
8 hours of refresher training as an  
AHERA Project Designer

to comply with the training requirements of  
TSCA Title II, 40 CFR 763 (AHERA)

163761

Certificate Number



Oct 19, 2017

Expires in 1 year.

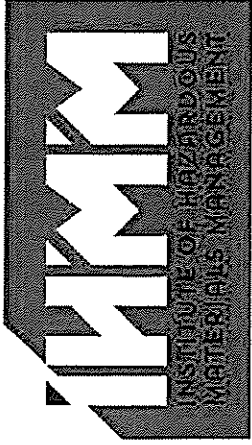
Date(s) of Training

Exam Score: N/A  
If appropriate:

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Instructor

ARGUS PACIFIC, INC. / 1900 WEST NICKERSON ST, SUITE 315 / SEATTLE, WASHINGTON 98119 / 206.285.3373 / ARGUSPACIFIC.COM



THIS CERTIFIES THAT

**RYAN K. MATHEWS**

HAS SUCCESSFULLY MET ALL THE REQUIREMENTS OF EDUCATION, EXPERIENCE AND  
EXAMINATION, AND IS HEREBY DESIGNATED A

**CERTIFIED HAZARDOUS MATERIALS MANAGER**  
**CHMM**

**January 31, 2007**

DATE OF CERTIFICATION

**14149**

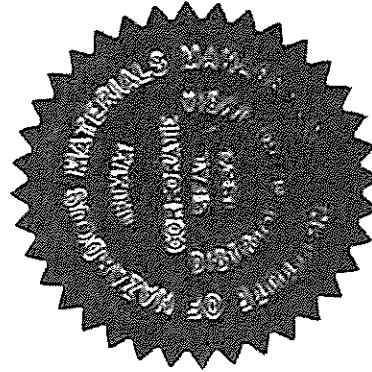
CREDENTIAL NUMBER



EXECUTIVE DIRECTOR

**January 31, 2023**

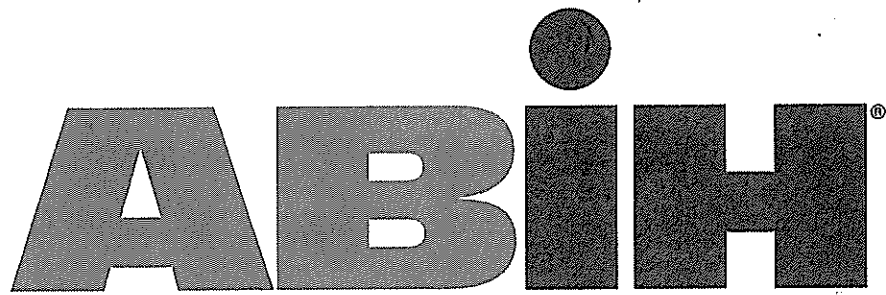
CERTIFICATION EXPIRES



Accredited by the American National Standards Institute and  
the Council of Engineering and Scientific Specialty Boards



VALID SO LONG AS THIS CREDENTIAL IS RENEWED ACCORDING  
TO SCHEDULE AND IS NOT OTHERWISE REVOKED.



**american board of industrial hygiene®**

organized to improve the practice of industrial hygiene  
proclaims that

*Ryan K. Mathews*

having met all requirements of  
education, experience and examination,  
is hereby certified in the

**COMPREHENSIVE PRACTICE  
of  
INDUSTRIAL HYGIENE**

and has the right to use the designations

**CERTIFIED INDUSTRIAL HYGIENIST**

**CIH**



**Certificate Number      9916 CP**

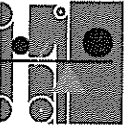
**Awarded:                      May 6, 2011**

**Expiration Date:            December 1, 2021**

  
Chair, ABIH

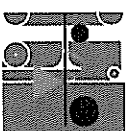
  
Chief Executive Officer, ABIH





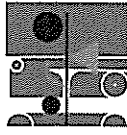
## **APPENDIX B**

### Asbestos Containing Materials Results



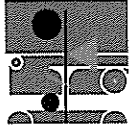
Asbestos Summary Table - Wenatchee Public Library - 310 Douglas Street, Wenatchee, Washington

Sample Number	Laboratory	Index	Description	Location <sup>1</sup>	Layers	ACMI Layer(s)	Comment	Greater than 1%	Condition	Friability	Less than 1%
81518-001	SAT	SUR-01	Yellow hard and rough textured residual spray on plaster, ceilings	Main floor, northeast	1	1	4% Chrysotile in yellow powdery material	Yes	Good	Friable	No
81518-001	NVL	SUR-01	Yellow hard and rough textured residual spray on plaster, ceilings	Main floor, northeast	1	1	5% Chrysotile in white lumpy micaceous material with paint	Yes	Good	Friable	No
81518-002	SAT	SUR-01	Yellow hard and rough textured residual spray on plaster, ceilings	Main floor, southeast	1	1	4% Chrysotile in yellow powdery material	Yes	Good	Friable	No
81518-003	SAT	SUR-01	Yellow hard and rough textured residual spray on plaster, ceilings	Main floor, northwest	1	1	3% Chrysotile in yellow powdery material	Yes	Good	Friable	No
81518-004	SAT	SUR-01	Yellow hard and rough textured residual spray on plaster, ceilings	Upper mezzanine, southwest	1	1	4% Chrysotile in yellow powdery material	Yes	Good	Friable	No
81518-005	SAT	SUR-01	Yellow hard and rough textured residual spray on plaster, ceilings	Lower main floor, west	1	1	4% Chrysotile in yellow powdery material	Yes	Good	Friable	No
81518-006	SAT	SUR-01	Yellow hard and rough textured residual spray on plaster, ceilings	Auditorium, center	1	1	4% Chrysotile in yellow powdery material	Yes	Good	Friable	No
81518-007	SAT	SUR-01	Yellow hard and rough textured residual spray on plaster, ceilings	Auditorium, east	1	1	3% Chrysotile in yellow powdery material	Yes	Good	Friable	No
81518-008	SAT	PL-01	White hard thin plaster material on ceilings	Main floor, northeast	2	1	3% Chrysotile in trace of yellow powdery material	Yes	Good	Friable	No
81518-009	SAT	PL-01	White hard thin plaster material on ceilings	Main floor, southeast	2	1	3% Chrysotile in trace of yellow powdery material	Yes	Good	Friable	No
81518-010	SAT	PL-01	White hard thin plaster material on ceilings	Main floor, northwest	1	-	See samples 81518-08 and 81518-09 for analysis	Yes	Good	Friable	No
81518-011	SAT	PL-01	White hard thin plaster material on ceilings	Upper mezzanine, southwest	1	-	See samples 81518-08 and 81518-09 for analysis	Yes	Good	Friable	No
81518-012	SAT	PL-01	White hard thin plaster material on ceilings	Lower main floor, west	1	-	See samples 81518-08 and 81518-09 for analysis	Yes	Good	Friable	No
81518-013	SAT	PL-01	White hard thin plaster material on ceilings	Auditorium, west	1	-	See samples 81518-08 and 81518-09 for analysis	Yes	Good	Friable	No
81518-014	SAT	PL-01	White hard thin plaster material on ceilings	Basement	1	-	See samples 81518-08 and 81518-09 for analysis	Yes	Good	Friable	No
81518-015	SAT	PL-02	Tan paint on hard rough textured plaster wall panels	Main floor, northeast	1	-		No	Good	Friable	No
81518-016	SAT	PL-02	Tan paint on hard rough textured plaster wall panels	Main floor, southeast	1	-		No	Good	Friable	No



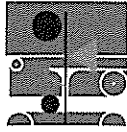
Asbestos Summary Table - Wenatchee Public Library - 310 Douglas Street, Wenatchee, Washington

Sample Number	Laboratory	Index	Description	Location <sup>1</sup>	Layers	ACM Layer(s)	Comment	Greater than 1%	Condition	Friability	Less than 1%
81518-017	SAT	PL-02	Tan paint on hard rough textured plaster wall panels	Main floor, northwest	1	-		No	Good	Friable	No
81518-018	SAT	PL-02	Tan paint on hard rough textured plaster wall panels	Upper mezzanine, southwest	1	-		No	Good	Friable	No
81518-019	SAT	PL-02	Tan paint on hard rough textured plaster wall panels	Lower main floor, west	1	-		No	Good	Friable	No
81518-020	SAT	PL-02	Tan paint on hard rough textured plaster wall panels	Auditorium, south	1	-		No	Good	Friable	No
81518-021	SAT	PL-02	Tan paint on hard rough textured plaster wall panels	Auditorium, restroom hallway	1	-		No	Good	Friable	No
81518-022	SAT	CT-01	2 foot by 4 foot white ceiling tile with squiggles and pin holes	Upper mezzanine, southwest	1	-		No	Good	Friable	No
81518-023	SAT	CT-01	3 foot by 4 foot white ceiling tile with squiggles and pin holes	Main floor, southeast	1	-		No	Good	Friable	No
81518-024	SAT	CT-01	4 foot by 4 foot white ceiling tile with squiggles and pin holes	Upper mezzanine, southwest	1	-		No	Good	Friable	No
81518-025	SAT	CT-02	2 foot by 4 foot white with only pin holes ceiling tile	Main floor, southeast	1	-		No	Good	Friable	No
81518-026	SAT	CT-02	3 foot by 4 foot white with only pin holes ceiling tile	Upper mezzanine, northwest	1	-		No	Good	Friable	No
81518-027	SAT	CT-02	4 foot by 4 foot white with only pin holes ceiling tile	Upper mezzanine, northeast	1	-		No	Good	Friable	No
81518-028	SAT	ADV-01	Yellow carpet adhesive underlying gray carpet tiles	Main floor, east	1	-		No	Good	Non-Friable	No
81518-029	SAT	ADV-01	Yellow carpet adhesive underlying gray carpet tiles	Main floor, south	1	-		No	Good	Non-Friable	No
81518-030	SAT	ADV-01	Yellow carpet adhesive underlying gray carpet tiles	Main floor, northwest	1	-		No	Good	Non-Friable	No
81518-031	SAT	FB-01	4-inch dark gray floor base over white adhesive	Main floor, north	2	-		No	Good	Non-Friable	No
81518-032	SAT	FB-01	4-inch dark gray floor base over white adhesive	Main floor, southeast	3	-		No	Good	Non-Friable	No
81518-033	SAT	FB-01	4-inch dark gray floor base over white adhesive	Main floor, south	3	-		No	Good	Non-Friable	No



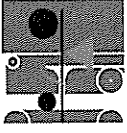
Asbestos Summary Table - Wenatchee Public Library - 310 Douglas Street, Wenatchee, Washington

Sample Number	Laboratory	Index	Description	Location <sup>1</sup>	Layers	ACM Layer(s)	Comment	Greater than 1%	Condition	Friability	Less than 1%
81518-034	SAT	CT-03	2 foot by 2 foot white ceiling tile	Main floor, south	1	-		No	Good	Frable	No
81518-035	SAT	CT-03	3 foot by 2 foot white ceiling tile	Lower main floor, west	1	-		No	Good	Frable	No
81518-036	SAT	CT-03	4 foot by 2 foot white ceiling tile	Lower main floor, south	1	-		No	Good	Frable	No
81518-036	NVL	CT-03	4 foot by 2 foot white ceiling tile	Lower main floor, south	1	-		No	Good	Frable	No
81518-037	SAT	ADV-02	Dark brown carpet adhesive	Main floor, south	1	-		No	Good	Non-Frable	No
81518-038	SAT	ADV-02	Dark brown carpet adhesive	Upper mezzanine, northeast	1	-		No	Good	Non-Frable	No
81518-039	SAT	ADV-02	Dark brown carpet adhesive	Main floor, south	1	-		No	Good	Non-Frable	No
81518-040	SAT	CT-04	12-inch white ceiling tile over brown glue dot	Upper mezzanine, southeast	2	-		No	Good	Non-Frable	No
81518-041	SAT	CT-04	12-inch white ceiling tile over brown glue dot	Upper mezzanine, center	2	-		No	Good	Non-Frable	No
81518-042	SAT	CT-04	12-inch white ceiling tile over brown glue dot	Upper mezzanine, southeast	2	-		No	Good	Non-Frable	No
81518-043	SAT	VT-01	Yellow carpet adhesive over a VT-01 white vinyl tile over black adhesive	Main floor, entry	3	-		No	Good	Non-Frable	No
81518-044	SAT	VT-01	Yellow carpet adhesive over a VT-01 white vinyl tile over black adhesive	Main floor, north	3	-		No	Good	Non-Frable	No
81518-044	NVL	VT-01	Yellow carpet adhesive over a VT-01 white vinyl tile over black adhesive	Main floor, north	6	-	Laboratory identified three (3) additional layers	No	Good	Non-Frable	No
81518-045	SAT	VT-01	Yellow carpet adhesive over a VT-01 white vinyl tile over black adhesive	Main floor, west	3	-		No	Good	Non-Frable	No
81518-045	NVL	VT-01	Yellow carpet adhesive over a VT-01 white vinyl tile over black adhesive	Main floor, west	3	-		No	Good	Non-Frable	No
81518-046	SAT	FB-02	4-inch green floor base over beige adhesive	Upper mezzanine, southeast	2	-		No	Good	Non-Frable	No
81518-047	SAT	FB-02	4-inch green floor base over beige adhesive	Upper mezzanine, northeast	2	-		No	Good	Non-Frable	No



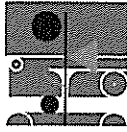
Asbestos Summary Table - Wenatchee Public Library - 310 Douglas Street, Wenatchee, Washington

Sample Number	Laboratory	Index	Description	Location <sup>1</sup>	Layers	ACM Layer(s)	Comment	Greater than 1%	Condition	Friability	Less than 1%
81518-048	SAT	FB-02	4-inch green floor base over beige adhesive	Upper mezzanine, west	2	-		No	Good	Non-Friable	No
81518-049	SAT	FB-03	4-inch pink floor base over yellow adhesive	Upper mezzanine, north	2	-		No	Good	Non-Friable	No
81518-050	SAT	FB-03	4-inch pink floor base over yellow adhesive	Upper mezzanine, north	2	-		No	Good	Non-Friable	No
81518-051	SAT	FB-03	4-inch pink floor base over yellow adhesive	Upper mezzanine, north	2	-		No	Good	Non-Friable	No
81518-052	SAT	FB-04	4-inch tan floor base over adhesive	Upper mezzanine, center	3	-		No	Good	Non-Friable	No
81518-053	SAT	FB-04	4-inch tan floor base over adhesive	Upper mezzanine, center	2	-		No	Good	Non-Friable	No
81518-054	SAT	FB-04	4-inch tan floor base over adhesive	Upper mezzanine, center	2	-		No	Good	Non-Friable	No
81518-055	SAT	VT-02	Yellow vinyl tile over adhesive	Upper mezzanine, north	3	-		No	Good	Non-Friable	No
81518-055	NVL	VT-02	Yellow vinyl tile over adhesive	Upper mezzanine, north	4	-	Laboratory identified a tan tile layer	No	Good	Non-Friable	No
81518-056	SAT	VT-02	Yellow vinyl tile over adhesive	Upper mezzanine, north	3	-		No	Good	Non-Friable	No
81518-057	SAT	VT-02	Yellow vinyl tile over adhesive	Upper mezzanine, center	3	-		No	Good	Non-Friable	No
81518-058	SAT	FB-05	4-inch dark brown over yellow adhesive	Lower main floor, south	2	-		No	Good	Non-Friable	No
81518-058	NVL	FB-05	4-inch dark brown over yellow adhesive	Lower main floor, south	3	-	Laboratory identified a white firm adhesive layer	No	Good	Non-Friable	No
81518-059	SAT	FB-05	4-inch dark brown over yellow adhesive	Lower main floor, west	2	-		No	Good	Non-Friable	No
81518-060	SAT	FB-05	4-inch dark brown over yellow adhesive	Lower main floor, north	2	-		No	Good	Non-Friable	No
81518-061	SAT	SVP-01	Gray with blue and black specks sheet vinyl flooring over adhesive	Lower main floor, restroom hallway	3	-		No	Good	Non-Friable	No
81518-061	NVL	SVP-01	Gray with blue and black specks sheet vinyl flooring over adhesive	Lower main floor, restroom hallway	2	-		No	Good	Non-Friable	No



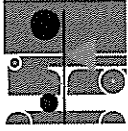
Asbestos Summary Table - Wenatchee Public Library - 310 Douglas Street, Wenatchee, Washington

Sample Number	Laboratory	Index	Description	Location <sup>1</sup>	Layers	ACM Layer(s)	Comment	Greater than 1%	Condition	Friability	Less than 1%
81518-062	SAT	SVP-01	Gray with blue and black specks sheet vinyl flooring over adhesive	Lower main floor, restroom hallway	3	-		No	Good	Non-Friable	No
81518-063	SAT	SVP-01	Gray with blue and black specks sheet vinyl flooring over adhesive	Lower main floor, restroom hallway	3	-		No	Good	Non-Friable	No
81518-064	SAT	ADV-03	Black carpet adhesive over concrete	Lower main floor, northeast	1	1	2% Chrysotile in black/gray adhesive	Yes	Good	Non-Friable	No
81518-064	NVL	ADV-03	Black carpet adhesive over concrete	Lower main floor, northeast	3	3	4% Chrysotile in black/gray adhesive	Yes	Good	Non-Friable	No
81518-065	SAT	ADV-03	Black carpet adhesive over concrete	Lower main floor, west	-	-	See samples 81518-064 for analysis	Yes	Good	Non-Friable	No
81518-066	SAT	ADV-03	Black carpet adhesive over concrete	Lower main floor, south	-	-	See samples 81518-064 for analysis	Yes	Good	Non-Friable	No
81518-067	SAT	CT-05	12-inch white smooth with pin holes ceiling tile over glue dot	Lower main floor, stair case	1	-		No	Good	Non-Friable	No
81518-068	SAT	CT-05	12-inch white smooth with pin holes ceiling tile over glue dot	Lower main floor, stair case	1	-		No	Good	Non-Friable	No
81518-070	SAT	CT-06	2 foot by 4 foot white smooth over yellow fiberglass-type ceiling tile	Children's area, southeast	2	-		No	Good	Friable	No
81518-071	SAT	CT-06	3 foot by 4 foot white smooth over yellow fiberglass-type ceiling tile	Children's area, northeast	2	-		No	Good	Friable	No
81518-072	SAT	CT-06	4 foot by 4 foot white smooth over yellow fiberglass-type ceiling tile	Children's area, west	2	-		No	Good	Friable	No
81518-073	SAT	FB-06	4-inch black floor base over yellow beige adhesive	Basement, hallway	2	-		No	Good	Non-Friable	No
81518-074	SAT	FB-06	4-inch black floor base over yellow beige adhesive	Basement, hallway	2	-		No	Good	Non-Friable	No
81518-074	NVL	FB-06	4-inch black floor base over yellow beige adhesive	Basement, hallway	2	-		No	Good	Non-Friable	No
81518-075	SAT	FB-06	4-inch black floor base over yellow beige adhesive	Basement, hallway	2	-		No	Good	Non-Friable	No
81518-076	SAT	GWB-01	White orange peel textured over white gypsum wallboard on walls	Basement, hallway	2	-		No	Good	Non-Friable	No
81518-077	SAT	GWB-01	White orange peel textured over white gypsum wallboard on walls	Basement, hallway	2	-		No	Good	Non-Friable	No



Asbestos Summary Table - Wenatchee Public Library - 310 Douglas Street, Wenatchee, Washington

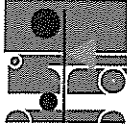
Sample Number	Laboratory	Index	Description	Location	Layers	ACM Layers	Comment	Greater than 1%	Condition	Friability	Less than 1%
81518-078	SAT	GWB-01	White orange peel textured over white gypsum wallboard on walls	Basement, hallway	2	-		No	Good	Non-Friable	No
81518-079	SAT	FB-07	4-inch light brown floor base over beige adhesive	Children's area, south	2	-		No	Good	Non-Friable	No
81518-080	SAT	FB-07	4-inch light brown floor base over beige adhesive	Children's area, south	2	-		No	Good	Non-Friable	No
81518-081	SAT	FB-07	4-inch light brown floor base over beige adhesive	Children's area, south	2	-		No	Good	Non-Friable	No
81518-082	SAT	ADV-04	Black carpet adhesive over concrete	Auditorium, north	2	1	2% Chrysotile in black adhesive	Yes	Good	Non-Friable	No
81518-083	SAT	ADV-04	Black carpet adhesive over concrete	Auditorium, north	2	1	2% Chrysotile in black adhesive	Yes	Good	Non-Friable	No
81518-085	SAT	ADV-05	Yellow brown carpet adhesive	Staff break room	2	1	3% Chrysotile in black adhesive	Yes	Good	Non-Friable	No
81518-086	SAT	ADV-05	Yellow brown carpet adhesive	Auditorium, hallway restroom	2	-		No	Good	Non-Friable	No
81518-087	SAT	ADV-05	Yellow brown carpet adhesive	Auditorium, center	1	-		No	Good	Non-Friable	No
81518-088	SAT	VT-03	Dark brown carpet adhesive over 9-inch white vinyl tile over black adhesive	Basement storage, northeast	3	2	2% Chrysotile in white tile, 3% Chrysotile in black adhesive	Yes	Good	Non-Friable	No
81518-089	SAT	VT-03	Dark brown carpet adhesive over 9-inch white vinyl tile over black adhesive	Basement storage, center	3	2	2% Chrysotile in white tile, 4% Chrysotile in black adhesive	Yes	Good	Non-Friable	No
81518-090	SAT	VT-03	Dark brown carpet adhesive over 9-inch white vinyl tile over black adhesive	Basement storage, west	3	2	2% Chrysotile in white tile, 3% Chrysotile in black adhesive	Yes	Good	Non-Friable	No
81518-091	SAT	MSC-01	Dark gray hard and brittle leveling compound	Basement, north hallway	2	-		No	Good	Non-Friable	No
81518-092	SAT	MSC-01	Dark gray hard and brittle leveling compound	Basement, north hallway	2	-		No	Good	Non-Friable	No
81518-093	SAT	MSC-01	Dark gray hard and brittle leveling compound	Basement, north hallway	2	-		No	Good	Non-Friable	No
81518-094	SAT	TSI-01	White paper over yellow fiberglass-type pipe insulation	Upper mechanical room	1	-		No	Good	Friable	No
81518-095	SAT	TSI-01	White paper over yellow fiberglass-type pipe insulation	Upper mechanical room	3	-		No	Good	Friable	No



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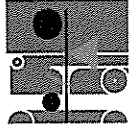
Sample Number	Laboratory	Index	Description	Location <sup>1</sup>	Layers	ACM Layer(s)	Comment	Greater than 1%	Condition	Friability	Less than 1%
81518-096	SAT	TSI-01	White paper over yellow fiberglass-type pipe insulation	Upper mechanical room	3	-		No	Good	Frable	No
81518-097	SAT	SUR-02	White fluffy soft-sprayed on material	Upper mechanical room, ceiling	1	-		No	Good	Frable	No
81518-098	SAT	SUR-02	White fluffy soft-sprayed on material	Upper mechanical room, ceiling	1	-		No	Good	Frable	No
81518-099	SAT	SUR-02	White fluffy soft-sprayed on material	Upper mechanical room, ceiling	1	-		No	Good	Frable	No
81518-100	SAT	FB-08	4-inch dark brown floor base over dark brown adhesive	Basement, staff break room	2	-		No	Good	Non-Frable	No
81518-101	SAT	FB-08	4-inch dark brown floor base over dark brown adhesive	Basement, staff break room	2	-		No	Good	Non-Frable	No
81518-102	SAT	FB-08	4-inch dark brown floor base over dark brown adhesive	Basement, staff break room	2	-		No	Good	Non-Frable	No
81518-103	SAT	VT-04	Gray floor tile over black adhesive	Lower main floor, west	2	1, 2	2% Chrysotile in gray tile and 4% Chrysotile in black adhesive	Yes	Good	Non-Frable	No
81518-103	NVL	VT-04	Gray floor tile over black adhesive	Lower main floor, west	2	3, 4	4% Chrysotile in beige tile and 3% Chrysotile in black adhesive	Yes	Good	Non-Frable	No
81518-104	SAT	VT-04	Gray floor tile over black adhesive	Lower main floor, center	-	-	See sample 81518-103 for analysis	Yes	Good	Non-Frable	No
81518-105	SAT	VT-04	Gray floor tile over black adhesive	Lower main floor, northwest	-	-	See sample 81518-103 for analysis	Yes	Good	Non-Frable	No
81518-106	SAT	WG-03	Interior window glazing	Lower main floor, southeast	1	-		No	Good	Non-Frable	No
81518-107	SAT	WG-03	Interior window glazing	Lower main floor, southeast	1	-		No	Good	Non-Frable	No
81518-108	SAT	WG-03	Interior window glazing	Lower main floor, southeast	1	-		No	Good	Non-Frable	No
81518-109	SAT	ADV-06	Gray carpet adhesive	Children's area, west	1	-		No	Good	Non-Frable	No
81518-110	SAT	ADV-06	Gray carpet adhesive	Children's area, west	1	-		No	Good	Non-Frable	No
81518-111	SAT	ADV-06	Gray carpet adhesive	Children's area, south	1	-		No	Good	Non-Frable	No





Asbestos Summary Table - Wenatchee Public Library - 310 Douglas Street, Wenatchee, Washington

Sample Number	Laboratory	Index	Description	Location <sup>1</sup>	Layers	ACM Layer(s)	Comment	Greater than 1%	Condition	Friability	Less than 1%
81518-112	SAT	VT-05	12-inch pink vinyl tile over adhesive	Upper mezzanine, elevator landing	2	-		No	Good	Non-Friable	No
81518-113	SAT	VT-05	12-inch pink vinyl tile over adhesive	Upper mezzanine, elevator landing	2	-		No	Good	Non-Friable	No
81518-114	SAT	VT-05	12-inch pink vinyl tile over adhesive	Upper mezzanine, elevator landing	2	-		No	Good	Non-Friable	No
81518-115	SAT	VT-06	12-inch white vinyl tile over adhesive	Upper mezzanine, elevator landing	2	-		No	Good	Non-Friable	No
81518-116	SAT	VT-06	12-inch white vinyl tile over adhesive	Upper mezzanine, elevator landing	2	-		No	Good	Non-Friable	No
81518-117	SAT	VT-06	12-inch white vinyl tile over adhesive	Upper mezzanine, elevator landing	2	-		No	Good	Non-Friable	No
81518-118	SAT	MSC-02	Blue foam insulation on walls over concrete	Upper mechanical room, walls	1	-		No	Good	Friable	No
81518-119	SAT	MSC-02	Blue foam insulation on walls over concrete	Upper mechanical room, walls	1	-		No	Good	Friable	No
81518-120	SAT	MSC-02	Blue foam insulation on walls over concrete	Upper mechanical room, walls	1	-		No	Good	Friable	No
81518-200	SAT	BP-01	White thick hard building putty on rock wall	Exterior, south	1	1	2% Chrysotile in white brittle material	Yes	Good	Non-Friable	No
81518-201	SAT	BP-01	White thick hard building putty on rock wall	Exterior, south	-	-	See sample 81518-200 for analysis	Yes	Good	Non-Friable	No
81518-202	SAT	BP-01	White thick hard building putty on rock wall	Exterior, south	-	-	See sample 81518-200 for analysis	Yes	Good	Non-Friable	No
81518-202	NVL	BP-01	White thick hard building putty on rock wall	Exterior, south	1	1	See sample 81518-200 for analysis	Yes	Good	Non-Friable	No
81518-203	SAT	BP-02	Thin soft white building putty	Exterior, south	1	1	5% Chrysotile in white soft material	Yes	Good	Non-Friable	No
81518-204	SAT	BP-02	Thin soft white building putty	Exterior, southeast	-	-	See sample 81518-203 for analysis	Yes	Good	Non-Friable	No
81518-205	SAT	BP-02	Thin soft white building putty	Exterior, southeast	-	-	See sample 81518-203 for analysis	Yes	Good	Non-Friable	No
81518-206	SAT	WP-01	Gray soft window putty	Exterior, southwest	1	1	3% Chrysotile in gray soft material	Yes	Good	Non-Friable	No



Asbestos Summary Table - Wenatchee Public Library - 310 Douglas Street, Wenatchee, Washington

Sample Number	Laboratory	Index	Description	Location <sup>1</sup>	Layers	ACM Layer(s)	Comment	Greater than 1%	Condition	Friability	Less than 1%
81518-207	SAT	WP-01	Gray soft window putty	Exterior, southwest	-	-	See sample 81518-206 for analysis	Yes	Good	Non-Friable	No
81518-207	NVL	WP-01	Gray soft window putty	Exterior, southwest	1	1	6% Chrysotile in gray soft putty material with pink paint	Yes	Good	Non-Friable	No
81518-208	SAT	WP-01	Gray soft window putty	Exterior, southeast	-	-	See sample 81518-206 for analysis	Yes	Good	Non-Friable	No
81518-209	SAT	DP-01	Red/brown paint over white soft door putty	Exterior, west	1	1	6% Chrysotile in white soft material with paint	Yes	Good	Non-Friable	No
81518-210	SAT	DP-01	Red/brown paint over white soft door putty	Exterior, north	-	-	See sample 81518-209 for analysis	Yes	Good	Non-Friable	No
81518-211	SAT	DP-01	Red/brown paint over white soft door putty	Exterior, southeast	-	-	See sample 81518-209 for analysis	Yes	Good	Non-Friable	No
81518-212	SAT	WG-01	White soft window glazing	Exterior, northwest	1	1	3% Chrysotile in white soft material with paint	Yes	Good	Non-Friable	No
81518-213	SAT	WG-01	White soft window glazing	Exterior, northwest	-	-	See sample 81518-212 for analysis	Yes	Good	Non-Friable	No
81518-214	SAT	WG-01	White soft window glazing	Exterior, northwest	-	-	See sample 81518-212 for analysis	Yes	Good	Non-Friable	No
81518-214	NVL	WG-01	White soft window glazing	Exterior, northwest	1	2	3% Chrysotile in gray coating material	Yes	Good	Non-Friable	No
81518-215	SAT	WG-02	Gray soft window glazing (lower level mezzanine)	Exterior, north	1	-	See sample 81518-216 for analysis	Yes	Good	Non-Friable	No
81518-216	SAT	WG-02	Gray soft window glazing (lower level mezzanine)	Exterior, north	1	1	2% Chrysotile in gray soft material	Yes	Good	Non-Friable	No
81518-217	SAT	WG-02	Gray soft window glazing (lower level mezzanine)	Exterior, northwest	-	-	See sample 81518-216 for analysis	Yes	Good	Non-Friable	No

1. Locations identified in the table reflect locations sampled and may not represent all locations identified material.



Fulcrum Environmental Consulting, Inc.  
406 North 2nd Street  
Yakima, Washington 98901

### Chain of Custody

Laboratory: Seattle Asbestos Test  
Project: 18-2524  
Site Location: Wenatchee Public Library  
310 Douglas Street  
Wenatchee, Washington 98801  
Sampled By: Danny Orozco (dorozco@fulcrum.net)  
Reporting By: Avery Foltz (Avery.Foltz@fulcrum.net)  
Purpose: Hazardous Building Materials Inspection

### Laboratory Notes

Stop after first positive for each HM

### Samples

Sample ID	Material	Floor / Section	Space	Analysis
81518-001	SUR-01 - Yellow SUR-01: Yellow hard and rough textured residual spray on fireproofing material Fire Proofing, Spray Applied	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-002	SUR-01 - Yellow SUR-01: Yellow hard and rough textured residual spray on fireproofing material Fire Proofing, Spray Applied	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-003	SUR-01 - Yellow SUR-01: Yellow hard and rough textured residual spray on fireproofing material Fire Proofing, Spray Applied	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-004	SUR-01 - Yellow SUR-01: Yellow hard and rough textured residual spray on fireproofing material Fire Proofing, Spray Applied	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-005	SUR-01 - Yellow SUR-01: Yellow hard and rough textured residual spray on fireproofing material Fire Proofing, Spray Applied	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-006	SUR-01 - Yellow SUR-01: Yellow hard and rough textured residual spray on fireproofing material Fire Proofing, Spray Applied	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)

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81518-007	SUR-01 - Yellow SUR-01 Yellow hard and rough textured residual spray on fireproofing material Fire Proofing. Spray Applied	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-008	PL-01 - White PL-01: White hard thin plaster material Acoustical Plaster, Ceilings	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-009	PL-01 - White PL-01: White hard thin plaster material Acoustical Plaster, Ceilings	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-010	PL-01 - White PL-01: White hard thin plaster material Acoustical Plaster, Ceilings	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-011	PL-01 - White PL-01: White hard thin plaster material Acoustical Plaster, Ceilings	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-012	PL-01 - White PL-01: White hard thin plaster material Acoustical Plaster, Ceilings	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-013	PL-01 - White PL-01: White hard thin plaster material Acoustical Plaster, Ceilings	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-014	PL-01 - White PL-01: White hard thin plaster material Acoustical Plaster, Ceilings	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-015	PL-02 - Tan PL-02: Tan paint on hard rough textured plaster wall panels Acoustical Plaster, Walls	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-016	PL-02 - Tan PL-02: Tan paint on hard rough textured plaster wall panels Acoustical Plaster, Walls	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-017	PL-02 - Tan PL-02: Tan paint on hard rough textured plaster wall panels Acoustical Plaster, Walls	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-018	PL-02 - Tan PL-02: Tan paint on hard rough textured plaster wall panels Acoustical Plaster, Walls	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-019	PL-02 - Tan PL-02: Tan paint on hard rough textured plaster wall panels Acoustical Plaster, Walls	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-020	PL-02 - Tan PL-02: Tan paint on hard rough textured plaster wall panels Acoustical Plaster, Walls	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-021	PL-02 - Tan PL-02: Tan paint on hard rough textured plaster wall panels Acoustical Plaster, Walls	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)

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81518-022	CT-01 - 2 foot by 4 foot White CT-01: 2 foot by 4 foot white ceiling tile with squiggles and pin holes Ceiling Tile, Lay In	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-023	CT-01 - 2 foot by 4 foot White CT-01: 2 foot by 4 foot white ceiling tile with squiggles and pin holes Ceiling Tile, Lay In	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-024	CT-01 - 2 foot by 4 foot White CT-01: 2 foot by 4 foot white ceiling tile with squiggles and pin holes Ceiling Tile, Lay In	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-025	CT-02 - 2 foot by 4 foot White CT-02: 2 foot by 4 foot white with only pin holes ceiling tile Ceiling Tile, Lay In	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-026	CT-02 - 2 foot by 4 foot White CT-02: 2 foot by 4 foot white with only pin holes ceiling tile Ceiling Tile, Lay In	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-027	CT-02 - 2 foot by 4 foot White CT-02: 2 foot by 4 foot white with only pin holes ceiling tile Ceiling Tile, Lay In	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-028	ADV-01 - Yellow ADV-01: Yellow carpet adhesive underlying gray carpet tiles Carpet Adhesive	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-029	ADV-01 - Yellow ADV-01: Yellow carpet adhesive underlying gray carpet tiles Carpet Adhesive	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-030	ADV-01 - Yellow ADV-01: Yellow carpet adhesive underlying gray carpet tiles Carpet Adhesive	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-031	FB-01 - 4-inch Dark Gray FB-01: 4-inch dark gray floor base over white adhesive floor base	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-032	FB-01 - 4-inch Dark Gray FB-01: 4-inch dark gray floor base over white adhesive floor base	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-033	FB-01 - 4-inch Dark Gray FB-01: 4-inch dark gray floor base over white adhesive floor base	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-034	CT-03 - 2 foot by 2 foot White CT-03: 2 foot by 2 foot white ceiling Ceiling Tile, Lay In	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-035	CT-03 - 2 foot by 2 foot White CT-03: 2 foot by 2 foot white ceiling Ceiling Tile, Lay In	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)

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81518-036	CT-03 - 2 foot by 2 foot White CT-03: 2 foot by 2 foot white ceiling Ceiling Tile, Lay In	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-037	ADV-02 - Brown ADV-02: Dark brown carpet adhesive Carpet Adhesive	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-038	ADV-02 - Brown ADV-02: Dark brown carpet adhesive Carpet Adhesive	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-039	ADV-02 - Brown ADV-02: Dark brown carpet adhesive Carpet Adhesive	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-040	CT-04 - 12-inch White CT-04: 12-inch white ceiling tile over brown glue dot Ceiling Tile, Glue On	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-041	CT-04 - 12-inch White CT-04: 12-inch white ceiling tile over brown glue dot Ceiling Tile, Glue On	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-042	CT-04 - 12-inch White CT-04: 12-inch white ceiling tile over brown glue dot Ceiling Tile, Glue On	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-043	VT-01 - 12-inch White VT-01: Yellow carpet adhesive over a 12-inch white vinyl tile over black adhesive over concrete Floor Tile	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-044	VT-01 - 12-inch White VT-01: Yellow carpet adhesive over a 12-inch white vinyl tile over black adhesive over concrete Floor Tile	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-045	VT-01 - 12-inch White VT-01: Yellow carpet adhesive over a 12-inch white vinyl tile over black adhesive over concrete Floor Tile	Main Floor	Main Floor	EPA Test Method 600/R-93/116 (PLM)
81518-046	FB-02 - 12-inch Green FB-02: 4-inch green floor base over beige adhesive Floor base	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-047	FB-02 - 12-inch Green FB-02: 4-inch green floor base over beige adhesive Floor base	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-048	FB-02 - 12-inch Green FB-02: 4-inch green floor base over beige adhesive Floor base	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-049	FB-03 - 4-inch Tan FB-03: 4-inch pink floor base over yellow adhesive floor base	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-050	FB-03 - 4-inch Tan FB-03: 4-inch pink floor base over yellow adhesive floor base	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)

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81518-051	FB-03 - 4-inch Tan FB-03: 4-inch pink floor base over yellow adhesive floor base	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-052	FB-04 - 4-inch Tan FB-04: 4-inch tan floor base over adhesive floor base	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-053	FB-04 - 4-inch Tan FB-04: 4-inch tan floor base over adhesive floor base	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-054	FB-04 - 4-inch Tan FB-04: 4-inch tan floor base over adhesive floor base	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-055	VT-02 - Yellow VT-02: Adhesive over yellow vinyl tile over adhesive floor tile	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-056	VT-02 - Yellow VT-02: Adhesive over yellow vinyl tile over adhesive floor tile	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-057	VT-02 - Yellow VT-02: Adhesive over yellow vinyl tile over adhesive floor tile	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-058	FB-05 - 4-inch Brown FB-05: 4-inch dark brown over yellow adhesive floor base	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-059	FB-05 - 4-inch Brown FB-05: 4-inch dark brown over yellow adhesive floor base	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-060	FB-05 - 4-inch Brown FB-05: 4-inch dark brown over yellow adhesive floor base	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-061	SVF-01 - Gray SVF-01: Gray with blue and black specks sheet vinyl flooring over adhesive floor, Sheet Vinyl Paper Backing	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-062	SVF-01 - Gray SVF-01: Gray with blue and black specks sheet vinyl flooring over adhesive floor, Sheet Vinyl Paper Backing	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-063	SVF-01 - Gray SVF-01: Gray with blue and black specks sheet vinyl flooring over adhesive floor, Sheet Vinyl Paper Backing	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-064	ADV-03 - Black ADV-03: Black carpet adhesive over concrete Carpet Adhesive	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-065	ADV-03 - Black ADV-03: Black carpet adhesive over concrete Carpet Adhesive	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-066	ADV-03 - Black ADV-03: Black carpet adhesive over concrete Carpet Adhesive	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)

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81518-067	CT-05 - 12-inch White CT-05: 12-inch white smooth with pin holes ceiling tile over glue dot Ceiling Tile, Glue On	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-068	CT-05 - 12-inch White CT-05: 12-inch white smooth with pin holes ceiling tile over glue dot Ceiling Tile, Glue On	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-070	CT-06 - 2 foot by 4 foot White CT-06: 2 foot by 4 foot white smooth over yellow fiberglass-type ceiling tile Ceiling Tile, Lay In	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-071	CT-06 - 2 foot by 4 foot White CT-06: 2 foot by 4 foot white smooth over yellow fiberglass-type ceiling tile Ceiling Tile, Lay In	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-072	CT-06 - 2 foot by 4 foot White CT-06: 2 foot by 4 foot white smooth over yellow fiberglass-type ceiling tile Ceiling Tile, Lay In	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-073	FB-06 - 4-inch Black FB-06: 4-inch black floor base over yellow beige adhesive floor base	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-074	FB-06 - 4-inch Black FB-06: 4-inch black floor base over yellow beige adhesive floor base	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-075	FB-06 - 4-inch Black FB-06: 4-inch black floor base over yellow beige adhesive floor base	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-076	GWB-01 - White GWB-01: White orange peel textured over white gypsum wallboard material Gypsum Wallboard	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-077	GWB-01 - White GWB-01: White orange peel textured over white gypsum wallboard material Gypsum Wallboard	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-078	GWB-01 - White GWB-01: White orange peel textured over white gypsum wallboard material Gypsum Wallboard	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-079	FB-07 - 4-inch Brown FB-07: Light brown floor base over beige adhesive floor base	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-080	FB-07 - 4-inch Brown FB-07: Light brown floor base over beige adhesive floor base	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-081	FB-07 - 4-inch Brown FB-07: Light brown floor base over beige adhesive floor base	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-082	ADV-04 - Black ADV-04: Black carpet adhesive over concrete Carpet Adhesive	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)



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81518-083	ADV-04 - Black ADV-04: Black carpet adhesive over concrete Carpet Adhesive	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-085	ADV-05 - Yellow ADV-05: Yellow brown carpet adhesive Carpet Adhesive	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-086	ADV-05 - Yellow ADV-05: Yellow brown carpet adhesive Carpet Adhesive	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-087	ADV-05 - Yellow ADV-05: Yellow brown carpet adhesive Carpet Adhesive	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-088	VT-03 - 9-inch White VT-03: Dark brown carpet adhesive over 9-inch white vinyl tile over black adhesive Floor Tile	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-089	VT-03 - 9-inch White VT-03: Dark brown carpet adhesive over 9-inch white vinyl tile over black adhesive Floor Tile	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-090	VT-03 - 9-inch White VT-03: Dark brown carpet adhesive over 9-inch white vinyl tile over black adhesive Floor Tile	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-091	MSC-01 - Gray MSC-01: Dark gray hard and brittle leveling compound Floor Leveling Compound	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-092	MSC-01 - Gray MSC-01: Dark gray hard and brittle leveling compound Floor Leveling Compound	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-093	MSC-01 - Gray MSC-01: Dark gray hard and brittle leveling compound Floor Leveling Compound	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-094	TSI-01 - White TSI-01: White paper over yellow fiberglass-type pipe insulation Pipe Insulation, Paper Layer	Main Floor	2nd Floor Mech Room	EPA Test Method 600/R-93/116 (PLM)
81518-095	TSI-01 - White TSI-01: White paper over yellow fiberglass-type pipe insulation Pipe Insulation, Paper Layer	Main Floor	2nd Floor Mech Room	EPA Test Method 600/R-93/116 (PLM)
81518-096	TSI-01 - White TSI-01: White paper over yellow fiberglass-type pipe insulation Pipe Insulation, Paper Layer	Main Floor	2nd Floor Mech Room	EPA Test Method 600/R-93/116 (PLM)
81518-097	SUR-02 - White SUR-02: White fluffy soft sprayed on fireproofing material Fire Proofing, Spray Applied	Main Floor	2nd Floor Mech Room	EPA Test Method 600/R-93/116 (PLM)

201812376-M

81518-098	SUR-02 - White SUR-02: White fluffy soft sprayed on fireproofing material Fire Proofing, Spray Applied	Main Floor	2nd Floor Mech Room	EPA Test Method 600/R-93/116 (PLM)
81518-099	SUR-02 - White SUR-02: White fluffy soft sprayed on fireproofing material Fire Proofing, Spray Applied	Main Floor	2nd Floor Mech Room	EPA Test Method 600/R-93/116 (PLM)
81518-100	FB-08 - 4-inch Brown FB-08: 4-inch dark brown floor base over dark brown adhesive floor base	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-101	FB-08 - 4-inch Brown FB-08: 4-inch dark brown floor base over dark brown adhesive floor base	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-102	FB-08 - 4-inch Brown FB-08: 4-inch dark brown floor base over dark brown adhesive floor base	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-103	VT-04 - Gray VT-04: Gray floor tile over black adhesive Floor Tile	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-104	VT-04 - Gray VT-04: Gray floor tile over black adhesive Floor Tile	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-105	VT-04 - Gray VT-04: Gray floor tile over black adhesive Floor Tile	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-106	WG-03 - White WG-03: Interior window glazing Sealant, Window Pane Glazing	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-107	WG-03 - White WG-03: Interior window glazing Sealant, Window Pane Glazing	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-108	WG-03 - White WG-03: Interior window glazing Sealant, Window Pane Glazing	Lower Level	Lower Level	EPA Test Method 600/R-93/116 (PLM)
81518-109	ADV-06 - Gray ADV-06: Gray carpet adhesive Carpet Adhesive	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-110	ADV-06 - Gray ADV-06: Gray carpet adhesive Carpet Adhesive	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-111	ADV-06 - Gray ADV-06: Gray carpet adhesive Carpet Adhesive	Lower Level	Basement	EPA Test Method 600/R-93/116 (PLM)
81518-112	VT-05 - 12-inch Pink VT-05: 12-inch pink vinyl tile over adhesive Floor Tile	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-113	VT-05 - 12-inch Pink VT-05: 12-inch pink vinyl tile over adhesive Floor Tile	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-114	VT-05 - 12-inch Pink VT-05: 12-inch pink vinyl tile over adhesive Floor Tile	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)

2018/2376W

81518-212	WG-01 - White WG-01: White soft window glazing Sealant, Window Pane Glazing	Main Floor	Exterior	EPA Test Method 600/R-93/116 (PLM)
81518-213	WG-01 - White WG-01: White soft window glazing Sealant, Window Pane Glazing	Main Floor	Exterior	EPA Test Method 600/R-93/116 (PLM)
81518-214	WG-01 - White WG-01: White soft window glazing Sealant, Window Pane Glazing	Main Floor	Exterior	EPA Test Method 600/R-93/116 (PLM)
81518-215	WG-02 - White WG-02: Gray soft window glazing (lower level mezzanine) Sealant, Window Pane Glazing	Main Floor	Exterior	EPA Test Method 600/R-93/116 (PLM)
81518-216	WG-02 - White WG-02: Gray soft window glazing (lower level mezzanine) Sealant, Window Pane Glazing	Main Floor	Exterior	EPA Test Method 600/R-93/116 (PLM)
81518-217	WG-02 - White WG-02: Gray soft window glazing (lower level mezzanine) Sealant, Window Pane Glazing	Main Floor	Exterior	EPA Test Method 600/R-93/116 (PLM)

Sampled By [Signature] Date 8-15-18 Time 5:00pm

Received By [Signature] Date 8-16-18 Time 10:00am  
Relinquished By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Received By [Signature] Date 8/17/18 Time 9:45  
Relinquished By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Received By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
Relinquished By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Analysis By [Signature] Date 8/22/18 Time 9:00

20181237 E-M

81518-115	VT-06 - 12-inch White VT-06 12-inch white vinyl tile over adhesive Floor Tile	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-116	VT-06 - 12-inch White VT-06 12-inch white vinyl tile over adhesive Floor Tile	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-117	VT-06 - 12-inch White VT-06 12-inch white vinyl tile over adhesive Floor Tile	Main Floor	2nd Floor Mezzanine	EPA Test Method 600/R-93/116 (PLM)
81518-118	MSC-02 - Blue MSC-02: Blue foam insulation on walls over concrete Fiberboard Adhesive	Main Floor	2nd Floor Mech Room	EPA Test Method 600/R-93/116 (PLM)
81518-119	MSC-02 - Blue MSC-02: Blue foam insulation on walls over concrete Fiberboard Adhesive	Main Floor	2nd Floor Mech Room	EPA Test Method 600/R-93/116 (PLM)
81518-120	MSC-02 - Blue MSC-02: Blue foam insulation on walls over concrete Fiberboard Adhesive	Main Floor	2nd Floor Mech Room	EPA Test Method 600/R-93/116 (PLM)
81518-200	BP-01 - White BP-01: White thick hard building putty on rock wall Sealant, CMU Coating/Texture	Main Floor	Exterior	EPA Test Method 600/R-93/116 (PLM)
81518-201	BP-01 - White BP-01: White thick hard building putty on rock wall Sealant, CMU Coating/Texture	Main Floor	Exterior	EPA Test Method 600/R-93/116 (PLM)
81518-202	BP-01 - White BP-01: White thick hard building putty on rock wall Sealant, CMU Coating/Texture	Main Floor	Exterior	EPA Test Method 600/R-93/116 (PLM)
81518-203	BP-02 - White BP-02: Thin soft white building putty Caulk, Wall	Main Floor	Exterior	EPA Test Method 600/R-93/116 (PLM)
81518-204	BP-02 - White BP-02: Thin soft white building putty Caulk, Wall	Main Floor	Exterior	EPA Test Method 600/R-93/116 (PLM)
81518-205	BP-02 - White BP-02: Thin soft white building putty Caulk, Wall	Main Floor	Exterior	EPA Test Method 600/R-93/116 (PLM)
81518-206	WP-01 - White WP-01: Gray soft window putty Sealant, Window Pane Glazing	Main Floor	Exterior	EPA Test Method 600/R-93/116 (PLM)
81518-207	WP-01 - White WP-01: Gray soft window putty Sealant, Window Pane Glazing	Main Floor	Exterior	EPA Test Method 600/R-93/116 (PLM)
81518-208	WP-01 - White WP-01: Gray soft window putty Sealant, Window Pane Glazing	Main Floor	Exterior	EPA Test Method 600/R-93/116 (PLM)
81518-209	DP-01 - White DP-01: Red/brown paint over white soft door putty Caulk, Door	Main Floor	Exterior	EPA Test Method 600/R-93/116 (PLM)
81518-210	DP-01 - White DP-01: Red/brown paint over white soft door putty Caulk, Door	Main Floor	Exterior	EPA Test Method 600/R-93/116 (PLM)
81518-211	DP-01 - White DP-01: Red/brown paint over white soft door putty Caulk, Door	Main Floor	Exterior	EPA Test Method 600/R-93/116 (PLM)

# 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 by Method EPA/600/R-93/116

Attn: Mr. Daniel Orozco, Client: Fulcrum Environmental, Address: 406 North Second Street, Yakima, WA 98901  
 Job#: 18-2524 Batch#: 201812376 Date Received: 8/17/2018  
 Samples Rec'd: 136 Date Analyzed: 8/22/2018 Samples Analyzed: 121 Rev code: F44760  
 Project Loc.: Wenatchee Public Library / 310  
 Douglas Street, Wenatchee, WA 98801

Analyzed by: Sharlee Ma/ Weilong Tai

Reviewed by: Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
1	81518-001	1	Yellow powdery material	4	Chrysotile	Binder/filler	3	Cellulose
2	81518-002	1	Yellow powdery material	4	Chrysotile	Binder/filler	2	Cellulose
3	81518-003	1	Yellow powdery material	3	Chrysotile	Binder/filler	3	Cellulose
4	81518-004	1	Yellow powdery material	4	Chrysotile	Binder/filler	2	Cellulose
5	81518-005	1	Yellow powdery material	4	Chrysotile	Binder/filler	2	Cellulose
6	81518-006	1	Yellow powdery material	4	Chrysotile	Binder/filler	3	Cellulose
7	81518-007	1	Yellow powdery material	3	Chrysotile	Binder/filler	4	Cellulose
8	81518-008	1	Trace yellow powdery material	3	Chrysotile	Binder/filler	2	Cellulose
		2	White brittle material		None detected	Filler, Binder	2	Cellulose
9	81518-009	1	Trace yellow powdery material	3	Chrysotile	Binder/filler	3	Cellulose
		2	White brittle material		None detected	Filler, Binder	2	Cellulose
10	81518-010	1	White brittle material		None detected	Filler, Binder	3	Cellulose
11	81518-011	1	White/yellow brittle material		None detected	Filler, Binder	2	Cellulose
12	81518-012	1	White brittle material with paint		None detected	Filler, Binder, Paint	3	Cellulose
13	81518-013	1	White brittle material		None detected	Filler, Binder	2	Cellulose
14	81518-014	1	White brittle material		None detected	Filler, Binder	2	Cellulose
15	81518-015	1	White brittle material with tan paint		None detected	Filler, Binder, Paint	3	Cellulose
16	81518-016	1	White brittle material with tan paint		None detected	Filler, Binder, Paint	3	Cellulose
17	81518-017	1	White brittle material with tan paint		None detected	Filler, Binder, Paint	2	Cellulose
18	81518-018	1	White brittle material with tan paint		None detected	Filler, Binder, Paint	3	Cellulose
19	81518-019	1	White brittle material with tan paint		None detected	Filler, Binder, Paint	3	Cellulose

# SEATTLE ASBESTOS TEST

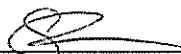
Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

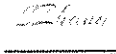
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## ANALYTICAL LABORATORY REPORT

PLM by Method EPA/600/R-93/116

Attn.: Mr. Daniel Orozco, Client: Fulcrum Environmental, Address: 406 North Second Street, Yakima, WA 98901  
 Ms. Avery Foltz, Yakima  
 Job#: 18-2524 Batch#: 201812376 Date Received: 8/17/2018  
 Samples Rec'd: 136 Date Analyzed: 8/22/2018 Samples Analyzed: 121 Rev code: F4f760  
 Project Loc.: Wenatchee Public Library / 310  
 Douglas Street, Wenatchee, WA 98801

Analyzed by:  Shih-Hua Welling Tai

Reviewed by:  Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
20	81518-020	1	White brittle material with tan paint		None detected	Filler, Binder, Paint	3	Cellulose
21	81518-021	1	White brittle material with tan paint		None detected	Filler, Binder, Paint	3	Cellulose
22	81518-022	1	Gray fibrous material with paint		None detected	Paint, Filler, Perlite, Glass beads	67	Cellulose, Glass fibers
23	81518-023	1	Gray fibrous material with paint		None detected	Paint, Filler, Perlite, Glass beads	65	Cellulose, Glass fibers
24	81518-024	1	Gray fibrous material with paint		None detected	Paint, Filler, Perlite, Glass beads	68	Cellulose, Glass fibers
25	81518-025	1	Gray fibrous material with paint		None detected	Paint, Filler, Perlite, Glass beads	66	Cellulose, Glass fibers
26	81518-026	1	Gray fibrous material with paint		None detected	Paint, Filler, Perlite, Glass beads	65	Cellulose, Glass fibers
27	81518-027	1	Gray fibrous material with paint		None detected	Paint, Filler, Perlite, Glass beads	64	Cellulose, Glass fibers
28	81518-028	1	Yellow mastic		None detected	Mastic/binder	4	Synthetic fibers, Cellulose
29	81518-029	1	Yellow mastic		None detected	Mastic/binder	5	Synthetic fibers, Cellulose
30	81518-030	1	Yellow mastic		None detected	Mastic/binder	5	Synthetic fibers, Cellulose
31	81518-031	1	Dark gray rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Trace white mastic		None detected	Mastic/binder	2	Cellulose
32	81518-032	1	Dark gray rubbery material		None detected	Rubber/binder	2	Cellulose
		2	White mastic		None detected	Mastic/binder	3	Cellulose
		3	White brittle material with paint		None detected	Filler, Binder, Paint	3	Cellulose
33	81518-033	1	Dark gray rubbery material		None detected	Rubber/binder	2	Cellulose
		2	White mastic		None detected	Mastic/binder	2	Cellulose
		3	White brittle material with paint		None detected	Filler, Binder, Paint	2	Cellulose
34	81518-034	1	Gray fibrous material with paint		None detected	Paint, Filler, Perlite, Glass beads	66	Cellulose, Glass fibers
35	81518-035	1	Gray fibrous material with paint		None detected	Paint, Filler, Perlite, Glass beads	68	Cellulose, Glass fibers
36	81518-036	1	Gray fibrous material with paint		None detected	Paint, Filler, Perlite, Glass beads	67	Cellulose, Glass fibers
37	81518-037	1	Dark brown mastic		None detected	Mastic/binder	3	Cellulose

# 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

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## ANALYTICAL LABORATORY REPORT PLM by Method EPA/600/R-93/116

Attn.: Mr. Daniel Orozco, Ms. Avery Foltz  
Job#: 18-2524  
Samples Rec'd: 136  
Project Loc.: Wenatchee Public Library / 310 Douglas Street, Wenatchee, WA 98801

Client: Fulcrum Environmental, Yakima  
Batch#: 201812376  
Date Analyzed: 8/22/2018

Address: 406 North Second Street, Yakima, WA 98901  
Date Received: 8/17/2018  
Samples Analyzed: 121  
Rev code: F4f760

Analyzed by: Sherlee Mai Wellong Tai

Reviewed by: Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
38	81518-038	1	Dark brown mastic		None detected	Mastic/binder	3	Cellulose
39	81518-039	1	Dark brown mastic		None detected	Mastic/binder	4	Cellulose
40	81518-040	1	White brittle material		None detected	Filler, Binder	2	Cellulose
		2	Brown mastic		None detected	Mastic/binder	3	Cellulose
41	81518-041	1	White brittle material		None detected	Filler, Binder	3	Cellulose
		2	Brown mastic		None detected	Mastic/binder	3	Cellulose
42	81518-042	1	White brittle material		None detected	Filler, Binder	2	Cellulose
		2	Brown mastic		None detected	Mastic/binder	3	Cellulose
43	81518-043	1	Yellow mastic		None detected	Mastic/binder	3	Cellulose, Synthetic fibers
		2	White tile		None detected	Vinyl/binder, Mineral grains	2	Cellulose
		3	Trace black mastic		None detected	Mastic/binder	3	Cellulose
44	81518-044	1	Yellow mastic		None detected	Mastic/binder	4	Cellulose, Synthetic fibers
		2	White tile		None detected	Vinyl/binder, Mineral grains	2	Cellulose
		3	Black mastic		None detected	Mastic/binder	3	Cellulose
45	81518-045	1	Yellow mastic		None detected	Mastic/binder	3	Cellulose, Synthetic fibers
		2	White tile		None detected	Vinyl/binder, Mineral grains	2	Cellulose
		3	Trace black mastic		None detected	Mastic/binder	2	Cellulose
46	81518-046	1	Green rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Beige mastic		None detected	Mastic/binder	3	Cellulose
47	81518-047	1	Green rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Beige mastic		None detected	Mastic/binder	3	Cellulose
48	81518-048	1	Green rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Beige mastic		None detected	Mastic/binder	2	Cellulose
49	81518-049	1	Pink rubbery material		None detected	Rubber/binder	3	Cellulose

# 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: 200766-0

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## ANALYTICAL LABORATORY REPORT

PLM by Method EPA/600/R-93/116

Attn.: Mr. Daniel Orozco, Client: Fulcrum Environmental, Address: 406 North Second Street, Yakima, WA 98901  
 Job#: 18-2524 Batch#: 201812376 Date Received: 8/17/2018  
 Samples Rec'd: 136 Date Analyzed: 8/22/2018 Samples Analyzed: 121 Rev code: F41760  
 Project Loc.: Wenatchee Public Library / 310  
 Douglas Street, Wenatchee, WA 98801

Analyzed by: Sherlee Mai Weiling Tai

Reviewed by: Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
		2	Yellow mastic		None detected	Mastic/binder	3	Cellulose
50	81518-050	1	Pink rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Trace yellow mastic		None detected	Mastic/binder	2	Cellulose
51	81518-051	1	Pink rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	3	Cellulose
52	81518-052	1	Tan rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	3	Cellulose
		3	Trace white brittle material		None detected	Filler, Binder	3	Cellulose
53	81518-053	1	Pink rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Trace yellow mastic		None detected	Mastic/binder	2	Cellulose
54	81518-054	1	Pink rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	3	Cellulose
55	81518-055	1	Yellow mastic		None detected	Mastic/binder	3	Cellulose, Synthetic fibers
		2	Yellow tile		None detected	Vinyl/binder, Mineral grains	2	Cellulose
		3	Dark brown mastic		None detected	Mastic/binder	2	Cellulose
56	81518-056	1	Yellow mastic		None detected	Mastic/binder	3	Cellulose, Synthetic fibers
		2	Yellow tile		None detected	Vinyl/binder, Mineral grains	2	Cellulose
		3	Dark brown mastic		None detected	Mastic/binder	3	Cellulose
57	81518-057	1	Yellow mastic		None detected	Mastic/binder	3	Cellulose, Synthetic fibers
		2	Yellow tile		None detected	Vinyl/binder, Mineral grains	3	Cellulose
		3	Dark brown mastic		None detected	Mastic/binder	2	Cellulose
58	81518-058	1	Brown rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	3	Cellulose
59	81518-059	1	Brown rubbery material		None detected	Rubber/binder	2	Cellulose



# 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

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## ANALYTICAL LABORATORY REPORT

PLM by Method EPA/600/R-93/116

Attn.: Mr. Daniel Orozco, Ms. Avery Foltz  
 Client: Fulcrum Environmental, Yakima  
 Address: 406 North Second Street, Yakima, WA 98901  
 Job#: 18-2524  
 Batch#: 201812376  
 Date Received: 8/17/2018  
 Samples Rec'd: 136  
 Date Analyzed: 8/22/2018  
 Samples Analyzed: 121  
 Rev code: F41760  
 Project Loc.: Wenatchee Public Library / 310 Douglas Street, Wenatchee, WA 98801

Analyzed by: Sharlee Mai Wellong Tai

Reviewed by: Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
		2	Yellow mastic		None detected	Mastic/binder	2	Cellulose
60	81518-060	1	Brown rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	2	Cellulose
61	81518-061	1	Gray vinyl		None detected	Vinyl/binder	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	4	Cellulose
		3	Trace tan woven fibrous material		None detected	Filler, Binder	82	Synthetic fibers
62	81518-062	1	Gray vinyl		None detected	Vinyl/binder	3	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	3	Cellulose
		3	Tan woven fibrous material		None detected	Filler, Binder	84	Synthetic fibers
63	81518-063	1	Gray vinyl		None detected	Vinyl/binder	3	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	3	Cellulose
		3	Tan woven fibrous material		None detected	Filler, Binder	85	Synthetic fibers
64	81518-064	1	Black/gray mastic	2	Chrysotile	Mastic/binder	3	Cellulose
65	81518-065		Sample not analyzed					
66	81518-066		Sample not analyzed					
67	81518-067	1	Gray fibrous material with paint		None detected	Paint, Filler, Perlite, Glass beads	64	Cellulose, Glass fibers
68	81518-068	1	Gray fibrous material with paint		None detected	Paint, Filler, Perlite, Glass beads	63	Cellulose, Glass fibers
69	81518-070	1	White paint		None detected	Paint/binder	2	Cellulose
		2	Yellow fibrous material		None detected	Filler	89	Glass fibers
70	81518-071	1	White paint		None detected	Paint/binder	2	Cellulose
		2	Yellow fibrous material		None detected	Filler	89	Glass fibers
71	81518-072	1	White paint		None detected	Paint/binder	2	Cellulose
		2	Yellow fibrous material		None detected	Filler	89	Glass fibers
72	81518-073	1	Black rubbery material		None detected	Rubber/binder	2	Cellulose

# 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

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## ANALYTICAL LABORATORY REPORT

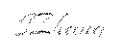
PLM by Method EPA/600/R-93/116

Attn.: Mr. Daniel Orozco, Ms. Avery Foltz  
 Job#: 18-2524  
 Samples Rec'd: 136  
 Project Loc.: Wenatchee Public Library / 310 Douglas Street, Wenatchee, WA 98801

Client: Fulcrum Environmental, Yakima  
 Batch#: 201812376  
 Date Analyzed: 8/22/2018

Address: 406 North Second Street, Yakima, WA 98901  
 Date Received: 8/17/2018  
 Samples Analyzed: 121  
 Rev code: F4f760

Analyzed by:  Shifeng Ma / Weifeng Tai

Reviewed by:  Steve (Fanyoo) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
		2	Yellow mastic		None detected	Mastic/binder	2	Cellulose
73	81518-074	1	Black rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	2	Cellulose
74	81518-075	1	Black rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	3	Cellulose
75	81518-076	1	Trace white powdery material		None detected	Binder/filler	2	Cellulose
		2	White chalky material with paper		None detected	Binder/filler, Gypsum/binder	26	Cellulose
76	81518-077	1	Trace white powdery material		None detected	Binder/filler	2	Cellulose
		2	White chalky material with paper		None detected	Binder/filler, Gypsum/binder	25	Cellulose
77	81518-078	1	Trace white powdery material		None detected	Binder/filler	3	Cellulose
		2	White chalky material with paper		None detected	Binder/filler, Gypsum/binder	24	Cellulose
78	81518-079	1	Brown rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Beige mastic		None detected	Mastic/binder	3	Cellulose
79	81518-080	1	Brown rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Beige mastic		None detected	Mastic/binder	2	Cellulose
80	81518-081	1	Brown rubbery material		None detected	Rubber/binder	3	Cellulose
		2	Beige mastic		None detected	Mastic/binder	2	Cellulose
81	81518-082	1	Black mastic	2	Chrysotile	Mastic/binder	3	Cellulose
		2	Gray sandy/brittle material		None detected	Sand, Filler, Binder	3	Cellulose
82	81518-083	1	Black mastic	2	Chrysotile	Mastic/binder	3	Cellulose
		2	Gray sandy/brittle material		None detected	Sand, Filler, Binder	2	Cellulose
83	81518-085	1	Black mastic	3	Chrysotile	Mastic/binder	3	Cellulose
		2	Yellow/brown mastic		None detected	Mastic/binder	4	Cellulose, Synthetic fibers
84	81518-086	1	Yellow/brown mastic		None detected	Mastic/binder	4	Cellulose, Synthetic fibers
		2	Gray sandy/brittle material		None detected	Sand, Filler, Binder	2	Cellulose

# 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: 200766-0

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## ANALYTICAL LABORATORY REPORT

PLM by Method EPA/600/R-93/116

Attn.: Mr. Daniel Orozco, Ms. Avery Foltz  
 Client: Fulcrum Environmental, Yakima  
 Address: 406 North Second Street, Yakima, WA 98901  
 Job#: 18-2524  
 Batch#: 201812376  
 Date Received: 8/17/2018  
 Samples Rec'd: 136  
 Date Analyzed: 8/22/2018  
 Samples Analyzed: 121  
 Rev code: F41760  
 Project Loc.: Wenatchee Public Library / 310 Douglas Street, Wenatchee, WA 98801

Analyzed by: Sheron Mai/Wellong Tai

Reviewed by: Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
85	81518-087	1	Yellow/brown mastic		None detected	Mastic/binder	4	Cellulose, Synthetic fibers
86	81518-088	1	Dark brown mastic		None detected	Mastic/binder	3	Cellulose
		2	White tile	2	Chrysotile	Vinyl/binder, Mineral grains	2	Cellulose
		3	Black mastic	3	Chrysotile	Mastic/binder	3	Cellulose
87	81518-089	1	Dark brown mastic		None detected	Mastic/binder	3	Cellulose
		2	White tile	2	Chrysotile	Vinyl/binder, Mineral grains	2	Cellulose
		3	Black mastic	4	Chrysotile	Mastic/binder	2	Cellulose
88	81518-090	1	Dark brown mastic		None detected	Mastic/binder	3	Cellulose
		2	White tile	2	Chrysotile	Vinyl/binder, Mineral grains	3	Cellulose
		3	Black mastic	3	Chrysotile	Mastic/binder	3	Cellulose
89	81518-091	1	Dark gray brittle material		None detected	Filler, Binder	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	3	Cellulose
90	81518-092	1	Dark gray brittle material		None detected	Filler, Binder	3	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	3	Cellulose
91	81518-093	1	Dark gray brittle material		None detected	Filler, Binder	2	Cellulose
		2	Yellow mastic		None detected	Mastic/binder	4	Cellulose
92	81518-094	1	Yellow fibrous material		None detected	Filler	91	Glass fibers
93	81518-095	1	Silver foil		None detected	Foil/binder		None detected
		2	White paper with mastic and woven fibrous material		None detected	Filler, Mastic/binder	67	Cellulose, Glass fibers
		3	Yellow fibrous material		None detected	Filler	88	Glass fibers
94	81518-096	1	Silver foil		None detected	Foil/binder		None detected
		2	White paper with mastic and woven fibrous material		None detected	Filler, Mastic/binder	65	Cellulose, Glass fibers
		3	Yellow fibrous material		None detected	Filler	87	Glass fibers
95	81518-097	1	White fibrous material		None detected	Filler, Fine particles	64	Cellulose

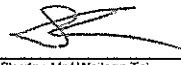
# SEATTLE ASBESTOS TEST

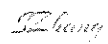
Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

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## ANALYTICAL LABORATORY REPORT PLM by Method EPA/600/R-93/116

Attn.: Mr. Daniel Orozco, Ms. Avery Foltz  
Client: Fulcrum Environmental, Yakima  
Address: 406 North Second Street, Yakima, WA 98901  
Job#: 18-2524  
Batch#: 201812376  
Date Received: 8/17/2018  
Samples Rec'd: 136  
Date Analyzed: 8/22/2018  
Samples Analyzed: 121  
Rev code: F4f760  
Project Loc.: Wenatchee Public Library / 310  
Douglas Street, Wenatchee, WA 98801

Analyzed by:  Sherree Mai Weiling Tai

Reviewed by:  Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
96	81518-098	1	White fibrous material		None detected	Filler, Fine particles	63	Cellulose
97	81518-099	1	White fibrous material		None detected	Filler, Fine particles	63	Cellulose
98	81518-100	1	Dark brown rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Dark brown mastic		None detected	Mastic/binder	3	Cellulose
99	81518-101	1	Dark brown rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Dark brown mastic		None detected	Mastic/binder	2	Cellulose
100	81518-102	1	Dark brown rubbery material		None detected	Rubber/binder	3	Cellulose
		2	Dark brown mastic		None detected	Mastic/binder	2	Cellulose
101	81518-103	1	Gray tile	2	Chrysotile	Vinyl/binder, Mineral grains	2	Cellulose
		2	Black mastic	4	Chrysotile	Mastic/binder	3	Cellulose
102	81518-104		Sample not analyzed					
103	81518-105		Sample not analyzed					
104	81518-106	1	White soft/elastic material		None detected	Binder, Filler	3	Cellulose
105	81518-107	1	White soft/elastic material		None detected	Binder, Filler	3	Cellulose
106	81518-108	1	White soft/elastic material		None detected	Binder, Filler	4	Cellulose
107	81518-109	1	Gray mastic		None detected	Mastic/binder	3	Cellulose
108	81518-110	1	Gray mastic		None detected	Mastic/binder	4	Cellulose
109	81518-111	1	Gray mastic		None detected	Mastic/binder	3	Cellulose
110	81518-112	1	Pink tile		None detected	Vinyl/binder, Mineral grains	2	Cellulose
		2	Trace yellow mastic		None detected	Mastic/binder	3	Cellulose
111	81518-113	1	Pink tile		None detected	Vinyl/binder, Mineral grains	2	Cellulose
		2	Trace yellow mastic		None detected	Mastic/binder	2	Cellulose
112	81518-114	1	Pink tile		None detected	Vinyl/binder, Mineral grains	2	Cellulose
		2	Trace yellow mastic		None detected	Mastic/binder	2	Cellulose

# 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

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## ANALYTICAL LABORATORY REPORT

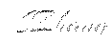
PLM by Method EPA/600/R-93/116

Attn.: Mr. Daniel Orozco, Ms. Avery Foltz  
 Job#: 18-2524  
 Samples Rec'd: 136  
 Project Loc.: Wenatchee Public Library / 310 Douglas Street, Wenatchee, WA 98801

Client: Fulcrum Environmental, Yakima  
 Batch#: 201812376  
 Date Analyzed: 8/22/2018

Address: 406 North Second Street, Yakima, WA 98901  
 Date Received: 8/17/2018  
 Samples Analyzed: 121  
 Rev code: F4f760

Analyzed by:  Shafes Mal Weiling Tai

Reviewed by:  Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
113	81518-115	1	White tile		None detected	Vinyl/binder, Mineral grains	3	Cellulose
		2	Trace yellow mastic		None detected	Mastic/binder	2	Cellulose
114	81518-116	1	White tile		None detected	Vinyl/binder, Mineral grains	2	Cellulose
		2	Trace yellow mastic		None detected	Mastic/binder	3	Cellulose
115	81518-117	1	White tile		None detected	Vinyl/binder, Mineral grains	3	Cellulose
		2	Trace yellow mastic		None detected	Mastic/binder	2	Cellulose
116	81518-118	1	Blue foamy material		None detected	Synthetic foam		None detected
117	81518-119	1	Blue foamy material		None detected	Synthetic foam		None detected
118	81518-120	1	Blue foamy material		None detected	Synthetic foam		None detected
119	81518-200	1	White brittle material	2	Chrysotile	Filler, Binder	2	Cellulose
120	81518-201		Sample not analyzed					
121	81518-202		Sample not analyzed					
122	81518-203	1	White soft material	5	Chrysotile	Filler, Binder	3	Cellulose
123	81518-204		Sample not analyzed					
124	81518-205		Sample not analyzed					
125	81518-206	1	Gray soft material	3	Chrysotile	Filler, Binder	3	Cellulose
126	81518-207		Sample not analyzed					
127	81518-208		Sample not analyzed					
128	81518-209	1	White soft material with paint	6	Chrysotile	Filler, Binder	3	Cellulose
129	81518-210		Sample not analyzed					
130	81518-211		Sample not analyzed					
131	81518-212	1	White soft material with paint	3	Chrysotile	Filler, Binder	3	Cellulose
132	81518-213		Sample not analyzed					
133	81518-214		Sample not analyzed					

## 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

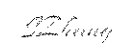
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### ANALYTICAL LABORATORY REPORT

PLM by Method EPA/600/R-93/116

Attn.: Mr. Daniel Orozco, Client: Fulcrum Environmental, Address: 406 North Second Street, Yakima, WA 98901  
Ms. Avery Foltz, Yakima  
Job#: 18-2524 Batch#: 201812376 Date Received: 8/17/2018  
Samples Rec'd: 136 Date Analyzed: 8/22/2018 Samples Analyzed: 121 Rev code: F4760  
Project Loc.: Wenatchee Public Library / 310  
Douglas Street, Wenatchee, WA  
98801

Analyzed by:  Sherlee Mai Weilong Tai

Reviewed by:  Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
134	81518-215	1	Gray soft/elastic material		None detected	Filler, Binder	3	Cellulose
135	81518-216	1	Gray soft material	2	Chrysotile	Filler, Binder	3	Cellulose
136	81518-217		Sample not analyzed					

August 27, 2018

Daniel Orozco  
Fulcrum Environmental Consulting, Inc.-Y  
406 N. 2nd Street  
Yakima, WA 98901



Laboratory | Management | Training

**RE: Bulk Asbestos Fiber Analysis; NVL Batch # 1815977.00**

Client Project: 18-2524  
Location: Wenatchee Library

Dear Mr. Orozco,

Enclosed please find test results for the 13 sample(s) submitted to our laboratory for analysis on 8/17/2018.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with both **EPA 600/M4-82-020**, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and **EPA 600/R-93/116** Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Macfarlane".

Matt Macfarlane, Asbestos Lab Supervisor



Lab Code: 102063-0

**1.888.NVL.LABS** Enc.: Sample Results

1.888.(685.5227)

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**Bulk Asbestos Fibers Analysis**

By Polarized Light Microscopy

Client: Fulcrum Environmental Consulting, Inc.-Y  
Address: 406 N. 2nd Street  
Yakima, WA 98901

Attention: Mr. Daniel Orozco  
Project Location: Wenatchee Library

**Batch #: 1815977.00**

Client Project #: 18-2524  
Date Received: 8/17/2018  
Samples Received: 13  
Samples Analyzed: 13  
Method: EPA/600/R-93/116  
& EPA/600/M4-82-020

**Lab ID: 18081888 Client Sample #: 81518-001**

Location: Wenatchee Library

**Layer 1 of 1 Description:** White lumpy micaceous material with paint

Non-Fibrous Materials:	Other Fibrous Materials:%
Calcareous binder, Calcareous particles, Mica	Cellulose 2%
Paint	

**Asbestos Type: %**  
**Chrysotile 5%**

**Lab ID: 18081889 Client Sample #: 81518-036**

Location: Wenatchee Library

**Layer 1 of 1 Description:** Tan compressed fibrous material with paint

Non-Fibrous Materials:	Other Fibrous Materials:%
Binder/Filler, Glass beads, Glass debris	Cellulose 38%
Perlite, Fine particles, Paint	Glass fibers 17%

**Asbestos Type: %**  
**None Detected ND**

**Lab ID: 18081890 Client Sample #: 81518-044**

Location: Wenatchee Library

**Layer 1 of 6 Description:** Tan compacted powdery material

Non-Fibrous Materials:	Other Fibrous Materials:%
Binder/Filler, Fine particles	Cellulose 2%
	Glass fibers <1%

**Asbestos Type: %**  
**None Detected ND**

**Layer 2 of 6 Description:** Brown brittle mastic

Non-Fibrous Materials:	Other Fibrous Materials:%
Mastic/Binder, Fine particles	Cellulose 3%

**Asbestos Type: %**  
**None Detected ND**

**Layer 3 of 6 Description:** Tan vinyl

Non-Fibrous Materials:	Other Fibrous Materials:%
Vinyl/Binder	None Detected ND

**Asbestos Type: %**  
**None Detected ND**

**Sampled by:** Client**Analyzed by:** William Minor**Reviewed by:** Matt Macfarlane**Date:** 08/22/2018**Date:** 08/27/2018

Matt Macfarlane, Asbestos Lab Supervisor

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government



# Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Fulcrum Environmental Consulting, Inc.-Y  
Address: 406 N. 2nd Street  
Yakima, WA 98901

Attention: Mr. Daniel Orozco  
Project Location: Wenatchee Library

Batch #: 1815977.00

Client Project #: 18-2524

Date Received: 8/17/2018

Samples Received: 13

Samples Analyzed: 13

Method: EPA/600/R-93/116  
& EPA/600/M4-82-020

Layer 4 of 6	Description: Gray soft material	Non-Fibrous Materials: Binder/Filler, Fine particles, Calcareous particles	Other Fibrous Materials:% Cellulose 5%	Asbestos Type: % None Detected ND
Layer 5 of 6	Description: White soft sticky material	Non-Fibrous Materials: Mastic/Binder, Fine particles	Other Fibrous Materials:% Synthetic fibers 2% Cellulose 2%	Asbestos Type: % None Detected ND
Layer 6 of 6	Description: Yellow soft sticky adhesive	Non-Fibrous Materials: Adhesive/Binder, Insect parts, Fine particles Fine grains	Other Fibrous Materials:% Cellulose 4%	Asbestos Type: % None Detected ND

Lab ID: 18081891 Client Sample #: 81518-045

Location: Wenatchee Library

Layer 1 of 3	Description: Brown brittle mastic	Non-Fibrous Materials: Mastic/Binder, Fine particles	Other Fibrous Materials:% Cellulose 3% Synthetic fibers 2%	Asbestos Type: % None Detected ND
Layer 2 of 3	Description: Tan vinyl	Non-Fibrous Materials: Vinyl/Binder, Fine particles	Other Fibrous Materials:% None Detected ND	Asbestos Type: % None Detected ND
Layer 3 of 3	Description: Dark brown brittle mastic	Non-Fibrous Materials: Mastic/Binder, Fine particles	Other Fibrous Materials:% Cellulose 2%	Asbestos Type: % None Detected ND

Sampled by: Client

Analyzed by: William Minor

Reviewed by: Matt Macfarlane

Date: 08/22/2018

Date: 08/27/2018

Matt Macfarlane, Asbestos Lab Supervisor

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

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**Bulk Asbestos Fibers Analysis**

By Polarized Light Microscopy

Client: Fulcrum Environmental Consulting, Inc.-Y

Address: 406 N. 2nd Street  
Yakima, WA 98901

Attention: Mr. Daniel Orozco

Project Location: Wenatchee Library

**Batch #: 1815977.00**

Client Project #: 18-2524

Date Received: 8/17/2018

Samples Received: 13

Samples Analyzed: 13

Method: EPA/600/R-93/116  
& EPA/600/M4-82-020**Lab ID: 18081892      Client Sample #: 81518-055**

Location: Wenatchee Library

**Layer 1 of 4      Description:** Brown brittle masticNon-Fibrous Materials:  
Mastic/Binder, Fine particlesOther Fibrous Materials:%  
Cellulose    2%**Asbestos Type: %**  
**None Detected ND****Layer 2 of 4      Description:** Tan vinylNon-Fibrous Materials:  
Vinyl/Binder, Fine particlesOther Fibrous Materials:%  
None Detected    ND**Asbestos Type: %**  
**None Detected ND****Layer 3 of 4      Description:** Yellow soft masticNon-Fibrous Materials:  
Mastic/Binder, Fine particlesOther Fibrous Materials:%  
Synthetic fibers    2%  
Cellulose    2%**Asbestos Type: %**  
**None Detected ND****Layer 4 of 4      Description:** Yellow soft sticky adhesiveNon-Fibrous Materials:  
Adhesive/Binder, Fine particles, Calcareous particlesOther Fibrous Materials:%  
Cellulose    3%  
Synthetic fibers    <1%**Asbestos Type: %**  
**None Detected ND****Lab ID: 18081893      Client Sample #: 81518-058**

Location: Wenatchee Library

**Layer 1 of 3      Description:** Brown rubbery material with paintNon-Fibrous Materials:  
Vinyl/Binder, PaintOther Fibrous Materials:%  
None Detected    ND**Asbestos Type: %**  
**None Detected ND****Layer 2 of 3      Description:** White firm masticNon-Fibrous Materials:  
Mastic/Binder, Fine particlesOther Fibrous Materials:%  
Cellulose    2%**Asbestos Type: %**  
**None Detected ND****Sampled by:** Client**Analyzed by:** William Minor**Reviewed by:** Matt Macfarlane**Date:** 08/22/2018**Date:** 08/27/2018

Matt Macfarlane, Asbestos Lab Supervisor

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

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**Bulk Asbestos Fibers Analysis**

By Polarized Light Microscopy

Client: Fulcrum Environmental Consulting, Inc.-Y  
Address: 406 N. 2nd Street  
Yakima, WA 98901

Attention: **Mr. Daniel Orozco**  
Project Location: Wenatchee Library

**Batch #: 1815977.00**

Client Project #: 18-2524

Date Received: 8/17/2018

Samples Received: 13

Samples Analyzed: 13

Method: EPA/600/R-93/116  
& EPA/600/M4-82-020

Layer 3 of 3	Description: White paint with trace white powdery substance			
	Non-Fibrous Materials:	Other Fibrous Materials:%		Asbestos Type: %
	Paint, Binder/Filler, Calcareous particles	Cellulose 2%		None Detected ND
<b>Lab ID: 18081894 Client Sample #: 81518-061</b>				
Location: Wenatchee Library				
Layer 1 of 2	Description: White firm material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		Asbestos Type: %
	Mastic/Binder, Fine particles	Cellulose 3%		None Detected ND
Layer 2 of 2	Description: Tan brittle material with fibers			
	Non-Fibrous Materials:	Other Fibrous Materials:%		Asbestos Type: %
	Mastic/Binder, Fine particles	Cellulose 9%		None Detected ND
<b>Lab ID: 18081895 Client Sample #: 81518-064</b>				
Location: Wenatchee Library				
Layer 1 of 3	Description: White firm mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:%		Asbestos Type: %
	Mastic/Binder, Fine particles, Calcareous particles	Cellulose 3%		None Detected ND
Layer 2 of 3	Description: Gray soft material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		Asbestos Type: %
	Binder/Filler, Fine particles, Calcareous particles	Cellulose 8%		None Detected ND
Layer 3 of 3	Description: Black soft asphaltic matrial			
	Non-Fibrous Materials:	Other Fibrous Materials:%		Asbestos Type: %
	Asphalt/Binder, Fine particles	Cellulose 2%		Chrysotile 4%
<b>Lab ID: 18081896 Client Sample #: 81518-074</b>				
Location: Wenatchee Library				

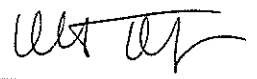
Sampled by: Client

Analyzed by: William Minor

Reviewed by: Matt Macfarlane

Date: 08/22/2018

Date: 08/27/2018

  
Matt Macfarlane, Asbestos Lab Supervisor

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

**NVL Laboratories, Inc.**

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com

**Bulk Asbestos Fibers Analysis**

By Polarized Light Microscopy

Client: Fulcrum Environmental Consulting, Inc.-Y  
Address: 406 N. 2nd Street  
Yakima, WA 98901

Attention: **Mr. Daniel Orozco**  
Project Location: Wenatchee Library

**Batch #: 1815977.00**

Client Project #: 18-2524  
Date Received: 8/17/2018  
Samples Received: 13  
Samples Analyzed: 13  
Method: EPA/600/R-93/116  
& EPA/600/M4-82-020

Layer 1 of 2	Description: Black rubbery material	Non-Fibrous Materials: Vinyl/Binder	Other Fibrous Materials:% None Detected ND	Asbestos Type: % None Detected ND
Layer 2 of 2	Description: White firm mastic	Non-Fibrous Materials: Mastic/Binder, Fine particles	Other Fibrous Materials:% Cellulose 3%	Asbestos Type: % None Detected ND
<b>Lab ID: 18081897      Client Sample #: 81518-103</b>				
Location: Wenatchee Library				
Layer 1 of 3	Description: Yellow soft sticky adhesive	Non-Fibrous Materials: Adhesive/Binder, Fine particles, Insect parts Calcareous particles	Other Fibrous Materials:% Cellulose 4%	Asbestos Type: % None Detected ND
Layer 2 of 3	Description: Beige vinyl	Non-Fibrous Materials: Vinyl/Binder, Fine particles	Other Fibrous Materials:% Cellulose 2%	Asbestos Type: % Chrysotile 4%
Layer 3 of 3	Description: Black soft asphaltic material	Non-Fibrous Materials: Asphalt/Binder, Fine particles	Other Fibrous Materials:% Cellulose 3%	Asbestos Type: % Chrysotile 3%
<b>Lab ID: 18081898      Client Sample #: 81518-202</b>				
Location: Wenatchee Library				
Layer 1 of 1	Description: White rubbery material with gray coating	Non-Fibrous Materials: Binder/Filler, Fine particles, Calcareous particles Fine grains, Adhesive/Binder	Other Fibrous Materials:% Cellulose 2% Synthetic fibers <1%	Asbestos Type: % None Detected ND

**Sampled by:** Client**Analyzed by:** William Minor**Reviewed by:** Matt Macfarlane**Date:** 08/22/2018**Date:** 08/27/2018

Matt Macfarlane, Asbestos Lab Supervisor

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

**NVL Laboratories, Inc.**

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**Bulk Asbestos Fibers Analysis**

By Polarized Light Microscopy

Client: Fulcrum Environmental Consulting, Inc.-Y  
Address: 406 N. 2nd Street  
Yakima, WA 98901

Attention: Mr. Daniel Orozco  
Project Location: Wenatchee Library

**Batch #: 1815977.00**

Client Project #: 18-2524

Date Received: 8/17/2018

Samples Received: 13

Samples Analyzed: 13

Method: EPA/600/R-93/116

&amp; EPA/600/M4-82-020

**Lab ID: 18081899      Client Sample #: 81518-207**

Location: Wenatchee Library

**Layer 1 of 1      Description:** Gray soft putty material with pink paint

Non-Fibrous Materials:	Other Fibrous Materials:%	<b>Asbestos Type: %</b>
Putty Compound, Paint, Fine particles	Cellulose 4%	<b>Chrysotile 6%</b>

**Lab ID: 18081900      Client Sample #: 81518-214**

Location: Wenatchee Library

**Layer 1 of 2      Description:** Gray vinyl

Non-Fibrous Materials:	Other Fibrous Materials:%	<b>Asbestos Type: %</b>
Vinyl/Binder, Fine particles	Cellulose 2%	<b>None Detected ND</b>

**Layer 2 of 2      Description:** Gray coating material

Non-Fibrous Materials:	Other Fibrous Materials:%	<b>Asbestos Type: %</b>
Binder/Filler, Fine grains, Fine particles	Cellulose 2%	<b>Chrysotile 3%</b>
Calcareous particles		

**Sampled by:** Client**Analyzed by:** William Minor**Reviewed by:** Matt Macfarlane**Date:** 08/22/2018**Date:** 08/27/2018

Matt Macfarlane, Asbestos Lab Supervisor

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

**NVL Laboratories, Inc.**

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**ASBESTOS LABORATORY SERVICES****Company** Fulcrum Environmental Consulting, Inc.-Y**Address** 406 N. 2nd Street  
Yakima, WA 98901**Project Manager** Mr. Daniel Orozco**Phone** (509) 574-0839**NVL Batch Number** 1815977.00**TAT** 5 Days**AH** No**Rush TAT****Due Date** 8/24/2018 **Time** 9:30 AM**Email** dorozco@efulcrum.net**Fax** (509) 575-8453**Project Name/Number:** 18-2524**Project Location:** Wenatchee Library**Subcategory** PLM Bulk**Item Code** ASB-02

EPA 600/R-93-116 Asbestos by PLM &lt;bulk&gt;

**Total Number of Samples** 13**Rush Samples**

	Lab ID	Sample ID	Description	A/R
1	18081888	81518-001		A
2	18081889	81518-036		A
3	18081890	81518-044		A
4	18081891	81518-045		A
5	18081892	81518-055		A
6	18081893	81518-058		A
7	18081894	81518-061		A
8	18081895	81518-064		A
9	18081896	81518-074		A
10	18081897	81518-103		A
11	18081898	81518-202		A
12	18081899	81518-207		A
13	18081900	81518-214		A

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

Office Use Only	Print Name	Signature	Company	Date	Time
<b>Received by</b>	Umer Khan		NVL	8/17/18	930
<b>Analyzed by</b>	William Minor		NVL	8/22/18	
<b>Results Called by</b>					
<input type="checkbox"/> <b>Faxed</b> <input type="checkbox"/> <b>Emailed</b>					

**Special  
Instructions:**

Date: 8/17/2018

Time 12:37 PM

Entered By: Soumeya Benzina

1815977

**NVL Laboratories, Inc.**

4708 Aurora Ave N, Seattle, WA 98103  
 Tel: 206.547.0100 Emerg. Pager: 206.344.1878  
 Fax: 206.634.1936 1.888.NVL.LABS (685.5227)

# CHAIN of CUSTODY SAMPLE LOG

L A B S  
ANALYTICAL SERVICES

Client **Fulcrum Environmental Consulting, Inc.**Street **406 North 2nd Street**

Yakima, Washington 98901

NVL Batch Number

Client Job Number

18-2524

Total Samples

13

Turn Around Time

☐ 1-Hr ☐ 24-Hrs ☐ 4 Days☐ 2-Hrs ☐ 2 Days ☒ 5 Days☐ 4-Hrs ☐ 3 Days ☐ 6 to 10 Days

Please call for TAT less than 24 Hrs

Email address **dorozco@efulcrum.net**Project Manager **Daniel Orozco**Project Location **Wenatchee Library**

Phone:

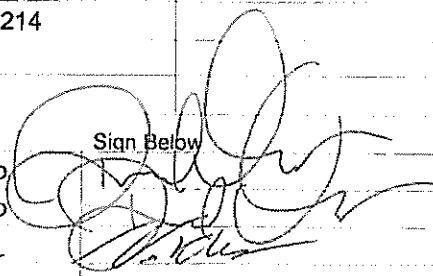
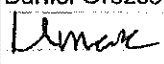

Fax:

Home

<input type="checkbox"/> Asbestos Air	<input type="checkbox"/> PCM (NIOSH 7400)	<input type="checkbox"/> TEM (NIOSH 7402)	<input type="checkbox"/> TEM (AHERA)	<input type="checkbox"/> TEM (EPA Level II)	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Asbestos Bulk	<input checked="" type="checkbox"/> PLM (EPA/600/R-93/116)	<input type="checkbox"/> PLM (EPA Point Count)	<input type="checkbox"/> PLM (EPA Gravimetry)	<input type="checkbox"/> TEM Bulk	
<b>METALS</b>	<b>Det. Limit</b>	<b>Matrix</b>	<b>RCRA Metals</b>	<b>Other Metals</b>	
<input type="checkbox"/> Total Metals	<input type="checkbox"/> ppm (AAS)	<input type="checkbox"/> Air Filter	<input type="checkbox"/> Arsenic (As)	<input type="checkbox"/> All 8	<input type="checkbox"/> All 3
<input type="checkbox"/> TCLP	<input type="checkbox"/> ppb (GFAA)	<input type="checkbox"/> Drinking water	<input type="checkbox"/> Barium (Ba)	<input type="checkbox"/> Lead (Pb)	<input type="checkbox"/> Copper (Cu)
		<input type="checkbox"/> Dust/wipe	<input type="checkbox"/> Cadmium (Cd)	<input type="checkbox"/> Mercury (Hg)	<input type="checkbox"/> Nickel (Ni)
		<input type="checkbox"/> Soil	<input type="checkbox"/> Chromium (Cr)	<input type="checkbox"/> Selenium (Se)	<input type="checkbox"/> Zinc (Zn)
			<input type="checkbox"/> Silver (Ag)		
<input type="checkbox"/> Other Types of Analysis	<input type="checkbox"/> Fiberglass	<input type="checkbox"/> Nuisance Dust	<input type="checkbox"/> Other (Specify) _____		
	<input type="checkbox"/> Silica	<input type="checkbox"/> Respirable Dust			

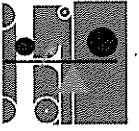
Condition of Package: ☐ Good ☐ Damaged (no spillage) ☐ Severe damage (spillage)

Seq. #	Lab ID	Client Sample Number	Comments	A/R
1		81518-001		
2		81518-036		
3		81518-044		
4		81518-045		
5		81518-055		
6		81518-058		
7		81518-061		
8		81518-064		
9		81518-074		
10		81518-103		
11		81518-202		
12		81518-207		
13		81518-214		
14				
15				

	Print Below	Sign Below	Company	Date	Time
Sampled by	Daniel Orozco		Fulcrum Environmental	8/16/18	10:00 am
Relinquished by	Daniel Orozco		Fulcrum Environmental	8/16/18	10:00 am
Received by				8/17/18	0930 am
Analyzed by					
Results Called by					
Results Faxed by					

**Special Instructions:** Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.

cc: results to



## **APPENDIX C**

### Lead Containing Materials Results



August 21, 2018

Daniel Orozco  
Fulcrum Environmental Consulting, Inc.-Y  
406 N. 2nd Street  
Yakima, WA 98901



**RE: Metals Analysis; NVL Batch # 1815971.00**



Enclosed please find the test results for samples submitted to our laboratory for analysis. Preparation of these samples was conducted following protocol outlined in EPA Method SW 846 -3051 unless stated otherwise. Analysis of these samples was performed using analytical instruments in accordance with U.S. EPA, NIOSH, OSHA and other ASTM methods.

For matrix materials submitted as paint, dust wipe, soil or TCLP samples, analysis for the presence of total metals is conducted using published U.S. EPA Methods. Paint and soil results are usually expressed in mg/Kg which is equivalent to parts per million (ppm). Lead (Pb) in paint is usually expressed in mg/Kg (ppm), Percent (%) or mg/cm<sup>2</sup> by area. Dust wipe sample results are usually expressed in ug/wipe and ug/ft<sup>2</sup>. TCLP samples are reported in mg/L (ppm). For air filter samples, analyses are conducted using NIOSH and OSHA Methods. Results are expressed in ug/filter and ug/m<sup>3</sup>. Other matrix materials are analyzed accordingly using published methods or specified by client. The reported test results pertain only to items tested and 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 details.

This report is considered highly confidential and will not be released without your approval. Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. if you need further assistance please feel free to call us at 206-547-0100 or 1-888-NVLLABS.

Sincerely,

Shalini Patel, Laboratory Analyst



1.888.NVL.LABS  
1.888.(685.5227)  
www.nvllabs.com

NVL Laboratories, Inc.  
4708 Aurora Ave N, Seattle, WA 98103  
p 206.547.0100 | f 206.634.1936

**NVL Laboratories, Inc.**

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com

**Analysis Report****Total Lead (Pb)**

Client: Fulcrum Environmental Consulting, Inc.-Y

Address: 406 N. 2nd Street  
Yakima, WA 98901

Attention: Mr. Daniel Orozco

Project Location: Wenatchee Library

**Batch #: 1815971.00**

Matrix: Paint

Method: EPA 3051/7000B

Client Project #: 18-2524

Date Received: 8/17/2018

Samples Received: 11

Samples Analyzed: 11

Lab ID	Client Sample #	Sample Weight (g)	RL in mg/Kg	Results in mg/Kg	Results in percent
18081860	PCL-01	0.1692	59	810	0.081
18081861	PCL-02	0.1692	59	< 59	<0.0059
18081862	PCL-03	0.1975	51	2000	0.20
18081863	PCL-04	0.1777	56	< 56	<0.0056
18081864	PCL-05	0.0329	150	250	0.025
18081865	PCL-06	0.2064	48	1200	0.12
18081866	PCL-07	0.0798	130	1200	0.12
18081867	PCL-08	0.2055	49	100	0.010
18081868	PCL-09	0.1914	52	< 52	<0.0052
18081869	PCL-10	0.1329	75	170	0.017
18081870	PCL-11	0.1012	99	180	0.018

**Comments:** Small sample size (<0.05g) for PCL-05.

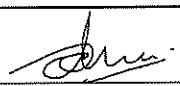
Sampled by: Client

Analyzed by: Yasuyuki Hida

Reviewed by: Shalini Patel

Date Analyzed: 08/20/2018

Date Issued: 08/21/2018

  
Shalini Patel, Laboratory Analyst

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

'&lt;' = Below the reporting Limit

Bench Run No: 2018-0820-8

**NVL Laboratories, Inc.**

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com

**LEAD LABORATORY SERVICES**

Company Fulcrum Environmental Consulting, Inc.-Y

Address 406 N. 2nd Street  
Yakima, WA 98901

Project Manager Mr. Daniel Orozco

Phone (509) 574-0839

NVL Batch Number **1815971.00**

TAT 5 Days

AH No

Rush TAT

Due Date 8/24/2018 Time 9:30 AM

Email dorozco@efulcrum.net

Fax (509) 575-8453

Project Name/Number: 18-2524

Project Location: Wenatchee Library

Subcategory Flame AA (FAA)

Item Code FAA-02

EPA 7000B Lead by FAA &lt;paint&gt;

Total Number of Samples 11

Rush Samples \_\_\_\_\_

	Lab ID	Sample ID	Description	A/R
1	18081860	PCL-01		A
2	18081861	PCL-02		A
3	18081862	PCL-03		A
4	18081863	PCL-04		A
5	18081864	PCL-05		A
6	18081865	PCL-06		A
7	18081866	PCL-07		A
8	18081867	PCL-08		A
9	18081868	PCL-09		A
10	18081869	PCL-10		A
11	18081870	PCL-11		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	UPS				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Umer Khan		NVL	8/17/18	0930
Analyzed by	Yasuyuki Hida		NVL	8/20/18	
Results Called by					
<input type="checkbox"/> Faxed <input type="checkbox"/> Emailed					

Special  
Instructions:

Date: 8/17/2018

Time: 11:42 AM

Entered By: Umer Khan

**NVL Laboratories, Inc.**

4708 Aurora Ave N, Seattle, WA 98103

Tel: 206.547.0100 Emerg. Pager: 206.344.1878

Fax: 206.634.1936 1.888.NVL.LABS (685.5227)

**CHAIN of CUSTODY  
SAMPLE LOG****1815971**Client Fulcrum Environmental Consulting, Inc.Street 406 North 2nd StreetYakima, Washington 98901

NVL Batch Number \_\_\_\_\_

Client Job Number \_\_\_\_\_

18-2524

Total Samples \_\_\_\_\_

10

Turn Around Time

☐ 1-Hr ☐ 24-Hrs ☐ 4 Days☐ 2-Hrs ☐ 2 Days ☒ 5 Days☐ 4-Hrs ☐ 3 Days ☐ 6 to 10 Days

Please call for TAT less than 24 Hrs

Project Manager Daniel OrozcoProject Location Wenatchee LibraryEmail address dorozco@efulcrum.net

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

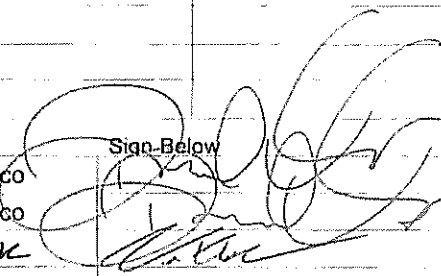
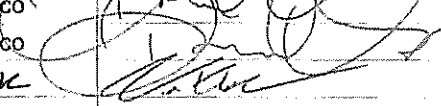
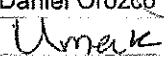
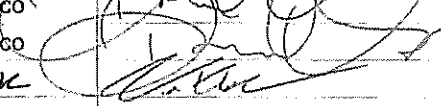
Home \_\_\_\_\_

(509) 574-0839

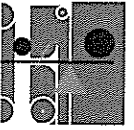
<input type="checkbox"/> Asbestos Air	PCM (NIOSH 7400)	TEM (NIOSH 7402)	<input type="checkbox"/> TEM (AHERA)	TEM (EPA Level II)	Other _____
<input type="checkbox"/> Asbestos Bulk	<input type="checkbox"/> PLM (EPA/600/R-93/116)	<input type="checkbox"/> PLM (EPA Point Count)	<input type="checkbox"/> PLM (EPA Gravimetry)	TEM Bulk	
<b>METALS</b>	<b>Det. Limit</b>	<b>Matrix</b>	<b>RCRA Metals</b>	<input type="checkbox"/> All 8	<b>Other Metals</b>
<input checked="" type="checkbox"/> Total Metals	<input checked="" type="checkbox"/> ppm (AAS)	<input type="checkbox"/> Air Filter	<input type="checkbox"/> Arsenic (As)	<input checked="" type="checkbox"/> Lead (Pb)	<input type="checkbox"/> All 3
<input type="checkbox"/> TCLP	<input type="checkbox"/> ppb (GFAA)	<input type="checkbox"/> Drinking water	<input type="checkbox"/> Barium (Ba)	<input type="checkbox"/> Mercury (Hg)	<input type="checkbox"/> Copper (Cu)
		<input type="checkbox"/> Dust/wipe	<input type="checkbox"/> Cadmium (Cd)	<input type="checkbox"/> Selenium (Se)	<input type="checkbox"/> Nickel (Ni)
		<input type="checkbox"/> Soil	<input type="checkbox"/> Chromium (Cr)	<input type="checkbox"/> Silver (Ag)	<input type="checkbox"/> Zinc (Zn)
<input type="checkbox"/> Other Types of Analysis	<input type="checkbox"/> Fiberglass	<input type="checkbox"/> Nuisance Dust	<input type="checkbox"/> Other (Specify) _____		
	<input type="checkbox"/> Silica	<input type="checkbox"/> Respirable Dust			

Condition of Package: ☐ Good ☐ Damaged (no spillage) ☐ Severe damage (spillage)

Seq. #	Lab ID	Client Sample Number	Comments	A/R
1		PCL-01	Pink paint on exterior concrete	
2		PCL-02	White paint on exterior retaining wall	
3		PCL-03	Red/brown paint on metal door	
4		PCL-04	White paint on exterior concrete walls	
5		PCL-05	Brown paint on metal railing	
6		PCL-06	White paint on gypsum wallboard (basement restroom)	
7		PCL-07	Black and red paint on metal door	
8		PCL-08	Tan paint on plaster walls	
9		PCL-09	Green paint on gypsum wallboard walls	
10		PCL-10	Dark tan paint on plaster walls	
11		PCL-11	Light tan paint on plaster walls	
12				
13				
14				
15				

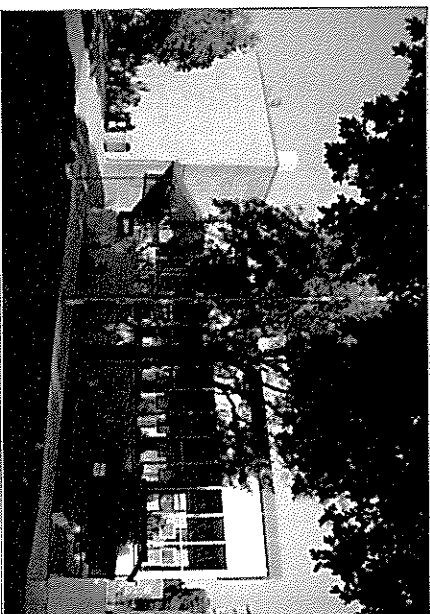
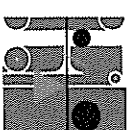
	Print Below	Sign Below	Company	Date	Time
Sampled by	Daniel Orozco		Fulcrum Environmental	8/16/18	8:35 am
Relinquished by	Daniel Orozco		Fulcrum Environmental	8/16/18	8:35 am
Received by			NLV	8/16/18	0930 JPS
Analyzed by					
Results Called by					
Results Faxed by					

**Special Instructions:** Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.CC: results to [rmathews@efulcrum.net](mailto:rmathews@efulcrum.net)

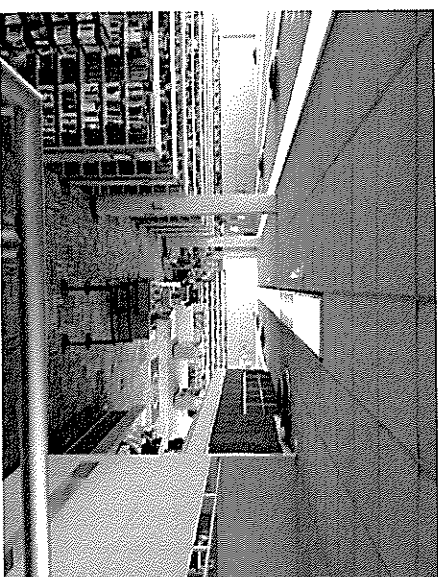


## **APPENDIX D**

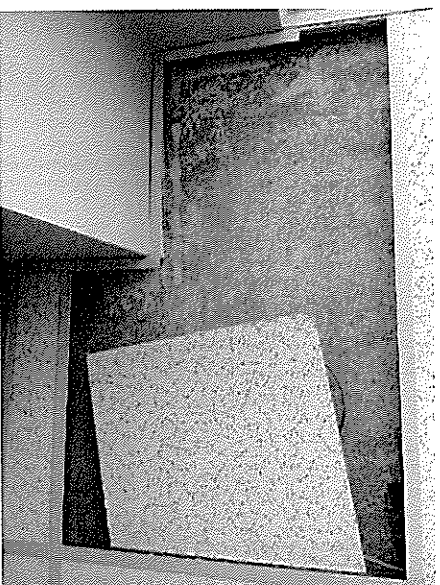
### Photograph Layout



The Wenatchee Public Library is located at 310 Douglas Street in Wenatchee, Washington.



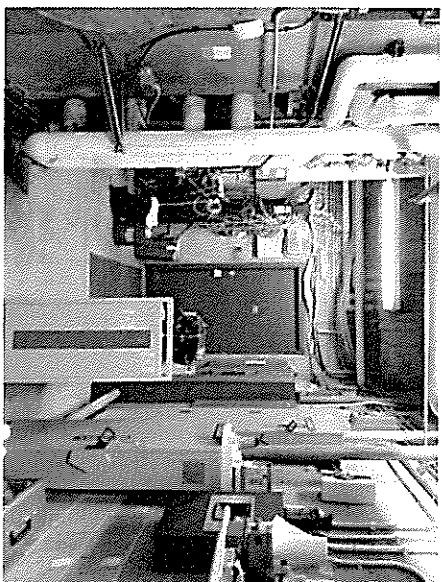
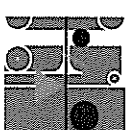
The Library was originally built in 1976 but has previously been updated in 1986, 2006, and 2012.



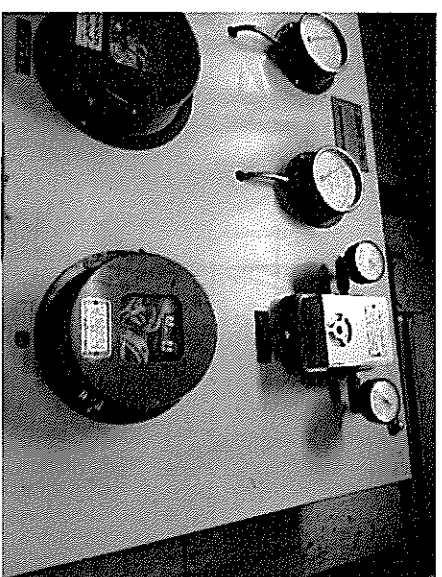
The metal frame suspended ceiling tile hide the original plaster ceiling with residual yellow ACM fireproofing material.



The upper mezzanine is observed with modern lighting fixtures and a combination of carpet and vinyl tile floors.



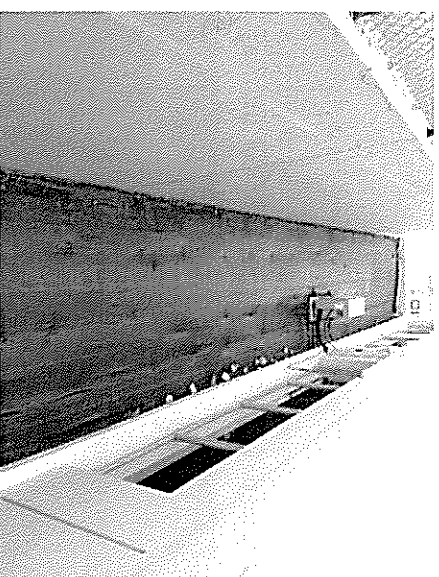
A white paper wrapping over yellow fiberglass insulation on pipes was observed throughout the basement mechanical rooms.



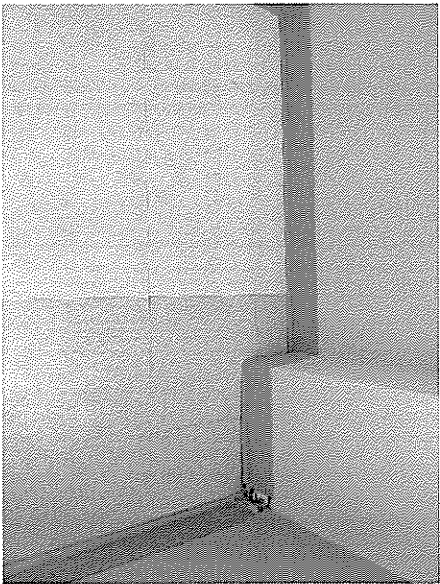
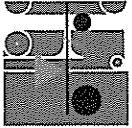
Mercury containing switches were observed on a switch board panel in the basement mechanical room.



Laboratory analysis identified the pink paint finish on the exterior concrete walls to be lead containing.



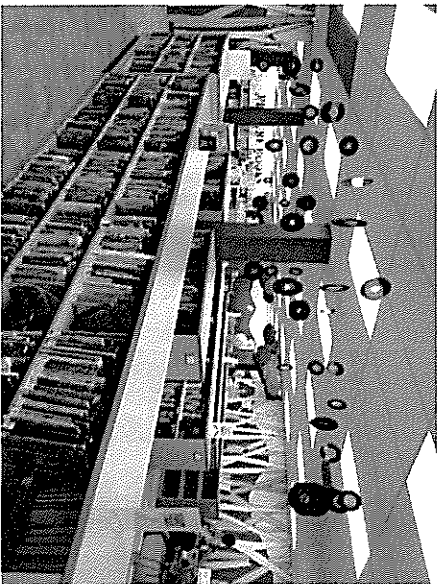
Roof mounted air conditioning units were observed on the exterior of the lower main elevation roof.



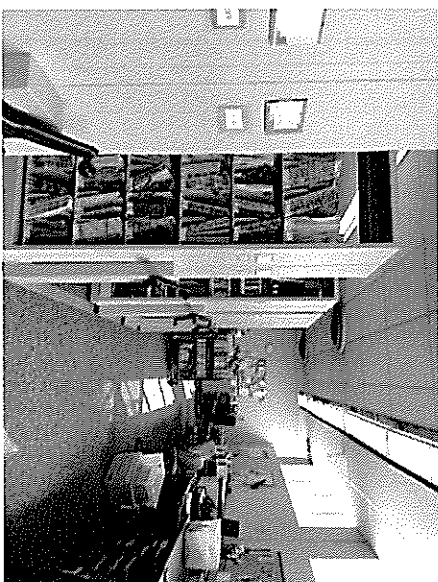
Elevator landing in the upper mezzanine was observed to have two color types of 12-inch vinyl tile.



Fulcrum observed a white fluffy sprayed on fireproofing material in the upper mechanical room.



A photograph of the Children's area with modern paint finishes on gypsum wallboard walls.



The basement storage room has a blue carpet underlying 9-inch ACM vinyl tile.



## SECTION 02 82 00 - ASBESTOS ABATEMENT

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 0, 1 and 2 Specification Sections, apply to this Section.

#### 1.2 GENERAL CONDITIONS

- A. All costs associated with abatement and disposal of asbestos containing materials (ACM) as specified herein shall be included in the lump sum bid. Furnish all supervision, labor, materials, equipment, permits, personnel monitoring, environmental monitoring, etc. required to remove, handle, and dispose of ACM and associated components described in this Section.
- B. Asbestos Hazard Emergency Response Act (AHERA) Project Design: This specification Section was prepared by and Daniel Orozco, an AHERA accredited Project Designer (#170670) and Peggy Williamson, an Asbestos Hazardous Emergency Response Act (AHERA) accredited Project Designer (#172567), both with Fulcrum Environmental Consulting, Inc.
- C. Documents for Reference: See Section 02 81 00 for a list of Hazardous Building Material (HBM) inspection reports.
- D. Contents and Required Content Relocation: The Asbestos Contractor will relocate building contents or mechanical components, as necessary to access and abate ACM. Asbestos Contractor shall coordinate with the General Contractor to determine the extent of contents likely to be present in the abatement work area as well as responsibility for final disposition of any removed contents.
- E. Demolition of Non-ACM Materials to Access ACM: Asbestos Contractor shall demolish all overlying materials necessary to access and abate ACM specified herein. Overlying non-ACM materials include but are not limited to door and window frames; finish and trim materials; and wall and ceiling materials. Asbestos Contractor shall be responsible for any remobilization costs associated with the failure to locate and remove all ACM.
  - 1. The Asbestos Contractor shall stop work and contact the Owner's Representative if any suspect ACM are uncovered during demolition or modernization that were not previously identified, or to determine if and what type of ACM may be impacted should the project scope of work require access or impact to areas outside those specifically identified in the specification.
- F. Identified ACM Not Scheduled for Abatement: Select ACM present on the Wenatchee Public Library are not anticipated to be impacted by the planned renovation and are expected to remain in place at the conclusion of the project. The Asbestos Contractor shall stop work and contact the Owner's Representative if any suspect ACM are uncovered during demolition or modernization that were not previously identified, or to determine if

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and what type of ACM may be impacted should the project scope of work require access or impact to areas outside those specifically identified in the specification.

1. Following is a summary of ACM identified on the Wenatchee Public Library that are expected to remain in place at the conclusion of the project.
  - a. Roofing materials and roof penetration sealants, except in select areas where the existing HVAC units will be removed, and the new units placed.
  - b. HVAC duct tape, except in select areas where the HVAC ducting or component requires selective demolition, or where the duct tape will be damaged by pending renovation work.
  - c. Flooring materials and associated adhesives in the basement sorting work area, meeting room, staff room and hall adjacent to the restrooms.
  - d. Door putty on doors that will not be removed as a portion of the work.
  - e. Seam sealants on the rock wall near the entry.
  - f. Seam sealants on the portions of the building that will not be impacted by planned renovation.

- G. Clearance Standard: All work areas will be subject to visual inspections per the ASTM 1368-11 Standard for Visual Inspection for Asbestos Abatement Projects. All indoor work areas will additionally be subject to post-abatement air sample collection and analytical results completed by the Owner's Representative. Air samples will be collected under aggressive conditions and will be analyzed by Transmission Electron Microscopy (TEM) per the AHERA Method identified in 40-Code of Federal Regulation (CFR) Part 763 Appendix A to Subpart E, or Phase Contrast Microscopy (PCM) per the National Institute of Occupational Safety and Health (NIOSH) Method 7400, and as specified herein. Exterior asbestos abatement will be cleared by visual inspections only, conducted by the Owner's Representative. Additional information on project clearance standards are presented under the job conditions portion of this specification.

### 1.3 SUMMARY OF WORK

- A. General: Work covered by this Section includes the handling of friable and non-friable ACM and incidental procedures and equipment required to protect workers, and adjacent building and campus occupants from airborne asbestos fibers during the work described. Portions of work include cleaning and decontamination of all areas from which ACM have been removed, application of a sealing agent, and appropriate disposal of all ACM, ACM debris and other non-ACM components scheduled for removal. For all ACM removed or ACM contaminated waste, Asbestos Contractor shall arrange and provide for burial at an appropriately permitted landfill.
- B. The Wenatchee Public Library will be unoccupied during asbestos abatement and selective demolition. Asbestos Contractor shall secure asbestos work areas such that unauthorized personnel do not have access.
- C. Schedule: Schedule coordination is the responsibility of the General Contractor and Asbestos Contractor. All requisite mobilizations or re-mobilizations shall be included in the bid. Actual areas of components and extent of materials to be abatement shall be field verified in coordination with the Owner's Representative and Architect.
- D. Work Practices: Work practices specified in base bid work shall be allowed if airborne fiber concentrations remain below levels specified in Table 2 "Asbestos Contractor Monitoring Schedule and Airborne Fiber Concentration". Should analytical results exceed

## ASBESTOS CONTAINING MATERIALS

specified airborne fiber concentrations, the steps outlined in the “Work Practices as a Function of Airborne Fiber Concentration” shall be followed.

- E. Quantities: Dimensions, quantities, and locations are approximate, included solely to provide general information to the Asbestos Contractor. Asbestos Contractor shall be responsible for abatement of all ACM specified below without regard to accuracy of quantity or location recorded. The Asbestos Contractor shall be responsible for ACM in hidden locations, such as but not limited to, window putty located under window trim, duct tape located beneath fiberglass insulation, ACM beneath other non-ACM materials; and piping systems located behind finish materials. For the purposes of additive or deductive change-order requests, actual quantities must vary by more than fifteen (15) percent of the total quantity estimates provided before a change-order request will be considered. Asbestos Contractor shall visit the site and familiarize themselves with the work and conditions under which the work is to be performed.
- F. Material Summary: The following table lists materials to be abated and is summarized by material description. Additional information pertaining to the location, accessibility, or specific abatement performance criteria by asbestos material type follows Table 1. The following abbreviations are used for brevity sake in the table: surfacing (SUR); miscellaneous (MSC); heating, ventilation and air conditioning system (HVAC); Built-up Roofing (BUR), square feet (SF), linear feet (LF), and each (EA).

**Table 1: Asbestos Containing Material Quantities**

Material	Quantity	Unit
MSC: HVAC ducting with ACM white duct tape	1,400	LF
MSC: Window Putty and Window Glazing	76	EA
MSC: Door Putty	3	EA
MSC: White seam sealant on rock wall	75	LF
MSC: White seam sealant on building	75	LF
MSC: BUR and penetration sealant	250	SF

- G. Miscellaneous Materials: The following are classified as Miscellaneous Materials for asbestos sample collection and shall be abated consistent the Washington State Department of Labor and Industries, Division of Occupational Safety and Health (DOSH) requirements.
1. HVAC ducting with white tape: White ACM duct tape is present on HVAC duct seams. The quantity presented in Table 1 represents the linear feet of ducting that has white duct tape present on seams and does not represent the total length of the duct tape.
    - a. Contractors shall locate all areas of the HVAC duct system that has white duct tape present.
    - b. Contractors shall abate the duct tape from the HVAC ducting on areas scheduled for demolition or where renovation tasks will impact or damage the duct tape.
    - c. In areas where the HVAC ducting is scheduled for demolition, the contractor may elect to remove the ducting with the white tape attached as intact component abatement.

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- d. In areas where the HVAC ducting will not be demolished or impacted by planned renovation tasks, the Contractor shall encapsulate the duct tape using a bridging encapsulant.
  - e. For areas where the duct tape has been abated, clearance shall consist of a passing visual inspection prior to application of the encapsulant, followed by aggressive PCM air sample collection and passing analytical results.
  - f. For areas where the duct tape will remain in-place and be encapsulated, clearance shall be by visual inspection only.
2. Window putty and window glazing: Window putty is the material located between the building and the window frame. The window glazing is the materials located between the window frame and the glass. The window units are of various sizes and configurations but typically have glass set in metal frames.
- a. Contractor shall remove the window units scheduled for demolition as asbestos contaminated waste.
  - b. Contractor shall remove the window putty from the remaining building surfaces as an asbestos containing material.
  - c. Clearance of window unit abatement completed as outdoor work areas shall be by visual inspection.
  - d. Asbestos contractor shall coordinate with the General Contractor to provide means of weather-tightening and securing the window or other exterior wall openings during and following abatement until such time as the windows are replaced.
3. Door putty and seam sealants: Asbestos containing putty and sealant was identified between the rock fascia and the building; around the door frames; and around the base of the building.
- a. The door putty and seam sealants shall be abated from all locations identified for select demolition or removal, or where subsequent modernization may result in damage to the door putty or sealants.
  - b. Door putty and seam sealants that are not scheduled for select demolition or abatement and that will not be disturbed by subsequent modernization shall be managed in-place.
  - c. The Asbestos Contractor shall abate the putty and sealants using manual wet methods for disposal as asbestos containing waste.
  - d. Removal shall be conducted in not less than a regulated work area.
  - e. Clearance of the door putty and sealants from outdoor removal work areas shall be by visual inspection only.
  - f. Asbestos contractor shall coordinate with the General Contractor to provide means of weather-tightening and securing the door or other openings during and following abatement until such time as the doors are replaced.
4. Built-up roofing and penetrant sealant: Asbestos containing built-up roofing, asbestos asphaltic paper layers and asphaltic sealants overlie a non-ACM vermiculite concrete layer on a metal roof deck. Presently the ACM roofing is overlain by a newer single-ply roofing membrane, insulation, and other materials.
- a. Extent of roofing impact and number of locations will be dictated by the means and methods elected by the HVAC contractor to remove the exiting roof mounted HVAC components and locate the new HVAC components on the roof.
  - b. Clearance of roofing and penetrant abatement completed as outdoor work areas shall be by visual inspection.
  - c. Asbestos contractor shall coordinate with the General Contractor to provide means of weather-tightening the roof abatement areas or other abatement

## ASBESTOS CONTAINING MATERIALS

building envelope breeches during and following abatement until such time as the roofing is replaced and all penetrations are resealed.

## 1.4 ASBESTOS SPECIFIC SUBMITTALS

- A. Pre-work Submittals: The following items shall be submitted and approved in writing by the Owner's Representative at least 10 working days prior to commencing work involving asbestos materials.
1. Certifications: Submit documentation of a valid Asbestos Contractor License, worker certifications and supervisor certifications for the State of Washington.
  2. Insurance: A Certificate of Insurance shall be provided naming the Wenatchee Public Library as primary and noncontributory additional insured on the Asbestos Contractor's insurance policy. In addition to insurance requirements specified in the General Conditions, the Asbestos Contractor shall submit and maintain coverage types and amounts in companies acceptable to the Owner of not less than \$1,000,000 per occurrence Asbestos Specific Liability Insurance.
  3. Permits and Notifications: Submit copies of all permits and notifications that are secured in conjunction with asbestos removal and encapsulation, hauling, and disposition. Provide timely notification of such actions as may be required by federal, tribal, state, regional, and local authorities.
  4. Asbestos Plan: Submit a site-specific plan of the work schedule and procedures to be used in the removal of materials containing asbestos. The Owner's Representative, prior to the start of any asbestos work, shall approve the asbestos plan. Such plan shall include the following:
    - a. Site-specific health and safety summary.
    - b. Location and layout of asbestos removal areas.
    - c. Location of decontamination enclosures and negative air filtration units.
    - d. Number and location of additional negative air filtration units.
    - e. Sequencing of asbestos related work.
    - f. Disposal plan that includes the name and address of asbestos landfill; estimated waste quantity to be removed from work site; and procedures for hauling and disposal that comply with 40 CFR 61 Subpart M (NESHAP), 49 CFR Subchapter C (HMTA), and state, regional and local standards.
    - g. Type of wetting agent and asbestos encapsulants to be used.
    - h. Safety Data Sheets (SDS) for products stored or used onsite.
    - i. Proposed analytical laboratory and proof of asbestos accreditation.
    - j. Documentation that a respirator program has been established as required by ANSI Z88.2, 29 CFR 1910.134, WAC 296-842.
    - k. Description of procedures to be used should asbestos become spilled during storage or transport.
- B. Work-In-Progress Submittals: The Asbestos Contractor shall have the following documentation onsite and available for review by Owner's Representative during the project. Work-in-progress submittals shall also be included with post-work submittals.
1. Daily Logs: For each shift the Asbestos Contractor is onsite, a daily work log (Supervisor's report) shall be completed. Each log shall document at least the following information:

## ASBESTOS CONTAINING MATERIALS

- a. Workers' name, certification number and expiration date.
  - b. Worker/visitor entry/exit log to work zones.
  - c. Labor hours and details of job tasks for each worker.
  - d. Respiratory protection used by each worker.
  - e. Number and type of air samples collected.
  - f. Number of bags or quantity of ACM removed from each work area.
  - g. Negative air machine readings.
  - h. Problems or delays.
  - i. Project progress.
2. Air Monitoring Records: All DOSH compliance personal and area air monitoring shall be available for the Owner's Representative's review daily. Analytical results of samples collected by the Asbestos Contractor are required to be submitted for review by the Owner's Representative within 24 hours of sampling period completion.
  3. Disposal Documentation: Disposal receipts (waste shipment records) shall be kept onsite for Owner's Representative review and submitted with project closeout documentation at the conclusion of each mobilization. As stated above, waste generation quantities shall be recorded in the Asbestos Contractor's daily logs and correlate with disposal receipts.
  4. Notification Revisions: Notification of change in work dates, hours, practices, and quantities removed shall be submitted to the appropriate agencies and the Owner's Representative.
- C. Post-work Submittals: Asbestos Contractor shall submit post-work project documentation to Owner's Representative within 10 days of substantial completion of each mobilization of asbestos abatement. Post-work submittals must be received and approved by Owner's Representative prior to project payment. Post-work documentation shall include at least the following:
1. All permits and notifications.
  2. All waste shipment records (signed by final disposal facility).
  3. Daily work logs (Supervisor's report).
  4. All air monitoring analytical results.
  5. All worker certification documentation.
  6. Documentation of all hazardous waste characterization, transportation and disposal.

## 1.5 JOB CONDITIONS

- A. Integration of Schedules: The Asbestos Contractor shall work closely with the General Contractor to integrate and schedule asbestos abatement activities. Asbestos Contractor shall complete abatement work, inclusive of time allowance for visual clearance inspection, air clearance sampling, and analytical receipt in accordance with this specification, prior to the abatement work area being released for general contractor access.
1. For each area in which ACM abatement will occur under these specifications, abatement, waste removal, visual clearance, and air clearance testing shall be scheduled and completed prior to all other construction and demolition activities that could have an adverse effect on the ACM.

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- B. Adjacent Work Areas: During performance of the ACM work, other contractors, staff and the public may occupy adjacent portions of the building. If other contractors are working inside of the building, Asbestos Contractor shall complete daily sampling within the areas surrounding the work area. Asbestos Contractor shall collect additional daily perimeter PCM samples during exterior removal activities. PCM analytical results shall remain at or below the pre-abatement levels. If perimeter thresholds are exceeded the Asbestos Contractor shall stop work and initiate corrective action. Asbestos Contractor shall not be permitted to resume work until perimeter air monitoring documents fiber concentration at or below pre-abatement levels.
- C. Utilities: Power and water services at the site shall be the responsibility of the Contractor.
1. Contractor may be required to supply a generator or other power source sufficiently sized to maintain negative pressure within the established work area containments and supply a water source sufficient sized to facilitate abatement and decontamination of equipment, work areas, and workers.
  2. Contractor shall implement an effective lock out/tag out plan associated with building component removal, including coordination with other site contractors, or other affected parties.
- D. Coordination: Contractor shall be responsible for coordinating notification, scheduling, and mobilization, of asbestos abatement work. Contractor shall be responsible for remobilization and abatement costs for asbestos uncovered during selective demolition that were specified for removal under this Section but not abated prior to selective demolition. Asbestos Contractor coordination and scheduling shall allow for visual clearance inspection, air clearance sample collection, and receipt of corresponding analytical results as specified herein for substantial completion.
- E. Substantial Completion: Substantial completion for the asbestos abatement portion of this project is defined as the time when all ACM has been abated from the identified buildings for each phase of work, final clearance results are received from the analytical laboratory for all work areas included in the work phase, and results of these samples are in complete compliance with the contract documents, and federal, state, and local regulation, whichever is most stringent, for clearance air samples.
- F. Clearance Event: All work specified herein shall be subject to a clearance event completed by the Owner's Representative. A clearance event for each work area consists of a visual inspection, followed by air sample collection, laboratory analysis, and comparison to established clearance standards. If for any reason the work area is found to not be ready for a clearance event or the clearance event is determined to have failed, Asbestos Contractor shall be subject to accrued fees.
1. Visual clearance: Asbestos Contractor will have notified the Owner's Representative that the work is complete and ready for a visual clearance a minimum of two (2) business days prior to the Asbestos Contractor's selected visual clearance date. The Owner's Representative shall notify the Asbestos Contractor of a passing visual work area inspection on the same day that the visual inspection is completed. A passed visual inspection will represent substantial completion of exterior asbestos abatement.

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2. Air clearance by transmission electron microscopy (TEM): Clearance samples shall be analyzed by TEM in the work areas identified in this specification or abatement work areas where excessive loading of non-asbestos fibers, such as fiberglass or cellulose, may obscure or skew PCM analytical results above acceptable levels. The Asbestos Contractor shall notify the Owner's Representative that the work is complete and ready for a TEM air clearance event a minimum of 3 business days prior to Asbestos Contractor selected TEM Clearance event date. The Asbestos Contractor shall anticipate that the TEM analytical results will be received 3 business days after sample collection.
    - a. The TEM clearance event shall be considered complete if fiber concentrations do not exceed the 70 structures per square millimeter (s/mm<sup>2</sup>) for the average of not less than five samples collected within the work area.
  3. Air clearance by phase contrast microscopy (PCM): The Asbestos Contractor shall notify the Owner's Representative that the work is complete and ready for a PCM air clearance event a minimum of two (2) business days prior to Asbestos Contractor selected PCM Clearance event date. Asbestos Contractor shall anticipate that the PCM analytical results will be received 1 business days after sample collection.
    - a. A PCM clearance event shall be considered complete if fiber concentrations for each of five clearance samples do not exceed 0.01 f/cc or the pre-abatement fiber concentration, provided that the pre-abatement fiber concentration does not exceed 0.05 f/cc. If the pre-abatement fiber concentration exceeds 0.05 f/cc then the average fiber concentration of 5 air samples shall not exceed 0.05 f/cc.
    - b. For small scale/short duration work areas (less than 25 linear or 10 square feet), the PCM clearance event shall be considered complete if the work area passes the visual inspection and the work-in-progress fiber concentrations do not exceed the higher of 0.01 fibers per cubic centimeter (f/cc) or the pre-abatement concentration, provided that the pre-abatement concentrations do not exceed one-half the personal exposure limit of 0.1 f/cc.
  4. Unacceptable Clearance Results: Unacceptable clearance results, include but are not limited to, presence of remaining ACM, ACM debris, dust or other indications of incomplete cleaning, encapsulant that has not dried, overloading of cassettes whether with fibrous or non-fibrous materials, laboratory results at concentrations in excess of those allowed, etc.
- G. Number of Clearance Events: Owner shall be responsible for providing three (3) PCM clearance events, and six (6) separate visual clearance events.
1. The Asbestos Contractor shall be responsible for the cost of travel time, visual inspection, sample collection, shipping, and analysis for each additional clearance event in excess of the quantity stated above.
  2. The cost of each additional TEM clearance event is **\$1,800**; and the cost for each additional visual clearance event, or PCM clearance event is **\$1,000**.
  3. If the number of work areas requiring clearance is extended in accordance with the General Conditions, costs will not be assessed until after the extended number has been reached.



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- H. Final Asbestos Abatement Completion: Final completion for the ACM abatement portion of this project is defined as the time when all post-work submittals, including waste shipment records signed by the disposal facility, are reviewed and approved by the Owner's Representative.
- I. Condition of Payment: Asbestos Contractor may make request for payment as provided in other portions of the project specifications. However, payment shall not be made on any request until the following document is received by the Owner's Representative:
  - 1. Waste manifest and disposal receipts for all ACM waste removed from the site.
  - 2. Laboratory results for all air samples collected by the Asbestos Contractor.
  - 3. The Asbestos Contractor Daily Logs.

## 1.6 QUALITY CONTROL:

- A. General Air Monitoring: Asbestos Contractor is responsible for performing all monitoring of airborne concentrations of asbestos fibers, both personal and environmental, as required by 29 CFR 1910, 1926, WAC 296-62 and as specified herein. Owner's Representative is responsible for performing additional pre and post-abatement sampling. **Samples collected by Owner's Representative neither substitute for nor negate Contractor's responsibility for collecting similar samples for compliance purposes.**
- B. Accredited Laboratory: An accredited laboratory shall analyze all samples taken by the Asbestos Contractor. Analytical results shall be made available to the Owner's Representative within 24 hours of sample completion.
- C. Employee Monitoring: Asbestos Contractor bears sole and full responsibility for employee compliance air monitoring as required in 29 CFR 1926.1101 and WAC 296-62-07709.
- D. Contractor Analytical Costs: Asbestos Contractor shall bear all analytical costs for samples obtained by the Asbestos Contractor.
- E. Monitoring Prior to Asbestos Work: Owner will conduct pre-abatement PCM air monitoring prior to onset of asbestos abatement work in each work area. Owner's Representative shall collect a minimum of two (2) samples for PCM analysis from each work area.
- F. Monitoring During Asbestos Work: Asbestos Contractor shall collect area, personal, and environmental air samples during abatement to satisfy regulatory requirements. Air samples shall be collected at a frequency consistent with the Asbestos Contractor Monitoring Schedule and Airborne Fiber Concentrations table and shall be within control limits. Additional engineering controls and personal protective measures shall be required if control limits are exceeded.
- G. Work Practices as a Function of Airborne Fiber Concentrations: With prudent and proper work methods, it is not anticipated that airborne fiber concentrations will rise significantly above background or pre-abatement during specific abatement techniques including non-aggressive removal of substantially intact materials. By design, use of appropriate work methods should prevent fibers from being released to ambient air during these abatement activities.

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1. At any time, should air samples reach or exceed airborne fiber concentrations specified below in the table, abatement work must stop, change respirators (if necessary), and initiate cleaning. Construction of additional NPE and three-stage decontamination facility shall occur following cleaning as approved by the Owner's Representative. Removal or repair procedures shall not be resumed until the fiber count is reduced below the airborne fiber concentration specified below, and the Owner's Representative authorizes resumption of the abatement work.
2. Following is the Asbestos Contractor's required sample collection frequency for each work area, associated fiber concentration control limits and assigned Respirator Protection Factor (RPF). Asbestos Contractor shall complete the following required sampling for each work area in which abatement or cleaning is occurring.

Table 2: Asbestos Contractor Monitoring Schedule and Airborne Fiber Concentrations

Area/Person to be Sampled	Samples per 8 hour shift	Minimum Sample Volume	Control Limit Concentration fibers/cubic centimeter (f/cc)
"Most Contaminated Worker" Peak	1	30 liters	0.5 x Respirator Protection Factor (RPF)
"Most Contaminated Worker"	1	240 liters	0.5 x RPF
Inside Work Area	1	960 liters	0.5 x RPF
Outside Work Area, Perimeter Adjacent Control Area	1	1,200 liters	0.01 or Pre-abatement, whichever is higher
Non-aggressive Intact Worker, Small Scale Short Duration work	1	560 liters	0.015 or 0.005 above Pre-abatement, whichever is higher
HEPA Exhaust	1	1,200 liters	0.01 or Pre-abatement, whichever is higher

- H. Air Monitoring After Final Cleanup: A minimum of five (5) air samples per enclosed work area will be collected by the Owner's Representative following initial and final cleanup. **Final air samples in NPE work areas shall be taken under aggressive conditions.** Aggressive air sampling conditions consist of directing exhaust air from a portable air leaf blower at all work surfaces at a rate of 5 minutes/2,000 SF of enclosed space and placing fans on low speed to remain in operation throughout test. **Small scale/short duration work area clearance samples will be collected under ambient conditions.**

1. PCM: Where PCM analysis is use, analytical results from final air tests must be less than 0.01 f/cc or the pre-abatement level, whichever is greater, provided that the pre-abatement fiber concentration does not exceed 0.05 f/cc, as determined by NIOSH Method 7400, Phase Contrast Microscopy. If for any reason, final air tests fiber concentrations are indeterminate, including excessive particulate loading, analytical results shall be rejected and shall be considered a failed clearance event.
2. TEM: Where TEM analysis is specified for clearance, selected at the discretion of the Owner's Representative, or to settle a dispute, the average analytical results from final air tests must be less than 70 s/mm<sup>2</sup> of not less than five samples collected in accordance with AHERA criteria and evaluated under AHERA clearance criteria. If for any reason fiber concentrations of final air tests are

## ASBESTOS CONTAINING MATERIALS

indeterminate, including excessive particulate loading, analytical results shall be rejected and shall be considered a failed clearance event.

## 1.7 APPLICABLE CODES, REGULATIONS, AND PUBLICATIONS

- A. Codes, Regulations and Standards: All applicable codes, regulations, and standards have the same force and effect, and are made a part of the contract documents as if copied directly into the contract documents, or as if published copies are bound herewith. Asbestos Contractor is responsible and liable for full compliance with all applicable federal, state, and local asbestos regulations.
- B. Safety Compliance: In addition to detailed requirements of this specification, comply with laws, ordinances, rules and regulations of storing, transporting, and disposing of asbestos waste materials. Asbestos Contractor shall comply with 40 CFR Part 61, WAC 296-62, etc. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting the work. Where the requirements of this specification and referenced documents vary, the most stringent shall apply.

## PART 2 - PRODUCTS

### 2.1 EQUIPMENT

- A. The Asbestos Contractor shall use equipment listed below. Deviations from any equipment listed herein shall be submitted to the Owner's Representative for approval. All such submittals must be accompanied by U.S. Department of Labor approval. Asbestos Contractor shall allow Owner's Representative to inspect any materials and equipment used during the project for suitability and/or condition.
  - 1. Respirators: Minimal respiratory protection during asbestos removal activities shall be negative pressure, half-face respirator equipped with HEPA filtration cartridges. Select respirators from those approved by the Mine Safety and Health Administration (MSHA) or by the National Institute for Occupational Safety and Health (NIOSH) under the provisions of 42 CFR part 85 and as required under WAC 296-62-07715.
  - 2. Protective Clothing: Asbestos Contractor shall supply protective clothing for all personnel and authorized visitors. Protective clothing shall be fire retardant disposable protective whole-body clothing, head coverings, gloves, and foot coverings. Provide disposable plastic or rubber gloves to protect hands. Protective clothing shall be disposed of as contaminated waste at the end of each workday.
  - 3. Eye Protection: Provide goggles to personnel engaged in asbestos operations when the use of a full-face respirator is not required.
  - 4. Danger Signs and Labels: Provide danger signs, warning labels, and labeled barricades in accordance with WAC 296-62, WAC 296-24 and 29 CFR 1910.
  - 5. Plastic Sheeting: Plastic sheeting shall be two layers of 6 mil (0.15 mm) thickness on walls, barriers, ceilings, and floors and as necessary to prevent damage to underlying materials during course of work. Where required by code, fire retardant plastic sheeting shall be used. Plastic shall extend a minimum of 12 inches beyond the adjacent surface interface. Asbestos Contractor shall immediately repair any tears or punctures in sheeting to prevent ACM or water from contaminating underlying materials.

## ASBESTOS CONTAINING MATERIALS

6. Adhesive Tape: Adhesive tape shall be capable of sealing joints of adjacent sheets of plastic and for attachment of plastic sheeting to finished or unfinished surfaces of dissimilar materials. Tape shall be capable of adhering under both dry and wet conditions, including use of amended water, and under variable temperature ranges.
7. Impermeable Containers: Impermeable Containers shall be both air- and water-tight. Containers shall be double-layered 6-mil plastic bags, each layer capable of being independently sealed. Alternate impermeable container systems must have two separate air and water tight sealing mechanisms and be approved by the Owner's Representative prior to their use. Containers shall be labeled in accordance with OSHA Regulation 29 CFR 1926.1101, 40 CFR part 61, 49 CFR subchapter C, and WAC 296-62-5411. Containers shall be transported to disposal site in an enclosed vehicle fully sealed with 6 mil polyethylene sheeting.
8. Pressure Differential Equipment: Pressure differential equipment shall be utilized continuously from first disturbance of ACM until completion of successful final inspection and acceptable analytical results from air clearance samples. Pressure differential equipment shall be high efficiency particulate air (HEPA) filtration systems equipped in compliance with ANSI 29.2-1979 (local exhaust ventilation) and EOA guidance document EPA 560/5-83-002 *Guidance for Controlling Friable Asbestos-Containing Materials in Buildings* Appendix F: Recommended. No air movement system or air filtering equipment shall discharge unfiltered air outside of the work area. Exchange rates in all areas of local HEPA exhaust and all NPE (including Mini-NPE) shall be maintained at no less than 4 air changes per hour as calculated by Asbestos Contractor and reviewed by the Owner's Representative.
  - a. Asbestos Contractor is responsible for continuous monitoring and recording of pressure differential, using a real time datalogging monitor or continuous strip chart readout, across NPE barriers using a pressure differential monitoring device(s). A minimum of -0.02 column inches of water pressure differential shall be maintained within the NPE.
9. Sealable Plastic Bags: Shall be 6 mil minimum thickness for transportation and disposal of asbestos contaminated material.
10. Other Contaminated Materials: Such materials removed intact will be securely wrapped and taped in at least two layers of 6 mil polyethylene and labeled.
11. Special Materials: Use materials such as plywood, cardboard, polyethylene sheeting, etc., as necessary to protect non-movable objects in the work area from unnecessary damage resulting from abatement activity.

## PART 3 - EXECUTION

## 3.1 INSPECTION

- A. Site Inspection: While performing asbestos related work, the Asbestos Contractor shall be subject to onsite inspection by the Owner's Representative who may be assisted by safety or health personnel. If work is found to be in violation of this specification, as determined by the Owner's Representative, a stop work order shall be in effect immediately and remain in effect until the violation is resolved. Standby time and any additional monitoring and laboratory analyses required to resolve, and document violation resolution shall be at the Asbestos Contractor's expense.

## ASBESTOS CONTAINING MATERIALS

- B. Negative Pressure Enclosure: All NPE (including mini-NPE) shall be inspected and smoke tested daily by the Asbestos Contractor. Visual inspections by Owner's Representative will be at the Owner's Representative's sole discretion. Asbestos Contractor is required to notify the Owner's Representative a minimum of 2 day prior to an initial NPE visual inspection. Removal work in a NPE shall not commence until Owner's Representative inspects and accepts initial NPE construction or accepts documentation of Asbestos Contractor's inspection.
- C. NPE Construction Requirements: Satisfactory completion of the following standard procedures and checks shall constitute acceptable NPE construction and inspection documentation.
  - 1. Negative air machines are sized and placed strategically to ensure airflow is strong and consistent throughout the enclosure, as evidenced by work area schematic drawings.
  - 2. A minimum of four air exchanges per hour will be maintained in the NPE, as calculated by the Asbestos Contractor and accepted by the Owner's Representative. Note: Negative air machines with 2,000 cubic feet per minute (cfm) capacity shall be conservatively calculated to have a 1,500 cfm capacity (25% less capacity). If negative air machines of alternate capacity are used, their rating shall be conservatively calculated at 75% of manufacturer's rated capacity.
  - 3. Visual inspection and smoke tests shall indicate that critical barriers, openings, and surfaces are sealed properly and that no enclosure breaches have occurred.
  - 4. A minimum of -0.02 column inches of water pressure differential shall be maintained within the NPE as evidenced by a real time manometric measurement (a datalogging monitor or continuous strip chart readout). A means of manometric measurement shall be available for each NPE or mini-NPE work area and the data/strip chart must be available for inspection. The datalogging or continuous strip chart records for each NPE or mini-NPE work area shall be submitted as part of post-work documentation.
  - 5. Smoke testing all corners and pockets of the enclosure document strong and consistent airflow towards HEPA filtration or collection device.
  - 6. Record the person's name and negative air machine hours each time a pre-filter or HEPA filter is replaced.
- D. Clearance Inspection: If the Owner's Representative is requested by the Asbestos Contractor to perform a cleanup or clearance inspection and arrives to find the work area not ready for inspection, the Asbestos Contractor will be responsible for any additional expenses incurred by the Owner's Representative. This will include any additional travel time, onsite time, and expenses resulting from inspection delay. Asbestos Contractor shall be subject to costs associated with a failed clearance event as described in this specification.
- E. Transmission Electron Microscopy for Contract Disputes: If TEM is used to determine fiber types in order to resolve a dispute or receive final clearance then the cost of such analysis will be borne by the party requesting use of TEM analysis.

### 3.2 PREPARATION OF WORK AREAS

- A. Previously Provided Information: All requirements specified previously in this Section or in other parts of the project specifications shall apply to the preparation of work areas.

## ASBESTOS CONTAINING MATERIALS

- B. Work Area Preparation: The Asbestos Contractor shall prepare each work area as required under WAC 296-62 and AHERA criteria.
- C. Regulated Areas: Establish regulated areas in accordance with WAC 296-62-07711. At a minimum, seal off all critical barriers, openings, and all floors with two layers of 6 mil thickness polyethylene sheeting before commencing abatement work. Sheeting shall extend a minimum of 12 inches beyond adjacent surface interfaces and seam overlaps. Polyethylene sheeting layers shall be independently sealed. All seams will be sealed with tape to prevent leakage through floor and wall barriers.
- D. Airlocks: Build airlocks at entrances to and exits from work areas.
- E. Fire Exits: Maintain emergency and fire exits from the work areas, or establish alternative exits.
- F. Respiratory Protection: Respirator protection shall be in accordance with WAC 296-62-07715 and WAC 296-842.
- G. Clean and Remove Objects: Wipe clean with cloths and amended water or HEPA filtered vacuum all objects to be removed from the work area. Owner's Representative will designate storage areas. The Asbestos Contractor is responsible for transportation of objects from the work area to designated storage areas or disposal.
- H. Engineering Control Work Practices: Institute engineering control work practices in accordance with WAC 296-62-07712.

## 3.3 ASBESTOS REMOVAL

- A. Removal Work: Perform all removal work in accordance with WAC 296-62-077. All abatement shall occur with materials pre-wetted and wetted during removal sufficient to prevent fiber release. All ACM shall be containerized and secured at the end of each workday.
- B. Friable ACMs: For all friable ACMs, WAC 296-62-07751, Appendix I - Work Practices and Engineering Controls for Class I Asbestos Operations, shall be mandatory. No debris, unsecured equipment, tools, etc. shall remain onsite past the end of each workday.
- C. Non-friable ACMs: Non-friable ACM shall be abated intact, non-aggressively and shall be conducted in a manner consistent with Class II operations as described by Washington Labor and Industry and Occupational Safety and Health (OSHA) regulation. All gray fibrous backing associated with sheet vinyl flooring removal shall occur within an NPE. All employees shall be CAS or certified asbestos Worker (CAW).
- D. Airborne Fiber Concentrations: Fiber concentrations, as described in the "Asbestos Contractor Monitoring Schedule and Airborne Fiber Concentration" table, shall not be exceeded during the work.

## 3.4 WASTE REMOVAL FROM THE WORK AREA

- A. Gross asbestos debris shall be bagged by the end of each workday. ACM removed from work areas shall be sealed in clean impermeable disposal bags of 6 mil thickness

immediately upon removal. External surfaces of bags shall be thoroughly cleaned in designated work area by wet sponging. Move bags into wash area, wet clean each bag thoroughly, place and seal in a second clean impermeable 6 mil bag, place bags in labeled containers for transport. Move containers to holding area pending removal to uncontaminated areas and transportation to landfill. Ensure that containers are removed from the holding area by workers dressed in clean coveralls who have entered from the equipment/waste load-out decontamination station or adjacent clean area. Ensure that workers do not enter from contaminated areas into the clean room during any phase of project performance. All personnel handling ACM shall wear protective clothing and respiratory protection.

### 3.5 CLEANUP OF WORK AREAS

- A. After completion of gross removal work, remove visible accumulations of asbestos material and debris. Surfaces from which asbestos has been removed shall be wire brushed, and/or wet sponged, or cleaned by an equivalent method to remove all visible material. During this work, the surfaces being cleaned shall be kept wet. During cleaning operations, critical barriers, such as windows, doors, and HVAC vents and protective barriers shall remain sealed, and any HEPA filtration negative air pressure systems, air filtration and decontamination enclosure systems shall remain in service.
- B. Clean all other surfaces in the work area and any other contaminated areas with water and/or with HEPA vacuum equipment. After cleaning the work area, allow surfaces to dry completely (6-hrs. minimum). After a drying period, again wet clean or clean with HEPA vacuum equipment all surfaces in the work area. After completion of the second cleaning operation, the Owner's Representative will perform a complete visual inspection of the work area to ensure that ACM has been removed and the work area is dust free.
- C. Sealed containers and all equipment used in the work area shall be included in the cleanup and shall be removed from work areas, via the decontamination enclosure system, at an appropriate time in the cleaning sequence.
- D. If the area is free of dust, the Owner's Representative will continue the clearance event. If the area is free of dust and debris, the Owner's Representative may collect discretionary air samples to verify that the work area is substantially free of airborne fiber.
- E. When the inspection and discretionary sampling indicates that the removal and cleanup performance is satisfactory and complete as determined by the Owner's Representative, all exposed surfaces shall be sealed with an approved encapsulant. Manufacturer's encapsulation instructions shall be strictly observed. The Owner's Representative must approve deviation from Manufacturer's instructions.
- F. Following a period sufficient to allow the encapsulant to dry completely (6-hrs. minimum), the Owner's Representative will complete final air testing. Critical barriers including plastic sheets covering doors, vents, windows, air plenum grills, and the decontamination system barriers will be left in place during final air testing. If underlying surface cleaning or project performance is not satisfactory as determined by the Owner's Representative, re-clean all surfaces.
- G. The Owner's Representative shall conduct final inspections on each work area. When final inspection and air testing determines that the area is free of visible accumulations of dust

## ASBESTOS CONTAINING MATERIALS

and ambient air is within control limits for "clean air," the decontamination enclosure systems shall be removed; the area thoroughly wet cleaned; and materials from the equipment and shower rooms disposed of as contaminated waste. A final check shall be carried out to ensure that no dust or debris remains on surfaces as a result of dismantling operations. Objects that were removed prior to abatement shall be relocated to the clean work area.

## 3.6 WASTE DISPOSAL

- A. Asbestos Containing Materials and Asbestos Contaminated Waste: Transport sealed and labeled containers in a vehicle compartment completely enclosed with two layers of 6 mil polyethylene sheeting. Transport waste for disposal to the authorized site regularly, so that available onsite storage capacity is not exceeded. Waste shall be removed from the site at least weekly. Procedures for transport and disposal shall comply with 40 CFR 61 Subpart M (NESHAP); 49 CFR Subchapter C (HMTA); and state, regional, and local standards and regulations.
- B. Landfill Criteria: Dispose of undamaged and sealed containers only at the approved disposal site. If containers have become broken or damaged during transportation, the damaged containers must be placed in a sealed drum and the entire contaminated drum must be buried. All ACM waste shall be disposed at a facility permitted under 40 CFR Subchapter I to accept asbestos waste.
- C. Disposal Documentation: Submit Waste Shipment Record (WSR) documentation including name and address of landfill, name of landfill employee authorized to accept asbestos waste, quantity of waste removed from work site, and quantity of waste disposed of at the landfill. Local landfills accepting ACM waste requires two manifests occupying each load; one copy will stay with the landfill and the second copy will be signed by the landfill and returned to the transport driver. Additionally, local landfills have limited delivery times for ACM waste.
- D. Hazardous Waste: If hazardous waste is generated, all documentation of waste characterization, transport and disposal shall be submitted to the Owner's Representative.

## 3.7 STANDARD TERMS

- A. Air Monitoring: Process of measuring the asbestos fiber content of a specified volume of air in a stated time period.
- B. Asbestos Contractor: Contractor performing the asbestos abatement portion of this project.
- C. Asbestos Containing Waste Material: Asbestos containing material or asbestos contaminated objects requiring disposal.
- D. Authorized Visitor: Owner or his designated representatives or regulatory or other agency representatives having jurisdiction over the project.
- E. Clearance: Point in time at which visual inspections and airborne fiber concentrations in the work area document that completion of abatement.



## ASBESTOS CONTAINING MATERIALS

- F. Clearance Event: A clearance event consists of a visual inspection followed by sample collection and laboratory analysis of air samples from within the work area and comparison to established clearance standards.
- G. Control Limit: Refers to a maximum acceptable airborne fiber concentration given the engineering controls and PPE in place. Additional engineering controls and personal protective measures shall be required if maximum fiber concentration is exceeded.
- H. Critical Barrier: An air- and water-tight covering constructed of two layers of 6-mil polyethylene plastic with each layer independently sealed with tape and spray adhesive that is placed over all penetrations of the floor, walls, and ceiling to prevent airborne asbestos from escaping into areas outside the work area or from lodging in cracks around the penetrations.
- I. Decontamination Enclosure System: An enclosed area adjacent and connected to the regulated area. For a NPE the decontamination enclosure system consists of 3 stages: an equipment room, shower room, and clean room. For a mini-NPE the decontamination enclosure system consists of 2 stages: an equipment room, and clean room. A system is formed by connecting a series of rooms with curtained doorways. Each doorway forms airlocks between any two adjacent rooms. The system is used to remove asbestos contamination from workers, materials, and equipment.
- J. Encapsulant: Liquid material which can be applied to ACM which controls the possible release of asbestos fibers either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant).
- K. Environmental Monitoring: Completion of visual observations and environmental samples related to the project QA/QC and performance of the Asbestos Contractor.
- L. Environmental Monitoring: Completion of visual observations and environmental sample collection and analysis related to the project QA/QC and performance of the Contractors.
- M. Facility Component: Any pipe, duct, boiler, tank, reactor, turbine, furnace, etc. at or in a facility or any structural member of a facility.
- N. Failed Clearance Event: A failed clearance event is an inspection by the Owner's Representative during which unacceptable clearance results, including but are not limited to, presence of ACM debris; remaining ACM, dust or other indications of incomplete cleaning; encapsulant that has not dried; overloading of cassettes, whether with fibrous or non-fibrous materials; laboratory results at concentrations in excess of established clearance standards, etc. that does not results in the successful completion of the clearance event.
- O. Fixed Object: Piece of equipment or furniture in the work area that cannot be removed.
- P. Friable Asbestos Material: Substance containing more than one percent asbestos by weight and that can be crumbled, pulverized, or reduced to powder by hand pressure when dry.

## ASBESTOS CONTAINING MATERIALS

- Q. HEPA Equipment: A tool used during asbestos removal whose exhaust is filtered by means of a high efficiency particulate air filter. HEPA equipment shall be equipped with HEPA filters capable of removing 99.97% of all particulate to 0.3 microns in diameter.
- R. Industry Standards: Applicable standards of construction industry that have the same force and effect on performance of the work as if copied directly into contract documents or bound and published therewith. Standards referenced in contract documents or in governing regulations have precedence over non-referenced standards, insofar as different standards may contain overlapping or conflicting requirements. Comply with standards, wherever more stringent, in effect as of date of contract documents, unless otherwise indicated.
- S. Local HEPA Exhaust: Ventilating the regulated area so that contaminated air is moved away from work and toward a filtration or collection device equipped with a HEPA filter. Air that has passed through the HEPA filter is then exhausted outdoors.
- T. Mini-Negative Pressure Enclosure (Mini-NPE): Abatement method that establishes an NPE zone as a subarea of the total area. Refer to Negative Pressure Enclosure definition for additional design and monitoring requirements. Decontamination facilities typically consist of a two air chamber airlock. Work practices consist of double suiting, wet removal, and HEPA vacuuming.
- U. Movable Object: Piece of equipment or furniture in the work area that can be removed.
- V. Negative Pressure Enclosure (NPE): A method of confining a regulated area within impermeable barriers of polyethylene. A NPE can be of any configuration and shall, relative to outside areas, maintain a pressure differential of -0.02 column inches of water. A NPE shall be designed so that air inside the area can only exit through a HEPA filtered exhaust system. The HEPA system shall be capable of maintaining at least 4 air changes per hour and shall be capable of directing a constant low velocity air flow toward the HEPA filtration or a collection device. Typically, the NPE includes a three-stage decontamination system, wet removal, single suiting, and HEPA vacuuming.
- W. Non-aggressive Removal: Taking out or stripping of wetted asbestos containing materials by methods such as spud bars, pry bars, shovels, knives, hatchets, etc. or by removing the entire component, such as a sink without impacting the ACM.
- X. Non-Friable Asbestos Material: Substance containing greater than one percent asbestos in which the fibers have been locked in by a bonding agent, coating, binder, or other material so that the asbestos is well bound and will not release fibers in excess of the asbestos control limit during appropriate use, handling, demolition, storage, transportation, processing, or disposal.
- Y. Owner's Representative: Person(s) designated by the Owner, to act in their behalf.
- Z. Personal Monitoring: Sampling asbestos fiber concentrations within the employees breathing zone.
- AA. Phase Contrast Microscopy (PCM): Method used to analyze air samples for the presence of fibers.

## ASBESTOS CONTAINING MATERIALS

- BB. Prior Experience: Experience required of the Asbestos Contractor on asbestos projects of similar nature and scope to ensure capability of performing the asbestos abatement in a satisfactory manner. Similarities shall be in areas related to material composition, project size, abatement methods required, number of employees and the engineering, work practice and personal protection controls demonstrated by that experience.
- CC. Shower Room: Area between the clean room and the equipment room in the worker decontamination enclosure system, with hot and cold or warm running water and suitably arranged for complete showering during decontamination. The shower room comprises an airlock between contaminated and clean areas.
- DD. Surfactant: Chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation or area.
- EE. Testing Laboratory: Independent entity engaged by the Owner, Owner's Representative or Asbestos Contractor to perform analysis of air samples and bulk samples. The laboratory shall be accredited by the Laboratory Accreditation Program of the American Industrial Hygiene Association (AIHA). The lab will be rated as "Proficient" in the AIHA Bulk Asbestos Proficiency Analytical Testing (BAPAT) Program for asbestos identification in bulk materials.
- FF. Transmission Electron Microscopy: Method to analyze air or bulk samples for presence of asbestos.
- GG. Visible Emissions: Any emissions containing particulate materials that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.
- HH. Wet Cleaning: Process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with amended water, and by afterwards disposing of these cleaning tools as asbestos contaminated waste. Use of HEPA filtered vacuums are recommended during wet cleaning.
- II. Work Area: Designated rooms, spaces, or areas of the project in which asbestos abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions. A contained or isolated work area is a work area that has been sealed, plasticized, and equipped with a decontamination enclosure system. A non-contained work area is a controlled access work area that has not been plasticized nor equipped with a decontamination enclosure system but has been demarked consistent with WAC 296-62.

END OF SECTION 02 82 00

# MEMORANDUM

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DATE June 18, 2019  
TO Courtney Tiffany, Wenatchee Public Library  
FROM Avery Foltz, Fulcrum Environmental Consulting, Inc.  
RE **Limited Asbestos Containing Materials Inspection – Black Glue Dots**  
SUBJECT Wenatchee Public Library

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On Tuesday, June 11, 2019, Avery Foltz (#173188) with Fulcrum Environmental Consulting, Inc. (Fulcrum), while on-site completing pre-abatement air sampling identified suspect black glue dots on the east wall of the attic space above the ceiling tiles in the west portion of the reception area that had not previously been sampled at the Wenatchee Public Library located at 310 Douglas Street in Wenatchee, Washington. Brown ceiling glue dots were previously sampled and shown to be non-ACM.

Fulcrum understands that the Wenatchee Public Library is planned to undergo modernizations. As part of further investigation, Fulcrum collected a total of three (3) samples of the suspect ACM material.

All samples were shipped by common carrier, under chain of custody to Seattle Asbestos Test in Lynwood, Washington a National Voluntary Laboratory Accreditation Program (NVLAP) certified laboratory (#200768-0). Samples were analyzed using Polarized Light Microscopy (PLM) method EPA 600/R-93/116.

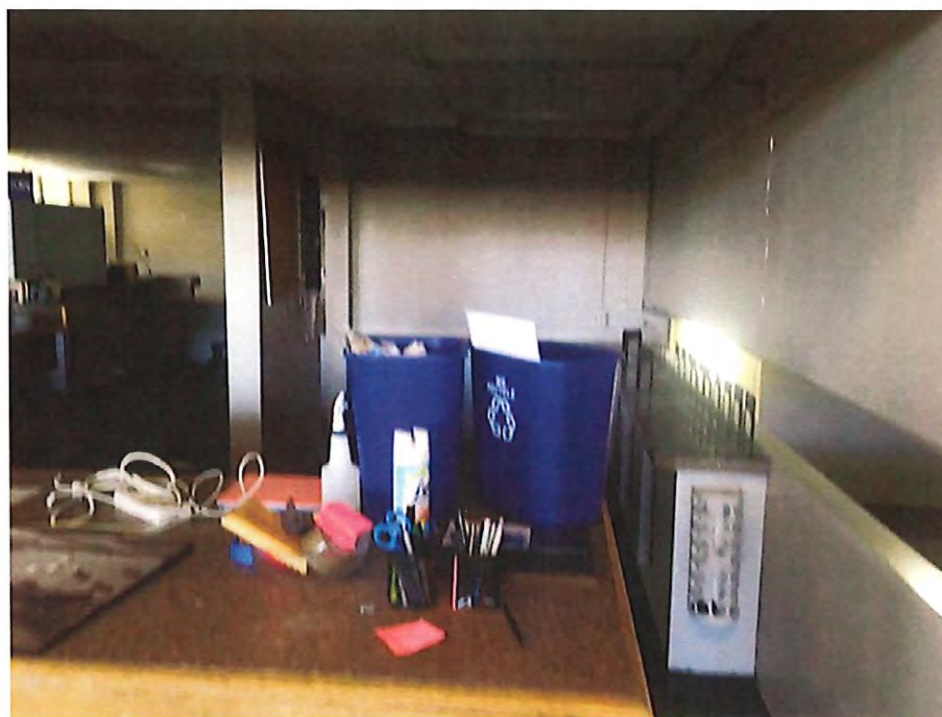
Initial laboratory results identified the black glue dots to be asbestos containing (4% **Chrysotile**). The wall containing the glue dots is approximately 150 square feet.

Fulcrum recommends that the selected asbestos abatement contractor for phase 1 work be selected for a quote to include abatement of the black glue dots during the planned early bid work package, as the small quantity of newly identified material will be within the work area in close proximity to the ceiling material identified for abatement. Alternatively the black glue dots can be combined with other ACM to be abated in the renovation package.

If the scope of work should change, including impact to materials not tested during this inspection or if new suspect materials are identified, the contractor(s) should stop work and contact Fulcrum to conduct additional sampling and analysis.

If you have any questions, please feel free to contact Peggy Williamson, Avery Foltz, or myself, at 509.574.0839.

cc: Tom Basset, Forte Architects



A photograph of the west portion of the reception area below the attic space containing the ACM black glue dots



A photograph of the ACM black glue dots.



## 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.seattleasbestos.test.com](http://www.seattleasbestos.test.com), [admin@seattleasbestos.test.com](mailto:admin@seattleasbestos.test.com)

Project Manager: Peggy Williamson

Client: Fulcrum Environmental, Yakima

Address: 406 North Second Street, Yakima, WA 98901

Tel: 509.574.0839

Date Analyzed: 6/13/2019

Client Job#: 182524

Project Location: 310 Douglas Street Wenatchee  
WA

Laboratory batch#: 201910916

Samples Received: 3

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/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.

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  
President

201910916

# CHAIN OF CUSTODY

## Bulk Asbestos Test

Turn Around Time 3-day Number of Samples 3 Project Number 182524

Client Name: Fulcrum Environmental Consulting, Inc.

Address: 406 N, 2<sup>nd</sup> St City: Yakima State: WA Zip: 98901

Phone: 509.574.0839 Fax: 509.575.8453 Email: avery.foltz@efulcrum.net

Project Location 310 Douglas Street, Wenatchee, WA Project Manager: Peggy Williamson

Sample Condition: Good: X Damaged:            Severe Damage:           

SEQ#	SAMPLE ID	SAMPLE DESCRIPTION	Lab ID	Comment	
	61119-01 61119-02 61119-03	ADV: Black glue dots on plaster walls		Stop of first positive	

	Print	Signature	Company Name	Date	Time
Relinquished by	Avery Foltz	<i>Avery Foltz</i>	Fulcrum Environmental	6/12/19	8:30 am
Delivered by					
Received by	<i>Yui Young</i>	<i>Yui Young</i>		6/13/19	10am
Analyzed by	<i>W. Young</i>	<i>W. Young</i>	SAT	6/14/19	10:45
Result reported by					

## 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 by Method EPA/600/R-93/116

Attn.: Peggy Williamson      Client: Fulcrum Environmental,      Address: 406 North Second Street, Yakima, WA 98901  
Job#: 182524      Batch#: 201910916      Date Received: 6/13/2019  
Samples Rec'd: 3      Date Analyzed: 6/14/2019      Samples Analyzed: 1  
Project Loc.: 310 Douglas Street Wenatchee  
WA

Analyzed by: Cici Xu

Reviewed by: Steve (Fenyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
1	61119-01	1	Black brittle material	4	Chrysotile	Filler, Binder, Asphalt	5	Cellulose
2	61119-02		Sample not analyzed					
3	61119-03		Sample not analyzed					



## MEMORANDUM

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DATE August 14, 2019  
TO Courtney Tiffany  
FROM Avery Foltz, Fulcrum Environmental Consulting, Inc.  
RE **Post-Abatement Air Sampling Results – Basement Book Storage and Auditorium/Break Room Ceiling Abatement**  
SUBJECT Wenatchee Public Library

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On Tuesday, August 6, 2019, Avery Foltz, (#173188), an Asbestos Hazard Emergency Response Act (AHERA) accredited Building Inspector with Fulcrum Environmental Consulting, Inc. (Fulcrum), completed a post-abatement visual inspection followed by an air clearance sample collection event within the Book Storage and Auditorium/Break Room Ceiling Abatement work area located within the basement of the Wenatchee Public Library building located at 310 Douglas Street in Wenatchee, Washington.

Rhine Demolition and Abatement (Rhine) the selected asbestos abatement contractor for the project, abated approximately 3,111 square feet (SF) of residual asbestos ceiling texture and associated metal lathe and plaster ceiling system using a combination of wet-manual methods and aggressive high efficiency particulate air (HEPA) filtered sawing methods within a negative pressure enclosure (NPE)

On Monday, August 5, 2019, Rhine notified Fulcrum that abatement would be complete on Tuesday, August 6, 2019. Subsequently, Fulcrum performed a visual inspection and identified localized areas of residual asbestos ceiling texture and associated plaster ceiling materials that required additional removal and cleaning. Fulcrum notified Rhine of the additional required cleaning. After re-cleaning, Fulcrum confirmed that the area was free of asbestos and asbestos debris. Fulcrum notified Rhine of the passing visual clearance event and indicated that the work area could be encapsulated.

After allowing sufficient time for the encapsulant to have dried, Fulcrum collected air samples within the Book Storage and Auditorium/Break Room Ceiling Abatement work area.

Fulcrum collected six post-abatement air clearance samples from inside the work area under aggressive conditions. In addition, one field blank and one laboratory blank were collected for quality assurance purposes, and one sample was placed on hold.

Post-abatement samples were shipped by common carrier under chain of custody to Lab/Cor. Inc. in Seattle, Washington for Transmission Electron Microscopy (TEM) analysis. Lab/Cor, Inc. is a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory (#101920-0). Attached is a copy of the analytical results for the samples collected.

Initial laboratory analysis identified a total filter density of the five samples analyzed within the Book Storage and Auditorium/Break Room Ceiling Abatement work area to contain a range from 0.00 to 15.6 structures per millimeter squared ( $s/mm^2$ ), with an average structure density of  $3.12 s/mm^2$ , which is below the AHERA clearance standard of  $70 s/mm^2$ .

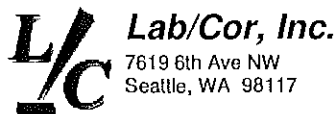
Based on the results of the laboratory analysis, the Book Storage and Auditorium/Break Room Ceiling Abatement

work area **passed** the clearance event.

Fulcrum recommends Rhine be released from additional asbestos abatement within the Book Storage and Auditorium/Break Room Ceiling Abatement work area at the Wenatchee Public Library.

If you have any questions, please feel free to contact Peggy Williamson or Daniel Orozco at 509.574.0839.

cc: Tom Bassett, Forte Architects  
Brian Sanders, Rhine Demolition



**Analysis Report Cover**  
**Final Report**

Phone: (206) 781-0155  
<http://www.labcor.net>

*A Professional Service Corporation in the Northwest*

**Job Number: 190739**      **SEA**  
**Client: Fulcrum Environmental Consulting**  
**Address: 406 N 2nd St**  
**Yakima, WA 98901**  
**Project Name: Wenatchee Library**  
**Project Num: 182524.03**  
**PO Number: Storage/Conference**  
**Sub Project:**

**Report Number: 190739R01**  
**Report Date: 8/8/2019**

**PASSES AHERA INITIAL SCREENING TEST - THE TOTAL FILTER DENSITY FOR THIS SET OF SAMPLES IS: 15.6 S/MM2.**

Enclosed please find results for samples submitted to our laboratory. A list of samples and analyses follows:

Lab/Cor Sample #	Client Sample # and Description	Analysis	Analysis Notes	Date Received:
190739 - S1	8619-10 - Storage/Conference Room - Storage West	AHERA		8/8/2019
190739 - S2	8619-11 - Storage/Conference Room - Storage East	AHERA		8/8/2019
190739 - S3	8619-12 - Storage/Conference Room - Kitchen	AHERA		8/8/2019
190739 - S4	8619-13 - Storage/Conference Room - Kitchen	AHERA		8/8/2019
190739 - S5	8619-14 - Storage/Conference Room - Conference East	AHERA		8/8/2019
190739 - S6	8619-15 - Storage/Conference Room - RR's (HOLD)	AHERA	Not Analyzed	8/8/2019
190739 - S7	8619-16 - Field Blank	AHERA	Not Analyzed	8/8/2019
190739 - S8	8619-17 - Laboratory Blank	AHERA	Not Analyzed	8/8/2019



## Final Report

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*A Professional Service Corporation in the Northwest*

Job Number: 190739      SEA  
Client: Fulcrum Environmental Consulting  
Project Name: Wenatchee Library

Report Number: 190739R01  
Report Date: 8/8/2019

AHERA - Method 40-CFR Part 763 App. A, Subpart E Preparation and analysis of the above samples was conducted in accordance with the AHERA method for the identification of asbestos. Briefly, the samples were collapsed with a solution of N,N-dimethylformamide and acetic acid, then etched in a low temperature plasma etcher to remove the top surface of the filter and other organics. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at approximate screen magnification of between 15,000x-20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification. Grid preparations are evaluated by the analyst before commencing analysis. Proper preparations have >75% replicate coverage, have a 10% etch rate, have acceptable particulate loading and show no evidence of preparation remnants (chemical or material).

Passing criteria for this method is based on the Filter Density (str/mm<sup>2</sup>). The Total Filter Density is divided by the number of inside work area samples; if the average Filter Density is >70 str/mm<sup>2</sup> the sample set fails initial AHERA clearance criteria.

**Disclaimer** This test report shall not be reproduced, except in full, without written approval of the laboratory. The results reported relate only to the samples tested or analyzed; the laboratory is not responsible for data collected by personnel who are not affiliated with the laboratory. Results reported in either structures/cm<sup>3</sup> or structures/mm<sup>2</sup> are dependent on the sample volume and area. These parameters are measured and recorded by non-laboratory personnel and are not covered by the laboratory's accreditation. Interpretation of these results is the sole responsibility of the client. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

If further clarification of these results is needed, please call us. Thank you for allowing the staff at Lab/Cor, Inc. the opportunity to provide you with the analytical services.

Reviewed by:

x 

Kate March  
Quality Control Officer





7619 6th Ave NW  
Seattle, WA 98117

## Final Report

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A Professional Service Corporation in the Northwest

### AHERA Rapid Summary

Job Number: 190739 SEA

Client: Fulcrum Environmental Consulting

Project Name: Wenatchee Library

Report Number: 190739R01

Date Received: 8/8/2019

Lab/Cor Sample No.	Client Sample No.	Description	Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count <sup>1</sup> Prim/Total	Analytical Sens. (struct/cc) :
S1	8619-10	Storage/Conference Room - Storage West	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00499
S2	8619-11	Storage/Conference Room - Storage East	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00499
S3	8619-12	Storage/Conference Room - Kitchen	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00499
S4	8619-13	Storage/Conference Room - Kitchen	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00499
S5	8619-14	Storage/Conference Room - Conference East	AHERA TOTAL >=0.5, 5:1	15.6	0.005	0 - 0.028 - Poisson	1	0.00499

Reviewed by:

x 

Kate March

Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count]<sup>1</sup> [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

## AHERA Summary Data

Job Number: 190739 SEA  
Client: Fulcrum Environmental Consulting  
Project Name: Wenatchee Library

Report Number: 190739R01  
Date Received: 8/8/2019

### Lab/Cor Sample No.: S1

Client Sample No.: 8619-10

Description: Storage/Conference Room - Storage West

Analyst(s) Analysis Date Microscope Magnification  
KM 8/8/2019 JEOL 1200 EX 20000

Volume (L) : 1202.5

Lab Filter Area (mm<sup>2</sup>) : 385

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.0107

Area Analyzed (mm<sup>2</sup>) : 0.0642

Analytical Sens. (struc/cc) : 0.004987

Detection Limit. (struc/cc) : 0.01491

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA $\geq 0.5$ to $5.0\mu\text{m}$ , 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA $\geq 5.0\mu\text{m}$ , 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL $\geq 0.5$ , 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

### Lab/Cor Sample No.: S2

Client Sample No.: 8619-11

Description: Storage/Conference Room - Storage East

Analyst(s) Analysis Date Microscope Magnification  
JH 8/8/2019 Hitachi 7000FA 20000

Volume (L) : 1202.5

Lab Filter Area (mm<sup>2</sup>) : 385

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.0107

Area Analyzed (mm<sup>2</sup>) : 0.0642

Analytical Sens. (struc/cc) : 0.004987

Detection Limit. (struc/cc) : 0.01491

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA $\geq 0.5$ to $5.0\mu\text{m}$ , 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA $\geq 5.0\mu\text{m}$ , 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL $\geq 0.5$ , 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data

Job Number: 190739 SEA  
Client: Fulcrum Environmental Consulting  
Project Name: Wenatchee Library

Report Number: 190739R01  
Date Received: 8/8/2019

### Lab/Cor Sample No.: S3

Client Sample No.: 8619-12

Description: Storage/Conference Room - Kitchen

Analyst(s) Analysis Date Microscope Magnification  
JH 8/8/2019 Hitachi 7000FA 20000

Volume (L) : 1202.5

Lab Filter Area (mm2) : 385

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.0107

Area Analyzed (mm2) : 0.0642

Analytical Sens. (struc/cc) : 0.004987

Detection Limit. (struc/cc) : 0.01491

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

### Lab/Cor Sample No.: S4

Client Sample No.: 8619-13

Description: Storage/Conference Room - Kitchen

Analyst(s) Analysis Date Microscope Magnification  
JH 8/8/2019 Hitachi 7000FA 20000

Volume (L) : 1202.5

Lab Filter Area (mm2) : 385

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.0107

Area Analyzed (mm2) : 0.0642

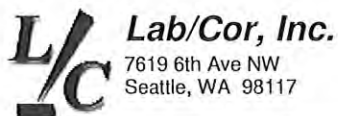
Analytical Sens. (struc/cc) : 0.004987

Detection Limit. (struc/cc) : 0.01491

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ((Struc count) \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



Lab/Cor, Inc.

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## Final Report

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### AHERA Summary Data

Job Number: 190739 SEA  
Client: Fulcrum Environmental Consulting  
Project Name: Wenatchee Library

Report Number: 190739R01  
Date Received: 8/8/2019

Lab/Cor Sample No.: S5

Client Sample No.: 8619-14

Description: Storage/Conference Room - Conference East

Analyst(s) Analysis Date Microscope Magnification  
JH 8/8/2019 Hitachi 7000FA 20000

Volume (L): 1202.5

Lab Filter Area (mm<sup>2</sup>): 385

Grid Openings Analyzed: 6

Average Grid Opening Area: 0.0107

Area Analyzed (mm<sup>2</sup>): 0.0642

Analytical Sens. (struc/cc): 0.004987

Detection Limit. (struc/cc): 0.01491

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>†</sup> Prim/Total
AHERA $\geq 0.5$ to $5.0\mu\text{m}$ , 5:1	15.6	0.005	0 - 0.028 - Poisson	1
AHERA $\geq 5.0\mu\text{m}$ , 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL $\geq 0.5$ , 5:1	15.6	0.005	0 - 0.028 - Poisson	1

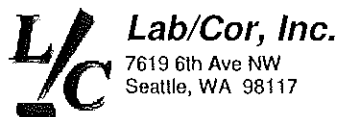
<sup>†</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Reviewed by:

x   
Kate March  
Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3





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## Final Report

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### AHERA Raw Data

Job Number: 190739      SEA      Method 40-CFR Part 763 App. A, Subpart E  
Client: Fulcrum Environmental Consulting  
Project Name: Wenatchee Library  
Project No.: 182524.03

Report Number: 190739R01  
Date Received: 8/8/2019

Lab/Cor Sample No: S1

Client Sample No: 8619-10

Description: Storage/Conference Room - Storage West

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	C34				NSD								
G1	2	E33				NSD								
G1	3	E42				NSD								
G1	4	F41				NSD								
G2	5	C42				NSD								
G2	6	E41				NSD								

Lab/Cor Sample No: S2

Client Sample No: 8619-11

Description: Storage/Conference Room - Storage East

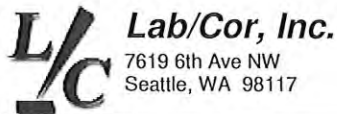
Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	C44				NSD								
G1	2	F42				NSD								
G1	3	H31				NSD								
G2	4	F42				NSD								
G2	5	C34				NSD								
G2	6	B44				NSD								

Lab/Cor Sample No: S3

Client Sample No: 8619-12

Description: Storage/Conference Room - Kitchen

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	C41				NSD								
G1	2	F33				NSD								
G1	3	H41				NSD								
G2	4	F53				NSD								
G2	5	E43				NSD								
G2	6	B34				NSD								



# Final Report

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*A Professional Service Corporation in the Northwest*

## AHERA Raw Data

Job Number: 190739      SEA      Method 40-CFR Part 763 App. A, Subpart E      Report Number: 190739R01  
Client: Fulcrum Environmental Consulting      Date Received: 8/8/2019  
Project Name: Wenatchee Library  
Project No.: 182524.03

Lab/Cor Sample No: S4

Client Sample No: 8619-13

Description: Storage/Conference Room - Kitchen

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E41				NSD							
G1	2	F33				NSD							
G1	3	G42				NSD							
G2	4	F51				NSD							
G2	5	C53				NSD							
G2	6	E41				NSD							

Lab/Cor Sample No: S5

Client Sample No: 8619-14

Description: Storage/Conference Room - Conference East

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C41				NSD							
G1	2	E31				NSD							
G1	3	G33				NSD							
G2	4	H41				NSD							
G2	5	F34	CDQ	1		Fiber	2.4	0.06	40	Chrysotile	Mg, Si		AHERA, AHERA_0.5-5.0
							ItemType	ItemNum		Confirmed		Comment	
							Diffraction	F59375DF					
							Brightfield	F59375BF					
							Spectra	F59375SP					
G2	6	E23				NSD							

### Count Categories

AHERA	AHERA TOTAL >=0.5, 5:1	AHERA_0.5-5.0	AHERA >=0.5 to 5.0µm, 5:1	AHERA_5.0	AHERA >=5.0µm, 5:1
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Reviewed by:

x   
Kate March  
Quality Control Officer

## MEMORANDUM

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DATE August 19, 2019  
TO Courtney Tiffany  
FROM Avery Foltz, Fulcrum Environmental Consulting, Inc.  
RE **Post-Abatement Air Sampling Results – Children’s Area Ceiling Abatement**  
SUBJECT Wenatchee Public Library

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On Tuesday, August 6, 2019, Avery Foltz, (#173188), an Asbestos Hazard Emergency Response Act (AHERA) accredited Building Inspector with Fulcrum Environmental Consulting, Inc. (Fulcrum), completed a post-abatement visual inspection followed by an air clearance within the Children’s Area Ceiling Abatement work area located within the basement of the Wenatchee Public Library building located at 310 Douglas Street in Wenatchee, Washington.

Rhine Demolition and Abatement (Rhine), the selected asbestos abatement contractor for the project, abated approximately 255 square feet (SF) of residual asbestos ceiling texture and associated metal lathe and plaster ceiling system using a combination of wet-manual methods and aggressive high efficiency particulate air (HEPA) filtered sawing methods within a negative pressure enclosure (NPE).

On Monday, August 5, 2019, Rhine notified Fulcrum that abatement would be complete on Tuesday, August 6, 2019. Subsequently, Fulcrum performed a visual inspection and identified one localized area of surfacing. Fulcrum notified Rhine of the additional required cleaning. After re-cleaning, Fulcrum confirmed that the area was free of asbestos and asbestos debris. Fulcrum notified Rhine of the passing visual clearance event and indicated that the work area could be encapsulated.

After allowing sufficient time for the encapsulant to have dried, Fulcrum collected air samples within the Children’s Area Ceiling Abatement work area.

Fulcrum collected six post-abatement air clearance samples from inside the work area under aggressive conditions. In addition, one field blank and one laboratory blank were collected for quality assurance purposes, and one sample was placed on hold.

Post-abatement samples were shipped by common carrier under chain of custody to Lab/Cor. Inc. in Seattle, Washington for Transmission Electron Microscopy (TEM) analysis. Lab/Cor, Inc. is a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory (#101920-0). Attached is a copy of the analytical results for the samples collected.

Initial laboratory analysis identified a total filter density of the five samples analyzed within the Children’s Area Ceiling Abatement work area to contain 0.00 structures per millimeter squared (s/mm<sup>2</sup>), with an average structure density of 0.00 s/mm<sup>2</sup>, which is below the AHERA clearance standard of 70 s/mm<sup>2</sup>.

Based on the results of the laboratory analysis, the Children’s Area Ceiling Abatement work area **passed** the clearance event.

Fulcrum recommends Rhine be released from additional asbestos abatement within the Children’s Area Ceiling

Abatement work area at the Wenatchee Public Library.

If you have any questions, please feel free to contact Peggy Williamson or Daniel Orozco at 509.574.0839.

cc: Tom Bassett, Forte Architects  
Brian Sanders, Rhine Demolition





## Analysis Report Cover Final Report

Phone: (206) 781-0155  
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*A Professional Service Corporation in the Northwest*

Job Number: 190738      SEA  
Client: Fulcrum Environmental Consulting  
Address: 406 N 2nd St  
Yakima, WA 98901  
Project Name: Wenatchee Library  
Project Num: 182524.03  
PO Number: Children's Area  
Sub Project:

Report Number: 190738R01  
Report Date: 8/8/2019

**PASSES AHERA INITIAL SCREENING TEST - THE TOTAL FILTER DENSITY FOR THIS SET OF SAMPLES IS: 0 S/MM2.**

Enclosed please find results for samples submitted to our laboratory. A list of samples and analyses follows:

Lab/Cor Sample #	Client Sample # and Description	Analysis	Analysis Notes	Date Received:
190738 - S1	8619-01 - Children's Area - North	AHERA		8/8/2019
190738 - S2	8619-02 - Children's Area - North	AHERA		8/8/2019
190738 - S3	8619-03 - Children's Area - Center	AHERA		8/8/2019
190738 - S4	8619-04 - Children's Area - Center	AHERA		8/8/2019
190738 - S5	8619-05 - Children's Area - South	AHERA		8/8/2019
190738 - S6	8619-06 - Children's Area - South (HOLD)	AHERA	Not Analyzed	8/8/2019
190738 - S7	8619-07 - Field Blank	AHERA	Not Analyzed	8/8/2019
190738 - S8	8619-08 - Laboratory Blank	AHERA	Not Analyzed	8/8/2019

AHERA - Method 40-CFR Part 763 App. A, Subpart E Preparation and analysis of the above samples was conducted in accordance with the AHERA method for the identification of asbestos. Briefly, the samples were collapsed with a solution of N,N-dimethylformamide and acetic acid, then etched in a low temperature plasma etcher to remove the top surface of the filter and other organics. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

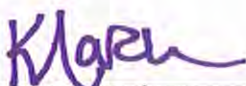
Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at approximate screen magnification of between 15,000x-20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification. Grid preparations are evaluated by the analyst before commencing analysis. Proper preparations have >75% replicate coverage, have a 10% etch rate, have acceptable particulate loading and show no evidence of preparation remnants (chemical or material).

Passing criteria for this method is based on the Filter Density (str/mm2). The Total Filter Density is divided by the number of inside work area samples; if the average Filter Density is >70 str/mm2 the sample set fails initial AHERA clearance criteria.

**Disclaimer** This test report shall not be reproduced, except in full, without written approval of the laboratory. The results reported relate only to the samples tested or analyzed; the laboratory is not responsible for data collected by personnel who are not affiliated with the laboratory. Results reported in either structures/cm3 or structures/mm2 are dependent on the sample volume and area. These parameters are measured and recorded by non-laboratory personnel and are not covered by the laboratory's accreditation. Interpretation of these results is the sole responsibility of the client. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

If further clarification of these results is needed, please call us. Thank you for allowing the staff at Lab/Cor, Inc. the opportunity to provide you with the analytical services.

Reviewed by:

x 

Kate March  
Quality Control Officer

## AHERA Rapid Summary

Job Number: 190738 SEA  
 Client: Fulcrum Environmental Consulting  
 Project Name: Wenatchee Library

Report Number: 190738R01  
 Date Received: 8/8/2019

Lab/Cor Sample No.	Client Sample No.	Description	Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count <sup>1</sup> Prim/Total	Analytical Sens. (struct/cc)
S1	8619-01	Children's Area - North	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00499
S2	8619-02	Children's Area - North	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00499
S3	8619-03	Children's Area - Center	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00499
S4	8619-04	Children's Area - Center	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00499
S5	8619-05	Children's Area - South	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00499

Reviewed by:

x 

Kate March  
 Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

## AHERA Summary Data

Job Number: 190738 SEA  
Client: Fulcrum Environmental Consulting  
Project Name: Wenatchee Library

Report Number: 190738R01  
Date Received: 8/8/2019

Lab/Cor Sample No.: S1

Client Sample No.: 8619-01

Description: Children's Area - North

Analyst(s) Analysis Date Microscope Magnification  
JH 8/8/2019 Hitachi 7000FA 20000

Volume (L) : 1202.5

Lab Filter Area (mm<sup>2</sup>) : 385

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.0107

Area Analyzed (mm<sup>2</sup>) : 0.0642

Analytical Sens. (struc/cc) : 0.004987

Detection Limit. (struc/cc) : 0.01491

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA $\geq 0.5$ to 5.0 $\mu$ m, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA $\geq 5.0\mu$ m, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL $\geq 0.5$ , 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2

Client Sample No.: 8619-02

Description: Children's Area - North

Analyst(s) Analysis Date Microscope Magnification  
JH 8/8/2019 Hitachi 7000FA 20000

Volume (L) : 1202.5

Lab Filter Area (mm<sup>2</sup>) : 385

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.0107

Area Analyzed (mm<sup>2</sup>) : 0.0642

Analytical Sens. (struc/cc) : 0.004987

Detection Limit. (struc/cc) : 0.01491

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA $\geq 0.5$ to 5.0 $\mu$ m, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA $\geq 5.0\mu$ m, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL $\geq 0.5$ , 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data

Job Number: 190738 SEA  
Client: Fulcrum Environmental Consulting  
Project Name: Wenatchee Library

Report Number: 190738R01  
Date Received: 8/8/2019

### Lab/Cor Sample No.: S3

Client Sample No.: 8619-03

Description: Children's Area - Center

Analyst(s) Analysis Date Microscope Magnification  
JH 8/8/2019 Hitachi 7000FA 20000

Volume (L) : 1202.5

Lab Filter Area (mm2) : 385

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.0107

Area Analyzed (mm2) : 0.0642

Analytical Sens. (struc/cc) : 0.004987

Detection Limit. (struc/cc) : 0.01491

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA $\geq 0.5$ to $5.0\mu\text{m}$ , 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA $\geq 5.0\mu\text{m}$ , 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL $\geq 0.5$ , 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

### Lab/Cor Sample No.: S4

Client Sample No.: 8619-04

Description: Children's Area - Center

Analyst(s) Analysis Date Microscope Magnification  
JH 8/8/2019 Hitachi 7000FA 20000

Volume (L) : 1202.5

Lab Filter Area (mm2) : 385

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.0107

Area Analyzed (mm2) : 0.0642

Analytical Sens. (struc/cc) : 0.004987

Detection Limit. (struc/cc) : 0.01491

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA $\geq 0.5$ to $5.0\mu\text{m}$ , 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA $\geq 5.0\mu\text{m}$ , 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL $\geq 0.5$ , 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations  $\{[\text{Struc count}]^*\}$  [Analytical Sensitivity] when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



## AHERA Summary Data

Job Number: 190738 SEA  
Client: Fulcrum Environmental Consulting  
Project Name: Wenatchee Library

Report Number: 190738R01  
Date Received: 8/8/2019

Lab/Cor Sample No.: S5

Client Sample No.: 8619-05

Description: Children's Area - South

Analyst(s) Analysis Date Microscope Magnification  
JH 8/8/2019 Hitachi 7000FA 20000

Volume (L) : 1202.5  
Lab Filter Area (mm<sup>2</sup>) : 385  
Grid Openings Analyzed : 6  
Average Grid Opening Area : 0.0107  
Area Analyzed (mm<sup>2</sup>) : 0.0642  
Analytical Sens. (struc/cc) : 0.004987  
Detection Limit. (struc/cc) : 0.01491

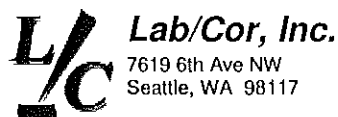
Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Reviewed by:

x   
Kate March  
Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



Lab/Cor, Inc.

7619 6th Ave NW  
Seattle, WA 98117

## Final Report

Phone: (206) 781-0155  
<http://www.labcor.net>

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### AHERA Raw Data

Job Number: 190738 SEA Method 40-CFR Part 763 App. A, Subpart E

Report Number: 190738R01

Client: Fulcrum Environmental Consulting

Date Received: 8/8/2019

Project Name: Wenatchee Library

Project No.: 182524.03

Lab/Cor Sample No: S1

Client Sample No: 8619-01

Description: Children's Area - North

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C44				NSD							
G1	2	B41				NSD							
G1	3	E23				NSD							
G2	4	G41				NSD							
G2	5	H52				NSD							
G2	6	F62				NSD							

Lab/Cor Sample No: S2

Client Sample No: 8619-02

Description: Children's Area - North

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C51				NSD							
G1	2	F33				NSD							
G1	3	H44				NSD							
G2	4	C51				NSD							
G2	5	B42				NSD							
G2	6	F41				NSD							

Lab/Cor Sample No: S3

Client Sample No: 8619-03

Description: Children's Area - Center

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E34				NSD							
G1	2	C31				NSD							
G1	3	F24				NSD							
G2	4	C51				NSD							
G2	5	G41				NSD							
G2	6	H32				NSD							



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## Final Report

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### AHERA Raw Data

Job Number: 190738 SEA

Method 40-CFR Part 763 App. A, Subpart E

Report Number: 190738R01

Client: Fulcrum Environmental Consulting

Date Received: 8/8/2019

Project Name: Wenatchee Library

Project No.: 182524.03

Lab/Cor Sample No: S4

Client Sample No: 8619-04

Description: Children's Area - Center

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C44				NSD							
G1	2	F33				NSD							
G1	3	H41				NSD							
G2	4	C34				NSD							
G2	5	C23				NSD							
G2	6	G44				NSD							

Lab/Cor Sample No: S5

Client Sample No: 8619-05

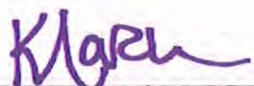
Description: Children's Area - South

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F53				NSD							
G1	2	H51				NSD							
G1	3	K41				NSD							
G2	4	G34				NSD							
G2	5	G41				NSD							
G2	6	C34				NSD							

#### Count Categories

AHERA	AHERA TOTAL $\geq 0.5$ , 5:1	AHERA_0.5-5.0	AHERA $\geq 0.5$ to $5.0\mu\text{m}$ , 5:1	AHERA_5.0	AHERA $\geq 5.0\mu\text{m}$ , 5:1
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Reviewed by:

x 

Kate March  
Quality Control Officer

## MEMORANDUM

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DATE September 13, 2019  
TO Courtney Tiffany, Sr. Branch Manager  
FROM Avery Foltz, Fulcrum Environmental Consulting, Inc.  
RE **Post-Abatement Air Sampling Results – Lower Main, Upper Main, and Mezzanine Floors Work Area**  
SUBJECT Wenatchee Public Library

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On Tuesday, September 3, 2019, Avery Foltz, (#173188), an Asbestos Hazard Emergency Response Act (AHERA) accredited Building Inspector with Fulcrum Environmental Consulting, Inc. (Fulcrum), completed a post-abatement visual inspection followed by an air clearance within the Lower Main, Upper Main, and Mezzanine Floors work area located within the Wenatchee Public Library building located at 310 Douglas Street in Wenatchee, Washington.

Rhine Demolition and Abatement (Rhine) the selected asbestos abatement contractor for the project, abated approximately 12,489 square feet (sf) of residual asbestos ceiling texture and associated metal lathe and plaster ceiling system and approximately 2,090 sf of ACM black adhesive with localized areas of ACM vinyl tile using a combination of wet manual and aggressive methods within a negative pressure enclosure (NPE).

On Wednesday, August 28, 2019, Rhine notified Fulcrum that abatement would be complete on Thursday, August 29, 2019. Subsequently, Fulcrum mobilized and began their drive up to Wenatchee, Brian Sanders, the on-site supervisor for Rhine contacted Fulcrum while in route indicating that the work would not be completed until Friday, August 30, 2019. Subsequently, Fulcrum turned-around and drove back to Yakima.

Fulcrum returned to the site Friday morning to perform a visual inspection. Fulcrum identified localized areas of residual asbestos ceiling texture and black adhesive along the base of walls within the lower main floor which required additional removal and cleaning. Fulcrum notified Rhine of the additional required cleaning.

Rhine indicated that the additional abatement and cleaning would take a couple of hours, so Fulcrum stayed on-site to complete a second visual inspection before encapsulating the work area. After a couple hours, Mr. Sanders indicated that the additional abatement and cleaning would be going to take the rest of the day, so Fulcrum demobilized from the job site.

Rhine complete work on Friday, August 20, 2019, and encapsulated the work area.

On Tuesday, September 3, 2019, Fulcrum complete a second visual inspection. Fulcrum requested minimal additional cleaning and abatement. After re-cleaning, Fulcrum confirmed that the area was free of asbestos and asbestos debris. Fulcrum confirmed that the black adhesive stuck on the base of the walls is inseparable from the concrete and cannot be abated any further without chipping away the concrete.

Fulcrum collected six post-abatement air clearance samples from inside the work area under aggressive conditions. In addition, one field blank and one laboratory blank were collected for quality assurance purposes.



Post-abatement samples were shipped by common carrier under chain of custody to Lab/Cor. Inc. in Seattle, Washington for Transmission Electron Microscopy (TEM) analysis. Lab/Cor, Inc. is a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory (#101920-0). Attached is a copy of the analytical results for the samples collected.

Initial laboratory analysis identified a total filter density of the five samples analyzed within the Lower Main, Upper Main, and Mezzanine Floors Abatement work area to contain a range from 0.00 to 40.8 structures per millimeter squared ( $s/mm^2$ ), with an average structure density of  $10.9 s/mm^2$ , which is below the AHERA clearance standard of  $70 s/mm^2$ .

Based on the results of the laboratory analysis, the Lower Main, Upper Main, and Mezzanine Floors work area **passed** the clearance event.

Fulcrum recommends Rhine be released from additional abatement within the Lower Main, Upper Main, and Mezzanine Floors work area at the Wenatchee Public Library.

If you have any questions, please feel free to contact Peggy Williamson or myself at 509.574.0839.

cc: Tom Basset, Forte Architects  
Brian Sanders, Rhine Demolition



**Lab/Cor, Inc.**

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Seattle, WA 98117

## Analysis Report Cover

### Final Report

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Phone: (206) 781-0155  
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Job Number: 190891      SEA  
Client: Fulcrum Environmental Consulting  
Address: 406 N 2nd St  
Yakima, WA 98901  
Project Name: Wenatchee Library  
Project Num: 182524.03  
PO Number: 9319-WL  
Sub Project:

Report Number: 190891R01  
Report Date: 9/4/2019

**PASSES AHERA INITIAL SCREENING TEST - THE TOTAL FILTER DENSITY FOR THIS SET OF SAMPLES IS: 54.4 S/MM2.**

Enclosed please find results for samples submitted to our laboratory. A list of samples and analyses follows:

Lab/Cor Sample #	Client Sample # and Description	Analysis	Analysis Notes	Date Received:
190891 - S1	9319-01 - SW Area, Lower Main	AHERA		9/4/2019
190891 - S2	9319-02 - NE / Center Area, Lower Main	AHERA		9/4/2019
190891 - S3	9319-03 - West Area, Main Floor - HOLD	AHERA	Not Analyzed	9/4/2019
190891 - S4	9319-04 - Reception Area	AHERA		9/4/2019
190891 - S5	9319-05 - East Area, Main Floor	AHERA		9/4/2019
190891 - S6	9319-06 - Center Area, Mezzanine	AHERA		9/4/2019
190891 - S7	9319-07 - Field Blank	AHERA	Not Analyzed	9/4/2019
190891 - S8	9319-08 - Laboratory Blank	AHERA	Not Analyzed	9/4/2019

AHERA - Method 40-CFR Part 763 App. A, Subpart E Preparation and analysis of the above samples was conducted in accordance with the AHERA method for the identification of asbestos. Briefly, the samples were collapsed with a solution of N,N-dimethylformamide and acetic acid, then etched in a low temperature plasma etcher to remove the top surface of the filter and other organics. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at approximate screen magnification of between 15,000x-20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification. Grid preparations are evaluated by the analyst before commencing analysis. Proper preparations have >75% replicate coverage, have a 10% etch rate, have acceptable particulate loading and show no evidence of preparation remnants (chemical or material).

Passing criteria for this method is based on the Filter Density (str/mm2). The Total Filter Density is divided by the number of inside work area samples; if the average Filter Density is >70 str/mm2 the sample set fails initial AHERA clearance criteria.

**Disclaimer** This test report shall not be reproduced, except in full, without written approval of the laboratory. The results reported relate only to the samples tested or analyzed; the laboratory is not responsible for data collected by personnel who are not affiliated with the laboratory. Results reported in either structures/cm3 or structures/mm2 are dependent on the sample volume and area. These parameters are measured and recorded by non-laboratory personnel and are not covered by the laboratory's accreditation. Interpretation of these results is the sole responsibility of the client. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

If further clarification of these results is needed, please call us. Thank you for allowing the staff at Lab/Cor, Inc. the opportunity to provide you with the analytical services.

Reviewed by:

x 

Sierra Hinkle  
Technician/Analyst



7619 6th Ave NW  
Seattle, WA 98117

## Final Report

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http://www.labcor.net

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### AHERA Rapid Summary

Job Number: 190891 SEA  
Client: Fulcrum Environmental Consulting  
Project Name: Wenatchee Library

Report Number: 190891R01  
Date Received: 9/4/2019

Lab/Cor Sample No.	Client Sample No.	Description	Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count <sup>1</sup> Prim/Total	Analytical Sens. (struct/cc)
S1	9319-01	SW Area, Lower Main	AHERA TOTAL >=0.5, 5:1	40.8	0.013	0.003 - 0.038 - Poisson	3	0.00437
S2	9319-02	NE / Center Area, Lower Main	AHERA TOTAL >=0.5, 5:1	13.6	0.004	0 - 0.024 - Poisson	1	0.00437
S4	9319-04	Reception Area	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00437
S5	9319-05	East Area, Main Floor	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00437
S6	9319-06	Center Area, Mezzanine	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00437

Reviewed by:

x

Sierra Hinkle  
Technician/Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

## AHERA Summary Data

Job Number: 190891      SEA  
Client: Fulcrum Environmental Consulting  
Project Name: Wenatchee Library

Report Number: 190891R01  
Date Received: 9/4/2019

Lab/Cor Sample No.: S1

Client Sample No.: 9319-01

Description: SW Area, Lower Main

Analyst(s)      Analysis Date      Microscope      Magnification  
SH                      9/4/2019      JEOL 1200 EX      20000

Volume (L) : 1200

Lab Filter Area (mm<sup>2</sup>) : 385

Grid Openings Analyzed : 7

Average Grid Opening Area : 0.0105

Area Analyzed (mm<sup>2</sup>) : 0.0735

Analytical Sens. (struc/cc) : 0.0043651

Detection Limit. (struc/cc) : 0.01305

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	40.8	0.013	0.003 - 0.038 - Poisson	3
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	40.8	0.013	0.003 - 0.038 - Poisson	3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2

Client Sample No.: 9319-02

Description: NE / Center Area, Lower Main

Analyst(s)      Analysis Date      Microscope      Magnification  
SH                      9/4/2019      JEOL 1200 EX      20000

Volume (L) : 1200

Lab Filter Area (mm<sup>2</sup>) : 385

Grid Openings Analyzed : 7

Average Grid Opening Area : 0.0105

Area Analyzed (mm<sup>2</sup>) : 0.0735

Analytical Sens. (struc/cc) : 0.0043651

Detection Limit. (struc/cc) : 0.01305

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	13.6	0.004	0 - 0.024 - Poisson	1
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	13.6	0.004	0 - 0.024 - Poisson	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



## AHERA Summary Data

Job Number: 190891      SEA  
Client: Fulcrum Environmental Consulting  
Project Name: Wenatchee Library

Report Number: 190891R01  
Date Received: 9/4/2019

Lab/Cor Sample No.: S4

Client Sample No.: 9319-04

Description: Reception Area

Analyst(s)      Analysis Date      Microscope      Magnification  
SH                      9/4/2019      JEOL 1200 EX      20000

Volume (L) : 1200  
Lab Filter Area (mm2) : 385  
Grid Openings Analyzed : 7  
Average Grid Opening Area : 0.0105  
Area Analyzed (mm2) : 0.0735  
Analytical Sens. (struc/cc) : 0.0043651  
Detection Limit. (struc/cc) : 0.01305

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S5

Client Sample No.: 9319-05

Description: East Area, Main Floor

Analyst(s)      Analysis Date      Microscope      Magnification  
SH                      9/4/2019      JEOL 1200 EX      20000

Volume (L) : 1200  
Lab Filter Area (mm2) : 385  
Grid Openings Analyzed : 7  
Average Grid Opening Area : 0.0105  
Area Analyzed (mm2) : 0.0735  
Analytical Sens. (struc/cc) : 0.0043651  
Detection Limit. (struc/cc) : 0.01305

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations  $\{([Struc\ count])^* [Analytical\ Sensitivity])\}$  when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data

Job Number: 190891      SEA  
Client: Fulcrum Environmental Consulting  
Project Name: Wenatchee Library

Report Number: 190891R01  
Date Received: 9/4/2019

Lab/Cor Sample No.: S6

Client Sample No.: 9319-06

Description: Center Area, Mezzanine

Analyst(s)      Analysis Date      Microscope      Magnification  
SH                      9/4/2019      JEOL 1200 EX      20000

Volume (L) : 1200

Lab Filter Area (mm2) : 385

Grid Openings Analyzed : 7

Average Grid Opening Area : 0.0105

Area Analyzed (mm2) : 0.0735

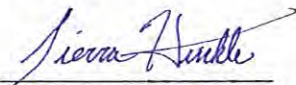
Analytical Sens. (struc/cc) : 0.0043651

Detection Limit. (struc/cc) : 0.01305

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count' Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

\* Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Reviewed by:

x   
Sierra Hinkle  
Technician/Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**AHERA Raw Data**

Job Number: 190891      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: Fulcrum Environmental Consulting

Report Number: 190891R01

Date Received: 9/4/2019

Project Name: Wenatchee Library

Project No.: 182524.03

Lab/Cor Sample No: S1

Client Sample No: 9319-01

Description: SW Area, Lower Main

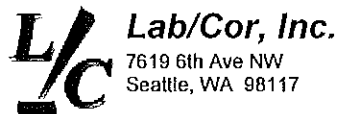
Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F31	CDQ	1		Matrix 1-0	1.7	1.02	1.7	Chrysotile	Mg, Si		AHERA, AHERA_0.5-5.0
						ItemType		ItemNum			Confirmed	Comment	
						Diffraction		J59512DF			SH 9/4/2019	0.53nm ROW SPACING	
						Spectra		J59512SP			SH 9/4/2019		
						Brightfield		J59512BF					
G1	2	F32	CQ	2		Fiber	1.06	0.1	10.6	Chrysotile	Mg, Si		AHERA, AHERA_0.5-5.0
						ItemType		ItemNum			Confirmed	Comment	
						Brightfield		J59513BF					
G1	2	F32	CM	3		Matrix 1-0	2.68	0.72	3.7	Chrysotile			AHERA, AHERA_0.5-5.0
						ItemType		ItemNum			Confirmed	Comment	
						Brightfield		J59514BF					
G1	3	G31				NSD							
G1	4	G32				NSD							
G2	5	E41				NSD							
G2	6	E42				NSD							
G2	7	F41				NSD							

Lab/Cor Sample No: S2

Client Sample No: 9319-02

Description: NE / Center Area, Lower Main

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E42				NSD							
G1	2	F41				NSD							
G1	3	F42				NSD							
G1	4	G41				NSD							
G2	5	C41	CDQ	1		Bundle	2.38	0.15	15.9	Chrysotile	Mg, Si		AHERA, AHERA_0.5-5.0
						ItemType		ItemNum			Confirmed	Comment	
						Diffraction		J59515DF			SH 9/4/2019	0.53nm ROW SPACING	
						Spectra		J59515SP			SH 9/4/2019		
						Brightfield		J59515BF					
G2	6	C42				NSD							
G2	7	E41				NSD							



Lab/Cor, Inc.  
7619 6th Ave NW  
Seattle, WA 98117

## Final Report

Phone: (206) 781-0155  
<http://www.labcor.net>

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### AHERA Raw Data

Job Number: 190891 SEA

Method 40-CFR Part 763 App. A, Subpart E

Report Number: 190891R01

Client: Fulcrum Environmental Consulting

Date Received: 9/4/2019

Project Name: Wenatchee Library

Project No.: 182524.03

Lab/Cor Sample No: S4

Client Sample No: 9319-04

Description: Reception Area

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C51				NSD							
G1	2	C52				NSD							
G1	3	E51				NSD							
G1	4	E52				NSD							
G2	5	F43				NSD							
G2	6	F44				NSD							
G2	7	G43				NSD							

Lab/Cor Sample No: S5

Client Sample No: 9319-05

Description: East Area, Main Floor

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C52				NSD							
G1	2	E51				NSD							
G1	3	E52				NSD							
G1	4	F51				NSD							
G2	5	E33				NSD							
G2	6	E34				NSD							
G2	7	F33				NSD							

Lab/Cor Sample No: S6

Client Sample No: 9319-06

Description: Center Area, Mezzanine

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E33				NSD							
G1	2	E34				NSD							
G1	3	F33				NSD							
G1	4	F34				NSD							
G2	5	E51				NSD							
G2	6	E52				NSD							
G2	7	F51				NSD							



Final Report

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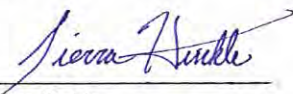
**AHERA Raw Data**

Job Number: 190891      SEA      Method 40-CFR Part 763 App. A, Subpart E      Report Number: 190891R01  
Client: Fulcrum Environmental Consulting      Date Received: 9/4/2019  
Project Name: Wenatchee Library  
Project No.: 182524.03

Count Categories

Count Categories	AHERA TOTAL >=0.5, 5:1	AHERA_0.5-5.0	AHERA >=0.5 to 5.0µm, 5:1	AHERA_5.0	AHERA >=5.0µm, 5:1
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Reviewed by:

x   
Sierra Hinkle  
Technician/Analyst

**Plan Holders List for:** WPL Phase II Modernization**Bid Opening:** October 18, 2023 @ 2:00 pm**Project Manager:** Amanda Lawson

Name	Mailing Address	City, State, Zip	Contact	Phone	Email	Received Date	Addendum Sent
Project Team							
BuildingWork	159 Western Ave W	Seattle, WA 98119	Kate Weiland	206-775-8672	<a href="mailto:kate@buildingwork.design">kate@buildingwork.design</a>		
NCW Libraries	16 N Columbia Street	Wenatchee, WA 98801	Amanda Lawson	509-630-2176	<a href="mailto:alawson@ncwlibraries.org">alawson@ncwlibraries.org</a>		
Prime Contractors							
Cascade Central	PO Box 119	Wenatchee, WA 98807	Bruce McLean	509-885-2547	<a href="mailto:bruce@cascadecentral.us">bruce@cascadecentral.us</a>		
Cascade Central	PO Box 119	Wenatchee, WA 98807	KC Carroll	509-312-3257	<a href="mailto:KC@cascadecentral.us">KC@cascadecentral.us</a>		
Subcontractors							
Asbestos Central			Justin Wood	509-860-3519	<a href="mailto:justin@a-central.com">justin@a-central.com</a>		
Suppliers							
Plan Centers							
Abadan Repro	603 E Second Ave.	Spokane, WA 99202	unknown	509-747-2964	<a href="mailto:planroom@abadanplancenter.com">planroom@abadanplancenter.com</a>	9/6/23	
Spokane Regional Plan Center	209 N. Havana Street	Spokane, WA 99220	Jenny Martin	509-328-9600	<a href="mailto:projectinfo@plancenter.net">projectinfo@plancenter.net</a>	9/7/23	
Advertisements							
BXWA	2607 Wetmore Ave.	Everett, WA 98201	Rich Morgan	425-258-1303	<a href="mailto:production@bxwa.com">production@bxwa.com</a>	9/5/23	