efi global

BOSTON NORTH

March 22, 2024

Rick Underwood
Director of Operations & Maintenance
Lowell Public Schools
155 Merrimack Street, 4th Floor
Lowell, Massachusetts 01852

via email: runderwood@lowell.k12.ma.us

RE: AHERA 3-Year Reinspection
Washington Elementary School
795 Wilder Street
Lowell, Massachusetts
EFI Project No. 014.07795

Dear Rick:

EFI Global Inc. (EFI) is pleased to present this AHERA 3-Year Re-inspection Report prepared for the Washington Elementary School located at 795 Wilder Street, Lowell, Massachusetts (Site). The reinspection site visit was conducted on February 22, 2024, and the corresponding report was completed in accordance with the United States Environmental Protection Agency (USEPA) Asbestos Hazard Emergency Response Act (AHERA) regulations (40 CFR 763) and Massachusetts Department of Labor Standards "Requirements for Schools Subject to AHERA" regulations (454 CMR 28.13).

EFI relied upon previous 3-Year Inspection and Management Plan Update report from 2014 prepared by Cardo ATC, and 2017 and 2020 reinspection's prepared by EFI Global Inc. The original AHERA Management Plan and other subsequent records were not made available at the school for review. EFI relied upon the 2020 table of identified ACM along with visual assessment and bulk sampling of new materials for this reinspection. The school's Management Plan and records should be located and kept on file at the school and the administrative offices.

EFI is pleased to provide environmental consulting services to Lowell Public Schools. This report should be kept on file with the school's AHERA records. If you have any questions regarding the contents of this report, or need additional information, please contact either of the undersigned at (800) 659-1202. Thank you for the opportunity to serve your environmental needs.

Sincerely,
EFI Global, Inc.

Michael McCarter
Senior Project Manager
MA Asbestos Inspector # AI 001825

Jennifer L. Archacki
Environmental Service Line Principal
MA Asbestos Management Planner #AP 033118

AHERA 3-YEAR REINSPECTION

FOR:

WASHINGTON ELEMENTARY SCHOOL
795 WILDER STEET
LOWELL, MASSACHUSETTS

PREPARED BY:

efi global
BOSTON NORTH

155 WEST STREET, SUITE 6
WILMINGTON, MASSACHUSETTS 01887

EFI PROJECT NUMBER 014.07795

March 22, 2024

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INTRODUCTION

EFI Global, Inc. (EFI) was retained by Lowell Public Schools to perform a 3-Year AHERA Reinspection in accordance with United States Environmental Protection (USEPA) Asbestos Hazard Emergency Response Act (AHERA) asbestos regulations (40 CFR 763) and Massachusetts Department of Labor Standards "Requirements for Schools Subject to AHERA" regulations (454 CMR 28.13). These regulations, commonly known as the "Asbestos in Schools Rule," require under 40 CFR 763.80 and 454 CMR 28.13(2)(b)(1) that local education agencies (LEAs) must conduct a reinspection at least once every three years of all friable and nonfriable known or assumed asbestos-containing materials (ACMs). The reinspection includes all previously known and assumed ACMs, as well as any additional suspect ACM not previously included, as required by 40 CFR 763.80 and 454 CMR 28.13 in each school building leased, owned, or otherwise used as a school building. A school building is defined in 454 CMR 28.02 as including each of the following:

- Any structure suitable for use as a classroom, including a school facility such as a library, school eating facility, or facility used in the preparation of food
- Any gymnasium or other facility which is specially designed for athletic or recreational activities for an academic course in physical education
- Any other facility used for the instruction or housing of students or for the administration of educational or research programs
- Any maintenance, storage, or utility facility, including any hallway, essential to the operation of any facility described as a school building above
- Any portico or covered exterior hallway or walkway
- Any exterior portion of a mechanical system used to condition interior space.

EFI conducted a 3-year AHERA reinspection at the Washington Elementary School, which involved determining the condition and hazard potential of previously known and assumed ACMs, and additional confirmed and assumed ACMs observed during the 2024 reinspection. The 3-year reinspection was conducted on February 20, 2024, by Michael McCarter, an EPA accredited and Massachusetts Department of Labor Standards (MADLS) licensed Asbestos Inspector, (license number AI-001825). EFI relied upon the 2020 table of identified ACM along with visual assessment and bulk sampling of new materials for this reinspection. The original AHERA Management Plan and other subsequent records were not made available at the school for review. The recommended response actions were prepared by MADLS-licensed Asbestos Management Planner Jennifer Archacki (AP-033118).

A summary of known and assumed ACM within the Washington Elementary School is presented in the AHERA Summary Table in **Attachment A**. Site Plans showing buildings and locations referenced in this report are presented in **Attachment B.**

The Designated Person for the Lowell Public Schools is Rick Underwood. Rick's contact information is:

Rick Underwood
Director of Operations & Maintenance
Lowell Public Schools
155 Merrimack Street, 4th Floor
Lowell, Massachusetts 01852
978-674-4328
runderwood@lowell.k12.ma.us

AHERA 3-YEAR REINSPECTION

A. AHERA Records Review

As part of this 3-year reinspection, EFI reviewed available AHERA records for the school, in accordance with the AHERA regulation and 454 CMR 28.13(5)(f). A summary of records reviewed is provided in the table below.

Review of AHERA Documentation Washington Elementary School 795 Washington Street, Lowell, Massachusetts		
Document/Record	**Present?**	**Comment**
Asbestos Management Plan (on hand at school and available for review)	No	No records available at the school or administration office for review. The Cardo ATC 2014 3-Year Reinspection and Updated Management Plan is posted on the schools web site. EFI also relied upon in-house records from the 2017 and 2020 reinspections.
Designated Person (Rick Underwood) Training Records	No	No records available at the school or administration office for review. Designated Person should receive formal designated person training or review the Designated Person Self Study Guide (available at https://www.epa.gov/sites/default/files/2015-01/documents/dp_study_guide_0.pdf).
Custodial Personnel 2-hour Awareness Training Records	No	No records available at the school or administration office for review.
Annual Parental Notification Records	No	No records available at the school or administration office for review. Annual notification letters should be sent, and copies kept on file with the AHERA records.
Abatement/Response Action Records (includes abatement, special cleaning activities & small-scale short duration (SSSD) activities and associated monitoring reports and work plans)	No	No records available at the school or administration office for review.
Designated Person True and Correct Statement	No	No records available at the school or administration office for review.
6-month Surveillance Inspection Records	No	No records available at the school or administration office for review.
Previous 3-Year Reinspection Records	No	No records available at the school or administration office for review.
Asbestos Labels present (required in routine maintenance areas)	No	No labels observed. Labels should be placed immediately adjacent to ACM present in routine maintenance areas (i.e., boiler rooms, utility closets, etc.)

B. ACM Application Types

ACMs are divided into the following application types:

Thermal system insulation (TSI): Insulation applied to mechanical, heating, and cooling systems such as pipes, boilers, flue breechings, ducts, tanks and fittings.

Surfacing Materials: Material that is spray-applied or trowel-applied to walls, ceilings or structural components (i.e., plasters, acoustical finishes and fireproofing).

Miscellaneous Materials: All other asbestos materials, including but not limited to floor tiles and mastic, ceiling tiles, vinyl cove base and mastic, gypsum board and joint compound, and asbestos-cement board, etc.

C. ACM Assessment Criteria

The assessment is divided into two categories - the physical assessment and the hazard potential assessment.

Physical Assessment

The physical assessment is divided into the following seven categories and describes the material condition at the time of the inspection:

Physical Condition #1 - Damaged or significantly damaged thermal system ACM.
Physical Condition #2 - Damaged friable surfacing ACM.
Physical Condition #3 - Significantly damaged friable surfacing ACM.
Physical Condition #4 - Damaged or significantly damaged miscellaneous ACM.
Physical Condition #5 - ACM with potential for damage.
Physical Condition #6 - ACM with potential for significant damage.
Physical Condition #7 - Any remaining friable ACM or friable suspected ACM.

Hazard Assessment

The hazard assessment is a combination of the physical assessment combined with the potential for disturbance (i.e., physical contact, vibration air movement) as follows:

Hazard Rank #1 – Good condition/Low potential for disturbance
Hazard Rank #2 – Good condition/ Moderate potential for disturbance
Hazard Rank #3 – Good condition/ High potential for disturbance
Hazard Rank #4 – Damaged condition/Low potential for disturbance
Hazard Rank #5 – Damaged condition/Moderate potential for disturbance
Hazard Rank #6 – Damaged condition/High potential for disturbance
Hazard Rank #7 – Significantly damaged condition

The following is the Assessment Criteria used during the inspection:

1. Homogeneous Areas (An area of surfacing material, thermal system insulation material, or miscellaneous material that is uniform in size, color and texture and was applied at approximately the same time) were quantified by location and assessed by condition. Materials are listed as friable or non-friable. Note: friable materials are materials that can be crushed and pulverized to dust by hand pressure. A general condition description for suspect materials used in this inspection is as follows:

    a. Damaged Surfacing ACM: That material which has deterioration, delamination, water damage, lacks cohesion, is blistered, crumbling, gouged, marred heavily, abraded, or in any way has lost its structural integrity over more than 1% but less than 10 % of the total surface area if the damage is evenly distributed or less than 25%, if the damage is localized in one area of the homogeneous area.

    b. Significantly Damaged ACM: That material which has deterioration, delamination, water damage, lacks cohesion, is blistered, crumbling, gouged, marred heavily, abraded, or in any way has lost its structural integrity over at least 10% of the surface area if the damage is evenly distributed or at least 25% if the damaged is localized.

    c. Good Condition ACM: ACM with no visible damage or deterioration in less than one percent of the material and/or coverings.

    d. ACM with potential for damage: Pertains to circumstances in which:

        i. Friable ACM is in an area regularly used by building occupants, including maintenance workers, currently in intact (good) condition.

        ii. There are indications that there is a reasonable likelihood that the material or its covering will become damaged, deteriorated or delaminated due to factors such as vibration, air erosion, water damage, changes in building use, changes in O&M practices, changes in occupancy or recurrent damage.

Note: All ACM in good condition is still considered to have a potential for damage, and in certain instances, has the potential for significant damage.

    e. ACM with potential for significant damage: Pertains to circumstances in which:

        i. Friable ACM is in an area regularly used by building occupants, including maintenance personnel.

        ii. Indications show that there is a reasonable likelihood that the material or its covering will become damaged, deteriorated, or delaminated due to factors such as vibration, air erosion, water damage, changes in building use, changes in O&M practices, changes in occupancy or re-occurring damage.

        iii. The material is subject to major or continuing disturbance, due to factors including, but not limited to, accessibility or under certain circumstances, vibration or air erosion.

D. Response Actions – General Recommendations

Specific response actions for each known and assumed ACM located at the Washington Elementary School are in **Attachment A**. The following are general recommendations for response actions associated with managing ACMs at the school.

1. Damaged materials in the school should be repaired, if feasible, or removed to maintain compliance with the AHERA regulation. Damaged ACMs of any quantity listed in the report should be repaired or removed by a Massachusetts licensed Asbestos Contractor following all applicable regulations, in accordance with a work plan design, and final clearance air testing performed in accordance with the AHERA regulations. It is the policy of the Lowell Public Schools to use licensed Asbestos Contractors for all response action work.

2. The AHERA regulation states that the response actions chosen for other than small scale/short duration repairs (less than 3 square or linear feet), must be designed and conducted by persons accredited to design and conduct response actions. MADLS Regulation 454 CMR 28.00 requires the services of licensed Project Designers who meet the requirements set forth in 454 CMR 28.00, as well as Massachusetts licensed Asbestos Contractors.

3. Damaged ACMs that involve small scale/short duration repairs can only be conducted by 16-hour asbestos-trained personnel or by a licensed Asbestos Contractor. EFI understands that small scale/ short duration projects will not be performed by in house personnel, and that all work will be conducted by an outside licensed Asbestos Contractor.

4. Each known and assumed ACM should be monitored for any changes in condition during the six-month periodic surveillance, or more frequently.

5. If known or suspect ACMs are to be impacted by planned renovation or demolition activities, the ACM must be removed by a Massachusetts licensed Asbestos Contractor. Note that AHERA inspections do not meet the EPA NESHAP and Commonwealth of Massachusetts Department of Environmental Protection (MADEP) requirements for a comprehensive pre-renovation or demolition survey. Prior to any planned renovation or demolition project, all renovation/demolition areas must be thoroughly surveyed to meet the requirements of EPA NESHAP and MADEP 310 CMR 7.15(4) Survey Requirements. LEA Designated Persons should make sure that pre-renovation/demolition surveys are performed in each instance that ACM may be disturbed.

E. AHERA Licensing & Training Documentation

The AHERA 3-year Reinspection report for the Washington Elementary School was performed by the following individuals who have received appropriate training and who are MADLS licensed personnel:

Michael McCarter
Senior Project Manager
MA Asbestos Inspector # AI 001825

Jennifer L. Archacki
Environmental Service Line Principal
MA Asbestos Management Planner #AP 033118

F. Asbestos Bulk Sampling

Asbestos bulk sampling of suspect ACM was performed for various suspect ACMs not previously identified as ACM in portions of the building included in the AHERA program. The bulk sampling was performed by USEPA-accredited, and MADLS licensed Asbestos Inspector Michael McCarter. A total of 60 bulk samples of suspect ACMs were collected and transported under chain of custody protocol to EMSL Analytical, Inc., of Woburn, Massachusetts, a Massachusetts-licensed laboratory. EMSL is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for bulk asbestos fiber analysis, which is administered by the National Institute of Standards and Testing (NIST).

Samples were analyzed with a standard 3-day turnaround time using polarized light microscopy (PLM) in accordance with United States Environmental Protection Agency (USEPA) Method 600/R-93/116. The PLM/DS analytical method is modeled after 40 CFR Part 763, Subpart F, Attachment A: "Interim Method for the Determination of Asbestos in Bulk Insulation Samples." MADEP asbestos regulations define an ACM as any material containing greater than or equal to one percent asbestos. The findings of this report are based upon observations of accessible materials and the analysis of representative bulk samples collected. **Attachment C** contains site plans indicating locations of samples collected and analyzed as part of this reinspection. A copy of the asbestos laboratory reports is presented in **Attachment D**.

Bulk samples representing individual homogenous areas of suspect ACM, (materials that are determined to be uniform in color and texture and installed in the same construction period) were collected in a randomly distributed manner, in accordance with the EPA sampling protocol outlined in 40 CFR 763.

The following suspect ACMs sampled by EFI during the 2024 reinspection were reported by EMSL as containing no detectable concentration of asbestos:

Summary of Non-ACMs per 2024 3-Year Reinspection

Material Description	Location(s) Sampled
1’ x 1’ white floor tile*	Basement Room 1
Gypsum board	Basement Room 1, 2nd Floor Hall
Joint compound	Basement Room 1, 2nd Floor Hall
Tan vinyl cove base adhesive	Basement Room 1, 2nd Floor Hall
Plaster base coat	Basement Hall at Room 1, Basement Boiler Room, Basement Room 11, 1st Floor Room 111, 1st Floor Room 104, 2nd Floor Room 208, 2nd Floor Room 201

Material Description	Location(s) Sampled
Plaster finish coat	Basement Hall at Room 1, Basement Boiler Room, Basement Room 11, 1st Floor Room 111, 1st Floor Room 104, 2nd Floor Room 208, 2nd Floor Room 201
2' x 4' fissured ceiling tile (old)	Basement Hall at Room 1, 1st Floor Hall
2' x 4' fissured ceiling tile (new)	Basement Hall at Room 1, 1st Floor Hall
Rubber floor adhesive	Gym
12" x 12" white with gray floor tile	1st Floor Nurse
12" x 12" white with gray floor tile mastic, Tan	1st Floor Nurse
Black vinyl cove base adhesive, brown	2nd Floor Room 205, 2nd Floor Room 207
Carpet adhesive, tan*	2nd Floor Hall
2' x 4' ceiling tile (old)	Portable Classrooms - Room 114, Room 113
Gypsum board wall panels	Portable Classrooms - Room 114, Room 113
Joint compound	Portable Classrooms - Room 114, Room 113
Tan vinyl cove base adhesive, tan	Portable Classrooms - Room 114, Room 113
Carpet adhesive, tan	Portable Classrooms - Room 114, Room 113
2' x 4' ceiling tile (new)	Portable Classrooms - Room 114, Room 113

* EFI recommends that the material be treated as an ACM if removed or disturbed since the associated ACM cannot be easily separated. The associated ACM is listed in the AHERA 3-year reinspection table contained in Attachment A.

G. ACM Hazard Assessment & Recommended Response Actions

Accessible locations were inspected and assessed to determine the presence and condition of known and assumed ACM. A Summary Table of known and assumed ACMs present at the school, the physical and hazard assessments and the recommended response action for each ACM, is presented in **Attachment A.** It should be noted that EFI did not conduct destructive evaluations of the school building to identify suspect ACM. Per USEPA NESHAP and MADEP asbestos regulations, a thorough "path of construction" survey should be conducted prior to any renovation or repair activities that may impact suspect ACM, regardless of the date of installation.

H. Cost Estimate and Schedule for Recommended Response Actions

The confirmed and assumed ACMs outlined in the summary table in **Attachment A** that were in good condition at the time of the reinspection must be maintained in place in accordance with the Operations and Maintenance Plan. Estimated costs associated with managing known and assumed ACMs at the school are summarized below.

Cost Estimate of AHERA Considerations Washington Elementary School 795 Wilder Street, Lowell, Massachusetts	
Training Costs	
Item	**Approximate Cost**
2-hour asbestos awareness training (New Hires, within 60 days of hire)	$500/person
Designated Person Training	$250

Maintenance Costs	
Item	**Approximate Cost**
Asbestos labeling (Place/maintain labels adjacent to ACM in routine maintenance areas)	$500
6-month surveillance inspections (Per schedule below)	$500/event
3-year reinspection (Per schedule below)	$2,000
Response Action Costs	
Item	**Approximate Cost**
Damaged pipe insulation in Attic – Post asbestos hazard warning signs at entrance and repair damage as needed to provide access for maintenance activities.	Post Signs - $ 100 Repair - $ 3,000
AHERA workplan (for all non-Small Scale/Short Duration Work)	$500/plan
Asbestos Monitoring Costs (dependent on duration of project)	$1,000/shift

A proposed schedule of events between this 3-Year reinspection and the 2027 3-Year reinspection is provided for your use:

Schedule of AHERA-Related Actions Washington Elementary School 795 Wilder Street, Lowell, Massachusetts	
Event	**Completion Date**
Post asbestos hazard warning signs at entrance to Attic.	May 1, 2024
Repair damaged ends within 6 months or sooner if access is needed.	August 22, 2024
6 Month Surveillance Inspection	August 22, 2024
Annual Parental Notification Letter	September 1, 2024
6 Month Surveillance Inspection	February 22, 2025
6 Month Surveillance Inspection	August 22, 2025
Annual Parental Notification Letter	September 1, 2025
6 Month Surveillance Inspection	February 22, 2026
6 Month Surveillance Inspection	August 22, 2026
Annual Parental Notification Letter	September 1, 2026
3 Year Reinspection	February 22, 2027

ATTACHMENT A

AHERA SUMMARY TABLE

AHERA 3 Year Re-Inspection Summary Table
Washington Elementary School
Summary Table of Identified and Assumed Asbestos-Containing Building Materials
795 Wilder Street, Lowell, MA
Dates of Inspection: 2/22/2024

Material Description	Location	Quantity	Friability (F/NF)	Sample Results	Assessment Category	Condition	Response Actions/ Notes	Recommended Completion Date
Window/Door caulk – various types (material added in 2024)	Exterior windows and doors	150 Each	NF	Not sampled. Assumed ACM	5	Good	Material was observed to be located on interior and or exterior side of windows and doors. Manage in place in accordance with the Asbestos O&M Program. Collect bulk samples to determine asbestos content prior to any disturbance or assume the material ACM.	
Window/Door Window glazing compounds – various types (material added in 2024)	Exterior windows and doors	150 Each	NF	Not sampled. Assumed ACM	5	Good	Material was observed to be located on interior and or exterior side of windows and doors. Manage in place in accordance with the Asbestos O&M Program. Collect bulk samples to determine asbestos content prior to any disturbance or assume the material ACM.	
Sprinkler pipe thread sealant (material added in 2024)	Basement, 1st Floor, 2nd Floor	300 SF	NF	Not Sampled. Assumed ACM	5	Good	Material was observed to be exposed above and below suspended ceilings. Manage in place in accordance with the Asbestos O&M Program. Collect bulk samples to determine asbestos content prior to any disturbance or assume the material ACM.	
Fire doors with interior linings (material added in 2024)	Basement, 1st Floor, 2nd Floor	120 Each	NF	Not Sampled. Interior linings assumed ACM.	5	Good	Interior linings associated with fire doors are assumed to contain asbestos. Maintain the fire doors in good condition in accordance with the Asbestos O&M Program. Prior to disturbance, inspect the doors for suspect ACM lining insulation and collect bulk samples to determine asbestos content.	
Interior door and partition wall window glazing compound – various types (material added in 2024)	Basement, 1st Floor, 2nd Floor	130 Each	NF	Not sampled. Assumed ACM.	5	Good	Manage in place in accordance with the Asbestos O&M Program. Collect bulk samples to determine asbestos content prior to any disturbance or assume the material ACM.	
Pipe Fitting insulation	North Stair – Basement, 1st and 2nd Floor	5 Elbows	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe Fitting insulation	South Stair – Basement, 1st and 2nd Floor	5 Elbows	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe insulation	South Stair – Basement, 1st and 2nd Floor	10 LF	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	

AHERA 3 Year Re-Inspection Summary Table
Washington Elementary School
Summary Table of Identified and Assumed Asbestos-Containing Building Materials
795 Wilder Street, Lowell, MA
Dates of Inspection: 2/22/2024

Material Description	Location	Quantity	Friability (F/NF)	Sample Results	Assessment Category	Condition	Response Actions/ Notes	Recommended Completion Date
Pipe fitting insulation	Room 1	10 Elbows	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe insulation	Room 1	20 LF	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
1' x 1' white floor tile mastic (material added 2024)	Room 1	960 SF	NF	2% Chrysotile	NA	N/A material not accessible for viewing.	Overlying floor tile is in good condition and mastic is not visible. Note that the floor tile is non-ACM but should be treated as ACM for any future disturbance due contamination by the underlying mastic. Manage in place in accordance with the Asbestos O&M Program	
Pipe fitting insulation	Room 2 (Boys and Girls Bathroom appeared to have been renovated following the 2020 reinspection)	1 Elbows – Not observed 2024	NA	Positive per Management Plan records	NA	NA	Pipe fitting insulation was not observed. Documentation of response action should be obtained and included with the Asbestos O&M Program files.	
Ceramic wall and floor tile grout (material added 2024)	Room 2 (Boys and Girls Bathroom appeared to have been renovated following the 2020 reinspection)	500 SF	NF	Not sampled. Assumed ACM.	5	Good condition	Manage in place in accordance with the Asbestos O&M Program. Collect bulk samples to determine asbestos content prior to any disturbance or assume the material ACM.	
Pipe fitting insulation	Hall at Room 1 and 2	6 Elbows	NF	Positive per Management Plan records.	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe fitting insulation	Electric Room 4 Adjacent to Room 2	2 Elbows – observed 2024	NF	Positive per Management Plan records	NA	NA	Pipe fitting insulation was not observed. Documentation of response action should be obtained and included with the Asbestos O&M Program files.	

AHERA 3 Year Re-Inspection Summary Table
Washington Elementary School
Summary Table of Identified and Assumed Asbestos-Containing Building Materials
795 Wilder Street, Lowell, MA
Dates of Inspection: 2/22/2024

Material Description	Location	Quantity	Friability (F/NF)	Sample Results	Assessment Category	Condition	Response Actions/ Notes	Recommended Completion Date
Pipe fitting insulation	Room 5 – Includes Restroom and Storage Room	20 Elbows	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe insulation	Room 5 – Includes Restroom and Storage Room	100 LF	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe fitting insulation	Room 6	15 Elbows	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe fitting insulation	Room 7/Hallway	5 Elbows	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe Insulation	Room 7/Hallway	15 LF	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe fitting insulation	Room 9 – Boiler Room	2 Elbow	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe insulation	Boiler Room	40 LF – Not observed 2024	NA	Positive per Management Plan records	NA	NA	Pipe insulation was not observed. Documentation of response action should be obtained and included with the Asbestos O&M Program files.	

AHERA 3 Year Re-Inspection Summary Table
Washington Elementary School
Summary Table of Identified and Assumed Asbestos-Containing Building Materials
795 Wilder Street, Lowell, MA
Dates of Inspection: 2/22/2024

Material Description	Location	Quantity	Friability (F/NF)	Sample Results	Assessment Category	Condition	Response Actions/ Notes	Recommended Completion Date
Pipe fitting insulation	Room 9 – Boiler Room Storage	5 Elbow	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe insulation	Boiler Room	40 LF – Not observed 2024	NA	Positive per Management Plan records	NA	NA	Pipe insulation was not observed. Documentation of response action should be obtained and included with the Asbestos O&M Program files.	
Pipe fitting insulation	Hall from Girls Room 12 to Cafeteria Room 11	10 Elbows	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe fitting insulation	Room 11 Café (closet)	2 Elbows	NF	Positive per Management Plan records	5	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe fitting insulation	Girls Room 12	15 Elbow	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe insulation	Girls Room 12	54 LF	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Mastic underneath carpet (material added 2024)	1st Floor Hall, Room101-111	1,400 SF	NF	5% Chrysotile	5	N/A material not accessible for viewing.	Overlying carpet is in good condition and mastic is not visible. Carpet should be considered ACM for any future disturbance due to contamination by underlying ACM mastic. Manage in place in accordance with the Asbestos O&M Program	
Pipe fitting insulation	Room 101	2 Elbows	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	

AHERA 3 Year Re-Inspection Summary Table
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Material Description	Location	Quantity	Friability (F/NF)	Sample Results	Assessment Category	Condition	Response Actions/ Notes	Recommended Completion Date
Pipe fitting insulation	Room 102	2 Elbows	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe fitting insulation	Room 103	1 Elbow	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe fitting insulation	Hall at Rooms 101&103	1 Elbow	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe fitting insulation	Room 104	2 Elbows	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe fitting insulation	Hall at Rooms 102&104	1 Elbow	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe fitting insulation	Room 105	1 Elbow	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
1’ x 1’ gray floor tile	Room 105 – Staff Work Room	190 SF – Not Observed 2024	NA	Positive per Management Plan records	NA	NA	Floor tile was not observed. Floor is exposed finished hardwood floor. Documentation of response action should be obtained and included with the Asbestos O&M Program files.	

AHERA 3 Year Re-Inspection Summary Table
Washington Elementary School
Summary Table of Identified and Assumed Asbestos-Containing Building Materials
795 Wilder Street, Lowell, MA
Dates of Inspection: 2/22/2024

Material Description	Location	Quantity	Friability (F/NF)	Sample Results	Assessment Category	Condition	Response Actions/ Notes	Recommended Completion Date
Pipe fitting insulation	Room 106	2 Elbows	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe fitting insulation	Main Office	2 Elbows	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe fitting insulation	Admin Office	1 Elbow	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe fitting insulation	Nurse	2 Elbows	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe fitting insulation	Room 112, includes adjoining Hall & Office	10 Elbows	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe fitting insulation	Room 111	2 Elbows	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	
Pipe fitting insulation	Hall at Room 111	2 Elbows	NF	Positive per Management Plan records	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months.	

AHERA 3 Year Re-Inspection Summary Table
Washington Elementary School
Summary Table of Identified and Assumed Asbestos-Containing Building Materials
795 Wilder Street, Lowell, MA
Dates of Inspection: 2/22/2024

Material Description	Location	Quantity	Friability (F/NF)	Sample Results	Assessment Category	Condition	Response Actions/ Notes	Recommended Completion Date
Pipe fitting insulation (material added 2024)	Room 201 (location added 2024)	1 Elbow	NF	Not Sampled, appears homogeneous to other areas of confirmed ACM. Assumed ACM.	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months. Collect bulk samples to determine asbestos content prior to any disturbance or assume the material ACM.	
Pipe fitting insulation (material added 2024)	Room 202 (location added 2024)	1 Elbow	NF	Not Sampled, appears homogeneous to other areas of confirmed ACM. Assumed ACM.	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months. Collect bulk samples to determine asbestos content prior to any disturbance or assume the material ACM.	
Pipe fitting insulation (material added 2024)	Room 203 (location added 2024)	1 Elbow	NF	Not Sampled, appears homogeneous to other areas of confirmed ACM. Assumed ACM.	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months. Collect bulk samples to determine asbestos content prior to any disturbance or assume the material ACM.	
Pipe fitting insulation (material added 2024)	Room 204 (location added 2024)	1 Elbow	NF	Not Sampled, appears homogeneous to other areas of confirmed ACM. Assumed ACM.	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months. Collect bulk samples to determine asbestos content prior to any disturbance or assume the material ACM.	
Pipe fitting insulation (material added 2024)	Room 205 (location added 2024)	1 Elbow	NF	Not Sampled, appears homogeneous to other areas of confirmed ACM. Assumed ACM.	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months. Collect bulk samples to determine asbestos content prior to any disturbance or assume the material ACM.	

AHERA 3 Year Re-Inspection Summary Table
Washington Elementary School
Summary Table of Identified and Assumed Asbestos-Containing Building Materials
795 Wilder Street, Lowell, MA
Dates of Inspection: 2/22/2024

Material Description	Location	Quantity	Friability (F/NF)	Sample Results	Assessment Category	Condition	Response Actions/ Notes	Recommended Completion Date
12” x 12” Green floor tile (material added 2024)	Room 205 (location added 2024)	650 SF	NF	3% Chrysotile	5	Good condition	Manage in place in accordance with the Asbestos O&M Program. Floor tile should be maintained in accordance with EPA and OSHA guidelines. Strip floors when wet using low abrasive pads and low speed buffers (175- 300 rpm), and regularly clean and maintain flooring with wax coating to maximize longevity.	
12” x 12” Green floor tile mastic (material added 2024)	Room 205 (location added 2024)	650 SF	NF	10% Chrysotile	5	Good condition	Manage in place in accordance with the Asbestos O&M Program. Overlying floor tile should be maintained in accordance with EPA and OSHA guidelines. Strip floors when wet using low abrasive pads and low speed buffers (175- 300 rpm), and regularly clean and maintain flooring with wax coating to maximize longevity.	
Pipe fitting insulation (material added 2024)	Room 206 (location added 2024)	1 Elbow	NF	Not Sampled, appears homogeneous to other areas of confirmed ACM. Assumed ACM.	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months. Collect bulk samples to determine asbestos content prior to any disturbance or assume the material ACM.	
12” x 12” Green floor tile (material added 2024)	Room 207 (location added 2024)	650 SF	NF	3% Chrysotile	5	Good condition	Manage in place in accordance with the Asbestos O&M Program. Floor tile should be maintained in accordance with EPA and OSHA guidelines. Strip floors when wet using low abrasive pads and low speed buffers (175- 300 rpm), and regularly clean and maintain flooring with wax coating to maximize longevity.	
12” x 12” Green floor tile mastic (material added 2024)	Room 207 (location added 2024)	650 SF	NF	10% Chrysotile	5	Good condition	Manage in place in accordance with the Asbestos O&M Program. Overlying floor tile should be maintained in accordance with EPA and OSHA guidelines. Strip floors when wet using low abrasive pads and low speed buffers (175- 300 rpm), and regularly clean and maintain flooring with wax coating to maximize longevity.	
Pipe fitting insulation (material added 2024)	Room 208 (location added 2024)	1 Elbow	NF	Not Sampled, appears homogeneous to other areas of confirmed ACM. Assumed ACM.	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months. Collect bulk samples to determine asbestos content prior to any disturbance or assume the material ACM.	

AHERA 3 Year Re-Inspection Summary Table
Washington Elementary School
Summary Table of Identified and Assumed Asbestos-Containing Building Materials
795 Wilder Street, Lowell, MA
Dates of Inspection: 2/22/2024

Material Description	Location	Quantity	Friability (F/NF)	Sample Results	Assessment Category	Condition	Response Actions/ Notes	Recommended Completion Date
Pipe fitting insulation (material added 2024)	Room 209 (location added 2024)	1 Elbow	NF	Not Sampled, appears homogeneous to other areas of confirmed ACM. Assumed ACM.	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months. Collect bulk samples to determine asbestos content prior to any disturbance or assume the material ACM.	
Pipe fitting insulation (material added 2024)	Room 209 Restroom (location added 2024)	1 Elbow	NF	Not Sampled, appears homogeneous to other areas of confirmed ACM. Assumed ACM.	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months. Collect bulk samples to determine asbestos content prior to any disturbance or assume the material ACM.	
Pipe fitting insulation (material added 2024)	Room 210 (location added 2024)	1 Elbow	NF	Not Sampled, appears homogeneous to other areas of confirmed ACM. Assumed ACM.	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months. Collect bulk samples to determine asbestos content prior to any disturbance or assume the material ACM.	
Pipe fitting insulation (material added 2024)	Room 211 (location added 2024)	1 Elbow	NF	Not Sampled, appears homogeneous to other areas of confirmed ACM. Assumed ACM.	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months. Collect bulk samples to determine asbestos content prior to any disturbance or assume the material ACM.	
Pipe fitting insulation (material added 2024)	Room 212 (location added 2024)	1 Elbow	NF	Not Sampled, appears homogeneous to other areas of confirmed ACM. Assumed ACM.	6	Good condition, jacketing material is intact	Manage in place in accordance with the Asbestos O&M Program. Routine inspections of ACM for physical damages due to occupancy or other factors can be performed more frequently such as every three months. Collect bulk samples to determine asbestos content prior to any disturbance or assume the material ACM.	

AHERA 3 Year Re-Inspection Summary Table
Washington Elementary School
Summary Table of Identified and Assumed Asbestos-Containing Building Materials
795 Wilder Street, Lowell, MA
Dates of Inspection: 2/22/2024

Material Description	Location	Quantity	Friability (F/NF)	Sample Results	Assessment Category	Condition	Response Actions/ Notes	Recommended Completion Date
12" x 12 Gray floor tile underneath carpet (material added 2024)	2nd Floor Main Hall	700 SF	NF	3% Chrysotile	5	N/A material not accessible for viewing.	Maintain carpet in good condition. Take caution when lifting carpets so that tile is not disturbed. Manage in place in accordance with the Asbestos O&M Program.	
Mastic associated with 12" x 12 gray floor tile (material added 2024)	2nd Floor Main Hall	700 SF	NF	10% Chrysotile	5	N/A material not accessible for viewing.	Mastic is not visible. Maintain floor tile in good condition in accordance with the O&M Program.	
Pipe insulation	Attic	650 LF	NF	Positive per Management Plan records	6	Damaged condition, Open/exposed ends observed at entrance	Attic is only accessible through a ceiling hatch. Exposed and open pipe insulation ends were observed at the access hatch. Debris was not observed. Post asbestos hazard warning signs at entrance and restrict access to authorized personal only. Repair damaged ends prior to permitting access to the Attic. Manage in place in accordance with the Asbestos O&M Program.	Post signs by May 1, 2024. Repair damaged ends withing 6 months (by August 22, 2024) or sooner if access is needed.

LF = Linear Feet

SF = Square Feet

Assumed ACM = This material was not identified in the Management Plan records and was not sampled during the 2024 Re-inspection. Prior to any planned disturbance by maintenance, renovation, or demolition activities, EFI recommends bulk sampling and analysis to determine asbestos content.

For all recommended response actions, the work should be conducted by a Massachusetts licensed Asbestos Contractor and a work plan for the specific repair or removal activity should be prepared by a Massachusetts licensed Asbestos Designer.

Physical Assessment Category
1 – Damaged or Significantly Damaged Thermal System ACM
2 – Damaged Friable Surfacing ACM
3 – Significantly Damaged Surfacing ACM
4 – Damaged or Significantly Damaged Friable Miscellaneous ACM
5 – ACM with Potential for Damage
6 – ACM with Potential for Significant Damage
7 – Any Remaining friable ACM or friable suspect ACM

ATTACHMENT B

SITE PLANS

Washington School Map

Second floor

Grade 4 Davis 211	ELL Learning Center Chan 209	Literacy Office Hugo 207	Library Comtois Nicholson 205	ELL Learning Center Plunkett 203	Grade 3 Parisi 201
Grade 4 Avelino 212	SPED Learning Center Donovan 210	CSA 2-4 Buczynski 208	CSA K-1 Cruz 206	ELL Learn Quirbach 204	Grade 3 Hogan 202

First Floor

Grade 1 Bonin 111	Mahoney 109 Nurse 01074	Mail-room 01073	Admn Office Haines 01072	Main Office Ames 01071	Staff Room 105	ELL Learning Center Corea 103	Grade K Cahill 101
Grade 1 Brady 112	Social Worker Kubick 110	Grade K Descheneaux 108	Main Entrance	Grade 2 Burns 106	SPED Learning Center Parrington 104	Grade 2 DeChiara 102	

Basement

Café Sullivan 11	Hallway	Boiler 09	Custodian Runion Cottrell 07	Art Tierney 05	Hallway	Music Katz 01
Girls Bathroom 12	Hallway	Gym	Gym Jones	Gym 06	Electric Rm. 04	Girl's & Boys Bathroom 02

Front of Building

Pre-K Reidt 114	CSA Pre-K Morehouse 113	Portable Classrooms

ATTACHMENT C

2024 REINSPECTION ASBESTOS BULK SAMPLE LOCATION PLANS

Washington School Map

Second floor

Grade 4 Davis 211	ELL Learning Center Chan 209	Literacy Office Hugo 207	Library Comtois Nicholson 205	ELL Learning Center Plunkett 203	Grade 3 Parisi 201
Grade 4 Avelino 212	SPED Learning Center Donovan 210	CSA 2-4 Buczynski 208	CSA K-1 Cruz 206	ELL Learn Quirbach 204	Grade 3 Hogan 202

First Floor

Grade 1 Bonin 111	Mahoney 109 Nurse 01074	Mail-room 01073	Admn Office Haines 01072	Main Office Ames 01071	Staff Room 105	ELL Learning Center Corea 103	Grade K Cahill 101
Grade 1 Brady 112	Social Worker Kubick 110	Grade K Descheneaux 108	Main Entrance		Grade 2 Burns 106	SPED Learning Center Parrington 104	Grade 2 DeChiara 102

Basement

Café Sullivan 11	Hallway	Boiler 09	Custodian Runion Cottrell 07	Art Tierney 05	Hallway 06A 07A 08A 09A	Music Katz 01

Girls Bathroom 12	Hallway	Gym 10A	Gym Jones	Gym 10B 06	Electric Rm. 04	Girl's & Boys Bathroom 02

Front of Building

Pre-K Reidt 114	CSA Pre-K Morehouse 113

Portable Classrooms

ATTACHMENT D

2024 REINSPECTION ASBESTOS BULK SAMPLE REPORTS

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com / bostonlab@emsl.com

EMSL Order:	132401065
Customer ID:	EAFI66
Customer PO:	
Project ID:	

Attention:	Michael McCarter	**Phone:**	(978) 688-3736
	EFI Global, Inc.	**Fax:**	(978) 688-5494
	155 West Street	**Received Date:**	02/23/2024 10:10 AM
	Suite 6	**Analysis Date:**	02/26/2024
	Wilmington, MA 01887	**Collected Date:**	02/22/2024
Project:	014.07795 - Washington Elementary		

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
01A *132401065-0001*	Basement - Room 1 - 1x1 White Floor Tile Tile	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
01B *132401065-0002*	Basement - Room 1 - 1x1 White Floor Tile Tile	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
02A *132401065-0003*	Basement - Room 1 - 1x1 White Floor Tile Tile - Mastic	Gray/Red/Yellow Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
02B *132401065-0004*	Basement - Room 1 - 1x1 White Floor Tile Tile - Mastic				Positive Stop (Not Analyzed)
03A *132401065-0005*	Basement - Room 1 - Gypsum Board	Brown/Gray Fibrous Homogeneous	15% Cellulose 2% Glass	83% Non-fibrous (Other)	None Detected
03B *132401065-0006*	2nd Floor Hall - Gypsum Board	Brown/Gray Fibrous Homogeneous	15% Cellulose 2% Glass	83% Non-fibrous (Other)	None Detected
04A *132401065-0007*	Basement - Room 1 - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
04B *132401065-0008*	2nd Floor Hall - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05A *132401065-0009*	Basement - Room 1 - Tan Vinyl Cove Base Mastic, Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05B *132401065-0010*	2nd Floor - Hall - Tan Vinyl Cove Base Mastic, Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06A *132401065-0011*	Basement Hall at Room 1 - Plaster Finish Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06B *132401065-0012*	Basement Boiler Room Hall - Plaster Finish Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06C *132401065-0013*	Basement Room 11 - Plaster Finish Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06D *132401065-0014*	1st Floor - Room 111 - Plaster Finish Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06E *132401065-0015*	1st Floor - Room 104 - Plaster Finish Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06F *132401065-0016*	2nd Floor - Room 208 - Plaster Finish Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 02/27/2024 15:48:46

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5 Constitution Way, Unit A Woburn, MA 01801
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EMSL Order: 132401065
Customer ID: EAFI66
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
06G *132401065-0017*	2nd Floor - Room 201 - Plaster Finish Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
07A *132401065-0018*	Basement - Hall at Room 1 - Plaster Base Coat	Gray Non-Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected
07B *132401065-0019*	Basement - Boiler Room Hall - Plaster Base Coat	Gray Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected
07C *132401065-0020*	Basement - Room - Plaster Base Coat	Gray Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected
07D *132401065-0021*	1st Floor - Room 111 - Plaster Base Coat	Gray Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected
07E *132401065-0022*	1st Floor - Room 104 - Plaster Base Coat	Gray Non-Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected
07F *132401065-0023*	2nd Floor - Room 208 - Plaster Base Coat	Gray Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected
07G *132401065-0024*	2nd Floor - Room 201 - Plaster Base Coat	Gray Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected
08A *132401065-0025*	Basement Hall at Room 1 - 2x4 Fissured Ceiling Tile (Old)	Gray/White Fibrous Homogeneous	50% Cellulose 35% Min. Wool	15% Non-fibrous (Other)	None Detected
08B *132401065-0026*	1st Hall - 2x4 Fissured Ceiling Tile (Old)	Gray/White Fibrous Homogeneous	50% Cellulose 35% Min. Wool	15% Non-fibrous (Other)	None Detected
09A *132401065-0027*	Basement Hall at Room 1 - 2x4 Fissured Ceiling Tile (Newer)	Gray/White Fibrous Homogeneous	60% Cellulose 25% Min. Wool	15% Non-fibrous (Other)	None Detected
09B *132401065-0028*	1st Hall - 2x4 Fissured Ceiling Tile (Newer)	Gray/White Fibrous Homogeneous	60% Cellulose 25% Min. Wool	15% Non-fibrous (Other)	None Detected
10A *132401065-0029*	Gym - Rubber Floor Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10B *132401065-0030*	Gym - Rubber Floor Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11A *132401065-0031*	1st Floor Nurse - 12x12 White w. Gray FT	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11B *132401065-0032*	1st Floor Nurse - 12x12 White w. Gray FT	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12A *132401065-0033*	1st Floor Nurse - 12x12 White w. Gray FT - Mastic, Tan	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12B *132401065-0034*	1st Floor Nurse - 12x12 White w. Gray FT - Mastic, Tan	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 02/27/2024 15:48:46

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Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132401065
Customer ID: EAFI66
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
13A *132401065-0035*	1st Floor Hall - Carpet Adhesive on Wood, Yellow/Black	Black/Yellow Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
13B *132401065-0036*	1st Floor Hall - Carpet Adhesive on Wood, Yellow/Black				Positive Stop (Not Analyzed)
14A *132401065-0037*	Room 205 - 12x12 Green Floor Tile	Gray Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
14B *132401065-0038*	Room 207 - 12x12 Green Floor Tile				Positive Stop (Not Analyzed)
15A *132401065-0039*	Room 205 - 12x12 Green Floor Tile - Mastic, Black	Black Non-Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
15B *132401065-0040*	Room 207 - 12x12 Green Floor Tile - Mastic, Black				Positive Stop (Not Analyzed)
16A *132401065-0041*	Room 205 - Block Vinyl Cove Base Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16B *132401065-0042*	Room 207 - Block Vinyl Cove Base Adhesive	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
17A *132401065-0043*	2nd Floor Main Hall - Gray Floor Tile under Carpet	Gray Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
17B *132401065-0044*	2nd Floor Main Hall - Gray Floor Tile under Carpet				Positive Stop (Not Analyzed)
18A *132401065-0045*	2nd Floor Main Hall - Gray Floor Tile under Carpet - Mastic, Black	Black Non-Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
18B *132401065-0046*	2nd Floor Main Hall - Gray Floor Tile under Carpet - Mastic, Black				Positive Stop (Not Analyzed)
19A *132401065-0047*	2nd Floor Hall - Carpet Adhesive, Tan	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19B *132401065-0048*	2nd Floor Hall - Carpet Adhesive, Tan	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20A *132401065-0049*	Portable Classrooms - Room 114 - 2x4 Fissured Ceiling Tile (Old)	Gray/White Fibrous Homogeneous	50% Cellulose 35% Min. Wool	15% Non-fibrous (Other)	None Detected
20B *132401065-0050*	Portable Classrooms - Room 113 - 2x4 Fissured Ceiling Tile (Old)	Gray/White Fibrous Homogeneous	50% Cellulose 35% Min. Wool	15% Non-fibrous (Other)	None Detected
21A *132401065-0051*	Portable Classrooms - Room 114 - Gypsum Board Wall Panels	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
21B *132401065-0052*	Portable Classrooms - Room 113 - Gypsum Board Wall Panels	Brown/Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected

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Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132401065
Customer ID: EAFI66
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
22A *132401065-0053*	Portable Classrooms - Room 114 - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
22B *132401065-0054*	Portable Classrooms - Room 114 - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
23A *132401065-0055*	Portable Classrooms - Room 113 - Tan Vinyl Cove Base Adhesive, Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
23B *132401065-0056*	Portable Classrooms - Room 114 - Tan Vinyl Cove Base Adhesive, Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24A *132401065-0057*	Portable Classrooms - Room 113 - Carpet Adhesive, Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24B *132401065-0058*	Portable Classrooms - Room 114 - Carpet Adhesive, Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
25A *132401065-0059*	Portable Classrooms - Room 113 - 2x4 Fissured Ceiling Tile (Newer)	Gray/White Fibrous Homogeneous	60% Cellulose 25% Min. Wool	15% Non-fibrous (Other)	None Detected
25B *132401065-0060*	Portable Classrooms - Room 114 - 2x4 Fissured Ceiling Tile (Newer)	Gray/White Fibrous Homogeneous	60% Cellulose 25% Min. Wool	15% Non-fibrous (Other)	None Detected

Analyst(s)
John McCarthy (53)

Steve Grise, Laboratory Manager
or Other Approved Signatory

Initial report from: 02/27/2024 15:48:46

OrderID: 132401065

1324010 65

efi global

BOSTON NORTH
155 West Street | Suite 6 | Wilmington, MA 01887 | PHONE 978.688.3736 | FAX 978.688.5494 | FREE 800.659.1202

BULK SAMPLE CHAIN OF CUSTODY FORM

Report to (Inspector Name):	Michael McCarter	**Bill To:**	Accounts Payable
Company:	EFI Global, Inc.	**Address:**	Same
Address:	155 West Street	**City, State, Zip:**	Same
	Suite 6	**Telephone:**	800-659-1202
City, State, Zip:	Wilmington, MA 01887	**Email:**	US-EFIGlobal-BostonEnviroPC@efiglobal.com
Inspector Cell:	978-604-7662		

Project Information

Project No./ Description:	014.07795 Washington Elementary
Email Report to:	Michael.mccarter@efiglobal.com;
Alternate:	

Requested Turnaround Time:

☐ RUSH (6hr)	☐ 1 day (24hr)	☐ 2 day (48hr)	☑ 3 day (72hr)	☐ 5 day

Media and Methodology

Type of Analysis:	EPA Method 600/R-93/116	**Check for Positive Stop:**	X
Notes:		**Date Collected:**	2-22-24

Sample ID	Type of Material	Location
01A	1x1 white floor tile	Basement - Room 1
01B		↓
02A	- MASTIC	
02B	- ↓	
03A	Gypsum Board	Basement - Room 1
03B	↓	2nd floor Hall
04A	Joint compound	Basement - Room 1
04B		2nd floor Hall
05A	TAN 9x9 Cove Base MASTIC, TAN	Basement - Room 1
05B	↓	2nd floor - Hall

Total Number of Samples Submitted: 10

Samplers Name: Michael McCarter Samplers Signature: [signature]

Relinquished By (Client): Michael McCarter Date: 2-22-24 Time: _____

Received By (Lab): _____ Date: _____ Time: _____

REC'D EMSL-BOSTON FEB 23 2024

fx 8172-7451-6081

132401065

efi global
BOSTON NORTH
155 West Street | Suite 6 | Wilmington, MA 01887 | PHONE 978.688.3736 | FAX 978.688.5494 | FREE 800.659.1202

Sample ID	Type of Material	Location
06A	plaster finish coat	Basement Hall @ Room 1
06B	↓	↓ Boiler Rm Hall
06C	↓	↓ Room 11
06D	↓	1st fl - Rm 111
06E	↓	1st fl - Rm 104
06F	↓	2nd fl - Room 208
06G	↓	2nd fl - Room 201
07A	plaster base coat	Basement Hall @ Rm 1
07B	↓	↓ - Boiler Rm Hall
07C	↓	↓ - Room
07D	↓	1st f - Rm 111
07E	↓	↓ - Room 104
07F	↓	2nd floor - Room 208
07G	↓	↓ - Room 201
08A	2x4 fissured ceiling tile (old)	Basement Hall @ Rm 1
08B	↓	1st Hall
09A	2x4 fissured ceiling tile (newer)	Basement Hall @ Rm 1
09B	↓	1st Hall
10A	Rubber floor adhesive	Gym
10B	↓	↓
11A	12x12 white w gray ft	1st floor Nurse
11D	↓	↓
12A		- MASTIC, TAN
12B		- ↓
13A	Carpet adhesive on wood	1st flor Hall
13D	yellow/black	↓

Project Number/Description 014.07795 Washington Elem

Page 2 of 3

REC'D EMSL-BOSTON FEB 23 2024

OrderID: 132401065

132401065

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BOSTON NORTH
155 West Street | Suite 6 | Wilmington, MA 01887 | PHONE 978.688.3736 | FAX 978.688.5494 | FREE 800.659.1202

Sample ID	Type of Material	Location
14A	12x12 Green floor tile	Room 205
14B	↓	Room 207
15A	↓ - MASTIC, Black	Room 205
15B	↓ - ↓	Room 207
16A	Black vinyl Cove Base Adhesive	Room 205
16B	↓	Room 207
17A	Grey floor tile under carpet	2nd floor M.N Hall
17B	↓	↓
18A	↓ - MASTIC Black	↓
18B	↓ - ↓	↓
19A	Carpet Adhesive, TAN	2nd floor Hall
19B	↓	↓
20A	2x4 fissured ceiling tile (old)	portable classrooms - Rm 114
20B	↓	- Rm 113
21A	Gypsum Board wall Panels	- Rm 114
21B	↓	- Rm 113
22A	Joint compound	- Room 114
22B	↓	- ↓
23A	TAN Vinyl Cove Base Adhesive, TAN	- Rm 113
23B	↓	- Rm, 114
24A	Carpet Adhesive, TAN	- Rm 113
24B	↓	- Rm 114
25A	2x4 fissured ceiling tile (Newer)	- Room 113
25B	↓	- Rm 114

Project Number/Description 014 07795
Washington Elem.

Page 3 of 3

REC'D EMSL-BOSTON FEB 23 2024

ATTACHMENT E

LICENSES AND TRAINING CERTIFICATES OF ASBESTOS INSPECTOR & MANAGEMENT PLANNER

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Michael Flanagan
Director

ASBESTOS INSPECTOR

MICHAEL MCCARTER

Eff.Date: 09/11/2023
Exp.Date: 09/10/2024
AI001825

Member C.O.N.E.S.

24

This is to certify that

Michael L McCarter

7 Millstone Road, Windham, NH 03087

MA DLS Asbestos Inspector License# AI001825

has completed requisite training by Video Conference, and has passed an examination for reaccreditation as:

Asbestos Inspector Refresher

pursuant to Title II of the Toxic Substance Control Act, 15 U.S.C. 2646

Course Location

Zoom Video Conference

Institute for Environmental Education 16 Upton Drive Wilmington, MA 01887

April 21, 2023
Course Dates

23-4804-106-219102
Certificate Number

April 21, 2023
Examination Date

April 21, 2024
Expiration Date

Training Director

16 Upton Drive, Wilmington, MA 01887 Telephone 978.658.5272 www.ieetrains.com

INSTITUTE FOR ENVIRONMENTAL EDUCATION

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Michael Flanagan
Director

ASBESTOS MANAGEMENT PLANNER

JENNIFER L. ARCHACKI
Eff.Date: 12/20/2023
Exp.Date: 12/19/2024
AP033118

Member C.O.N.E.S.

24

This is to certify that

Jennifer L. Archacki

31 Pickman Rd., Salem, MA 01970

MA DLS Asbestos Management Planner License# AP033118

INSTITUTE FOR ENVIRONMENTAL EDUCATION

has completed the requisite training by Video Conference, and has passed an examination for reaccreditation

Asbestos Management Planner Refresher

pursuant to Title II of the Toxic Substance Control Act, 15 U.S.C. 2646

Course Location

Zoom Video Conference

Institute for Environmental Education 16 Upton Drive Wilmington, MA 01887

April 21, 2023
Course Dates

23-4930-136-200894
Certificate Number

April 21, 2023
Examination Date

April 21, 2024
Expiration Date

Training Director

16 Upton Drive, Wilmington, MA 01887 Telephone 978.658.5272 www.ieetrains.com

INSTITUTE FOR ENVIRONMENTAL EDUCATION