



APPENDIX A

HAZMAT ASSESSMENT



HAZARDOUS MATERIALS SUMMARY REPORT

Roof Replacement Project

**Town Of Amherst
Amherst Pelham Regional Middle School
170 Chestnut Street
Amherst, Massachusetts**

July 2025

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1.0 INTRODUCTION

CDW Consultants, Inc. (CDW) conducted a hazardous building materials (HBM) survey of the roofs at the Amherst Pelham Regional Middle School located at 170 Chestnut in Amherst, Massachusetts (Site). The HBM survey was conducted by CDW in support of the proposed roof renovations.

On June 30, July 1 and 2, 2025, Bryant Dana (Massachusetts Asbestos Inspector #AI901229) conducted an inspection for suspect asbestos containing materials (ACM). An inspection is required by the United States Environmental Protection Agency (USEPA) National Emission Standards for Hazardous Air Pollutants (NESHAP), prior to scheduled building renovations or demolitions. Additionally, the Massachusetts Department of Environmental Protection (MassDEP) regulates ACM associated with renovation, demolition, and asbestos abatement projects.

2.0 PROJECT UNDERSTANDING

The scope of the work was to provide an HBM survey in support of the proposed roof renovations at the Amherst Pelham Regional Middle School. The HBM survey consisted of a visual survey of all visually accessible areas, to identify suspect building materials and perform limited sampling, including roof cuts and miscellaneous sampling, for potential hazardous materials samples for analytical analysis for ACM and LBP. The HBM survey included all accessible roofs.

3.0 GENERAL SITE CONDITIONS

The roof at the Amherst Pelham Regional Middle School has approximately 129,000 square feet of roofs. The Amherst Pelham Regional Middle School is separated into three sections. The three sections consist of the recreation building (pool/gyms), auditorium, and the main school building. Throughout the three roof sections, metal decking was primarily used with concrete decking present in a few locations.

4.0 REPORTS REVIEW

There were no previous reports available for review.

5.0 ASBESTOS SURVEY

5.1 Methods

The investigative work for the asbestos survey included conducting a visual inspection of physically accessible areas of the subject areas. Once the visual inspection was completed, the building components were categorized into homogeneous areas. CDW collected limited bulk samples of different homogeneous suspect materials for asbestos analysis. The bulk samples were delivered under chain of custody to Asbestos Identification Laboratory, Inc. (AIL) located in Woburn, Massachusetts. AIL is a state licensed (AA000208) and NVLAP-accredited laboratory

(lab code #200919-0) for asbestos analysis. Bulk samples were analyzed for asbestos content by polarized light microscopy (PLM) using USEPA Method 600/R-93/116. A positive stop method was used – if one sample in a homogeneous group is positive then additional samples of the same material are not analyzed. Samples analyzed to contain greater than 1% asbestos are to be treated as ACM as defined by the USEPA and Commonwealth of Massachusetts Department of Environmental Protection (MassDEP). Photographs are provided in Appendix A. The asbestos analytical report is provided in Appendix B.

5.2 Findings

Findings are listed in the table below.

Sample ID	Material	Location	Asbestos%
1A,B	Dark Gray Caulk on Flashing	Roof over Swimming Pool/Gyms	ND
2A,B	Gray Caulk (Expansion Joint)	Roof over Swimming Pool/Gyms	ND
3A,B	Gray Caulk on Louver	Roof over Swimming Pool/Gyms	ND
4A,B	Dark Gray Caulk on Flashing of Chimney	Roof over Swimming Pool/Gyms	ND
5A,B	Excess Tar on Brick Wall	Roof over Swimming Pool/Gyms	ND
6A,B	White Caulk on Sides (Ends) of Flashing	Roof over Swimming Pool/Gyms	ND
7A,B	White Sealant on HVAC Vent Hood	Roof over Swimming Pool/Gyms	ND
8A,B	Dark Gray Caulk on HVAC Vent Hood	Roof over Swimming Pool/Gyms	ND
9A,B	Gray Sealant on Gutter	Roof over Auditorium	Chrysotile 2%
10A,B,C	Gray Caulking on Flashing	Roof over Auditorium	ND
11A,B	Dark Gray Caulk Under Gray Caulk on Flashing (in some locations)	Roof over Auditorium	ND
12A,B	White Caulk on Flashing	Roof over Auditorium	ND
13A,B	Gray Expansion Joint	Roof over Auditorium	ND
Roof Core 1A	Glue/Adhesive on Rubber Membrane	(Pool/Gyms) Top Layer	ND

Sample ID	Material	Location	Asbestos%
Roof Core 1B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	ND
Roof Core 1C	Tar	(Pool/Gyms) Top of Metal Deck	ND
Roof Core 2A	Glue/Adhesive on Rubber Membrane	(Pool/Gyms) Top Layer	ND
Roof Core 2B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	ND
Roof Core 3A	Glue/Adhesive on Rubber Membrane	(Pool/Gyms) Top Layer	ND
Roof Core 3B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	ND
Roof Core 3C	Tar	(Pool/Gyms) Top of Metal Deck	ND
Roof Core 4A	Glue/Adhesive on Rubber Membrane	(Pool/Gyms) Top Layer	ND
Roof Core 4B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	ND
Roof Core 4C	Tar	(Pool/Gyms) Top of Metal Deck	ND
Roof Core 5A	Glue/Adhesive on Rubber Membrane	(Pool/Gyms) Top Layer	ND
Roof Core 5B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	ND
Roof Core 5C	Tar/Fiberboard	(Pool/Gyms) Top of Metal Deck	ND
Roof Core 6A	Glue/Adhesive on Rubber Membrane	(Pool/Gyms) Top Layer	ND
Roof Core 6B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	ND
Roof Core 6C	Tar/Fiberboard	(Pool/Gyms) Top of Metal Deck	ND
Roof Core 7A	Glue/Adhesive on Rubber Membrane	(Pool/Gyms) Top Layer	ND
Roof Core 7B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	ND
Roof Core 7C	Tar/Fiberboard	(Pool/Gyms) Top of Metal Deck	ND
Roof Core 8A	Glue/Adhesive on Rubber Membrane	(Pool/Gyms) Top Layer	ND
Roof Core 8B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	ND
Roof Core 8C	Tar	(Pool/Gyms)	ND

Sample ID	Material	Location	Asbestos%
		Top of Metal Deck	
Curb Cut 1A	Glue/Adhesive on Rubber	(Pool/Gyms) Top Layer	ND
Roof Core 9A	Glue/Adhesive on Rubber Membrane	(Pool/Gyms) Top Layer	ND
Roof Core 9B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	ND
Roof Core 10A	Glue/Adhesive on Rubber Membrane	(Pool/Gyms) Top Layer	ND
Roof Core 10B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	ND
Roof Core 10C	Tar	(Pool/Gyms) Top of Metal Deck	ND
Roof Core 11A	Glue/Adhesive on Rubber Membrane	(Pool/Gyms) Top Layer	ND
Roof Core 11B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	ND
Curb Cut 2A	Glue/Adhesive on Rubber	(Pool/Gyms) (Chimney) Top Layer	ND
Roof Core 12A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 12B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 13A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 13B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 14A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 14B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 15A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 15B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 16A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 16B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 16C	Tar on Concrete Deck	(Auditorium) Top of Concrete Deck	ND

Sample ID	Material	Location	Asbestos%
Roof Core 17A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 17B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 18A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 18B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 18C	Tar on Concrete Deck	(Auditorium) Top of Concrete Deck	ND
Curb Cut 3A	Glue/Adhesive on Rubber	(Auditorium) Top Layer	ND
Curb Cut 3B	Tar (Vapor Barrier)	(Auditorium) On Wall	ND
Curb Cut 4A	Glue/Adhesive on Rubber	(Auditorium) Top Layer	ND
Curb Cut 4B	Insulation	(Auditorium) Between Rubber and Wall	ND
Curb Cut 4C	Tar (Vapor Barrier)	(Auditorium) On Wall	ND
Roof Core 19A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 19B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 19C	Tar/Fiberboard	(Auditorium) Top of Metal Deck	ND
Roof Core 20A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 20B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 20C	Tar/Fiberboard	(Auditorium) Top of Metal Deck	ND
Roof Core 21A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 21B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 21C	Tar/Fiberboard	(Auditorium) Top of Metal Deck	ND
Curb Cut 5A	Glue/Adhesive on Rubber	(Auditorium) Top Layer	ND
Curb Cut 5B	Insulation	(Auditorium) Between Rubber and	ND

Sample ID	Material	Location	Asbestos%
		Wall	
Curb Cut 5C	Tar (Vapor Barrier)	(Auditorium) On Wall	ND
Roof Core 22A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 22B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 22C	Tar	(Auditorium) Top of Deck	ND
Roof Core 23A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 23B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 24A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 24B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 24C	Tar/Fiberboard	(Auditorium) Top of Deck	ND
Curb Cut 6A	Glue/Adhesive on Rubber	(Auditorium) Top Layer	ND
Curb Cut 6B	Insulation	(Auditorium) Between Rubber and Wall	ND
Curb Cut 6C	Tar (Vapor Barrier)	(Auditorium) On Wall	Chrysotile 5%
Curb Cut 7A	Glue/Adhesive on Rubber	(Auditorium) Top Layer	ND
Curb Cut 7B	Insulation	(Auditorium) Between Rubber and Wall	ND
Roof Core 25A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 25B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 25C	Tar/Fiberboard	(Auditorium) Top of Deck	ND
Roof Core 26A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 26B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 26C	Tar/Fiberboard	(Auditorium) Top of Deck	ND

Sample ID	Material	Location	Asbestos%
Curb Cut 8A	Glue/Adhesive on Rubber	(Auditorium) Top Layer	ND
Curb Cut 8B	Insulation	(Auditorium) Between Rubber and Wall	ND
Curb Cut 8C	Tar (Vapor Barrier)	(Auditorium) On Wall	ND
Roof Core 27A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 27B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 27C	Tar/Fiberboard	(Auditorium) Top of Deck	
Roof Core 28A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 28B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 28C	Tar/Fiberboard	(Auditorium) Top of Deck	Chrysotile <1%
Roof Core 29A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 29B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 29C	Tar	(Auditorium) Top of Concrete Deck	ND
Roof Core 30A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 30B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 30C	Tar/Fiberboard	(Auditorium) Top of Deck	ND
Roof Core 31A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 31B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 31C	Tar/Fiberboard	(Auditorium) Top of Deck	ND
Curb Cut 9A	Glue/Adhesive on Rubber	(Auditorium) Top Layer	ND
Curb Cut 9B	Insulation	(Auditorium) Between Rubber and Wall	ND
Curb Cut 9C	Tar (Vapor Barrier)	(Auditorium)	ND

Sample ID	Material	Location	Asbestos%
		On Wall	
Curb Cut 10A	Glue/Adhesive on Rubber	(Auditorium) Top Layer	ND
Curb Cut 10B	Insulation	(Auditorium) Between Rubber and Wall	ND
Curb Cut 10C	Tar (Vapor Barrier)	(Auditorium) On Wall	ND
Roof Core 32A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 32B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 32C	Tar/Fiberboard	(Auditorium) Top of Deck	ND
Roof Core 33A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 33B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 33C	Tar/Fiberboard	(Auditorium) Top of Deck	ND
Curb Cut 11A	Glue/Adhesive on Rubber	(Auditorium) Top Layer	ND
Curb Cut 11B	Insulation	(Auditorium) Between Rubber and Wall	ND
Curb Cut 11C	Tar (Vapor Barrier)	(Auditorium) On Wall	Chrysotile 20%
Roof Core 34A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 34B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 34C	Tar/Fiberboard	(Auditorium) Top of Deck	ND
Curb Cut 12A	Glue/Adhesive on Rubber	(Auditorium) Top Layer	ND
Curb Cut 12B	Insulation	(Auditorium) Between Rubber and Wall	ND
Curb Cut 12C	Tar (Vapor Barrier)	(Auditorium) On Wall	ND
Roof Core 35A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND

Sample ID	Material	Location	Asbestos%
Roof Core 35B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 35C	Tar/Fiberboard	(Auditorium) Top of Deck	ND
Roof Core 36A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 36B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 36C	Tar	(Auditorium) Top of Concrete Deck	ND
Roof Core 37A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 37B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 37C	Tar	(Auditorium) Top of Concrete Deck	ND
Curb Cut 13A	Glue/Adhesive on Rubber	(Auditorium) Top Layer	ND
Curb Cut 13B	Insulation	(Auditorium) Between Rubber and Wall	ND
Curb Cut 13C	Tar (Vapor Barrier)	(Auditorium) On Wall	ND
Curb Cut 14A	Glue/Adhesive on Rubber	(Auditorium) Top Layer	ND
Curb Cut 14B	Insulation	(Auditorium) Between Rubber and Wall	ND
Curb Cut 14C	Tar (Vapor Barrier)	(Auditorium) On Wall	ND
Roof Core 38A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 38B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 38C	Brick	(Auditorium) Top of Deck	ND
Roof Core 38D	Tar on Brick	(Auditorium) Top of Deck	ND?
Roof Core 38E	Tar/Fiberboard	(Auditorium) Top of Metal Deck	ND
Curb Cut 15A	Glue/Adhesive on Rubber	(Auditorium) Top Layer	ND
Curb Cut 15B	Insulation	(Auditorium)	ND

Sample ID	Material	Location	Asbestos%
		Between Rubber and Wall	
Curb Cut 15C	Tar (Vapor Barrier)	(Auditorium) On Wall	ND
Roof Core 39A	Glue/Adhesive on Rubber Membrane	(Auditorium) Top Layer	ND
Roof Core 39B	Tar Paper	(Auditorium) Top/Bottom of Foam	ND
Roof Core 40A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 40B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Curb Cut 16A	Glue/Adhesive on Rubber	(Main School) Top Layer	ND
Roof Core 41A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 41B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 41C	Tar	(Main School) Top of Deck	ND
Roof Core 42A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 42B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 42C	Tar	(Main School) Top of Deck	ND
Roof Core 43A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 43B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Curb Cut 17A	Glue/Adhesive on Rubber	(Main School) Top Layer	ND
Curb Cut 17B	Tar on Wood	(Main School) On Wall	ND
Roof Core 44A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 44B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 44C	Tar	(Main School) Top of Deck	ND
Curb Cut 18A	Glue/Adhesive on Rubber	(Main School) Top Layer	ND
Roof Core 45A	Glue/Adhesive on	(Main School)	ND

Sample ID	Material	Location	Asbestos%
	Rubber Membrane	Top Layer	
Roof Core 45B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Curb Cut 19A	Glue/Adhesive on Rubber	(Main School) Top Layer	ND
Curb Cut 20A	Glue/Adhesive on Rubber	(Main School) Top Layer	ND
Curb Cut 21A	Glue/Adhesive on Rubber	(Main School) Top Layer	ND
Roof Core 46A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 46B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 47A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 47B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 47C	Tar	(Main School) Top of Metal Deck	ND
Roof Core 48A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 48B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 48C	Tar	(Main School) Top of Deck	Chrysotile 3%
Roof Core 49A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 49B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 50A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 50B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 50C	Tar	(Main School) Top of Deck	Chrysotile 2%
Roof Core 51A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 51B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 51C	Tar/Fiberboard	(Main School) Top of Deck	ND
Roof Core 52A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND

Sample ID	Material	Location	Asbestos%
Roof Core 52B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 52C	Tar/Fiberboard	(Main School) Top of Deck	ND
Roof Core 53A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 53B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 54A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 54B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 54C	Tar/Fiberboard	(Main School) Top of Deck	ND
Curb Cut 22A	Glue/Adhesive on Rubber	(Main School) Top Layer	ND
Roof Core 55A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 55B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 55C	Tar/Fiberboard	(Main School) Top of Deck	ND
Curb Cut 23A	Glue/Adhesive on Rubber	(Main School) Top Layer	ND
Curb Cut 23B	Tar (Vapor Barrier)	(Main School) On Wall	ND
Roof Core 56A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 56B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 57A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 57B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Curb Cut 24A	Glue/Adhesive on Rubber	(Main School) Top Layer (Rubber Membrane to Brick)	ND
Curb Cut 25A	Glue/Adhesive on Rubber	(Main School) Top Layer (Wood Wall)	ND
Roof Core 58A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 58B	Tar Paper	(Main School)	ND

Sample ID	Material	Location	Asbestos%
		Top/Bottom of Foam	
Roof Core 58C	Tar/Fiberboard	(Main School) Top of Deck	ND
Roof Core 59A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 59B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 59C	Tar/Fiberboard	(Main School) Top of Deck	ND
Roof Core 60A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 60B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 60C	Tar/Fiberboard	(Main School) Top of Deck	ND
Roof Core 61A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 61B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 61C	Tar/Fiberboard	(Main School) Top of Deck	ND
Curb Cut 26A	Glue/Adhesive on Rubber	(Main School) On Chimney (Rubber to Wood)	ND
Roof Core 62A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 62B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 63A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 63B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Curb Cut 27A	Glue/Adhesive on Rubber	(Main School) Top Layer (Rubber Membrane to Brick)	ND
Curb Cut 28A	Glue/Adhesive on Rubber	(Main School) Top Layer (On Wood)	ND
Roof Core 64A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 64B	Tar Paper	(Main School) Top/Bottom of Foam	ND

Sample ID	Material	Location	Asbestos%
Roof Core 64C	Tar/Fiberboard	(Main School) Top of Deck	ND
Roof Core 65A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 65B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 65C	Tar/Fiberboard	(Main School) Top of Deck	ND
Roof Core 66A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 66B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 66C	Tar/Fiberboard	(Main School) Top of Deck	ND
Roof Core 67A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 67B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 67C	Tar/Fiberboard	(Main School) Top of Deck	ND
Roof Core 68A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 68B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 68C	Tar/Fiberboard	(Main School) Top of Deck	ND
Roof Core 69A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 69B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 69C	Tar/Fiberboard	(Main School) Top of Deck	ND
Roof Core 70A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 70B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 70C	Tar/Fiberboard	(Main School) Top of Deck	ND
Roof Core 71A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 71B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 71C	Tar/Fiberboard	(Main School) Top of Deck	ND

Sample ID	Material	Location	Asbestos%
		Deck	
Roof Core 72A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 72B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 72C	Tar/Fiberboard	(Main School) Top of Deck	ND
Roof Core 73A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 73B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 73C	Tar/Fiberboard	(Main School) Top of Deck	ND
Roof Core 74A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 74B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 74C	Tar/Fiberboard	(Main School) Top of Deck	ND
Roof Core 75A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 75B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 76A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 76B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 76C	Tar/Fiberboard	(Main School) Top of Deck	ND
Roof Core 77A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 77B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 77C	Tar/Fiberboard	(Main School) Top of Deck	ND
Roof Core 78A	Glue/Adhesive on Rubber Membrane	(Main School) Top Layer	ND
Roof Core 78B	Tar Paper	(Main School) Top/Bottom of Foam	ND
Roof Core 78C	Tar/Fiberboard	(Main School) Top of Deck	ND
Roof Core 79A	Glue/Adhesive on Rubber Membrane	(Main School) (School Entrance)	ND

Sample ID	Material	Location	Asbestos%
		Top Layer	
Roof Core 79B	Tar Paper	(Main School) (School Entrance) Top/Bottom of Foam	ND
Roof Core 79C	Tar/Fiberboard	(Main School) (School Entrance) Top of Deck	ND
Roof Core 80A	Glue/Adhesive on Rubber Membrane	(Main School) (School Entrance) Top Layer	ND
Roof Core 80B	Tar Paper	(Main School) (School Entrance) Top/Bottom of Foam	ND
Roof Core 80C	Tar/Fiberboard	(Main School) (School Entrance) Top of Deck	ND
Roof Core 81A	Glue/Adhesive on Rubber Membrane	(Main School) (School Entrance) Top Layer	ND
Roof Core 81B	Tar Paper	(Main School) (School Entrance) Top/Bottom of Foam	ND
Roof Core 81C	Tar/Fiberboard	(Main School) (School Entrance) Top of Deck	ND
Roof Core 82A	Glue/Adhesive on Rubber Membrane	(Pool/Gyms) (Over Boiler Room) Top Layer	ND
Roof Core 82B	Tar Paper	(Pool/Gyms) (Over Boiler Room) Top/Bottom of Foam	ND
Roof Core 83A	Glue/Adhesive on Rubber Membrane	(Pool/Gyms) (Over Boiler Room) Top Layer	ND
Roof Core 83B	Tar Paper	(Pool/Gyms) (Over Boiler Room) Top/Bottom of Foam	ND
Curb Cut 29A	Glue/Adhesive on Rubber Membrane	(Pool/Gyms) (Over Boiler Room) Top Layer	ND
14A,B,C	Dark Gray Sealant	Under Finishing over Auditorium Entrance	ND
15A,B	Dark Gray Sealant	On Roof Drains	ND

Sample ID	Material	Location	Asbestos%
		(Auditorium)	
16A,B	Tar	On Hatch (Auditorium)	ND
17A,B	Dark Gray Caulk	On Flashing (Main School Roof Chimney)	ND
18A,B	Dark Gray Caulk	On Flashing (Main School Roof Above Library)	ND
19A,B	Gray Caulk	On Flashing - Sides (Main School Roof Above Library)	ND
20A,B	Dark Gray Caulk	Under Flashing (Main School Roof Above Library)	ND
21A,B	Gray Caulk	On Brick Wall On Flashing (Main School Roof Above Library)	ND
22A,B	Tar	On HVAC Units (Main School Roof)	ND
23A,B	Gray Caulk	On Bolts on HVAC Units (Main School Roof)	ND
24A,B	Gray Caulk	on HVAC Units (Main School Roof)	ND
25A,B	Gray Caulk w/ Black Coating	on HVAC Unit (Main School Roof)	ND
26A,B	Gray Caulk	Communication Tower (Main School Roof)	ND
27A,B	Dark Gray Caulk	on Mitsubishi Electric Unit Conduit (Main School Roof)	ND
28A,B	Black Window Glaze	School Entrance Roof	ND
29A,B	Dark Gray Window Caulk	School Entrance Roof	ND
30A,B	Black Caulk	On Flashing Between Window Units (School Entrance Roof)	ND
31A,B	White Caulk	Under Flashing	Chrysotile 5%

Sample ID	Material	Location	Asbestos%
		(School Entrance Roof)	
32A,B	Dark Gray Caulk	On Flashing/Bolts (School Entrance Roof)	ND
33A,B	Black Caulk	On Brick Conduit (School Entrance Roof)	ND
34A,B	Gray Caulk	On Flashing (Pool/Gyms) (Boiler Room)	ND

ND = Not Detected

Chrysotile = Asbestos Mineral

Refer to the table below for quantities of confirmed positive ACM and presumed ACM.

Material	Location	Quantity	Units
Gray Sealant on Gutter	Roof over Auditorium	100	LF
Tar (Vapor Barrier)	(Auditorium) On Wall	600*	SF
Tar	(Main School) Top of Deck	76,000**	SF
White Caulk	Under Flashing (School Entrance Roof)	20	LF

SF = Square Feet

LF = Linear Feet

EA = Each

* = The quantity includes entire curb associated with the auditorium roof due to homogenous material

** = The quantity includes the whole main school roof (excludes the main school entrance roof and two roofs connecting the library and main school) due to homogenous material. However, the tar does not cover the entire roof. The tar was not mopped onto the roof; it was spread throughout and used as an adhesive.

5.3 Recommendations

ACM that will be impacted by renovation or demolition work must be removed before they are disturbed. This work must be conducted in accordance with a project design as prepared by a licensed Asbestos Abatement Project Designer. This report is not intended for use as an abatement design. Prior to disturbance, the ACM identified must be abated by a Commonwealth of Massachusetts-licensed asbestos abatement contractor following all federal, state & local regulations governing asbestos abatement. A copy of the asbestos Waste Shipment record must be received within 35 days of removal from the Site. Asbestos air quality sampling must be conducted

under USEPA regulations following asbestos abatement and prior to re-occupancy of the spaces. If additional materials are discovered that have not yet been sampled, those materials should be considered ACMs until laboratory analysis determines otherwise. During renovation or demolition work, it is possible that additional suspect ACM will be encountered in areas such as subsurface tunnels, behind fixed walls, etc. and will need to be confirmed prior to disturbance. Contractors should conduct any such work in a controlled manner.

6.0 LEAD-BASED PAINT

6.1 Methods

CDW performed a visual inspection of painted surfaces. CDW collected samples from different color paints on various types of building component substrates. Samples were submitted to Aerobiology Laboratory Associates Incorporated, A Pace Laboratory, located in Woburn, Massachusetts for analysis via Atomic Absorption Spectrometry (AAS).

6.2 Findings

The results of the laboratory analysis are provided in the table below.

Sample ID	Sample Description/Location	Lead Concentration (% Weight)
LBP – 1	Maroon Paint on Louver – Roof over Swimming Pool	1.11
LBP – 2	Black Paint on Siding – Pool/Gyms Roof	0.132
LBP – 3	Black Paint on Siding – Auditorium Roof	<RL
LBP – 4	Black Paint on Siding – Main School Roof	0.113
LBP – 5	Blue Paint under Siding / On Columns – Main School Roof Entrance	<RL

<RL = Below the Reporting Limit

The Environmental Protection Agency (USEPA) and US Department of Housing and Urban Development definitions define LBP as any paint or surface coating that contains lead equal to exceeding one milligram per square centimeter (1.0 mg/cm²) or 0.5% by weight. The OSHA lead-in-construction standard defines lead containing paint (LCP) as a paint or coating containing any detectable level of lead. Five (5) total samples were collected for laboratory analysis. Three (3) out of the five samples collected reported detection of lead. Only one of the samples reported a concentration above 0.5% by weight, which makes sample LBP-1, Maroon Paint on Louver, considered LBP. The laboratory analytical report is included in Appendix C.

6.3 Recommendations

Based on the conclusions of this testing, the following recommendations are offered:

- During demolition or renovation, workers must be protected from exposure to any concentration of lead in paint materials. These surfaces should not be sanded, scraped, drilled, or otherwise altered unless proper engineering controls are used to prevent migration of fugitive lead containing dust from the work area. Under OSHA regulations, any demolition or renovation to be performed at a structure where lead in paint and dust is present must be performed in accordance with a worker protection policy, including, but not limited to, appropriate training, medical monitoring, respiratory protection, and other protective equipment.
- In addition to the worker protection requirements stipulated by OSHA, MassDEP and the USEPA regulate the disposal of wastes that are potentially hazardous. Such wastes may include paint chips and residue generated during abatement or repainting work, or whole components, such as wood windows, doors, and trim that are coated with LBP and that are disposed of as the result of renovation or demolition work. To determine the required method for disposing of permeable items coated with LBP, the MassDEP and the USEPA require representative sampling of the debris to determine the quantity of lead that would be expected to leach into the environment if the debris were disposed of in a landfill. The representative sample(s) must be analyzed by the Toxicity Characteristic Leaching Process (TCLP) to determine the proper disposal method.

Limitations

The conclusions are limited to the information available at the time of the field survey and the scope of services, as defined. No subsurface soil or groundwater sampling and analysis was performed. Where access to portions of the Site or to structures on the site was unavailable or limited, CDW renders no opinion as to the presence of hazardous material or the presence of indirect evidence related to hazardous material in that portion of the site or structure. This report cannot be solely relied upon for renovation or demolition. The sampling performed forms the basis for conclusions expressed and areas inaccessible for testing limits those conclusions. No other conclusions, interpretations or recommendations are contained or implied in this report other than those expressed. While CDW followed industry standards during the inspection, we do not warrant that all suspect hazardous building materials were identified in or on the buildings and shall not be held liable related to future abatement costs related to hazardous materials that are either not discovered or not appropriately characterized. This is due in part to inherent problems with every building inspection, such as, but not limited to:

- Seemingly homogeneous materials that are not in fact homogeneous;
- Seemingly representative locations that are not in fact representative;
- Layered materials that are not uniformly present or are isolated;
- Materials that are present and accessible but were not considered to be hazardous;
- Materials that are present in an isolated and limited quantity; and
- Material that is present in locations that are unsafe or otherwise difficult to access.



Client acknowledges that CDW's inspection is limited, and all hazardous materials may only become apparent during the course of future renovation or demolition. During the course of future renovation/demolition work, it is likely that additional hazardous materials or materials suspected of being hazardous will be identified. Such materials should be assumed to be hazardous unless appropriate evaluation or sampling and analysis demonstrate otherwise. No other use of this report is warranted without the written consent of CDW Consultants, Inc.

CDW appreciates the opportunity to provide our services to you on this project.

Very truly yours,
CDW Consultants, Inc.

A handwritten signature in black ink, appearing to read "Bryant Dana".

Bryant Dana, Asbestos Inspector
Environmental Scientist/Assistant Project Manager

A handwritten signature in black ink, appearing to read "Susan Cahalan".

Susan Cahalan, PG, ISSP-SA
Associate/Senior Environmental Geologist

FIGURE



Amherst Regional Middle School

Positive Sample Locations - Auditorium Roof

Sample Curb Cut
6C - Tar (Vapor
Barrier) Chrysotile
5%

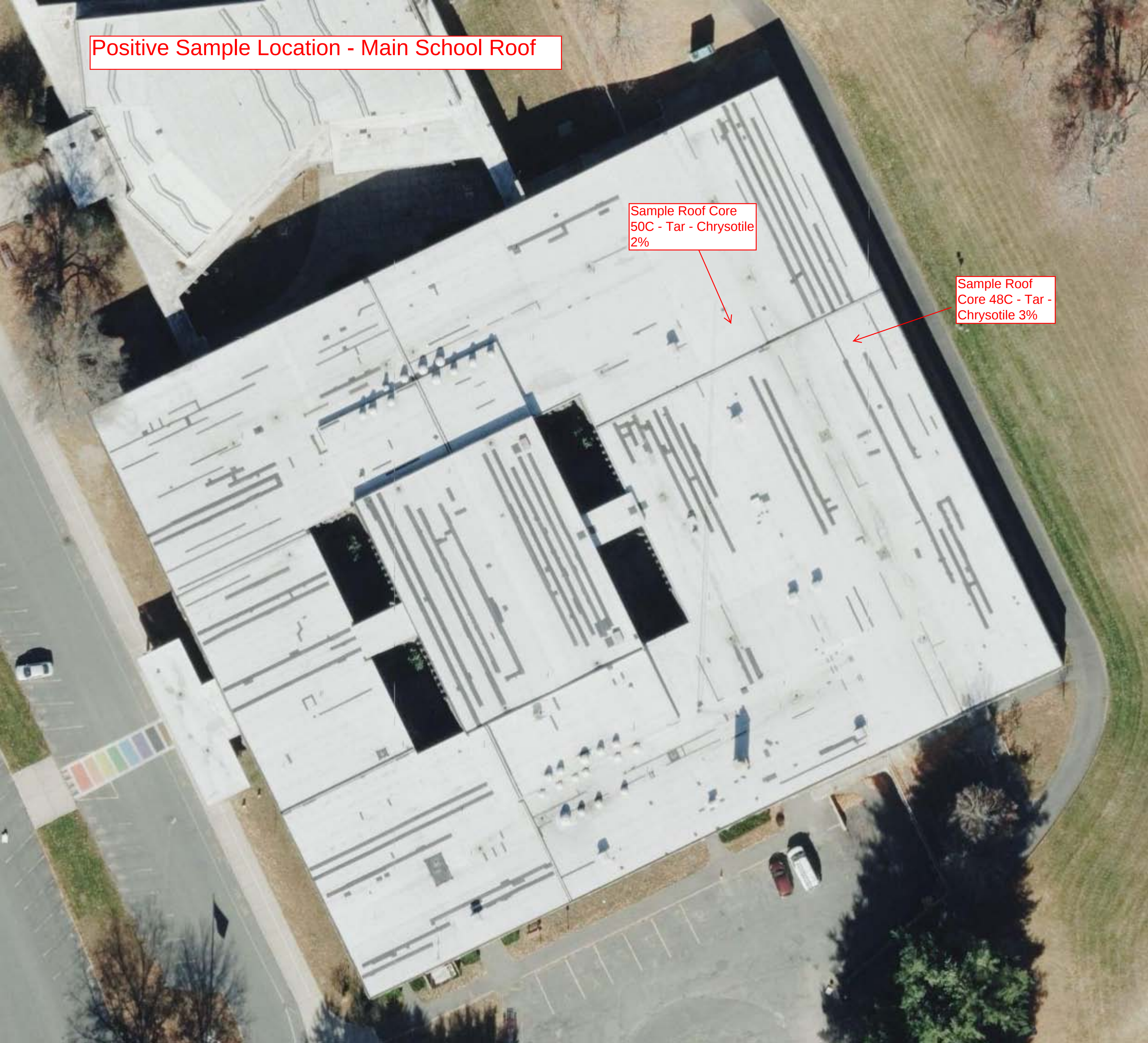
Sample 9AB - Gray
Sealant on Gutter
Chrysotile 2%

Sample Curb Cut
11C - Tar (Vapor
Barrier) Chrysotile
20%

Positive Sample Location - Main School Roof

Sample Roof Core
50C - Tar - Chrysotile
2%

Sample Roof
Core 48C - Tar -
Chrysotile 3%



APPENDIX A

Amherst Pelham Regional Middle School Photo Log

Recreation Roof











Auditorium Roof



The gutter shown in this photo contains a Gray Sealant that is positive for ACM.



The gutter shown in this photo contains a Gray Sealant that is positive for ACM. (Gutters on either end of the auditorium roof)





The curb (side wall) (circled in red) has a tar (vapor barrier) that is positive for ACM.



The curb (side wall) (circled in red) has a tar (vapor barrier) that is positive for ACM.











The last few photos show various curb cuts on the auditorium roof.

Main School Roof



The white caulk (circled in red) shown in this photo is positive for ACM.













The last few photos show various roof cores on the main school roof. As shown tar does not cover the entire roof. In two locations (roof cores) the tar was found to be positive for ACM.





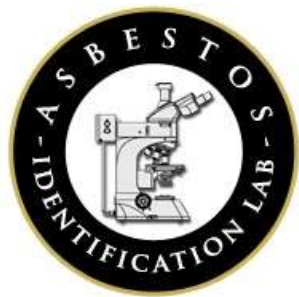
The last two photos show roof cores from the two roofs from the library to the main school. No tar was present on the metal deck.





The last two photos show roof cores from the roof above the main school entrance. The tar is mopped on this roof. The roof deck is concrete. Samples collected reported no detection of ACM.

APPENDIX B



Asbestos Identification Laboratory.

165 New Boston St., Ste 227
Woburn, MA 01801
781-932-9600

Web: www.asbestosidentificationlab.com Email:
mikemanning@asbestosidentificationlab.com



Batch: 138520

Bryant Dana
CDW Consultants, Inc.
6 Huron Drive
Natick, MA 01760

Project Information

Amherst Pelham Middle School

*Method: BULK PLM ANALYSIS,
EPA/600/R-93/116*

Dear Bryant Dana,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project. The Analysis Method is BULK PLM ANALYSIS, EPA/600/R-93/116. The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.

The EPA recommends you should assume vermiculite contains asbestos and not to disturb it. Airborne asbestos fibers present a health risk through inhalation, so the first step is to not disturb the material, which could release fibers into the air. If you disturb the insulation, you may inhale some asbestos fibers. The degree of health risk depends on how much and how often this occurred. If you choose to remove the vermiculite insulation, this work should be done by a trained and accredited asbestos abatement contractor that is separate and independent from the company that performed the assessment of the vermiculite insulation to avoid any conflict of interest. Link: "<https://www.epa.gov/asbestos/my-attic-has-vermiculite-insulation-it-am-i-risk-should-i-take-it-out>" | US EPA"

Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Information provided by the customer can affect the validity of results. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. Samples containing subsamples or layers will be analyzed separately when applicable. Reports are kept at Asbestos Identification Laboratory for three years. All customer information will be maintained in confidentiality. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

- NVLAP Lab Code: 200919-0
- Massachusetts Certification License: AA000208
- State of Connecticut, Department of Public Health Approved Environmental Laboratory Registration Number: PH-0142
- State of Maine, Department of Environmental Protection Asbestos Analytical Laboratory License Number: LB-0078(Bulk) LA-0087(Air)
- State of Rhode Island and Providence Plantations. Department of Health Certification: AAL-121
- State of Vermont, Department of Health Environmental Health License AL934461

Thank you Bryant Dana for your business.

Michael Manning
Owner/Director

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
1A	Dark Gray Caulk on Flashing	Roof Over Swimming Pool/Gyms	gray	Non-Fibrous 100	None Detected
1556719					
1B	Dark Gray Caulk on Flashing	Roof Over Swimming Pool/Gyms	gray	Non-Fibrous 100	None Detected
1556720					
2A	Gray Caulk (Expansion Joint)	Roof Over Swimming Pool/Gyms	gray	Non-Fibrous 100	None Detected
1556721					
2B	Gray Caulk (Expansion Joint)	Roof Over Swimming Pool/Gyms	gray	Non-Fibrous 100	None Detected
1556722					
3A	Gray Caulk on Louver	Roof Over Swimming Pool/Gyms	gray	Non-Fibrous 100	None Detected
1556723					
3B	Gray Caulk on Louver	Roof Over Swimming Pool/Gyms	gray	Non-Fibrous 100	None Detected
1556724					
4A	Dark Gray Caulk on Flashing of Chimney	Roof Over Swimming Pool/Gyms	brown	Non-Fibrous 100	None Detected
1556725					
4B	Dark Gray Caulk on Flashing of Chimney	Roof Over Swimming Pool/Gyms	brown	Non-Fibrous 100	None Detected
1556726					
5A	Excess Tar on Brick Wall	Roof Over Swimming Pool/Gyms	black	Non-Fibrous 100	None Detected
1556727					
5B	Excess Tar on Brick Wall	Roof Over Swimming Pool/Gyms	black	Non-Fibrous 100	None Detected
1556728					
6A	White Caulk on Sides (Ends) of Flashing	Roof Over Swimming Pool/Gyms	white	Non-Fibrous 100	None Detected
1556729					
6B	White Caulk on Sides (Ends) of Flashing	Roof Over Swimming Pool/Gyms	white	Non-Fibrous 100	None Detected
1556730					
7A	White Sealant on HVAC Vent Hood	Roof Over Swimming Pool/Gyms	white	Non-Fibrous 100	None Detected
1556731					
7B	White Sealant on HVAC Vent Hood	Roof Over Swimming Pool/Gyms	white	Non-Fibrous 100	None Detected
1556732					
8A	Dark Gray Caulk on HVAC Vent Hood	Roof Over Swimming Pool/Gyms	gray	Non-Fibrous 100	None Detected
1556733					
8B	Dark Gray Caulk on HVAC Vent Hood	Roof Over Swimming Pool/Gyms	gray	Non-Fibrous 100	None Detected
1556734					
9A	Gray Sealant on Gutter	Roof Over Auditorium	gray	Non-Fibrous 98	Detected Chrysotile 2
1556735					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
9B	Gray Sealant on Gutter	Roof Over Auditorium			Not Analyzed
1556736					
10A	Gray Caulking on Flashing	Roof Over Auditorium	gray	Non-Fibrous 100	None Detected
1556737					
10B	Gray Caulking on Flashing	Roof Over Auditorium	gray	Non-Fibrous 100	None Detected
1556738					
10C	Gray Caulking on Flashing	Roof Over Auditorium	gray	Non-Fibrous 100	None Detected
1556739					
11A	Dark Gray Caulk Under Gray Caulk on Flashing (in same locations)	Roof Over Auditorium	multi	Non-Fibrous 100	None Detected
1556740					
11B	Dark Gray Caulk Under Gray Caulk on Flashing (in same locations)	Roof Over Auditorium	multi	Non-Fibrous 100	None Detected
1556741					
12A	White Caulk on Flashing	Roof Over Auditorium	white	Non-Fibrous 100	None Detected
1556742					
12B	White Caulk on Flashing	Roof Over Auditorium	white	Non-Fibrous 100	None Detected
1556743					
13A	Gray Expansion Joint	Roof Over Auditorium	gray	Non-Fibrous 100	None Detected
1556744					
13B	Gray Expansion Joint	Roof Over Auditorium	gray	Non-Fibrous 100	None Detected
1556745					
Roof Core 1A	Glue/Adhesive on Rubber Membrane	(Pool/Gyms) Top Layer	yellow	Non-Fibrous 100	None Detected
1556746					
Roof Core 1B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	black	Fiberglass 20	None Detected
1556747				Cellulose 35 Non-Fibrous 45	
Roof Core 1C	Tar	(Pool/Gyms) Top of Metal Deck	black	Non-Fibrous 100	None Detected
1556748					
Roof Core 2A	Glue/Adhesive on Rubber	(Pool/Gyms) Top Layer	yellow	Non-Fibrous 100	None Detected
1556749					
Roof Core 2B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	black	Fiberglass 20	None Detected
1556750				Cellulose 35 Non-Fibrous 45	
Roof Core 3A	Glue/Adhesive on Rubber	(Pool/Gyms) Top Layer	yellow	Non-Fibrous 100	None Detected
1556751					

FieldID	Material	Location	Color	Non-Asbestos %		Asbestos %
LabID						
Roof Core 3B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	black	Fiberglass	20	None Detected
1556752				Cellulose	35	
				Non-Fibrous	45	
Roof Core 3C	Tar	(Pool/Gyms) Top of Metal Deck	black	Non-Fibrous	100	None Detected
1556753						
Roof Core 4A	Glue/Adhesive on Rubber	(Pool/Gyms) Top Layer	yellow	Non-Fibrous	100	None Detected
1556754						
Roof Core 4B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	black	Fiberglass	20	None Detected
1556755				Cellulose	35	
				Non-Fibrous	45	
Roof Core 4C	Tar	(Pool/Gyms) Top of Metal Deck	black	Non-Fibrous	100	None Detected
1556756						
Roof Core 5A	Glue/Adhesive on Rubber	(Pool/Gyms) Top Layer	yellow	Non-Fibrous	100	None Detected
1556757						
Roof Core 5B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	black	Fiberglass	20	None Detected
1556758				Cellulose	35	
				Non-Fibrous	45	
Roof Core 5C	Tar/Fiberboard	(Pool/Gyms) Top of Metal Deck	black	Non-Fibrous	100	None Detected
1556759						
Roof Core 6A	Glue/Adhesive on Rubber	(Pool/Gyms) Top Layer	yellow	Non-Fibrous	100	None Detected
1556760						
Roof Core 6B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	black	Fiberglass	20	None Detected
1556761				Cellulose	35	
				Non-Fibrous	45	
Roof Core 6C	Tar Fiberboard	(Pool/Gyms) Top of Metal Deck	black	Non-Fibrous	100	None Detected
1556762						
Roof Core 7A	Glue/Adhesive on Rubber	(Pool/Gyms) Top Layer	yellow	Non-Fibrous	100	None Detected
1556763						
Roof Core 7B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	black	Fiberglass	20	None Detected
1556764				Cellulose	35	
				Non-Fibrous	45	
Roof Core 7C	Tar/Fiberboard	(Pool/Gyms) Top of Metal Deck	black	Non-Fibrous	100	None Detected
1556765						
Roof Core 8A	Glue/Adhesive on Rubber	(Pool/Gyms) Top Layer	yellow	Non-Fibrous	100	None Detected
1556766						
Roof Core 8B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	black	Fiberglass	20	None Detected
1556767				Cellulose	35	
				Non-Fibrous	45	

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
Roof Core 8C	Tar	(Pool/Gyms) Top of Metal Deck	black	Non-Fibrous 100	None Detected
1556768					
Curb Cut 1A	Glue/Adhesive on Rubber	(Pool/Gyms) Top Layer	yellow	Non-Fibrous 100	None Detected
1556769					
Roof Core 9A	Glue/Adhesive on Rubber	(Pool/Gyms) Top Layer	yellow	Non-Fibrous 100	None Detected
1556770					
Roof Core 9B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	black	Fiberglass 20	None Detected
1556771				Cellulose 35 Non-Fibrous 45	
Roof Core 10A	Glue/Adhesive on Rubber	(Pool/Gyms) Top Layer	yellow	Non-Fibrous 100	None Detected
1556772					
Roof Core 10B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	black	Fiberglass 20	None Detected
1556773				Cellulose 35 Non-Fibrous 45	
Roof Core 10C	Tar	(Pool/Gyms) Top of Metal Deck	black	Non-Fibrous 100	None Detected
1556774					
Roof Core 11A	Glue/Adhesive on Rubber	(Pool/Gyms) Top Layer	yellow	Non-Fibrous 100	None Detected
1556775					
Roof Core 11B	Tar Paper	(Pool/Gyms) Top/Bottom of Foam	black	Fiberglass 20	None Detected
1556776				Cellulose 35 Non-Fibrous 45	
Curb Cut 2A	Glue/Adhesive on Rubber	(Pool/Gyms) (Chimney) Top Layer	tan	Non-Fibrous 100	None Detected
1556777					
Roof Core 12A	Glue/Adhesive on Rubber	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
1556778					
Roof Core 12B	Tar Paper	(Auditorium) Top/Bottom of Foam	brown	Fiberglass 20	None Detected
1556779				Cellulose 60 Non-Fibrous 20	
Roof Core 13A	Glue/Adhesive on Rubber	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
1556780					
Roof Core 13B	Tar Paper	(Auditorium) Top/Bottom of Foam	brown	Fiberglass 20	None Detected
1556781				Cellulose 60 Non-Fibrous 20	
Roof Core 14A	Glue/Adhesive on Rubber	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
1556782					
Roof Core 14B	Tar Paper	(Auditorium) Top/Bottom of Foam	brown	Fiberglass 20	None Detected
1556783				Cellulose 60 Non-Fibrous 20	

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
Roof Core 15A 1556784	Glue/Adhesive on Rubber	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
Roof Core 15B 1556785	Tar Paper	(Auditorium) Top/Bottom of Foam	brown	Fiberglass 20 Cellulose 60 Non-Fibrous 20	None Detected
Roof Core 16A 1556786	Glue/Adhesive on Rubber	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
Roof Core 16B 1556787	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20 Cellulose 60 Non-Fibrous 20	None Detected
Roof Core 16C 1556788	Tar on Concrete Deck	(Auditorium) Top of Concrete Deck	black	Non-Fibrous 100	None Detected
Roof Core 17A 1556789	Glue/Adhesive on Rubber	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
Roof Core 17B 1556790	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20 Cellulose 60 Non-Fibrous 20	None Detected
Roof Core 18A 1556791	Glue/Adhesive on Rubber NO SAMPLE	(Auditorium) Top Layer			Not Analyzed
Roof Core 18B 1556792	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20 Cellulose 60 Non-Fibrous 20	None Detected
Roof Core 18C 1556793	Tar on Concrete Deck	(Auditorium) Top of Concrete Deck	black	Non-Fibrous 100	None Detected
Curb Cut 3A 1556794	Glue/Adhesive	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
Curb Cut 3B 1556795	Tar (Vapor Barrier)	(Auditorium) on Wall	black	Non-Fibrous 100	None Detected
Curb Cut 4A 1556796	Glue/Adhesive	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
Curb Cut 4B 1556797	Insulation	(Auditorium) Top Layer	white	Synthetic 80 Non-Fibrous 20	None Detected
Curb Cut 4C 1556798	Tar (Vapor Barrier)	(Auditorium) on Wall	black	Non-Fibrous 100	None Detected
Roof Core 19A 1556799	Glue/Adhesive NO SAMPLE	(Auditorium) Top Layer			Not Analyzed

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
Roof Core 19B	Insulation	(Auditorium) Between Rubber and Wall	gray	Fiberglass 20	None Detected
1556800				Cellulose 60 Non-Fibrous 20	
Roof Core 19C	Tar	(Auditorium) on Wall	black	Non-Fibrous 100	None Detected
1556801					
Roof Core 20A	Glue/Adhesive	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
1556802					
Roof Core 20B	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20	None Detected
1556803				Cellulose 60 Non-Fibrous 20	
Roof Core 20C	Tar/Fiberboard	(Auditorium) Top of Metal Deck	multi	Cellulose 70	None Detected
1556804				Non-Fibrous 30	
Roof Core 21A	Glue/Adhesive	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
1556805					
Roof Core 21B	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20	None Detected
1556806				Cellulose 60 Non-Fibrous 20	
Roof Core 21C	Tar/Fiberboard	(Auditorium) Top of Metal Deck	multi	Cellulose 70	None Detected
1556807				Non-Fibrous 30	
Curb Cut 5A	Glue/Adhesive	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
1556808					
Curb Cut 5B	Insulation	(Auditorium) Between Rubber and Wall	white	Synthetic 80	None Detected
1556809				Non-Fibrous 20	
Curb Cut 5C	Tar	(Auditorium) on Wall	black	Non-Fibrous 100	None Detected
1556810					
Roof Core 22A	Glue/Adhesive	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
1556811					
Roof Core 22B	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20	None Detected
1556812				Cellulose 60 Non-Fibrous 20	
Roof Core 22C	Tar	(Auditorium) Top of Deck	black	Non-Fibrous 100	None Detected
1556813					
Roof Core 23A	Glue/Adhesive	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
1556814					
Roof Core 23B	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20	None Detected
1556815				Cellulose 60 Non-Fibrous 20	

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
Roof Core 24A 1556816	Glue/Adhesive	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
Roof Core 24B 1556817	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20 Cellulose 60 Non-Fibrous 20	None Detected
Roof Core 24C 1556818	Tar/Fiberboard	(Auditorium) Top of Deck	multi	Cellulose 70 Non-Fibrous 30	None Detected
Curb Cut 7A 1556819	Glue/Adhesive	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
Curb Cut 7B 1556820	Insulation	(Auditorium) Between Rubber and Wall	white	Synthetic 80 Non-Fibrous 20	None Detected
Roof Core 25A 1556821	Glue/Adhesive	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
Roof Core 25B 1556822	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20 Cellulose 60 Non-Fibrous 20	None Detected
Roof Core 25C 1556823	Tar/Fiberboard	(Auditorium) Top of Deck	multi	Cellulose 70 Non-Fibrous 30	None Detected
Roof Core 26A 1556824	Glue/Adhesive	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
Roof Core 26B 1556825	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20 Cellulose 60 Non-Fibrous 20	None Detected
Roof Core 26C 1556826	Tar/Fiberboard	(Auditorium) Top of Deck	multi	Cellulose 70 Non-Fibrous 30	None Detected
Curb Cut 8A 1556827	Glue	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
Curb Cut 8B 1556828	Insulation	(Auditorium) Between Rubber and Wall	white	Synthetic 80 Non-Fibrous 20	None Detected
Curb Cut 8C 1556829	Tar	(Auditorium) on Wall	black	Non-Fibrous 100	None Detected
Roof Core 27A 1556830	Glue	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
Roof Core 27B 1556831	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20 Cellulose 60 Non-Fibrous 20	None Detected

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
Roof Core 27C	Tar/Fiberboard	(Auditorium) Top of Deck	multi	Cellulose 70	None Detected
1556832				Non-Fibrous 30	
Roof Core 28A	Glue	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
1556833					
Roof Core 28B	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20	None Detected
1556834				Cellulose 60 Non-Fibrous 20	
Roof Core 28C	Tar/Fiberboard	(Auditorium) Top Deck	multi	Cellulose 70	Detected Chrysotile < 1
1556835				Non-Fibrous 30	
Roof Core 29A	Glue	(Auditorium) Top Layer	tan	Non-Fibrous 100	None Detected
1556836					
Roof Core 29B	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20	None Detected
1556837				Cellulose 60 Non-Fibrous 20	
Roof Core 29C	Tar	(Auditorium) Top of Deck - Concrete Deck	black	Non-Fibrous 100	None Detected
1556838					
Roof Core 30A	Glue	(Auditorium) Top Layer	yellow	Non-Fibrous 100	None Detected
1556839					
Roof Core 30B	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20	None Detected
1556840				Cellulose 75 Non-Fibrous 5	
Roof Core 30C	Tar/Fiberboard	(Auditorium) Top of Deck	multi	Cellulose 80	None Detected
1556841				Non-Fibrous 20	
Roof Core 31A	Glue	(Auditorium) Top Layer	yellow	Non-Fibrous 100	None Detected
1556842					
Roof Core 31B	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20	None Detected
1556843				Cellulose 75 Non-Fibrous 5	
Roof Core 31C	Tar/Fiberboard	(Auditorium) Top of Deck	multi	Cellulose 80	None Detected
1556844				Non-Fibrous 20	
Curb Cut 9A	Glue	(Auditorium) Top Layer	yellow	Non-Fibrous 100	None Detected
1556845					
Curb Cut 9B	Insulation	(Auditorium) Between Rubber and Wall	white	Synthetic 90	None Detected
1556846				Non-Fibrous 10	
Curb Cut 9C	Tar	(Auditorium) on Wall	black	Non-Fibrous 100	None Detected
1556847					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
Curb Cut 10A	Glue	(Auditorium) Top Layer	yellow	Non-Fibrous 100	None Detected
1556848					
Curb Cut 10B	Insulation	(Auditorium) Between Rubber and Wall	white	Synthetic 90 Non-Fibrous 10	None Detected
1556849					
Curb Cut 10C	Tar	(Auditorium) on Wall	black	Non-Fibrous 100	None Detected
1556850					
Roof Cut 32A	Glue	(Auditorium) Top Layer	yellow	Non-Fibrous 100	None Detected
1556851					
Roof Cut 32B	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20 Cellulose 75 Non-Fibrous 5	None Detected
1556852					
Roof Cut 32C	Tar/Fiberboard	(Auditorium) Top of Deck	multi	Cellulose 80 Non-Fibrous 20	None Detected
1556853					
Roof Core 33A	Glue NO SAMPLE	(Auditorium) Top Layer			Not Analyzed
1556854					
Roof Core 33B	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20 Cellulose 75 Non-Fibrous 5	None Detected
1556855					
Roof Core 33C	Tar/Fiberboard	(Auditorium) Top of Deck	multi	Cellulose 80 Non-Fibrous 20	None Detected
1556856					
Curb Cut 11A	Glue	(Auditorium) Top Layer	yellow	Non-Fibrous 100	None Detected
1556857					
Curb Cut 11B	Insulation	(Auditorium) Between Rubber and Wall	white	Synthetic 90 Non-Fibrous 10	None Detected
1556858					
Curb Cut 11C	Tar	(Auditorium) on Wall	black	Non-Fibrous 80	Detected Chrysotile 20
1556859					
Roof Core 34A	Glue	(Auditorium) Top Layer	yellow	Non-Fibrous 100	None Detected
1556860					
Roof Core 34B	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20 Cellulose 75 Non-Fibrous 5	None Detected
1556861					
Roof Core 34C	Tar/Fiberboard	(Auditorium) Top of Deck	multi	Cellulose 80 Non-Fibrous 20	None Detected
1556862					
Curb Cut 12A	Glue	(Auditorium) Top Layer	yellow	Non-Fibrous 100	None Detected
1556863					

FieldID	Material	Location	Color	Non-Asbestos %		Asbestos %
LabID						
Curb Cut 12B	Insulation	(Auditorium) Between Rubber and Wall	white	Synthetic	90	None Detected
1556864				Non-Fibrous	10	
Curb Cut 12C	Tar	(Auditorium) on Wall	black	Non-Fibrous	100	None Detected
1556865						
Roof Core 35A	Glue	(Auditorium) Top Layer	yellow	Non-Fibrous	100	None Detected
1556866						
Roof Core 35B	Tar Paper	(Auditorium) Top/Bottom Layer of Foam	gray	Fiberglass	20	None Detected
1556867				Cellulose	75	
				Non-Fibrous	5	
Roof Core 35C	Tar/Fiberboard	(Auditorium) Top of Deck	multi	Cellulose	80	None Detected
1556868				Non-Fibrous	20	
Roof Core 36A	Glue	(Auditorium) Top Layer	yellow	Non-Fibrous	100	None Detected
1556869						
Roof Core 36B	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass	20	None Detected
1556870				Cellulose	75	
				Non-Fibrous	5	
Roof Core 36C	Tar	(Auditorium) Top of Deck - Concrete	black	Non-Fibrous	100	None Detected
1556871						
Roof Core 37A	Glue	(Auditorium) Top Layer	yellow	Non-Fibrous	100	None Detected
1556872						
Roof Core 37B	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass	20	None Detected
1556873				Cellulose	75	
				Non-Fibrous	5	
Roof Core 37C	Tar	(Auditorium) Top of Deck - Concrete	multi	Non-Fibrous	100	None Detected
1556874						
Curb Cut 13A	Glue	(Auditorium) Top Layer	yellow	Non-Fibrous	100	None Detected
1556875						
Curb Cut 13B	Insulation	(Auditorium) Between Rubber and Wall	white	Synthetic	80	None Detected
1556876				Non-Fibrous	20	
Curb Cut 13C	Tar	on Wall	black	Non-Fibrous	100	None Detected
1556877						
Curb Cut 14A	Glue	Top Layer	yellow	Non-Fibrous	100	None Detected
1556878						
Curb Cut 14B	Insulation	(Auditorium) Between Rubber and Wall	white	Synthetic	80	None Detected
1556879				Non-Fibrous	20	

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
Curb Cut 14C 1556880	Tar	(Auditorium) on Wall	black	Non-Fibrous 100	None Detected
Roof Core 38A 1556881	Glue	(Auditorium) Top Layer	yellow	Non-Fibrous 100	None Detected
Roof Core 38B 1556882	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20 Cellulose 75 Non-Fibrous 5	None Detected
Roof Core 38C 1556883	Brick	(Auditorium) Top of Deck	red	Non-Fibrous 100	None Detected
Roof Core 38D 1556884	Tar on Brick	(Auditorium) Top of Deck	black	Non-Fibrous 100	None Detected
Roof Core 38E 1556885	Tar/Fiberboard	(Auditorium) Top on Metal Deck	brown	Cellulose 90 Non-Fibrous 10	None Detected
Curb Cut 15A 1556886	Glue	Top Layer	yellow	Non-Fibrous 100	None Detected
Curb Cut 15B 1556887	Insulation	(Auditorium) Between Rubber and Wall	multi	Fiberglass 15 Non-Fibrous 85	None Detected
Curb Cut 15C 1556888	Tar NO SAMPLE	(Auditorium) on Wall			Not Analyzed
Roof Core 39A 1556889	Glue	(Auditorium) Top Layer	yellow	Non-Fibrous 100	None Detected
Roof Core 39B 1556890	Tar Paper	(Auditorium) Top/Bottom of Foam	gray	Fiberglass 20 Cellulose 75 Non-Fibrous 5	None Detected
Roof Core 40A 1556891	Glue (on Tar Paper)	Top Layer	yellow	Non-Fibrous 100	None Detected
Roof Core 40B 1556892	Tar Paper	Top/Bottom of Foam	gray	Fiberglass 20 Cellulose 75 Non-Fibrous 5	None Detected
Curb Cut 16A 1556893	-	-	yellow	Non-Fibrous 100	None Detected
Roof Core 43A 1556894	Glue	-	yellow	Non-Fibrous 100	None Detected
Roof Core 43B 1556895	Tar Paper	-	gray	Fiberglass 20 Cellulose 75 Non-Fibrous 5	None Detected

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
Curb Cut 17A	Glue	Top Layer	yellow	Non-Fibrous 100	None Detected
1556896					
Curb Cut 17B	Tar (on Wood)	on Wall	black	Non-Fibrous 100	None Detected
1556897					
Roof Core 44A	Glue	Top Layer	yellow	Non-Fibrous 100	None Detected
1556898					
Roof Core 44B	Tar Paper	Top/Bottom of Foam	black	Cellulose 95 Non-Fibrous 5	None Detected
1556899					
Roof Core 44C	Tar	Top of Deck	black	Cellulose 5 Non-Fibrous 95	None Detected
1556900					
Curb Cut 18A	Glue	Top Layer	yellow	Non-Fibrous 100	None Detected
1556901					
Roof Core 45A	Glue	Top Layer	yellow	Non-Fibrous 100	None Detected
1556902					
Roof Core 45B	Tar Paper	Top/Bottom of Foam	black	Cellulose 95 Non-Fibrous 5	None Detected
1556903					
Curb Cut 19A	Glue	Top Layer	yellow	Non-Fibrous 100	None Detected
1556904					
Curb Cut 20A	Glue	Top Layer	yellow	Non-Fibrous 100	None Detected
1556905					
Curb Cut 21A	Glue	Top Layer	yellow	Non-Fibrous 100	None Detected
1556906					
Roof Core 46A	Glue	Top Layer	yellow	Non-Fibrous 100	None Detected
1556907					
Roof Core 46B	Tar Paper	Top/Bottom of Foam	black	Cellulose 95 Non-Fibrous 5	None Detected
1556908					
Roof Core 47A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1556909					
Roof Core 47B	Tar Paper	Top/Bottom of Foam	black	Cellulose 95 Non-Fibrous 5	None Detected
1556910					
Roof Core 47C	Tar	Top of Deck (Metal Deck)	black	Cellulose 5 Non-Fibrous 95	None Detected
1556911					
Roof Core 48A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1556912					

Sampled: June 30, 2025

Received: July 10, 2025

Analyzed: July 15, 2025

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
Roof Core 48B	Tar Paper	Top/Bottom of Foam	black	Cellulose 95 Non-Fibrous 5	None Detected
1556913					
Roof Core 48C	Tar	Top of Deck (Metal Deck)	black	Non-Fibrous 97	Detected Chrysotile 3
1556914					
Roof Core 49A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1556915					
49B	Tar Paper	Top/Bottom Layer of Foam	black	Cellulose 95 Non-Fibrous 5	None Detected
1556916					
Roof Core 50A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1556917					
Roof Core 50B	Tar Paper	Top/Bottom Layer of Foam	black	Cellulose 95 Non-Fibrous 5	None Detected
1556918					
Roof Core 50C	Tar/Tar Paper	Top of Deck	black	Cellulose 80 Non-Fibrous 18	Detected Chrysotile 2
1556919					
Roof Core 51A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1556920					
Roof Core 51B	Tar Paper	Top/Bottom Layer of Foam	black	Cellulose 95 Non-Fibrous 5	None Detected
1556921					
Roof Core 51C	Tar/Fiberboard	Top of Deck	multi	Fiberglass 20 Cellulose 70 Non-Fibrous 10	None Detected
1556922					
Roof Core 52A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1556923					
Roof Core 52B	Tar Paper	Top/Bottom Layer of Foam	black	Cellulose 95 Non-Fibrous 5	None Detected
1556924					
Roof Core 52C	Tar/Fiberboard	Top of Deck	brown	Cellulose 98 Non-Fibrous 2	None Detected
1556925					
Roof Core 53A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1556926					
Roof Core 53B	Tar Paper	Top/Bottom of Foam	black	Cellulose 95 Non-Fibrous 5	None Detected
1556927					
Roof Core 54A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1556928					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
Roof Core 54B	Tar Paper	Top/Bottom Layer of Foam	black	Cellulose 95 Non-Fibrous 5	None Detected
1556929					
Roof Core 54C	Tar/Fiberboard	Top of Deck	multi	Cellulose 40 Non-Fibrous 60	None Detected
1556930					
Curb Cut 22A	Glue	Top Layer	yellow	Non-Fibrous 100	None Detected
1556931					
Roof Core 55A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1556932					
Roof Core 55B	Tar Paper	Top/Bottom Layer of Foam	black	Cellulose 95 Non-Fibrous 5	None Detected
1556933					
Roof Core 55C	Tar/Fiberboard	Top of Deck	multi	Cellulose 70 Non-Fibrous 30	None Detected
1556934					
Curb Cut 23A	Glue	Top Layer	yellow	Non-Fibrous 100	None Detected
1556935					
Curb Cut 23B	Tar	On Wall/Vapor Barrier	black	Cellulose 70 Non-Fibrous 30	None Detected
1556936					
Roof Core 56A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1556937					
Roof Core 56B	Tar Paper	Top/Bottom of Foam (Metal Deck)	black	Cellulose 95 Non-Fibrous 5	None Detected
1556938					
Roof Core 57A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1556939					
Roof Core 57B	Tar Paper	Top/Bottom of Foam (Metal Deck)	black	Cellulose 95 Non-Fibrous 5	None Detected
1556940					
Curb Cut 24A	Glue/Adhesive	Top Layer (Rubber Membrane to Brick Wall)	yellow	Non-Fibrous 100	None Detected
1556941					
Curb Cut 25A	Glue/Adhesive	Top Layer (Wood Wall)	yellow	Non-Fibrous 100	None Detected
1556942					
Roof Core 58A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1556943					
Roof Core 58B	Tar Paper	Top/Bottom Layer of Foam	black	Cellulose 95 Non-Fibrous 5	None Detected
1556944					
Roof Core 58C	Tar/Fiberboard	Top of Deck	multi	Cellulose 60 Non-Fibrous 40	None Detected
1556945					

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
Roof Core 59A 1556946	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
Roof Core 59B 1556947	Tar Paper	Top/Bottom Layer of Foam	black	Cellulose 95 Non-Fibrous 5	None Detected
Roof Core 59C 1556948	Tar/Fiberboard	Top of Deck	multi	Cellulose 30 Non-Fibrous 70	None Detected
Roof Core 60A 1556949	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
Roof Core 60B 1556950	Tar Paper	Top/Bottom Layer of Foam	black	Cellulose 95 Non-Fibrous 5	None Detected
Roof Core 60C 1556951	Tar/Fiberboard	Top of Deck	multi	Cellulose 70 Non-Fibrous 30	None Detected
Roof Core 61A 1556952	Glue	Top Layer	yellow	Non-Fibrous 100	None Detected
Roof Core 61B 1556953	Tar Paper	Top/Bottom Layer of Foam	black	Cellulose 95 Non-Fibrous 5	None Detected
Roof Core 61C 1556954	Tar	Top of Deck	black	Cellulose 5 Non-Fibrous 95	None Detected
Cub Cut 26A 1556955	Glue	On Chimney (Rubber to Wood)	yellow	Non-Fibrous 100	None Detected
Roof Core 62A 1556956	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
Roof Core 62B 1556957	Tar Paper	Top/Bottom of Foam	black	Cellulose 95 Non-Fibrous 5	None Detected
Roof Core 63A 1556958	Glue/Adhesive	-	brown	Non-Fibrous 100	None Detected
Roof Core 63B 1556959	-	-	multi	Cellulose 60 Non-Fibrous 40	None Detected
Cub Cut 27A 1556960	Glue	Rubber to Brick	yellow	Non-Fibrous 100	None Detected
Cub Cut 28A 1556961	Glue	On Wood	yellow	Non-Fibrous 100	None Detected
Roof Core 64A 1556962	Glue/Adhesive	Top Layer	brown	Non-Fibrous 100	None Detected

FieldID	Material	Location	Color	Non-Asbestos %		Asbestos %
LabID						
Roof Core 64B	Tar Paper	Top/Bottom of Foam	multi	Fiberglass	15	None Detected
1556963				Cellulose	70	
				Non-Fibrous	15	
Roof Core 64C	Tar	Top of Deck	black	Non-Fibrous	100	None Detected
1556964						
Roof Core 65A	Glue/Adhesive	Top Layer	multi	Cellulose	10	None Detected
1556965				Non-Fibrous	90	
Roof Core 65B	Tar Paper	Top/Bottom of Foam	multi	Fiberglass	15	None Detected
1556966				Cellulose	70	
				Non-Fibrous	15	
Roof Core 65C	Tar	Top of Deck	black	Cellulose	10	None Detected
1556967				Non-Fibrous	90	
Roof Core 66A	Glue/Adhesive	Top Layer	multi	Cellulose	10	None Detected
1556968				Non-Fibrous	90	
Roof Core 66B	Tar Paper	Top/Bottom of Foam	multi	Fiberglass	15	None Detected
1556969				Cellulose	70	
				Non-Fibrous	15	
Roof Core 66C	Tar	Top of Deck	black	Cellulose	10	None Detected
1556970				Non-Fibrous	90	
Roof Core 67A	Glue/Adhesive	Top Layer	multi	Cellulose	10	None Detected
1556971				Non-Fibrous	90	
Roof Core 67B	Tar Paper	Top/Bottom of Foam	multi	Fiberglass	15	None Detected
1556972				Cellulose	70	
				Non-Fibrous	15	
Roof Core 67C	Tar	Top of Deck	black	Cellulose	10	None Detected
1556973				Non-Fibrous	90	
Roof Core 68A	Glue/Adhesive	Top Layer	multi	Cellulose	10	None Detected
1556974				Non-Fibrous	90	
Roof Core 68B	Tar Paper	Top/Bottom of Foam	multi	Fiberglass	15	None Detected
1556975				Cellulose	70	
				Non-Fibrous	15	
Roof Core 68C	Tar/Fiberboard	Top of Deck	multi	Cellulose	70	None Detected
1556976				Non-Fibrous	30	
Roof Core 69A	Glue/Adhesive	Top Layer	multi	Cellulose	10	None Detected
1556977				Non-Fibrous	90	
Roof Core 69B	Tar Paper	Top/Bottom of Deck	multi	Fiberglass	15	None Detected
1556978				Cellulose	70	
				Non-Fibrous	15	

FieldID	Material	Location	Color	Non-Asbestos %		Asbestos %
LabID						
Roof Core 69C	Tar/Fiberboard	Top of Deck	multi	Cellulose	40	None Detected
1556979				Non-Fibrous	60	
Roof Core 70A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous	100	None Detected
1556980						
Roof Core 70B	Tar Paper	Top/Bottom of Foam	multi	Fiberglass	15	None Detected
1556981				Cellulose	70	
				Non-Fibrous	15	
Roof Core 70C	Tar/Fiberboard	Top of Deck	multi	Cellulose	40	None Detected
1556982				Non-Fibrous	60	
Roof Core 71A	Glue/Adhesive	Top Layer	multi	Cellulose	10	None Detected
1556983				Non-Fibrous	90	
Roof Core 71B	Tar Paper	Top/Bottom of Foam	multi	Fiberglass	15	None Detected
1556984				Cellulose	70	
				Non-Fibrous	15	
Roof Core 71C	Tar/Fiberboard	Top of Deck	multi	Cellulose	40	None Detected
1556985				Non-Fibrous	60	
Roof Core 72A	Glue/Adhesive	Top Layer	yellow	Cellulose	10	None Detected
1556986				Non-Fibrous	90	
Roof Core 72B	Tar Paper	Top/Bottom of Foam	multi	Fiberglass	15	None Detected
1556987				Cellulose	70	
				Non-Fibrous	15	
Roof Core 72C	Tar/Fiberboard	Top of Deck	multi	Cellulose	40	None Detected
1556988				Non-Fibrous	60	
Roof Core 73A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous	100	None Detected
1556989						
Roof Core 73B	Tar Paper	Top/Bottom of Foam	multi	Fiberglass	15	None Detected
1556990				Cellulose	70	
				Non-Fibrous	15	
Roof Core 73C	Tar/Fiberboard	Top of Deck	multi	Cellulose	40	None Detected
1556991				Non-Fibrous	60	
Roof Core 74A	Glue/Adhesive	Top Layer	multi	Non-Fibrous	100	None Detected
1556992						
Roof Core 74B	Tar Paper	Top/Bottom of Foam	multi	Fiberglass	15	None Detected
1556993				Cellulose	70	
				Non-Fibrous	15	
Roof Core 74C	Tar	Top of Deck	black	Non-Fibrous	100	None Detected
1556994						

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
Roof Core 75A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1556995					
Roof Core 75B	Tar Paper	Top/Bottom of Foam	multi	Fiberglass 15 Cellulose 70 Non-Fibrous 15	None Detected
1556996					
Roof Core 76A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1556997					
Roof Core 76B	Tar Paper	Top/Bottom of Foam	multi	Fiberglass 15 Cellulose 70 Non-Fibrous 15	None Detected
1556998					
Roof Core 76C	Tar/Fiberboard	Top of Deck	multi	Cellulose 10 Non-Fibrous 90	None Detected
1556999					
Roof Core 77A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1557000					
Roof Core 77B	Tar Paper	Top/Bottom of Foam	multi	Fiberglass 15 Cellulose 70 Non-Fibrous 15	None Detected
1557001					
Roof Core 77C	Tar/Fiberboard	Top of Deck	multi	Fiberglass 15 Cellulose 70 Non-Fibrous 15	None Detected
1557002					
Roof Core 78A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1557003					
Roof Core 78B	Tar Paper	Top/Bottom of Foam	multi	Fiberglass 15 Cellulose 70 Non-Fibrous 15	None Detected
1557004					
Roof Core 78C	Tar/Fiberboard	Top of Deck	multi	Cellulose 10 Non-Fibrous 90	None Detected
1557005					
Roof Core 79A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1557006					
Roof Core 79B	Tar Paper	Top/Bottom of Foam (School Entrance)	multi	Fiberglass 15 Cellulose 70 Non-Fibrous 15	None Detected
1557007					
Roof Core 79C	Tar	Top of Deck (School Entrance)	black	Non-Fibrous 100	None Detected
1557008					
Roof Core 80A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1557009					
Roof Core 80B	Tar Paper	Top/Bottom of Foam	multi	Fiberglass 15 Cellulose 70 Non-Fibrous 15	None Detected
1557010					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
Roof Core 80C	Tar	Top of Deck	black	Non-Fibrous 100	None Detected
1557011					
Roof Core 81A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1557012					
Roof Core 81B	Tar Paper	Top/Bottom of Foam	multi	Fiberglass 15	None Detected
1557013				Cellulose 70 Non-Fibrous 15	
Roof Core 81C	Tar	Top of Deck	black	Non-Fibrous 100	None Detected
1557014					
Roof Core 82A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1557015					
Roof Core 82B	Tar Paper	Top/Bottom of Foam	multi	Fiberglass 15	None Detected
1557016				Cellulose 70 Non-Fibrous 15	
Roof Core 83A	Glue/Adhesive	Top Layer	tan	Non-Fibrous 100	None Detected
1557017					
Roof Core 83B	Tar Paper	Top/Bottom of Foam	gray	Fiberglass 10	None Detected
1557018				Cellulose 60 Non-Fibrous 30	
Curb Cut 29A	Glue/Adhesive	Top Layer	yellow	Non-Fibrous 100	None Detected
1557019					
14A	Dark Gray Caulking	Under Finishing Over Auditorium Entrance	gray	Non-Fibrous 100	None Detected
1557020					
14B	Dark Gray Caulking	Under Finishing Over Auditorium Entrance	gray	Non-Fibrous 100	None Detected
1557021					
14C	Dark Gray Caulking	Under Finishing Over Auditorium Entrance	gray	Non-Fibrous 100	None Detected
1557022					
15A	Dark Gray Sealant	Roof	gray	Non-Fibrous 100	None Detected
1557023					
15B	Dark Gray Sealant	Roof	gray	Non-Fibrous 100	None Detected
1557024					
16A	Tar	(Auditorium) on Hatch	black	Non-Fibrous 100	None Detected
1557025					
16B	Tar	(Auditorium) on Hatch	black	Non-Fibrous 100	None Detected
1557026					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
17A	Dark Gray Caulk	on Flashing (Main Roof Chimney)	gray	Non-Fibrous 100	None Detected
1557027					
17B	Dark Gray Caulk	on Flashing (Main Roof Chimney)	gray	Non-Fibrous 100	None Detected
1557028					
18A	Dark Gray Caulk	on Flashing (Main Roof Above Library)	gray	Non-Fibrous 100	None Detected
1557029					
18B	Dark Gray Caulk	on Flashing (Main Roof Above Library)	gray	Non-Fibrous 100	None Detected
1557030					
19A	Gray Caulk	on Flashing--Sides (Main Roof Above Library)	gray	Non-Fibrous 100	None Detected
1557031					
19B	Gray Caulk	on Flashing--Sides (Main Roof Above Library)	gray	Non-Fibrous 100	None Detected
1557032					
20A	Dark Gray Caulk	Under Flashing (Main Roof Above Library)	gray	Non-Fibrous 100	None Detected
1557033					
20B	Dark Gray Caulk	Under Flashing (Main Roof Above Library)	gray	Non-Fibrous 100	None Detected
1557034					
21A	Gray Caulk	on Brick Wall on Flashing (Main Roof Above Library)	gray	Non-Fibrous 100	None Detected
1557035					
21B	Gray Caulk	on Brick Wall on Flashing (Main Roof Above Library)	gray	Non-Fibrous 100	None Detected
1557036					
22A	Tar	on HVAC Unit	black	Non-Fibrous 95	Detected Chrysotile 5
1557037					
22B	Tar	on HVAC Unit			Not Analyzed
1557038					
23A	Gray Caulk	on Bolts on HVAC Units	gray	Non-Fibrous 100	None Detected
1557039					
23B	Gray Caulk	on Bolts on HVAC Units	gray	Non-Fibrous 100	None Detected
1557040					
24A	Gray Caulk	on HVAC Units	gray	Non-Fibrous 100	None Detected
1557041					
24B	Gray Caulk	on HVAC Units	gray	Non-Fibrous 100	None Detected
1557042					
25A	Gray Caulk w/ Black Coating	HVAC Unit (One)	gray	Non-Fibrous 100	None Detected
1557043					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
25B	Gray Caulk w/ Black Coating	HVAC Unit (One)	gray	Non-Fibrous 100	None Detected
1557044					
26A	Gray Caulk	Communication Tower	gray	Non-Fibrous 100	None Detected
1557045					
26B	Gray Caulk	Communication Tower	gray	Non-Fibrous 100	None Detected
1557046					
27A	Dark Gray Caulk	on Mitsubishi Electric Unit Conduit	gray	Non-Fibrous 100	None Detected
1557047					
27B	Dark Gray Caulk	on Mitsubishi Electric Unit Conduit	gray	Non-Fibrous 100	None Detected
1557048					
28A	Black Window Glaze	School Entrance Roof	black	Non-Fibrous 100	None Detected
1557049					
28B	Black Window Glaze	School Entrance Roof	black	Non-Fibrous 100	None Detected
1557050					
29A	Dark Window Caulk	School Entrance Roof	gray	Non-Fibrous 100	None Detected
1557051					
29B	Dark Window Caulk	School Entrance Roof	gray	Non-Fibrous 100	None Detected
1557052					
30A	Black Caulk	on Flashing (Between Window Units)	black	Non-Fibrous 100	None Detected
1557053					
30B	Black Caulk	on Flashing (Between Window Units)	black	Non-Fibrous 100	None Detected
1557054					
31A	White Caulk	Under Flashing	gray	Non-Fibrous 95	Detected Chrysotile 5
1557055					
31B	White Caulk	Under Flashing			Not Analyzed
1557056					
32A	Dark Gray Caulk	on Flashing/Bolts	gray	Non-Fibrous 100	None Detected
1557057					
32B	Dark Gray Caulk	on Flashing/Bolts	gray	Non-Fibrous 100	None Detected
1557058					
33A	Black Caulk	on Brick (Conduit)	black	Non-Fibrous 100	None Detected
1557059					
33B	Black Caulk	on Brick (Conduit)	black	Non-Fibrous 100	None Detected
1557060					

Sampled: June 30, 2025

Received: July 10, 2025

Analyzed: July 15, 2025

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
34A 1557061	Gray Caulk	on Flashing	gray	Non-Fibrous 100	None Detected
34B 1557062					
Curb Cut 6A 1557063	Glue/Adhesive	Top Layer	tan	Non-Fibrous 100	None Detected
Curb Cut 6B 1557064					
Curb Cut 6C 1557065	Tar	on Wall	black	Non-Fibrous 95	Detected Chrysotile 5
Curb Cut 28A 1557066					
Roof Core 39A 1557067	-	-	multi	Non-Fibrous 100	None Detected
Roof Core 39B 1557068					
Roof Core 39C 1557069	-	-	multi	Fiberglass 10 Cellulose 60 Non-Fibrous 30	None Detected
Roof Core 41A 1557070					
41B 1557071	-	-	black	Fiberglass 10 Cellulose 60 Non-Fibrous 30	None Detected
Roof Core 41C 1557072					
Roof Core 42A 1557073	-	-	black	Cellulose 10 Non-Fibrous 90	None Detected
Roof Core 42B 1557074					
Roof Core 42C 1557075	-	-	multi	Cellulose 10 Non-Fibrous 60 Non-Fibrous 30	None Detected

Client: CDW Consultants Inc.
 Address: 4 California Ave, Framingham, MA 01701
 Project Site & #: Amherst Pelham Middle School
 Phone / email address:
blana@cdwconsultants.com
 Contact: Bryant Dana
 Relinquish by/date: 7/10/25
 Receive by/date: 7/10/25
 # of Samples Received: 347 357

CHAIN OF CUSTODY
 EPA/600/R-93/116
Asbestos Identification Lab
 165 New Boston St.
 Suite 227
 Woburn, MA 01801
 (781) 932-9600
 www.asbestosidentificationlab.com
 Date Sampled: 6/30/25, 7/1/25, 7/2/25
 BATCH# 138520 Rev 03/16

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Turnaround Time: ☐ Less 3 Hrs ☒ Same Day ☐ Next Day ☒ Two Day

Sample Method: ☒ Bulk ☐ Soil ☐ Wipe ☐ Point Count

Stop on 1st Positive? ☒ Yes ☐ No

Notify Method: ☒ Mail ☐ E-Mail ☐ Verbal

Analyzed By: Valerie Gasquet
 Date: 7/15/25 QC by: BC pg1-12

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius = 22	Stereo Scope					Optical Properties							RI	Nor -Asbestos Percentage (%)												
			% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of	Elongation	Birefringence		Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous			
201556719	1A	Material Dark Gray Caulk on Flashing Location Roof over Swimming Pool /GYMS	0	Gy	N	GN	N	Chrysotile																				
								Anosite																				
								Crackolite																				
								Tremolite																				
								Anhephyllite																				
20	1B	Material - Location -	0	Gy	N	GN	N	Acinolite																100				
								Chrysotile																				
								Anosite																				
								Crackolite																				
								Tremolite																				
24	2A	Material Gray Caulk (Expansion Joint) Location Roof over Swimming Pool /GYMS	0	Gy	N	GN	N	Anhephyllite																				
								Acinolite																				100
								Chrysotile																				
								Anosite																				
								Crackolite																				
								Tremolite																				
								Anhephyllite																				
								Acinolite																				
								Chrysotile																				
								Anosite																				

QC by: BC pg1-12
 7/15/25

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Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius °F	Stereomicroscope					Optical Properties						RI		Non-Asbestos Percentage (%)								
			Material / Location	% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
32	7B	Material						Chrysotile																
		Location	0	W	N	GN	N	Amosite																
								Crocidolite																
								Tremolite																
								Anthophyllite																
								Actinolite																
33	8A	Material Dark Gray Caulk on HVAC Vent Hood						Chrysotile																
		Location Roof over Swimming Pool/Gym	0	Gy	N	GN	N	Amosite																
								Crocidolite																
								Tremolite																
								Anthophyllite																
								Actinolite																
34	8B	Material						Chrysotile																
		Location	0	Gy	N	GN	N	Amosite																
								Crocidolite																
								Tremolite																
								Anthophyllite																
								Actinolite																
35	9A	Material Gray Sealant on Gutter						Chrysotile	2	W	P	+	L	N	1.552	1.546								
		Location Roof over Auditorium	0	Gy	N	GN	N	Amosite																
								Crocidolite																
								Tremolite																
								Anthophyllite																
								Actinolite																
36	9B	Material						Chrysotile																
		Location						Amosite																
								Crocidolite																
								Tremolite																
								Anthophyllite																
								Actinolite																

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N
A

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Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius 12 _____	Stereomicroscope					Asbestos Minerals	Optical Properties					RI		Non-Asbestos Percentage (%)						
			% of Asbestos	Color	Homogeneity	Texture	Friable		Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other
57	Roof Core 5A	Material Glue/Adhesive on Rubber Location (Pool/Gym) Top layer	0	Y	N	GN	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite														100
58	Roof Core 5B	Material Tar Paper Location (Pool/Gym) Top/Bottom of Foam	0	BK	N	GN F	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite							20 5		R/ UE					45
59	Roof Core 5C	Material Tar / Fiber board Location (Pool/Gym) Top of Metal Deck	0	BK	N	GN	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite														100
60	Roof Core 6A	Material Glue/Adhesive on Rubber Location (Pool/Gym) Top layer	0	Y	N	GN	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite														100
61	Roof Core 6B	Material Tar Paper Location (Pool/Gym) Top/Bottom of Foam	0	BK	N	GN F	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite							20 5/6		R/ UE					45

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Lab Use Only	Field ID/ (Client Reference)	Temp in Celsius °C	Material / Location	Stereomicroscope					Optical Properties						RI		Non-Asbestos Percentage (%)						
				% of Asbestos	Color	Transparency	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other
67	Roof Core 8B		Material Tar paper Location (Pool/Gym) Top/Bottom of Foam	0	BK	N	GN F	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite								20		R UE				45
68	Roof Core 8C		Material Tar Location (Pool/Gym) Top of Metal Deck	0	BK	N	GN	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite														100
69	Curb Cut 1A		Material Glue/Adhesive on Rubber Location (Pool/Gym) Top layer	0	y	N	GN	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite														100
70	Roof Core 9A		Material Glue/Adhesive on Rubber Location (Pool/Gym) Top layer	0	y	N	GN	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite														100
71	Roof Core 9B		Material Tar paper Location (Pool/Gym) Top/Bottom of Foam	0	BK	N	GN F	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite								20		R UE				45

Lab. Inv# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties					RI		Non-Asbestos Percentage (%)								
			% of Asbestos	Color	Transparency	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cerulose	Hair	Synthetic	Other	Non-Fibrous
77	Curb Cut 2A	Material Glue/Adhesion on Rubber Location (Real/Gym) Top layer (Chinook)	0	T	Y	G	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															100
78	Peak Core 12A	Material Glue/Adhesion on Rubber Location (Auditorium) Top layer	0	T	Y	G	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															100
79	Peak Core 12B	Material Tar Paper Location (Auditorium) Top/Bottom of Foam	0	Br	~	G	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite								5 I	R IE		60				20
80	Peak Core 13A	Material Glue/Adhesion on Rubber Location (Auditorium) Top layer	0	T	Y	G	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															100
81	Peak Core 13B	Material Tar Paper Location (Auditorium) Top/Bottom of Foam	0	Br	~	G	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite								5 I	R IE		60				20

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties						RI		Non-Asbestos Percentage (%)							
			% of Asbestos	Color	L. Magnification	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
82	Roof Core 14A	Material Glue / Adhesive on Rubber					Chrysotile																
		Location (Auditorium)	0	T	Y	G	~	Amosite															
		Top layer						Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															10
83	Roof Core 14B	Material Tar paper					Chrysotile									5		R					
		Location (Auditorium)	0	Br	N	G	~	Amosite									5		FE				
		Top / Bottom of Foam						Crocidolite															
								Tremolite															
								Anthophyllite									20		60				20
								Actinolite															
84	Roof Core 15A	Material Glue / Adhesive on Rubber					Chrysotile																
		Location (Auditorium)	0	T	Y	G	~	Amosite															
		Top layer						Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															10
85	Roof Core 15B	Material Tar paper					Chrysotile									5		R					
		Location (Auditorium)	0	Br	N	G	~	Amosite									5		FE				
		Top / Bottom of Foam						Crocidolite															
								Tremolite															
								Anthophyllite									20		60				20
								Actinolite															
86	Roof Core 16A	Material Glue / Adhesive on Rubber					Chrysotile																
		Location (Auditorium)	0	T	Y	G	~	Amosite															
		Top layer						Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															10

Lab # (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius °C	Stereomicroscope					Optical Properties					RI		Non-Asbestos Percentage (%)																			
			% of Asbestos	Color	Transparency	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Dichroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous											
87	Reef Core 16B	Material Tar paper Location (Auditorium) Top/Bottom of Foam	0	Gr	N	G	~	Chrysotile								5	F	R	FE															
								Amosite																										
								Crocidolite																										
								Tremolite																										
								Anthophyllite																										
								Actinolite																										
88	Reef Core 16C	Material Tar on Concrete Deck Location (Auditorium) Top of Concrete Deck	0	Blk	N	G	~	Chrysotile																										
								Amosite																										
								Crocidolite																										
								Tremolite																										
								Anthophyllite																										
								Actinolite																										
89	Reef Core 17A	Material Glue/Adhesive on Rubber Location (Auditorium) Top layer	0	T	Y	G	~	Chrysotile																										
								Amosite																										
								Crocidolite																										
								Tremolite																										
								Anthophyllite																										
								Actinolite																										
90	Reef Core 17B	Material Tar paper Location (Auditorium) Top/Bottom of Foam	0	Gr	N	G	~	Chrysotile								5	F	R	FE															
								Amosite																										
								Crocidolite																										
								Tremolite																										
								Anthophyllite																										
								Actinolite																										
91	Reef Core 18A	Material Glue/Adhesive on Rubber Location (Auditorium) Top layer						Chrysotile																										
								Amosite																										
								Crocidolite																										
								Tremolite																										
								Anthophyllite																										
								Actinolite																										

no
Sample

[illegible]

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties					RI		Non-Asbestos Percentage (%)								
			Material Location	% of Asbestos	Color	Transparency	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Asbestos	Hair	Synthetic	Other
97	Curt Curt 4B	Material	Insulation					Chrysotile															
		Location (Auditorium)	0 W ~ 6 Y					Amosite															
		Top layer						Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite														80	
98	Curt Curt 4C	Material	Tar					Chrysotile															
		Location (Auditorium)	0 Bk ~ 6 ~					Amosite															
		On wall						Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															
99	Roof Car 19A	Material	Glue / Adhesive					Chrysotile															
		Location (Auditorium)						Amosite															
		Top layer						Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															
200	Roof Car 19B	Material	Insulation					Chrysotile															
		Location (Auditorium)	0 G ~ 6 ~					Amosite															
		Between Rubber						Crocidolite															
		and Wall						Tremolite															
								Anthophyllite															
								Actinolite															
01	Roof Car 19C	Material	Tar					Chrysotile															
		Location (Auditorium)	0 Bk ~ 6 ~					Amosite															
		On wall						Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															

no sample

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties					RI		Non-Asbestos Percentage (%)										
			% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Celulose	Hair	Synthetic	Other	Non-Fibrous		
02	Reef Core 201A	Material Glue / Adhesive Location (Auditorium) Top layer	0 T	Y G	~		Chrysotile																		
							Amosite																		
							Crocidolite																		
							Tremolite																		
							Anthophyllite																		
							Actinolite																		10
03	Reef Core 208B	Material Tar Paper Location (Auditorium) Top / Bottom of Foam	0 G	~	~		Chrysotile									S		R							
							Amosite												F		IE				
							Crocidolite																		
							Tremolite																		
							Anthophyllite																		
							Actinolite												20		60				20
04	Reef Core 20C	Material Tar / Fiberboard Location (Auditorium) Top of Metal Deck	0 M	~	~		Chrysotile											R							
							Amosite															IE			
							Crocidolite																		
							Tremolite																		
							Anthophyllite															70			30
							Actinolite																		
05	Reef Core 21A	Material Glue / Adhesive Location (Auditorium) Top layer	0 T	Y G	~		Chrysotile																		
							Amosite																		
							Crocidolite																		
							Tremolite																		
							Anthophyllite																		
							Actinolite																	10	
08	Reef Core 21B	Material Tar paper Location (Auditorium) Top / Bottom of Foam	0 G	~	~		Chrysotile									S		R							
							Amosite													F		IE			
							Crocidolite																		
							Tremolite																		
							Anthophyllite																		
							Actinolite												20		60				20

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Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties						RI		Non-Asbestos Percentage (%)										
			Material / Location	% of Asbestos	Color	Transparency	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous		
87	Reef CC ZIC	Material Tar (Fiberband) Location (Auditorium) Top of Metal Deck	0	m	2	G	~	Chrysotile											R							
								Amosite															FE			
								Crocidolite																		
								Tremolite																		
								Anthophyllite																		
								Actinolite																		
88	Curb cut SA	Material Glue / Adhesive Location (Auditorium) Top layer	0	+	Y	G	~	Chrysotile																		
								Amosite																		
								Crocidolite																		
								Tremolite																		
								Anthophyllite																		
								Actinolite																		
89	Curb cut SB	Material Insulation Location (Auditorium) Between Rubber and Wall	0	w	2	G	Y	Chrysotile													B					
								Amosite																		
								Crocidolite																		
								Tremolite																		
								Anthophyllite																		
								Actinolite																		
90	Curb cut SC	Material Tar Location (Auditorium) on wall	0	BK	2	G	~	Chrysotile																		
								Amosite																		
								Crocidolite																		
								Tremolite																		
								Anthophyllite																		
								Actinolite																		
91	Reef CC 22A	Material Glue / Adhesive Location (Auditorium) Top layer	0	T	Y	G	~	Chrysotile																		
								Amosite																		
								Crocidolite																		
								Tremolite																		
								Anthophyllite																		
								Actinolite																		

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Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties						RI		Non-Asbestos Percentage (%)								
			Material / Location	% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Canines	Hair	Synthetic	Other	Non-Fibrous
12	Roof Core 22B		Material Tar paper Location (Aud. form) Top (Bottom of foam)	0-4	~	G	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite									5 7		100 LP					20
13	Roof Core 22C		Material Tar Location (Aud. form) Top of Deck	0-8	~	G	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite																100
14	Roof Core 23A		Material Glue/Adhesive Location (Aud. form) Top layer	0	T	Y	G	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															100
15	Roof Core 23B		Material Tar paper Location (Aud. form) Top/Bottom of foam	0-6	~	G	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite									5 7		100 DE					20
16	Roof Core 24A		Material Glue/Adhesive Location (Aud. form) Top layer	0	T	Y	G	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															100

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Lab ID (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties						RI		Non-Asbestos Percentage (%)							
			% of Asbestos	Color	Mineralogy	Texture	Fracture	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
22	Roof core 25B	Material						Chrysotile															
		Location (Auditorium)	0	Gr	~	G	~	Amosite									5		P				
		Top/Bottom of foam						Crocidolite									7		FE				
								Tremolite															
								Anthophyllite															
								Actinolite									20		60				20
23	Roof core 25C	Material						Chrysotile															
		Location (Auditorium)	0	M	~	G	~	Amosite											P				
		Top of deck						Crocidolite											FE				
								Tremolite															
								Anthophyllite															
								Actinolite											70				30
24	Roof core 26A	Material						Chrysotile															
		Location (Auditorium)	0	T	Y	G	~	Amosite															
		Top layer						Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															100
25	Roof core 26B	Material						Chrysotile															
		Location (Auditorium)	0	Gr	~	G	~	Amosite											P				
		Top/Bottom of foam						Crocidolite											FE				
								Tremolite															
								Anthophyllite															
								Actinolite								20		60					20
26	Roof core 26C	Material						Chrysotile															
		Location (Auditorium)	0	M	~	G	~	Amosite											P				
		Top of deck						Crocidolite											FE				
								Tremolite															
								Anthophyllite															
								Actinolite											70				30

Lab Use Only	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties						RI		Non-Asbestos Percentage (%)							
		Material Location	% of Asbestos	Color	Transparency	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
27	Curb Cut 8A	Material: Glue Location (Auditorium): Top Layer	0	T	Y	G	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															100
28	Curb Cut 8B	Material: Insulation Location (Auditorium): Between Rubber and Wall	0	w	~	G	Y	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite													FS mt		20 100
29	Curb Cut 8C	Material: Tar Location (Auditorium): on wall on wall	0	Bk	~	G	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															100
30	Roof Cone 27A	Material: Glue Location (Auditorium): Top Layer	0	T	Y	G	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															100
31	Roof Cone 27B	Material: Tar/Pur Location (Auditorium): Top/Bottom of form	0	G	~	G	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite									S I	R FE					20

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties						RI		Non-Asbestos Percentage (%)																		
			% of Asbestos	Color	Transparency	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous											
37	Roof Core 29B	Material Tar Paper Location (Auditorium) Top / Bottom of foam	0	Gr	N	G	N	Chrysotile								5	1	R	FE				20											
								Amosite																										
								Crocidolite																										
								Tremolite																										
								Anthophyllite																										
								Actinolite																										
38	Roof Core 2K	Material Tar Location (Auditorium) Top of Deck - Concrete Deck	0	Rk	N	G	N	Chrysotile																										
								Amosite																										
								Crocidolite																										
								Tremolite																										
								Anthophyllite																										
								Actinolite																										
39	Roof Core 30A	Material Glue Location (Auditorium) Top layer	0	YW	N	W	N	Chrysotile																										
								Amosite																										
								Crocidolite																										
								Tremolite																										
								Anthophyllite																										
								Actinolite																										
40	Roof Core 30B	Material Tar Paper Location (Auditorium) Top / Bottom of foam	0	W	Y	F	N	Chrysotile								3	1	R	IE				5											
								Amosite																										
								Crocidolite																										
								Tremolite																										
								Anthophyllite																										
								Actinolite																										
41	Roof Core 30C	Material Tar / Fiberboard Location (Auditorium) Top of Deck	0	M	N	3/4	Y	Chrysotile										R	IE				20											
								Amosite																										
								Crocidolite																										
								Tremolite																										
								Anthophyllite																										
								Actinolite																										

Lab Use Only	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties					RI		Non-Asbestos Percentage (%)									
			Material Location	% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
42	Roof Core 31A		Material: Glue Location (Auditorium) Top Layer	0	W	N	GW	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															100
43	Roof Core 31B		Material: Tar Paper Location (Auditorium) Top/Bottom of foam	0	GW	Y	F	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite								5 1		R IE					5
44	Roof Core 31C		Material: Tar/Fiberglass Location (Auditorium) Top of Deck	0	M	N	GW F	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite										R IE					20
45	Curb Cut 9A		Material: Glue Location (Auditorium) Top Layer	0	W	Y	GW	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															100
46	Curb Cut 9B		Material: Insulation Location (Auditorium) Between Rubber and wall	0	W	Y	F	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite													FS MH	00	10

Figure 1

Field ID/
(Client
Reference)

Temp in Celcius =

Stereomicroscope

Material Location

% of Asbestos

●●●●●

一、二、三、四、五、六、七、八、九、十、十一、十二、十三、十四、十五、十六、十七、十八、十九、二十、二十一、二十二、二十三、二十四、二十五、二十六、二十七、二十八、二十九、三十、三十一、三十二、三十三、三十四、三十五、三十六、三十七、三十八、三十九、四十、四十一、四十二、四十三、四十四、四十五、四十六、四十七、四十八、四十九、五十、五十一、五十二、五十三、五十四、五十五、五十六、五十七、五十八、五十九、六十、六十一、六十二、六十三、六十四、六十五、六十六、六十七、六十八、六十九、七十、七十一、七十二、七十三、七十四、七十五、七十六、七十七、七十八、七十九、八十、八十一、八十二、八十三、八十四、八十五、八十六、八十七、八十八、八十九、九十、九十一、九十二、九十三、九十四、九十五、九十六、九十七、九十八、九十九、一百。

Summary

Franchise

Asbestos
Minerals

Asbestos %

Abolition

Extinction

CONGRUENT TO DIS-

Birefringence

1

11

1

Fiberglass

Mineral Wool

1990

and the

1000

Chloro

100

Figure 1: Percentage of total sample for each age group across different years. The graph shows a significant shift in the population structure over time, with a large increase in the 0-14 age group starting around 2000 and peaking around 2030, followed by a decline. The 15-24 age group also shows a significant increase, peaking around 2030 and then declining. The 25-34 age group shows a steady increase, peaking around 2030 and then declining. The 35-44 age group shows a steady increase, peaking around 2030 and then declining. The 45-54 age group shows a steady increase, peaking around 2030 and then declining. The 55-64 age group shows a steady increase, peaking around 2030 and then declining. The 65-74 age group shows a steady increase, peaking around 2030 and then declining. The 75+ age group shows a steady increase, peaking around 2030 and then declining.

Lab Use Only	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties						RI		Non-Asbestos Percentage (%)								
			% of Asbestos	Color	Transparency	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous	
S2	Roof Cut 32B	Material Tar Paper Location (Auditorium) Top / Bottom of foam	0	Gray	Y	F	N	Chrysotile									5		R / IE					
								Amosite																
								Crocidolite																
								Tremolite																
								Anthophyllite																
								Actinolite																
S3	Roof Cut 32C	Material Tar / Fiberboard Location (Auditorium) Top of Deck	0	M	N	CW	F	Chrysotile										R / IE						
								Amosite																
								Crocidolite																
								Tremolite																
								Anthophyllite																
								Actinolite																
S4	Roof Cone 33A	Material Glue Location (Auditorium) Top Layer						Chrysotile																
								Amosite																
								Crocidolite																
								Tremolite																
								Anthophyllite																
								Actinolite																
S5	Roof Cone 33B	Material Tar Paper Location (Auditorium) Top / Bottom of foam	0	Gray	Y	F	N	Chrysotile									5		R / IE					
								Amosite																
								Crocidolite																
								Tremolite																
								Anthophyllite																
								Actinolite																
S6	Roof Cone 33C	Material Tar / Fiberboard Location (Auditorium) Top of Deck	0	M	N	CW	F	Chrysotile										R / IE						
								Amosite																
								Crocidolite																
								Tremolite																
								Anthophyllite																
								Actinolite																

No Glue Present

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties						RI		Non-Asbestos Percentage (%)								
			Material / Location	% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
57	Corb Cut 11A		Material Glue Location (Auditorium) Top Layer	0	WN	N	AN	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															100
58	Corb Cut 11B		Material Insulation Location (Auditorium) Between Rubber and wall	0	W	V	F	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite												PS MH 90		10	
59	Corb Cut 11C		Material Tar Location (Auditorium) On Wall	0	BK	V	CW	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite	20	W	P	+	L	N	1.557 (1.55)								80
60	Roof Core 34A		Material Glue Location (Auditorium) Top layer	0	WN	N	CW	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															100
61	Roof Core 34B		Material Tar Paper Location Top/Bottom of foam (Auditorium)	0	CW	V	F	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite								5 1		R IE					5

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Lab Inv# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties					RI		Non-Asbestos Percentage (%)											
			% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous			
72	Roof Core 37A	Material Glue Location (Auditorium) Top Layer	Ø	VW	N	CW	N	Chrysotile																		
								Amosite																		
								Crocidolite																		
								Tremolite																		
								Anthophyllite																		
								Actinolite																		
73	Roof Core 37B	Material Tar Paper Location (Auditorium) Top / Bottom of Foam	Ø	CW	V	F	N	Chrysotile								3		2								
								Amosite																		
								Crocidolite																		
								Tremolite																		
								Anthophyllite																		
								Actinolite													20		75			5
74	Roof Core 37C	Material Tar Location Top of Deck (concrete) (Auditorium)	Ø	M	N	CW	N	Chrysotile																		
								Amosite																		
								Crocidolite																		
								Tremolite																		
								Anthophyllite																	100	
								Actinolite																		
75	Curb Cut BA	Material Glue Location (Auditorium) Top layer	Ø	VW	N	CW	N	Chrysotile																		
								Amosite																		
								Crocidolite																		
								Tremolite																		
								Anthophyllite																	100	
								Actinolite																		
76	Curb Cut 13B	Material Insulation Location (Auditorium) Between Rubber and Wall	Ø	W	N	F	N	Chrysotile																		
								Amosite																		
								Crocidolite																		
								Tremolite																		
								Anthophyllite																		
								Actinolite																		
																					PS MH		80	20		

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Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties						RI		Non-Asbestos Percentage (%)								
			% of Asbestos	Color	Transparency	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous	
87	Curb Cut 15B	Material Insulation Location (Auditorium) Between Rubber and Wall	10	M	N	F	N	Chrysotile								10								
								Amosite																
								Crocidolite																
								Tremolite																
								Anthophyllite																
								Actinolite																
88	Curb Cut 15C	Material Tar Location (Auditorium) On Wall						Chrysotile																
								Amosite																
								Crocidolite																
								Tremolite																
								Anthophyllite																
								Actinolite																
89	Roof Core 39A	Material Glue Location (Auditorium) Top Layer	10	VW	N	CW	N	Chrysotile																
								Amosite																
								Crocidolite																
								Tremolite																
								Anthophyllite																
								Actinolite																100
90	Roof Core 39B	Material Tar Paper Location Top/Bottom of Beam (Auditorium)	10	CW	V	F	N	Chrysotile								5		2						
								Amosite																
								Crocidolite																
								Tremolite																
								Anthophyllite																
								Actinolite																
91	Roof Core 40A	Material Glue (on tar paper) Location Top layer	10	VW	N	CW	N	Chrysotile																
								Amosite																
								Crocidolite																
								Tremolite																
								Anthophyllite																
								Actinolite																100

No Sample

Lab Inv. (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius °F	Stereomicroscope					Optical Properties						RI		Non-Asbestos Percentage (%)												
			Material / Location	% of Asbestos	Color	Heterogeneity	Texture	Variable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous				
92	Roof Core 40B	Material Tar Paper Location Top/Bottom of beam	0	Gm	Y	F	N	Chrysotile									10		R 1 E									
								Amosite																				
								Crocidolite																				
								Tremolite																				
								Anthophyllite																				
								Actinolite																				
93	Corb cut 16A	Material Location	0	Yw	N	Cw	N	Chrysotile																				
								Amosite																				
								Crocidolite																				
								Tremolite																				
								Anthophyllite																				
								Actinolite																				
94	Roof Core 43A	Material Glue Location	0	Yw	N	Cw	N	Chrysotile																				
								Amosite																				
								Crocidolite																				
								Tremolite																				
								Anthophyllite																				
								Actinolite																				
95	Roof Core 43B	Material Tar Paper Location	0	Gm	Y	F	N	Chrysotile									10		R 1 E									
								Amosite																				
								Crocidolite																				
								Tremolite																				
								Anthophyllite																				
								Actinolite																				
96	Corb cut 17A	Material Glue Location Top layer	0	Yw	N	Cw	N	Chrysotile																				
								Amosite																				
								Crocidolite																				
								Tremolite																				
								Anthophyllite																				
								Actinolite																				

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius °C	Stereomicroscope					Optical Properties					RI		Non-Asbestos Percentage (%)									
			Material / Location	% of Asbestos	Color	Transparency	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
02	Roof Core 45A		Material Glue Location Top Layer	0	y	non		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite																W
03	Roof Core 45B		Material Tar Paper Location Top/Bottom of Foam	0	black	trans	ry	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite											22 2	95				S
04	Corb Cot 19A		Material Glue Location Top Layer	0	y	trans		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite																W
05	Corb Cot 20A		Material Glue Location Top Layer	0	y	trans		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite																W
08	Corb Cot 21A		Material Glue Location Top Layer	0	y	trans		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite																W

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp In Celsius	Stereomicroscope					Optical Properties					RI		Non-Asbestos Percentage (%)								
			% of Asbestos	Color	Mineralogy	Texture	Fracture	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
07	Roof Core 46A	Material Glue Location Top Layer	0%	~	~	~	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															1w
08	Roof Core 46B	Material Tar Paper Location Top/Bottom of Foam	0%	~	~	~	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite										22 R 95					5
09	Roof Core 47A	Material Glue/Adhesive Location Top Layer	0%	~	~	~	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															1w
10	Roof Core 47B	Material Tar Paper Location Top/Bottom of Foam	0%	~	~	~	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite										22 R 95					5
11	Roof Core 47C	Material Tar Location Top of Deck (Metal Deck)	0%	~	~	~	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite										22 R 5					95

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius °F	Stereomicroscope					Optical Properties					RI		Non-Asbestos Percentage (%)								
			% of Asbestos	Color	Transparency	Texture	Frangible	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
12	Roof core 48A		Material Glue/Adhesive					Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															1W
13	Roof core 48B		Material Tar Paper					Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite										28 7 95					5
14	Roof core 48C		Material Tar					Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite	3	W	=	T	C	N	1500 1500								97
15	Roof core 49A		Material Glue/Adhesive					Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															1W
16	Roof core 49B		Material Tar Paper					Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite										28 7 95					5

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties					RI		Non-Asbestos Percentage (%)									
			Material / Location	% of Asbestos	Color	Transparency	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
17	Roof Core 50A		Material Glue/Adhesive Location Top Layer	0	y	~	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite																lw
18	Roof Core 50B		Material Tar Paper Location Top/Bottom Layer of foam	0	bl	~	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite										2E R						J
19	Roof Core 50C		Material Tar / Adhesive Location Top of Deck	0	bl	~	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite	2	w	=	5	<	~	1500	lin		2E R						B
20	Roof Core 51A		Material Glue/Adhesive Location Top Layer	0	y	~	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite																lw
21	Roof Core 51B		Material Tar Paper Location Top/Bottom Layer of foam	0	bl	~	~	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite										2E R						S

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Lab # (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius °C	Stereomicroscope					Optical Properties						RI		Non-Asbestos Percentage (%)							
			% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Asbestos	Hair	Synthetic	Other	Non-Fibrous
32	Roof Core 55A	Material	0	Y	~	~	Chrysotile																
		Amosite																					
		Crocidolite																					
		Tremolite																					
		Anthophyllite																					
		Actinolite																					
33	Roof Core 55B	Material	0	Black	~	RY	Chrysotile											88					
		Amosite																			7		
		Crocidolite																					
		Tremolite																					
		Anthophyllite																					
		Actinolite																					
34	Roof Core 55C	Material	0	over	~	RY	Chrysotile											88					
		Amosite																					
		Crocidolite																					
		Tremolite																					
		Anthophyllite																					
		Actinolite																					
35	Curb Cut 23A	Material	0	Y	~	~	Chrysotile																
		Amosite																					
		Crocidolite																					
		Tremolite																					
		Anthophyllite																					
		Actinolite																					
36	Curb Cut 23B	Material	0	Black	~	~	Chrysotile											88					
		Amosite																					
		Crocidolite																					
		Tremolite																					
		Anthophyllite																					
		Actinolite																					

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Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties							RI		Non-Asbestos Percentage (%)													
			Material / Location	% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Ceramics	Hair	Synthetic	Other	Non-Fibrous						
Y2	Curb Cut 25A	Material Glue/Adhesive Location Top Layer (Wood Wall)	0	Y	N	M	W	Chrysotile																						
								Amosite																						
								Crocidolite																						
								Tremolite																						
								Anthophyllite																						
								Actinolite																					100	
Y3	Roof Core 58A	Material Glue/Adhesive Location Top Layer	0	Y	N	M	W	Chrysotile																						
								Amosite																						
								Crocidolite																						
								Tremolite																						
								Anthophyllite																						
								Actinolite																					100	
Y4	Roof Core 58B	Material Tar/Pipe Location Top/Bottom Layer of Form	0	B	L	K	N	R	Y	Chrysotile																				
										Amosite																				
										Crocidolite																				
										Tremolite																				
										Anthophyllite																				
										Actinolite																				
Y5	Roof Core 58C	Material Tar/Fiberboard Location Top of Deck	0	N	E	M	P	Z	N	Chrysotile																				
										Amosite																				
										Crocidolite																				
										Tremolite																				
										Anthophyllite																				
										Actinolite																				
Y9	Roof Core 59A	Material Glue/Adhesive Location Top Layer	0	Y	N	M	W	Chrysotile																						
								Amosite																						
								Crocidolite																						
								Tremolite																						
								Anthophyllite																						
								Actinolite																					100	

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties					RI		Non-Asbestos Percentage (%)													
			% of Asbestos	Color	Transparency	Texture	Frangible	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous					
57	Roof Core 59B	Material	0 bln ~ RY				Chrysotile											28 R										
		Tar Paper					Amosite																					
		Location					Crocidolite																					
		Top/Bottom Layer					Tremolite																					
		of foam					Anthophyllite																					
							Actinolite																					5
58	Roof Core 59C	Material	0 me ~ RY				Chrysotile											28 R										
		Tar/Fiberboard					Amosite																					
		Location					Crocidolite																					
		Top of Deck					Tremolite																					
							Anthophyllite																					
							Actinolite																					70
59	Roof Core 60A	Material	0 Y ~ RY				Chrysotile																					
		Glue/Adhesive					Amosite																					
		Location					Crocidolite																					
		Top Layer					Tremolite																					
							Anthophyllite																					
							Actinolite																					10
58	Roof Core 60B	Material	0 bln ~ RY				Chrysotile											28 R										
		Tar Paper					Amosite																					
		Location					Crocidolite																					
		Top/Bottom Layer					Tremolite																					
		of foam					Anthophyllite																					
							Actinolite																					5
57	Roof Core 60C	Material	0 me ~ RY				Chrysotile											28 R										
		Tar/Fiberboard					Amosite																					
		Location					Crocidolite																					
		Top of Deck					Tremolite																					
							Anthophyllite																					
							Actinolite																					30

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties					RI		Non-Asbestos Percentage (%)												
		Material / Location	% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Ceramics	Hair	Synthetic	Other	Non-Fibrous				
57	Roof Core 62B	Material	00K	W	F	Y		Chrysotile																			
		Tar Paper						Amosite															IE				
		Location						Crocidolite																R			
		Top/Bottom of foam						Tremolite																95			
								Anthophyllite																			5
								Actinolite																			
58	Roof Core 63A	Material	00B	Y	G	N		Chrysotile																			
		Glue/Adhesive						Amosite																			
		Location						Crocidolite																			
								Tremolite																			
								Anthophyllite																			low
								Actinolite																			
59	Roof Core 63B	Material	00M	N	G	N		Chrysotile																			
								Amosite																			
		Location						Crocidolite																			
								Tremolite																			
								Anthophyllite																			40
								Actinolite																			
60	Roof Core 27A	Material	00Y	Y	G	N		Chrysotile																			
		Glue						Amosite																			
		Location						Crocidolite																			
								Tremolite																			
		Rubber to Brick						Anthophyllite																			low
								Actinolite																			
61	Carb Cut 28A	Material	00Y	Y	G	N		Chrysotile																			
		Glue						Amosite																			
		Location						Crocidolite																			
								Tremolite																			
		on wood						Anthophyllite																			low
								Actinolite																			

Lab. Ind. (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius °C	Stereomicroscope					Optical Properties					RI		Non-Asbestos Percentage (%)								
			% of Asbestos	Color	Transparency	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
62	Roof Core 64A		Material Glue/Adhesive					Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															10
63	Roof Core 64B		Material Tar Paper					Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite								S E	R EE						15
64	Roof Core 64C		Material Tar					Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															10
65	Roof Core 65A		Material Glue/Adhesive					Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite									R EE						90
66	Roof Core 65B		Material Tar paper					Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite								S E	R EE						15

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius °C	Stereomicroscope					Optical Properties						RI		Non-Asbestos Percentage (%)											
			% of Asbestos	Color	Heterogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Celulose	Hair	Synthetic	Other	Non-Fibrous				
67	Roof Core	Material Tar	O	BK	Y	S	N	Chrysotile										R EE									
								Amosite																			
								Crocidolite																			
								Tremolite																			
								Anthophyllite																			
								Actinolite																			
68	Roof Core	Material Glue / Adhesive	O	M	N	S	N	Chrysotile										R EE									
								Amosite																			
								Crocidolite																			
								Tremolite																			
								Anthophyllite																			
								Actinolite																			
69	Roof Core	Material Tar Paper	O	M	N	S	F	Y	Chrysotile								S N	R EE									
									Amosite																		
									Crocidolite																		
									Tremolite																		
									Anthophyllite																		
									Actinolite																		
70	Roof Core	Material Tar	O	BK	Y	S	N	Chrysotile										R EE									
								Amosite																			
								Crocidolite																			
								Tremolite																			
								Anthophyllite																			
								Actinolite																			
71	Roof Core	Material Glue / Adhesive	O	M	N	S	N	Chrysotile										R EE									
								Amosite																			
								Crocidolite																			
								Tremolite																			
								Anthophyllite																			
								Actinolite																			

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties					RI		Non-Asbestos Percentage (%)																
			Material / Location	% of Asbestos	Color	Transparency	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Calcium Hydroxide	Hair	Synthetic	Other	Non-Fibrous							
72	Roof Core 67B	Material Tar Paper Location Top/Bottom of foam	0	M	N	F/G	Y	Chrysotile									S		R/E					15							
								Amosite																							
								Crocidolite																							
								Tremolite																							
								Anthophyllite																							
								Actinolite																							
73	Roof Core 67C	Material Tar Location Top of deck	0	Bk	Y	G	N	Chrysotile											R/E					90							
								Amosite																							
								Crocidolite																							
								Tremolite																							
								Anthophyllite																							
								Actinolite																							
74	Roof Core 68A	Material Glue / Adhesive Location Top Layer	0	M	N	G	N	Chrysotile											R/E					90							
								Amosite																							
								Crocidolite																							
								Tremolite																							
								Anthophyllite																							
								Actinolite																							
75	Roof Core 68B	Material Tar Paper Location Top/Bottom of foam	0	M	N	G	Y	Chrysotile									S		R/E					15							
								Amosite																							
								Crocidolite																							
								Tremolite																							
								Anthophyllite																							
								Actinolite																							
76	Roof Core 68C	Material Tar / Fiberboard Location Top of deck	0	M	N	G	Y	Chrysotile											R/E					20 30							
								Amosite																							
								Crocidolite																							
								Tremolite																							
								Anthophyllite																							
								Actinolite																							

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Lab Use Only (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties					RI		Non-Asbestos Percentage (%)									
			% of Asbestos	Color	Transparency	Texture	Fracture	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cement	Hair	Synthetic	Other	Non-Fibrous	
77	R..f Core 69A		Material Glue / Adhesive Location Top Layer	0	M	N	G	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite										2 26					90
78	R..f Core 69B		Material Tar Paper Location Top / Bottom of Deck	0	M	N	G	F	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite								5		2 26					15
79	R..f Core 69C		Material Tar Fiberboard Location Top of Deck	0	M	N	G	F	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite										2 26					60
80	R..f Core 70A		Material Glue / Adhesive Location Top Layer	0	Y	Y	G	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															100
81	Roof Core 70B		Material Tar Paper Location Top / Bottom of Eave	0	M	N	G	F	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite								5		2 26					15

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Lab Use Only (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius °C	Stereomicroscope					Optical Properties						RI		Non-Asbestos Percentage (%)							
			% of Asbestos	Color	Heterogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
87	Roof Core 72B		Material	Tar Paper				Chrysotile															
		Location	Top / Bottom of frame	0	M	N	G	Y	Amosite								S		R				
									Crocidolite										E				
									Tremolite														
									Anthophyllite								IS		70				15
									Actinolite														
88	Roof Core 72C		Material	Tar / Fiberglass				Chrysotile															
		Location	Top of Deck	0	M	N	G	N	Amosite										R				
									Crocidolite										E				
									Tremolite														
									Anthophyllite														
									Actinolite										40				
89	Roof Core 73A		Material	Glue / Adhesive				Chrysotile															
		Location	Top Layer	0	Y	Y	G	N	Amosite														
									Crocidolite														
									Tremolite														
									Anthophyllite														100
									Actinolite														
90	Roof Core 73B		Material	Tar Paper				Chrysotile															
		Location	Top / Bottom of frame	0	M	N	G	Y	Amosite								S		R				
									Crocidolite										E				
									Tremolite														
									Anthophyllite								IS		70				15
									Actinolite														
91	Roof Core 73C		Material	Tar / Fiberglass				Chrysotile															
		Location	Top of Deck	0	M	N	G	N	Amosite										R				
									Crocidolite										E				
									Tremolite														
									Anthophyllite														
									Actinolite										40				

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties						RI		Non-Asbestos Percentage (%)								
			Material / Location	% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
92	Roof Core 74A		Material Blue / Adhesive Location Top Layer	0	M	N	g	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															100
93	Roof Core 74B		Material Tar Paper Location T.P./Bottom of foam	0	M	N	g	Y	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite								8 11		R EE					15
94	Roof Core 74C		Material Tar Location Top of Deck	0	Bk	Y	g	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															100
95	Roof Core 74A		Material Blue / Adhesive Location Top Layer	0	Y	Y	g	N	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															100
96	Roof Core 75B		Material Tar Paper Location Top/Bottom of foam	0	M	N	g	Y	Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite								8 11		R EE					15

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celsius °F	Stereomicroscope					Optical Properties						RI		Non-Asbestos Percentage (%)									
			Material / Location	% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous	
97	R..f Core 76A	Material Glue/Adhesive Location Top Layer	0	Y	Y	G	N	Chrysotile																	
								Amosite																	
								Crocidolite																	
								Tremolite																	
								Anthophyllite																	
								Actinolite																	
98	R..f Core 76B	Material Tar Paper Location Top/Bottom of Foam	0	M	N	G F	N	Chrysotile									S E		R EE						
								Amosite																	
								Crocidolite																	
								Tremolite																	
								Anthophyllite																	
								Actinolite																	
99	R..f Core 76C	Material Tar/Fiberboard Location Top of Deck	0	M	N	G F	N	Chrysotile											R EE						
								Amosite																	
								Crocidolite																	
								Tremolite																	
								Anthophyllite																	
								Actinolite																	
01557000	R..f Core 77A	Material Glue/Adhesive Location Top Layer	0	Y	Y	G	N	Chrysotile																	
								Amosite																	
								Crocidolite																	
								Tremolite																	
								Anthophyllite																	
								Actinolite																	
01557000	R..f Core 77B	Material Tar Paper Location Top/Bottom of Foam	0	M	N	G F	Y	Chrysotile									S E		R EE						
								Amosite																	
								Crocidolite																	
								Tremolite																	
								Anthophyllite																	
								Actinolite																	

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Lab Inv#	Field ID/ (Client Reference)	Temp in Celsius	Stereomicroscope					Optical Properties					RI		Non-Asbestos Percentage (%)									
			Material / Location	% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
12	R..F Core		Material Glue/Adhesive																					
	81A		Location Top Layer	0	Y	Y	G	N																100
13	R..F Core		Material Tar Paper																					
	81B		Location Top / Bottom of Foam	0	M	N	G	Y										S C	R EE					15
14	R..F Core		Material Tar																					
	81C		Location Top of Deck	0	B	Y	G	N																100
15	R..F Core		Material Glue/Adhesive																					
	82A		Location Top Layer	0	Y	Y	G	N																100
16	R..F Core		Material Tar Paper																					
	82B		Location Top / Bottom of Foam	0	M	N	G	Y										S C	R EE					15

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Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = _____	Stereomicroscope					Optical Properties						RI		Non-Asbestos Percentage (%)							
		Material / Location	% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	=	⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
27	17A	Material	Gypsum					Chrysotile															
		Dark Gray Caulk																					
		Location																					
		on Flashing																					
		(main roof chimney)																					
28	17B	Material	Gypsum					Chrysotile															
		"																					
		Location																					
		"																					
29	18A	Material	Gypsum					Chrysotile															
		Dark Gray Caulk																					
		Location																					
		on Flashing																					
		(main roof above library)																					
30	18B	Material	Gypsum					Chrysotile															
		"																					
		Location																					
		"																					
31	19A	Material	Gypsum					Chrysotile															
		Gray Caulk																					
		Location																					
		on Flashing → sides																					
		(main roof above library)																					

[illegible]

[illegible]

[illegible]

[illegible]

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = _____	Stereomicroscope					Asbestos Minerals	Optical Properties					RI		Non-Asbestos Percentage (%)										
		Material / Location	% of Asbestos	Color	Homogeneity	Texture	Friable		Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	=	+	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous			
52	29B	Material Dark window Caulk Location School entrance roof	0%					Chrysotile																		
53	30A	Material Black Caulk Location on Flashing (Between window units)	0%					Chrysotile																		
54	30B	Material " Location "	0%					Chrysotile																		
55	31A	Material White Caulk Location under flashing	0%					Chrysotile	5	2	10	20	15%	61												
56	31B	Material " Location "	0%					Chrysotile																		

Lab ID# (Lab Use Only)		Field ID/ (Client Reference)	Temp in Celcius = ____	Stereomicroscope					Asbestos Minerals	Optical Properties					RI		Non-Asbestos Percentage (%)							
			Material / Location	% of Asbestos	Color	Homogeneity	Texture	Friable		Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
57	32A	Material Dark Gray Caulk Location on Flashing / B.H.S							Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															
88	32B	Material " Location "							Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															
99	33A	Material Black Caulk Location ON Brick (Conduit)							Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															
8	33B	Material " Location "							Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															
9	34A	Material Gray Caulk Location on bat Flashing							Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite															

[illegible]

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = _____	Stereomicroscope					Asbestos Minerals	Optical Properties						RI		Non-Asbestos Percentage (%)						
		Material / Location	% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism		⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous	
71	Roof Core 41B	Material						Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															
72	Roof Core 41C	Material						Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															
73	Roof Core 42A	Material						Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															
75	Roof Core 42B	Material						Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															
75	Roof Core 42C	Material						Chrysotile															
		Location						Amosite															
								Crocidolite															
								Tremolite															
								Anthophyllite															
								Actinolite															

7/15/12

APPENDIX C



Telephone: 781-935-3212
Facsimile: 781-932-4857
Email: BostonAero@PaceLabs.com

Laboratory Report

Contact: Bryant Dana
Client: CDW Consultants, Inc.
Address: 4 California Drive
Framingham, MA 01701

Batch #: C 320131
Date received: 7/2/2025
Date analyzed: 7/10/2025
Date of report: 7/10/2025

Project # N/A
P.O.# N/A
Project Site: Amherst - Pelham Middle School

AIHA-LAP, LLC Lab ID: 102754

Lead Analysis In Paint Using SOP Based on SW846-7000B/3051
Results in weight percent on an "as received" weight basis

Lab ID	Client ID	Sample date	Description	Result	Reporting Limit	Comments
C 760418	LBP-1	6/30/25	Maroon Paint on Louver - Roof Over Swimming Pool	1.11	0.034	
C 760419	LBP-2	6/30/25	Black Paint on Siding - Pool / Gyms Roof	0.132	0.084	
C 760420	LBP-3	6/30/25	Black Paint on Siding - Auditorium Roof	<RL	0.019	
C 760421	LBP-4	6/30/25	Black Paint on Siding - Main School Roof	0.113	0.040	
C 760422	LBP-5	6/30/25	Blue Paint Under Siding / On Columns - Main School Roof Entrance	<RL	0.054	


Sydney Strong, Technical Manager Chemistry
Aimee Cormier, Lab Director

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Unless otherwise indicated, all samples were received in acceptable condition.
All results apply only to the samples tested and as received and are accurate to no more than three significant figures.
Unless otherwise indicated, all the quality control criteria for the method above have been met.
RL-Reporting Limit(% by weight) Note on units: mg/Kg is the same as ppm by weight.
RL-Reporting Limit; Defined as the lowest concentration the laboratory can accurately quantitate.
The Report shall not be reproduced except in full without the written approval of the laboratory.
Please visit our website at www.PaceLabs.com for the current accreditation status.

ProScience Analytical Services, Inc.

Chemistry Chain of Custody Record

LABORATORY/HEADQUARTERS

22 Cummings Park, Woburn, MA 01801

T: 781-938-3212 F: 781-932-4897

www.proscience.net
general@proscience.net

☐ Rush/24 Hours ☐ Turn Around Time Requested

Same Day ☐ Next Day ☐ 2 Day ☐ 3 Day ☒ 5 Days ☐

Client: CDW Consultants Inc.
Address: 9 California Ave, Framingham, MA 01701
City: Framingham State/Zip: MA 01701

Project Site: Amherst-Pelham Middle School Project Number:
Line 2: PO:

Contact: Bryant Darr Phone: 781-989-2848 FAX:
Email: bdarr@cdwconsultants.com

☐ NELAC analysis

TYPE OF ANALYSIS (circle)

DUST	PAINT	SOIL
WIPES	(10.1 g)	(1 g)
AR	TEP	TCLP
(mg)	PM10	Other

Element (gravimetric)

☒ Cd ☐ Cr ☐ As ☐ Fe
☐ Se ☐ Ag ☐ Ba ☐ Hg

Other (please specify unit or comments):

For Laboratory Use

BATCH NUMBER

C 320131

☐ ASTM E1792 FOR LABORATORY USE ONLY

Date and Time Sampled	Field I.D.	Sample Description/Location	Air Sampling Information					Wiped area			ANALYSIS				Lab I.D.
			Start Time	End Time	Start Flowrate	End Flowrate	Volume (liters)	length (inch)	width (inch)	Area (sq in)	Weight (grams)	Diln	AA/ICP Reading	RESULT	
6/30/25	LBP-1	Maroon Paint on Cover - Roof over Swimming Pool													760418
6/30/25	LBP-2	Black Paint on Siding - Pool/Cyns Roof													19
7/1/25	LBP-3	Black Paint on Siding - Auditorium Roof													20
7/1/25	LBP-4	Black Paint on Siding - Main School Roof													21
7/2/25	LBP-5	Blue Paint under Siding / on columns - Rest Entrance													22

Relinquished By: Bryant Darr
Received By:
Comments:

Date: 7/2/25
Date: 7/2/25

Time: 1300
Time: 1541

ver 6.8

PAGE 1 OF 1

Field blanks are required for air and wipe samples per the sampling method and should be from the same source lot as was used for the collected field samples. ProScience Analytical Services reserves the right to subcontract samples to an appropriately accredited laboratory when we are unable to perform the analysis in house.



APPENDIX B

PHOTO VOLTAIC AND ENERGY ASSESSMENTS



APPENDIX C

STRUCTURAL ASSESSMENT



Amherst-Pelham Regional Middle School

179 Chestnut Street

Springfield, Massachusetts

STRUCTURAL ASSESSMENT AND CHAPTER 34 CODE REVIEW

June 16, 2025

SCOPE

The purpose of this report is to evaluate the reserve capacity of the existing roof structure for replacement of the existing roofing over the entire footprint of the roof. This assessment also includes a code review to identify whether any upgrades are required to the existing structure based on the reroofing on the roof structure.

BASIS OF THE REPORT

This report is based on our observations during our visit to the school on April 25, 2025 and review of the original construction drawings prepared by Alderman & MacNeish Architects and Engineers, dated August 14, 1967 and review of the roof assessment report prepared by Gale Associates, Inc., dated December 12, 2017.

BUILDING DESCRIPTION

The School is located Chestnut Street in Amherst, Massachusetts. The school is a two story steel framed structure and was constructed in 1967, no additions were constructed or major renovations were made to the school since the time of the original construction. We conducted an analysis of the existing roof framing and noted that the roof structure has a very uniform capacity over the entire roof. The roof can safely support the design snow loads from the current Building Code and will support the load from the proposed replacement roofing system. We concluded that the roof structure has a very limited reserve capacity of 5 psf and will not be able to support a ballasted PV panels system. The existing roof structure would be able to support a PV Panels system that is directly connected to the structure or on dunnage steel platforms supported on the existing columns.

PROPOSED SCOPE OF REROOFING AND INSTALLATION OF PV PANELS

The proposed scheme calls for replacement of the existing roofing system with a membrane roofing system either adhered or mechanically fastened with 5 3/8" polyisocyanurate insulation with a 1/2" dens deck and 1/2" high density cover board. We cannot support any ballasted PV panels on top of the

structure. The panels will have to be supported by directly connecting it to the roof structure or on dunnage steel spanning between existing columns. Allow for 10 psf of galvanized dunnage steel for an area of 1,000 sf for total steel allowance of 5 tons.

PRIMARY STRUCTURAL CODE ISSUES RELATED TO THE EXISTING STRUCTURE

If any repairs, renovations, additions or change of occupancy or use are made to the existing structure, a check for compliance with 780 CMR, Chapter 34 "Existing Structures" (Massachusetts Amendments to The International Existing Building Code 2018) of the Massachusetts Amendments to the International Building Code 2021 (IBC 2021) and reference code "International Existing Building Code 2018" (IEBC 2018) is required. The intent of the IEBC and the related Massachusetts Amendments to IEBC is to provide alternative approaches to alterations, repairs, additions and/or a change of occupancy or use without requiring full compliance with the code requirements for new construction.

The IEBC provides three compliance methods for the repair, alteration, change of use or additions to an existing structure. Compliance is required with only one of the three compliance alternatives. Once the compliance alternative is selected, the project will have to comply with all requirements of that particular method. The requirements from the three compliance alternatives cannot be applied in combination with each other.

The three compliance methods are as follows:

1. Prescriptive Compliance Method.
2. Work Area Compliance Method.
3. Performance compliance Method.

NOTE: The Performance Compliance Method is onerous and would require the existing structure to comply with essentially the Code for New Construction; thus, we will only consider the Prescriptive Compliance Method and the Work Area Compliance Method for our project.

COMMENT

For any proposed renovations, the approach is to evaluate the compliance requirements for each of the three methods and select the method that would yield the most cost effective solution for the structural scope of the project. The requirements for reroofing are identical in all the compliance methods. We would recommend following the requirements of the Work Area Compliance Method. In this method the alterations would be classified as Level 1 Alterations.

ADDITIONAL GRAVITY LOADS (IEBC 706.2)

The Work Area Compliance Methods both require that it be shown that the existing gravity load carrying elements meet the requirements of the Code for New Construction, unless the structural elements' stresses are not increased by more than 5 percent.

Based on an evaluation of the proposed scheme, and an evaluation of the existing structure, we have determined that the replacement of the roofing would not increase the stresses on the roof structure, walls and foundations by more than 5 percent under gravity loads.

SUMMARY

We have determined that the proposed replacement reroofing system can be safely supported on the existing roof structure and no structural upgrades of the existing structure is required.

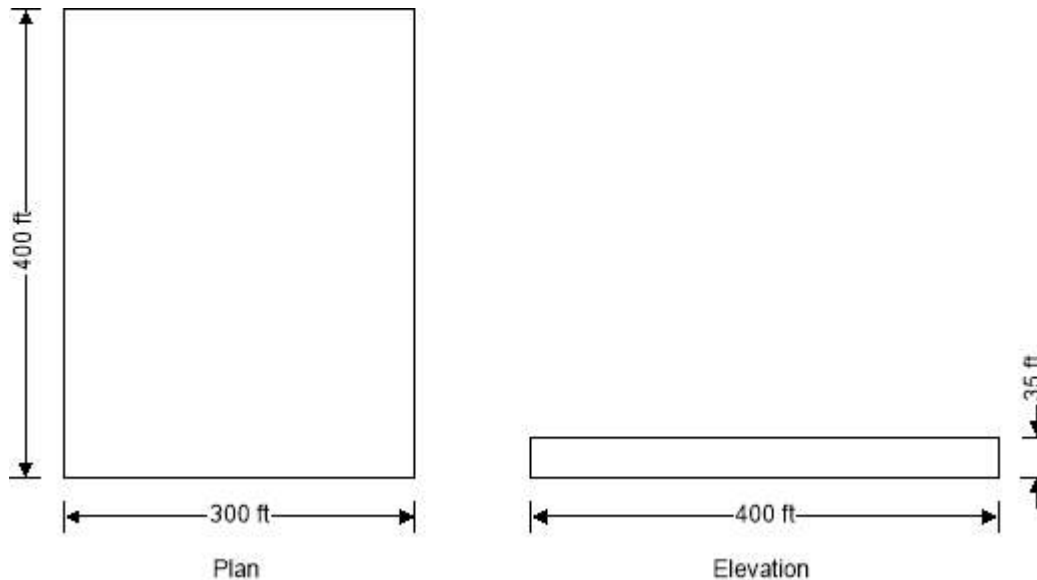
Based on the analysis of the existing structure we have determined that the existing structure does not have adequate capacity to support a ballasted PV system on the roof structure but can support a PV system that is directly connected to the roof structure or supported on dunnage steel spanning between existing columns. Allow for 10 psf of galvanized dunnage steel for an area of 1,000 sf for total steel allowance of 5 tons.

WIND LOADING

In accordance with ASCE7-16

Using the components and cladding design method

Tedds calculation version 2.1.14



Building data

Type of roof	Flat
Length of building	b = 300.00 ft
Width of building	d = 400.00 ft
Height to eaves	H = 35.00 ft
Mean height	h = 35.00 ft
End zone width	a = max(min(0.1×min(b, d), 0.4×h), 0.04×min(b, d), 3ft) = 14.00 ft

General wind load requirements

Basic wind speed	V = 123.0 mph
Risk category	III
Velocity pressure exponent coef (Table 26.6-1)	K _d = 0.85
Ground elevation above sea level	z _{gl} = 0 ft
Ground elevation factor	K _e = exp(-0.0000362 × z _{gl} /1ft) = 1.00
Exposure category (cl 26.7.3)	C
Enclosure classification (cl.26.12)	Enclosed buildings
Internal pressure coef +ve (Table 26.13-1)	GC _{pi_p} = 0.18
Internal pressure coef -ve (Table 26.13-1)	GC _{pi_n} = -0.18
Gust effect factor	G _f = 0.85

Topography

Topography factor not significant	K _{zt} = 1.0
-----------------------------------	-----------------------

Velocity pressure

Velocity pressure coefficient (Table 26.10-1)	K _z = 1.01
Velocity pressure	q _h = 0.00256 × K _z × K _{zt} × K _d × K _e × V ² × 1psf/mph ² = 33.2 psf

Peak velocity pressure for internal pressure

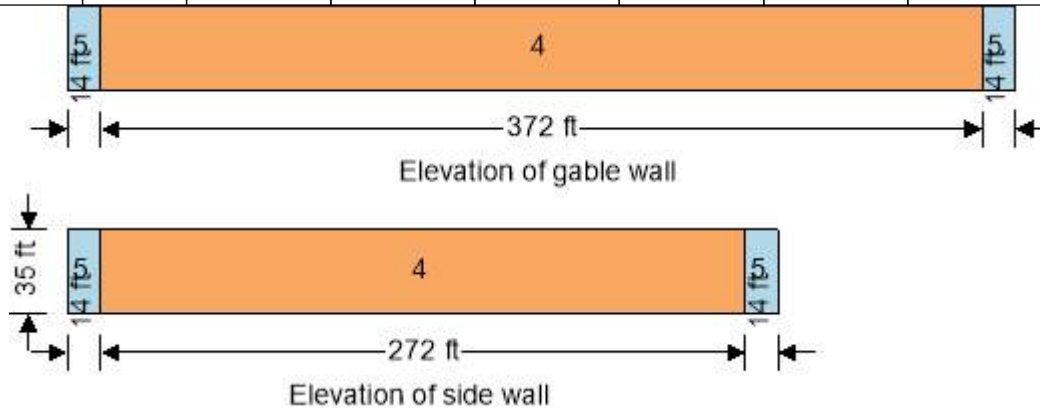
Peak velocity pressure – internal (as roof press.) $q_i = 33.25$ psf

Equations used in tables

Net pressure $p = q_i \times [GC_p - GC_{pi}]$

Components and cladding pressures - Wall (Table 30.3-1)

Component	Zone	Length (ft)	Width (ft)	Eff. area (ft ²)	+GC _p	-GC _p	Pres (+ve) (psf)	Pres (-ve) (psf)
<=10 sf	4	-	-	10.0	0.90	-0.99	35.9	-38.9
50 sf	4	-	-	50.0	0.79	-0.88	32.2	-35.2
200 sf	4	-	-	200.0	0.69	-0.78	29.0	-32.0
>500 sf	4	-	-	500.1	0.63	-0.72	26.9	-29.9
<=10 sf	5	-	-	10.0	0.90	-1.26	35.9	-47.9
50 sf	5	-	-	50.0	0.79	-1.04	32.2	-40.5
200 sf	5	-	-	200.0	0.69	-0.85	29.0	-34.1
>500 sf	5	-	-	500.1	0.63	-0.72	26.9	-29.9

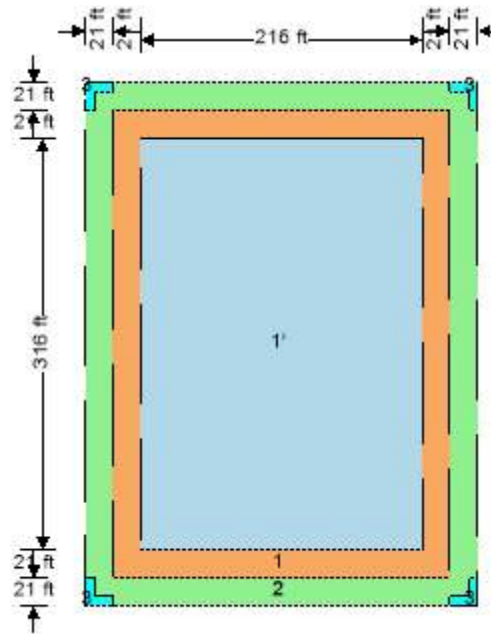


Components and cladding pressures - Roof (Figure 30.3-2A)

Component	Zone	Length (ft)	Width (ft)	Eff. area (ft ²)	+GC _p	-GC _p	Pres (+ve) (psf)	Pres (-ve) (psf)
<=10 sf	1	-	-	10.0	0.30	-1.70	16.0 #	-62.5
100 sf	1	-	-	100.0	0.20	-1.29	12.6 #	-48.8
200 sf	1	-	-	200.0	0.20	-1.16	12.6 #	-44.7
>500 sf	1	-	-	500.1	0.20	-1.00	12.6 #	-39.2
<=10 sf	1'	-	-	10.0	0.30	-0.90	16.0 #	-35.9
100 sf	1'	-	-	100.0	0.20	-0.90	12.6 #	-35.9
500 sf	1'	-	-	500.0	0.20	-0.55	12.6 #	-24.3
>1000 sf	1'	-	-	1000.1	0.20	-0.40	12.6 #	-19.3
<=10 sf	2	-	-	10.0	0.30	-2.30	16.0 #	-82.5
100 sf	2	-	-	100.0	0.20	-1.77	12.6 #	-64.8

Component	Zone	Length (ft)	Width (ft)	Eff. area (ft ²)	+GC _p	-GC _p	Pres (+ve) (psf)	Pres (-ve) (psf)
200 sf	2	-	-	200.0	0.20	-1.61	12.6 #	-59.5
>500 sf	2	-	-	500.1	0.20	-1.40	12.6 #	-52.5
<=10 sf	3	-	-	10.0	0.30	-3.20	16.0 #	-112.4
100 sf	3	-	-	100.0	0.20	-2.14	12.6 #	-77.2
200 sf	3	-	-	200.0	0.20	-1.82	12.6 #	-66.6
>500 sf	3	-	-	500.1	0.20	-1.40	12.6 #	-52.5

The final net design wind pressure, including all permitted reductions, used in the design shall not be less than 16psf acting in either direction



Plan on roof