Hazardous Building Materials Inspection

Newtown Hall
Fairfield Hills Campus
Newtown, Connecticut

Town of Newtown

Newtown, Connecticut

August 2015
Revised December 2016

Fuss & O'Neill EnviroScience, LLC
56 Quarry Road
Trumbull, CT 06611

Project No. 20141268.A7E

FUSS & O'NEILL
EnviroScience, LLC

August 21, 2015
Revised December 29, 2016

Ms. Christal Preszler
Town of Newtown
3 Primrose Street
Newtown, CT 06470

Re: Hazardous Building Materials Inspection
Newtown Hall
Fairfield Hills Campus, Keating Farms Avenue, Newtown, Connecticut
Fuss & O'Neill EnviroScience Project No. 20141268.A7E

Dear Ms. Preszler:

Enclosed is the summary report for the hazardous building materials inspection conducted for the Newtown Hall located on Keating Farm Avenue on the Fairfield Hills Campus in Newtown, Connecticut (the "Site"). The work was conducted for the Town of Newtown (the "Client").

The services were performed in July 2015 and October 2016 by a Fuss & O'Neill EnviroScience, LLC state inspector and included a records review of previous sampling data, a supplemental asbestos inspection, lead-based paint determination, lead waste disposal characterization, and an inventory of polychlorinated biphenyl (PCB)-containing light ballasts, mercury-containing devices, and other building wastes. The information summarized in this report is for the abovementioned materials and locations only.

If you should have any questions regarding the contents of this report, please contact me at (203)-374-3748. Thank you for this opportunity to have served your environmental needs.

Sincerely,

Helen Rimsa

Helen Rimsa
Senior Scientist

HR/kr

Enclosure

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EnviroScience, LLC

Table of Contents

Hazardous Building Materials Inspection Report
Newtown Hall
Keating Farms Avenue, Fairfield Hills Campus, Newtown, CT
Town of Newtown

End of Report

Appendices

End of Report

APPENDIX A	LIMITATIONS
APPENDIX B	ENVIROSCIENCE INSPECTOR STATE LICENSES AND EPA ACCREDITATIONS
APPENDIX C	ASBESTOS LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY FORMS
APPENDIX D	ASBESTOS-CONTAINING MATERIALS LOCATION DIAGRAMS
APPENDIX E	LEAD PAINT FIELD DATA SHEETS
APPENDIX F	LEAD TCLP LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY FORM, AND TCLP REPRESENTATIVE DEMOLITION WASTE STREAM SAMPLE ALIQUOT COMPUTATION FORM
APPENDIX G	SITE PHOTOGRAPHS
APPENDIX H	OPINION OF ABATEMENT AND DEMOLITION COST

1 Introduction

On July 10, 2015, Fuss & O'Neill EnviroScience, LLC (EnviroScience) representative Mr. Robert Hobbins performed a hazardous building materials inspection of Newtown Hall on Keating Farms Avenue on the Fairfield Hills Campus in Newtown, Connecticut (the "Site"). On October 28, 2016, EnviroScience returned to the Site to perform additional sampling for the characterization of the anticipated waste streams at the Site. The inspection included the following services:

- Review of Previous Asbestos-Containing Materials (ACM) Sampling Data,
- Supplemental ACM Inspection,
- Lead-Based Paint (LBP) Determination,
- Lead Waste Characterization Sampling, and
- Polychlorinated Biphenyl (PCB)-Containing Light Ballasts, Mercury-Containing Devices, and Other Building Wastes Inventory.

The work was conducted for the Town of Newtown (the "Client") in accordance with our written scope of services dated December 17, 2014, and is subject to the limitations included in *Appendix A*.

This hazardous building materials inspection was performed in response to the proposed building renovation and/or demolition and included the building interiors, exteriors, and roofs.

2 Asbestos Inspection

A property owner must ensure that a thorough ACM inspection is performed prior to possible disturbance of suspect ACM during renovation and/or demolition activities. This is a requirement of the United States Environmental Protection Agency (EPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) regulation located at Title 40 CFR, Part 61, Subpart M.

On July 10, 2015, Mr. Hobbins of EnviroScience conducted the inspection. Mr. Hobbins, is a State of Connecticut Department of Public Health (CTDPH)-licensed Asbestos Inspectors. Refer to *Appendix B* for the EnviroScience Inspector state licenses, certifications, and accreditations.

2.1 Methodology

The inspection was conducted by visually inspecting for suspect ACM and touching each of the suspect materials. The suspect materials were categorized into three EPA NESHAP groups: friable and non-friable Category I and Category II type ACM.

- A Friable Material is defined as material that contains greater than 1 percent asbestos, that when dry **can** be crumbled, pulverized, or reduced to powder by hand pressure.
- Category I non-friable ACM is any asbestos-containing packing, gasket, resilient floor covering or asphalt roofing product which contains more than one percent (1%) asbestos that when dry cannot be crumbled, pulverized, or reduced to powder by hand pressure.

- A Category II Non-Friable Material refers to any non-friable material excluding Category I materials that contain greater than 1 percent asbestos that when dry **cannot** be crumbled, pulverized, or reduced to powder by hand pressure.

The suspect ACM were also categorized into their applications including, Thermal System Insulation (TSI), Surfacing ACM (S), and Miscellaneous ACM (M). TSI includes those materials used to prevent heat loss/gain or water condensation on mechanical systems. Examples of TSI are pipe insulation, boiler insulation, duct insulation, and mudded pipe fitting insulations. Surfacing ACM includes those ACM that are applied by spray, trowel, or otherwise applied to an existing surface. Surfacing ACM is commonly used for fireproofing, decorative, and acoustical applications. Miscellaneous materials include those ACM not listed as thermal or surfacing, such as linoleum, vinyl asbestos flooring, ceiling tiles, caulkings, glues, construction adhesives, etc.

The EPA recommends collecting suspect ACM samples in a manner sufficient to determine asbestos content and to segregate each suspect type of homogenous (similar in color, texture, and date of application) materials. The EPA NESHAP regulation does not specifically identify a minimum number of samples to be collected for each homogeneous material, but the NESHAP regulation does recommend the use of sampling protocols included in EPA Title 40 CFR, Part 763, Subpart E: Asbestos Hazard Emergency Response Act (AHERA).

The EPA AHERA regulation requires a specific number of samples be collected based on the type of material and quantity present. This regulation includes the following protocol:

1. Surfacing Materials (S) (i.e., plasters, spray-applied fireproofings, etc.) must be collected in a randomly distributed manner representing each homogenous area based on the overall quantity represented by the sampling as follows:

    a. Three (3) samples collected from each homogenous area that is less than or equal to 1,000 square feet.
    b. Five (5) samples collected from each homogenous area that is greater than 1,000 square feet but less than or equal to 5,000 square feet.
    c. Seven (7) samples collected from each homogenous area that is greater than 5,000 square feet.

2. Thermal System Insulation (TSI) (i.e., pipe insulations, tank insulations, etc.) must be collected in a randomly distributed manner representing each homogenous area. Three (3) samples must be collected from each material. Also, a minimum of one (1) sample of any patching materials applied to TSI presuming the patched area is less than 6 linear or square feet should be collected.

3. Miscellaneous materials (M) (i.e., floor tile, gaskets, construction mastics, etc.) should have a minimum of two (2) samples collected for each type of homogenous material. Sample collection was conducted in a manner sufficient to determine asbestos content of the homogenous material as determined by the inspector.

The inspector collected samples of those suspect ACM not previously-identified during the previous inspection performed at the Site in February 2008 by TRC Companies, Inc., and which may be disturbed by proposed renovation and/or demolition activities. EnviroScience prepared proper chain-of-custody forms for transmission of the samples collected to EMSL Analytical Inc., of South Portland, Maine, for analysis. EMSL is a Connecticut-licensed and American Industrial Hygiene Association (AIHA)-accredited asbestos analytical laboratory. The sample locations, material type, sample identification, and asbestos content are identified by bulk sample analysis in **Table 1** attached hereto. Suspect ACM not listed in the table that may be identified at a later date at the Site, should be assumed to be ACM until sample collection and analysis indicate otherwise. Initial asbestos sample analysis was conducted using the EPA Interim Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116) via Polarized Light Microscopy with Dispersion Staining (PLM/DS).

Destructive investigations for inaccessible and hidden materials were performed at the Site. The destructive investigations included the following areas:

- Wall Cavities;
- Pipe Chases;
- Spaces Above Fixed Ceilings;
- Foundation Walls;
- Spaces Behind Brick Façade; and
- Behind Mirrors.

EnviroScience did not conduct subsurface investigations to identify potential cementitious pipe at the Site. Additionally, the pipe tunnels and pedestrian tunnels located in the basement were not included in this inspection at the Client's direction

2.2 Results

Utilizing the EPA protocol and criteria, the following materials were determined to be ACM:

- White Magnesium and Grey Pressed Paper Pipe Insulation and Gray Mudded Pipe Fitting Insulation and Debris;
- Gray Radiator Insulation Paper;
- Brown Glue Daubs on 6" x 4" Rectangular Ceiling Tiles;
- Floor Tile (Various Sizes and Colors) and Black, Brown, and Tan Floor Mastic;
- Interior Black Tar/Damproofing on Terracotta Block,
- Interior Vault Door Core Insulation;
- Exterior Window Glazing and Caulking Compounds;
- Exterior Door Caulking Compounds; and
- Exterior Cementitious Roof Shingles and associated Flashing and Tar.

Refer to the attached **Table 1** for a complete list of ACM and non-ACM identified as part of this inspection and attached **Table 2** for a list of ACM by homogenous locations. Refer to *Appendix C* for the asbestos laboratory analytical reports and chain-of-custody forms. See *Appendix D* for site diagrams depicting ACM located within the building.

2.3 Discussion

The EPA, the Occupational Safety and Health Administration (OSHA), and the CTDPH define a material that contains greater than one percent (> 1%) asbestos, utilizing PLM/DS, as being an ACM. Materials that are identified as "none detected" are specified as not containing asbestos.

Additionally, the EPA has suggested that materials that are non-friable organically bound materials (e.g., asphaltic-based materials, adhesives, etc.) are recommended for further confirmatory analysis utilizing Transmission Electron Microscopy (TEM). A total of 30 of the collected samples were analyzed by TEM. The results of TEM analysis are denoted in **Table 1**.

2.4 Conclusions and Recommendations

ACM was identified at the Site during this inspection. ACM that will be impacted by proposed building renovation and/or demolition must be abated by a CTDPH-licensed Asbestos Abatement Contractor prior to disturbance during building renovation and/or demolition activities. This includes all friable and-non-friable ACM and is a requirement of the CTDPH and EPA NESHAP standards for asbestos abatement.

Materials containing < 1% asbestos are not regulated by CTDPH or EPA; however OSHA regulations still apply during demolition activities that will disturb the materials. During demolition activities involving materials containing < 1% asbestos, the materials should be removed under controlled conditions (use of water to inhibit dust). Additionally, the contractor should perform personal air sampling to document worker exposure to airborne fibers. If personal air sampling documents airborne fiber concentrations above the OSHA Permissible Exposure Limit (PEL), additional OSHA regulatory requirements (worker training, worker protection, construction of a regulated area, use of worker decontamination unit, etc.) are required.

EnviroScience recommends that a comprehensive scope of work and technical specification for asbestos abatement be developed as part of Site renovation and/or demolition plans. Due to damaged ACM located throughout the Site, an Alternative Work Practice (AWP) should be developed by a CTDPH-licensed Asbestos Project Designer and submitted to the CTDPH for approval. The AWP should be developed for installation of critical barriers, establishment of negative pressure, and construction of a decontamination unit. Once critical barriers, negative pressure, and a decontamination unit are constructed, the abatement contractor cleans all surfaces, abates all ACM, and encapsulates the work area.

Suspect materials encountered during renovation and/or demolition activities that are not identified in this report as being non-ACM should be presumed to be ACM until sample collection and laboratory analysis indicate otherwise.

<u>This report is not intended to be utilized as a bidding document or as a project specification document</u>. The report is designed to aid the building owner, architect, construction manager, general contractors,

and contractors in locating ACM. Quantities and locations of identified ACMs should be confirmed and observed by the abatement contractors during the bidding process.

3 Lead-Based Paint Determination

On July 10, 2015, Mr. Hobbins of EnviroScience performed a lead-based paint (LBP) determination associated with coated building components at the Site that may be disturbed during renovation and/or demolition activities. An X-ray fluorescence (XRF) analyzer was used to perform the LBP determination. The determination was conducted in accordance with generally-accepted industry standards for non-residential (i.e., not child-occupied) buildings.

3.1 Methodology

For the purpose of this LBP determination, representative coated building components were tested as part of the inspection. Individual repainting efforts are not discoverable in such a limited program. LBP issues involving properties that are non-residential are regulated to a limited degree for worker protection relating to paint-disturbing work activities and waste disposal.

Worker protection is regulated by OSHA regulations. These regulations involve air monitoring of workers to determine exposure levels when disturbing lead-containing paint. An LBP determination cannot determine a safe level of lead, but is intended to provide guidance for implementing industry standards for lead in paint at identified locations. Contractors may then better determine exposure of workers to airborne lead by understanding the different concentrations of LBP activities that disturb paint on representative surfaces.

The EPA Resource Conservation and Recovery Act (RCRA), as well as the State of Connecticut Department of Energy and Environmental Protection (CTDEEP), regulate disposal of lead-containing waste. Lead-containing materials that will be impacted during renovation and/or demolition activities and result in waste for disposal must either be analyzed using the Toxicity Characteristic Leaching Procedure (TCLP) analytical method, if lead is determined to be present in non-residential buildings, or be presumed as a hazardous waste. TCLP analysis is performed on a representative sample of the intended waste stream. The results are compared to a threshold value of 5.0 milligrams per liter (mg/L); a result exceeding this value is considered hazardous lead waste. If the result is below the established level, the material is not considered hazardous and may be disposed as general construction debris.

A level of LBP exceeding 1.0 milligram of lead per square centimeter (mg/cm^2) is considered toxic or dangerous for compliance with residential standards. For purpose of this LBP determination the level of 1.0 mg/cm^2 has been utilized as a threshold for areas where possible worker exposures may occur.

3.2 Results

The LBP determination indicated consistent painting trends associated with representative coated building components that will be impacted by the proposed demolition work. The following coated building components tested were determined to contain lead exceeding 1.0 mg/cm^2:

Exterior

- White Wood Window Sash and Trim;
- White Wood Door, Trim and Jamb;
- Black Metal Handrail.

Interior

- White Plaster Walls;
- White Wood Window Well, Sash and Trim;
- White Wood Door, Trim and Jamb;
- White Wood Ceiling Moldings;
- Main Lobby Post Box White Wood Trim;
- Main Lobby White Wood Wall Panel and Mantle;
- White Wood Window Well;
- Black Metal Handrail;
- Blue Ceramic Wall Tile;
- Brown Metal Stair Riser and Stringer; and
- Brown Metal Door and Jamb.

Refer to *Appendix E* for the lead paint determination field data sheets.

3.3 Discussion

OSHA published a Lead in Construction Standard (OSHA Lead Standard) Title 29 CFR, Part 1926.62 in May 1993. The OSHA Lead Standard has no set limit for the content of lead in paint below which the standards do not apply. The OSHA Lead Standards are task-based, and derived from airborne exposure and blood lead levels.

The results of this LBP determination are intended to provide guidance to contractors for occupational exposure-control to lead. Building components containing lead levels above industry standards that are disturbed may cause exposures to lead above OSHA standards during renovation and/or demolition activities.

3.4 Conclusions and Recommendations

Coated building components tested were identified during this inspection as containing lead exceeding 1.0 mg/cm^2. Due to the presence of LBP at the Site, samples of the representative waste stream from each building were collected and TCLP analysis was performed to determine proper off-site waste disposal (see Section 4 of this report for additional information). LBP-coated building materials should not be subject to grinding, sawing, drilling, sanding, or torch cutting.

Contractors must be made aware that OSHA has not established a level of lead in a material below which Title 29 CFR, Part 1926.62 does not apply. Contractors shall comply with exposure assessment

criteria, interim worker protection, and other requirements of the regulation as necessary to protect workers during any renovation and/or demolition work that will impact lead paint.

EnviroScience recommends that a comprehensive scope of work and technical specification for LBP during renovation and/or demolition be developed as part of Site renovation and/or demolition plans.

This report is not intended to be utilized as a bidding document or as a project specification document. The report is designed to aid the building owner, architect, construction manager, general contractors, and asbestos abatement contractors in locating LBP. Quantities and locations of identified LBP should be confirmed and observed by the abatement contractors during the bidding process.

4 Lead Waste Characterization

A waste is a solid or liquid material that serves no further purpose. A waste is defined by EPA to be hazardous if it contains certain properties that could pose dangers to human health and the environment after it is discarded. Wastes that are ignitable, corrosive, reactive, or toxic are regulated under the Hazardous Waste Regulations. TCLP is a method that extracts the compounds of interest in a standard way simulating landfill conditions (EPA Title 40 CFR, Part 261).

4.1 Sample Collection Methodology

Mr. Hobbins and Mr. Blum collected representative aliquots of various LBP-coated building components throughout the building for TCLP analysis. Samples were collected of representative of anticipated waste at the Client's direction as follows:

- Entire Building Components without Foundation;
- Entire Building Components including Foundation; and
- Asbestos-Containing Building Components.

Material substrates such as concrete and wood were segregated in accordance with LBP determination data. Representative aliquots were collected of the individual substrates/surfaces and composited based on their respective quantities into a single sample. The composite samples were analyzed by TCLP for lead as a representation of the abovementioned anticipated waste streams.

Phoenix Environmental Laboratories, Inc. (Phoenix) of Manchester, Connecticut analyzed the composite sample. Phoenix is a Connecticut-certified laboratory. The sample was analyzed using EPA Method SW-846 (Extraction Method 1311).

4.2 Results

In total, three waste characterization samples were collected and analyzed by TCLP. The EPA RCRA statues define a waste stream containing lead which is commonly identified in paint to be a hazardous waste stream if greater than 5.0 milligrams per liter (mg/L) of lead is leached from the material by the TCLP test. Listed below are the anticipated waste streams:

- Entire Building Components without Foundation <0.10 mg/L;
- Entire Building Components including Foundation 1.14 mg/L; and
- Asbestos-Containing Building Components 0.46 mg/L.

The analytical results of the representative samples indicate lead at < 5.0 mg/L for all three samples; therefore, based on these three analytical results, the entire building components without foundation, the entire building components including foundation, and the asbestos-containing building components are not classified as hazardous waste.

Refer to *Appendix F* for the Lead TCLP laboratory analytical report and chain-of-custody form, and TCLP representative demolition waste stream sample aliquot computation form.

4.3 Conclusion and Recommendations

Based on the TCLP laboratory analytical results of the three representative waste steam composite samples, the building demolition waste stream from the building is not classified as hazardous waste.

5 PCB-Containing Light Ballasts, Mercury-Containing Devices, and Other Building Wastes Inventory

5.1 PCB-Containing Fluorescent Ballasts

Fluorescent light ballasts manufactured prior to 1979 may contain capacitors that contain PCBs. Light ballasts installed as late as 1985 may also contain PCB capacitors. Fluorescent light ballasts that are not labeled as "No-PCBs" must be assumed to contain PCBs, unless proven otherwise by quantitative analysis. Capacitors in fluorescent light ballasts labeled as non-PCB-containing may contain diethylhexl phthalate (DEHP). DEHP was the primary substitute to replace PCBs for small capacitors in fluorescent light ballasts in use until 1991. DEHP is a toxic substance, a suspected carcinogen, and is listed under EPA RCRA and the Superfund law as a hazardous waste. Therefore, EPA Superfund liability exists for landfilling both PCB- and DEHP-containing light ballasts. These listed materials are considered hazardous waste under EPA RCRA, and require special handling and disposal considerations.

5.2 PCB-Containing Fluorescent Ballasts Methodology

On July 10, 2015, EnviroScience representative Mr. Hobbins performed a visual inspection of representative fluorescent light fixtures to identify possible PCB-containing light ballasts. The inspection involved visually inspecting labels on representative light ballasts to identify dates of

manufacture and labels indicating "No PCBs". Ballasts manufactured after 1991 were not listed as PCB- or DEHP-containing ballasts, and were not quantified for disposal.

The light ballasts without a label indicating "No PCBs" are presumed to be PCB-containing waste and must be segregated for proper removal, packaging, transport, and disposal as PCB-containing waste. Those light ballasts labeled as "No PCBs" indicating manufacture dates prior to 1991 are presumed to contain DEHP. DEHP-containing light ballasts must be segregated for proper removal, packaging, transport, and disposal as non-PCB hazardous waste. Note that disposal requirements for DEHP-containing ballasts are slightly varied, and disposal costs are slightly less than PCB-containing light ballasts.

5.3 Mercury-Containing Devices

Fluorescent lamps/tubes are presumed to contain mercury vapor, which is a hazardous substance to both human health and the environment. Thermostatic controls and electrical switch gear may contain a vial or bulb of mercury associated with the control. Mercury-containing equipment is regulated for proper disposal by the EPA RCRA hazardous waste regulations. According to the EPA, mercury lamps are characterized as a Universal Waste. Therefore, fluorescent lamps must be either recycled, or disposed as hazardous waste.

5.4 Mercury-Containing Devices Methodology

On July 10, 2015, EnviroScience representative Mr. Hobbins performed an inventory of mercury-containing lamps, thermostats, and mercury switches. These fixtures were inventoried in-place.

5.5 Other Building Wastes

Other building wastes identified in buildings may contain lead, cadmium, copper, chlorofluorocarbons, and other substances hazardous to human and environmental health. In general, building wastes may not be discarded in solid waste landfills. Examples of these wastes are batteries, fire extinguishers, emergency and exit light fixtures, electrical fuses and resistors, water bubblers, refrigeration and air conditioning equipment, and other electronic devices and gauges.

5.6 Other Building Wastes Methodology

On July 10, 2015, Mr. Hobbins performed a visual inspection of other building wastes within the building located at the Site.

5.7 Conclusions and Recommendations

PCB-containing light ballasts, mercury-containing devices, and other building wastes were identified during this inspection. The materials must be segregated and properly disposed prior to renovation and/or demolition activities.

Refer to the attached **Table 3** for a complete list of PCB-containing light ballasts, mercury-containing devices, and other building wastes inventoried as part of this inspection

EnviroScience recommends that a comprehensive scope of work and technical specification for removal and disposal of PCB-containing light ballasts, mercury-containing devices, and other building wastes be developed as part of the Site renovation and/or demolition plans.

This report is not intended to be utilized as a bidding document or as a project specification document. The report is designed to aid the building owner, architect, construction manager, general contractors, and contractors in locating universal waste. Quantities and locations of identified Universal Waste should be confirmed and observed by the abatement contractors during the bidding process.

Refer to *Appendix G* for Site Photographs and *Appendix H* for the Opinion of Abatement and Demolition Cost.

Report prepared by Senior Environmental Technician, Robert Hobbins.

Reviewed by:

Helen Rimsa
Senior Scientist

Robert L. May, Jr.
President

Tables

FUSS & O'NEILL
EnviroScience, LLC

Table 1
Summary of Suspect Asbestos-Containing Materials Data
Newtown Hall
Fairfield Hills Campus
Newtown, Connecticut

Sample No.	Material Type	NESHAP Category	Sample Location(s)	Asbestos Content	EPA TEM NOB
Sampled by Fuss & O'Neill EnviroScience, LLC (July 2015)					
0710BH01A	Tan Ceramic Wool Fire Door Insulation	Non-ACM	1st Floor Door to Basement	ND	
0710BH01B	Tan Ceramic Wool Fire Door Insulation	Non-ACM	1st Floor Door to Basement	ND	
0710BH01C	Tan Ceramic Wool Fire Door Insulation	Non-ACM	1st Floor Door to Basement	ND	
0710BH02A	Brown Cork Pipe Insulation	Non-ACM	1st Floor Lobby	ND	
0710BH02B	Brown Cork Pipe Insulation	Non-ACM	1st Floor Lobby	ND	
0710BH02C	Brown Cork Pipe Insulation	Non-ACM	1st Floor Lobby	ND	
0710BH03A	Black Tar Outer Coating on Cork Pipe Insulation	Non-ACM	1st Floor Lobby	ND/ND	Yes
0710BH03B	Black Tar Outer Coating on Cork Pipe Insulation	Non-ACM	1st Floor Lobby	ND	
0710BH03C	Black Tar Outer Coating on Cork Pipe Insulation	Non-ACM	1st Floor Lobby	ND	
0710BH04A	**Interior Black Tar/Damproofing on Terracotta**	**Cat 2 NF**	**1st Floor Exterior Wall**	**ND/2.8% Chrysotile**	**Yes**
0710BH04B	**Interior Black Tar/Damproofing on Terracotta**	**Cat 2 NF**	**1st Floor Exterior Wall**	**ND**	
0710BH04C	**Interior Black Tar/Damproofing on Terracotta**	**Cat 2 NF**	**1st Floor Exterior Wall**	**ND**	
0710BH05A	White/Tan Countertop/Glue	Non-ACM	Room 112	ND	
0710BH05B	White/Tan Countertop/Glue	Non-ACM	Room 112	ND	
0710BH06A	Gray Slate Stair Tread	Non-ACM	Stairwell	ND	
0710BH06B	Gray Slate Stair Tread	Non-ACM	Stairwell	ND	
0710BH07A	Black Tar/Damproofing under Concrete Window Sill	Non-ACM	Exterior Window Systems	ND/ND	Yes
0710BH07B	Black Tar/Damproofing under Concrete Window Sill	Non-ACM	Exterior Window Systems	ND	
*0710BH08A	Black Tar/Damproofing between Brick and Concrete Apron	Non-ACM	Building Exterior	ND/0.1% Chrysotile	Yes
0710BH08B	Black Tar/Damproofing between Brick and Concrete Apron	Non-ACM	Building Exterior	ND	
0710BH09A	Black Tar/Damproofing between Brick and Concrete Foundation	Non-ACM	Building Exterior	< 1% Chrysotile/ 0.92% Chrysotile	Yes
0710BH09B	Black Tar/Damproofing between Brick and Concrete Foundation	Non-ACM	Building Exterior	< 1% Chrysotile	

Sample No.	Material Type	NESHAP Category	Sample Location(s)	Asbestos Content	EPA TEM NOB
0710BH10A	Foundation Black Tar/Patch	Non-ACM	Building Exterior	ND/ND	Yes
0710BH10B	Foundation Black Tar/Patch	Non-ACM	Building Exterior	ND	
Previously Sampled by TRC Environmental Corporation (February 2008)					
1	White Skim Coat Plaster	Non-ACM	Room 16	ND	
	Gray Rough Coat Plaster	Non-ACM	Room 16	ND	
2	White Skim Coat Plaster	Non-ACM	Telephone Room	ND	
	Gray Rough Coat Plaster	Non-ACM	Telephone Room	ND	
3	White Skim Coat Plaster	Non-ACM	Room 13	ND	
	Gray Rough Coat Plaster	Non-ACM	Room 13	ND	
4	White Skim Coat Plaster	Non-ACM	Room 31	ND	
	Gray Rough Coat Plaster	Non-ACM	Room 31	ND	
5	White Skim Coat Plaster	Non-ACM	Room 19	ND	
	Gray Rough Coat Plaster	Non-ACM	Room 19	ND	
6	White Skim Coat Plaster	Non-ACM	Room 41	ND	
	Gray Rough Coat Plaster	Non-ACM	Room 41	ND	
7	White Skim Coat Plaster	Non-ACM	Room 23	ND	
	Gray Rough Coat Plaster	Non-ACM	Room 23	ND	
8	White Joint/Taping Compound	Non-ACM	Room 18	ND	
	Gray/Tan Gypsum Board	Non-ACM	Room 18	ND	
9	White Joint/Taping Compound	Non-ACM	Room 18	ND	
	Gray/Tan Gypsum Board	Non-ACM	Room 18	ND	
10	2' x 4' Gray Worm Pinhole Suspended Ceiling Tile	Non-ACM	Room 23	ND	
11	2' x 4' Gray Worm Pinhole Suspended Ceiling Tile	Non-ACM	Room 23	ND	
12	Brown Glue Daub under 6" x 4" Cellulose Fixed Ceiling Tile	**Cat 2 NF**	**1st Floor Lobby**	**ND/ 10% Chrysotile**	**Yes**
	6" x 4" Cellulose Fixed Ceiling Tile	**Cat 2 NF**	**1st Floor Lobby**	**ND (Asbestos-Contaminated)**	
13	Brown Glue Daub under 6" x 4" Cellulose Fixed Ceiling Tile	**Cat 2 NF**	**2nd Floor Hallway**	**NA/PS**	
	6" x 4" Cellulose Fixed Ceiling Tile	**Cat 2 NF**	**2nd Floor Hallway**	**ND (Asbestos-Contaminated)**	
14	**White Magnesium Pipe Insulation**	**Friable**	**Basement**	**60% Chrysotile**	
15	**White Magnesium Pipe Insulation**	**Friable**	**1st Floor Pipe Chase**	**NA/PS**	
16	**White Magnesium Pipe Insulation**	**Friable**	**2nd Floor Pipe Chase**	**NA/PS**	
17	**Gray Pressed Paper Pipe Insulation**	**Friable**	**Basement**	**5% Chrysotile**	
18	**Gray Pressed Paper Pipe Insulation**	**Friable**	**1st Floor Pipe Chase**	**NA/PS**	

Sample No.	Material Type	NESHAP Category	Sample Location(s)	Asbestos Content	EPA TEM NOB
19	**Gray Pressed Paper Pipe Insulation**	**Friable**	**2nd Floor Pipe Chase**	**NA/PS**	
20	**Tan/Black Mudded Pipe Fitting Insulation**	**Friable**	**Basement**	**85% Chrysotile**	
21	**Tan/Black Mudded Pipe Fitting Insulation**	**Friable**	**1st Floor Pipe Chase**	**NA/PS**	
22	**Tan/Black Mudded Pipe Fitting Insulation**	**Friable**	**2nd Floor Pipe Chase**	**NA/PS**	
23	**Gray Radiator Insulation Paper**	**Friable**	**Room 1**	**60% Chrysotile**	
24	**Gray Radiator Insulation Paper**	**Friable**	**Room 31**	**NA/PS**	
25	**Gray Radiator Insulation Paper**	**Friable**	**Room 23**	**NA/PS**	
26	Yellow Carpet Glue	Non-ACM	Room 19	ND/ND	Yes
27	Yellow Carpet Glue	Non-ACM	Room 19	ND	
28	Light Gray Ceramic Wall Tile Grout	Non-ACM	Room 1 Toilet Room	ND	
29	Light Gray Ceramic Wall Tile Grout	Non-ACM	2nd Floor Slop Sink Area	ND	
30	Light Gray Ceramic Octagon Floor Tile Grout	Non-ACM	1st Floor Women's Bath Room	ND	
31	Light Gray Ceramic Octagon Floor Tile Grout	Non-ACM	2nd Floor Slop Sink Area	ND	
32	Light Gray Ceramic Square Pattern Floor Tile Grout	Non-ACM	1st Floor Visitor's Bath Room	ND	
33	Light Gray Ceramic Square Pattern Floor Tile Grout	Non-ACM	2nd Floor- Bath by Room 44	ND	
34	Light Gray Granite Adhesive on Granite Cove Base	Non-ACM	Rooom1	ND	
35	Light Gray Granite Adhesive on Granite Cove Base	Non-ACM	Room 41	ND	
36	**Tan Mastic**	**Cat 1 NF**	**Room 1**	**ND**	
	4" x 4" Brown/White Speck Floor Tile	**Cat 1 NF**	**Room 1**	**10% Chrysotile/ 14.7% Chrysotile**	**Yes**
37	**Tan Mastic**	**Cat 1 NF**	**Room 4**	**5% Chrysotile**	
	4" x 4" Brown/White Speck Floor Tile	**Cat 1 NF**	**Room 4**	**NA/PS**	
38	**Brown Mastic**	**Cat 1 NF**	**Room 1**	**4% Chrysotile**	
	4" x 4" Tan/White Speck Floor Tile	**Cat 1 NF**	**Room 1**	**NA/PS**	
39	**Brown Mastic**	**Cat 1 NF**	**Room 41**	**NA/PS**	
	4" x 4" Tan/White Speck Floor Tile	**Cat 1 NF**	**Room 41**	**NA/PS**	

Sample No.	Material Type	NESHAP Category	Sample Location(s)	Asbestos Content	EPA TEM NOB
40	Tan Mastic	Cat 1 NF	Room 1	ND	
	4" x 4"Black/White Speck Floor Tile	Cat 1 NF	Room 1	10% Chrysotile/14.3% Chrysotile	Yes
41	Tan Mastic	Cat 1 NF	Room 41	NA/PS	
	4" x 4"Black/White Speck Floor Tile	Cat 1 NF	Room 41	NA/PS	
42	Tan Mastic	Cat 1 NF	Room 21	ND	
	4" x 4" Black/Green Speck Floor Tile	Cat 1 NF	Room 21	5%Chrysotile/ 4.98% Chrysotile	Yes
43	Tan Mastic	Cat 1 NF	Room 21	2% Chrysotile	
	4" x 4" Black/Green Speck Floor Tile	Cat 1 NF	Room 21	NA/PS	
44	Black Mastic	Cat 1 NF	1st Floor Hallway	ND	
	12" x 12" Black/White Speck Floor Tile	Cat 1 NF	1st Floor Hallway	ND/12.64% Chrysotile	Yes
45	Black Mastic	Cat 1 NF	1st Floor Hallway	2% Chrysotile	
	12" x 12" Black/White Speck Floor Tile	Cat 1 NF	1st Floor Hallway	NA/PS	
46	Black Mastic	Cat 1 NF	1st Floor Hallway	5% Chrysotile	
	12" x 12" White/Brown Speck Floor Tile	Cat 1 NF	1st Floor Hallway	NA/PS	
47	Black Mastic	Cat 1 NF	1st Floor Hallway	NA/PS	
	12" x 12" White/Brown Speck Floor Tile	Cat 1 NF	1st Floor Hallway	NA/PS	
48	Tan Mastic	Cat 1 NF	Room 21	5% Chrysotile	
	4" x 4" Green/White Speck Floor Tile	Cat 1 NF	Room 21	NA/PS	
49	Tan Mastic	Cat 1 NF	Room 21	NA/PS	
	4" x 4" Green/White Speck Floor Tile	Cat 1 NF	Room 21	NA/PS	
50	Tan Mastic	Cat 1 NF	Room 21	5% Chrysotile	
	4" x 4" Gray/White Speck Floor Tile	Cat 1 NF	Room 21	NA/PS	
51	Tan Mastic	Cat 1 NF	Room 21	NA/PS	
	4" x 4" Gray/White Speck Floor Tile	Cat 1 NF	Room 21	NA/PS	
52	Tan Mastic	Cat 1 NF	Room 6	ND/3.79% Tremolite	Yes
	9" x 9" Tan/Black Streak Floor Tile	Cat 1 NF	Room 6	ND	

Sample No.	Material Type	NESHAP Category	Sample Location(s)	Asbestos Content	EPA TEM NOB
53	Tan Mastic	Cat 1 NF	Room 6	ND	
	9" x 9" Tan/Black Streak Floor Tile	Cat 1 NF	Room 6	ND	
54	Tan Mastic	Cat 1 NF	Room 6	ND/12.71% Tremolite	Yes
	Black Border Floor Tile	Cat 1 NF	Room 6	ND	
55	Tan Mastic	Cat 1 NF	Room 6	ND	
	Black Border Floor Tile	Cat 1 NF	Room 6	ND	
56	Black Mastic	Cat 1 NF	Room 19	ND/20.22% Chrysotile	Yes
	9" x 9" Gray/Pink White Streak Floor Tile	Cat 1 NF	Room 19	5% Chrysotile	
57	Black Mastic	Cat 1 NF	Room 19	ND	
	9" x 9" Gray/Pink White Streak Floor Tile	Cat 1 NF	Room 19	NA/PS	
58	Black Mastic	Cat 1 NF	Room 10	ND/11.19% Chrysotile	Yes
	9" x 9" Tan/Brown Streak Floor Tile	Cat 1 NF	Room 10	5% Chrysotile	
59	Black Mastic	Cat 1 NF	Room 40	ND	
	9" x 9" Tan/Brown Streak Floor Tile	Cat 1 NF	Room 40	NA/PS	
60	Black Mastic	Cat 1 NF	Room 14	2% Chrysotile	
	9" x 9" Brown/Brown/White Streak Floor Tile	Cat 1 NF	Room 14	NA/PS	
61	Black Mastic	Cat 1 NF	Room 31	NA/PS	
	9" x 9" Brown/Brown/White Streak Floor Tile	Cat 1 NF	Room 31	NA/PS	
62	Black Mastic	Cat 1 NF	Room 32	5% Chrysotile	
	9" x 9" Dark Brown/Large White/Red Speck Floor Tile	Cat 1 NF	Room 32	NA/PS	
63	Black Mastic	Cat 1 NF	Room 33	NA/PS	
	9" x 9" Dark Brown/Large White/Red Speck Floor Tile	Cat 1 NF	Room 33	NA/PS	
64	Black Mastic	Cat 1 NF	Room 32	8% Chrysotile	
	9" x 9" Tan/Large Gray Streak Floor Tile	Cat 1 NF	Room 32	NA/PS	
65	Black Mastic	Cat 1 NF	Room 33	NA/PS	
	9" x 9" Tan/Large Gray Streak Floor Tile	Cat 1 NF	Room 33	NA/PS	
66	Black Mastic	Cat 1 NF	Room 32	5% Chrysotile	
	9" x 9" Black/Large White Streak Floor Tile	Cat 1 NF	Room 32	NA/PS	

Sample No.	Material Type	NESHAP Category	Sample Location(s)	Asbestos Content	EPA TEM NOB
67	Black Mastic	Cat 1 NF	Room 33	NA/PS	
	9" x 9" Black/Large White Streak Floor Tile	Cat 1 NF	Room 33	NA/PS	
68	Black Mastic	Cat 1 NF	Room 39	5% Chrysotile	
	9" x 9" Dark Brown/Large White Streak Floor Tile	Cat 1 NF	Room 39	NA/PS	
69	Black Mastic	Cat 1 NF	Room 38	NA/PS	
	9" x 9" Dark Brown/Large White Streak Floor Tile	Cat 1 NF	Room 38	NA/PS	
70	Black Mastic	Cat 1 NF	Basement East End	ND	
	9" x 9" Black Floor Tile	Cat 1 NF	Basement East End	5% Chrysotile	
71	Black Mastic	Cat 1 NF	Basement East End	ND	
	9" x 9" Black Floor Tile	Cat 1 NF	Basement East End	NA/PS	
72	Black Mastic	Cat 1 NF	Basement East End	2% Chrysotile	
	9" x 9" Green Floor Tile	Cat 1 NF	Basement East End	NA/PS	
73	Black Mastic	Cat 1 NF	Basement East End	NA/PS	
	9" x 9" Green Floor Tile	Cat 1 NF	Basement East End	NA/PS	
74	Tan Glue	Non-ACM	Room 8	ND/ND	Yes
	Brown Linoleum Sheet Flooring	Non-ACM	Room 8	ND	
75	Tan Glue	Non-ACM	Room 27	ND	
	Brown Linoleum Sheet Flooring	Non-ACM	Room 27	ND/ND	Yes
76	Brown Cove Glue	Non-ACM	Room 18	ND/ND	Yes
	6" Brown Cove Base	Non-ACM	Room 18	ND/ND	Yes
77	Brown Cove Glue	Non-ACM	Room 23	ND	
	6" Brown Cove Base	Non-ACM	Room 23	ND	
78	Interior Gray Fire Door Window Glazing	Non-ACM	1st Floor Hallway	< 1% Chrysotile	Yes
79	Interior Gray Fire Door Window Glazing	Non-ACM	Basement	< 1% Chrysotile	
80	Interior Tan Glazing on Cupola Clock Face	Non-ACM	Cupola	ND/ND	Yes
81	Interior Tan Glazing on Cupola Clock Face	Non-ACM	Cupola	ND	
82	Interior Gray Window Glazing on Fixed Windows (Type 1)	Cat 2 NF	Basement South Side	ND/36.71% Chrysotile	Yes
83	Interior Gray Window Glazing on Fixed Windows (Type 1)	Cat 2 NF	Basement South Side	< 1% Chrysotile	
84	Exterior Gray Window Glazing on Small Three Pane Windows (Type 2)	Cat 2 NF	Basement South Side	ND/7.76% Chrysotile	Yes
85	Exterior Gray Window Glazing on Small Three Pane Windows (Type 2)	Cat 2 NF	Basement South Side	ND	

Sample No.	Material Type	NESHAP Category	Sample Location(s)	Asbestos Content	EPA TEM NOB
86	Exterior Gray Window Glazing on Large 3 Pane Windows (Type 3)	Non-ACM	Basement North Side	< 1% Chrysotile and Anthophyllite	Yes
87	Exterior Gray Window Glazing on Large 3 Pane Windows (Type 3)	Non-ACM	Basement North Side	ND	
88	Exterior Gray Window Glazing (Type 4)	Non-ACM	1st Floor North Side Entrance	< 1% Anthophyllite	Yes
89	Exterior Gray Window Glazing (Type 4)	Non-ACM	2nd Floor North Side Entrance	ND	
90	Exterior Gray Window Glazing (Type 5)	Non-ACM	1st Floor North Side	< 1% Anthophyllite	Yes
91	Exterior Gray Window Glazing (Type 5)	Non-ACM	1st Floor South Side	ND	
92	Exterior Gray Window Glazing on Small Windows (Type 6)	Non-ACM	2nd Floor South Side	< 1% Tremolite & Anthophyllite	Yes
93	Exterior Gray Window Glazing on Small Windows (Type 6)	Non-ACM	1st Floor South Side	ND	
94	Exterior Gray Window Glazing (Type 7)	Non-ACM	1st Floor North Side	< 1% Anthophyllite	Yes
95	Exterior Gray Window Glazing (Type 7)	Non-ACM	2nd Floor North Side	ND	
96	Exterior Gray Window Glazing (Type 8)	Non-ACM	2nd Floor North Side	< 1% Chrysotile & Anthophyllite	Yes
97	Exterior Gray Window Glazing (Type 8)	Non-ACM	2nd Floor South Side	ND	
98	Exterior Tan Window Glazing	Non-ACM	2nd Floor North Side	< 1% Anthophyllite	Yes
99	Exterior Tan Window Glazing	Non-ACM	2nd Floor North Side	< 1% Chrysotile	
100	**Exterior Gray Window Caulking**	**Cat 2 NF**	**Exterior Basement**	**4% Chrysotile**	
101	**Exterior Gray Window Caulking**	**Cat 2 NF**	**Exterior Basement**	**NA/PS**	
102	**Exterior Gray Window Caulking**	**Cat 2 NF**	**Exterior 1st Floor**	**10% Chrysotile**	
103	**Exterior Gray Window Caulking**	**Cat 2 NF**	**Exterior 1st Floor**	**NA/PS**	
104	**Exterior Gray Window Caulking**	**Cat 2 NF**	**Exterior 2nd Floor**	**10% Chrysotile/5% Anthophyllite**	
105	**Exterior Gray Window Caulking**	**Cat 2 NF**	**Exterior 2nd Floor**	**NA/PS**	
106	**Exterior Tan Door Caulking**	**Cat 2 NF**	**Exterior-East Side**	**5% Chrysotile**	
107	**Exterior Tan Door Caulking**	**Cat 2 NF**	**Exterior-West Side**	**NA/PS**	
108	**Exterior Tan Door Caulking**	**Cat 2 NF**	**Exterior-North Side**	**ND/3.34% Chrysotile**	**Yes**
109	**Exterior Tan Door Caulking**	**Cat 2 NF**	**Exterior-North Side**	**ND**	
110	**Cementitious Roof Shingle**	**Cat 2 NF**	**Roof**	**40% Chrysotile**	
111	**Cementitious Roof Shingle**	**Cat 2 NF**	**Roof**	**NA/PS**	

Sample No.	Material Type	NESHAP Category	Sample Location(s)	Asbestos Content	EPA TEM NOB
112	White Joint/Taping Compound	Non-ACM	Basement Center Area Room	ND	
	Gray/Tan Gypsum Board	Non-ACM	Basement Center Area Room	ND	
113	White Joint/Taping Compound	Non-ACM	Basement Center Area Room	ND	
	Gray/Tan Gypsum Board	Non-ACM	Basement Center Area Room	ND	

Cat 1 NF=Category I Non-Friable Material
Cat 2 NF=Category II Non-Friable Material
ND=None Detected
NA/PS = Not Analyzed/Positive Stop
N/A = Not Applicable

Table 2
Summary of Asbestos-Containing Materials
Newtown Hall
Fairfield Hills Campus
Newtown, Connecticut

Material Type	Homogeneous Location(s)	Asbestos Content	Estimated Total Quantity	Comments
White Magnesium & Gray Pressed Paper Pipe Insulation & Gray Mudded Pipe Fitting Insulation	Throughout Building	5% – 85% Chrysotile	32,000 LF	Damaged Material & Debris Exists in Basement
Gray Radiator Insulation/Paper	Throughout 1st & 2nd Floor Radiators	60% Chrysotile	60 EA	
Brown Glue Daub on 6" x 4" Rectangular Ceiling Tiles	Throughout 1st and 2nd Floors	ND – 10% Chrysotile	7,500 SF	
Floor Tile (Various Sizes & Colors) & Black, Brown, and Tan Floor Mastic	Throughout Building	ND – 14.70% Chrysotile	10,000 SF	
Interior Black Tar/Damproofing on Terracotta	Throughout Building	2.8% Chrysotile	13,000 SF	Material Located on Interior Side of Exterior Walls
Interior Vault Door Core Insulation	Basement & 1st Floor Post Office	Assumed	3 EA	
Exterior Window Glazing & Caulking Compounds	Exterior Window Systems	ND – 36.71% Chrysotile	96 EA	
Exterior Door Caulking Compound	Exterior Door Systems	ND – 8% Chrysotile	3 EA	
Exterior Cementitious Roof Shingle and Flashings/Tars	Exterior Roof System	20% Chrysotile	16,200 SF	

EA = Each; LF = Linear Feet; SF = Square Feet

FUSS & O'NEILL
EnviroScience, LLC

Table 3
Summary of PCB-Containing Light Ballasts, Mercury-Containing Devices, and Other Building Wastes
Newtown Hall
Fairfield Hills Campus
Newtown, Connecticut

Waste Type	2nd Floor	1st Floor	Basement	Total
PCB Light Ballasts	48	37	31	**116**
2" x 4' Mercury Light Tubes	88	90	14	**192**
Gear Switches	0	0	4	**4**
Emergency Lights	4	6	0	**10**
Exit Lights	2	4	0	**6**
Transformer	0	0	1	**1**
Fuse Box	0	0	10	**10**
Backup Generator	0	0	4	**4**
Hydraulic Pump	0	0	1	**1**
Fan	0	0	1	**1**
Encased Batteries CD	0	0	54	**54**
Alarm Horn	0	1	0	**1**
Smoke Alarms	6	6	0	**12**

FUSS & O'NEILL
EnviroScience, LLC

Appendix A

Limitations

FUSS & O'NEILL
EnviroScience, LLC

APPENDIX A - LIMITATIONS

Newtown Hall
Keating Farms Avenue
Newtown, Connecticut

1. This environmental report has been prepared for the exclusive use of the Town of Newtown (the "Client"), and is subject to, and is issued in connection with the General Terms and Conditions of the original Agreement and all of its provisions. Any use or reliance upon information provided in this report, without the specific written authorization of the Client and Fuss & O'Neill EnviroScience, LLC (EnviroScience) shall be at the User's individual risk. This report should not be used as an abatement specification. All quantities of materials identified during this inspection are approximate.
2. EnviroScience has obtained and relied upon information from multiple sources to form certain conclusions regarding likely environmental issues at and in the vicinity of the subject property in conducting this inspection. Except as otherwise noted, no attempt has been made to verify the accuracy or completeness of such information or verify compliance by any party with federal, state or local laws or regulations.
3. EnviroScience has obtained and relied upon laboratory analytical results in conducting the inspection. This information was used to form conclusions regarding the types and quantities of ACM and LBP that must be managed prior to renovation and/or demolition activities that may disturb these materials at the subject property. EnviroScience has not performed an independent review of the reliability of this laboratory data.
4. Unless otherwise noted, only suspect hazardous materials associated within or located on the building (aboveground) were included in this inspection. Suspect hazardous materials may exist below the ground surface that were not included in the scope of work of this inspection. EnviroScience cannot guarantee all asbestos or suspect hazardous materials were identified within the areas included in the scope of work. Only visible and accessible areas were included in the scope of work for this limited inspection.
5. The findings, observations and conclusions presented in this report are limited by the scope of services outlined in our verbal agreement which reflects schedule and budgetary constraints imposed by the Client. Furthermore, the assessment has been conducted in accordance with generally accepted environmental practices. No other warranty, expressed or implied, is made.
6. The conclusions presented in this report are based solely upon information gathered by EnviroScience to date. Should further environmental or other relevant information be discovered at a later date, the Client should immediately bring the information to EnviroScience's attention. Based upon an evaluation and assessment of relevant information, EnviroScience may modify the letter report and its conclusions.

FUSS & O'NEILL
EnviroScience, LLC

Appendix B

EnviroScience Asbestos Inspector State Licenses and Accreditations

1001144 01 AV 0.378 **AUTO T6 1 0564 06040 599246 C01 P01147-1

JOHN R. HOBBINS
C/O FUSS & O'NEILL ENVIROSCIENCE, LLC
146 HARTFORD ROAD
MANCHESTER CT 06040-5992

Dear JOHN R. HOBBINS,

Attached you will find your validated certificate for the coming year. Should you have any questions about your certificate renewal, please do not hesitate to write or call:

Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603
oplc.dph@ct.gov
www.ct.gov/dph/license

Sincerely,

JEWEL MULLEN, MD, MPH, MPA, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

1001144-0001150-0000001 of 0000001-C01-a1d00101-0564-01147

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
JOHN R. HOBBINS

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-147894	000700	01/31/16

PROFESSION
ASBESTOS CONSULTANT-INSPECTOR

SIGNATURE COMMISSIONER

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
ASBESTOS CONSULTANT-INSPECTOR

JOHN R. HOBBINS

CERTIFICATE NO.
000700

CURRENT THROUGH
01/31/16

VALIDATION NO.
03-147894

SIGNATURE COMMISSIONER

INSTRUCTIONS:

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WALLET CARD

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
JOHN R. HOBBINS

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-147894	000700	01/31/16

PROFESSION
ASBESTOS CONSULTANT-INSPECTOR

SIGNATURE COMMISSIONER

Fuss & O'Neill EnviroScience, LLC

146 Hartford Road, Manchester, CT 06040 – (860) 646-2469

This is to certify that

John Robert Hobbins

xxx-xx-6853

has successfully completed the

4 Hr. Asbestos Inspector Refresher

Asbestos Accreditation under TSCA Title II

40 CFR Part 763

John Rowinski, Principal Instructor

Robert L. May, Jr., Training Manager

September 3, 2014
Date of Course

AI-R-09/14-6
Certificate Number

September 3, 2014
Examination Date

September 3, 2015
Expiration Date

1001143 01 AV 0.378 **AUTO 16 1 0564 06040 599246 C01 P01146 1

JOHN R. HOBBINS
C/O FUSS & O'NEILL ENVIROSCIENCE, LLC
146 HARTFORD ROAD
MANCHESTER CT 06040-5992

Dear JOHN R. HOBBINS,

Attached you will find your validated certificate for the coming year. Should you have any questions about your certificate renewal, please do not hesitate to write or call:

Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603
oplc.dph@ct.gov
www.ct.gov/dph/license

Sincerely,

Jewel Mullen MD MPH MPA

JEWEL MULLEN, MD, MPH, MPA, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

1001143-0001149-0000001 of 0000001-C01-aid000101-0564-01146

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
JOHN R. HOBBINS

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-147893	002156	01/31/16

PROFESSION
LEAD INSPECTOR

SIGNATURE COMMISSIONER

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
LEAD INSPECTOR

JOHN R. HOBBINS

CERTIFICATE NO.
002156

CURRENT THROUGH
01/31/16

VALIDATION NO.
03-147893

SIGNATURE COMMISSIONER

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WALLET CARD

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
JOHN R. HOBBINS

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-147893	002156	01/31/16

PROFESSION
LEAD INSPECTOR

SIGNATURE COMMISSIONER

Certificate of Training

This program was presented at Fuss & O'Neill Enviro Science in. Manchester, CT with the prior approval of the CTDPH.

Awarded to

JOHN ROBERT HOBBINS

146 HARTFORD ROAD, MANCHESTER, CT 06040

has successfully completed a 7 hour, 1 day

Lead Inspector Refresher Training

February 11 & 19, 2015

This training course was approved and given in accordance with the Department of Health Standards established pursuant to Section 20-477 of the Connecticut General Statutes

Presented by

Mystic Air Quality Consultants, Inc.

1204 North Road, Groton, CT 06340 (800) 247-7746

Certificate Number: LITR23753

Exam Grade: 100

Exam Date: 02/19/2015

Expiration Date: 02/19/2016

Christopher J. Eident, CIH, CSP, RS

George Williamson, Training Director

Richard Haffey, Training Director

1001095 01 AV 0.388 **AUTO T6 1 0564 06040-599246 C01 P01098 1

JOHN R. HOBBINS
C/O FUSS & O'NEILL ENVIROSCIENCE, LLC
146 HARTFORD ROAD
MANCHESTER CT 06040-5992

Dear JOHN R. HOBBINS,

Attached you will find your validated certificate for the coming year. Should you have any questions about your certificate renewal, please do not hesitate to write or call:

Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603
oplc.dph@ct.gov
www.ct.gov/dph/license

Sincerely,

RAUL PINO, MD, MPH, ACTING COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
JOHN R. HOBBINS

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-372678	002156	01/31/17

PROFESSION
LEAD INSPECTOR

SIGNATURE ACTING COMMISSIONER

INSTRUCTIONS:

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STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
LEAD INSPECTOR

JOHN R. HOBBINS

CERTIFICATE NO.
002156

CURRENT THROUGH
01/31/17

VALIDATION NO.
03-372678

SIGNATURE ACTING COMMISSIONER

WALLET CARD

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
JOHN R. HOBBINS

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-372678	002156	01/31/17

PROFESSION
LEAD INSPECTOR

SIGNATURE ACTING COMMISSIONER

Certificate of Training

This program was presented at
Fuss & O'Neill Enviro Science in.
Manchester, CT with the prior
approval of the CTDPH.

Awarded to

JOHN ROBERT HOBBINS

146 HARTFORD ROAD, MANCHESTER, CT 06040

has successfully completed a 7 hour, 1 day

Lead Inspector Refresher Training

February 16 & 18, 2016

This training course was approved and given in accordance with the Department of Health Standards established pursuant to Section 20-477 of the Connecticut General Statutes

Presented by

Mystic Air Quality Consultants, Inc.

1204 North Road, Groton, CT 06340 (800) 247-7746

Certificate Number: LITR24774 **Exam Grade: 97** **Exam Date: 02/18/2016** **Expiration Date: 02/18/2017**

Christopher J. Eident, CIH, CSP, RS

George Williamson, Training Director

Richard Haffey, Training Director

1001236 01 AV 0.385 **AUTO 16 7 1564 06040 399246 C01 P01239 1

JAMES B BLUM
FUSS & O'NEILL ENVIROSCIENCE LLC
146 HARTFORD RD
MANCHESTER CT 06040-5992

Dear JAMES B BLUM,

Attached you will find your validated certificate for the coming year. Should you have any questions about your certificate renewal, please do not hesitate to write or call:

Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603
oplc.dph@ct.gov
www.ct.gov/dph/license

Sincerely,

JEWEL MULLEN, MD, MPH, MPA, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

1001236-0001242-0000001 of 0000001-C01-a1dd00101-1564-01239

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
JAMES B BLUM

VALIDATION NO	CERTIFICATE NO.	CURRENT THROUGH
03-347776	002256	11/30/16

PROFESSION
LEAD INSPECTOR RISK ASSESSOR

SIGNATURE COMMISSIONER

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
LEAD INSPECTOR RISK ASSESSOR

JAMES B BLUM

CERTIFICATE NO.
002256

CURRENT THROUGH
11/30/16

VALIDATION NO.
03-347776

SIGNATURE COMMISSIONER

INSTRUCTIONS:

1. Detach and sign each of the cards on this form.
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.
4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

WALLET CARD

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
JAMES B BLUM

VALIDATION NO	CERTIFICATE NO.	CURRENT THROUGH
03-347776	002256	11/30/16

PROFESSION
LEAD INSPECTOR RISK ASSESSOR

SIGNATURE COMMISSIONER

Certificate of Training

This program was presented at
Fuss & O'Neill Enviro Science in.
Manchester, CT with the prior
approval of the CTDPH.

Awarded to

JAMES BLUM

146 HARTFORD ROAD, MANCHESTER, CT 06040

Has successfully completed a 7 hr, 1 day

Lead Inspector Risk Assessor Refresher

February 16 & 17, 2016

This training course was approved and given in accordance with the Department of Health Standards established pursuant to Section 20-477 of the Connecticut General Statutes

Presented by

Mystic Air Quality Consultants, Inc.

1204 North Road, Groton, CT 06340 (800) 247-7746

Certificate Number: 95CTLDRARF **Exam Grade: 93** **Exam Date: 02/17/2016** **Expiration Date: 02/17/2017**

24765

Christopher J. Eident, CIH, CSP, RS

George Williamson, Training Director

Richard Haffey, Training Director

FUSS & O'NEILL
EnviroScience, LLC

Appendix C

Asbestos Laboratory Analytical Reports and Chain-of-Custody Forms

OrderID: 621501311

Fuss & O'Neill EnviroScience EMSL Customer No. ENVI54

FUSS & O'NEILL
EnviroScience, LLC

621501311

www.fando.com

56 Quarry Road, Trumbull, CT 066611 Phone (203) 374-3748 Fax (203) 374-4391

ASBESTOS BULK SAMPLE CHAIN OF CUSTODY FORM

Sheet 1 of 2

Project Name: Fairfield Hills–Newtown Hall Project No. 20141268.A7E Date: July 10, 2014

Site Address: Keating Farms Road, Newtown, CT Building Name: Newtown Hall Project Manager: K. McCarthy

Sample ID	Sample Location	Type of Material
0710BH01A	1st Floor Door to Basement	Tan Ceramic Wool Fire Door Insulation
0710BH01B	1st Floor Door to Basement	Tan Ceramic Wool Fire Door Insulation
0710BH01C	1st Floor Door to Basement	Tan Ceramic Wool Fire Door Insulation
0710BH02A	1st Floor Lobby	Brown Cork Pipe Insulation
0710BH02B	1st Floor Lobby	Brown Cork Pipe Insulation
0710BH02C	1st Floor Lobby	Brown Cork Pipe Insulation
0710BH03A	**1st Floor Lobby**	**Black Tar Outer Coating on Cork Pipe Insulation**
0710BH03B	1st Floor Lobby	Black Tar Outer Coating on Cork Pipe Insulation
0710BH03C	1st Floor Lobby	Black Tar Outer Coating on Cork Pipe Insulation
0710BH04A	**1st Floor Exterior Wall**	**Interior Black Tar/Damp-Proofing on Terracotta**
0710BH04B	1st Floor Exterior Wall	Interior Black Tar/Damp-Proofing on Terracotta
0710BH04C	1st Floor Exterior Wall	Interior Black Tar/Damp-Proofing on Terracotta
0710BH05A	Room 112	White/Tan Countertop/Glue
0710BH05B	Room 112	White/Tan Countertop/Glue
0710BH06A	Stairwell	Gray Slate Stair Tread
0710BH06B	Stairwell	Gray Slate Stair Tread

Analysis Method: ☒ PLM ☐ TEM ☐ Other _____ Turnaround Time: 5 day

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: _____ Please call EnviroScience if analyses will not be completed for requested TAT at (203) 374 - 3748.

Email Results to: kmccarthy@fando.com **Do Not Mail Hard Copy Report** **Total # of Samples:** 24
FAX Results to: 888-838-1160.

Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated. Do Not Point Count. IF NOB group Samples are <1% by PLM, analyze only "A" group (as noted by asterisk [*] above) by TEM, NOB, per group.

Samples collected by: B. Hobbins BH **Date** 7-10-15 **Time:** _____

Samples Sent by: B. Hobbins BH **Date:** 7-15-15 **Time:** _____

Samples Received by: _____ **Date:** _____ **Time:** 9:39

Shipped To: ☒ EMSL State ME ☐ Other _____

Method of Shipment: ☒ FedEx ☐ Lab Drop Off ☐ Other _____

RECEIVED JUL 17 2015 By

F:\P2014\1268\A7E\Lab Data\COC_Newtown_BH_2015-0710.docx

OrderID: 621501311

Fuss & O'Neill EnviroScience EMSL Customer No. ENVI54

FUSS & O'NEILL EnviroScience, LLC

621501311

www.fando.com

56 Quarry Road, Trumbull, CT 066611 Phone (203) 374-3748 Fax (203) 374-4391

ASBESTOS BULK SAMPLE CHAIN OF CUSTODY FORM

Sheet 2 of 2

Project Name: Fairfield Hills–Newtown Hall Project No. 20141268.A7E Date: July 10, 2014

Site Address: Keating Farms Road, Newtown, CT Building Name: Newtown Hall Project Manager: K. McCarthy

Sample ID	Sample Location	Type of Material
0710BH07A	**Exterior Window Systems**	**Black Tar/Damp-Proofing under Concrete Window Sill**
0710BH07B	Exterior Window Systems	Black Tar/Damp-Proofing under Concrete Window Sill
0710BH08A	**Exterior of Building**	**Black Tar/Damp-Proofing b/w Brick and Concrete Apron**
0710BH08B	Exterior of Building	Black Tar/Damp-Proofing b/w Brick and Concrete Apron
0710BH09A	**Exterior of Building**	**Black Tar/Damp-Proofing b/w Brick and Concrete Foundation**
0710BH09B	Exterior of Building	Black Tar/Damp-Proofing b/w Brick and Concrete Foundation
0710BH10A	**Exterior of Building**	**Foundation Black Tar/Patch**
0710BH10B	Exterior of Building	Foundation Black Tar/Patch

Analysis Method: ☒ PLM ☐ TEM ☐ Other _____ Turnaround Time: 5 day

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: _____ Please call EnviroScience if analyses will not be completed for requested TAT at (203) 374 - 3748.

Email Results to: kmccarthy@fando.com **Do Not Mail Hard Copy Report** **Total # of Samples:** 24
FAX Results to: 888-838-1160.

Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated. Do Not Point Count. IF NOB group Samples are <1% by PLM, analyze only "A" group (as noted by asterisk [*] above) by TEM, NOB, per group.

Samples collected by: B. Hobbins BH **Date** 7-10-15 **Time:** _____

Samples Sent by: B. Hobbins BH **Date:** 7-15-15 **Time:** _____

Samples Received by: _____ **Date:** _____ **Time:** _____

Shipped To: ☒ EMSL State ME ☐ Other _____

Method of Shipment: ☒ FedEx ☐ Lab Drop Off ☐ Other _____

RECEIVED JUL 17 2015 By

F:\P2014\1268\A7E\Lab Data\COC_Newtown_BH_2015-0710.docx

EMSL Analytical, Inc.
161 John Roberts Road South Portland, ME 04106
Phone/Fax: (207) 517-6921 / (207) 517-6922
http://www.EMSL.com / portlandlab@emsl.com

EMSL Order ID:	621501311
Customer ID:	ENVI54
Customer PO:	20141268.A7E
Project ID:	

Attn: Kevin McCarthy
Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040

Phone:	(860) 646-2469
Fax:	(888) 838-1160
Collected:	7/10/2015
Received:	7/17/2015
Analyzed:	7/21/2015

Proj: 20141268.A7E / FAIRFIELD HILLS - NEWTOWN HALL / KEATING FARMS ROAD, NEWTOWN , CT / HEWTOWN HALL

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method via Polarized Light Microscopy

Client Sample ID: 0710BH01A **Lab Sample ID:** **621501311-0001**
Sample Description: 1ST FLOOR DOOR TO BASEMENT/TAN CERAMIC WOOL FIRE DOOR INSULATION

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/20/2015	Yellow	90%	10%	None Detected	

Client Sample ID: 0710BH01B **Lab Sample ID:** **621501311-0002**
Sample Description: 1ST FLOOR DOOR TO BASEMENT/TAN CERAMIC WOOL FIRE DOOR INSULATION

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/20/2015	Yellow	90%	10%	None Detected	

Client Sample ID: 0710BH01C **Lab Sample ID:** **621501311-0003**
Sample Description: 1ST FLOOR DOOR TO BASEMENT/TAN CERAMIC WOOL FIRE DOOR INSULATION

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/21/2015	Yellow	90%	10%	None Detected	

Client Sample ID: 0710BH02A **Lab Sample ID:** **621501311-0004**
Sample Description: 1ST FLOOR LOBBY/BROWN CORK PIPE INSULATION

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/17/2015	Brown	0%	100%	None Detected	

Client Sample ID: 0710BH02B **Lab Sample ID:** **621501311-0005**
Sample Description: 1ST FLOOR LOBBY/BROWN CORK PIPE INSULATION

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/17/2015	Brown	0%	100%	None Detected	

Client Sample ID: 0710BH02C **Lab Sample ID:** **621501311-0006**
Sample Description: 1ST FLOOR LOBBY/BROWN CORK PIPE INSULATION

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/21/2015	Brown	0%	100%	None Detected	

Client Sample ID: 0710BH03A **Lab Sample ID:** **621501311-0007**
Sample Description: 1ST FLOOR LOBBY/BLACK TAR OUTER COATING ON CORK PIPE INSULATION

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/17/2015	Black	0%	100%	None Detected	
TEM Grav. Reduction	7/21/2015	Black	0.0%	100%	None Detected	Result includes a small amount of inseparable attached material

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161 John Roberts Road South Portland, ME 04106
Phone/Fax: (207) 517-6921 / (207) 517-6922
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EMSL Order ID:	621501311
Customer ID:	ENVI54
Customer PO:	20141268.A7E
Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method via Polarized Light Microscopy

Client Sample ID: 0710BH03B ***Lab Sample ID:*** **621501311-0008**
Sample Description: 1ST FLOOR LOBBY/BLACK TAR OUTER COATING ON CORK PIPE INSULATION

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/17/2015	Black	0%	100%	None Detected	

Client Sample ID: 0710BH03C ***Lab Sample ID:*** **621501311-0009**
Sample Description: 1ST FLOOR LOBBY/BLACK TAR OUTER COATING ON CORK PIPE INSULATION

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/21/2015	Black	0%	100%	None Detected	

Client Sample ID: 0710BH04A ***Lab Sample ID:*** **621501311-0010**
Sample Description: 1ST FLOOR EXTERIOR WALL/INTERIOR BLACK TAR / DAMP-PROOFING ON TERRACOTTA

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/17/2015	Black	0%	100%	None Detected	
TEM Grav. Reduction	7/21/2015	Black	0.0%	97.2%	**2.8% Chrysotile**	Result includes a small amount of inseparable attached material

Client Sample ID: 0710BH04B ***Lab Sample ID:*** **621501311-0011**
Sample Description: 1ST FLOOR EXTERIOR WALL/INTERIOR BLACK TAR / DAMP-PROOFING ON TERRACOTTA

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/17/2015	Black	0%	100%	None Detected	

Client Sample ID: 0710BH04C ***Lab Sample ID:*** **621501311-0012**
Sample Description: 1ST FLOOR EXTERIOR WALL/INTERIOR BLACK TAR / DAMP-PROOFING ON TERRACOTTA

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/21/2015	Black	0%	100%	None Detected	

Client Sample ID: 0710BH05A ***Lab Sample ID:*** **621501311-0013**
Sample Description: ROOM 112/WHITE / TAN COUNTERTOP / GLUE

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/20/2015	Tan/White	0%	100%	None Detected	

Client Sample ID: 0710BH05B ***Lab Sample ID:*** **621501311-0014**
Sample Description: ROOM 112/WHITE / TAN COUNTERTOP / GLUE

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/21/2015	White	0%	100%	None Detected	

Client Sample ID: 0710BH06A ***Lab Sample ID:*** **621501311-0015**
Sample Description: STAIRWELL/GRAY SLATE STAIR TREAD

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	7/20/2015	Gray	0%	100%	None Detected	

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

EMSL Order ID:	621501311
Customer ID:	ENVI54
Customer PO:	20141268.A7E
Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method via Polarized Light Microscopy

Client Sample ID: 0710BH06B ***Lab Sample ID:*** **621501311-0016**

Sample Description: STAIRWELL/GRAY SLATE STAIR TREAD

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	7/21/2015	Gray	0%	100%	None Detected	

Client Sample ID: 0710BH07A ***Lab Sample ID:*** **621501311-0017**

Sample Description: EXTERIOR WINDOW SYSTEMS/BLACK TAR / DAMP-PROOFING UNDER CONCRETE WINDOW SILL

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	7/17/2015	Black	0%	100%	None Detected	
TEM Grav. Reduction	7/21/2015	Black	0.0%	100%	None Detected	Result includes a small amount of inseparable attached material

Client Sample ID: 0710BH07B ***Lab Sample ID:*** **621501311-0018**

Sample Description: EXTERIOR WINDOW SYSTEMS/BLACK TAR / DAMP-PROOFING UNDER CONCRETE WINDOW SILL

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	7/21/2015	Black	0%	100%	None Detected	

Client Sample ID: 0710BH08A ***Lab Sample ID:*** **621501311-0019**

Sample Description: EXTERIOR OF BUILDING/BLACK TAR / DAMP-PROOFING B/W BRICK AND CONCRETE APRON

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	7/17/2015	Black	0%	100%	None Detected	
TEM Grav. Reduction	7/21/2015	Black	0.0%	99.9%	**0.10% Chrysotile**	Result includes a small amount of inseparable attached material

Client Sample ID: 0710BH08B ***Lab Sample ID:*** **621501311-0020**

Sample Description: EXTERIOR OF BUILDING/BLACK TAR / DAMP-PROOFING B/W BRICK AND CONCRETE APRON

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	7/21/2015	Brown/Black	0%	100%	None Detected	

Client Sample ID: 0710BH09A ***Lab Sample ID:*** **621501311-0021**

Sample Description: EXTERIOR OF BUILDING/BLACK TAR / DAMP-PROOFING B/W BRICK AND CONCRETE FOUNDATION

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	7/21/2015	Black	0%	100%	**<1% Chrysotile**	
TEM Grav. Reduction	7/21/2015	Black	0.0%	99.1%	**0.92% Chrysotile**	Result includes a small amount of inseparable attached material

Client Sample ID: 0710BH09B ***Lab Sample ID:*** **621501311-0022**

Sample Description: EXTERIOR OF BUILDING/BLACK TAR / DAMP-PROOFING B/W BRICK AND CONCRETE FOUNDATION

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	7/21/2015	Black	0%	100%	**<1% Chrysotile**	

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Phone/Fax: (207) 517-6921 / (207) 517-6922
http://www.EMSL.com / portlandlab@emsl.com

EMSL Order ID:	621501311
Customer ID:	ENVI54
Customer PO:	20141268.A7E
Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method via Polarized Light Microscopy

Client Sample ID: 0710BH10A ***Lab Sample ID:*** **621501311-0023**

Sample Description: EXTERIOR OF BUILDING/FOUNDATION BLACK TAR / PATCH

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	7/17/2015	Black	10%	90%	None Detected	
TEM Grav. Reduction	7/21/2015	Black	1.4%	98.6%	None Detected	

Client Sample ID: 0710BH10B ***Lab Sample ID:*** **621501311-0024**

Sample Description: EXTERIOR OF BUILDING/FOUNDATION BLACK TAR / PATCH

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	7/21/2015	Black	0%	100%	None Detected	

Analyst(s):

Desiree Lunt	PLM (13)
Leslie McCluskeyEissing	PLM (11) TEM Grav. Reduction (6)

Reviewed and approved by:

CWalker

Christina Walker, Laboratory Manager
or Other Approved Signatory

Samples analyzed by EMSL Analytical, Inc. South Portland, ME NVLAP Lab Code 500094-0

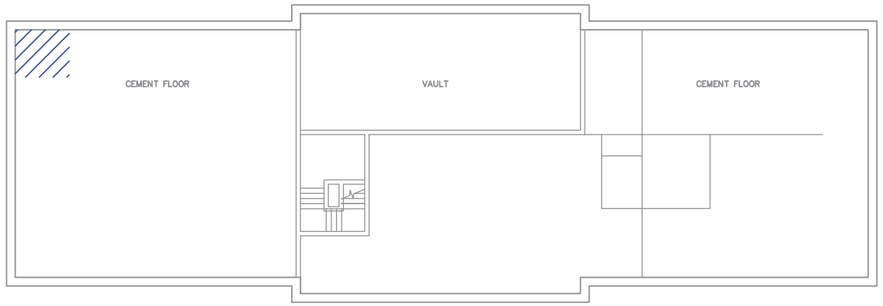
Initial report from: 07/21/201512:20:27

Appendix D

Asbestos-Containing Materials Locations Diagrams

LEGEND

FLOOR TILE & MASTIC



1 ASBESTOS CONTAINING MISCELLANEOUS MATERIALS LOCATION
BASEMENT – NEWTOWN HALL
SCALE: 3/32"= 1'-0"

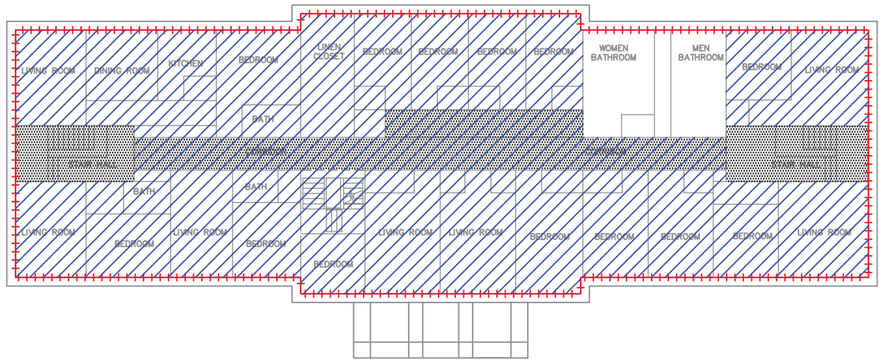
LEGEND

FLOOR TILE & MASTIC

BROWN GLUE DAUBS ON 6"x4"" CEILING TILES

INTERIOR BLACK TAR/DAMPROOFING ON TERRACOTTA

2 ASBESTOS CONTAINING MISCELLANEOUS MATERIALS LOCATION
FIRST FLOOR – NEWTOWN HALL
SCALE: 3/32"= 1'-0"



3 ASBESTOS CONTAINING MISCELLANEOUS MATERIALS LOCATION
SECOND FLOOR – NEWTOWN HALL
SCALE: 3/32"= 1'-0"

LEGEND

FLOOR TILE & MASTIC

BROWN GLUE DAUBS ON 6"x4"" CEILING TILES

INTERIOR BLACK TAR/DAMPROOFING ON TERRACOTTA

NOTE:

THIS DRAWING IS NOT INTENDED TO BE UTILIZED AS A BIDDING DOCUMENT OR AS A PROJECT ABATEMENT DRAWING DOCUMENT. THE DRAWING IS DESIGNED TO AID THE BUILDING OWNER, ARCHITECT, CONSTRUCTION MANAGER, GENERAL CONTRACTORS, AND ASBESTOS ABATEMENT CONTRACTORS IN LOCATING ACM. QUANTITIES AND LOCATIONS OF IDENTIFIED ACMS SHOULD BE CONFIRMED AND OBSERVED BY THE ABATEMENT CONTRACTORS DURING THE BIDDING PROCESS.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.				

SEAL

SEAL

SCALE:
HORZ.: 3/32"= 1'-0"
VERT.:
DATUM:
HORZ.:
VERT.:
3/32 0 3/32
GRAPHIC SCALE

FUSS & O'NEILL
EnviroScience, LLC
56 QUARRY ROAD
TRUMBULL, CONNECTICUT 06611
203.374.3748
www.fando.com

TOWN OF NEWTOWN

ASBESTOS CONTAINING MISCELLANEOUS MATERIALS LOCATION

FAIRFIELD HILLS - NEWTOWN HALL

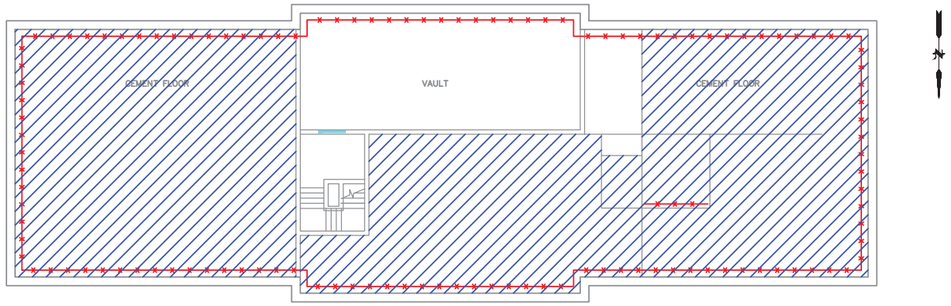
NEWTOWN CONNECTICUT

PROJ. No.: 20141268.A7E
DATE: JULY 2015

FIG.1.1

LEGEND

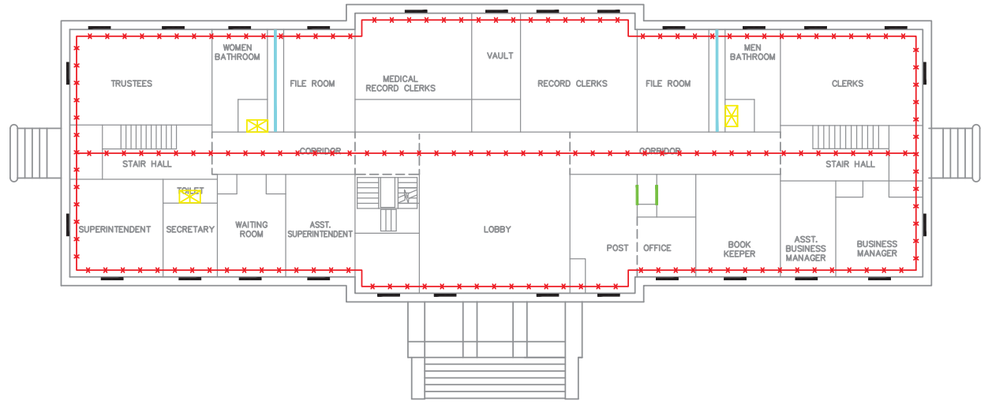
- PIPE INSULATION AND MUDDED PIPE FITTING INSULATION DEBRIS
- VAULT DOOR INSULATION
- PIPE INSULATION AND MUDDED PIPE FITTING INSULATION



1 ASBESTOS CONTAINING THERMAL SYSTEM INSULATION MATERIALS LOCATION
BASEMENT – NEWTOWN HALL
SCALE: 3/32"= 1'-0"

LEGEND

- PIPE INSULATION AND MUDDED PIPE FITTING INSULATION
- PIPE WALL CHASE
- GRAY RADIATOR INSULATION AND INSULATION PAPER
- VAULT DOOR INSULATION
- SINK WITH PIPE INSULATION AND MUDDED PIPE FITTING INSULATION



2 ASBESTOS CONTAINING THERMAL SYSTEM INSULATION MATERIALS LOCATION
FIRST FLOOR – NEWTOWN HALL
SCALE: 3/32"= 1'-0"

3 ASBESTOS CONTAINING THERMAL SYSTEM INSULATION MATERIALS LOCATION
SECOND FLOOR – NEWTOWN HALL
SCALE: 3/32"= 1'-0"

LEGEND

- PIPE INSULATION AND MUDDED PIPE FITTING INSULATION
- PIPE WALL CHASE
- GRAY RADIATOR INSULATION AND INSULATION PAPER
- SINK WITH PIPE INSULATION AND MUDDED PIPE FITTING INSULATION

NOTE:

THIS DRAWING IS NOT INTENDED TO BE UTILIZED AS A BIDDING DOCUMENT OR AS A PROJECT ABATEMENT DRAWING DOCUMENT. THE DRAWING IS DESIGNED TO AID THE BUILDING OWNER, ARCHITECT, CONSTRUCTION MANAGER, GENERAL CONTRACTORS, AND ASBESTOS ABATEMENT CONTRACTORS IN LOCATING ACM. QUANTITIES AND LOCATIONS OF IDENTIFIED ACMS SHOULD BE CONFIRMED AND OBSERVED BY THE ABATEMENT CONTRACTORS DURING THE BIDDING PROCESS.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.				

SEAL

SEAL

SCALE:
HORZ.: 3/32"= 1'-0"
VERT.:
DATUM:
HORZ.:
VERT.:
3/32 0 3/32
GRAPHIC SCALE

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EnviroScience, LLC
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TRUMBULL, CONNECTICUT 06611
203.374.3748
www.fando.com

TOWN OF NEWTOWN

ASBESTOS CONTAINING THERMAL SYSTEM INSULATION MATERIALS LOCATION

FAIRFIELD HILLS - NEWTOWN HALL

NEWTOWN CONNECTICUT

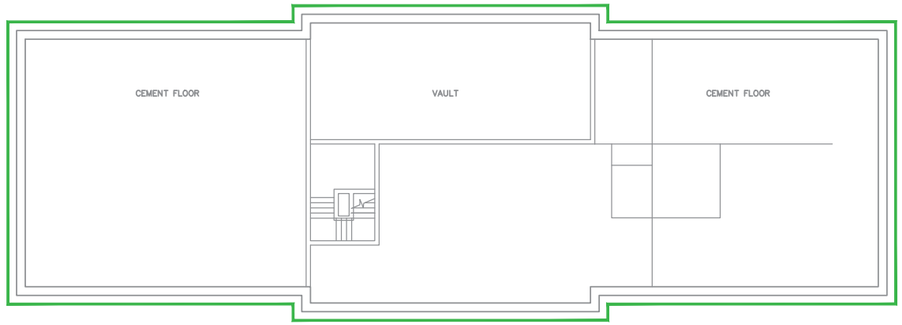
PROJ. No.: 20141268.A7E
DATE: JULY 2015

FIG.2.1

File Path: j:\DWG\P2014\1268\A7E\Environmental\Hazmat\20141268A7E_HAZ02_NEWTOWN.dwg Lay/out: FIG.2.1 Plotted: Tue, November 08, 2016 - 10:06 AM User: sirons
MS VIEW: LAYER STATE:
Plotter: DWG TO PDF.PC3 CTB File: FO.STB

LEGEND

EXTERIOR WINDOW CAULKING AND GLAZING COMPOUNDS

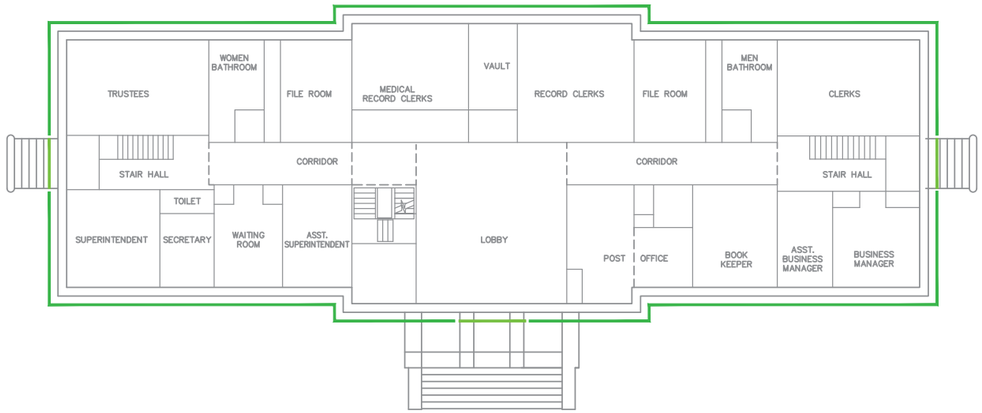


1 ASBESTOS CONTAINING EXTERIOR MATERIALS LOCATION
BASEMENT – NEWTOWN HALL
SCALE: 3/32"= 1'–0"

LEGEND

EXTERIOR WINDOW CAULKING AND GLAZING COMPOUNDS

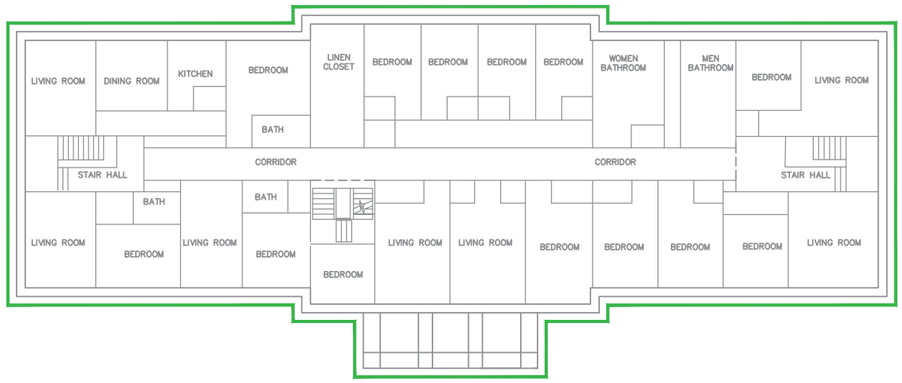
EXTERIOR DOOR CAULKING COMPOUNDS



2 ASBESTOS CONTAINING EXTERIOR MATERIALS LOCATION
FIRST FLOOR – NEWTOWN HALL
SCALE: 3/32"= 1'–0"

LEGEND

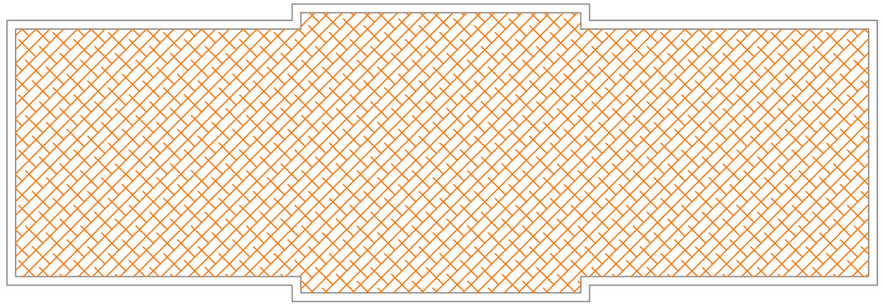
EXTERIOR WINDOW CAULKING AND GLAZING COMPOUNDS



3 ASBESTOS CONTAINING EXTERIOR MATERIALS LOCATION
SECOND FLOOR – NEWTOWN HALL
SCALE: 3/32"= 1'–0"

LEGEND

EXTERIOR CEMENTITIOUS ROOF SHINGLES AND ASSOCIATED FLASHING AND TARS



4 ASBESTOS CONTAINING EXTERIOR MATERIALS LOCATION
ROOF – NEWTOWN HALL
SCALE: 3/32"= 1'–0"

NOTE:

THIS DRAWING IS NOT INTENDED TO BE UTILIZED AS A BIDDING DOCUMENT OR AS A PROJECT ABATEMENT DRAWING DOCUMENT. THE DRAWING IS DESIGNED TO AID THE BUILDING OWNER, ARCHITECT, CONSTRUCTION MANAGER, GENERAL CONTRACTORS, AND ASBESTOS ABATEMENT CONTRACTORS IN LOCATING ACM. QUANTITIES AND LOCATIONS OF IDENTIFIED ACMS SHOULD BE CONFIRMED AND OBSERVED BY THE ABATEMENT CONTRACTORS DURING THE BIDDING PROCESS.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.				

SEAL

SEAL

SCALE:
HORZ.: 3/32"= 1'-0"
VERT.:
DATUM:
HORZ.:
VERT.:
3/32 0 3/32
GRAPHIC SCALE

FUSS & O'NEILL
EnviroScience, LLC
56 QUARRY ROAD
TRUMBULL, CONNECTICUT 06611
203.374.3748
www.fando.com

TOWN OF NEWTOWN

ASBESTOS CONTAINING EXTERIOR MATERIALS LOCATION

FAIRFIELD HILLS - NEWTOWN HALL

NEWTOWN CONNECTICUT

PROJ. No.: 20141268.A7E
DATE: JULY 2015

FIG.3.1

FUSS & O'NEILL
EnviroScience, LLC

Appendix E

Lead Paint Determination Field Data Sheets

FUSS & O'NEILL
EnviroScience, LLC
56 Trumbull Road, Trumbull, CT 06611
www.fando.com
(203) 374-3748 Fax (203) 374-4391

XRF LEAD SCREENING FIELD DATA SHEET

Inspector Name: Bob Hobbins **Inspector License #:** 2156

Date: July 10, 2015 **XRF Model:** LPA-1B **Serial:** 3241R

Project Name: FFH-Newtown Hall **Project Number:** 20141268.A7E

Address: Keating Farms Rd, Newtown, CT **Building:** Newtown Hall **Project Manager:** K. McCarthy

XRF Calibration Check-RMD (0.7 to 1.3 mg/cm² inclusive)

	Hour	First Reading	Second Reading	Third Reading	Average
First Check	1310	1.0	1.2	1.2	1.13
Second Check	1530	1.1	1.0	1.0	1.03
Third Check					
Fourth Check					

Side	Surface/Component	Substrate	Color	XRF Reading	Positive (√)	Comments/Notes
A	wall	CB	WHT.	-0.2		Basement
D	wall	BR.	↓	-0.2		↓
	Door	W	gray	0.2		
	DT	↓	↓	-0.1		
	DJ	↓	↓	-0.1		
	ceiling	C	WHT.	0.1		
	Door	M	BRN	0.0		
	DT	M	BRN	0.5		
	DJ	M	BRN	0.6		↓
A	wall	P	WHT.	0.1		2nd Flr - Room 201
B	wall	P	WHT.	79.9	✓	Room 201
B	wall	P	WHT.	9.8	✓	Room 209 B
	Door	W	WOOD/WHT	-0.1		
	DT	↓	↓	-0.1		
	DJ	↓	↓	-0.1		↓
	window sill	W	VARNISH	0.1		Room 209 B
	↓ sash	↓	↓	-0.1		↓
	↓ trim	↓	↓	-0.1		↓

* Substrate Type: Metal = M, Wood = W, Plaster = P, Sheetrock = S, Concrete = C, Brick = B
N/A: Not Accessible; N/C: Not Coated; COV: Covered; VR – Vinyl Replacement

FUSS & O'NEILL
EnviroScience, LLC
56 Trumbull Road, Trumbull, CT 06611
www.fando.com
(203) 374-3748 Fax (203) 374-4391

XRF LEAD SCREENING FIELD DATA SHEET (CONT.)

Project Name: FFH-Newtown Hall **Project Number:** 20141268.A7E

Address: Keating Farms Rd, Newtown, CT **Building:** Newtown Hall **Project Manager:** K. McCarthy

Side	Surface/Component	Substrate	Color	XRF Reading	Positive (√)	Comments/Notes
	Wall Tile	cer.	Blue	79.9	✓	2nd FLR 209 F
	Concrete Floor	C	Brown	0.1		
	Fire Hose Cabinet	m	Brown	0.1		
	Radiator Box	W	Varnish	0.1		206
	Window Well	W	WHT.	1.6	✓	
	Radiator	m	Gray	0.0		
C	Wall	P	WHT.	79.9	✓	
	STW - Riser	m	Brown	1.2	✓	
	Stringer	m	Brown	2.1	✓	
						1ST FLR
A	Wall	P	WHT	79.9	✓	RM 118
	Door	m	Brown	5.0	✓	West Entrance
	DJ	m	Brown	4.1	✓	"
	DT	W	Varnish	0.1		"
	Ceiling molding	W	WHT.	8.0	✓	
	STW - Baluster	m	Brown	1.6	✓	
	Bal. Sup.	m	Brown	1.4	✓	
	Post Box. Trim	W	WHT.	4.1	✓	Main Lobby
	Mantle	W	WHT.	3.1	✓	"
	Ceil. molding	W	WHT.	2.0	✓	"
C.	Wall Panel	W	WHT.	3.2	✓	"
	DT	W	WHT.	3.7	✓	"
	DJ	W	WHT.	4.2	✓	"
	Door	W	WHT.	0.1		"
	Door (Fire)	m	Brown	0.1		"
	DT	"	"	0.4		"
	DJ	"	"	0.2		"

* Substrate Type: Metal = M, Wood = W, Plaster = P, Sheetrock = S, Concrete = C, Brick = B
N/A: Not Accessible; N/C: Not Coated; COV: Covered; VR – Vinyl Replacement

FUSS & O'NEILL
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56 Trumbull Road, Trumbull, CT 06611
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(203) 374-3748 Fax (203) 374-4391

XRF LEAD SCREENING FIELD DATA SHEET (CONT.)

Project Name: FFH-Newtown Hall **Project Number:** 20141268.A7E

Address: Keating Farms Rd, Newtown, CT **Building:** Newtown Hall **Project Manager:** K. McCarthy

Side	Surface/Component	Substrate	Color	XRF Reading	Positive (√)	Comments/Notes
	window sill	W	varnish	0.1		Rm 109
	W-sash	"	"	-0.1		"
	W - well	"	WHT.	3.7	✓	"
D	wall	P	WHT.	>9.9	✓	
B	wall	P	"	>9.9	✓	
A	Door	W	WHT.	0.8		Exterior
	DT	W	WHT.	2.1	✓	
	DJ	W	WHT.	3.1	✓	
	Handrail	M	BLK	>9.9	✓	
	Baluster	M	BLK	0.2		
	Win. Sash	W	WHT.	2.1	—	
	Trim	W	"	3.2	—	
C	Wind. Sash	W	WHT.	2.2	✓	
	J. Trim	W	WHT.	3.6	—	
	Door	W	WHT.	1.2	—	
	DT	"	"	1.3	—	
	DJ	"	"	1.2	—	
	Handrail	M	BLK	>9.9	✓	
	Baluster	M	BLK	0.5		

* Substrate Type: Metal = M, Wood = W, Plaster = P, Sheetrock = S, Concrete = C, Brick = B
N/A: Not Accessible; N/C: Not Coated; COV: Covered; VR – Vinyl Replacement

FUSS & O'NEILL
EnviroScience, LLC

Appendix F

Lead TCLP Laboratory Analytical Report and Chain-Of-Custody Form, and TCLP Representative Demolition Waste Stream Sample Aliquot Computation Form

PHOENIX
Environmental Laboratories, Inc.

Wednesday, November 02, 2016

Attn: Ms. Karron Redfield
Fuss & O'Neill EnviroScience, LLC
145 Hartford Road
Manchester, CT 06040

Project ID: FAIRFIELD HILLS NEWTOWN HALL
Sample ID#s: BV70776 - BV70778

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 02, 2016

FOR: Attn: Ms. Karron Redfield
Fuss & O'Neill EnviroScience, LLC
145 Hartford Road
Manchester, CT 06040

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BH	10/28/16	
Location Code:	F&OENVIR	Received by:	B	10/31/16	15:22
Rush Request:	48 Hour	Analyzed by:	see "By" below		
P.O.#:	20141268.A7E				

Laboratory Data

SDG ID: GBV70776
Phoenix ID: BV70776

Project ID: FAIRFIELD HILLS NEWTOWN HALL
Client ID: 20161028BH NEWTOWN ENTIRE

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
TCLP Lead	< 0.10	0.10	mg/L	1	11/01/16	LK	SW6010C
TCLP Metals Digestion	Completed				11/01/16	W/W	SW3005A
TCLP Extraction for Metals	Completed				10/31/16	W	SW1311

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
November 02, 2016
Reviewed and Released by: Ethan Lee, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 02, 2016

FOR: Attn: Ms. Karron Redfield
Fuss & O'Neill EnviroScience, LLC
145 Hartford Road
Manchester, CT 06040

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BH	10/28/16	
Location Code:	F&OENVIR	Received by:	B	10/31/16	15:22
Rush Request:	48 Hour	Analyzed by:	see "By" below		
P.O.#:	20141268.A7E				

Laboratory Data

SDG ID: GBV70776
Phoenix ID: BV70777

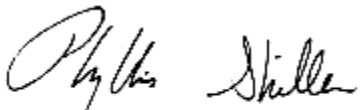
Project ID: FAIRFIELD HILLS NEWTOWN HALL
Client ID: 20161028BH NEWTOWN ENTIRE & FOUNDATION

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
TCLP Lead	1.14	0.10	mg/L	1	11/01/16	LK	SW6010C
TCLP Metals Digestion	Completed				11/01/16	W/W	SW3005A
TCLP Extraction for Metals	Completed				10/31/16	W	SW1311

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director
November 02, 2016
Reviewed and Released by: Ethan Lee, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 02, 2016

FOR: Attn: Ms. Karron Redfield
Fuss & O'Neill EnviroScience, LLC
145 Hartford Road
Manchester, CT 06040

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BH	10/28/16	
Location Code:	F&OENVIR	Received by:	B	10/31/16	15:22
Rush Request:	48 Hour	Analyzed by:	see "By" below		
P.O.#:	20141268.A7E				

Laboratory Data

SDG ID: GBV70776
Phoenix ID: BV70778

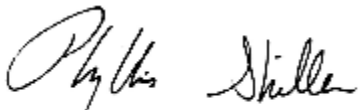
Project ID: FAIRFIELD HILLS NEWTOWN HALL
Client ID: 20161028BH NEWTOWN ACM

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
TCLP Lead	0.46	0.10	mg/L	1	11/01/16	LK	SW6010C
TCLP Metals Digestion	Completed				11/01/16	W/W	SW3005A
TCLP Extraction for Metals	Completed				10/31/16	W	SW1311

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director
November 02, 2016
Reviewed and Released by: Ethan Lee, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

November 02, 2016

QA/QC Data

SDG I.D.: GBV70776

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 365046 (mg/L), QC Sample No: BV71053 (BV70776, BV70777, BV70778)													
ICP Metals - TCLP Extraction													
Lead	BRL	0.010	0.174	0.174	0	103			105			75 - 125	20

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
November 02, 2016

Sample Criteria Exceedances Report

GBV70776 - FOENVIR

Criteria: None

State: CT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Fuss & O'Neill EnviroScience, LL

Project Location: FAIRFIELD HILLS NEWTOWN HALL ***Project Number:***

Laboratory Sample ID(s): BV70776-BV70778 ***Sampling Date(s):*** 10/28/2016

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
1A	**Were the method specified preservation and holding time requirements met?**	☑ Yes ☐ No
1B	***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)**	☐ Yes ☐ No ☑ NA
2	**Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?**	☑ Yes ☐ No
3	**Were samples received at an appropriate temperature (< 6 Degrees C)?**	☑ Yes ☐ No ☐ NA
4	**Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?**	☑ Yes ☐ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☐ Yes ☑ No ☑ Yes ☐ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☐ Yes ☑ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☐ Yes ☑ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Ethan Lee **Position:** Project Manager

Printed Name: Ethan Lee **Date:** Wednesday, November 02, 2016

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

RCP Certification Report

November 02, 2016

SDG I.D.: GBV70776

SDG Comments

Metals Analysis:
The client requested a shorter list of elements than the 6010 RCP list. Only Lead is reported as requested on the chain of custody.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

ARCOS 11/01/16 11:10 Laura Kinnin, Chemist 11/01/16

BV70776, BV70777, BV70778

The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 365046 (BV71053)

BV70776, BV70777, BV70778

All LCS recoveries were within 75 - 125 with the following exceptions: None.

Temperature Narration

The samples were received at 2C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

FUSS & O'NEILL
(860) 646-2469 • www.FandO.com

☐ 146 Hartford Road, Manchester, CT 06040
☑ 56 Quarry Road, Trumbull, CT 06611
☐ 1419 Richland Street, Columbia, SC 29201
☐ 78 Interstate Drive, West Springfield, MA 01089
☐ 317 Iron Horse Way, Suite 204, Providence, RI 02908
☐ 80 Washington Street, Suite 301, Poughkeepsie, NY
☐ Other ___

20416TP

CHAIN-OF-CUSTODY RECORD 36667

Turnaround
☐ 24-Hour* ☐ 72-Hour* ☐ Other ___ (days)
☑ 48-Hour* ☐ Standard (___ days) *Surcharge Applies

Project Name	Project Location	Project Number	Laboratory
Fairfield Hills - Newtown Hall	Keating Farms Rd, Newtown, CT	20141268.A7E	Phoenix

Report To: Helen Ramsey / K. Redfield
Invoice To: S. Owens
P.O. No.: 20141268.A7E
Sampler's Signature: B. Hobbins Date: 10-28-16

Source Codes:
MW=Monitoring Well PW=Potable Water T=Treatment Facility S=Soil B=Sediment
SW=Surface Water ST=Stormwater W=Waste A=Air C=Concrete
X=Other TCLP - Lead

Analysis Request / Containers

Item No.	Transfer Check 1	2	3	4	Sample Number 20161028BH	Source Code	Date Sampled	Time Sampled	TCLP - Lead	Soil VOA Vial, ☐ methanol	Soil VOA Vial, ☐ water ☐ $NaHSO_4$	Glass Soil Container (8) oz	Other:	Other:	Water VOA Vial, ☐ As is ☐ HCl	Glass Amber (___ 1 mL ☐ As is ☐ H_2SO_4	Plastic - As is, ☐ 250 mL ☐ 500 ☐ 1000 mL	Plastic - H_2SO_4, ☐ 250 mL ☐ 500 mL	Plastic - HNO_3, 250 mL ☐ Filtered ☐ 0.45µ ☐ DW	Plastic - NaOH, 250 mL	Comments
1	✓				Newtown - Entire	X	10-28		✓								1				70776
2	✓				Newtown - Entire + Foundation				✓								1				70777
3	✓				Newtown - ACM				✓								1				70778

Transfer Number	Relinquished By	Accepted By	Date	Time
1	B. Hobbins	F to F	10-28-16	1400
2	F to F	[signature]	10/31/16	12:25
3	[signature]	[signature]	10/31/16	12:25
4	[signature]	Krystal Bruce	10/31	1520

Charge Exceptions: ☐ CT Tax Exempt ☐ QA/QC ☐ Other ___
___ Duplicates ___ Blanks (Item Nos:)
Reporting and Detection Limit Requirements: ☐ RCP Deliverables ☐ MCP CAM Cert.
Additional Comments:

Newtown Total Building Waste Stream without ACM
Calculations for Preparing Waste Stream TCLP Sample

Building Component	Thickness (feet)	Area (sq. ft.)	Length (ft.)	Number Units	Weight (lbs./sq. ft.)	Weight (lbs./ cu. ft.)	Weight (lbs./ft.)	Weight Each (lbs.)	Total Weight (lbs.) (of component)	% of Waste Stream Weight	Grams to Yield 105 g. proportionate sample	Notes
Vinyl Floor Tile					1.6				0	0.000%	0.000	1
Roof Flashing						75			0	0.000%	0.000	3
Asbestos Transite Shingles					7.73				0	0.000%	0.000	4
Wood Roof Deck					3.2				0	0.000%	0.000	7
6"x4" ceiling tile w/brown glue							0.35		0	0.000%	0.000	5
Total Window Glazing							1.44		0	0.000%	0.000	18
Total Window Sash							0.1		0	0.000%	0.000	18
Total Window Frame							7.32		0	0.000%	0.000	18
Total Window Glass					2.5				0	0.000%	0.000	7
Exterior Door Caulking							0.35		0	0.000%	0.000	5
gray radiatior paper					1				0	0.000%	0.000	11
Black Dampproofing interior wall on terracotta							1.962		0	0.000%	0.000	8
Pipe insulation 2" Pipe							5.0994		0	0.000%	0.000	8
Pipe insulation 6" Pipe								150	0	0.000%	0.000	12
Structural Terracotta Block (12"x 3.50"x 8")		21143			45				951,435	16.327%	17.143	7,20
Exterior Brick walls-3 course of brick		3152			120				378,240	6.491%	6.815	7
Exterior Brick walls-2 course of brick		8668			80				693,440	11.899%	12.494	7
Concrete Walls Foundation	1.3300	3940				144			754,589	12.949%	13.596	17
Concrete Foundation Slab	0.5800	6221				144			519,578	8.916%	9.362	17
Concrete Floors (2 Floors)	0.5000	12442				144			895,824	15.372%	16.141	17
Concrete Beams (2 Floors)	0.5000	12442				144			895,824	15.372%	16.141	17
Exterior Concrete Trim	1.5000	300				144			64,800	1.112%	1.168	17
Exterior Concrete Steps/ Entrance	1.0000	385				144			55,440	0.951%	0.999	17
Exterior Concrete Entrance	6.0000					144			0	0.000%	0.000	17
Exterior Concrete Columns				8		144		1608	12,864	0.221%	0.232	17,19
Exterior Concrete Below Windows	1.0000	300				144			43,200	0.741%	0.778	17
Terrazzo Cove Base/Flooring		9779			7				68,453	1.175%	1.233	7
Wall Plaster-Cement 1" thickness		30280			10				302,800	5.196%	5.456	7
Ceiling Plaster-Cement 1" thickness		12442			10				124,420	2.135%	2.242	7
Roof Wood Deck-Pine (3/4-inch)					3.2				0	0.000%	0.000	7
Roof Base Sheet-Tar Paper					0.35				0	0.000%	0.000	7
Wood: Roof Beams (2x11 16" on center)	0.1670				3.2				0	0.000%	0.000	7,13
Wood Doors 65 unpainted interior doors				165				191.4	31,581	0.542%	0.569	7
Metal Doors interior painted doors				2				210	420	0.007%	0.008	7
LBP blue ceramic wall tile		897		690	3.1				2,781	0.048%	0.050	15
LBP exterior wood white window sash and trim					3.2				0	0.000%	0.000	16
LBP exterior wood door, trim, and jamb					3.2				0	0.000%	0.000	14
LBP exterior metal handrail		15			1.44				22	0.000%	0.000	
LBP interior white plaster walls					10				0	0.000%	0.000	
LBP interior wood white window well, sash, and trim					3.2				0	0.000%	0.000	
LBP interior wood white door, trim, and jambs		65			3.2				208	0.004%	0.004	
LBP interior wood white ceiling molding		9779			3.2				31,293	0.537%	0.564	
LBP interior wood white post office box trim		20			3.2				64	0.001%	0.001	
LBP interior wood white main lobby wall panel and mantle		16			3.2				51	0.001%	0.001	
LBP interior metal brown stair riser and stringer		75			1.44				108	0.002%	0.002	
LBP interior metal door and jamb		30			1.44				43	0.001%	0.001	
								Total Waste Steam Weight:	5,827,477	100%	105	

Notes:

1) Weight of tile taken from current manufacturers data for similar thickness vinyl tile
2) One tile weighs 0.9 lbs. as weighed in field. One tile is 24/144 of a square foot, therefore tile is 5.4 lbs. per square foot
3) Flashing consists of a tar paper coated with tar. Density of tar taken from a standard engineering reference
4) Area of roof is calculated using the footprint of the building and assuming a 30% slope of the roof. Tiles are 9" by 18" and weigh 2.9 lbs. or 2.5778 lbs. per square foot. Tiles overlap on sides and ends so that there are three layers at all locations for a total of 7.73 lbs. per square foot
5) Assume glazing is weight of chalk which is the primary component. Weight of chalk taken from standard engineering reference
6) Weight of ceramic tile per square foot taken from standard engineering reference for 0.25 in thick tile and checked against density of ceramic material
7) Weight per square foot taken from standard building materials reference
8) Assumes asbestos insulation weighs 18 lbs. per cubic foot
9) Assumes a light weight concrete
10) White wire caulking in drinking water fountains is insignificant due to the small amount - see report photo
11) Weight of carpet determined for particular carpet
12) Weight per unit estimated
13) Weight per square foot is of beams weight per square foot of roof
Red building components are components with lead-based paint
14) Weight per foot calculated assuming pine wood
15) Weight calculated assuming oak wood
16) Weight estimated assuming steel door with interior insultation
17) Weight per cu. ft. from standard reference assuming stone and sand aggregate
18) Weight per foot calculated assuming standard steel
19) Total weight calculated
20) Terracotta block is on the interior or the exterior walls and also forms core of interior walls

Newtown Total Building Waste Stream without ACM and without Lower Portion of Foundation

Calculations for Preparing Waste Stream TCLP Sample

Building Component	Thickness (feet)	Area (sq. ft.)	Length (ft.)	Number Units	Weight (lbs./sq. ft.)	Weight (lbs./ cu. ft.)	Weight (lbs./ft.)	Weight Each (lbs.)	Total Weight (lbs.) (of component)	% of Waste Stream Weight	Grams to Yield 105 g. proportionate sample	Notes
Vinyl Floor Tile					1.6				0	0.000%	0.000	1
Roof Flashing						75			0	0.000%	0.000	3
Asbestos Transite Shingles					7.73				0	0.000%	0.000	4
Wood Roof Deck					3				0	0.000%	0.000	7
6"x4" ceiling tile w/brown glue					1.2				0	0.000%	0.000	7
Total Window Glazing					3.2				0	0.000%	0.000	7
Total Window wood Sash					8.5				0	0.000%	0.000	7
Total Window wood Frame							0.35		0	0.000%	0.000	5
Total Window Glass							1.44		0	0.000%	0.000	18
Exterior Door Caulking							0.1		0	0.000%	0.000	18
Carpet							7.32		0	0.000%	0.000	18
gray radiatior paper					2.5				0	0.000%	0.000	7
Black Dampproofing interior wall on terracotta							0.35		0	0.000%	0.000	5
Pipe insulation 2" Pipe					2.3				0	0.000%	0.000	6
Pipe insulation 6" Pipe					1				0	0.000%	0.000	11
Structural Terracotta Block ((12"x 3.50"x 8")		251430			45				11,314,350	14.974%	15.723	7,20
Exterior Brick walls-3 course of brick		7120			120				854,400	1.131%	1.187	7
Exterior Brick walls-2 course of brick		3560			80				284,800	0.377%	0.396	7
Concrete Floors (Three Floors)	0.5000	450900				144			32,464,800	42.966%	45.114	17
Concrete Beams (Three Floors)	0.5000	263216				144			18,951,552	25.082%	26.336	17
Exterior Concrete Trim	1.5000	12750				144			2,754,000	3.645%	3.827	17
Exterior Concrete Steps/ Entrance	1.0000	735				144			105,840	0.140%	0.147	17
Exterior Concrete Entrance	6.0000	3150				144			2,721,600	3.602%	3.782	17
Exterior Concrete Columns				8		144		1608	12,864	0.017%	0.018	17,19
Exterior Concrete Below Windows	1.0000	743				144			106,992	0.142%	0.149	17
Terrazzo Cove Base/Flooring		9779			7				68,453	0.091%	0.095	7
Wall Plaster-Cement 1" thickness		366640			10				3,666,400	4.852%	5.095	7
Ceiling Plaster-Cement 1" thickness		180000			10				1,800,000	2.382%	2.501	7
Roof Wood Deck-Pine (3/4-inch)		109052			3.2				348,966	0.462%	0.485	7
Roof Base Sheet-Tar Paper		109052			0.35				38,168	0.051%	0.053	7,13
Wood Doors unpainted interior doors				165				191.4	31,581	0.042%	0.044	7
Metal Doors interior painted doors				2				210	420	0.001%	0.001	12
LBP blue ceramic wall tile		897		690	3.1				2,781	0.004%	0.004	7
LBP exterior wood white window sash and trim					3.2				0	0.000%	0.000	14
LBP exterior wood door, trim, and jamb					3.2				0	0.000%	0.000	14
LBP exterior metal handrail		15			1.44				22	0.000%	0.000	14
LBP interior white plaster walls					10				0	0.000%	0.000	14
LBP interior wood white window well, sash, and trim					3.2				0	0.000%	0.000	14
LBP interior wood white door, trim, and jambs		65			3.2				208	0.000%	0.000	15
LBP interior wood white ceiling molding		9779			3.2				31,293	0.041%	0.043	15
LBP interior wood white post office box trim		20			3.2				64	0.000%	0.000	16
LBP interior wood white main lobby wall panel and mantle		16			3.2				51	0.000%	0.000	14
LBP interior metal brown stair riser and stringer		75			1.44				108	0.000%	0.000	14
LBP interior metal brown door and jamb		30			1.44				43	0.000%	0.000	14
								Total Waste Steam Weight:	75,559,756	100%	105	

Notes:

1) Weight of tile taken from current manufacturers data for similar thickness vinyl tile
2) One tile weighs 0.9 lbs. as weighed in field. One tile is 24/144 of a square foot, therefore tile is 5.4 lbs. per square foot
3) Flashing consists of a tar paper coated with tar. Density of tar taken from a standard engineering reference
4) Area of roof is calculated using the footprint of the building and assuming a 30% slope of the roof. Tiles are 9" by 18" and weigh 2.9 lbs. or 2.5778 lbs. per square foot. Tiles overlap on sides and ends so that there are three layers at all locations for a total of 7.73 lbs. per square foot
5) Assume glazing is weight of chalk which is the primary component. Weight of chalk taken from standard engineering reference
6) Weight of ceramic tile per square foot taken from standard engineering reference for 0.25 in thick tile and checked against density of ceramic material
7) Weight per square foot taken from standard building materials reference
8) Assumes asbestos insulation weighs 18 lbs. per cubic foot
9) Assumes a light weight concrete
10) White wire caulking in drinking water fountains is insignificant due to the small amount - see report photo
11) Weight of carpet determined for particular carpet
12) Weight per unit estimated
13) Weight per square foot is of beams weight per square foot of roof

Red building components are components with lead-based paint

14) Weight per foot calculated assuming pine wood
15) Weight calculated assuming oak wood
16) Weight estimated assuming steel door with interior insultation
17) Weight per cu. ft. from standard reference assuming stone and sand aggregate
18) Weight per foot calculated assuming standard steel
19) Total weight calculated
20) Terracotta block is on the interior or the exterior walls and also forms core of interior walls

Newtown Asbestos Waste Stream

Calculations for Preparing Waste Stream TCLP Sample

Building Component	Thickness (feet)	Area (sq. ft.)	Length (ft.)	Number Units	Weight (lbs./sq. ft.)	Weight (lbs./ cu. ft.)	Weight (lbs./ft.)	Weight Each (lbs.)	Total Weight (lbs.) (of component)	% of Waste Stream Weight	Grams to Yield 105 g. proportionate sample	Notes
Vinyl Floor Tile	0.0156	10,000			1.6				16,000	1.740%	1.827	1
Roof Flashing	0.0333	16111				75			40,237	4.377%	4.595	3
Asbestos Transite Shingles		16111			7.73				124,538	13.546%	14.224	4
Wood Roof Deck		16111			3.2				51,555	5.608%	5.888	7
6"x4" ceiling tile w/brown glue		7500			5.4				40,500	4.405%	4.626	
Total Window Glazing	0.0417		5220				0.35		1,827	0.199%	0.209	5
Total Window wood Sash			2610				1.44		3,758	0.409%	0.429	18
Total Window wood Frame			1590				7.32		11,639	1.266%	1.329	18
Total Window Glass		1740			2.5				4,350	0.473%	0.497	7
Exterior Door Caulking	0.0417		120				0.35		42	0.005%	0.005	5
gray radiatior paper		810			0.35				284	0.031%	0.032	
Black Dampproofing interior wall on terracotta		13000			45				585,000	63.631%	66.813	
Pipe insulation 2" Pipe			3124				1.962		6,129	0.667%	0.700	8
Pipe insulation 6" Pipe			376				5.0994		1,917	0.209%	0.219	8
Structural Terracotta Block (12"x 3.50"x 8")					45				0	0.000%	0.000	7
Exterior Brick walls-3 course of brick					120				0	0.000%	0.000	7
Exterior Brick walls-2 course of brick					80				0	0.000%	0.000	7
Drywall					2				0	0.000%	0.000	7
Concrete Walls Foundation						144			0	0.000%	0.000	17
Concrete Foundation Slab						144			0	0.000%	0.000	17
Concrete Floors (2 Floors)						144			0	0.000%	0.000	17
Concrete Beams (2 Floors)						144			0	0.000%	0.000	17
Exterior Concrete Trim						144			0	0.000%	0.000	17
Exterior Concrete Steps/ Entrance						144			0	0.000%	0.000	17
Exterior Concrete Entrance						144			0	0.000%	0.000	17
Exterior Concrete Columns						144			0	0.000%	0.000	17
Exterior Concrete Below Windows						144			0	0.000%	0.000	17
Cinder Block					55				0	0.000%	0.000	7
Terrazzo Cove Base/Flooring					7				0	0.000%	0.000	7
Wall Plaster-Cement 1" thickness					10				0	0.000%	0.000	7
Ceiling Plaster-Cement 1" thickness					10				0	0.000%	0.000	7
Roof Wood Deck-Pine 3/4-inch					3.2				0	0.000%	0.000	7
Roof Base Sheet-Tar Paper					0.35				0	0.000%	0.000	7
Wood: Roof Beams (2x11 16" on center)					3.2				0	0.000%	0.000	7,13
Decorative Non-painted Wood	0.5000					32			0	0.000%	0.000	
Wood Doors unpainted interior doors				165				191.4	31,581	3.435%	3.607	
Metal Doors interior painted doors								210	0	0.000%	0.000	
LBP blue ceramic wall tile					3.1				0	0.000%	0.000	12
LBP exterior wood white window sash and trim					3.2							7
LBP exterior wood door, trim, and jamb					3.2							14
LBP exterior metal handrail					1.44							14
LBP interior white plaster walls					10							14
LBP interior wood white window well, sash, and trim					3.2							14
LBP interior wood white door, trim, and jambs					3.2							15
LBP interior wood white ceiling molding					3.2							15
LBP interior wood white post office box trim					3.2							16
LBP interior wood white main lobby wall panel and mantle					3.2							14
LBP interior metal brown stair riser and stringer					1.44							14
LBP interior metal brown door and jamb					1.44							14
								Total Waste Steam Weight:	919,358	100%	105	

Notes:

1) Weight of tile taken from current manufacturers data for similar thickness vinyl tile
2) One tile weighs 0.9 lbs. as weighed in field. One tile is 24/144 of a square foot, therefore tile is 5.4 lbs. per square foot
3) Flashing consists of a tar paper coated with tar. Density of tar taken from a standard engineering reference
4) Area of roof is calculated using the footprint of the building and assuming a 30% slope of the roof. Tiles are 9" by 18" and weigh 2.9 lbs. or 2.5778 lbs. per square foot. Tiles overlap on sides and ends so that there are three layers at all locations for a total of 7.73 lbs. per square foot
5) Assume glazing is weight of chalk which is the primary component. Weight of chalk taken from standard engineering reference
6) Weight of ceramic tile per square foot taken from standard engineering reference for 0.25 in thick tile and checked against density of ceramic material
7) Weight per square foot taken from standard building materials reference
8) Assumes asbestos insulation weighs 18 lbs. per cubic foot
9) Assumes a light weight concrete
10) White wire caulking in drinking water fountains is insignificant due to the small amount - see report photo
11) Weight of carpet determined for particular carpet
12) Weight per unit estimated
13) Weight per square foot is of beams weight per square foot of roof

Red building components are components with lead-based paint

14) Weight per foot calculated assuming pine wood
15) Weight calculated assuming oak wood
16) Weight estimated assuming steel door with interior insultation
17) Weight per cu. ft. from standard reference assuming stone and sand aggregate
18) Weight per foot calculated assuming standard steel

Appendix G

Site Photographs

ACM Black Tar/Damproofing on Terracotta Block

Batteries with Fluid (Corrosives) in Basement

FUSS & O'NEILL
EnviroScience, LLC

Appendix H

Opinion of Abatement and Demolition Cost

			AAIS Costs	BesTech Costs	HazPros Costs	Manafort Costs	Average Cost Per Item	Newtown Quantities	Newtown Costs
Building Square Footage	52,000							16,500	
Task	**DAS Item Number**	**Units**	**COMMODITY AND/OR SERVICES ASBESTOS REMOVAL**						
CLEAN-UP OF ACM DEBRIS BY HEPA VACUUMING	AR-001	SF	$0.24	0.20	$0.15	$0.50	$0.27	15000	$4,088
CLEAN-UP OF ACM DEBRIS	NO DAS NUMBER	LS	$0.24	0.20	$0.15	$0.50			$20,000
REMOVAL OF PIPE INSULATION AND MUDDED FITTING INSULATION	AR-002/AR-003/AR-003 (average)	LF	$2.17	2.60	$2.50	$3.00	$2.57	1000	$2,568
SELECTIVE DEMOLITION TO ACCESS PIPE INSULATION ABOVE	AR-029	SF	$0.87	1.10	$1.00	$2.25	$1.10	4000	$4,400
REMOVAL OF RESILIENT FLOORING INCLUDING MASTIC	AR-011	SF	$0.87	1.10	$1.00	$2.25	$1.10	10000	$11,000
SELECTIVE DEMOLITION TO ACCESS CONCEALED ACM ASSOCIATED WITH ABOVE (10% OF TOTAL)	AR-029	SF	$0.87	1.10	$1.00	$2.25	$1.10	1000	$1,100
REMOVAL OF SOFT PLASTER CEILING SYSTEM	AR-014	SF	$2.17	2.60	$2.50	$4.00	$2.60		$0
REMOVAL OF WHITE TANK INSULATIONS	AR-008	SF	$2.89	3.75	$3.50	$5.00	$3.79		$0
REMOVAL OF WHITE HVAC DUCT INSULATION	AR-009	SF	$2.89	3.75	$3.50	$5.00	$3.79		$0
REMOVAL OF VIBRATION ISOLATION CLOTH CONNECTOR	AR-010	SF	$2.17	2.75	$2.50	$4.00	$2.86		$0
REMOVAL OF INSULATED VAULT DOORS	NO DAS NUMBER	EACH	$250.00	250.00	$250.00	$250.00	$250.00	3	$750
REMOVAL OF TAN KILN	NO DAS NUMBER	EACH	$250.00	250.00	$250.00	$250.00	$250.00		$0
REMOVAL OF ACOUSTIC OR METAL PAN CEILING SYSTEM (INCLUDING GRID)	AR-015	SF	$1.45	1.80	$1.50	$2.75	$1.88		$0
REMOVEVAL OF WALK IN COOLER CORK AND BLACK MASTIC INSULATION	NO DAS NUMBER	SF	$15.00	15.00	$15.00	$15.00	$15.00		$0
REMOVAL OF 1'X1' GLUE SET WALL TILES	AR-016	SF	$1.16	1.45	$1.25	$3.50	$1.45		$0
REMOVAL OF BROWN GLUE DAUBS ON RECTANGULAR CEILING TILES	AR-016	SF	$1.16	1.45	$1.25	$3.50	$1.45	7500	$10,875
REMOVAL OF BULLETIN BOARD GLUE DAUBS	AR-016	SF	$1.16	1.45	$1.25	$3.50	$1.45		$0
REMOVAL OF BLACK COVE BASE AND BLACK MASTIC	AR-024	LF		$0.90	$0.75	$2.00	$0.90		$0
REMOVAL OF INTERIOR BLACK DAMPPROOFING/TAR/PAPER ON TERRACOTTA/BRICK WALLS/CHASES	NO DAS NUMBER	SF	$15.00	15.00	$15.00	$15.00	$15.00	13000	$195,000
SELECTIVE DEMOLITION TO ACCESS CONCEALED ACM ASSOCIATED WITH ABOVE	AR-029	SF	$0.87	1.10	$1.00	$2.25	$1.10	13000	$14,300
REMOVAL OF CMU WALL/TERRA COTTA BLOCK	AR-026	SF	$1.45	1.80	$1.65	$3.00	$1.98		$0
SELECTIVE DEMOLITION TO ACCESS CONCEALED ACM ASSOCIATED WITH ABOVE	AR-029	SF	$0.87	1.10	$1.00	$2.25	$1.10		$0
PREP WORK AREA (1) (2)	AR-027	SF	$0.97	0.97	$1.00	$1.85	$1.00	78000	$78,000
FIRE DOORS	NO DAS NUMBER	EACH	$125.00	125.00	$125.00	$125.00	$125.00	3	$375
TAN INTERIOR COLUMN CAULKING COMPOUNDS	NO DAS NUMBER	LF	$10.00	10.00	$10.00	$10.00	$10.00		$0
REMOVAL OF TAN INTERIOR WINDOW CAULKING	NO DAS NUMBER	EACH	$300.00	300.00	$300.00	$300.00	$300.00		$0
REMOVAL OF TAN INTERIOR DOOR CAULKING	NO DAS NUMBER	EACH	$250.00	250.00	$250.00	$250.00	$250.00		$0
REMOVAL OF RADIATOR PACKING INSULATION AND PAPER	NO DAS NUMBER	EACH	$100.00	100.00	$100.00	$100.00	$150.00	60	$9,000
REMOVAL OF GREY CEILING PANELS AND ASSOCIATED SEAM STRIP	NO DAS NUMBER	SF	$15.00	15.00	$15.00	$15.00	$15.00		$0
REMOVAL OF GRAY CEMENTITIOUS BAKELITE/ELECTRICAL PANEL	NO DAS NUMBER	EACH	$100.00	100.00	$100.00	$100.00	$100.00		$0
REMOVAL OF GRAY CEMENTITIOUS COUNTERTOP	NO DAS NUMBER	EACH	$100.00	100.00	$100.00	$100.00	$100.00		$0
REMOVAL OF GRAY CEMENTITIOUS WALL HATCH	NO DAS NUMBER	EACH	$100.00	100.00	$100.00	$100.00	$100.00		$0
REMOVAL OF GRAY CEMENTITIOUS RADIATOR TOP	NO DAS NUMBER	EACH	$100.00	100.00	$100.00	$100.00	$100.00		$0
REMOVAL OF GRAY CEMENTITIOUS ELECTRICAL PANEL	NO DAS NUMBER	EACH	$100.00	100.00	$100.00	$100.00	$100.00		
REMOVAL OF WHITE OR BLACK CAULKING ON ELECTRICAL WIRES IN METAL DRINKING FOUNTAINS	NO DAS NUMBER	EACH	$100.00	100.00	$100.00	$100.00	$100.00		$0
REMOVAL OF SINK UNDERCOATING	NO DAS NUMBER	EACH	$250.00	250.00	$250.00	$250.00	$250.00		$0
REMOVAL OF ELEVATOR BRAKE PADS	NO DAS NUMBER	LS							$0
REMOVAL OF BLACK GLUE ON CERAMIC WALL TILE	NO DAS NUMBER	SF	$15.00	15.00	$15.00	$15.00	$15.00		$0
REMOVAL OF SKIM COAT CONCRETE ON TERRACOTTA WALL	NO DAS NUMBER	SF	$15.00	15.00	$15.00	$15.00	$15.00		$0
REMOVAL OF GRAY SLATE STEPS AT MAIN ENTRANCE	NO DAS NUMBER	CY					$50.00		$0

			AAIS Costs	BesTech Costs	HazPros Costs	Manafort Costs	Average Cost Per Item	Newtown Quantities	Newtown Costs
Building Square Footage	52,000							16,500	
REMOVAL OF EXTERIOR WINDOW CAULKING AND GLAZING COMPOUNDS + DAMP-PROOFING TAR/PAPER UNDER CONCRETE SILL	NO DAS NUMBER	EACH	$300.00	300.00	$300.00	$300.00	$300.00	96	$28,800
WORK SURFACES OVER 20' HIGH (WINDOW CAULKING AND GLAZING COMPOUNDS + DAMP-PROOFING TAR/PAPER UNDER CONCRETE SILL) (10% OF ABOVE)	EF-2	ESC	15%	15%	15%	15%	15%	$ 14,400	$2,160
EXTERIOR WORK (WINDOW CAULKING AND GLAZING COMPOUNDS + DAMP-PROOFING TAR/PAPER UNDER CONCRETE SILL)	EF-8	ESC	30%	30%	30%	30%	30%	$ 28,800	$8,640
REMOVAL AND DISPOSAL OF LIMESTONE WINDOW SILLS	NO DAS NUMBER	LS							$0
REMOVAL OF BLACK TAR/PAPER BEHIND CONCRETE WINDOW SILL	NO DAS NUMBER	SF	$15.00	15.00	$15.00	$15.00	$15.00		
EXTERIOR WORK (ASSOCIATED WITH BLACK TAR PAPER BEHIND CONCRETE WINDOW SILL)	NO DAS NUMBER	ESC	30%	30%	30%	30%	30%		
REMOVAL OF BLACK TAR PAPER BETWEEN BRICK AND CONCRETE FOUNDATION	NO DAS NUMBER	SF	$15.00	15.00	$15.00	$15.00	$15.00		
EXTERIOR WORK (ASSOCIATED WITH BLACK TAR PAPER BETWEEN BRICK AND CONC. FOUNDATION)	EF-8	ESC	30%	30%	30%	30%	30%		
REMOVAL OF DAMPPROOFING/TAR ON LIMESTONE TRIMS AND FOUNDATION		SF	$15.00	15.00	$15.00	$15.00	$15.00		$0
WORK SURFACES OVER 20' HIGH LIMESTONE TRIMS AND FOUNDATION	EF-2	ESC	15%	15%	15%	15%	15%		$0
EXTERIOR WORK LIMESTONE TRIMS AND FOUNDATION	EF-8	ESC	30%	30%	30%	30%	30%		$0
EXTERIOR VENT CAULKING COMPOUNDS	NO DAS NUMBER	EACH	$250.00	250.00	$250.00	$250.00	$250.00		$0
EXTERIOR WORK (ASSOCIATED WITH VENT CAULKING COMPOUNDS ABOVE)	EF-8	ESC	30%	30%	30%	30%	30%		
EXTERIOR BUILDING AND CHIMNEY CAULKING COMPOUNDS	NO DAS NUMBER	LF	$150.00	150.00	$150.00	$150.00	$15.00		$0
EXTERIOR ROOF COPING STONE SEAM CAULKING COMPOUNDS	NO DAS NUMBER	LF	$10.00	10.00	$10.00	$10.00	$15.00		$0
WORK SURFACES OVER 20' HIGH (ASSOCIATED WITH COPING STONE ABOVE)	EF-2	ESC	15%	15%	15%	15%	15%		
EXTERIOR WORK (ASSOCIATED WITH COPING STONE ABOVE)	EF-8	ESC	30%	30%	30%	30%	30%		
REMOVAL OF EXTERIOR DOOR CAULKING COMPOUNDS	NO DAS NUMBER	EACH	$250.00	250.00	$250.00	$250.00	$250.00	3	$750
EXTERIOR WORK (ASSOCIATED WITH DOORS ABOVE)	EF-8	ESC	30%	30%	30%	30%	30%	750	$225
REMOVAL OF ROOFING TRANSITE MATERIAL	AR-020	SF	$0.72	0.90	$0.85	$2.00	$1.12	10000	$11,175
REMOVAL OF ROOFING PAPERS AND FELTS	AR-020	SF	$0.72	0.90	$0.85	$2.00	$1.12	10000	$11,175
REMOVAL OF ROOFING OR ROOF FLASHING MATERIAL SF $1.01	AR-021	ESC	$1.01	1.30	$1.25	$3.00	$1.30		$0
REMOVAL OF PERIMETER AND PENETRATION FLASHING MATERIALS	AR-021	ESC	$1.01	1.30	$1.25	$3.00	$1.30		
WORK SURFACES OVER 20' HIGH (ASSOCIATED WITH ROOF FIELD + ROOF FLASHINGNG ABOVE) (10% OF ABOVE)	EF-2	ESC	15%	15%	15%	15%	15%	$ 11,175	$1,676
EXTERIOR WORK (ASSOCIATED WITH ROOF FIELD + ROOF FLASHING ABOVE)	EF-8	ESC	30%	30%	30%	30%	30%	$ 11,175	$3,353
ASBESTOS REMOVAL SUBTOTAL							**$3,224.30**		**$419,409**
MISCELLANEOUS ITEMS									
MOBILIZATION (1 PER WORK AREA)	MI-001	EACH	$250.00	250.00	$240.00	$450.00	$297.50	6	$1,785
WORKER DECON (1 PER WORK AREA)	MI-002	EACH	$250.00	250.00	$240.00	$325.00	$266.25	14	$3,728
TEMP ELECTRICAL CONNECTION (LICENSED ELECTRICIAN) (COST + 10%)	MI-005	EACH	$250.00	750.00	$275.00	$275.00	$387.50	5	$1,938
TEMP ELECTRICAL GENERATOR AND FUEL (COST + 10%)	MI-006	DAYS	$20.00	640.00	$363.00	$363.00	$346.50	60	$20,790
DISPOSAL OF ACM WASTE (INCLUDES TRANSPORTATION) (COST + 10%)	MI-007	CY	$55.00	60.00	$55.00	$57.00	$56.75	500	$28,375
DISPOSAL OF CONSTRUCTION DEBRIS (INCLUDES TRANSPORTATION) COST+10%	MI-009	CY	$25.00	30.00	$25.00	$27.00	$40.00	250	$10,000
PROJECT NOTIFIACTION FEES (COST + 10%)	MI-015	LS	$5,500.00	5,500.00	$5,500.00	$5,500.00	$5,500	1	$5,500
MISCELLANEOUS SUBTOTAL									**$72,115**
PCB REMEDIATION CT DEEP PCB WASTE									
EXTERIOR ROOF COPING STONE SEAM CAULKING COMPOUNDS	NO DAS NUMBER	SF	35	35	35	35	35		
WORK SURFACES OVER 20' HIGH (ASSOCIATED WITH COPING STONE ABOVE)	EF-2	ESC	15%	15%	15%	15%	15%		
EXTERIOR WORK (ASSOCIATED WITH COPING STONE ABOVE)	EF-8	ESC	30%	30%	30%	30%	30%		
PCB REMEDIATION CT DEEP PCB WASTE SUBTOTAL									

			AAIS Costs	BesTech Costs	HazPros Costs	Manafort Costs	Average Cost Per Item	Newtown Quantities	Newtown Costs
Building Square Footage	52,000							16,500	
DEMOLITION									
BUILDING DEMOLITION INCLUDING BACKFILL	NO DAS NUMBER	LS							$250,000
RESURFACE AREA WITH RYE GRASS SEED & TOP DRESS	NO DAS NUMBER	SF					$0.20	20000	$4,000
SITE SECURITY FENCING (4)	NO DAS NUMBER	LS					$11.00	800	$8,800
BALLAST, MERCURY-CONTAINING DEVICES & OTHER BUILDING WASTE CONTAINERIZATION, TRANSPORTATION, AND DISPOSAL	NO DAS NUMBER	LS							$5,000
DEMOLITION SUBTOTAL									**$267,800**
CONTINGENCY ALLOWANCES (5%)									
Contingency Allowance (5%)		**LS**							**$37,966**
ABATEMENT MONITORING COST									
ABATEMENT MONITORING ESTIMATE (5% OF ABATEMENT COSTS)		LS							$20,970
SPECIFICATION AND DESIGN DEVELOPMENT		LS							$3,000
ABATEMENT MONITORING SUBTOTAL									**$23,970**
BUILDING TOTALS									**$821,260**