



**EAGLE**  
**Environmental, Inc.**



Hazardous Building Materials > Industrial Hygiene/IAQ > Environmental Assessments > Laboratory Services & Training

October 2, 2014

Mr. David Holmes  
Capital Studio Architects  
1379 Main Street  
East Hartford, CT 06108

**RE: Environmental Assessment Report**  
**Department of Housing**  
**CDBG-DR – Sandy Disaster Recovery Program**  
**595 James Street**  
**Bridgeport, Connecticut 06512**  
**Application 1791**  
**Eagle Project No. 14-028.12T20**

Dear Mr. Holmes:

Please find the attached Environmental Assessment Report conducted at 595 James Street located in Bridgeport, Connecticut (Site). The environmental assessment was performed in support of the planned renovations/repairs to the Site building under the State of Connecticut Department of Housing Community Development Block Grant – Disaster Recovery Program (Program). The assessment focused only on those areas of the building that are scheduled for renovation/repair work. Lead-based paint testing and sampling were not required as the property was built after 1978. The proposed scope of renovation/repair work was provided to Eagle Environmental, Inc. (Eagle) by Capital Studio Architects (CSA).

This assessment and report is intended to satisfy the review process of the National Environmental Policy Act (NEPA) Statutory Checklist Sections 13C (Lead-Based Paint), 13D (Asbestos), 13E (Radon) and 13F (Mold).

Please do not hesitate to contact us if you have any questions regarding the contents of this report.

Sincerely,  
**Eagle Environmental, Inc.**

Report Prepared By:  
Kristen Liljehult  
Environmental Consultant II

Report Reviewed By:  
Peter J. Folino  
Project Manager

\\Eaglesvr\public\2014 Files\2014 Reports\Capital Studio Architects\Hurricane Sandy\595 James Street - Bridgeport\595 James St- HAZ Inspection Report.doc

**8 SOUTH MAIN STREET, SUITE 3 • TERRYVILLE, CT 06786**  
**PHONE (860) 589-8257 • FAX (860) 585-7034**

# TABLE OF CONTENTS

<b>1. INTRODUCTION .....</b>	<b>1</b>
1.1 INSPECTION AREA DESCRIPTION .....	1
<b>2. SCOPE OF INSPECTION .....</b>	<b>1</b>
2.1 ASBESTOS CONTAINING MATERIALS.....	1
2.2 LEAD-BASED PAINT.....	1
2.3 RADON TESTING.....	1
2.4 MOLD INSPECTION .....	2
<b>3. INSPECTION PROTOCOLS .....</b>	<b>2</b>
3.1 ASBESTOS CONTAINING MATERIALS.....	2
3.1.1 Inspection.....	2
3.1.2 Bulk Sampling.....	2
3.1.3 Bulk Sample Analysis.....	2
3.2 RADON TESTING.....	3
3.3 MOLD INSPECTION .....	4
<b>4. INSPECTION RESULTS.....</b>	<b>4</b>
4.1 ASBESTOS CONTAINING MATERIALS.....	4
4.2 RADON .....	5
4.3 MOLD .....	5
<b>5. COST ESTIMATES.....</b>	<b>6</b>

## LIST OF TABLES

Table I	Asbestos-Containing Materials Summary Table
Table II	Non Asbestos-Containing Materials Summary Table

## APPENDICES

Appendix 1	Floor Plans
Appendix 2	Asbestos Bulk Sample Laboratory Reports
Appendix 3	Radon Testing Reports
Appendix 4	Mold Inspection Forms
Appendix 5	Abatement and Consulting Cost Estimates
Appendix 6	Eagle Environmental Inc. Licenses and Laboratory Certificates

## **1. INTRODUCTION**

On August 1, 2014, Eagle Environmental, Inc. conducted an environmental assessment of portions of the site building located at 595 James Street in Bridgeport, Connecticut. The scope of the environmental assessment included an inspection for asbestos-containing materials, Radon testing and a visual inspection for microbial contamination. The building was constructed after 1978, the year in which lead-based paint was banned; therefore lead-based paint testing was not performed.

### **1.1 Inspection Area Description**

The inspection area included those areas of the building that will be impacted by planned renovation work. The areas of inspection are determined by reviewing the planned renovation work provided in CSA's Project Scope dated June 12, 2014. For the purpose of this project the following areas were inspected:

- Basement (limited)
- Roof

## **2. SCOPE OF INSPECTION**

### **2.1 Asbestos Containing Materials**

The asbestos inspection was conducted to identify and sample suspect asbestos-containing materials within the areas of proposed renovation or repair work. Although federal regulations requiring asbestos inspection do not pertain to a residential structure containing less than five (5) units, demolition or renovation activities which may disturb asbestos would be unauthorized under the State of Connecticut Department of Public Health (DPH) regulations. Disposal of asbestos containing waste in unauthorized landfills is also prohibited. The inspection was performed to facilitate compliance with these applicable abatement and disposal regulations.

The asbestos inspection was performed by Aaron E. Hatcher; a State of Connecticut licensed Asbestos Inspector (license #000645).

### **2.2 Lead-based Paint**

The property is not considered target housing as it was constructed in 1984; therefore, no lead-based paint testing or sampling was performed. No further action is required.

### **2.3 Radon Testing**

Radon testing for this program is performed on a case-by-case basis. Buildings which are constructed on piers with its lowest level not in contact with the ground are not considered for Radon testing.

Buildings, which are not elevated off the ground, are tested for Radon under this Program. Radon testing is performed to comply with the National Environmental Policy Act (NEPA).

At a minimum, the Indoor Radon Potential Map of Connecticut was reviewed to determine each sites geographic location in respect to indoor Radon potential.

## **2.4 Mold Inspection**

Eagle performed a visual inspection for the presence of suspect mold within the inspection areas. The inspection included an investigation for signs of visible microbial growth including discoloring of building materials, mal odors and water intrusion that may inhibit microbial growth. The inspection was visual in nature and did not include any sampling or destructive investigations behind rigid walls or ceilings.

## **3. INSPECTION PROTOCOLS**

### **3.1 Asbestos Containing Materials**

#### **3.1.1 Inspection**

The asbestos-containing materials (ACM) inspection included the accessible interior and exterior portions of the building that will potentially be impacted by the proposed renovation/repair work. The inspection did not include areas outside of the proposed renovation/repair work areas. For the purpose of this project, the roof and specific finders within the basement were inspected.

Semi-destructive testing techniques were utilized during the inspection process. This included removing small pieces of suspect materials for analysis (bulk sampling). Only those building materials that will be impacted by the proposed renovation/repair work were sampled. Wood, glass, metal and fiberglass are not defined as suspect materials and are not sampled.

During the inspection, suspect materials are located, sampled, quantified and the friability of the material is determined. Friable materials are those materials that hand pressure can crumble, pulverize or reduce to powder when dry. An estimated quantity of identified ACM is provided for positive materials only. The materials are quantified in linear or square feet, depending on the nature of the material.

#### **3.1.2 Bulk Sampling**

During the sampling process, suspect ACM is separated into three (3) USEPA categories. These categories are: Thermal System Insulation (TSI), Surfacing Materials (SURF), and Miscellaneous materials (MISC). TSI includes all materials used to prevent heat loss or gain or water condensation on mechanical systems. Examples of TSI are pipe covering, boiler insulation, duct wrap, and mudpack fitting cement. Surfacing ACM includes all ACM that is sprayed, toweled or otherwise applied to an existing surface. These applications are most commonly used in fireproofing, decorative, and acoustical applications. Miscellaneous materials include all ACM not listed in thermal or surfacing, such as linoleum, vinyl asbestos flooring, and ceiling tile.

Bulk sampling was performed in a random method. Bulk sampling methods and number of samples collected meets or exceeds the USEPA requirements.

#### **3.1.3 Bulk Sample Analysis**

The samples of the suspect asbestos containing materials were sent to a State of Connecticut Department of Public Health (DPH) approved laboratory for analysis by Polarized Light Microscopy (PLM). PLM is the USEPA accepted method of analysis for identification of asbestos in bulk matrixes. Samples are collected individually or in sets. When sets of samples are collected, each set is systematically analyzed until one sample is determined to contain asbestos. Upon the determination of the presence of asbestos in one sample in the set, analysis of the remaining samples in the set is discontinued.

If no asbestos is observed during analysis of the set of samples, the suspect material is determined to be negative for asbestos content.

Sample analysis results are reported in percentage of asbestos and non-asbestos components. The USEPA defines any material that contains greater than one percent asbestos, utilizing PLM, as being an asbestos-containing material (ACM). Suspect materials containing greater than one percent (1%) asbestos utilizing the PLM Point Count Method and the NOB TEM method are also considered to be asbestos-containing. Materials determined to contain greater than one percent (1%) asbestos is regulated by the USEPA, the State of Connecticut Department of Public Health and Department of Energy and Environmental Protection and the United States Department of Labor. Sample results indicating “no asbestos detected” (NAD) are specified as non-asbestos containing materials. Samples results indicating “Did Not Analyze” (DNA) are not analyzed due to the stop on first positive request to the laboratory.

#### **3.1.3.1 Friable ACM Analysis**

Certain samples of friable materials shown to contain less than 10% asbestos are analyzed further by the “Point Count Method”. This procedure is recommended by the United States Environmental Protection Agency to confirm friable bulk samples shown to have less than 10% asbestos by PLM to be definitively negative or positive for asbestos. This method is accepted as providing statistically reliable results when analyzing bulk samples with very low asbestos concentrations. Friable materials containing “Trace” or “less than one percent (1%)” asbestos must be analyzed by the PLM Point Count Method. No samples were further analyzed by the PLM Point Count Method for 595 James Street in Bridgeport, Connecticut.

#### **3.1.3.2 Non Friable ACM Analysis**

Certain samples of organically bound non-friable materials shown to contain “less than 1% asbestos”, “TRACE” or “NAD” are recommended for analyses by the “NOB TEM ELAP 198.4 Method”. This procedure is recommended by the United States Environmental Protection Agency to further evaluate non-friable organically bound materials for asbestos. Suspect materials confirmed by NOB TEM to be “less than 1% asbestos”, “TRACE” or “NAD” are considered non-asbestos containing. No samples were further analyzed by the NOB TEM Method for 595 James Street in Bridgeport, Connecticut.

### **3.2 Radon Testing**

Eagle Environmental placed one (1) radon canister within the building. The canister was placed by Kristen Liljehult on August 1, 2014 and was retrieved on August 4, 2014. The canister was placed within the basement or lowest level of the building.

The United States Environmental Protection Agency (USEPA) recommends that the test measurements be performed in the lowest level of the building.

The radon testing device utilized for the radon measurements is an Activated Charcoal Adsorption Devices or charcoal canister. The canister is placed in the center of the room where feasible. The testing location was away from any drafts or excessive air movements and windows and doors remained closed during the testing period. The measurements that are taken are considered short-term tests. A short-term test is conducted from two to ninety days.

The charcoal canister was sent to Radon Testing Corporation of America (RTCA) of Elmsford, New York for analysis. RTCA is listed in the USEPA Radon Measurement Proficiency (RMP) Program.

### **3.3 Mold Inspection**

Eagle Environmental, Inc. performed a visual inspection within the limits of the inspection area for potential microbial growth. The visual inspection was performed to evaluate building materials for signs of water damage and suspect microbial growth. Building materials such as gypsum board, cellulose ceiling tiles, paper pipe coverings or duct coverings and heating, ventilation and air conditioning components were visually assessed. Only visible accessible materials were inspected within the proposed areas of renovation/repair.

Discoloration and decay of the aforementioned building materials may signify mold growth. Water damage or damp conditions may also signify suitable conditions for mold growth.

Suspect mold growth or conditions that may sustain mold growth were documented during the inspection process. In general, the location, color of suspect growth and estimated quantity of impacted building materials were recorded during the inspection process.

Eagle used an Extech Instruments Model MO290 Moisture/Humidity Meter to measure the relative moisture content of accessible representative building materials that may have been impacted by water during the storm. A "dry standard" for each component was determined by averaging the moisture measurements for materials in un-impacted areas. The "dry standard" was used as a baseline comparison to determine if the materials were wet. Moisture measurements were recorded on the Mold Moisture Reading Form.

## **4. INSPECTION RESULTS**

### **4.1 Asbestos Containing Materials**

During the course of the building inspection thirteen (13) bulk samples of suspect ACM were collected and thirteen (13) samples were analyzed by PLM based on the "stop on first positive" request to the laboratory.

All materials sampled were confirmed to be non-ACM.

The summaries of non-asbestos materials are presented in Tables II. The asbestos analysis laboratory reports are provided in Appendix 2.

No asbestos was identified at the sampled locations; therefore there is no impact on the proposed scope of work. However; if any material is uncovered during renovations and has not been specifically identified in this report as non-ACM, it should be assumed to contain asbestos until sample results prove otherwise.

## **4.2 Radon**

Radon is measured in Picocuries of radon per Liter of air or pCi/L. The USEPA has set a national action level of 4 pCi/L. Ambient concentrations of radon are approximately 0.4 pCi/L of radon for outside air. The USEPA recommends that short term tests that have results of 4 pCi/L or greater be confirmed with a second short-term test. Two short-term tests with results equal to or greater than 4 pCi/L require that radon mitigation be performed.

A review of the Indoor Radon Potential Map of Connecticut indicates a Radon Potential Rating of Moderate (22%). The Radon Potential Rating indicates the percentage of tested homes in this geographical area with basement air radon greater than or equal to 4.0 pCi/l (USEPA Action Level for Radon)

The result of the Radon testing was 4.6 pCi/L, which is above the USEPA action level. Based on the elevated results, it is recommended that a Radon mitigation system be installed in the basement.

The Radon testing laboratory reports are provided in Appendix 3.

## **4.3 Mold**

Water intrusion incurred in the basement area through the walk out door. The Architect's report indicated that approximately two (2) inches of standing water were present in the basement during the event.

The physical inspection identified water impacted gypsum board, paneling, fiberglass bat insulation and wood framing. The basement is partially finished. Suspect mold spore growth was observed on the exposed ceiling and wall insulation within the basement area and gypsum board in the basement entrance. There are visible water stain marks on the lower wall sill plates at the floor and along the bottom of the wood paneling in Rooms 002 and 003 (refer to attached Floor Plans in Appendix 1. The sheetrock "B" side wall and ceiling within Room 004 have sustained significant damage which the homeowner indicated was due to water intrusion during the storm event.

The suspect spore growth on the insulation on the ceilings and walls was likely perpetuated by elevated moisture in the basement during and following the event. The insulation cannot be effectively cleaned and is recommended for removal. The impacted gypsum board and paneling is also recommended for removal. It is likely that spore growth has occurred on the backside of the gypsum board as well. Wood framing exposed during the gypsum board and insulation removal should be cleaned and dried. Concrete walls and floors should also be microbially cleaned as part of the microbial remediation work.

The mold inspection forms are provided in Appendix 4.

## **5. COST ESTIMATES**

The cost estimates include only the abatement or remediation work necessary to support the renovation/repair work. Other regulated or hazardous materials may be present and were not inspected for under this scope of services and are not included within the estimate.

This is a budgetary opinion of cost that is expected to be within -15 to + 30 percent of the actual cost. Eagle Environmental, Inc. has no control over the cost of labor, materials, equipment or services furnished by others, or over the Contractor or Contractors' methods of determining prices, or over competitive bidding or market conditions. Eagle Environmental, Inc.'s opinion of probable cost of abatement are made on the basis of Eagle Environmental, Inc.'s experience and qualifications and represent Eagle Environmental, Inc.'s judgment as an experienced and qualified consultant familiar with the abatement industry; but Eagle Environmental, Inc. cannot and does not guarantee that proposals, bids or actual Total Project or Abatement Cost will not vary from opinions of probable cost prepared by Eagle Environmental, Inc. If, prior to the bidding or negotiating phase, the Owner wishes greater assurance as to Total Project or Abatement Cost, the Owner shall employ an independent cost estimator.

The cost estimates are provided in Appendix 5.

**TABLE I**

**ASBESTOS-CONTAINING MATERIALS SUMMARY TABLE**

TABLE I  
 ASBESTOS CONTAINING MATERIALS  
 SUMMARY TABLE  
 595 JAMES STREET  
 BRIDGEPORT, CONNECTICUT

LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS			ESTIMATED QUANTITY	I/NF
				PLM	PLM PC	TEM NOB		
<b>NO ACM IDENTIFIED IN THIS SCOPE OF WORK</b>								
<b>KEY</b>								
DNA = DID NOT ANALYZE		SF = SQUARE FEET		ANALYTICAL METHODS				
NAD = NO ASBESTOS DETECTED		LF = LINEAR FEET		PLM PC = EPA 600/R-93/116 QUANTITATION 400 POINT COUNT				
F = FRIABLE		Chrys = Chrysotile		TEM NOB = NEW YORK ELAP 198.4 METHOD				
NF = NON-FRIABLE		Amos = Amosite		PLM = EPA 600/R-93/116				
TSI = THERMAL SYSTEMS INSULATION		Anth = Anthophyllite		PS = Previously Sampled				
SURF = SURFACING MATERIAL		Trem = Tremolite		EA = Each				
MISC = MISCELLANEOUS MATERIAL		Croc = Crocidolite						
<b>BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION</b>								

**TABLE II**

**NON ASBESTOS-CONTAINING MATERIALS SUMMARY TABLE**

**TABLE II**  
**NON - ASBESTOS CONTAINING MATERIALS**  
**SUMMARY TABLE**  
**595 JAMES STREET**  
**BRIDGEPORT, CONNECTICUT**

SAMPLE LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CATEGORY	BULK SAMPLE ANALYSIS RESULTS		
				PLM	PLM PC	TEM NOB
Roof 2	Brown asphalt roof shingles	8-01-AH-01	MISC			NO
		8-01-AH-02				
Roof 2	Roof black felt paper	8-01-AH-03	MISC			NO
		8-01-AH-04				
Room 004	Sheetrock	8-01-AH-05	MISC			NO
		8-01-AH-06				
Room 004	Joint compound	8-01-AH-07	MISC			NO
		8-01-AH-08				
Room 004	Sheetrock/joint compound composite	8-01-AH-09	MISC			NO
		8-01-AH-10				
Rooms 002, 003, 004	Batting insulation paper	8-01-AH-11	MISC			NO
		8-01-AH-12				
		8-01-AH-13				
<b>KEY</b>				<b>ANALYTICAL METHODS</b>		
DNA = DID NOT ANALYZE				PLM PC = EPA 600/R-93/116 QUANTITATION 400 POINT COUNT		
NAD=NO ASBESTOS DETECTED				TEM NOB = NEW YORK ELAP 198.4 METHOD		
F = FRIABLE				PLM = EPA 600/R-93/116		
NF = NON-FRIABLE				PS = Previously Sampled		
TSI = THERMAL SYSTEMS INSULATION				EA = Each		
SURF = SURFACING MATERIAL						
MISC = MISCELLANEOUS MATERIAL						
<b>BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION</b>						

**APPENDIX 1**  
**FLOOR PLANS**

# CAPITAL STUDIO ARCHITECTS

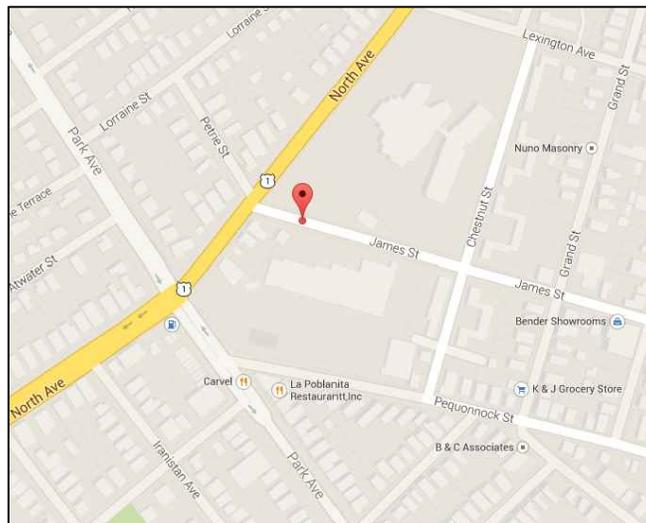
595 JAMES STREET  
BRIDGEPORT, CONNECTICUT

EAGLE PROJECT NUMBER: 14-028.12T20

## INDEX OF DRAWINGS

FP-1 BASEMENT PLAN  
FP-2 FIRST FLOOR PLAN  
FP-3 SECOND FLOOR PLAN

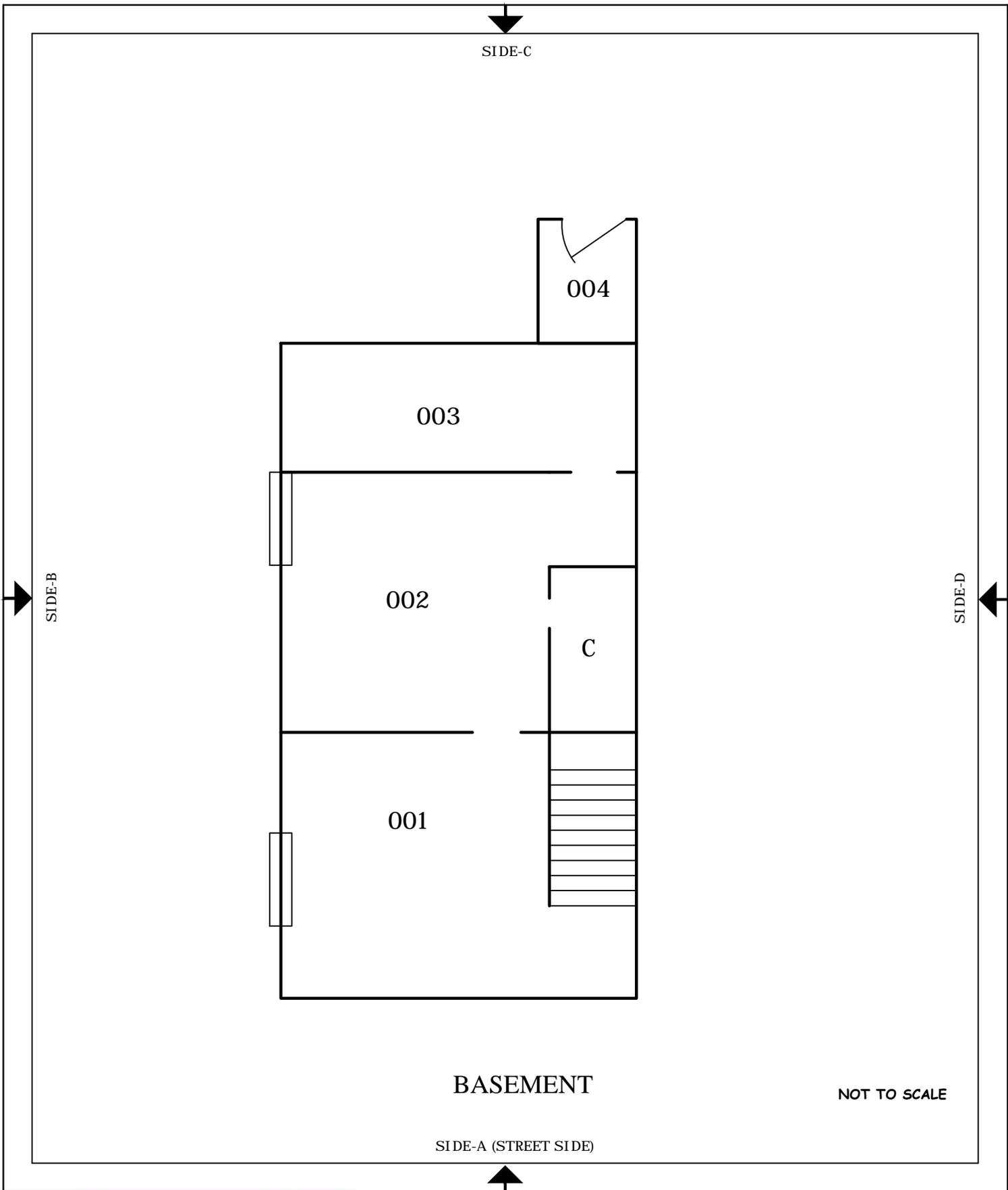
## LOCATION MAP



OCTOBER 2, 2014



8 SOUTH MAIN STREET, SUITE 3  
TERRYVILLE, CONNECTICUT 06786  
860-589-8257



BASEMENT

NOT TO SCALE

SIDE-A (STREET SIDE)

SIDE-C

SIDE-B

SIDE-D



**EAGLE**  
Environmental, Inc.

8 SOUTH MAIN STREET, SUITE 3  
TERRYVILLE, CONNECTICUT 06786  
860-589-8257

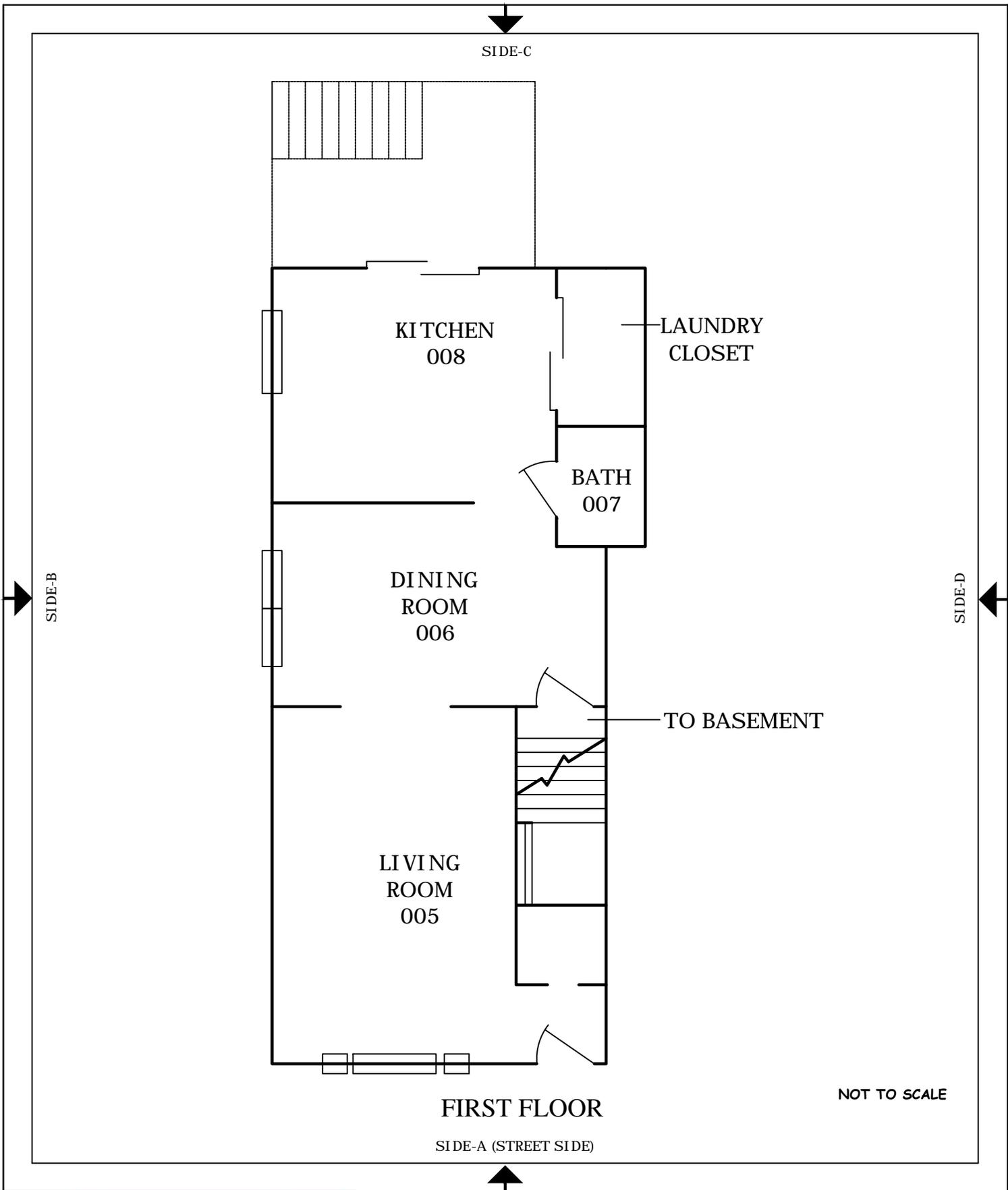
SHEET NO.

**FP-1**

SHEET 1 OF 3

DATE: 10/02/2014  
PROJECT NO.: 14-028.12T20  
DRAWN BY: VB  
REVIEWED BY: AH

ENVIRONMENTAL REVIEW  
595 JAMES STREET  
BRIDGEPORT, CONNECTICUT



**EAGLE**  
Environmental, Inc.

8 SOUTH MAIN STREET, SUITE 3  
TERRYVILLE, CONNECTICUT 06786  
860-589-8257

SHEET NO.

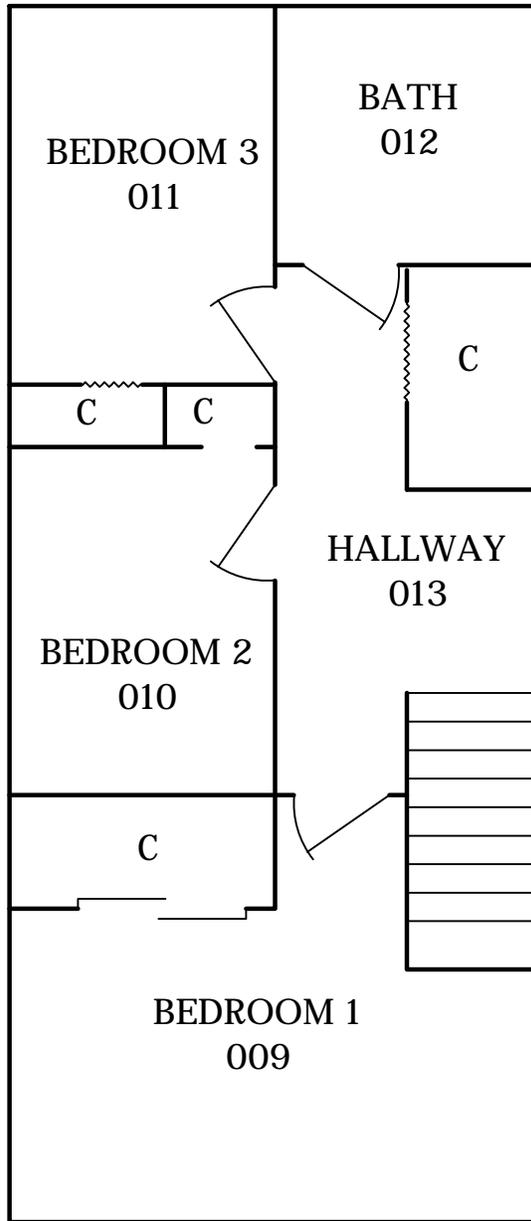
**FP-2**

SHEET 2 OF 3

DATE: 10/02/2014  
PROJECT NO.: 14-028.12T20  
DRAWN BY: VB  
REVIEWED BY: AH

ENVIRONMENTAL REVIEW  
595 JAMES STREET  
BRIDGEPORT, CONNECTICUT

SIDE-C



NOT TO SCALE

SECOND FLOOR  
SIDE-A (STREET SIDE)



8 SOUTH MAIN STREET, SUITE 3  
TERRYVILLE, CONNECTICUT 06786  
860-589-8257

SHEET NO.

**FP-3**

SHEET 4 OF 4

DATE: 10/02/2014  
PROJECT NO.: 14-028.12T20  
DRAWN BY: VB  
REVIEWED BY: AH

ENVIRONMENTAL REVIEW  
595 JAMES STREET  
BRIDGEPORT, CONNECTICUT

**APPENDIX 2**

**ASBESTOS BULK SAMPLE LABORATORY REPORTS**



<b>EMSL - MA</b> 7 Constitution Way, Ste 107 Woburn, MA 01801 (781) 933-8411 (781) 933-8412 Fax	<b>EMSL - CT</b> 29 N. Plains Hwy, Unit 4 Wallingford, CT 06492 (203) 284-5948 (203) 284-5978 Fax	<b>EMSL - NY</b> 307 West 38 <sup>th</sup> Street New York, NY 10018 (866) 448-3675 (212) 290-0058 Fax	<b>EMSL - NJ</b> 107 Haddon Avenue Westmont, NJ 08108 (800) 220-3675 (856) 858-4960 Fax
---	---	--	---

**Your Name:** Brandy LeBlanc **Project Manager:** PF

**Company:** Eagle Environmental, Inc.

**Street:** 8 South Main Street, Suite 3

**City/State/Zip:** Terryville, CT 06786

**Phone:** 860-589-8257 ext. 203 **Fax:** 860-585-7034 **Email:** bleblanc@eagleenviro.com; nporter@eagleenviro.com; dwynne@eagleenviro.com; rloch@eagleenviro.com

**Project Name:** CSA Super Storm Sandy **Project #:** 14-028.12T20

**Project Location:** 595 James St., Bridgeport **Project State (US):** CT

TURNAROUND TIME

3 Hours  
  6 Hours  
  24 Hours  
  48 Hours  
  72 Hours  
  4 Days  
  5 Days  
  6-10 Days

SAMPLE MATRIX

Air  
  Bulk  
  Soil  
  Wipe  
  Micro-Vac  
  Drinking Water  
  Wastewater  
  Chlps  
  Other

ASBESTOS ANALYSIS

**PCM - Air**

NIOSH 7400 (A) Issue 2: August 1994

OSHA w/TWA

**TEM AIR**

AHERA 40 CFR, Part 763 Subpart E

NIOSH 7402 Issue 2

EPA Level II

**PLM - Bulk**

EPA 600/R-93/116

NY Stratified Point Count

California Air Resource Board (CARB) 435

NIOSH 9002

PLM NOB (Gravimetric) NYS 198.1

EPA Point Count (400 Points)

EPA Point Count (1,000 Points)

Standard Addition Point Count

**SOILS**

EPA Protocol Qualitative

EPA Protocol Quantitative

EMSL MSD 9000 Method fibers/gram

Superfund EPA 540-R097-028 (dust generation)

**TEM BULK**

Drop Mount (Qualitative)

Chatfield SOP-1988-02

TEM NOB (Gravimetric) NY 198.4

**TEM MICROVAC**

ASTM D 5755-95 (Quantitative)

**TEM WIPE**

ASTM D-6480-89

Qualitative

**TEM WATER**

EPA 100.1

EPA 100.2

NYS 198.2

Other:

LEAD ANALYSIS

**Flame Atomic Absorption**

Wipe, SW846-7420  ASTM  non ASTM

Soil, SW846-7420

Air, NIOSH 7082

Chips, SW846-7420 or AOAC 5.009 (974.02)

Wastewater, SW 846-7420

TCLP LEAD SW846-1311/7420

**Graphite Furnace Atomic Absorption**

Air, NIOSH 7105

Wastewater, SW846-7421

Soil, SW846-7421

Drinking Water, EPA 239.2

**ICP - Inductively Coupled Plasma**

Wipe, SW846-6010  ASTM  non ASTM

Soil, SW846-6010

Air, NIOSH 7300

MICROBIAL ANALYSIS

**Air Samples**

Mold & Fungi by Air O Cell

Mold & Fungi by Agar Plate count & id

Bacterial Count and Gram Stain

Bacterial Count and Identification

**Water Samples**

Total Coliforms, Fecal Coliforms

Escherichia Coli, Fecal Streptococcus

Legionella

Salmonella

Giardia and Cryptosporidium -

**Wipe and Bulk Samples**

Mold & Fungi - Direct Examination

Mold & Fungi - (Culture follow up to direct examination if necessary)

Mold & Fungi - Culture (Count & ID)

Mold & Fungi - Culture (Count only)

Bacterial Count & Gram Stain

Bacterial Count & Identification (3 most prominent types)

Other:

MATERIALS ANALYSIS

Full Particle Identification

Optical Particle Identification

Dust Mites and Insect Fragments

Particle Size & Distribution

Product Comparison

Paint Characterization

Failure Analysis

Corrosion Analysis

Glove Box Containment Study

Petrographic Examination of Concrete

Portland Cement in Workplace Atmospheres (OSHA ID-143)

Man Made Vitrous Fibers - MMVF's

Synthetic Fiber Identification

Other:

IAQ ANALYSIS

Nuisance Dust (NIOSH 0500 & 0600)

Airborne Dust (PM10, TSP)

Silica Analysis by XRD  Niosh 7500

HVAC Efficiency

Carbon Black

Airborne Oil Mist

Other:

Additional Information/Comments/Instructions: **\*\*PLEASE STOP ON 1ST POSITIVE WITHIN SETS**

Client Sample # (S)	8-01-AH-01	8-01-AH-13	TOTAL SAMPLE #	13
Relinquished:	AARON HATCHER	Date: 8-01-2014	Time:	PM
Received:	NANCY PORTER	Date: 8-01-2014	Time:	PM
Relinquished:	NANCY PORTER	Date: 8-01-2014	Time:	PM
Received:	<i>h. Coleman</i>	Date: <i>8/2/14</i>	Time:	<i>10:44/14</i>



**EMSL Analytical, Inc.**

307 West 38th Street, New York, NY 10018  
 Phone/Fax: (212) 290-0051 / (212) 290-0058  
<http://www.EMSL.com> [manhattanlab@emsl.com](mailto:manhattanlab@emsl.com)

EMSL Order: 031429973  
 CustomerID: EEVM50  
 CustomerPO:  
 ProjectID:

Attn: **Pete Folino**  
**Eagle Environmental, Inc. - CT**  
**8 South Main Street**  
**Suite 3**  
**Terryville, CT 06786**

Phone: (860) 589-8257  
 Fax: (860) 585-7034  
 Received: 08/02/14 10:44 AM  
 Analysis Date: 8/3/2014  
 Collected: 8/1/2014

Project: 14-028.12T20/ CSA SUPER STORM SANDY/ 595 JAMES STREET BRIDGEPORT, CT

### Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
8-01-AH-01 031429973-0001	ROOM 2 - BROWN ASPHALT ROOF SHINGLES	Black Non-Fibrous Homogeneous	4% Synthetic	26% Quartz 70% Non-fibrous (other)	None Detected
8-01-AH-02 031429973-0002	ROOM 2 - BROWN ASPHALT ROOF SHINGLES	Black Non-Fibrous Homogeneous		30% Quartz 40% Matrix 30% Non-fibrous (other)	None Detected
8-01-AH-03 031429973-0003	ROOM 2 - ROOF BLACK FELT PAPER	Black Non-Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (other)	None Detected
8-01-AH-04 031429973-0004	ROOM 2 - ROOF BLACK FELT PAPER	Black Non-Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (other)	None Detected
8-01-AH-05 031429973-0005	RM 004 - SHEETROCK	Brown/Gray Non-Fibrous Homogeneous	4% Cellulose <1% Glass	54% Gypsum 42% Non-fibrous (other)	None Detected
8-01-AH-06 031429973-0006	RM 004 - SHEETROCK	Brown/Gray Non-Fibrous Homogeneous	4% Cellulose	56% Gypsum 40% Non-fibrous (other)	None Detected
8-01-AH-07 031429973-0007	RM 004 - JOINT COMPOUND	White Non-Fibrous Homogeneous		3% Mica 67% Ca Carbonate 30% Non-fibrous (other)	None Detected
8-01-AH-08 031429973-0008	RM 004 - JOINT COMPOUND	White Non-Fibrous Homogeneous		3% Mica 68% Ca Carbonate 29% Non-fibrous (other)	None Detected

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-fragile organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%  
 Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-0170, MA AA000170

Initial report from 08/03/2014 16:44:40

**EMSL Analytical, Inc.**

307 West 38th Street, New York, NY 10018  
 Phone/Fax: (212) 290-0051 / (212) 290-0058  
<http://www.EMSL.com> [manhattanlab@emsl.com](mailto:manhattanlab@emsl.com)

EMSL Order: 031429973  
 CustomerID: EEVM50  
 CustomerPO:  
 ProjectID:

Attn: **Pete Folino**  
**Eagle Environmental, Inc. - CT**  
**8 South Main Street**  
**Suite 3**  
**Terryville, CT 06786**

Phone: (860) 589-8257  
 Fax: (860) 585-7034  
 Received: 08/02/14 10:44 AM  
 Analysis Date: 8/3/2014  
 Collected: 8/1/2014

Project: 14-028.12T20/ CSA SUPER STORM SANDY/ 595 JAMES STREET BRIDGEPORT, CT

### Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
8-01-AH-09 031429973-0009	RM 004 - SHEETROCK/ JOINT COMPOUND COMPOSITE	Gray Non-Fibrous Homogeneous	2% Cellulose	62% Gypsum 36% Non-fibrous (other)	None Detected
8-01-AH-10 031429973-0010	RM 004 - SHEETROCK/ JOINT COMPOUND COMPOSITE	Gray Non-Fibrous Homogeneous	2% Cellulose	55% Gypsum 15% Ca Carbonate 28% Non-fibrous (other)	None Detected
8-01-AH-11 031429973-0011	RM 004 - BATTING INSULATION PAPER	Brown/Black Non-Fibrous Homogeneous	11% Glass 42% Cellulose	47% Non-fibrous (other)	None Detected
8-01-AH-12 031429973-0012	RM 003 - BATTING INSULATION PAPER	Brown/Black Non-Fibrous Homogeneous	48% Cellulose 15% Glass	37% Non-fibrous (other)	None Detected
8-01-AH-13 031429973-0013	RM 002 - BATTING INSULATION PAPER	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (other)	None Detected

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%  
 Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-0170, MA AA000170

Initial report from 08/03/2014 16:44:40



**EMSL Analytical, Inc.**

307 West 38th Street, New York, NY 10018  
Phone/Fax: (212) 290-0051 / (212) 290-0058  
<http://www.EMSL.com> [manhattanlab@emsl.com](mailto:manhattanlab@emsl.com)

EMSL Order: 031429973  
CustomerID: EEVM50  
CustomerPO:  
ProjectID:

Attn: **Pete Folino**  
**Eagle Environmental, Inc. - CT**  
**8 South Main Street**  
**Suite 3**  
**Terryville, CT 06786**

Phone: (860) 589-8257  
Fax: (860) 585-7034  
Received: 08/02/14 10:44 AM  
Analysis Date: 8/3/2014  
Collected: 8/1/2014

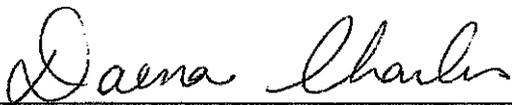
Project: 14-028.12T20/ CSA SUPER STORM SANDY/ 595 JAMES STREET BRIDGEPORT, CT

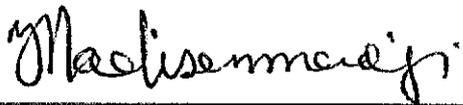
The samples in this report were submitted to EMSL for analysis by Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy. The reference number for these samples is the EMSL Order ID above. Please use this reference number when calling about these samples.

**Report Comments:**

Sample Receipt Date: 8/2/2014      Sample Receipt Time: 10:44 AM  
Analysis Completed Date: 8/3/2014      Analysis Completed Time: 3:34 PM

**Analyst(s):**

  
\_\_\_\_\_  
Daena Charles PLM (3)

  
\_\_\_\_\_  
Madisen Nnaoji PLM (10)

**Samples reviewed and approved by:**

  
\_\_\_\_\_  
James Hall, Laboratory Manager  
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%  
Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11505, NJ NY022, CT PH-0170, MA AA000170

Initial report from 08/03/2014 16:44:40

**APPENDIX 3**  
**RADON TESTING REPORTS**

Radon Testing Corp. of America  
2 Hayes Street  
Elmsford, NY 10523  
Phone: (914) 345-3380

**Radon Testing Summary Sheet**

*Please fill out all pertinent information legibly*

**Mailing Address:**

Contact: Peter Folino

Company/Agency/Board of Ed: Eagle Environmental  
Address: 8 South Main Street Suite 3

City: Terryville State: CT Zip: 06786

Project Code (if any) 14-028.12T20

Fax or email: 860 585-7034

Phone 860 589-8257

**Building/School Information**

School District: \_\_\_\_\_

School Code Number: \_\_\_\_\_

County: \_\_\_\_\_

Municipality: \_\_\_\_\_

Building/School Name: \_\_\_\_\_

Test Location Street Address: 595 James St., Bridgeport, CT

Placed By ID# KL Retrieved by ID# KL

Start Date: 8-1-2014 Stop Date: 8-1-2014

Weather During Test Sunny/Partly cloudy

Total # of detectors for this building 1

**Instructions:** Tear of the center bar code label from canister and affix to sheet in space provided. Please make sure top bar code label is left on detector. Identify test location for each detector in Space provided for that detector (room #, location in room etc.) Use additional sheets as necessary. Please mark clearly if any detector is missing or damaged at retrieval.

Start Time: 8/1/14 9:56 Stop Time: 8/4/14 12:50 Duplicate? \_\_\_\_\_

Room# or other identifier Basement

Blank? \_\_\_\_\_ Floor: \_\_\_\_\_

REMOVE THIS PORTION AND AFFIX  
TO TEST INFORMATION FORM  
2330916



Start Time: \_\_\_\_\_ Stop Time: \_\_\_\_\_ Duplicate? \_\_\_\_\_

Room# or other identifier \_\_\_\_\_

Blank? \_\_\_\_\_ Floor: \_\_\_\_\_

Start Time: \_\_\_\_\_ Stop Time: \_\_\_\_\_ Duplicate? \_\_\_\_\_

Room# or other identifier \_\_\_\_\_

Blank? \_\_\_\_\_ Floor: \_\_\_\_\_

Start Time: \_\_\_\_\_ Stop Time: \_\_\_\_\_ Duplicate? \_\_\_\_\_

Room# or other identifier \_\_\_\_\_

Blank? \_\_\_\_\_ Floor: \_\_\_\_\_

Start Time: \_\_\_\_\_ Stop Time: \_\_\_\_\_ Duplicate? \_\_\_\_\_

Room# or other identifier \_\_\_\_\_

Blank? \_\_\_\_\_ Floor: \_\_\_\_\_

Start Time: \_\_\_\_\_ Stop Time: \_\_\_\_\_ Duplicate? \_\_\_\_\_

Room# or other identifier \_\_\_\_\_

Blank? \_\_\_\_\_ Floor: \_\_\_\_\_

Site Radon Inspection Report

Date : 08/05/2014

Mr. Peter Folino  
EAGLE ENVIRONMENTAL  
8 South Main Street  
Suite #3  
Terryville, CT 06786-

Client: Unknown  
Test Location: 595 James St.  
Bridgeport, CT 06604-

## Individual Canister Results

Canister ID# :	2330916	Test Start :	08/01/2014 @ 09:56
Canister Type :	Charcoal Canister 3 inch	Test Stop :	08/04/2014 @ 12:50
Location :	Basement	Received:	08/05/2014 @ 16:15
Radon Level :	4.6 pCi/L	Analyzed:	08/05/2014 @ 13:11
Error for Measurement is: ±	0.3 pCi/L		

The results indicate that at least one testing device registered at or above the United States Environmental Protection Agency (EPA) action level of 4.0 picoCuries per liter of air (pCi/L). The EPA recommends mitigation if the average of two short-term tests taken in the lowest level of the building suitable for occupancy show radon levels that are equal to or greater than 4.0 pCi/L.

For information on how to reduce radon levels in your home, please review the EPA booklet: Consumer's Guide to Radon Reduction ([www.epa.gov/radon/pdfs/consguid.pdf](http://www.epa.gov/radon/pdfs/consguid.pdf)) and contact your state health department. The EPA maintains a radon information website, including copies of its publications, at [www.epa.gov/iaq/radon](http://www.epa.gov/iaq/radon).

**For New Jersey clients:** Please see the attached guidance document entitled Radon Testing and Mitigation: The Basics for further information.

**For New York clients:** If the radon level of one or more testing devices is equal to or exceeds 20 pCi/L please contact the New York State Department of Health, Bureau of Environmental Radiation Protection, for technical advice and assistance at 518-402-7556 or toll free 1-800-458-1158.

## PLEDGE OF ASSURED QUALITY

All procedures used for generating this report are in complete accordance with the current EPA protocols for the analysis of radon in air (EPA 402-R-92-004). The analytical results relate only to the samples tested, in the condition received by the lab, and that calculations were based upon the information supplied by client. RTCA and its personnel do not assume responsibility or liability, collectively and individually, for analysis results when detectors have been improperly handled or placed by the consumer, nor does RTCA and its personnel accept responsibility for any financial or health consequences of subsequent action or lack of action, taken by the customer or its consultants based on RTCA-provided results.



A handwritten signature in black ink, appearing to read "Andreas C. George", is positioned above the printed name.

Andreas C. George  
Radon Measurement Specialist

NJ MES 11089

A handwritten signature in black ink, appearing to read "Dante Galan", is positioned above the printed name.

Dante Galan  
Laboratory Director

NRSB ARL0001  
NYS ELAP ID: 10806  
PADEP ID: 0346  
NJDEP ID: NY933  
NJ MEB 90036  
FL DOH RB1609

**APPENDIX 4**  
**MOLD INSPECTION FORMS**



## MOLD OBSERVATION FORM

Eagle Project No: \_\_\_\_\_ Date: \_\_\_\_\_ Inspector: \_\_\_\_\_

Facility Address: \_\_\_\_\_

Location	Observation	Sample Number
001	- Mold spores observed on <sup>ceiling</sup> insulation	
002	- mold spores observed on insulation	
	- water stains observed on fiber board partition	
	- water staining observed on wall sill plate @ floor	
003	- mold spores observed on ceiling insulation	
	- water stains on partition	
004	- significant structural damage from water	
	intrusion. Peeling on ceiling, insulation has	
	"B" wall and ceiling, insulation has	
	spore growth	





## MOLD MOISTURE READING FORM

Eagle Project No: \_\_\_\_\_ Date: \_\_\_\_\_ Inspector: \_\_\_\_\_

Facility Address: \_\_\_\_\_

MOISTURE MODE						
ROOM	COMPONENT	SUBSTRATE	REL. SURFACE MOISTURE	DRY	AT RISK	WET
001	wall panel "D"	wood	11.3%	✓		
	ceiling joist	wood	10.0%	✓		
	wall panel "R"	wood	12.5% 6" from floor	✓		
002	wall panel	wood	10.5% 5' up	✓		
	wall panel "C"		12.7% 6" from floor	✓		
003	wood panel	wood	11.8%	✓		
	ceiling joist	wood	11.9%	✓		
	Door Frame	wood	11.5%	✓		
	wall	sheetrock	11.9%	✓		
	ceiling sheathing	sheetrock	12.0%			
	stud wall	wood	13.4%			
		wood	11.0%			

HYGROMETER MODE				
TIME	ROOM	% RELATIVE HUMIDITY	AIR TEMP.	DEW POINT TEMP.

**APPENDIX 5**

**ABATEMENT AND CONSULTING COST ESTIMATES**

**HAZARDOUS MATERIALS ABATEMENT COST ESTIMATES**

**APPLICATION NO.1791**

**595 JAMES STREET**

**BRIDGEPORT, CONNECTICUT**

**RADON REMEDIATION COST ESTIMATE**

MATERIAL	QUANTITY	UNIT COST	TOTAL COST
SUB-SLAB REMEDIATION SYSTEM	1	\$ 3,200.00 EACH	\$ 3,200.00
SUBTOTAL			\$ 3,200.00
RADON REMEDITION CONTINGENCY			\$ 320.00
RADON REMEDIATION TOTAL			\$ 3,520.00

**MICROBIAL CONTAMINATION REMEDIATION COST ESTIMATE**

MATERIAL	QUANTITY	UNIT COST	TOTAL COST
MICROBIAL REMEDIATION CONTINGENCY	1	\$ 7,200.00 EACH	\$ 7,200.00
SUBTOTAL			\$ 7,200.00
MICROBIAL REMEDITION CONTINGENCY			\$ 720.00
MICROBIAL REMEDIATION TOTAL			\$ 7,920.00

**HAZARDOUS MATERIALS ABATEMENT SUBTOTAL** \$ 11,440.00

**HAZARDOUS MATERIALS CONSULTING COST ESTIMATE**

CONSULTING COST	QUANTITY	UNIT COST	TOTAL COST
HAZARDOUS MATERIALS CONSULTING CONTIN.	1	\$1,200.00 EACH	\$ 1,200.00
SUBTOTAL			\$ 1,200.00
CONSULTING CONTINGENCY			\$ 120.00
CONSULTING TOTAL			\$ 1,320.00

**GRAND TOTAL** \$ 12,760.00

**APPENDIX 6**  
**EAGLE ENVIRONMENTAL, INC.**  
**LICENSES AND LABORATORY CERTIFICATES**

# CERTIFICATE OF ACHIEVEMENT

*This certifies that*

**Aaron E. Hatcher**

*has successfully completed the*  
**Asbestos Site Inspector Refresher Training  
Asbestos Accreditation Under TSCA Title II  
40 CFR Part 763**

*conducted by*

*Cardno ATC*  
73 William Franks Drive  
West Springfield, MA 01089  
(413) 781-0070

*Gregory J. Morsch*  
Principal Instructor  
December 12, 2013  
Date of Course  
December 12, 2014  
Expiration Date

*Gregory J. Morsch*  
Regional Manager  
SIAR-4751  
Certificate Number  
December 12, 2013  
Examination Date



State of Connecticut

## Lookup Detail View

Name

Name

AARON HATCHER

License Information  
lookup

License Type	License Number	Expiration Date	Granted Date	License Name	License Status	Licensure Actions or Pending Charges
Asbestos Consultant-Inspector	848	06/31/2014	05/01/2008	Aaron Hatcher	ACTIVE	None

# The National Radon Safety Board

National Radon Safety Board

# NRSB

Certified Radon Professionals

Certifies that  
**Radon Testing Corp. of America (RTCA)**

Located at: 2 Hayes Street  
Elmsford NY 10523

has successfully met the established and published requirements for Accreditation by The National Radon Safety Board as an

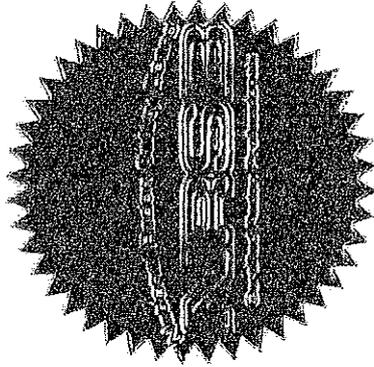
## ACCREDITED RADON LABORATORY

NRSB ARL0001

Certification Number

11/30/2015

Expiration Date



*Michelle Kunkelich*  
Executive Secretary

*This certificate is the property of The National Radon Safety Board and is not official without the raised seal.*

State of Connecticut, Department of Public Health  
Approved Environmental Laboratory

THIS IS TO CERTIFY THAT THE LABORATORY DESCRIBED BELOW HAS BEEN APPROVED BY THE STATE DEPARTMENT OF PUBLIC HEALTH PURSUANT TO APPLICABLE PROVISIONS OF THE PUBLIC HEALTH CODE AND GENERAL STATUTES OF CONNECTICUT, FOR MAKING THE EXAMINATIONS, DETERMINATIONS OR TESTS SPECIFIED BELOW WHICH HAVE BEEN AUTHORIZED IN WRITING BY THAT DEPARTMENT.

EMSL ANALYTICAL, INC. - MANHATTAN, NY

LOCATED AT 307 West 38th Street IN New York, NY 10018

AND REGISTERED IN THE NAME OF Peter Pasca, Ph.D.

THIS CERTIFICATE IS ISSUED IN THE NAME OF James Hall WHO HAS BEEN DESIGNATED BY THE REGISTERED OWNER/AUTHORIZED AGENCY TO BE IN CHARGE OF THE LABORATORY WORK COVERED BY THIS CERTIFICATE OF APPROVAL AS FOLLOWS:

ASBESTOS

Examination For:  
Bulk - Identification (PLM, TEM)  
Air - Fiber Counting (PCM, TEM)  
Wafers - TEM

Environmental Health & Housing

Examination For:  
Lead in Paint  
Lead Paint in Soil  
Lead in Dust Wipes  
SEE COMPUTER PRINT-OUT FOR SPECIFIC TESTS APPROVED

THIS CERTIFICATE EXPIRES September 30, 2014 AND IS REVOCABLE FOR CAUSE BY THE STATE DEPARTMENT OF PUBLIC HEALTH DATED AT HARTFORD, CONNECTICUT, THIS 45 DAY OF October, 2012



Registration No.

PH-0170

SUZANNE BLANCALOR, MS  
CHIEF, ENVIRONMENTAL HEALTH SECTION