

**CITY OF NORWICH  
INVITATION TO BID**

**BID NO. 7423**

**ABATEMENT AND DEMOLITION  
77 CHESTNUT STREET  
DEPARTMENT OF PUBLIC WORKS**

Sealed bids will be received in Room 319, City of Norwich, City Hall Building, Norwich, Connecticut until 2:00 p.m. Prevailing time, **Thursday, December 12, 2013** and will be publicly opened and read at 2:00 p.m. in the Finance Office. **There will be a Mandatory pre-bid meeting at 77 Chestnut St. Thursday, December 5, 2013 at 2:00 PM.**

Specifications and information for bidders may be obtained at the Office of the Purchasing Agent, City Hall Building. **Copies of the Specifications may also be obtained at the Purchasing Office at 100 Broadway, Norwich, CT 06360 or online at the State of Connecticut DAS Web Portal or at the City of Norwich web site [www.norwichct.org](http://www.norwichct.org) by clicking on Public Bids/Proposals.**

**BID SURETY IN THE FORM OF A CERTIFIED CHECK OR BOND IN THE AMOUNT OF 5% OF SUCH BID IS REQUIRED.**

*Bidder is to submit bid on the attached forms and in the manner requested. Bids must be deposited with the Purchasing Agent before closing time. Bids transmitted by facsimile will not be accepted.*

The right is reserved to reject any or all, or any part of any or all bids when such action is deemed in the best interest of the City.

All Bids received must be in a sealed envelope. Each envelope is to be marked on the front with bid number and the bidder's name. All final awards of bid subject to comply with **Ordinance # 1235, adopted 12/3/91.**

WILLIAM BLOCK  
PURCHASING AGENT

*CITY OF NORWICH  
DEPARTMENT OF PUBLIC WORKS*

*Abatement & Demolition of  
Property Located at 77 Chestnut Street*

*BID # 7423*

*CITY OF NORWICH  
Department of Public Works*

*November 2013*



## PROJECT OVERVIEW

This project entails the abatement of hazardous materials and demolition of the two (2) buildings located at 77 Chestnut Street, Norwich, CT.

The scope of work on this project generally consists of the following:

1. Proper and legal abatement of hazardous materials per the attached specifications. **Abatement and disposal shall be in accordance with any and all federal, state and/or local laws and/or ordinances.**
2. Removal and proper offsite disposal of all contents within subject buildings and on property.
3. Demolition, removal, and proper offsite disposal of all building materials.
4. Selectively break up and backfill the foundation area with approved gravel backfill.
5. Grade site to be compatible with existing grades.

## PROJECT DESCRIPTION

The objective of this project is restore the property at 77 Chestnut Street to a safe and visually appealing condition. The property currently has two 19<sup>th</sup> century dilapidated mill structures on it. Additionally, there is litter, garbage and other materials on-site. The Contractor shall be responsible to demolish, remove, and properly dispose of all on-site buildings, materials, garbage, litter, etc.

Demolition access to the site shall only be via Chestnut Street. There is approximately 200 linear feet of road frontage to work from. Overhead wires are on the opposite side of the street along a majority of the street frontage. Water is available on the opposite side of the street from the mill. The Contractor shall be responsible for arranging access to this water source through Norwich Public Utilities.

The mill at 77 Chestnut Street was constructed directly against another mill building located on the adjacent property to the south. Although it does not appear that these mills are structurally connected, this could not be fully verified given the current condition of the buildings. Therefore, this project calls for leaving the common wall between the mill buildings and approximately five (5) feet of any perpendicular wall in place. The Contractor shall include in his lump sum price the cost to provide a neat and plumb vertical finish on the five foot protruding perpendicular wall sections. When the remaining portion of the mill is demolished and removed the Engineer will inspect the common walls and possibly design further corrective measures, including complete demolition of the common and perpendicular wall sections. Such extra work may be solicited as a change order or may be bid separately, at the City's sole discretion. The method of roof connection between the buildings is also unknown, therefore, if the roof can not be safely removed from the adjacent mill, the Contractor shall cut the roof within one (1) foot of the adjacent mill. The City does not own the adjacent mill building, and therefore its integrity must be protected at all times.

The City is amenable to the Contractor blocking the northbound lane of Chestnut Street along the mill frontage during demolition. The Contractor should refer to the section on Maintenance and Protection of Traffic in the Technical Specifications for specific requirements.

The Contractor shall submit a complete and balanced schedule of values with his/her bid which includes, at a minimum, the following items:

1. Mobilization/Demobilization
2. Maintenance and Protection of Traffic
3. Abatement of Hazardous Materials
4. Demolition of Building Materials
5. Site Stabilization

Unbalanced items included in the schedule of values may be grounds for disqualification of bids.

Included with these specifications are Technical Specifications, "General Demolition Plan", and "Demolition Procedures – S1 & S2" that provide additional demolition and finish product specifications.

### **ENVIRONMENTAL ABATEMENT**

The Contractor shall, at his cost, be responsible for obtaining all required environmental clearances and promptly provide proof of said clearance to the City. The City will not pay for abatement related costs without all required clearances. Clearances shall be provided by a third party environmental services company, legally licensed in/by the State of Connecticut to perform such work in accordance with, but not limited to, EPA, DEEP, and OSHA regulations and/or guidelines.

#### **Front Building** (brick mill closest to Chestnut Street)

**Asbestos:** This building is partially collapsed and dilapidated. Limited samples of building materials indicate the presence of asbestos. Therefore, the entire contents of the interior of this building should be disposed of as friable asbestos waste in an approved landfill. If the building envelope can not be separated from the interior it, too, should be disposed of as friable asbestos waste in an approved landfill. Monitoring will be at the discretion of the City and determined when greater access to the site is available.

**Lead:** Lead was found in the paint in and around the exterior window casings and sashes, exterior wood garage door, metal corner guard, and threshold and shall be accordingly be properly disposed of. City personnel will be on-site during demolition and will monitor interior components for the presence of paint and determine whether further lead testing, abatement, and/or disposal is required. For the purposes of this bid it is assumed no additional lead abatement and/or disposal will be required other than the features listed herein.

**PCB:** No PCB's were found in caulking or lighting fixtures.

**Other:** No mercury, used electronics, batteries, and/or chlorofluorocarbons were found.

## Rear Building (structure behind front building)

Asbestos: During the course of the building inspection sixty-three (63) bulk samples of suspect ACM were collected and fifty-one (51) samples were analyzed by PLM based on the “stop on first positive” request of the laboratory. Additionally there was one (1) sample analyzed by PLM Point Count Method and one (1) sample analyzed by the NOB TEM Method.

From the fifty-one (51) samples analyzed, nine (9) types of ACM were identified. Additionally, one suspect material was assumed to be asbestos containing.

The grey 9”x9” floor tile was confirmed to be ACM. The floor tiles were identified in two (2) rooms and applied to plywood underlayment. The floor tiles are classified as non-friable miscellaneous ACM.

The PLM Point Count analyses confirmed the sheetrock and joint compound composite to be non-asbestos. The joint compound associated with sheetrock walls was confirmed to be an ACM. The joint compound is classified as an asbestos-containing material in accordance with OSHA sampling protocols. The composite sheetrock and joint compound is a non-asbestos containing material in accordance with USEPA sampling protocols. The USEPA considers the joint compound and sheetrock to be one (1) system and can therefore be composited for sampling purposes. OSHA considers the joint compound to be a separate material independent of the sheetrock and must be sampled separately. Therefore, if the sheetrock and joint compound will be disturbed within the building prior to demolition it must be removed as an OSHA Class II removal operation with critical barriers, negative pressure and wet methods by 32 hour asbestos trained workers. This material is not a regulated ACM in accordance with the USEPA sampling protocols and, once packaged in leak tight containers, may be disposed of as general construction debris. If the walls will not be manually disturbed prior to demolition, this material may remain in the building during mechanical demolition and disposed of as construction debris. Wet methods must be utilized during building demolition to comply with OSHA regulations.

Three (3) types of window glazing compounds were confirmed to be ACM. The wood window glazing compound associated with two (2) doors interior metal window glazing compound and exterior wood window glazing compound at 2<sup>nd</sup> floor window openings were found to be ACM. Additionally, the exterior window frame caulk associated with the wood window frames was confirmed to be ACM. The caulk and glazing compounds are classified as non-friable miscellaneous materials.

The wood window sashes with asbestos containing glazing compound were also found to contain lead based paint. TCLP sampling of the sash only has determined that the sashes must be removed and disposed of as mixed lead and asbestos waste. Refer to Section 4.2.2 Lead Waste Characterization for further explanation of the TCLP results.

The magnesium silicate pipe insulation was confirmed to be ACM. The insulation was identified in a limited area of the building on former heat piping that has been cut at the exterior of the building. Since no mechanical systems were identified in the rear building, it is assumed that this

pipng came from the boiler room within the front building and had been previously terminated at the entrance of the rear building. The insulation is classified as friable thermal system insulation.

Two (2) types of exterior flashing cements and cement board panels on the exterior of the building were confirmed to be ACM. These materials are classified as non-friable miscellaneous materials.

The NOB TEM analyses confirmed the black mastic associated with 9"x9" floor tile to be non-asbestos.

The remaining suspect materials were confirmed to be non-ACM. Any suspect material not specifically identified in this report as non-ACM should be assumed to contain asbestos unless sample results prove otherwise.

The summaries of asbestos and non-asbestos materials are presented in Table I and II respectively. The asbestos analysis laboratory reports are provided in Appendix 2.

All regulated friable and regulated non-friable ACM must be removed prior to demolition activities. A State of Connecticut Licensed Asbestos Abatement Contractor must be retained to perform the removal work. Visual inspections must be performed within each abatement area at the completion of the abatement work. The visual inspections must be performed by a State of Connecticut Licensed Asbestos Project Monitor. The abatement areas must meet final visual inspection criteria prior to building demolition. Re-occupancy air monitoring is required if the building will be re-entered by any person following abatement and prior to demolition. This includes but is not limited to entry for utility disconnects, salvage, equipment removal, etc.

The Asbestos Abatement Contractor must submit a notice of asbestos abatement to the State of Connecticut Department of Public Health post marked or hand delivered ten (10) days prior to the commencement of any asbestos abatement activities involving the abatement of greater than the (10) linear feet or twenty-five (25) square feet of asbestos-containing materials. The asbestos abatement notification satisfies the DPH regulatory requirements for demolition notification. For asbestos abatement projects involving less than ten (10) linear feet or twenty-five (25) square feet of asbestos-containing materials or projects where no regulated asbestos-containing materials are identified the facility owner or any persons who will be conducting demolition must submit a demolition notification to the State of Connecticut Department of Public Health post marked or hand delivered ten (10) days prior to the commencement of demolition activities.

**Lead:** A total of fifty (50) XRF reading were collected during the lead-based paint screen of the building. The lead-based paint screen identified a limited quantity of components or surfaces that contain high levels of lead in paint coatings. The exterior wood window sashes and casings, interior wood garage door, wood columns and limited metal doors were found ton contain high level of lead in paint.

The remaining components and surfaces that were tested contain no lead in their respective paint coatings.

A complete inventory of tested building materials is presented in Detailed Reports contained Appendix 3.

A total of two (2) TCLP samples were collected for waste characterization purposes. The waste streams that were analyzed for this project include the wood window sashes that contain asbestos window glazing and coated with lead based paint and the remaining building components include wood, sheetrock and roofing materials. The sashes were analyzed separately due to the asbestos glazing compound requiring them to be removed from the demolition waste stream.

The result of the TCLP sample representative of the window sash waste stream was 8.63 mg/L characterizing the sashes as mixed hazardous lead and asbestos waste.

The result of the TCLP sample representative of the remaining wood, sheetrock and roofing demolition debris waste stream was 0.50 mg/l characterizing the demolition debris as non-hazardous solid waste.

The TCLP laboratory reports and computation tables are provided in Appendix 4.

The waste characterization sampling and analysis confirmed that no hazardous lead waste will be generated as a result of demolition activities following the removal of the window sashes. The waste generated during demolition of the building may be disposed of as non-hazardous solid waste. Metal components may be recycled at an approved recycling facility.

**PCB:** PCB in caulk samples were not collected during this inspection. From the visual inspection and information provided by the building officials, the caulk materials identified at each building were determined to be original to the buildings and installed prior to 1930.

A total of approximately three (3) PCB containing lighting ballasts, fifty (50) DEHP containing lighting ballasts and one (1) capacitor are present within the inspection site. The ballasts and capacitor must be removed for proper recycling/incineration prior to demolition of the building. Light ballasts that have leaked must be segregated from the non-leaking ballasts. Lighting covers or fixtures stained with dielectric fluid must also be removed for proper disposal.

**Mercury:** A total of approximately five hundred twenty (520) linear feet of fluorescent light tubes, two (2) round light tubes and one (1) mercury containing thermostat are present within the inspection site. The fluorescent light tubes and thermostat must be removed from the building for proper recycling prior to building demolition.

**Used Electronics & Batteries:** Nine (9) computer monitors were found in rooms 003 and 004. The monitors must be removed from the site and properly recycled.

**Chlorofluorocarbons:** A total of 1 gallon of Freon associated with the refrigerator within room 003 was present within the inspection site. The Freon must be reclaimed from the tank prior to building demolition.

## PROJECT SPECIFIC GENERAL CONDITIONS

1. The contractor shall obtain a Demolition Permit from the City Building Inspector, prior to proceeding with the work (860-823-3745). There is no cost for this permit. The issuance of the permit is contingent upon submission of documentation of insurance.
2. The contractor shall coordinate with the City Building Inspector and/or Engineer to ensure that all utility services are disconnected, meters removed and lines capped or plugged.
3. The contractor shall be responsible for the proper disposal of all building material, including lead, asbestos and other hazardous materials, per the attached specifications. Copies of all disposal manifests shall be promptly provided to the Engineer.
4. Demolition by blasting will not be permitted. Contractors are requested to provide with the bid the method that will be utilized to demolish the building and foundation.
5. The Building Department and/or Engineer must inspect the area from which the foundation is broken up prior to backfilling.
6. The contractor shall provide temporary fencing and/or barriers and other forms of protection as required or directed by the Engineer, to protect the general public or adjacent properties from injury or damage due to the demolition work. Methods to temporarily barricade the area must be approved by the Engineer prior to the start of work.
7. Contractor shall ensure compliance with any additional reporting required by State Department of Health and/or the Uncas Health District including, but not limited to, Asbestos Notification Form, Demolition Notification Form and Requirements for Demolition of a Structure.
8. The contractor shall coordinate his activities with the Engineer. The contractor shall notify the Engineer and the Department of Building Inspection a minimum of 72 hours prior to the start of any work.
9. Contractor shall coordinate with the City of Norwich Police Department regarding any and all traffic control.
10. The Contractor shall place silt fence and/or other erosion preventative measures on downgradient slopes as required by the City of Norwich zoning, wetlands official and/or Engineer.
11. All exposed foundation walls shall be removed to the level of the foundation slab. Concrete floors shall be broken up so water will easily penetrate into the ground. After demolition of the structures has taken place, the foundation area is required to be inspected by the building official prior to filling. Any remedial work to protect adjacent property or buildings must be completed prior to filling.
12. The entire foundation slab shall be covered over with 6 inches of compacted, suitable bank-run gravel, acceptable to the Building Official and/or Engineer. Building demolition materials may

not be used to fill the cellar hole. The fill material shall be suitably graded and stabilized at the direction of the zoning official and/or Engineer.

13. **The Contractor shall retain all salvage rights to the structure and any of its contents.** Storage or sale of material on-site shall not be permitted. Any persons not employed by the Contractor, or not covered by the Contractor's insurance, shall not be allowed on the site to remove salvage items or for any other purpose.
14. The Contractor is hereby advised that there are hazardous materials in one or both building and/or in the debris and litter on the property grounds that must be abated prior to demolition and/or disposal. Information on hazardous materials is included herein and in the attached documents by Eagle Environmental, Inc.
15. ~~The entire disturbed area shall be furnished with 4 inches of topsoil and grass seed. Topsoil shall be in accordance with CTDOT Form 816 specifications. Grass seed shall be John Deere brand or approved equal. Seeding rate shall be in accordance with manufacturer's specifications. Erosion netting and/or other stabilization methods may be required if final grading slopes warrant.~~
16. Time is of the essence. The Contractor shall commence abatement of hazardous materials immediately upon receiving the Notice to Proceed and continue with demolition operations, without interruptions, (consideration to time lost due to weather or other conditions not under the control of the Contractor will be considered), until all work is completed in accordance with these specifications and conditions. **All work must be completed within forty-five (45) days of Notice to Proceed.** The Notice to Proceed will be issued within five (5) days of the execution of the contract. The contract must be executed and required bond furnished within ten (10) days of notice of intent to award. Failure to meet pre-demolition timelines may result in awarding the contract to the next lowest responsible bidder. Liquidated damages of \$100 per day shall be assessed for failure to complete the work in the allotted time.
17. **There will be a mandatory pre-bid meeting held on the premises at 77 Chestnut Street on Thursday, December 5, 2013 at 2:00 p.m.**
18. **Proposals are due on Thursday, December 12, 2013 at 2:00 p.m. prevailing time and shall be submitted to Mr. William Block, Purchasing Agent, 100 Broadway, Norwich, CT 06360 (Norwich City Hall).**
19. **Bidders are hereby advised that funding for this demolition is not currently in place. In soliciting bids for this work, the City of Norwich does not guaranty that funds will be appropriated for this project.**
20. Technical questions should be directed to Mr. Barry Ellison, Jr., P.E., Director of Public Works, 50 Clinton Avenue, Norwich, CT 06360 or at (860) 823-3798.
21. Performance Bond – Simultaneously with his delivery of the executed contract, the Contractor shall furnish a surety bond for faithful performance of the contract and for payment of all materials

and services. This bond(s) shall be equal to 50% of the total amount of the contract. All bonds must be from surety companies licensed and approved to do business in the State of Connecticut.

22. Insurance – The successful bidder must, within (5) days from the date of acceptance of his proposal, file with the City of Norwich, Workmen’s Compensation, Comprehensive General Liability, Comprehensive Auto Liability, Certificates of insurance satisfactory to the City of Norwich, in compliance with the law, and in the following form and amount.

**COMPREHENSIVE GENERAL LIABILITY**

Premises – Operations	Products/Completed Operations
Bodily Injury	\$2,000,000 Combined
Property Damage	Single Limit

**COMPREHENSIVE AUTOMOBILIE LIABILITY**

Bodily Injury	\$1,000,000 Combined Single Limit
Bodily Damage	\$100,000 Each Occurrence

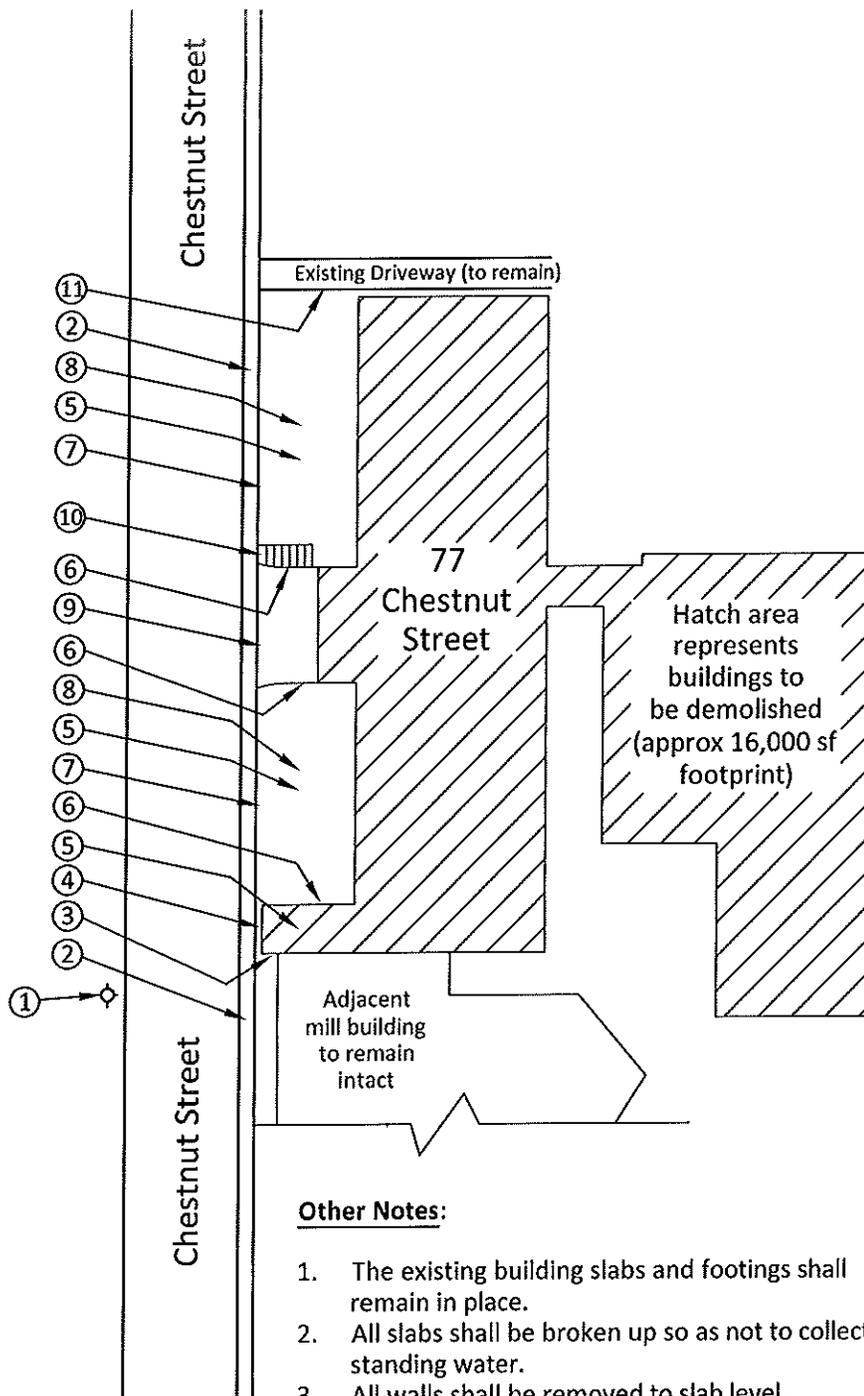
**WORKER’S COMPENSATION AND EMPLOYERS LIABILITY**

\$100,000 Each Accident

# GENERAL DEMOLITION PLAN

## DEMOLITION OF 77 CHESTNUT STREET - BID #7423

(NOT TO SCALE)



### Demolition Details:

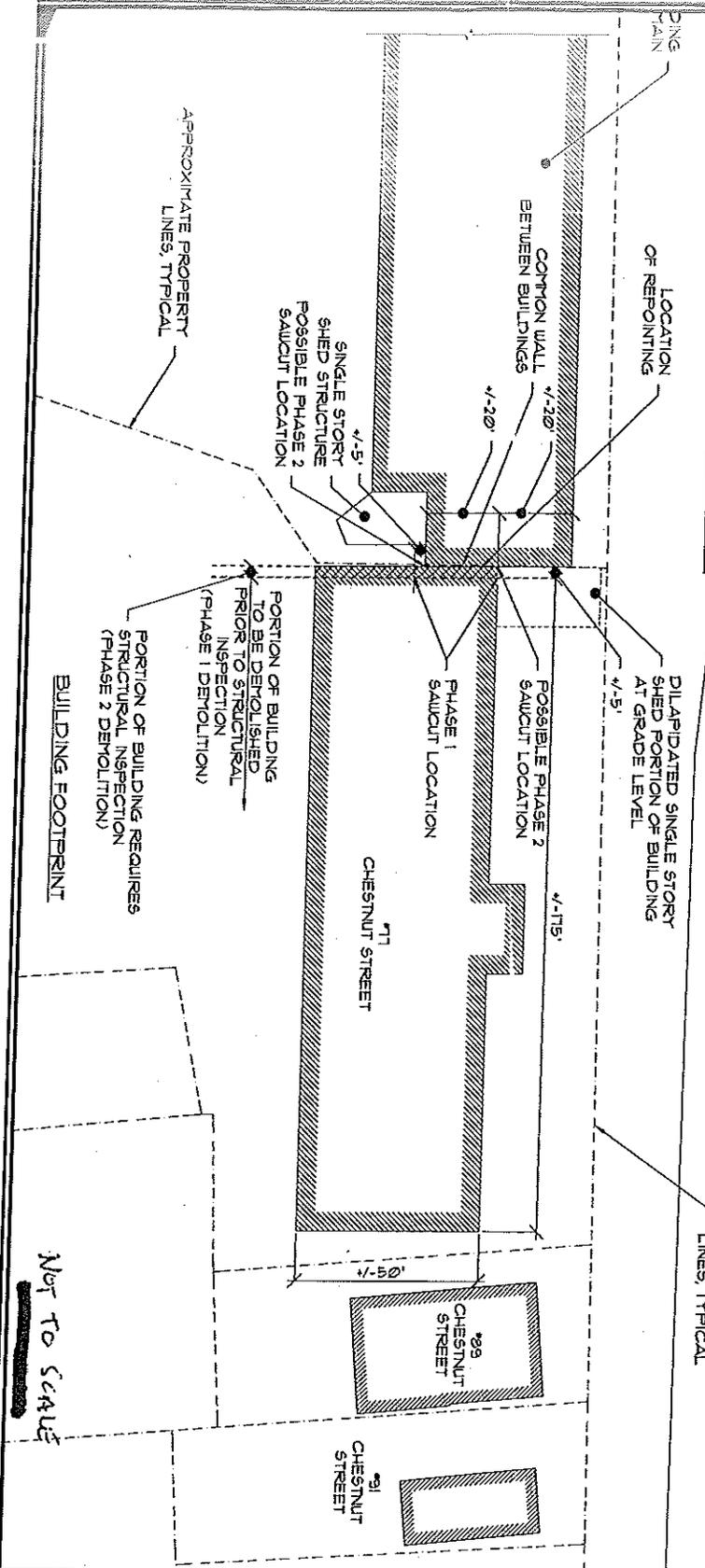
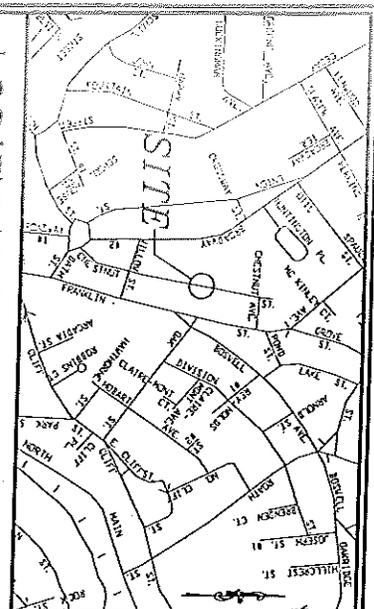
- ① Existing fire hydrant to be used for water needs.
- ② Existing bitumous sidewalk to remain.
- ③ Existing brick wall to remain. Contractor to slope wall at a general 45° angle from mill to street and waterproof.
- ④ Remove existing wall to flush with back of sidewalk.
- ⑤ Slope from sidewalk into site at min. 2:1 slope with bank run gravel or other approved backfill material (not rubble).
- ⑥ Remove and properly dispose of entire wall.
- ⑦ Remove and properly dispose of iron fence along sidewalk.
- ⑧ Remove and properly dispose of all garbage, litter, and debris.
- ⑨ Remove and properly dispose of existing parking area. Existing sidewalk to remain. Slope from sidewalk into site at min. 2:1 slope with bank run gravel or other approved backfill material (not rubble).
- ⑩ Remove and properly dispose of existing stairway.
- ⑪ Existing wall and driveway to remain. Slope from top of wall into site at a min. 2:1 slope with bank run gravel or other approved backfill (not rubble).

### Other Notes:

1. The existing building slabs and footings shall remain in place.
2. All slabs shall be broken up so as not to collect standing water.
3. All walls shall be removed to slab level.
4. Contractor shall install 6 inches of bank run gravel over all slabs and walls and blend into the surrounding natural grade.
5. Care shall be taken not to disturb the ground beneath the buildings so as to not disturb possible drainage infrastructure.
6. Access to the site shall only be via the Chestnut side of the property.

LOCATION MAP

SCALE: 1"=1000'



DEMOLITION PROCEDURE

77 CHESTNUT STREET

PLAN VIEW

**CLA Engineers, Inc.**  
 CIVIL • STRUCTURAL • SURVEYING  
 317 Main Street Norwich, Connecticut  
 (860) 886-1986 Fax (860) 886-9166  
 www.claengineers.com

Project No.	CL-13-5170
Proj. Engineer:	J.R.W.
Date:	11/22/13
Sheet No.	S-1

WEST ELEVATION

DILAPIDATED SINGLE STORY  
SHED PORTION OF BUILDING  
AT GRADE LEVEL

PHASE 1  
SAUCUT LOCATION

POSSIBLE PHASE 2  
SAUCUT LOCATION

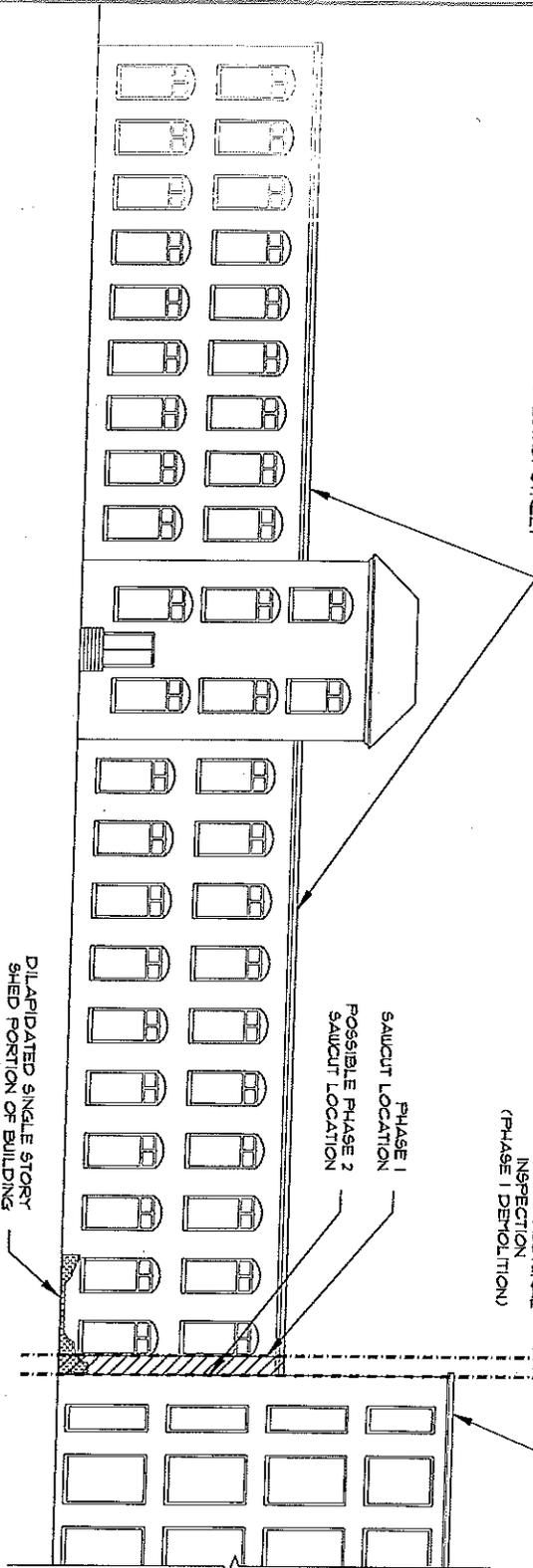
PORTION OF BUILDING  
TO BE DEMOLISHED  
PRIOR TO STRUCTURAL  
INSPECTION  
(PHASE 1 DEMOLITION)

PORTION OF BUILDING REQUIRES  
STRUCTURAL INSPECTION  
(PHASE 2 DEMOLITION)

77 CHESTNUT STREET

ADJACENT  
BUILDING

NOT TO SCALE



**CLA Engineers, Inc.**  
CIVIL • STRUCTURAL • SURVEYING

317 Main Street Norwich, Connecticut  
(860) 886-1988 Fax (860) 886-9165  
www.claengineers.com

**DEMOLITION PROCEDURE**

77 CHESTNUT STREET

ELEVATION

Project No.  
CL-13-5170

Proj. Engineer:  
J.R.W.

Date:  
11/22/13

Sheet No.

**S-2**

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49.	POLLUTION OF WATERS
50.	USE OF "HE", "HIS", OR "HIM"

CITY OF NORWICH  
DEPARTMENT OF PUBLIC WORKS  
GENERAL CONDITIONS

**1. DEFINITIONS**

1. **Owner** - The Owner of the project is the City of Norwich acting by the Director of Public Works.
2. **Contractor** - The term "contractor" as hereinafter used shall refer to the General Contractor for this work or his authorized representative.
3. **Owner's Representative** - The term "Owner's Representative" as hereinafter used shall refer to any representative of the Department of Public Works who is appointed by the Department to supervise the work and shall extend to and include any engineer or inspector whom he shall designate to inspect, test, or oversee the work herein specified.
4. **Department** - Whenever this term is used in these General Conditions, "Department" shall mean City of Norwich, Department of Public Works.
5. **City** - Wherever the term "City" is used in these General Conditions, it shall mean the City of Norwich, the City of Norwich Department of Public Works.
6. **Contract** - Wherever the term "Contract" is used in these General Conditions, it shall mean the actual bid form, specifications, drawings, General Conditions and formal purchase order issued to the successful bidder.

**2. BID FORM**

Attached to these specifications is a bid form which shall be used by the contractor submitting bids on this work.

Bids for this work shall be received at the Office of Purchasing Agent, City of Norwich, City Hall Building, at the time of the date designated on the bid forms, and will be publicly opened and read at the time and place, for this work. One copy of bid is for bidders.

Discrepancies between the indicated product of item unit and unit price and the correct product will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

**3. BID SECURITY**

Each contractor submitting a bid shall accompany it with bid Surety in the form of cash, certified check or bid bond equal to 5% of the bid. Should the contractor refuse to go through with the work after having been awarded it by the Owner within the scheduled time, he shall then forfeit the Bid Surety to the Owner who shall use the surety to offset costs to the next lowest bidder or if the contractor fails to provide satisfactory performance and payment bonds as required. The bonding company must be licensed to do business in the State of Connecticut.

**4. CONTRACTOR'S BONDS AND INSURANCE**

Each bidder must be able to enter into contract, covering the work, within 10 days from the acceptance of his proposal.

The successful bidder must, within ten (10) days from the date of acceptance of his proposal, furnish and file with the City of Norwich, a corporate surety bond or equivalent security, guaranteeing completion of the job in accordance with the proposal and a labor and material payment bond guaranteeing payment of all labor and materials furnished to himself or to his subcontractors for use in the prosecution of the work. This bond or equivalent shall be for 100% of the amount of the contract. The cost of the bonds is to be figured as part of the cost of the job. The Surety company must be one licensed to do business in the State of Connecticut and must be satisfactory to the Owner.

The successful bidder must, within ten (10) days from the date of acceptance of his proposal, file with the City of Norwich, Workmen's Compensation, Comprehensive General Liability, Comprehensive Auto Liability, Certificates of Insurance satisfactory to the City of Norwich, in compliance with the law, and in the following form and amount:

**COMPREHENSIVE GENERAL LIABILITY**

Premises - Operations - Products/Completed Operations	
General Aggregate	\$2,000,000.00
Occurrence	\$2,000,000.00

**COMPREHENSIVE AUTOMOBILE LIABILITY**

Combined Single Limit	\$1,000,000.00
WORKMEN'S COMPENSATION	Statutory
EMPLOYERS LIABILITY:	\$100,000

Fire and Special Extended Coverage in Builder's Risk policy in the amount of 100% of insurable completed value.

Any additional insurance coverage that may be required for permits issued by other authorities having jurisdiction over the work site shall be provided by the successful bidder.

If subcontractors are employed, same limits as named above shall apply and the certificate of insurance must be filed with the City.

No contract shall be binding upon the City of Norwich until such bond shall have been given and until Comprehensive General Liability, Comprehensive General Auto Liability and Workmen's Compensation policy certificates indicated above have been filed with the City and approved as to form and sufficiency by the Owner. The insurance policy certificate provided by the successful bidder and all subcontractors shall carry a statement by the insurance company that the City of Norwich will receive at least ten (10) days notice prior to cancellation of any portion of the policies or any modifications in the insurance coverage that may affect the City's interest. The cost of all insurance coverage shall be included in the price of the contract cost.

The insurance company must be licensed to do business in the State of Connecticut and must be satisfactory to the City of Norwich. THE CITY OF NORWICH MUST BE NAMED AS ADDITIONAL INSURED.

**5. NONRESIDENT CONTRACTOR BOND**

Connecticut General Statute Section 12-430(7) requires that when a nonresident contractor enters into a contract they must post a 5% cash or guarantee bond for the total contract amount with the Commissioner of Revenue Services. Bond forms are included at the end of the General Conditions.

**6. INDEMNITY OF CITY BY CONTRACTOR**

The Contractor shall indemnify and save harmless the City against any and all damages to property or injuries to or death of any person or persons, including property and employees or agents of the City, and shall defend, indemnify and save harmless the City from any and all claims, demands, suits, actions or proceedings of any kind of nature including workmen's compensation claims, of or by anyone whomsoever, in any way resulting from or arising out of the operations in connection herewith, including operations of subcontractors and acts or omissions of employees or agents of contractors or his subcontractors. Insurance coverage specified herein and in any special conditions constitutes the minimum requirements and said requirements shall in no way lessen or limit the liability of contractor under the terms of the contract. The contractor shall procure and maintain, at his own cost and expense, any additional kinds and amounts of insurance which in his own judgment, may be necessary for his proper protection in the prosecution of the work. The Contractor agrees to well and truly save and indemnify and keep harmless the City against all liability, judgments, costs and expenses which may in any wise come against the City or which may in any wise result from carelessness, omission or neglect of the Contractor or his agents, employees or workmen in any way arising or resulting from the operation in connection herewith, including all liability to the City resulting from the failure to maintain sufficient railing or fence as required by Section 13a-111, Conn. General Statutes, and against all liability from defects claimed to be in violation of Section 13a-149, Conn. General Statutes. Any additional cost of this save harmless insurance coverage shall be included in the price of the contract.

**7. PERMITS, LICENSES AND LAWS**

The contractor shall obtain all necessary permits or licenses from the proper authorities and shall give all notices required by law or ordinance, and shall pay all fees and charges incident to the due and lawful prosecution of the work and shall comply with all laws, ordinances and regulations relating thereto.

**8. RIGHT TO REJECT BIDS**

The City of Norwich reserves the right to reject any and all bids to waive any technicalities and to make such awards, including awards not to the lowest bidder, as it deems in its opinion to be the best interest of the City of Norwich, awards made by the City of Norwich shall be final and conclusive and without recourse or appeal by any remaining bidders.

9. **BIDDERS TO EXAMINE SPECIFICATIONS AND VISIT SITE OF WORK**

Bidders must carefully examine the specifications, and in addition must use whatever means may be necessary to completely satisfy themselves not only of the quantity of equipment and labor and the extent and requirements of the work, but also of the actual conditions under which the work specified is to be performed. It is therefore pre-requisite that all bidders shall visit the site of the work to determine actual conditions for themselves. No future plea of ignorance of existing conditions shall be considered as a basis for additional compensation.

If bidders fail to fully understand any clause or requirement of the specifications, inquiry must be made of the Owner's Representative for his interpretation of the specifications in advance of the submission of a bid. Failure on the part of the bidder to acquaint themselves thoroughly with the work to be performed and the conditions under which it will be performed will not be considered as a valid excuse for claims of any kind after the award of the contract. The signature of the bidder upon the bid shall be considered proof of his acceptance of full responsibility in this respect.

10. **REPRESENTATION OF CONTRACTOR**

The contractor represents and warrants that he is financially solvent and that he is experienced and competent to perform the type of work outlined on the specifications and drawings and that he has carefully examined the drawings and specifications along with addendum (or addenda), if any, and the site of the work, and that from his own investigations, he has satisfied himself as to the nature and location of the work, the character, quality and quantity of the surface and subsurface materials likely to be encountered, the character of equipment and other facilities needed for the performance of the work, the general and local conditions and all other materials which may in any way affect the work or its performance and that he is aware of the hazards involved in the work and the danger to life and property both evident and inherent and that he will conduct the work in a careful and safe manner without injury to persons or property. He further warrants that any injury to persons or property resulting from the work shall be the sole responsibility of the contractor.

11. **COMPETENT HELP TO BE EMPLOYED**

The contractor shall employ an experienced superintendent and foremen, craftsmen and other workmen competent in the work in which they are to be engaged. All work shall be accomplished by able, skilled and competent personnel. If any person employed on the work by the Contractor shall appear to be incompetent or unreliable in any way, or guilty of being noisy, profane, or otherwise disruptive to the surrounding working environment, he shall be discharged immediately upon the request of the Owner and shall not again be employed on the work.

12. **PROHIBITING EMPLOYEE DISCRIMINATION BY CONTRACTOR**

The contractor agrees and warrants that in the performance of this contract he will not discriminate or permit discrimination against any person applicant for employment or group of persons on the grounds of race, color, religion, national origin, sex, or physical disability, including but not limited to, blindness, unless it is shown by the contractor that such disability prevents performance of the work involved in any manner prohibited by the laws of the United States or of the State of Connecticut and further agrees to provide the commission on human rights and opportunities with such information requested by the commission concerning the employment practices and procedures of the contractor as related to the provisions of this section.

13. **SCOPE OF WORK**

The contractor, as promptly and as economically as practicable, shall perform all necessary engineering services, shall procure, order and furnish all of the required materials (unless furnished by the Owner), labor, equipment, tools, plant, etc. and perform all of the services necessary for the construction, installation and completion of, and shall construct, install and complete all work called for and described in the specifications, drawings and other descriptive data that may be referred to herein. The Department will provide bench marks and control stakes in order to complete the work. The contractor shall protect and maintain these points for the duration of the construction. It is the obligation of the contractor to utilize these bench marks and stakes to determine lines and grades, and to provide his own grade stakes.

14. **MATERIALS**

Unless otherwise specified the Contractor warrants that all materials shall be new and shall be of good quality. The Contractor shall, if required by the Owner, furnish samples or other satisfactory evidence as to the kind and quality of materials as directed by the Owner, and all materials thereafter furnished by the Contractor shall be in strict accordance with such approved samples.

15. SUB-CONTRACTS

The Contractor agrees to obtain the agreement of every subcontractor to be bound to terms and conditions materially and substantially comparable to those contained herein unless otherwise authorized and approved by the Owner.

16. ASSIGNMENT

No assignment or transfer of the contract, or of any money or moneys due or to become due thereunder, or any part of such contract or of such money, will be permitted, until and unless the same shall be approved by the Owner, nor shall the contractor subcontract any substantial portion of this contract without Owner's written consent.

17. SEPARATE CONTRACTS

The Owner shall have the right to let other contracts in connection with this work or other work and the Contractor shall afford other Contractors reasonable opportunity for the execution of their work and shall properly connect and coordinate its work with theirs. The Contractor shall be liable for any damage that it, its agents or employees may cause to any other contractor and shall save Owner harmless therefrom. The Owner also reserves the right to perform work related to the contract with his own employees.

18. PARTIAL INVALIDITY

The Owner and Contractor agree that they will perform their obligations hereunder in accordance with all applicable laws, rules, regulations and ordinances now and hereafter in effect. If any term or provision of these conditions shall be found to be illegal or unenforceable then, notwithstanding, these conditions shall remain in full force and effect and such term or provision shall be deemed stricken.

19. LIGHTS, BARRIERS, FENCES, WATCHMEN AND INDEMNITY

The Contractor shall put up and maintain such barriers, fences, lighting and warning lights, danger warning signals and signs as will absolutely prevent accidents during the construction work and protect the work and insure the safety of personnel and public at all times and places; and the contractor shall defend, indemnify and save harmless the City and its agents in every respect from any injury or damage whatsoever caused by any act, omission or neglect of the contractor or his sub-contractor, or their servants or agents including any claims arising out of failure to erect and maintain sufficient railing or fence as required by Section 13a-111, Connecticut General Statutes. The fact that the City may retain the control of the premises, or that it or its agents may take action to erect or maintain railings or fences shall not relieve the contractor's obligation hereunder.

Contractor shall furnish, maintain and use, and cause all his sub-contractors to furnish, maintain and use all necessary safety devices and safe practices in prosecution of the work and to adopt, follow and maintain such additional safety measures as in the opinion of the Owner's Representative are conducive to safe operation by the contractor and the sub-contractor. The Owner's Representative shall have the right to order any and all work suspended where, in the Owner's Representative's opinion such work is not being carried on in a safe and proper manner, or where persons and property are not being properly protected or safeguarded and such work shall not be resumed until the Owner's Representative's requirements have been met and the Owner's Representative has directed that work shall resume. The work required by the preceding paragraph shall be totally at the contractor's expense.

In addition to above, when and as necessary, or when required by the Owner, the contractor shall post signs and employ watchmen or flagmen for directing of traffic at the site and for excluding at all times unauthorized persons from the work, for which the contractor will not be paid additional compensation.

20. FIRE PRECAUTION

The Contractor shall take adequate precaution against fire; keep flammable material at an absolute minimum; and insure that such material is properly handled and stored. The contractor shall not permit fires to be built or open salamanders to be used in any part of the work without the express approval of the Owner.

21. "OR APPROVED EQUAL" CLAUSE

Whenever a particular brand, make of material, device or equipment is shown as required on bid form by using the name of the proprietary product of a particular manufacturer or vendor, it is to be regarded merely as standard. Any brand, make of material, device or equipment which will perform adequately, may be considered equal and satisfactory providing the bidder offering "or equal" brand, make of material, device or equipment will be responsible for furnishing complete data to the

Owner so that he may ascertain if the material is of equal substance and function in his (the Owners) opinion. It shall not be purchased or installed without his written permission.

22. **TERMINATION FOR CONVENIENCE**

The City hereby reserves the right to terminate the performance of this contract for any reason the City deems appropriate, upon five (5) days written notice to the contractor. The City will pay all actual costs to date of termination, however the contractor shall not be entitled to any profit on unfinished or unearned work.

23. **TITLE TO WORK**

The title to all work completed or in the course of construction, and all materials on account of which any payment has been made by the Owner to the Contractor, shall be in the Owner.

24. **TIME OF COMPLETION**

The contractor shall commence work immediately upon receiving notification from the Owner's Representative to do so unless otherwise stated in the bid form and shall follow-up the work diligently without interruption until completed in accordance with the specifications, on or before the date set forth in the specifications.

25. **INSPECTION**

The Owner or persons designated by the Owner shall have access to and the right to inspect all work in the course of construction.

26. **SPIRITUOUS LIQUORS**

The contractor shall neither permit nor suffer the introduction or use of spirituous liquors upon the work embraced in this contract. Dope or drugs of any kind unless ordered by a physician are prohibited. Any employee found using spirituous liquors, dope or drugs of any kind unless ordered by a physician shall be immediately discharged.

27. **WORK CHANGES**

The Owner may make changes by altering, adding to or deleting from the work, without invalidating the contract, but all such changes must be mutually agreed upon in writing, after a breakdown of estimated costs and changes in the contract sum attributable thereto and a statement of any necessary changes in time of completion, between the Owner and the contractor before proceeding with the execution of the work. All such changes in the work shall be authorized on a change order. Charges or credits for work covered by the approved change shall be either (a) an agreed lump sum or (b) actual cost.

28. **CLAIMS FOR EXTRA WORK**

After the contract has been signed, no claims for extra work will be honored, unless authorized in writing by Owner.

29. **DEFAULTS**

If the contractor shall fail in this prosecution of the work under this contract, to perform any provisions of this contract, the Owner after a five (5) days written notice to the contractor to remedy said failure, and upon the refusal or neglect of the contractor to remedy such failure, the Owner, without prejudice to any other remedy the Owner may have, shall be entitled to remedy such deficiency and any cost thereby incurred by the Owner shall be paid for the account of the Contractor and deducted from the contract sum then or thereafter due the contractor. Any expense or cost arising out of the contractor's negligence, or that of its agents or employees for replacing defective work, and for the disposal of material wrongly supplied, may be paid by the Owner for the account of the Contractors and deducted from the contract sum then or thereafter due the contractor.

30. **TAXES**

Purchases made by the City of Norwich, Connecticut, are considered exempt from the payment of Federal excise taxes, Connecticut Sales Taxes, etc. and such taxes shall be identified separately or excluded from the bid prices.

31. **OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970**

The contractor shall also insure that all his operations and those of his sub-contractor abide by the provisions of the William Steiger Occupational Safety and Health Act of 1970, Public Law 91-956 and all subsequent amendments. In the event of any inconsistencies between the above laws and regulations and the provisions of these conditions, the laws and regulations shall prevail. If the Owner or Representative assigned to the work find the contractor or his sub-contractor are not abiding with

this act, the Owner shall immediately stop all work until the contractor or sub-contractor adhere to the provisions of the act at no additional cost to the Owner.

32. **COMPLIANCE WITH NON-DISCRIMINATION**

Through the policies and programs set forth in this plan, the City of Norwich undertakes to comply fully with all applicable Federal, State and Local laws relating to equal employment opportunity, affirmative action, and non-discrimination, and of the contractor's obligations thereunder. The City will not enter into any contract in the knowledge or belief that the contractor will discriminate on prohibited grounds in employment.

In addition, the City of Norwich is specifically obligated to comply with the following laws and regulations where applicable.

Section 109, Housing & Community Development Act  
Titles VI and VII, Civil Rights Act of 1964  
Title VIII, Civil Rights Act of 1968  
Executive Order 11063  
Section 3, Housing & Urban Development Act of 1968  
Davis Bacon Act (40 U.S.C. 276A - 276A-7)

33. **WORK IN INCLEMENT WEATHER**

The Owner or the Owner's Representative will determine when conditions are unfavorable for work and may order the work or any portion of it suspended whenever, in his opinion the conditions are not such as will insure first class work. In general, work shall be prosecuted throughout the year and the Contractor will be expected to keep work going and employment of labor as continuous as possible. However, the Contractor shall, and shall cause his sub-contractors to protect care- fully his and their work against damage of injury from the weather. If this is not done to the Owner's satisfaction and any damage to the work occurs, the work shall be removed and replaced at the expense of the contractor.

34. **PROTECTION OF TREES**

The Contractor shall take special care to preserve and protect from injury all trees located along the line of construction and no such trees shall be cut down, trimmed or otherwise cut without permission of the Owner.

35. **ARCHEOLOGICAL FINDS**

The Contractor for the life of this contract, is herewith required to immediately notify the Engineer in the event that any articles such as "charcoal", "bone", "shell", "cultural objects", "fire cracked stones", or "stone flaking material" or any other such related items of historical significance are discovered.

36. **BLASTING**

Blasting shall not be an acceptable form of demolition for this contract and is therefore not permitted.

37. **POWER AND WATER**

Should the Contractor require electric power and/or water, he shall make necessary arrangements with the Norwich Public Utilities Department for securing it and bear any expense involved, unless expressly provided for otherwise in the specifications.

38. **TOILET ACCOMMODATIONS**

The Contractor shall provide necessary sanitary toilet accommodations maintained in a sanitary condition for the workmen; chemical toilets will be permitted.

39. **CLEAN-UP**

The Contractor shall regularly and at the completion of the job, clean up all excess backfill materials and debris of every nature in order that the sites worked upon shall be left in a presentable condition as existed at the start of the job. It shall be the responsibility of the contractor to sweep and wash all surfaces and where mortar or grout has been deposited before these materials have an opportunity to bond. In case of dispute, the Owner may remove the rubbish and charge the cost of such removal to the Contractor.

40. GENERAL GUARANTEE

The Contractor shall guarantee his work for a period of one (1) year after the date of the Owner's Representative's final inspection and acceptance as evidenced by final payment. He shall during that period repair promptly, at his own cost and expense all breaks, failures or defects which develop in his work as a result of a faulty material or workmanship and indemnify and hold harmless the Owner from and against all loss or damage arising out of or in connection with any such defects.

41. LIENS

The final payment for the work will not be made until the Owner is satisfied that no liens have, or can be placed for material or labor on this work. If required by the Owner, the contractor shall deliver to the Owner a complete release of all liens arising out of this contract, or receipts in full covering all material and labor for which a lien could be filed against the Owner.

42. PAYMENTS

Payment for the work will be made when the work outlined in the specifications is completed or in accordance with the terms stated herein. Invoices shall be prepared in prescribed form by the contractor and shall be submitted to the Owner's Representative for checking and certification. *The City shall retain 5% of invoices until substantial completion of the project is reached. Retainage shall be reduced to 2% upon discretion of the City at that time.*

43. PAYMENT TO SUB-CONTRACTOR

The Owner assumes no obligation to pay or to see to the payment of any sum to the sub-contractor. The owner can require a release of all liens for labor. (See Article 41)

44. FINAL INSPECTION AND ACCEPTANCE

Upon receipt of written notice from the contractor that his work is completed the Owner's Representative will make a final inspection and will notify the contractor of all instances in which the work fails to comply with the specifications as well as any defects which he may discover. The contractor shall thereupon immediately rebuild, alter and restore the work so that it will comply with the specifications and he shall remedy any defects at this own cost and expense and to the satisfaction of the Owner's Representative. Upon the completion of such alterations or repairs, the Owner's Representative will issue his certificate of final acceptance of work. The issuance of such certificate of final acceptance by the Owner's Representative shall not prevent the City from recovering damages at any subsequent time for work found to be actually defective during the one year guarantee period that commences after final payment has been made.

45. FINAL PAYMENT

The acceptance by the contractor of payment for the final invoice made after the Owner's Representative's certification of final acceptance as provided for in these General Conditions, shall release the City of Norwich and every agent of the City from all further claims or liabilities to the contractor of whatever nature except for the remaining sum or sums of money withheld under the provisions of the contract.

46. CORRECTIONS

Erasures or other changes in the bid must be explained or noted over the signature of the bidder.

47. INTERPRETATION OF DRAWINGS AND SPECIFICATIONS

The contractor shall keep at the site of the work at least one copy of the drawings and specifications, and shall at all times give the Owner and his representatives access thereto. Anything shown on the Drawings and not mentioned in the Specifications, or mentioned in the Specifications and not shown on the Drawings, shall have the same effect as if shown or mentioned on both.

48. LOADING

No part of the materials involved in this contract shall be loaded during construction with a load greater than that it can carry with safety. Should any accidents or damages occur through any violation of this requirement, the contractor will be held responsible under his contract and bond.

49. POLLUTION OF WATERS

Special care shall be taken to prevent contamination or muddying up or interfering in any way with the stream flows along the line of work. No Waste matter of any kind will be allowed to discharge into the stream flows or impounded waters of any ponds or other bodies of water.

50. USE OF "HE", "HIS" OR "HIM"

Whenever in these General Conditions the masculine words, "he", "his" or "him" are used pertaining to the contractor or buyer, it shall be for brevity and in no way is any sexual discrimination intended.

CITY OF NORWICH

DEPARTMENT OF PUBLIC WORKS

**BID# 7423**

Abatement & Demolition of Property Located at 77 Chestnut Street  
Norwich, CT

**BID FORM**

I/We have reviewed the scope of work titled, Abatement and Demolition of Property Located at 77 Chestnut Street and will perform the described work in accordance with the attached specifications for the lump sum price quoted below and agree to complete the project within 45 days of notice to proceed.

\$ \_\_\_\_\_

( \_\_\_\_\_ )  
Total amount in words

\_\_\_\_\_  
Company Name & Address

\_\_\_\_\_  
Printed Name of Authorized Representative

\_\_\_\_\_  
Signature & Date



# EAGLE Environmental, Inc.

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

March 13, 2012

Mr. Barry Ellison  
City of Norwich  
50 Clinton Avenue  
Norwich, CT 06360

**RE: Pre-Demolition Hazardous Materials Inspection  
77 Chestnut Street – Front and Rear Buildings  
Norwich, Connecticut  
Eagle Project No. 11-183.10**

Dear Mr. Ellison:

Attached is the report for the hazardous materials inspection conducted at the front and rear buildings located at 77 Chestnut Street in Norwich, Connecticut. The inspection was performed to support the demolition of the buildings.

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:  
Chris Liberti  
Senior Project Manager

Report Reviewed By:  
Peter J. Follino  
Principal

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**EAGLE**  
*Environmental, Inc.*

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

PRE-DEMOLITION HAZARDOUS MATERIALS INSPECTION  
FOR

FRONT AND REAR BUILDINGS  
77 CHESTNUT STREET  
NORWICH, CONNECTICUT

PROVIDED TO

CITY OF NORWICH  
50 CLINTON AVENUE  
NORWICH, CONNECTICUT 06360

PROVIDED BY

EAGLE ENVIRONMENTAL, INC.  
531 NORTH MAIN STREET  
BRISTOL, CONNECTICUT

MARCH 13, 2012

EAGLE PROJECT NO.11-183.10

## 1.0 INTRODUCTION

On January 13 and February 13, 2012, Eagle Environmental, Inc. conducted hazardous materials inspections of the front and rear buildings located at 77 Chestnut Street in Norwich, Connecticut. The scope of the hazardous materials inspections included a complete hazardous building materials inspection as well as an assessment of other environmental concerns including the inspection for universal waste products. The inspection was performed to support the demolition of the two (2) buildings at the site.

At the time of the inspections, the front building was inaccessible. The roof has collapsed into the building along with portions of several interior building components. Only materials that were accessible from the exterior were assessed at this time.

### 1.1 Building Description

#### Front Building

The subject building located at 77 Chestnut Street in Norwich, Connecticut is a three story structure of brick and wood frame construction. The structure was built in 1895. Portions of the building's roof and floors have collapsed making the interior of the building inaccessible at the time of the inspection. The mechanical equipment consists of a steam fired radiant heat system. The mechanical system distribution system was inaccessible and assumed to be insulated. The boiler is located in the rear of the structure. The interior walls are primarily wood and brick. The ceilings are primarily wood. The window frames and sashes are of wood construction. The door frames are wood with wood doors. The floors are wood. The exterior facades are constructed of brick and are deteriorating. The roof has collapsed into the building and appears to have consisted of several layers of asphalt shingles or built up roofing system with ballast on a wood roof decking.

#### Rear Building

The subject building located at 77 Chestnut Street in Norwich, Connecticut is a two story structure of brick and wood frame construction. The structure was built in the early 1900's. The mechanical equipment consists of a steam fired radiant heat system which is supplied from the front collapsed building. The mechanical system is mostly un-insulated. The boiler is located in the rear of the front building. The interior walls are a combination of sheetrock/joint compound and concrete block. The ceilings are primarily wood. The window frames and sashes are of wood construction. The door frames are wood with wood doors. The floors are mainly concrete with some resilient flooring. The exterior facades are constructed of brick. The roofs are flat and consist of built up roofing.

## 2.0 SCOPE OF INSPECTION

### 2.1 Asbestos Containing Materials

The asbestos inspection was conducted in order to satisfy the USEPA National Emission Standard for Hazardous Air Pollutants Act (NESHAP) as amended November 20, 1990. The USEPA NESHAP final rule requires the identification and removal of all regulated ACM in a building prior to demolition.

The asbestos inspection was performed by James Webb and Justin Proto; State of Connecticut licensed Asbestos Inspectors (license # 000588 and 000697 respectively).

## 2.2 Lead Based Paint

### 2.2.1 X-Ray Fluorescence Screen

The lead based paint (LBP) screen was performed in accordance with the requirements of the State of Connecticut, Department of Energy and Environmental Protection (DEEP), Guidance for the Management and Disposal of Lead Contaminated Materials Generated in the Lead Abatement, Renovation and Demolition Industries. The DEEP regulates the disposal of hazardous lead waste in the State of Connecticut. Lead-contaminated debris, not contaminated with other hazardous materials, is classified either as hazardous lead waste or as non-hazardous solid waste.

Additionally the U.S. Department of Labor Occupational Safety and Health Administration (OSHA) regulates lead dust exposure to workers in the construction industry under 29 CFR 1926.62 Lead in Construction.

The lead based paint screen was performed by Aaron Hatcher and Hannah Hintz; State of Connecticut licensed Lead Inspector/Risk Assessors (license # 000583 and 002186 respectively).

### 2.2.2 Lead Waste Characterization

The State of Connecticut DEEP regulates the disposal of hazardous waste. The required analytical test to determine a materials waste classification is the Toxicity Characteristic Leachate Procedure, or TCLP (Regulation of State DEP 22a-449© - 101 (a) (1), incorporating 40 CFR 262.24). Eagle Environmental, Inc. collected samples of building materials for lead waste characterization.

## 2.3 Polychlorinated Biphenyls (PCB) in Caulk

Recently PCB's have been identified by the USEPA as a concern in caulking compounds. The USEPA has identified numerous cases where PCBs have been added to caulk compounds between 1930 and 1977 to improve adhesion and flexibility. The USEPA regulates the removal and disposal of PCB containing caulk as a bulk product, as well as soil and other materials contaminated with PCBs from caulk if the concentrations of PCBs is found to contain greater than 1 part per million (PPM).

The State of Connecticut Department of Environmental Protection also regulates the disposal of PCB contaminated caulk when levels exceed 1 PPM. Eagle Environmental, Inc. examined each building for caulking materials, consulted with City of Norwich building officials for any record of renovations and reviewed the assessor's card for building data.

## 2.4 Universal Waste Materials and Other Environmental Concerns

### 2.4.1 PCB and Di-ethylhexlphthalate (DEHP) Containing Items

PCB and DEHP lighting ballasts, electrical equipment including capacitors and switches that contain PCBs are regulated under the Toxic Substances Control Act of 1976 (TSCA) which bans the manufacturing and distribution of PCBs and regulates its disposal and storage.

PCBs and DEHP can be found in a number of items, including lighting ballast and electrical equipment including capacitors and switches. DEHP and PCB-containing items such as these must be managed and disposed of in accordance with special requirements. A visual inspection for PCB and DEHP containing items was performed within accessible areas of each building.

#### 2.4.2 Mercury Containing Items

Fluorescent lamps, thermostats, mercury switches, manometers, natural gas meters, and other items can contain enough mercury to be classified as a special waste, and may therefore not be disposed of as regular construction debris. The mercury and mercury vapors associated with these products must be reclaimed prior to disposal of the products. A visual inspection for the presence of fluorescent lamps, thermostats and switches potentially containing mercury was performed within accessible areas of each building.

#### 2.4.3 Used Electronics and Batteries

Used electronics and batteries may contain enough lead, mercury, cadmium or acid electrolytes to be classified as a universal waste. In such cases, they may not be disposed of as regular construction debris. A visual inspection for the presence of used electronic devices was performed within accessible areas of each building.

#### 2.4.4 Chlorofluorocarbons

Freon gas includes a number of gaseous, colorless chlorofluorocarbons (CFCs) that are commonly used as refrigerants. Freon is listed as a controlled substance by governments around the world. In the United States, the USEPA regulates the emission of Freon gas into the atmosphere due to its ozone depleting capabilities. Through Title VI, Stratospheric Ozone Protection, of the Clean Air Act Amendments of 1990, the USEPA regulates Freon gas and requires mandatory recycling and a ban on the intentional venting or releasing of refrigerants during maintenance, service and or repair. A visual inspection for the presence of building materials potentially containing Freon was performed within accessible areas of each building.

### 3.0 INSPECTION PROTOCOLS

#### 3.1 Asbestos-Containing Materials

##### 3.1.1 Inspection

The asbestos-containing materials inspection included the accessible interior and exterior portions of each building including the roofing systems. Semi-destructive testing techniques were utilized during the inspection process. This included cutting through various layers of flooring and roofing materials to verify and sample individual layers of suspect ACM. Suspect building materials that are inaccessible for inspection and sampling are assumed to be ACM for the purpose of this report. These suspect materials are generally located in operational equipment, behind rigid walls and ceilings, below rubber roof membranes or otherwise concealed areas of the building including below grade materials.

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. Estimated quantities of identified ACM's are 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 USEPA categories. These categories are: Thermal System Insulation (TSI), Surfacing Materials, and Miscellaneous materials. 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, towed 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.

All bulk sampling methods and number of samples collected meets or exceeds the USEPA pre-demolition requirements.

### **3.1.3 Bulk Sample Analysis**

The samples of the suspect asbestos containing materials are 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 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 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.

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

Certain samples of 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 bulk samples for asbestos. Suspect materials confirmed by NOB TEM to be "less than 1% asbestos", "TRACE" or "NAD" are considered non-asbestos containing.

## **3.2 Lead-Based Paint**

### **3.2.1 X-Ray Fluorescence Screen**

The lead-based paint screen was performed utilizing an X-Ray Fluorescence (XRF) Radiation Monitoring Device (RMD) Lead Paint Analyzer (LPA 1), serial number 1509 and 2753 within the limits of the inspection areas. The screen includes only accessible areas within the inspection areas and accessible building materials. The interior of the front building was inaccessible and only exterior testing was performed at this time.

The lead-based paint screen includes testing limited components and or surfaces throughout each structure. It is not the intent to test all painted components, but to identify on a broad scale the impact of lead paint as it relates to the disposal of lead paint contaminated debris and potential worker exposure issues. Generally, wall and ceiling surfaces, painted floors, window systems and door systems are tested. Other components such as baseboards, cabinets, columns, trim, etc. are tested on a limited basis. Component and surface locations are identified by side designations represented by the letters "A", "B", "C", and "D". The "A" side is considered the front of the building with the "B", "C", and "D" side following in a clockwise order.

The data is presented on computer generated Lead Inspection Reports contained in Appendix 3. The Summary Report provides an inventory of each surface coating that contains lead at or above 1.0 mg/cm<sup>2</sup>. The Detailed Report is an inventory of each tested surface on a room-by-room basis.

For the purpose of this report, the XRF results are separated into two (2) categories; high levels of lead (>1.0 mg/cm<sup>2</sup>) and low levels of lead (<1.0 mg/cm<sup>2</sup>). Building materials containing high levels of lead have a greater probability of creating worker exposures during construction than do building materials with low levels of lead. Additionally, lead waste characterization sampling is required for building materials containing high levels of lead (>1.0 mg/cm<sup>2</sup>) and will become a waste product as a result of demolition or renovation activities.

The U.S. Department of Labor Occupation Safety and Health Administration (OSHA) regulates lead dust exposure to workers in the construction industry under 29 CFR 1926.62 Lead Exposure in Construction; Interim Final Rule. Currently, OSHA does not define a threshold level of lead in paint that may cause worker exposure. Any detectable level of lead in paint (>0.0 mg/cm<sup>2</sup> by XRF or >0.01 % by AAS) requires task specific exposure monitoring.

### 3.2.2 Lead Waste Characterization

The State of Connecticut Department of Environmental Protection regulates the disposal of hazardous waste. The required analytical test to determine a materials waste classification is the Toxicity Characteristic Leachate Procedure, or TCLP (Regulation of State DEP 22a-449© - 101 (a) (1), incorporating 40 CFR 262.24).

The TCLP test subjects a 100-gram sample of waste material to a simulated landfill leaching condition, and assesses the ability of the sample to leach out lead into the environment. The waste is classified as hazardous lead waste if the TCLP sample result is greater than 5.0 mg/l of lead. The waste is classified as non-hazardous solid waste if the TCLP sample result is less than 5.0 mg/l of lead. Building debris containing equal to or greater than 1.0 mg/cm<sup>2</sup> of lead by XRF requires waste classification analysis.

There are two (2) primary approaches for TCLP sampling. Both methods utilize the data generated during the lead screen to determine which building materials contain lead in paint coatings and what percentage of the waste stream will consist of the leaded materials. The two (2) basic approaches are described below.

#### Screen, Sample, and Segregate Method

The Screen, Sample, and Segregate method of TCLP sampling is conducted in accordance with the State of Connecticut Department of Environmental Protection Guidance for the Management and Disposal of Lead-Contaminated Materials Generated in the Lead Abatement, Renovation, and Demolition Industries. This method entails screening the building components scheduled to be removed with an XRF lead paint analyzer. Components that are determined to be lead containing are sampled and analyzed by TCLP based on their contribution into the waste stream. The waste stream is made up of those building components that will be removed from the structure as part of the renovation or demolition process. It is very important to accurately identify the waste stream in order for the TCLP sample to be truly representative.

The TCLP sample consists of the building materials that contain lead. The building materials are carefully removed at the site using coring devices or by saw cutting. The building materials are then placed directly into polyethylene zip lock bags for transmission to the laboratory.

### Composite Sample and Demolish Method

The Composite Sample and Demolish Method of TCLP sampling is conducted in accordance with the State of Connecticut Department of Environmental Protection Guidance for the Management and Disposal of Lead-Contaminated Materials Generated in the Lead Abatement, Renovation, and Demolition Industries. This method utilizes composite samples to assess the lead content of the entire quantity of debris to be removed. This sampling method is best utilized for whole building demolitions where the quantity of non-lead debris is expected to be much greater than that of the leaded debris. The first step in the sampling process requires the inspector to identify the potential waste stream of the structure to be demolished. The waste stream is made up of those building components that will be disposed of once the structure is demolished. The inspector calculates the mass by weight of each group of building components within the building (i.e. studs, framing, sheathing, siding, doors, windows, etc.). The lead testing results enables the inspector to determine the percentages of components, within each group, that contain lead. With this information, the inspector can then calculate the percent by weight contribution of each components contribution into the waste stream. This takes into account the ratio of leaded components verse non-leaded components within each group.

The actual sampling is performed by collecting samples of each building component. The components are then mixed together in proportion to their percent by weight of the total quantity of debris to be removed.

### 3.3 Polychlorinated Biphenyls (PCB) in Caulk

From the visual inspection and information provided by the building officials, the caulk materials identified at each building were determined to be original to the buildings and installed prior to 1930. Therefore bulk sampling of caulk materials for PCB analysis was not performed during this inspection.

### 3.4 Universal Waste Materials and Other Environmental Concerns

A visual inspection for Universal Waste Materials associated with the accessible areas of each building was performed. The Universal Waste Materials included a group of materials (PCB or DEHP containing items, Mercury containing items, Chlorofluorocarbons, used electronics that are sometimes found in building materials or are a component of a building fixture or are stored in a building that is subject to universal waste regulations.

#### 3.4.1 PCB and Di-ethylhexylphthalate (DEHP) Containing Items

A visual inspection for the presence of lighting ballasts and electrical equipment potentially containing PCB's or DEHP was performed within the accessible areas of each building. Lighting ballasts and oil-filled capacitor manufactured after 1979 may have "NO PCB's" stamped on its casing. These are filled with oil which does not contain PCB's but may contain DEHP. Capacitors with date stamps prior to 1979 or no date stamps are assumed to contain PCB's. Lighting ballasts labeled as "No PCB's" are assumed to contain DEHP if the date stamp is illegible or non-existent. Electronic ballasts are not assumed to contain PCB's or DEHP.

### 3.4.2 Mercury Containing Items

During the inspection process fluorescent, metal halide and sodium lamps are assumed to contain mercury vapors unless the end caps of the tubes are green indicating they are mercury free. Thermostatic controls, switches, manometers, capacitors and other used electronic components are inventoried during the inspection process.

### 3.4.3 Used Electronics and Batteries

An inventory of used electronics that may fall under the Universal Waste regulations was developed during the inspection of the accessible areas of each building. These materials include but are not limited to lead acid batteries in emergency lighting and exit signs and stored electronic equipment that may contain hazardous or regulated substances.

### 3.4.4 Chlorofluorocarbons

Eagle Environmental inspected the accessible areas of each building for compressor tanks associated with water fountains, portable air conditioning units, the indoor environmental cooling system and walk-in coolers or freezers. The inspectors also inspected rooftop HVAC units where present and accessible. These tanks are all assumed to contain Freon.

TABLE I  
ASBESTOS-CONTAINING MATERIALS SUMMARY TABLE

TABLE I  
 ASBESTOS CONTAINING MATERIALS  
 SUMMARY TABLE  
 77 CHESTNUT STREET  
 NORWICH, CONNECTICUT

LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CLASS	BULK SAMPLE ANALYSIS RESULTS			QUANTITY	F/NF
				PLM	PLM PC	TEM NOB		
<b>FRONT BUILDING</b>								
Façade A, B, C, D	White brittle caulk at window frames	1-13-JP-79	MISC	5% Chrys			118 Openings at 25 LF Ea; 20 openings at 18 LF Ea	NF
		1-13-JP-80		DNA		YES		
Interior Window Openings to Facades	Interior window frame caulk	1-13-JP-89	MISC	5% Chrys			118 Openings at 25 LF Ea; 20 openings at 18 LF Ea	NF
		1-13-JP-90		DNA		YES		
Façade C, D	Grey vapor paper debris on ground	1-13-JP-81	MISC	25% Chrys			500 SF	NF
		1-13-JP-82		DNA		YES		
	1-13-JP-83	25% Chrys						
	1-13-JP-84	DNA			YES			
Façade C	Black vapor paper debris on ground	1-13-JP-85	MISC	3% Chrys			300 SF	NF
		1-13-JP-86		DNA		YES		
Building Interior, Roofs	Built up roofing	1-13-JP-85	MISC	3% Chrys			9,700 SF	NF
		1-13-JP-86		DNA		YES		
Building Interior	In-accessible suspect building materials and asbestos roofing debris	Assume	MISC	Assumed			1,000 CY	F
						Assume		
<b>REAR BUILDING</b>								
Room 001, 002	Grey 9"x9" floor tile	2-13-JW-01	MISC	4% Chrys			460 SF	NF
		2-13-JW-02		DNA		YES		
Room 001, 002, 006, 007, 008, 009, 010	Joint compound*	2-13-JW-07	MISC	5% Chrys			2,200 SF	NF
		2-13-JW-08		DNA		YES		
		2-13-JW-09		DNA				
Room 001	Wood window glazing compound at door	2-13-JW-12	MISC	7% Chrys			2 Doors	NF
		2-13-JW-13		DNA		YES		
<b>KEY</b>								
DNA = DID NOT ANALYZE		ANALYTICAL METHODS						
NAD=NO ASBESTOS DETECTED		PLM PC=EPA 600/R-93/116 QUANTITATION 400 POINT COUNT						
F = FRIABLE		TEM NOB = NEW YORK ELAP 198.4 METHOD						
NF = NON-FRIABLE		PLM=EPA 600/R-93/116						
TSI = THERMAL SYSTEMS INSULATION		PS=Previously Sampled						
SURF = SURFACING MATERIAL		*If sheetrock and associated joint compound on walls and ceilings will not be disturbed prior to buildign demolition, materials may remain within building and disposed of as construction debris. Please refer to report text for additional information.						
MISC = MISCELLANEOUS MATERIAL								
<b>BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION</b>								

TABLE I  
 ASBESTOS CONTAINING MATERIALS  
 SUMMARY TABLE  
 77 CHESTNUT STREET  
 NORWICH, CONNECTICUT

LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CLASS	BULK SAMPLE ANALYSIS RESULTS				QUANTITY	F/NF	
				PLM	PLM PC	TEM NOB	ACM			
Room 001, 002, 003, 004, 006, 007, 010	Interior metal window glazing compound	2-13-JW-14	MISC	3% Chrys				20 Sashes at 4'x2' Ea; 20 Sashes at 4'x3.5' Ea	NF	
		2-13-JW-15		DNA			YES			
Room 004	Magnesium silicate pipe insulation	2-13-JW-27	TSI	20% Chrys				2 LF	P	
		2-13-JW-28		23% Croc			YES			
Roof 1	Top layer flashing cement	2-13-JW-29	MISC	DNA				50 SF	NF	
		2-13-JW-34		4% Chrys			YES			
Roof 1	Black flashing on brick chimney	2-13-JW-35	MISC	DNA				80 SF	NF	
		2-13-JW-42		15% Chrys			YES			
Roof 1	Black flashing on brick	2-13-JW-43	MISC	DNA				90 SF	NF	
		2-13-JW-42		15% Chrys			YES			
Façade C	Cement board panel at wall	2-13-JW-43	MISC	DNA				10 SF	NF	
		2-13-JW-48		27% Chrys			YES			
Façade A, B, C, D	White wood window frame caulk	2-13-JW-49	MISC	DNA				38 Openings at 24 LF Ea	NF	
		2-13-JW-50		15% Chrys			YES			
Façade A, B, C, D	White wood window glazing compound at 2 <sup>nd</sup> floor windows	2-13-JW-51	MISC	DNA				76 Sashes at 5'x2.5' Ea	NF	
		2-13-JW-54		7% Chrys			YES			
Room 010	Roofing Cement	Assume	MISC	Assumed				1 - 6 Gallon pail	NF	
DNA = DID NOT ANALYZE NAD=NO ASBESTOS DETECTED F = FRIABLE NF = NON-FRIABLE TSI = THERMAL SYSTEMS INSULATION SURF = SURFACING MATERIAL MISC = MISCELLANEOUS MATERIAL				ANALYTICAL METHODS PLM PC=EPA 600/R-93/116 QUANTITATION 400 POINT COUNT TEM NOB = NEW YORK ELAP 198.4 METHOD PLM=EPA 600/R-93/116 PS=Previously Sampled						
<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  
 77 CHESINUT STREET  
 NORWICH, CONNECTICUT

LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CLASS	BULK SAMPLE ANALYSIS RESULTS		
				PLM	PLM PC	TEM NOB
Façade C & D	Wood window glazing compound	1-13-JP-77	MISC	NAD		
		1-13-JP-78	MISC	NAD		NO
		1-13-JP-87	MISC	NAD		
		1-13-JP-88	MISC	NAD		NO
<b>REAR BUILDING</b>						
Room 001, 002	Black mastic associated with 9"x9" floor tile	2-13-JW-03	MISC	NAD		<1% Chrys
		2-13-JW-04	MISC	NAD		
Room 001, 008	Sheetrock	2-13-JW-05	MISC	NAD		
		2-13-JW-06	MISC	NAD		
Room 001, 006	Sheetrock/joint compound composite	2-13-JW-10	MISC	NAD		
		2-13-JW-11	MISC	<1% Chrys	<0.25% Chrys	
Room 001, 003, 008	Black damp proofing on brick behind sheetrock	2-13-JW-16	MISC	NAD		
		2-13-JW-17	MISC	NAD		
Room 001	White woven cloth on pipe chase	2-13-JW-18	MISC	NAD		
		2-13-JW-19	MISC	NAD		
Room 003	White fibrous wall board	2-13-JW-20	MISC	NAD		
		2-13-JW-21	MISC	NAD		
Room 003	Black backing on foam insulation	2-13-JW-22	MISC	NAD		
		2-13-JW-23	MISC	NAD		
Room 00, 004	Poured concrete floor	2-13-JW-24	MISC	NAD		
		2-13-JW-25	MISC	NAD		
Room 006	Brown carpet adhesive	2-13-JW-26	MISC	NAD		
		2-13-JW-30	MISC	NAD		
Room 006, 007	Wood window frame caulk	2-13-JW-31	MISC	NAD		
		2-13-JW-32	MISC	NAD		
		2-13-JW-33	MISC	NAD		
<b>KEY</b>						
DNA = DID NOT ANALYZE				ANALYTICAL METHODS		
NAD=NO ASBESTOS DETECTED				PLM PC=EPA 600/R-93/116 QUANTITATION 400 POINT COUNT		
F = FRIABLE				TEM NOB = NEW YORK ELAP 198.4 METHOD		
NF = NON-FRIABLE				PLM=EPA 600/R-93/116		
TSI = THERMAL SYSTEMS INSULATION				PS=Previously Sampled		
SURF = SURFACING MATERIAL						
MISC = MISCELLANEOUS MATERIAL						
SF = SQUARE FEET LF = LINEAR FEET Chrys = Chrysotile Amos = Amosite Anth = Anthophyllite Trem = Tremolite Croc=Crocidolite						
BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION						

TABLE II  
 NON - ASBESTOS CONTAINING MATERIALS  
 SUMMARY TABLE  
 77 CHESTNUT STREET  
 NORWICH, CONNECTICUT

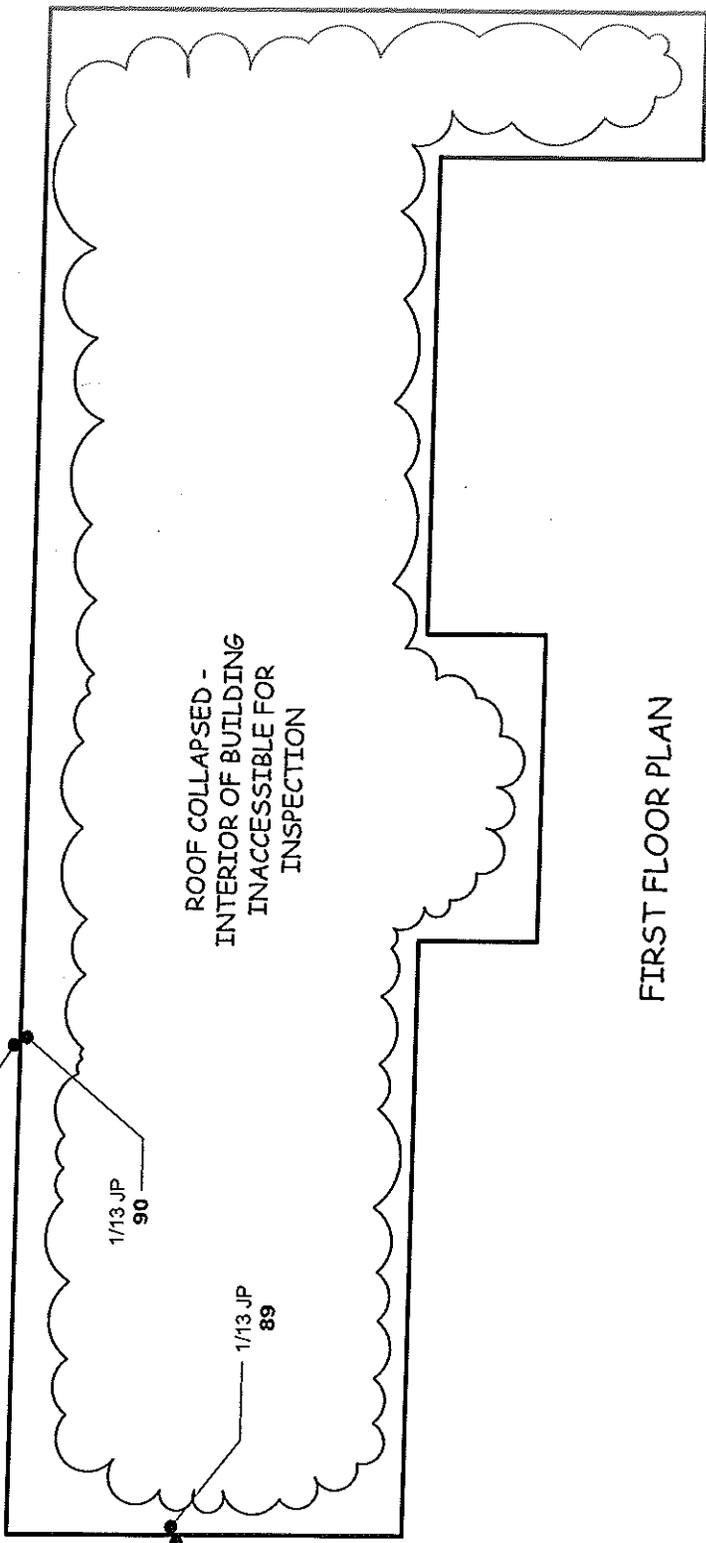
LOCATION(S)	MATERIAL TYPE	SAMPLE NUMBER	CLASS	BULK SAMPLE ANALYSIS RESULTS			
				PLM	PLM PC	TEM NOB	ACM
Roof 1	2 <sup>nd</sup> layer built up roofing	2-13-JW-36	MISC	NAD			NO
Roof 1	Rolled asphalt roofing	2-13-JW-37	MISC	NAD			NO
Roof 1	Bottom layer built up roofing	2-13-JW-38	MISC	NAD			NO
Room 010	Stored fire door with block insulation	2-13-JW-39	MISC	NAD			NO
Room 010	Black paper on baton insulation	2-13-JW-40	MISC	NAD			NO
Facade A, C	Black flashing cement on copper roof ledge	2-13-JW-41	MISC	NAD			NO
Roof 2	Top layer black rolled roofing	2-13-JW-42	MISC	NAD			NO
Roof 2	Bottom layer grey roof felt	2-13-JW-43	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-44	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-45	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-46	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-47	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-48	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-49	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-50	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-51	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-52	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-53	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-54	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-55	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-56	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-57	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-58	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-59	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-60	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-61	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-62	MISC	NAD			NO
Roof 2	Edge flashing cement	2-13-JW-63	MISC	NAD			NO
<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							
SURF = SURFACING MATERIAL							
MISC = MISCELLANEOUS MATERIAL							
<b>BOLD TEXT IN "LOCATION" COLUMN INDICATES SAMPLE LOCATION</b>							

TABLE III  
UNIVERSAL WASTE MATERIALS SUMMARY TABLE



**FRONT BUILDING**

SIDE-D



FIRST FLOOR PLAN

SIDE-C

SIDE-B

**BOLDED SAMPLE NUMBERS  
INDICATE PRESENCE OF  
ASBESTOS WITHIN  
DESIGNATED SAMPLE SET.**

NOT TO SCALE

SIDE-A (STREET SIDE)



531 NORTH MAIN STREET  
BRISTOL, CONNECTICUT 06010  
860-589-8257

**HAZARDOUS BUILDING MATERIALS INSPECTION  
77 CHESTNUT STREET - FRONT BUILDING  
NORWICH, CONNECTICUT  
SAMPLE LOCATION DIAGRAM**

DATE: 3/7/12  
PROJECT NO.: 11-183.10  
DRAWN BY: MR  
REVIEWED BY: CL

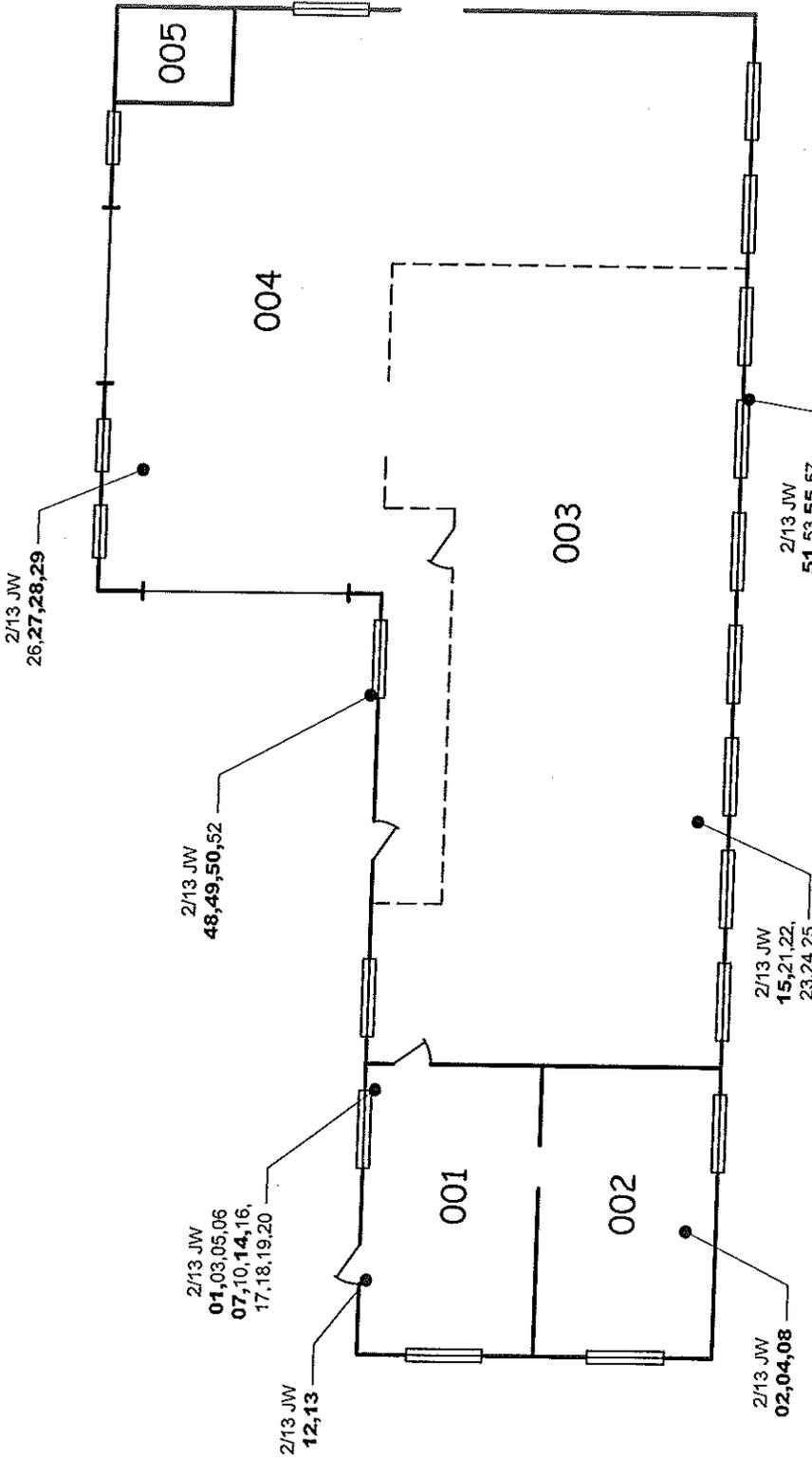
SHEET NO.  
**FP-1**

SHEET 1 OF 3

**REAR BUILDING**

SIDE-C

SIDE-D



**FIRST FLOOR PLAN**

SIDE-A (STREET SIDE)

**BOLDED SAMPLE NUMBERS  
INDICATE PRESENCE OF  
ASBESTOS WITHIN  
DESIGNATED SAMPLE SET.**

NOT TO SCALE



531 NORTH MAIN STREET  
BRISTOL, CONNECTICUT 06010  
860-589-8257

**HAZARDOUS BUILDING MATERIALS INSPECTION  
77 CHESTNUT STREET - REAR BUILDING  
NORWICH, CONNECTICUT  
SAMPLE LOCATION DIAGRAM**

DATE: 3/7/12  
PROJECT NO.: 11-183.10  
DRAWN BY: MR  
REVIEWED BY: CL

SHEET NO.  
**FP-2**

SHEET 2 OF 3

**REAR BUILDING**

SIDE-D

SIDE-C

2/13 JW  
34,35,36,37,  
38,39,40,  
41,42,43

2/13 JW  
44,45,46,47,  
58,59,60,  
61,62,63

2/13 JW  
54,55,56

2/13 JW  
09,11,30,  
31,32

2/13 JW  
33

ROOF 1

ROOF 2

ROOF PLAN

010

SIDE-B

SECOND FLOOR PLAN

NOT TO SCALE

**BOLDED SAMPLE NUMBERS  
INDICATE PRESENCE OF  
ASBESTOS WITHIN  
DESIGNATED SAMPLE SET.**

SIDE-A (STREET SIDE)

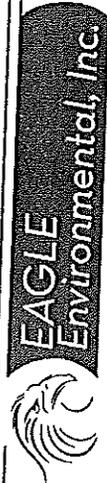
**HAZARDOUS BUILDING MATERIALS INSPECTION  
77 CHESTNUT STREET  
NORWICH, CONNECTICUT  
SAMPLE LOCATION DIAGRAM**

SHEET NO.

**FP-3**

SHEET 3 OF 3

DATE: 3/7/12  
PROJECT NO.: 11-183.10  
DRAWN BY: MR  
REVIEWED BY: CL



531 NORTH MAIN STREET  
BRISTOL, CONNECTICUT 06010  
860-589-8257

APPENDIX 2  
ASBESTOS BULK SAMPLE LABORATORY REPORTS



EMSL - MA  
7 Constitution Way, Ste 107  
Woburn, MA 01801  
(781) 933-8411  
(781) 933-8412 Fax

EMSL - CT  
4 Fairfield Blvd.  
Wallingford, CT 06492  
(203) 284-5948  
(203) 284-5978 Fax

EMSL - NY  
307 West 38<sup>th</sup> Street  
New York, NY 10018  
(866) 448-3675  
(212) 290-0058 Fax

EMSL - NJ  
107 Haddon Avenue  
Westmont, NJ 08108  
(800) 220-3675  
(856) 858-4960 Fax

Your Name:

Brandy LeBlanc

Company:

Eagle Environmental, Inc.

Street:

531 North Main Street

City/State/Zip:

Bristol, CT 06010

Phone:

860-589-8257 ext. 203

Project Manager: PF

Project Name

Pre Demo HMBI - Norwich, City of

Fax: 860-585-7034

Email: halasa@eagleenviro.com, bleblanc@eagleenviro.com  
jamallina@eagleenviro.com

Project Location:

77 Chestnut Street, Norwich

Project #: 11-183.10

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  Chips  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-1998-02
- TEM NOB (Gravimetric) NY 198.4

#### TEM MICROVAC

- ASTM D 5755-95 (Quantitative)

#### TEM WIPE

- ASTM D-6480-99
- 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

### MATERIALS ANALYSIS

- Full Particle Identification
- Optical Particle Identification
- Dust Miles 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 Vitreous Fibers - MMVF's
- Synthetic Fiber Identification
- Other:

### 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:

### 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) 1-13-JP-77 1-13-JP-90

Relinquished: [Signature] Date: 1/17/12 TOTAL SAMPLE # 14

Received: [Signature] Date: 1/17/12 Time: PM

Relinquished: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

ved: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_





EMSL Analytical, Inc.

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Phone: (212) 290-0051 Fax: (212) 290-0050 Email: manhattanlab@emsl.com

Attn: Brandy LeBlanc
Eagle Environmental, Inc. (CT)
531 North Main St.
Bristol, CT 06010

Fax: (860) 585-7034 Phone: (860) 589-8257
Project: 11-183-10/ PRE DEMO HMB// NORWICH CITY OF / 77
CHESTNUT STREET / NORWICH

Customer ID: EEVM50
Customer PO:
Received: 01/18/12 9:34 AM
EMSL Order: 031201585
EMSL Proj:
Analysis Date: 1/23/2012

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Table with 6 columns: Sample, Description, Appearance, % Fibrous, % Non-Fibrous, % Type. Rows include samples 1-13-JP-77 through 1-13-JP-82 with details on material type and asbestos detection results.

Initial report from 01/23/2012 02:42:29

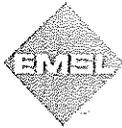
Analyst(s)

Sean Scales (9)

James Hall, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Lab 102581, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-0170, MA AA000170



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Attn: **Brandy LeBlanc**  
**Eagle Environmental, Inc. (CT)**  
**531 North Main St.**  
**Bristol, CT 06010**

Customer ID: EEVM50  
Customer PO:  
Received: 01/18/12 9:34 AM  
EMSL Order: 031201585

Fax: (860) 585-7034 Phone: (860) 589-8257  
Project: 11-183-10/ PRE DEMO HMBII NORWICH CITY OF / 77  
CHESTNUT STREET / NORWICH

EMSL Proj:  
Analysis Date: 1/23/2012

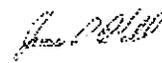
**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1-13-JP-83 031201585-0007	BLACK VAPOR PAPER @ GROUND - FAC D	Black Fibrous Heterogeneous		75% Non-fibrous (other)	25% Chrysotile
1-13-JP-84 031201585-0008	BLACK VAPOR PAPER @ GROUND - FAC C				Stop Positive (Not Analyzed)
1-13-JP-85 031201585-0009	BUILT UP ROOFING @ GROUND - FAC C	Non-Fibrous Heterogeneous	1% Cellulose 3% Synthetic	93% Non-fibrous (other)	3% Chrysotile
1-13-JP-86 031201585-0010	BUILT UP ROOFING @ GROUND - FAC C				Stop Positive (Not Analyzed)
1-13-JP-87 031201585-0011	BLACK FLASHING CEMENT ON GROUND - FAC C	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
1-13-JP-88 031201585-0012	BLACK FLASHING CEMENT ON GROUND - FAC C	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Initial report from 01/23/2012 02:42:29

Analyst(s)

Sean Scales (9)

  
James Hall, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC-IHLAP Lab 102581, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-0170, MA AA000170



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Attn: Brandy LeBlanc
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531 North Main St.
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Fax: (860) 585-7034 Phone: (860) 589-8257
Project: 11-183-10/ PRE DEMO HMBI/ NORWICH CITY OF / 77
CHESTNUT STREET / NORWICH

Customer ID: EEVM50
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Received: 01/18/12 9:34 AM
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Analysis Date: 1/23/2012

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Table with 6 columns: Sample, Description, Appearance, % Fibrous, % Non-Fibrous, % Type. Contains two rows of sample data.

Initial report from 01/23/2012 02:42:29

Analyst(s)

Sean Scales (9)

Handwritten signature of James Hall

James Hall, Laboratory Manager
or other approved signatory

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(856) 858-4960 Fax

Your Name: Brandy LeBlanc Project Manager: PF

Company: Eagle Environmental, Inc.

Street: 531 North Main Street

City/State/Zip: Bristol, CT 06010

Phone: 860-589-8257 ext. 203 Fax: 860-585-7034 Email: halasa@eagleenviro.com, bleblanc@eagleenviro.com, jlamattina@eagleenviro.com

Project Name: Pre Demo HMBI-Norwich, City of Project #: 11-183.10

Project Location: 77 Chestnut Street, Norwich (2) Rec Project State (US): CT

TURNAROUND TIME

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

SAMPLE MATRIX

Air  Bulk  Soil  Wipe  Micro-Vac  Drinking Water  Wastewater  Chips  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 800/R-93/116
  - NY Stratified Point Count
  - California Air Resource Board (CARB) 435
  - NIOSH 9802
  - 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-6480-99
  - 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 J2)
  - 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

**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 Vitreous Fibers - MMVF's
- Synthetic Fiber Identification
- Other

**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
- 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

EMST RECEIVED  
 2-14-12  
 10:30

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

Client Sample # (S) 2-13-JW-63 TOTAL SAMPLE # 63

Relinquished: [Signature] Date: 2-14-12 Time: 5:00 pm

Received: [Signature] Date: 2-14-12 Time: 5:00 pm

Relinquished: [Signature] Date: 2/16 Time: 10:30 PM

Received: [Signature] Date: 2/16 Time: 10:30 PM

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SAMPLE NUMBER	SAMPLE DESCRIPTION	LOCATION	VOLUME Air (L)	Area (Inches sq.)
2-13-JW-01	Grey 9x9 floor tile	Room 001		4% Chrys
2-13-JW-02	Grey 9x9 floor tile	Room 002		DNA
2-13-JW-03	Black mastic assoc. with 9x9 floor tile	Room 001		NAD
2-13-JW-04	Black mastic assoc. with 9x9 floor tile	Room 002		
2-13-JW-05	Sheetrock	Room 001		
2-13-JW-06	Sheetrock	Room 008		
2-13-JW-07	Joint compound	Room 001		5% Chrys
2-13-JW-08	Joint compound	Room 002		DNA
2-13-JW-09	Joint compound	Room 006		
2-13-JW-10	Sheetrock/joint compound composite	Room 001		NAD
2-13-JW-11	Sheetrock/joint compound composite	Room 006		<1% Chrys
2-13-JW-12	Wood window glazing compound at door	Room 001		7% Chrys
2-13-JW-13	Wood window glazing compound at door	Room 001		DNA
2-13-JW-14	Interior metal window glazing compound	Room 001		3% Chrys
2-13-JW-15	Interior metal window glazing compound	Room 003		DNA
2-13-JW-16	Black damp proofing on brick behind SR	Room 001		NAD
2-13-JW-17	Black damp proofing on brick behind SR	Room 003		
2-13-JW-18	Black damp proofing on brick behind SR	Room 008		
2-13-JW-19	White woven cloth on pipe chase	Room 001		
2-13-JW-20	White woven cloth on pipe chase	Room 001		
2-13-JW-21	White fibrous wall board	Room 003		
2-13-JW-22	White fibrous wall board	Room 003		
2-13-JW-23	Black backing on foam insulation	Room 003		
2-13-JW-24	Black backing on foam insulation	Room 003		

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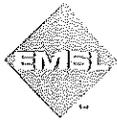
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EMSL - NJ  
 107 Haddon Avenue  
 Westmont, NJ 08108  
 (800) 220-3675  
 (856) 858-4960 Fax

SAMPLE NUMBER	SAMPLE DESCRIPTION	LOCATION	VOLUME Air (L)	Area (Inches sq.)
2-13-JW-25	Poured concrete floor	Room 003		NAD
2-13-JW-26	Poured concrete floor	Room 004		↓
2-13-JW-27	Magnesium silicate pipe insulation	Room 004		20% Chrys 23% Crcl
2-13-JW-28	Magnesium silicate pipe insulation	Room 004		DNA
2-13-JW-29	Magnesium silicate pipe insulation	Room 004		↓
2-13-JW-30	Brown carpet adhesive	Room 006		NAD
2-13-JW-31	Brown carpet adhesive	Room 006		↓
2-13-JW-32	Wood window frame caulk	Room 006		↓
2-13-JW-33	Wood window frame caulk @ door & window	Room 007		↓
2-13-JW-34	Top layer finishing cement	Roof 1		4% Chrys
2-13-JW-35	Top layer finishing cement	Roof 1		DNA
2-13-JW-36	2 <sup>nd</sup> layer bur	Roof 1		NAD
2-13-JW-37	2 <sup>nd</sup> layer bur	Roof 1		
2-13-JW-38	Rolled asphalt roofing	Roof 1		
2-13-JW-39	Rolled asphalt roofing	Roof 1		
2-13-JW-40	Bottom layer bur	Roof 1		
2-13-JW-41	Bottom layer bur	Roof 1		
2-13-JW-42	Black flashing on brick	Roof 1		15% Chrys
2-13-JW-43	Black flashing on brick	Roof 1		DNA
2-13-JW-44	Stored fire door w/block insulation	Room 010		NAD
2-13-JW-45	Stored fire door w/block insulation	Room 010		
2-13-JW-46	Black paper on baton insulation	Room 010		
2-13-JW-47	Black paper on baton insulation	Room 010		
2-13-JW-48	Cement board at wall	Fac C		27% Chrys
2-13-JW-49	Cement board at wall	Fac C		DNA

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EMSL Order: 031204746  
CustomerID: EEVM50  
CustomerPO:  
ProjectID:

Attn: **Brandy LeBlanc**  
**Eagle Environmental, Inc. (CT)**  
**531 North Main St.**  
**Bristol, CT 06010**

Phone: (860) 589-8257  
Fax: (860) 585-7034  
Received: 02/16/12 10:38 AM  
Analysis Date: 2/20/2012  
Collected: 2/13/2012

Project: 11-183-10/ PRE DEMO HMBI-NORWICH, CITY OF / 77 CHESTNYC STREET/ NORWICH (2)

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy**

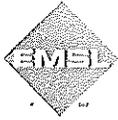
Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2-13-JW-01 031204746-0001	GREY 9X9 FLOOR TILE / ROOM 001	Gray Non-Fibrous Heterogeneous		27% Non-fibrous (other) 40% Ca Carbonate 30% Matrix	4% Chrysotile
2-13-JW-02 031204746-0002	GREY 9X9 FLOOR TILE / ROOM 002				Stop Positive (Not Analyzed)
2-13-JW-03 031204746-0003	BLACK MASTIC ASSOC WITH 9X9 FLOOR TILE / ROOM 001	Black Non-Fibrous Heterogeneous		5% Non-fibrous (other) 95% Matrix	None Detected
2-13-JW-04 031204746-0004	BLACK MASTIC ASSOC WITH 9X9 FLOOR TILE / ROOM 002	Black Fibrous Homogeneous	15% Cellulose	0% Non-fibrous (other) 85% Matrix	None Detected
2-13-JW-05 031204746-0005	SHEETROCK / ROOM 001	Gray/Tan Fibrous Heterogeneous	25% Cellulose	30% Non-fibrous (other) 45% Gypsum	None Detected
2-13-JW-06 031204746-0006	SHEETROCK / ROOM 008	Brown/Gray Fibrous Homogeneous	20% Cellulose	15% Non-fibrous (other) 65% Gypsum	None Detected
2-13-JW-07 031204746-0007	JOINT COMPOUND / ROOM 001	Tan Non-Fibrous Heterogeneous		95% Non-fibrous (other)	5% Chrysotile

Analyst(s)  
Albert Grohmann (32)  
Emily Myint (19)

James Hall, Laboratory Manager  
or other approved signatory

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initial report from 02/21/2012 07:34:21



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EMSL Order: 031204746  
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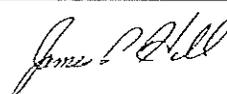
Attn: **Brandy LeBlanc** Phone: (860) 589-8257  
**Eagle Environmental, Inc. (CT)** Fax: (860) 585-7034  
**531 North Main St.** Received: 02/16/12 10:38 AM  
**Bristol, CT 06010** Analysis Date: 2/20/2012  
 Collected: 2/13/2012

Project: 11-183-10/ PRE DEMO HMBI-NORWICH, CITY OF / 77 CHESTNYC STREET/ NORWICH (2)

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy**

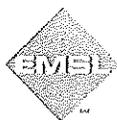
Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2-13-JW-08 031204746-0008	JOINT COMPOUND / ROOM 002				Stop Positive (Not Analyzed)
2-13-JW-09 031204746-0009	JOINT COMPOUND / ROOM 006				Stop Positive (Not Analyzed)
2-13-JW-10 031204746-0010	SHEETROCK / JOINT COMPOUND COMPOSITE / ROOM 001	Gray/Tan Fibrous Heterogeneous	30% Cellulose	25% Non-fibrous (other) 45% Gypsum	None Detected
There was no joint compound in this sample.					
2-13-JW-11 031204746-0011	SHEETROCK / JOINT COMPOUND COMPOSITE / ROOM 006	Gray/Tan Fibrous Heterogeneous	25% Cellulose	30% Non-fibrous (other) 45% Gypsum	<1% Chrysotile
2-13-JW-12 031204746-0012	WOOD WINDOW GLAZING COMPOUND AT DOOR / ROOM 001	Tan Non-Fibrous Heterogeneous		38% Non-fibrous (other) 55% Ca Carbonate	7% Chrysotile
2-13-JW-13 031204746-0013	WOOD WINDOW GLAZING COMPOUND AT DOOR / ROOM 001				Stop Positive (Not Analyzed)

Analyst(s)  
 Albert Grohmann (32)  
 Emily Myint (19)

  
 James Hall, Laboratory Manager  
 or other approved signatory

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Initial report from 02/21/2012 07:34:21



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EMSL Order: 031204746  
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Attn: **Brandy LeBlanc**  
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Analysis Date: 2/20/2012  
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Project: 11-183-10/ PRE DEMO HMBI-NORWICH, CITY OF / 77 CHESTNYC STREET/ NORWICH (2)

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2-13-JW-14 031204746-0014	INTERIOR METAL WINDOW GLAZING COMPOUND / ROOM 001	White Non-Fibrous Heterogeneous		52% Non-fibrous (other) 45% Ca Carbonate	3% Chrysotile
2-13-JW-15 031204746-0015	INTERIOR METAL WINDOW GLAZING COMPOUND / ROOM 003				Stop Positive (Not Analyzed)
2-13-JW-16 131204746-0016	BLACK DAMP PROOFING ON BRICK BEHIND SR / ROOM 001	Black Non-Fibrous Heterogeneous		35% Non-fibrous (other) 65% Matrix	None Detected
2-13-JW-17 031204746-0017	BLACK DAMP PROOFING ON BRICK BEHIND SR / ROOM 003	Black Non-Fibrous Heterogeneous		35% Non-fibrous (other) 65% Matrix	None Detected
2-13-JW-18 031204746-0018	BLACK DAMP PROOFING ON BRICK BEHIND SR / ROOM 008	Black Non-Fibrous Homogeneous		5% Non-fibrous (other) 95% Matrix	None Detected
2-13-JW-19 031204746-0019	WHITE WOMEN CLOTH ON PIPE CHASE / ROOM 001	Black Fibrous Heterogeneous	80% Cellulose	20% Non-fibrous (other)	None Detected

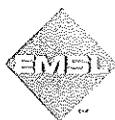
Analyst(s)

Albert Grohmann (32)  
Emily Myint (19)

James Hall, Laboratory Manager  
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**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2-13-JW-20 031204746-0020	WHITE WOMEN CLOTH ON PIPE CHASE / ROOM 001	Black Fibrous Homogeneous	85% Glass	0% Non-fibrous (other) 15% Matrix	None Detected
2-13-JW-21 031204746-0021	WHITE FIBROUS WALL BOARD / ROOM 003	White Fibrous Heterogeneous	65% Cellulose	15% Non-fibrous (other) 20% Gypsum	None Detected
2-13-JW-22 031204746-0022	WHITE FIBROUS WALL BOARD / ROOM 003	Gray Fibrous Homogeneous	30% Cellulose	25% Non-fibrous (other) 45% Gypsum	None Detected
2-13-JW-23 031204746-0023	BLACK BACKING ON FOAM INSULATION / ROOM 003	Gray Fibrous Heterogeneous	85% Cellulose	15% Non-fibrous (other)	None Detected
2-13-JW-24 031204746-0024	BLACK BACKING ON FOAM INSULATION / ROOM 003	Brown Fibrous Homogeneous	85% Cellulose 2% Glass	13% Non-fibrous (other)	None Detected
2-13-JW-25 031204746-0025	POURED CONCRETE FLOOR / ROOM 003	Gray Non-Fibrous Heterogeneous		20% Non-fibrous (other) 55% Quartz 25% Ca Carbonate	None Detected

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**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2-13-JW-26 031204746-0026	POURED CONCRETE FLOOR /ROOM 004	Gray Non-Fibrous Homogeneous		20% Non-fibrous (other) 45% Quartz 35% Ca Carbonate	None Detected
2-13-JW-27 031204746-0027	MAGNESIUM SILICATE PIPE INSULATION / ROOM 004	White Fibrous Heterogeneous		57% Non-fibrous (other)	20% Chrysotile 23% Crocidolite
2-13-JW-28 031204746-0028	MAGNESIUM SILICATE PIPE INSULATION / ROOM 004				Stop Positive (Not Analyzed)
2-13-JW-29 031204746-0029	MAGNESIUM SILICATE PIPE INSULATION / ROOM 004				Stop Positive (Not Analyzed)
2-13-JW-30 031204746-0030	BROWN CARPET ADHESIVE / ROOM 006	Brown Non-Fibrous Heterogeneous		20% Non-fibrous (other) 80% Matrix	None Detected
2-13-JW-31 031204746-0031	BROWN CARPET ADHESIVE / ROOM 006	Brown Non-Fibrous Homogeneous	15% Cellulose	5% Non-fibrous (other) 80% Matrix	None Detected

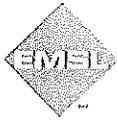
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**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2-13-JW-32 031204746-0032	WOOD WINDOW FRAME CAULK / ROOM 006	White Non-Fibrous Heterogeneous		45% Non-fibrous (other) 55% Gypsum	None Detected
2-13-JW-33 031204746-0033	WOOD WINDOW FRAME CAULK @ DOOR & WIDOW / ROOM 007	Gray Non-Fibrous Homogeneous		65% Non-fibrous (other) 35% Ca Carbonate	None Detected
2-13-JW-34 031204746-0034	TOP LAYER FINISHING CEMENT / ROOF 1	Black Non-Fibrous Heterogeneous		31% Non-fibrous (other) 65% Matrix	4% Chrysotile
2-13-JW-35 031204746-0035	TOP LAYER FINISHING CEMENT / ROOF 1				Stop Positive (Not Analyzed)
2-13-JW-36 031204746-0036	2ND LAYER BUR / ROOF 1	Black Fibrous Heterogeneous	35% Cellulose	20% Non-fibrous (other) 45% Matrix	None Detected
2-13-JW-37 031204746-0037	2ND LAYER BUR / ROOF 1	Black Fibrous Homogeneous	65% Cellulose	0% Non-fibrous (other) 20% Ca Carbonate 15% Matrix	None Detected

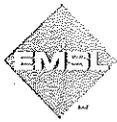
**Analyst(s)**

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James Hall, Laboratory Manager  
or other approved signatory

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**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2-13-JW-38 031204746-0038	ROLL ASPHALT ROOFING / ROOF 1	Black Fibrous Heterogeneous	35% Cellulose	25% Non-fibrous (other) 40% Matrix	None Detected
2-13-JW-39 031204746-0039	ROLL ASPHALT ROOFING / ROOF 1	Black Fibrous Homogeneous	5% Cellulose	15% Non-fibrous (other) 35% Matrix 45% Ca Carbonate	None Detected
2-13-JW-40 031204746-0040	BOTTOM ASPHALT ROOFING / ROOF 1	Black Fibrous Heterogeneous	45% Cellulose	15% Non-fibrous (other) 40% Matrix	None Detected
2-13-JW-41 031204746-0041	BOTTOM ASPHALT ROOFING / ROOF 1	Black Fibrous Homogeneous	45% Cellulose	10% Non-fibrous (other) 45% Matrix	None Detected
2-13-JW-42 031204746-0042	BLACK FLASHING ON BRICK / ROOF 1	Black Non-Fibrous Heterogeneous		30% Non-fibrous (other) 55% Matrix	15% Chrysotile
2-13-JW-43 031204746-0043	BLACK FLASHING ON BRICK / ROOF 1				Stop Positive (Not Analyzed)
2-13-JW-44 031204746-0044	STORED FIRE DOOR W/BLOCK INSULATION / ROOM 010	White Fibrous Heterogeneous	45% Cellulose	15% Non-fibrous (other) 40% Gypsum	None Detected

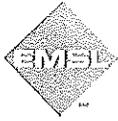
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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2-13-JW-45 031204746-0045	STORED FIRE DOOR W/BLOCK INSULATION / ROOM 010	White Fibrous Homogeneous	35% Cellulose	20% Non-fibrous (other) 45% Gypsum	None Detected
2-13-JW-46 031204746-0046	BLACK PAPER ON BATON INSULATION / ROOM 010	Tan/Black Fibrous Heterogeneous	65% Cellulose	20% Non-fibrous (other) 15% Matrix	None Detected
2-13-JW-47 031204746-0047	BLACK PAPER ON BATON INSULATION / ROOM 010	Brown/Black Fibrous Homogeneous	75% Cellulose 10% Glass	0% Non-fibrous (other) 15% Matrix	None Detected
2-13-JW-48 031204746-0048	CEMENT BOARD AT WALL / FAC C	Gray Fibrous Heterogeneous		73% Non-fibrous (other)	27% Chrysotile
2-13-JW-49 031204746-0049	CEMENT BOARD AT WALL / FAC C				Stop Positive (Not Analyzed)
2-13-JW-50 031204746-0050	WHITE WINDOW FRAM CAULK / FAC C	White Non-Fibrous Heterogeneous		45% Non-fibrous (other) 40% Ca Carbonate	15% Chrysotile
2-13-JW-51 031204746-0051	WHITE WINDOW FRAM CAULK / FAC A				Stop Positive (Not Analyzed)

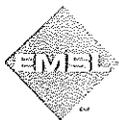
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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2-13-JW-52 031204746-0052	BLACK FLASHING CEMENT ON CPPR ROOF LEDGE / FAC C	Black Non-Fibrous Heterogeneous		15% Non-fibrous (other) 85% Matrix	None Detected
2-13-JW-53 031204746-0053	BLACK FLASHING CEMENT ON CPPR ROOF LEDGE / FAC A	Black Non-Fibrous Homogeneous		5% Non-fibrous (other) 95% Matrix	None Detected
2-13-JW-54 031204746-0054	WHITE WOOD WGC @ 2ND FLOOR WINDOWS/ FAC C	White Non-Fibrous Heterogeneous		38% Non-fibrous (other) 55% Ca Carbonate	7% Chrysotile
2-13-JW-55 031204746-0055	WHITE WOOD WGC @ 2ND FLOOR WINDOWS/ FAC A				Stop Positive (Not Analyzed)
2-13-JW-56 031204746-0056	BLACK FELT PAPER AT POURD CONCRETE ROOF LEDGE - FAC C	Gray Fibrous Heterogeneous	80% Cellulose	20% Non-fibrous (other)	None Detected

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2-13-JW-57 031204746-0057	BLACK FELT PAPER AT POURD CONCRETE ROOF LEDGE - FAC A	Gray Fibrous Homogeneous	85% Cellulose	5% Non-fibrous (other) 10% Gypsum	None Detected
2-13-JW-58 031204746-0058	TOP LAYER BLACK ROLLED ROOFING / ROOF 2	Black Fibrous Heterogeneous	35% Cellulose	35% Non-fibrous (other) 30% Matrix	None Detected
2-13-JW-59 031204746-0059	TOP LAYER BLACK ROLLED ROOFING / ROOF 2	Black Non-Fibrous Homogeneous	25% Cellulose	0% Non-fibrous (other) 35% Ca Carbonate 40% Matrix	None Detected
2-13-JW-60 031204746-0060	BOTTOM LAYER GREY ROOF FELT / ROOF 2	Black Fibrous Heterogeneous	35% Cellulose	25% Non-fibrous (other) 40% Matrix	None Detected
2-13-JW-61 031204746-0061	BOTTOM LAYER GREY ROOF FELT / ROOF 2	Black Non-Fibrous Homogeneous	15% Cellulose	0% Non-fibrous (other) 45% Ca Carbonate 40% Matrix	None Detected
2-13-JW-62 031204746-0062	EDGE FLASHING CEMENT / ROOF 2	Black Fibrous Heterogeneous	35% Cellulose	25% Non-fibrous (other) 40% Matrix	None Detected

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**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: 031204746  
CustomerID: EEVM50  
CustomerPO:  
ProjectID:

Attn: **Brandy LeBlanc**  
**Eagle Environmental, Inc. (CT)**  
**531 North Main St.**  
**Bristol, CT 06010**

Phone: (860) 589-8257  
Fax: (860) 585-7034  
Received: 02/16/12 10:38 AM  
Analysis Date: 2/20/2012  
Collected: 2/13/2012

Project: 11-183-10/ PRE DEMO HMBI-NORWICH, CITY OF / 77 CHESTNYC STREET/ NORWICH (2)

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2-13-JW-63	EDGE FLASHING	Black	30% Cellulose	0% Non-fibrous (other)	None Detected
031204746-0063	CEMENT / ROOF 2	Fibrous Homogeneous		70% Matrix	

Analyst(s)  

---

*Albert Grohmann (32)*  
*Emily Myint (19)*

---

James Hall, Laboratory Manager  
or other approved signatory

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Initial report from 02/21/2012 07:34:21



# EAGLE ENVIRONMENTAL, INC.

EAGLE PROJECT NAME: Pre-Demo HBMI- Norwich, City of

PROJECT LOCATION: 77 Chestnut St, Norwich (2)

PROJECT NUMBER: 11-183.10

LAB REFERENCE NUMBER: 031704746

## PLM Point Count Request Form

SAMPLE NO.	LOCATION	MATERIAL TYPE	% ASBESTOS
2-13-JW-11	Room 001	Sheetrock/joint compound composite	< 0.25% Chrys

TEST METHOD: PLM Point Count

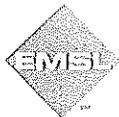
TURNAROUND TIME: 24 HOURS

Special Instructions: Stop on first positive for each set of samples. Please do not separate samples. Do not fax chain of custody.

Please e-mail results to [blehanc@eagleenviro.com](mailto:blehanc@eagleenviro.com), [halasa@eagleenviro.com](mailto:halasa@eagleenviro.com) & [jlamatina@eagleenviro.com](mailto:jlamatina@eagleenviro.com)

Samples Collected By: Amy Webb Date: 2-13-12 Time: AM  
 Samples Faxed By: [Signature] Date: 2-22-12 Time: 11:30 AM  
 Samples Received By: Paty Cox Date: 2/23/12 Time: 11:30 AM

531 NORTH MAIN STREET • BRISTOL, CT 06010  
 PHONE (860) 589-8257 • FAX (860) 585-7034



**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: 031204746  
 CustomerID: EEVM50  
 CustomerPO:  
 ProjectID:

Attn: **Brandy LeBlanc**  
**Eagle Environmental, Inc. (CT)**  
**531 North Main St.**  
**Bristol, CT 06010**

Phone: (860) 589-8257  
 Fax: (860) 585-7034  
 Received: 02/16/12 10:38 AM  
 Analysis Date: 2/23/2012  
 Collected: 2/13/2012

Project: 11-183-10/ PRE DEMO HMBI-NORWICH, CITY OF / 77 CHESTNYC STREET/ NORWICH (2)

**Test Report: Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 and/or EPA 600/M4-82-020. Quantitation using 400 Point Count Procedure**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2-13-JW-11 031204746-0011	SHEETROCK / JOINT COMPOUND COMPOSITE / ROOM 006	Brown/Tan/White Non-Fibrous Heterogeneous	16.00% Cellulose	29.00% Non-fibrous (other) 5.00% Ca Carbonate 50.00% Gypsum	<0.25% Chrysotile

Analyst(s)  
 \_\_\_\_\_  
 Jon Williams (1)

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

Disclaimer: Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.25%. EMSL Analytical Inc suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval of EMSL Analytical Inc. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical Inc., bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layered samples. EMSL Analytical Inc., liability is limited to the cost of sample analysis. The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted.  
 Samples analyzed by EMSL Analytical, Inc. New York, NY NYS ELAP 11506

Initial report from 02/23/2012 16:28:59



# EAGLE ENVIRONMENTAL, INC.

EAGLE PROJECT NAME: Pre-Demo HBMI- Norwich, City of

PROJECT LOCATION: 77 Chestnut St, Norwich (2)

PROJECT NUMBER: 11-183.10

LAB REFERENCE NUMBER: 031704746

## NOB TEM SAMPLE LOG

SAMPLE NO.	LOCATION	MATERIAL TYPE	% ASBESTOS
2-13-JW-03	Room 001	Black mastic assoc with 9"x9" floor tile	21% chrys

TEST METHOD: TEM ELAP 198.4 METHOD

TURNAROUND TIME: 24 HOURS

Special Instructions: Please e-mail results to [bleblanc@eagleenviro.com](mailto:bleblanc@eagleenviro.com), [halasa@eagleenviro.com](mailto:halasa@eagleenviro.com)  
& [jlamattina@eagleenviro.com](mailto:jlamattina@eagleenviro.com)

Samples Collected By:

*Jane Webb*

Date:

2-13-12

Time:

AM

Samples Faxed By:

*Jane Webb*

Date:

2-22-12

Time:

11:30 AM

Samples Received By:

*Katey Cox*

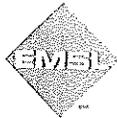
Date:

2/23/12

Time:

11:30 am

531 NORTH MAIN STREET • BRISTOL, CT 06010  
PHONE (860) 589-8257 • FAX (860) 585-7034



**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

EMSL Order: 031204746  
CustomerID: EEVM50  
CustomerPO:  
ProjectID:

Attn: **Brandy LeBlanc**  
**Eagle Environmental, Inc. (CT)**  
**531 North Main St.**  
**Bristol, CT 06010**

Phone: (860) 589-8257  
Fax: (860) 585-7034  
Received: 02/16/12 10:38 AM  
Analysis Date: 2/24/2012  
Collected: 2/13/2012

Project: 11-183-10/ PRE DEMO HMBI-NORWICH, CITY OF / 77 CHESTNYC STREET/ NORWICH (2)

**Test Report: Asbestos Analysis of Non-Friable Organically Bound materials by  
Transmission Electron Microscopy via NYS ELAP Method 198.4**

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES	% TOTAL ASBESTOS
2-13-JW-03 031204746-0003	BLACK MASTIC ASSOC WITH 9X9 FLOOR TILE / ROOM 001	Black Non-Fibrous Heterogeneous	100.0	None	<1% Chrysotile	<1

Analyst(s)

Gerald Iannuzzi (1)

James Hall, Laboratory Manager  
or other approved signatory

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted.  
Samples analyzed by EMSL Analytical, Inc. New York, NY NYS ELAP 11506

Initial report from 02/21/2012 07:34:21

APPENDIX 3  
XRF LEAD BASED PAINT INSPECTION REPORTS

# LEAD PAINT INSPECTION REPORT

REPORT NUMBER: 01/13/12 12:20

INSPECTION FOR: Mr. Barry Ellison  
City of Norwich  
50 Clinton Ave  
Norwich, CT 06360

PERFORMED AT: Front Building (exterior)  
77 Chestnut Street  
Norwich, CT 06360

INSPECTION DATE: 01/13/12

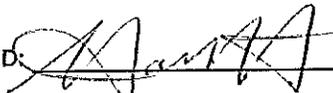
INSTRUMENT TYPE: R M D  
MODEL LPA-1  
XRF TYPE ANALYZER  
Serial Number: 2753

ACTION LEVEL: 1.0 mg/cm<sup>2</sup>

OPERATOR LICENSE: 002194

Lead-based paint screen of the front building exterior at  
77 Chestnut Street for the purpose of demolition.  
Interior building was inaccessible.

SIGNED: \_\_\_\_\_



Hannah Hintz  
Lead Inspector  
Eagle Environmental, Inc  
531 North Main Street  
Bristol, CT 06010

Date: \_\_\_\_\_

3/5/12

SUMMARY REPORT OF LEAD PAINT INSPECTION FOR: Mr. Barry Ellison

Inspection Date:	01/13/12	Front Building (exterior)
Report Date:	3-5-2012	77 Chestnut Street
Abatement Level:	1.0	Norwich, CT 06360
Report No.	01/13/12 12:20	
Total Readings:	11 Actionable: 5	
Job Started:	01/13/12 12:20	
Job Finished:	01/13/12 13:50	

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
Exterior Room 001 Number Only									
006	C	Garage Door	Lft		P	Wood	yellow	4.1	QM
007	C	Corner Guard	Lft		P	Steel	yellow	>9.9	QM
008	C	Threshold	Lft		P	Steel	Yellow	3.2	QM
004	D	Window	Lft	Win Csg	P	Wood	brown	7.4	QM
005	D	Window	Rgt	Sash	P	Wood	brown	>9.9	QM
----- End of Readings -----									

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Mr. Barry Ellison

Inspection Date:	01/13/12	Front Building (exterior)
Report Date:	3-5-2012	77 Chestnut Street
Abatement Level:	1.0	Norwich, CT 06360
Report No.	01/13/12 12:20	
Total Readings:	11	
Job Started:	01/13/12 12:20	
Job Finished:	01/13/12 13:50	

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
Exterior Room 001 Number Only									
006	C	Garage Door	Lft		P	Wood	yellow	4.1	QM
007	C	Corner Guard	Lft		P	Steel	yellow	>9.9	QM
008	C	Threshold	Lft		P	Steel	Yellow	3.2	QM
004	D	Window	Lft	Win Csg	P	Wood	brown	7.4	QM
005	D	Window	Rgt	Sash	P	Wood	brown	>9.9	QM
Calibration Readings									
001								0.8	TC
002								0.8	TC
003								0.7	TC
009								0.6	TC
010								0.5	TC
011								0.6	TC

---- End of Readings ----

# LEAD PAINT INSPECTION REPORT

REPORT NUMBER: 02/13/12 10:45

INSPECTION FOR: Mr. Barry Ellison  
City of Norwich  
50 Clinton Avenue  
Norwich, CT 06360

PERFORMED AT: 77 Chestnut Street  
Norwich, CT

INSPECTION DATE: 02/13/12

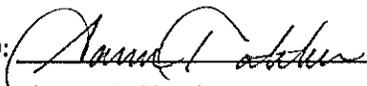
INSTRUMENT TYPE: R M D  
MODEL LPA-1  
XRF TYPE ANALYZER  
Serial Number: 1509

ACTION LEVEL: 1.0 mg/cm<sup>2</sup>

OPERATOR LICENSE: 002186

Lead-based paint screen for the purpose of demolition.

SIGNED:

  
\_\_\_\_\_

Aaron E. Hatcher  
Lead Inspector / Risk Assessor  
Eagle Environmental, Inc.  
531 North Main Street  
Bristol, CT 06010

Date: Feb. 24, 2012

SUMMARY REPORT OF LEAD PAINT INSPECTION FOR: Mr. Barry Ellison

Inspection Date: 02/13/12 77 Chestnut Street  
 Report Date: 2-24-2012 Norwich, CT  
 batement Level: 1.0  
 Report No. 02/13/12 10:45  
 Total Readings: 50 Actionable: 11  
 Job Started: 02/13/12 10:45  
 Job Finished: 02/13/12 12:01

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
Exterior Room 001 Facade A									
049								1.1 TC	
045	A	Window	Rgt	Rgt casing	P	Wood	brown	2.6	QM
044	A	Window	Rgt	Sash	P	Wood	brown	7.7	QM
Interior Room 003 Number Only									
014	B	Column	Lft		P	Wood	white	>9.9	QM
017	C	Garage Door	Rgt		P	Wood	gray	1.0	QM
016	C	Column	Rgt		P	Wood	white	7.5	QM
Interior Room 004 Number Only									
021	A	Door	Rgt	Lintel	P	Steel	green	>9.9	QM
Interior Room 009 Number Only									
031	A	Window	Rgt	Rgt casing	P	Brick	white	2.6	QM
Interior Room 010									
035	A	Window	Rgt	Rgt casing	P	Wood	gray	2.1	QM
034	A	Window	Rgt	Sash	P	Wood	gray	>9.9	QM
038	D	Window	Rgt	Sash	P	Wood	white	9.3	QM
----- End of Readings -----									

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Mr. Barry Ellison

Inspection Date: 02/13/12 77 Chestnut Street  
 Report Date: 2-24-2012 Norwich, CT  
 .batement Level: 1.0  
 Report No. 02/13/12 10:45  
 Total Readings: 50  
 Job Started: 02/13/12 10:45  
 Job Finished: 02/13/12 12:01

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
Exterior Room 001 Facade A									
048								0.9	TC
049								1.1	TC
050								0.9	TC
045	A	Window	Rgt	Rgt casing	P	Wood	brown	2.6	QM
044	A	Window	Rgt	Sash	P	Wood	brown	7.7	QM
047	C	Window	Rgt	Sash	P	Metal	green	0.1	QM
Interior Room 001 Number Only									
004	A	Wall	Lft		P	Dry wall	white	-0.1	QM
005	C	Door	Lft	Lft casing	P	Wood	white	-0.2	QM
006	D	Door	Lft	Lft casing	P	Wood	white	-0.2	QM
Interior Room 002 Number Only									
007	A	Wall	Lft		I	Block	white	-0.2	QM
008	C	Door	Lft		P	Wood	green	0.1	QM
Interior Room 003 Number Only									
018	A	Wall	Rgt		P	Dry wall	white	0.0	QM
013	B	Floor	Lft		P	Concrete	gray	-0.2	QM
012	B	Door	Lft		P	Wood	green	-0.3	QM
014	B	Column	Lft		P	Wood	white	>9.9	QM
015	B	Column	Ctr		P	Wood	white	0.1	QM
017	C	Garage Door	Rgt		P	Wood	gray	1.0	QM
010	C	Wall	Lft		P	Block	white	-0.2	QM
009	C	Ceiling	Lft		P	Dry wall	white	-0.1	QM
011	C	Window	Lft	Sash	P	Metal	brown	0.0	QM
016	C	Column	Rgt		P	Wood	white	7.5	QM
Interior Room 004 Number Only									
019	A	Beam	Rgt		P	Steel	gray	0.0	QM
022	A	Wall	Rgt		P	Wood	white	-0.2	QM
021	A	Door	Rgt	Lintel	P	Steel	green	>9.9	QM
024	B	Beam	Rgt		P	Wood	white	-0.1	QM
023	B	Wall	Rgt		P	Brick	white	0.0	QM
025	B	Ceiling	Rgt	Deck	P	Wood	white	0.0	QM
026	B	Column	Rgt		P	Steel	white	0.0	QM
020	D	Wall	Rgt		P	Brick	white	-0.1	QM
Interior Room 006 Number Only									
027	D	Wall	Rgt		P	Dry wall	white	-0.1	QM
028	D	Wall	Rgt		P	Brick	white	0.0	QM
Interior Room 009 Number Only									
031	A	Window	Rgt	Rgt casing	P	Brick	white	2.6	QM
030	A	Window	Rgt	Sash	P	Brick	white	0.0	QM
029	B	Wall	Rgt		P	Brick	white	0.2	QM
Interior Room 010									
033	A	Wall	Rgt		P	Brick	gray	0.2	QM

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Mr. Barry Ellison

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
036	A	Floor	Rgt		P	Wood	Unpaint	-0.1	QM
035	A	Window	Rgt	Rgt casing	P	Wood	gray	2.1	QM
034	A	Window	Rgt	Sash	P	Wood	gray	>9.9	QM
037	A	Column	Rgt		P	Wood	white	0.2	QM
032	B	Wall	Rgt		P	Dry wall	white	-0.1	QM
046	C	Wall	Rgt		P	Brick	gray	0.1	QM
042	D	Beam	Rgt		P	Wood	white	0.1	QM
039	D	Wall	Rgt		P	Brick	white	0.1	QM
043	D	Ceiling	Rgt	Deck	P	Wood	white	0.1	QM
038	D	Window	Rgt	Sash	P	Wood	white	9.3	QM
040	D	Column	Rgt		P	Wood	white	0.2	QM
041	D	Column	Rgt	Brace	P	Steel	white	-0.1	QM
Calibration Readings									
001								0.8	TC
002								0.9	TC
003								0.8	TC
----- End of Readings -----									

APPENDIX 4  
LEAD WASTE CHARACTERIZATION LABORATORY REPORTS AND COMPUTATION  
TABLE

TABLE E

DEMOLITION WASTE CLASSIFICATION  
 TCLP FIELD COMPUTATION TABLE  
 REAR BUILDING  
 77 CHESTNUT STREET, NORWICH, CT

Component	Thickness (in)	Thickness (ft)	Area (SF)	Volume (CF)	Density (lbs/CF)	Mass (lbs)	Totals (lbs)	Percent of Total Mass
Negative Wood (solid)	0.75	0.063	35	2.2	35	76.6	118026.6	83%
	1.00	0.083	600	50.0	35	1750.0		
	12.00	1.000	120	120.0	35	4200.0		
	2.00	0.167	8000	1333.3	35	46666.7		
	4.00	0.333	5600	1866.7	35	65333.3		
	6.00	0.500	800	400.0	35	14000.0		
Positive Wood (solid)	0.50	0.042	300	12.5	35	437.5	1954.2	1%
	1.00	0.083	300	25.0	35	875.0		
	2.00	0.167	110	18.3	35	641.7		
	2.50	0.208	80	16.7	35	583.3		
	12.00	1.000	72	72.0	35	2520.0		
Negative Sheetrock	0.50	0.042	5110	212.9	52.8	11242.0	11242.0	8%
Roofing	0.50	0.042	5600	233.3	45	10500.0	10500.0	8%
Total Mass							141722.7	100%



Wednesday, February 29, 2012

Attn: Mr. Peter Folino  
Eagle Environmental Inc.  
531 North Main Street  
Bristol, CT 06010

Project ID: TCLP 1 CITY OF NORWICH 77 CHESTNUT  
Sample ID#s: BB47429

This laboratory is in compliance with the QA/QC procedures outlined in EPA 600/4-79-019, Handbook for Analytical Quality in Water and Waste Water, March 1979, SW846 QA/QC and NELAC requirements of procedures used.

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,

A handwritten signature in cursive script that reads "Phyllis Shiller".

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**  
 February 29, 2012

FOR: Attn: Mr. Peter Follino  
 Eagle Environmental Inc.  
 531 North Main Street  
 Bristol, CT 06010

Sample Information

Matrix: SOLID  
 Location Code: EAGLEENV  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: SW  
 Analyzed by: see "By" below

Date

02/13/12  
 02/27/12

Time

0:00  
 14:30

Laboratory Data

SDG ID: GBB47429  
 Phoenix ID: BB47429

Project ID: TCLP 1 CITY OF NORWICH 77 CHESTNUT  
 Client ID: TCLP COMPOSITE

Parameter	Result	RL	Units	Date	Time	By	Reference
TCLP Lead	0.50	0.10	mg/L	02/29/12		LK	SW6010
TCLP Metals Digestion	Completed			02/28/12		D	SW3005
TCLP Extraction for Metals	Completed			02/27/12		D	EPA 1311
TCLP Sample Size Reduction	Completed			02/27/12		SHOP	1311

Comments:

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

ND=Not detected BDL=Below Detection Level RL=Reporting Level

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director  
 February 29, 2012



**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**  
 February 29, 2012

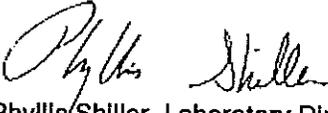
QA/QC Data

SDG I.D.: GBB47429

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 195118, QC Sample No: BB47426 (BB47429)												
<u>ICP Metals - TCLP Extraction</u>												
Lead	BDL	1.41	1.21	15.3	103	103	0.0	103	105	1.9	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

  
 Phyllis Shiller, Laboratory Director  
 February 29, 2012

# Sample Criteria Exceedences Report

GBB47429

SampNo	LocCode	Acode	Phoenix Analyte	Criteria Units	ST	State Category	Criteria Name	Result	RL	Factored Criteria	Factored RL Criteria	Analysis Units
*** No Data to Display ***												

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

10/11/19

10/11/19

10/11/19

STATE BARBERSHOP BUILDING  
500 W. MARKET ST.  
CHICAGO, ILL. 60601

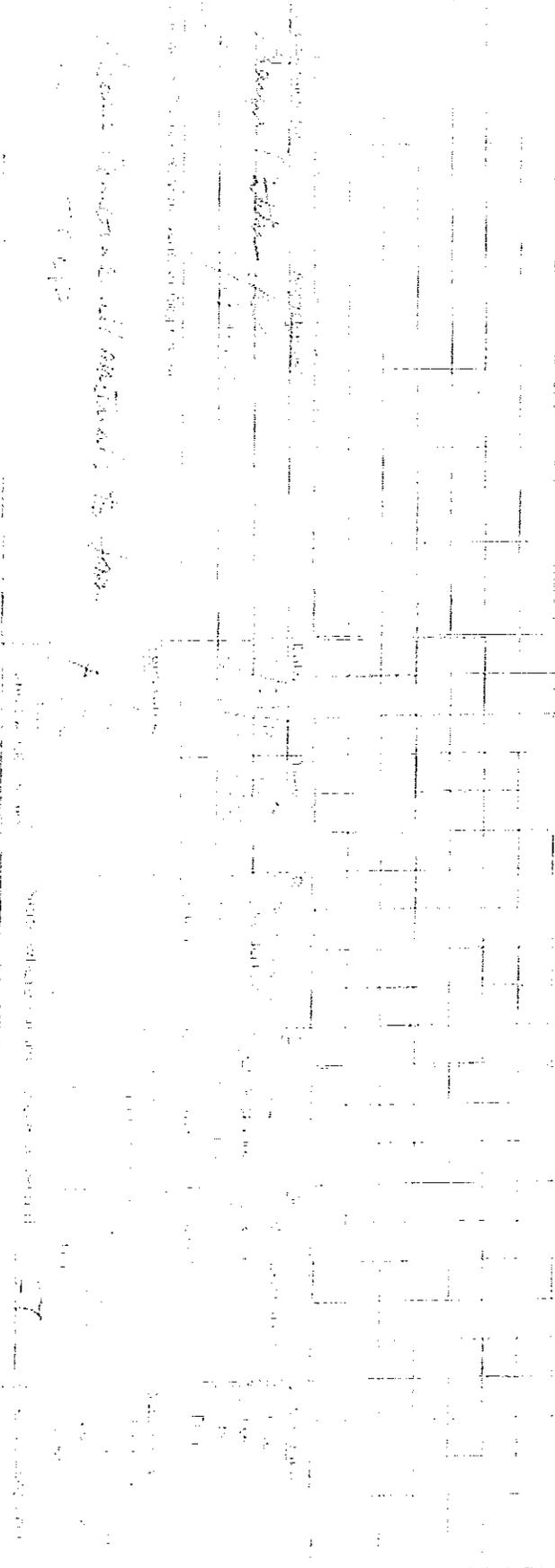
1111  
CITY OF CHICAGO, ILLINOIS  
ZONING DEPARTMENT  
CHICAGO, ILLINOIS

10/11/19

Project Address: 1111  
Phone: 312.744.1111

City of Chicago, Illinois  
Zoning Department

2/15 @ 1:30 PM				
2/15 @ 1:30 PM				
2/15 @ 1:30 PM				
2/15 @ 1:30 PM				



10/11/19

10/11/19

TABLE E

DEMOLITION WASTE CLASSIFICATION  
 TCLP FIELD COMPUTATION TABLE  
 REAR BUILDING - WINDOW SASH  
 77 CHESTNUT STREET  
 NORWICH, CT

Component	Thickness (in)	Thickness (ft)	Area (SF)	Volume (CF)	Density (lbs/CF)	Mass (lbs)	Totals (lbs)	Percent of Total Mass
Positive Wood (solid)	1.00	0.083	444	37.0	35	1295.0	2158.3	74%
	2.00	0.167	148	24.7	35	863.3		
Glass	0.25	0.021	222	4.6	161	744.6	744.6	26%
Roofing	0.50	0.042		0.0	45	0.0	0.0	0%
Total Mass							2903.0	100%



Wednesday, February 29, 2012

Attn: Mr. Peter Folino  
Eagle Environmental Inc.  
531 North Main Street  
Bristol, CT 06010

Project ID: TCLP 2 CITY OF NORWICH 77 CHESTNUT  
Sample ID#s: BB47430

This laboratory is in compliance with the QA/QC procedures outlined in EPA 600/4-79-019, Handbook for Analytical Quality in Water and Waste Water, March 1979, SW846 QA/QC and NELAC requirements of procedures used.

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,

A handwritten signature in black ink, appearing to read "Phyllis Shiller". The signature is written in a cursive style with a large initial "P".

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**  
 February 29, 2012

FOR: Attn: Mr. Peter Follno  
 Eagle Environmental Inc.  
 531 North Main Street  
 Bristol, CT 06010

Sample Information

Matrix: SOLID  
 Location Code: EAGLEENV  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: SW  
 Analyzed by: see "By" below

Date      Time

02/13/12      0:00  
 02/27/12      14:31

Laboratory Data

SDG ID: GBB47430  
 Phoenix ID: BB47430

Project ID: TCLP 2 CITY OF NORWICH 77 CHESTNUT  
 Client ID: TCLP COMPOSITE

Parameter	Result	RL	Units	Date	Time	By	Reference
TCLP Lead	8.63	0.10	mg/L	02/29/12		LK	SW6010
TCLP Metals Digestion	Completed			02/28/12		D	SW3005
TCLP Extraction for Metals	Completed			02/27/12		D	EPA 1311
TCLP Sample Size Reduction	Completed			02/27/12		SHOP	1311

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.  
 ND=Not detected BDL=Below Detection Level RL=Reporting Level  
 This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director  
 February 29, 2012



**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

February 29, 2012

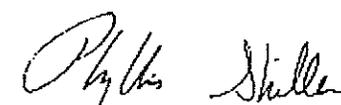
## QA/QC Data

SDG I.D.: GBB47430

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 195118, QC Sample No: BB47426 (BB47430)												
<b>ICP Metals - TCLP Extraction</b>												
Lead	BDL	1.41	1.21	15.3	103	103	0.0	103	105	1.9	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
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 Phyllis Shiller, Laboratory Director  
 February 29, 2012

# Sample Criteria Exceedences Report

GBB47430

SampNo	LocCode	Acode	Phoenix Analyte	Criteria Units	ST	State Category	Criteria Name	Result	RL	Factored Criteria	Factored RL Criteria	Analysis Units
BB47430	EAGLEENV	TCLP-PB	TCLP Lead	mg/l	EPA 40	Cfr 261.24	Toxicity Characteristics	8.63	0.10	5	5	mg/L

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