

**STATUTORY CHECKLIST [§58.35(a) activities]
for Categorical Exclusions and Environmental Assessments**

Note: Review of the items on this checklist is required for both Categorical Exclusions under Sec. 58.35(a) and projects requiring an Environmental Assessment under Sec. 58.36. If no compliance with any of the items is required, a Categorical Exclusion [58.35(a)] may become “exempt” under the provisions of Sec. 58.34 (a) (12). In such cases attach the completed Statutory Checklist to a written determination of the exemption. Projects requiring an Environmental Assessment under Sec. 58.36 cannot be determined to be exempt even if no compliance with Statutory Checklist items is found. Three items listed at Sec. 58.6 are applicable to all projects, including those determined to be exempt.

Project Name and Identification No. Owner-Occupied Rehabilitation and Rebuilding Program
(009-1253) 31 Morehouse Ave. Milford, CT 06460

Area of Statutory or Regulatory Compliance	Not Applicable to This Project	Consultation Required*	Review Required*	Permits Required*	Determination of consistency Approvals, Permits Obtained*	Conditions and/or Mitigation Actions Required	Documentation and Comments
Document Laws and authorities listed at 24 CFR Sec. 58.5							
1. Historic Properties [58.5(a)] [Section 106 of NHPA]	X						The State Historic Preservation Office reviewed the project and stated that the proposed project will have no effect upon the state’s cultural resources in a letter dated 7/22/2014 (see attachment 1).
2. Floodplain Management [58.5(b)] [Ex Or 11988] [24 CFR 55]				X			Property inside of flood zone AE (associated with 100 yr flood). See attachment 2, Flood Insurance Rate Map (FIRM) Number 09009C0534J from FEMA at https://msc.fema.gov .
3. Wetland Protection [58.5 (b)]	X						Property is not in wetland area according to City of Milford GIS data and United States Fish and Wildlife Services (USFWS) at http://www.fws.gov/wetlands/Data/Mapper.html . See attachments 3 and 4.
4. Coastal Zone Management [58.5(c)]		X					Property within coastal zone. See attachment 5 created from GIS data of the Coastal Boundar Zone from CT Environmental Conditions Online (CT ETO) at http://cteco.uconn.edu/map_catalog.asp . The project will not require a Coastal Site Plan Review according to the City of Milford, Connecticut Zoning Requirements Section 5.12. Verify with town prior to start of work.
5. Water Quality – Aquifers [58.5(d)] [40 CFR 149]	X						There are no aquifer protection areas in Milford according to CT DEEP at http://www.ct.gov/dEep/cwp/view.asp?a=2685&q=322248&deepNav_GID=1654 . This project does not involve on-site water and/or sewer facilities.
6. Endangered Species [58.5(e)] [16 U.S.C. 1531 et seq.]	X						Property is not located in NDDDB area (see attachment 6) According to the FWS Natural Resources of Concern report, there are no listed species, there are no critical habitats, and there are no wildlife refuges within the vicinity of the property (see attachment 7).

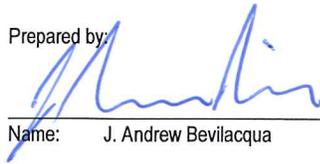
Area of Statutory or Regulatory Compliance	Not Applicable to This Project	Consultation Required*	Review Required*	Permits Required*	Determination of consistency Approvals, Permits Obtained*	Conditions and/or Mitigation Actions Required	Documentation and Comments
7. Wild and Scenic Rivers [58.5 (f)] [16 U.S.C. 1271 et seq.]	X						Property location is greater than one mile from a wild and scenic river (Eightmile River).
8. Air Quality [58.5(g)] [42 U.S.C. 7401 et seq.]	X						The project is residential rehabilitation with no anticipated quantifiable increase in air pollution
9. Farmland Protection [58.5(h)]	X						This project is in an urban residential area, there is no landuse conversion, and work will be confined to the existing building footprint
Manmade Hazards 10 A. Thermal Explosive [58.5(i)]	X						Project will not add density.
10 B. Noise [58.5(i)]	X						Project is restoration of structure substantially as it existed prior to Superstorm Sandy.
10 C. Airport Clear Zones [58.5 (i)]	X						Property not located in airport clear zone (see attachment 8).
10 D. Toxic Sites [58.5 (i)(2)(i)]	X						Project is not listed on the EPA Superfund National Priorities or CERCLA lists or equivalent State list. Landfill is located greater than 3,000 feet away. The property does not have an underground storage tank (which is not residential fuel tank). The property is not known or suspected to be contaminated by toxic chemicals or radioactive materials.
11. Environmental Justice [58.5(j)]	X						The property is not located in a minority or low-income population neighborhood.
Document Laws and authorities listed at Sec. 58.6 and other potential environmental concerns							
12 A. Flood Insurance [58.6(a) & (b)]			X				Flood insurance will be required and maintained for a minimum of five years.
12 B. Coastal Barriers [58.6(c)]	X						Property is not located in Coastal Barrier Resources System. See attachment 9 that was found on CT ECO at http://cteco.uconn.edu/map_catalog.asp .
12 C. Airport Clear Zone Notification [58.6(d)]	X						Project does not involve the purchase or sale of a property as such 24 CFR 58.6(d) is not applicable.
13 A. Solid Waste Disposal [42 U.S.C. S3251 et seq.] and [42 U.S.C. 6901-6987 eq seq.]	X						The Milford Solid Waste Division is responsible for the collection of garbage, recyclables, and bulky waste from residences. Construction debris must be brought to City Carting at 221 Old Great Lane, Milford, CT or other approved location. The project includes major renovations to the house and raising the house. As this is a small single family house, sufficient capacity should be available at City Carting or other

Area of Statutory or Regulatory Compliance	Not Applicable to This Project	Consultation Required*	Review Required*	Permits Required*	Determination of consistency Approvals, Permits Obtained*	Conditions and/or Mitigation Actions Required	Documentation and Comments
							approved location to accept the demolition wastes.
13 B. Fish and Wildlife [U.S.C. 661-666c]	X						The project will not result in impounding, diverting, deepening, channelizing or modification of any stream or body of water. The project is not a water control project.
13 C. Lead-Based Paint [24 CFR Part 35] and [40 CFR 745.80 Subpart E]						X	Lead was found during field testing on 4/29/2014. See report, attachment 10. Remediation is required.
13 D. Asbestos	X						Asbestos was not found during field testing on 4/29/2014. See report, attachment 11.
13 E. Radon [50.3 (i) 1]	X						Radon testing is not required as this house is to be elevated and will be provided with an unenclosed space below.
13 F. Mold						X	Mold was found during field testing on 4/29/2014. Remediation is required. See report, attachment 12.
Other: State or Local 14 A. Flood Management Certification [CGS 25-68]				X			Property is located inside the Flood Zone AE, which is associated with the 100 yr flood zone. See attachment 1, Flood Insurance Rate Map (FIRM) Number 09009C0529J from FEMA at https://msc.fema.gov . Requires General Permit for CDBG-DR program activities with DEEP. See Appendix B Professional Certification Form (attachment 13).
14 B. Structures, Dredging & Fill Act [CGS 22a-359 to 22a-363f]	X						Property not waterward of Coastal Jurisdiction Line.
14 C. Tidal Wetlands Act [CGS 22a-28 to 22a-35]	X						Property not located in tidal wetlands. See attachments 3 and 4.
14 D. Local inland wetlands/watercourses [CGS 22a-42]	X						Property not located in inland wetlands. See attachments 3 and 4.
14 E. Various municipal zoning approvals			X				House does not conform to local zoning regulations. The property is in zone R-5, which requires a minimum plot size of 5,000 sq. ft., and the property is 4,356 sq. ft. Variances may be required prior to starting work. See assessor field card (attachment 14)

DETERMINATION:

- This project converts to Exempt, per §58.349a(12), because it does not require any mitigation for compliance with any listed statutes or authorities, nor requires any formal permit or license. Funds may be drawn down for this (now) EXEMPT project; **OR**
- This project cannot convert to Exempt because one or more statutes/authorities requires consultation or litigation. Complete consultation/mitigation requirements, publish NOI/RROF and obtain Authority to Use Grant Funds (HUD 7015.16) per §58.70 and 58.71 before drawing down funds; **OR**
- The unusual circumstances of this project may result in a significant environmental impact. This project requires preparation of an Environmental Assessment (EA). Prepare the EA according to 24 CFR Part 58 Subpart E.

Prepared by:



Name: J. Andrew Bevilacqua

08.20.14

Date

Responsible Entity or designee Signature:

Hermia Delaire, CDBG-DR Program Manager

Date

SM
1253

Department of Economic and
Community Development

Connecticut
still revolutionary

July 22, 2014

Hermia M. Delaire
Program Manager
CDBG - Sandy Disaster Recovery Program
Department of Housing
505 Hudson Street
Hartford, CT 06106

received
8-7-14

Subject: Department of Housing Superstorm Sandy Reviews
31 Morehouse Avenue
Milford, CT

Dear Ms. Delaire:

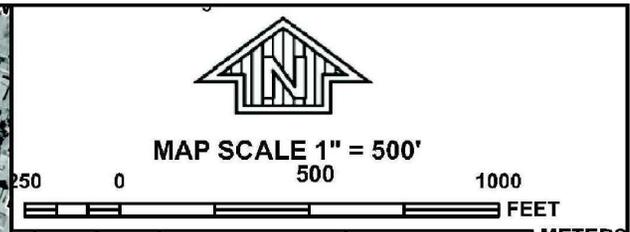
The above-named property was submitted to the State Historic Preservation Office (SHPO) for review during April of 2014 pursuant to the provisions of Section 106 of the National Historic Preservation Act of 1966. Additional information was requested at that time regarding the elevation of this potential historic property. SHPO has reviewed the additional information that was submitted to our office on July 23, 2014. The property located at 31 Morehouse Avenue in Milford appears to be eligible for listing on the National Register of Historic Places as a contributing resource to a potential historic district. The proposed work plan consists of elevating and rehabilitating this structure. Because these changes do not impact the character defining features of the property, the SHPO has determined that the undertaking will have no adverse effects to this potentially eligible historic property.

The State Historic Preservation Office appreciates the opportunity to review and comment upon this project. For further information please contact Catherine Labadia, Environmental Reviewer, at (860) 256-2764 or catherine.labadia@ct.gov.

Sincerely,

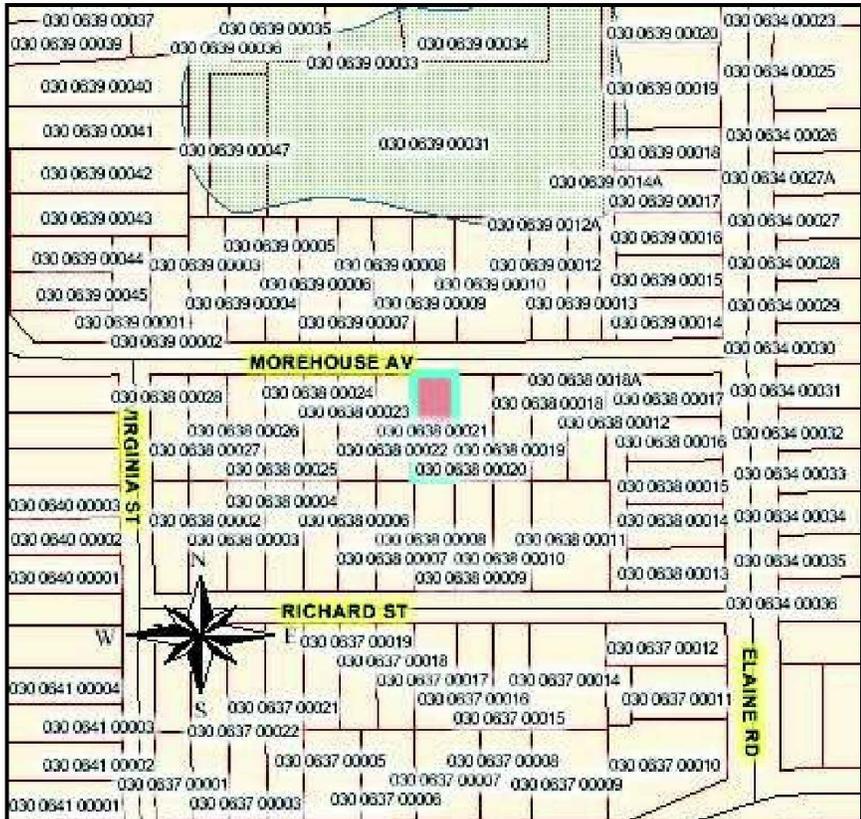
A handwritten signature in blue ink that reads "Mary B. Dunne".

Mary B. Dunne
Deputy State Historic Preservation Officer



- SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**
 The 1% annual chance flood (100-year flood), also known as the "base flood," is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.
- ZONE A** No Base Flood Elevations determined.
 - ZONE AE** Base Flood Elevations determined.
 - ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
 - ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
 - ZONE AR** Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
 - ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
 - ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
 - ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
- FLOODWAY AREAS IN ZONE AE**
 The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
- OTHER FLOOD AREAS**
 - ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
 - OTHER AREAS**
 - ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
 - ZONE D** Areas in which flood hazards are undetermined, but possible.
 - COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**
 - OTHERWISE PROTECTED AREAS (OPAs)**
- CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
- 1% Annual Chance Floodplain Boundary
 - 0.2% Annual Chance Floodplain Boundary
 - Floodway boundary
 - Zone D boundary
 - CBRS and OPA boundary

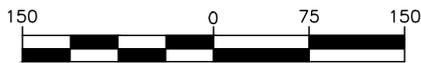
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



Legend

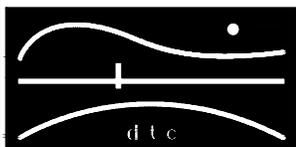
- Streets
- Wetlands
- Tax Parcels
- Town Boundary

GRAPHIC SCALE



(IN FEET)

MAP SOURCE: TOWN OF MILFORD GIS



DIVERSIFIED TECHNOLOGY CONSULTANTS
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 239 4200 Fax: 203 234 7376

**DEPARTMENT OF HOUSING
COMMUNITY DEVELOPMENT BLOCK GRANT
DISASTER RECOVERY**

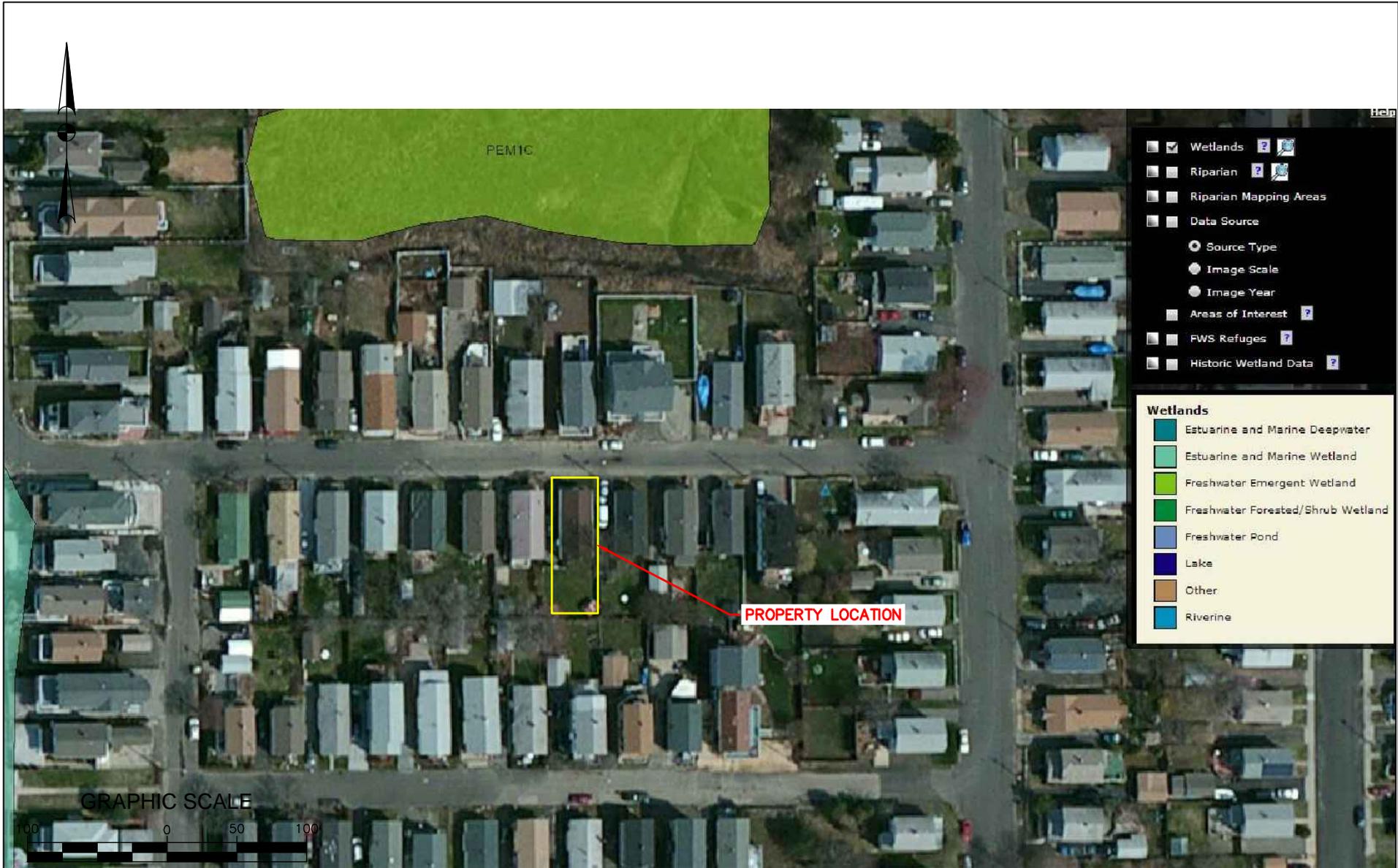
31 MOREHOUSE AVENUE
MILFORD, CT

**ATTACHMENT 3
WETLANDS MAP**

PROJECT NUMBER: 13-449-009 APPLICANT NO: 1253

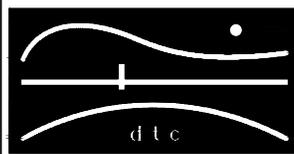
SCALE: 1"=150' DRAWN BY: LEC

DATE: 07/15/2014 CHECKED BY: JAB



(IN FEET)

MAP SOURCE: U.S. FISH AND WILDLIFE SERVICE



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DEPARTMENT OF HOUSING
 COMMUNITY DEVELOPMENT BLOCK GRANT
 DISASTER RECOVERY
 31 MOREHOUSE AVENUE
 MILFORD, CT

ATTACHMENT 4
 FWS WETLAND MAP

PROJECT NUMBER: 13-449-009

APPLICANT NO: 1253

SCALE: 1"=100'

DRAWN BY: LEC

DATE: 07/15/14

CHECKED BY: JAB

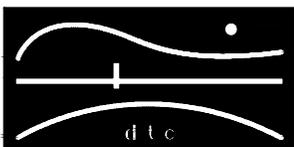


 State and Federal Listed Species and Significant Natural Communities*

GRAPHIC SCALE



(IN FEET)



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DEPARTMENT OF HOUSING
COMMUNITY DEVELOPMENT BLOCK GRANT
DISASTER RECOVERY

31 MOREHOUSE AVENUE
MILFORD, CT

ATTACHMENT 6
NDDB AREAS

SCALE: 1"=1000'

DRAWN BY: LEC

PROJECT NUMBER: 13-449-009

APPLICANT NO:

1253

DATE: 07/15/2014

CHECKED BY: JAB



U.S. Fish and Wildlife Service

Natural Resources of Concern

This resource list is to be used for planning purposes only — it is not an official species list.

Endangered Species Act species list information for your project is available online and listed below for the following FWS Field Offices:

New England Ecological Services Field Office
70 COMMERCIAL STREET, SUITE 300
CONCORD, NH 3301
(603) 223-2541
<http://www.fws.gov/newengland>

Project Name:

31 Morehouse Ave. Milford, CT 06460



U.S. Fish and Wildlife Service

Natural Resources of Concern

Project Location Map:



Project Counties:

New Haven, CT

Geographic coordinates (Open Geospatial Consortium Well-Known Text, NAD83):

MULTIPOLYGON (((-73.0185276 41.2059935, -73.0183908 41.2059935, -73.0183787 41.2057559, -73.0185169 41.2057554, -73.0185276 41.2059935)))

Project Type:

** Other **



U.S. Fish and Wildlife Service

Natural Resources of Concern

Endangered Species Act Species List ([USFWS Endangered Species Program](#))

There are no listed species found within the vicinity of your project.

Critical habitats within your project area:

There are no critical habitats within your project area.

FWS National Wildlife Refuges ([USFWS National Wildlife Refuges Program](#))

There are no refuges found within the vicinity of your project.

FWS Migratory Birds ([USFWS Migratory Bird Program](#))

Most species of birds, including eagles and other raptors, are protected under the Migratory Bird Treaty Act (16 U.S.C. 703). Bald eagles and golden eagles receive additional protection under the [Bald and Golden Eagle Protection Act](#) (16 U.S.C. 668). The Service's [Birds of Conservation Concern \(2008\)](#) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

Migratory bird information is not available for your project location.

NWI Wetlands ([USFWS National Wetlands Inventory](#))

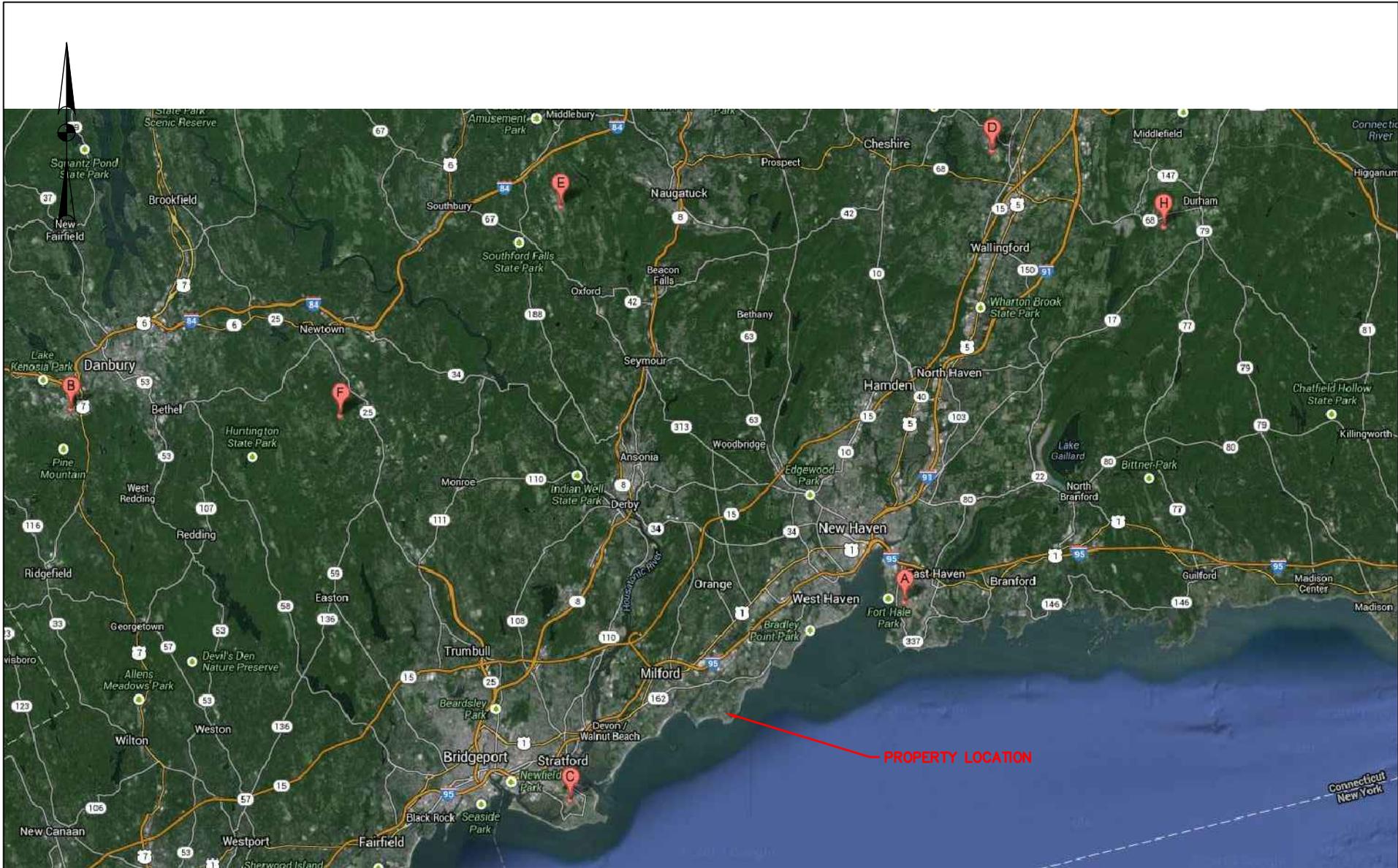
The U.S. Fish and Wildlife Service is the principal Federal agency that provides information on the extent and status of wetlands in the U.S., via the National Wetlands Inventory Program (NWI). In addition to impacts to wetlands within your immediate project area, wetlands outside of your project area may need to be considered in any evaluation of project impacts, due to the hydrologic nature of wetlands (for example, project activities may affect local hydrology within, and outside of, your immediate project area). It may be helpful to refer to the USFWS National Wetland Inventory website. The designated FWS office can also assist you. Impacts to wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes. Project Proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate [U.S. Army Corps of Engineers District](#).



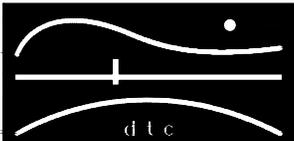
U.S. Fish and Wildlife Service

Natural Resources of Concern

There are no wetlands found within the vicinity of your project.



MAP SOURCE: GOOGLE MAPS



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DEPARTMENT OF HOUSING
 COMMUNITY DEVELOPMENT BLOCK GRANT
 DISASTER RECOVERY
 31 MOREHOUSE AVENUE
 MILFORD, CT

ATTACHMENT 8
 AIRPORT VICINITY MAP

PROJECT NUMBER: 13-449-009

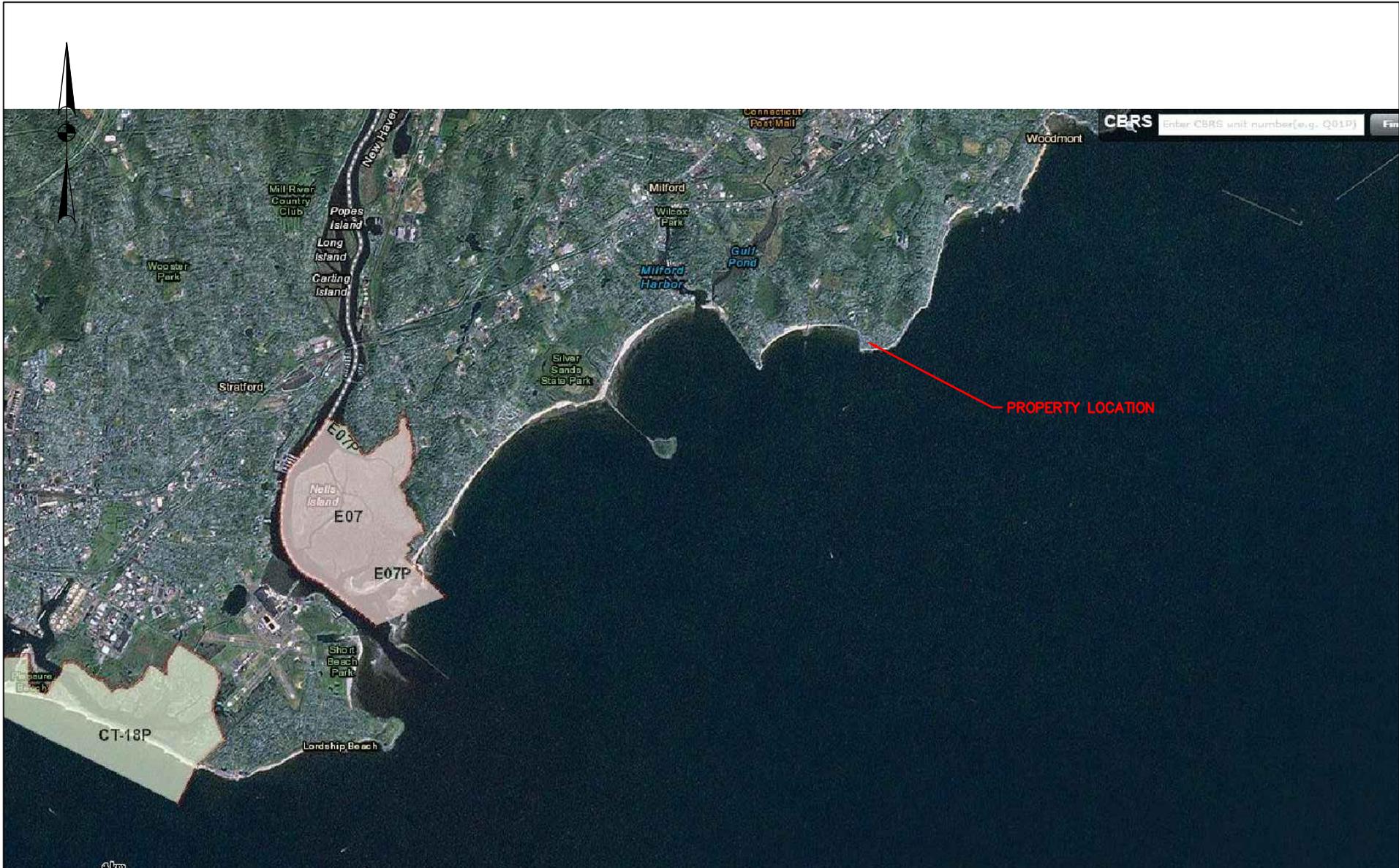
APPLICANT NO: 1253

SCALE: NTS

DRAWN BY: LEC

DATE: 07/15/14

CHECKED BY: JAB



MAP SOURCE: U.S. FISH AND WILDLIFE SERVICE



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 Ph: 203 239 4200 Fax: 203 234 7376

DEPARTMENT OF HOUSING
 COMMUNITY DEVELOPMENT BLOCK GRANT
 DISASTER RECOVERY

31 MOREHOUSE AVENUE
 MILFORD, CT

ATTACHMENT 9
 COASTAL BARRIER MAP

SCALE: NTS

DRAWN BY: LEC

DATE: 07/15/14

CHECKED BY: JAB

PROJECT NUMBER: 13-449-009

APPLICANT NO: 1253

ChemScope INDUSTRIAL HYGIENE • ENVIRONMENTAL CHEMISTRY

15 Moulthrop Street, North Haven, CT 06473-3686 • Phone (203) 865-5605 • Fax (203) 498-1610 • www.chem-scope.com

Scott Feulner
Diversified Technology Consultants (DTC)
2321 Whitney Avenue, Suite 301
Hamden, CT 06518

7/17/2014

**PRE-REHABILITATION LEAD HAZARD RISK ASSESSMENT &
LEAD BASED PAINT PRE-RENOVATION XRF SCREENING
SITE 009 (MASURY) – 31 MOREHOUSE AVENUE, MILFORD, CT
APPLICATION #1253,CS#183-99, 4/29/2014 and 6/20/2014, Page 1 of 13**

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Recommendations	11-13

Attachments:

Appendix A: XRF Lead-Based Paint Testing Results with quality evaluation sheet, 7 pages
Appendix B: Dust Wipe and Soil Sample Analytical Data and Chain of Custody Document, 6 pages
Appendix C: Sample Location Drawings, 2 pages
Appendix D: Lead Hazardous Waste Evaluation Worksheet, 1 page(s)
Appendix E: Copy of Risk Assessor's License/Certification, 2 pages
Appendix F: Copy of Firm's Lead Activity License/Certification, 3 pages
Appendix G: Copy of XRF Training Certificate and LPA-1 Performance Characteristics Sheet, 5 pages
Appendix H: "LEAD SPEAK" – A Brief Glossary, 2 pages
Appendix I: Additional Lead and Lead Safety Resource Data, 1 page

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Curtis Graham, DTC graham.curtis@teamdtc.com
Michael Casey, DTC michael.casey@teamdtc.com

File Location:

NAS AAUM-Reports\LeadInsp\DS-RiskAssess_June2014.doc

**PRE-REHABILITATION LEAD HAZARD RISK ASSESSMENT &
LEAD BASED PAINT PRE-RENOVATION XRF SCREENING
SITE 009 (MASURY) – 31 MOREHOUSE AVENUE, MILFORD, CT
APPLICATION #1253,CS#183-99, 4/29/2014 and 6/20/2014, Page 2 of 13**

INTRODUCTION

EXECUTIVE SUMMARY: As a result of the Lead Hazard Risk Assessment and the limited Lead-Based Paint Testing (Assessment) conducted on 4/29/2014 and 6/20/2014, it was found that lead-based surface coatings (paint) and lead hazards were present on the subject property as of the date of the Assessment. Lead (as defined by OSHA regulations 29 CFR 1926.62) and Lead Based Paint (as defined by USC Title 15 – Chapter 53- Toxic Substance Control) was detected on surfaces and/or components within the scope of the inspection. This will require workers disturbing Lead to be properly protected and trained including personal air sampling on the workers. The concentrations determined by the personal samples will determine the level of protection required by OSHA. (Contact us for assistance with the personal samples and further interpretation. General information is contained in the recommendations to follow.) Because lead based paint was detected, a Hazardous Waste Evaluation was done per CT DEEP regulations to determine if the waste products from the renovation are potentially a hazardous waste. The hazardous waste evaluation was done using a modified “knowledge of process” technique. This modified method resulted in the waste being 20 mg/kg of lead, which is considered not likely to be a lead hazardous waste since it is < 100 mg/kg (the threshold for this modified method). This evaluation includes the foundation.

SITE DESCRIPTION: The subject building is a single-family, one-story, bungalow-style house totaling approximately 1000 sq ft, which was built in 1928 of wood-frame construction. Heat is supplied from a boiler in the mechanical room, through radiators. There is a crawlspace under the main portion of the house (not including the mechanical room). At the time of our screening, there were no children under the age of six residing at this subject house and the house was not being used as a daycare facility.

BACKGROUND: We understand the subject house suffered damage as a result of hurricane Sandy on October 29-30, 2012. The house is scheduled to be renovated and raised. We understand the water from the storm reached just above the floor level. We understand the scope of the renovations to be as follows: demolition of all floors and lower walls, demolition of mechanical room and everything located in the crawlspace below the house.

SCOPE OF OUR WORK: Our work would include the following:

- A Lead Hazard Risk Assessment
- XRF Screening of Lead Based Paint of representative painted surfaces on the 1st floor. as directed by our client.
- A hazardous waste evaluation.
- A report of the findings with site drawings.

Lead paint chip and TCLP sampling are not in our scope of work.

This investigation and information provided in this report depends partly on background information provided by the client. This report is intended for the use of the client. The scope of services performed may not be appropriate for other users and any use of this report by third parties is at their sole risk. This report is intended to be used in its entirety. No excerpts may be taken to be representative of this report.

**PRE-REHABILITATION LEAD HAZARD RISK ASSESSMENT &
LEAD BASED PAINT PRE-RENOVATION XRF SCREENING
SITE 009 (MASURY) – 31 MOREHOUSE AVENUE, MILFORD, CT
APPLICATION #1253,CS#183-99, 4/29/2014 and 6/20/2014, Page 3 of 13**

INTRODUCTION (cont)

QUALIFICATIONS: The Inspection was conducted by Daniel P. Sullivan, CT DPH Certified DPH Lead Inspector/Risk Assessor #002131, Radiation Safety Training, RMD 12/2/94. Dan was assisted by Ziyang Wang. Chem Scope's DPH lead license # is CC000164.

METHOD OF TESTING: Spectrum Analyzer XRF (x-ray fluorescence). Instrument used: RMD LPA-1, Serial # 1647 in Quick Mode. The unit source (Cobalt 57) for unit 1647 was replaced November 2nd, 2012. The XRF detects paint in all layers down to the painted substrate. In other words if lead paint is painted over with new paint, the lead paint is still detected by this procedure. When paint is covered with metal or plastic trim such as siding or by carpet, the lead paint is usually not detectable. This instrument is registered with the State of Connecticut Dept of Energy and Environmental Protection and is Generally Licensed under the NRC. This is one of the two methods, which are approved under the CT Dept of Public Health (DPH) regulations. This is a non-destructive test.

The dust and soil samples were sent for analysis to Eastern Analytical Services (EAS), an AIHA accredited Laboratory and a CT DPH approved Environmental Laboratory in regards to this test, using Atomic Absorption analysis.

TEST PARAMETERS FOR XRF TESTING USING THIS INSTRUMENT: OSHA 1926.62
Definition: Lead means metallic lead, all inorganic lead compounds, and organic lead soaps. Excluded from this definition are all other organic lead compounds.

XRF readings of 1.0 mg/cm² or higher are lead based paint as defined by USC Title 15 – Chapter 53- Toxic Substance Control and XRF reading with any detectable amount of lead detected are defined as Lead by OSHA standard 1926.62.

XRF CALIBRATION CHECK: Standard Reference Material (SRM) paint film nearest to 1.0 mg/cm² within the National Institute of Standards and Technology (NIST) SRM is used to Calibrate the XRF. Calibration Readings are taken at the beginning and end of a job and every four (4) hours during the job with three (3) readings per set. The expiration date of the standard used is 7/1/20.

QUALITY CONTROL PROCEDURES: The XRF is used in accordance with Manufacturer's Performance Characteristics Sheet and instructions. See test data attached for details. Ten (or if <10, then the total number of tests conducted) testing combinations for re-testing from each unit are selected and checked in either 15 second or 60 second readings.

STATEMENT ON ACCURACY: The XRF Calibration checks were acceptable with each of the three (3) readings before, during (if applicable) and after the testing between 0.7 mg/cm² and 1.3 mg/cm². See attached XRF data sheets for documentation of proper calibration check sequence.

REPORT CONVENTIONS: Rooms are sometimes given arbitrary numbers to avoid ambiguity. Please refer to the enclosed schematic drawings of the site. Samples are referenced by the side of the building they are facing, as indicated on the drawings. Side A is the street side (front), Side B is the left side, Side C is the rear and Side D is the right side.

**PRE-REHABILITATION LEAD HAZARD RISK ASSESSMENT &
LEAD BASED PAINT PRE-RENOVATION XRF SCREENING
SITE 009 (MASURY) – 31 MOREHOUSE AVENUE, MILFORD, CT
APPLICATION #1253,CS#183-99, 4/29/2014 and 6/20/2014, Page 4 of 13**

INTRODUCTION (cont)

ONGOING MONITORING: Ongoing monitoring is necessary in all dwellings in which LBP is known or presumed to be present. At these dwellings, the very real potential exists for LBP hazards to develop. Hazards can develop by means such as, but not limited to: the failure of lead hazard control measures; previously intact LBP becoming deteriorated; dangerous levels of lead-in-dust (dust lead) re-accumulating through friction, impact, and deterioration of paint; or, through the introduction of contaminated exterior dust and soil into the interior of the structure. Ongoing monitoring typically includes two different activities: re-evaluation and annual visual assessments. A re-evaluation is a risk assessment that includes limited soil and dust sampling and a visual evaluation of paint films and any existing lead hazard controls. Re-evaluations are supplemented with visual assessments by the Client, which should be conducted at least once a year, when the Client or its management agent (if the housing is rented in the future) receives complaints from residents about deteriorated paint or other potential lead hazards, when the residence (or if, in the future, the house will have more than one dwelling unit, any unit that turns over or becomes vacant), or when significant damage occurs that could affect the integrity of hazard control treatments (e.g., flooding, vandalism, fire). The visual assessment should cover the dwelling unit (if, in the future, the housing will have more than one dwelling unit, each unit and each common area used by residents), exterior painted surfaces, and ground cover (if control of soil-lead hazards is required or recommended). Visual assessments should confirm that all Paint with known or suspected LBP is not deteriorating, that lead hazard control methods have not failed, and that structural problems do not threaten the integrity of any remaining known, presumed or suspected LBP.

The visual assessments do not replace the need for professional re-evaluations by a certified risk assessor. The re-evaluation should include:

1. A review of prior reports to determine where lead-based paint and lead-based paint hazards have been found, what controls were done, and when these findings and controls happened;
2. A visual assessment to identify deteriorated paint, failures of previous hazard controls, visible dust and debris, and bare soil;
3. Environmental testing for lead in dust, newly deteriorated paint, and newly bare soil; and
4. A report describing the findings of the reevaluation, including the location of any lead-based paint hazards, the location of any failures of previous hazard controls, and, as needed, acceptable options for the control of hazards, the repair of previous controls, and modification of monitoring and maintenance practices.

The first reevaluation should be conducted no later than two years after completion of hazard controls, or, if specific controls or treatments are not conducted, two years from the beginning of ongoing lead-based paint monitoring and maintenance activities. Subsequent reevaluations should be conducted at intervals of two years, plus or minus 60 days. If two consecutive reevaluations are conducted two years apart without finding a lead-based paint hazard, reevaluation may be discontinued.

Please refer to your community development agency, housing authority, or other applicable agency for additional local/regional regulations and guidelines governing re-evaluation activities.

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INTRODUCTION (cont)

DISCLOSURE REGULATIONS: A copy of this complete report must be made available to new lessees (tenants) and/or must be provided to purchasers of this property under Federal law before they become obligated under any future lease or sales contract transactions (Section 1018 of Title X – found in 24 CFR Part 35 and 40 CFR Part 745), until the demolition of this property. Landlords (Lessors) and/or sellers are also required to distribute an educational pamphlet developed by the EPA entitled “*Protect Your Family From Lead in Your Home*” and include standard warning language in their leases or sales contracts to ensure that parents have the information they need to protect their children from LBP hazards.

FUTURE REMODELING PRECAUTIONS: It should be noted that during this Assessment, a limited number of areas were tested for the presence of LBP. All LBP, dust, and soil hazards that were identified are addressed in this report. However, LBP, dust lead hazards, and/ or soil lead hazards may be present at other locations of the property. Additional paint testing should precede any future remodeling activities that occur at any untested areas. Additional dust and/or soil sample collection and analysis should follow any hazard control activity, repair, remodeling, or renovation effort, and any other work efforts that may in any way disturb LBP and/or any lead containing materials. These Assessment activities will help the Client and owner to ensure the health and safety of the occupants and the neighborhood. Details concerning lead-safe work techniques and approved hazard control methods can be found in the HUD publication entitled: “*Guidelines for the Evaluation and Control of LBP Hazards in Housing*” (www.hud.gov/offices/lead). Remodeling, repair, renovation and painting at the residence beyond the scale of minor repair and maintenance activities must be conducted in accordance with the EPA’s Lead Repair, Renovation, and Painting Rule (within 40 CFR part 745); see the EPA’s website on the RRP Rule at <http://www.epa.gov/lead/pubs/renovation.htm> for the scope and requirements of that Rule. Lead-based paint abatement or lead-based paint hazard abatement at the residence must be conducted in accordance with the EPA’s Lead Abatement Rule (also within 40 CFR 745); see the EPA’s website for Lead Abatement Professionals at <http://www.epa.gov/lead/pubs/traincert.htm>.

CONDITIONS & LIMITATIONS: Staff of ChemScope Inc. has performed the tasks listed above requested by the our client in a thorough and professional manner consistent with commonly accepted standard industry practices, using state of the art practices and best available known technology, as of the date of the assessment. ChemScope cannot guarantee and does not warrant that this Assessment/Limited LBP Testing has identified all adverse environmental factors and/or conditions affecting the subject property on the date of the Assessment. ChemScope cannot and will not warrant that the Assessment/Limited Testing that was requested by the client will satisfy the dictates of, or provide a legal defense in connection with, any environmental laws or regulations. It is the responsibility of the client to know and abide by all applicable laws, regulations, and standards, including EPA’s Renovation, Repair and Painting regulation.

The results reported and conclusions reached by ChemScope are solely for the benefit of the client. The results and opinions in this report, based solely upon the conditions found on the property as of the date of the Assessment, will be valid only as of the date of the Assessment. ChemScope assumes no obligation to advise the client of any changes in any real or potential lead hazards at this residence that may or may not be later brought to our attention. Further conditions and limitations to this contracted report are included in the general terms and conditions supplied to the client with the contract for services.

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INSPECTION REPORT SYNOPSIS

LOCATION NAME AND ADDRESS: Site 009 (Masury)
31 Morehouse Avenue, Milford, CT
Application #1253

INSPECTION DATE(S): 4/29/2014 and 6/20/2014

XRF Testing Results: Limited LBP Testing, conforming with HUD regulation 24 CFR 35.930(c), (d) was accomplished at this residence on surfaces found to have deteriorated paint and/or where it was indicated to the Assessor that planned renovation would occur. No paint chip samples were taken. On 4/29/2014, a total of 125 tests (assays) were taken at a limited number of specified surfaces on the inside and outside of the residence using a x-ray fluorescence analyzer. Deteriorated paint and areas that were specified to be disturbed during the planned renovation project were tested. Lead concentrations that meet or exceed the HUD published levels identified as being potentially dangerous (e. g., greater than or equal to 1.0 milligrams per centimeter square [$> 1.0 \text{ mg/cm}^2$]) were encountered on a few interior and exterior surfaces (see list of lead based paint items listed below).

The following surface(s) and/or component(s) contained Lead as defined by OSHA regulations 29 CFR 1926.62, in addition the **items in bold are Lead Based Paint** as defined by USC Title 15 – Chapter 53- Toxic Substance Control:

Component/Description	Location	Defective
Black metal handrail	Exterior Side A	Yes
Off-white painted wood walls	Mechanical Room	Yes
Gray painted wood walls	Mechanical Room	Yes
Gray painted old wooden siding shingles	Mechanical Room Side A	Yes

OSHA 1926.62 Definition: Lead means metallic lead, all inorganic lead compounds, and organic lead soaps. Excluded from this definition are all other organic lead compounds.

XRF readings of 1.0 mg/cm^2 or higher are lead based paint as defined by USC Title 15 – Chapter 53- Toxic Substance Control and XRF reading with any detectable amount of lead detected are defined as Lead by OSHA standard 1926.62.

LIMITATIONS OF SCREENING: Not all painted surfaces were tested. Consequently, if a surface was not tested assume it contains Lead until proven otherwise. See attached data sheets for a list of surfaces tested.

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INSPECTION REPORT SYNOPSIS (cont)

RESIDENT QUESTIONNAIRE: A resident questionnaire was completed as part of the Assessment, to help identify particular use patterns, which may be associated with potential LBP hazards, such as opening and closing windows painted with LBP. The answers to the questionnaire were obtained during a phone interview with the owner/occupant, Ronald Masury on 6/20/2014 and 7/17/2014. Following is a summary of the information obtained during the interview:

Children in the Household:	None
Children's bedroom locations:	N/A
Children's eating locations:	N/A
Primary interior play area(s):	N/A
Primary exterior play area(s):	N/A
Toy Storage:	N/A
Pets:	N/A
Children's blood lead testing history:	N/A
Observed chewed surfaces:	None
Women of child bearing age:	No
Previous lead testing:	None
Most frequently used entrances:	Side D Side Foyer door
Most frequently opened windows:	All of them seasonally
Structure cooling method:	Central Air Conditioning
Gardening – type and location(s):	Flower gardens front & Back yard
Plans for landscaping:	Yard to be torn up to excavate around house
Cleaning regiment:	Every couple of days
Cleaning methods:	Mopping, sweeping, dusting, vacuuming
Recently completed renovations:	None, repaired damage after Hurricane Irene: new floors, removed lower 3' of walls, new mechanical systems , new windows Oct 2012
Demolition debris on site:	No had a dumpster
Resident(s) with work lead exposure:	None
Planned renovations:	The scope of the renovation involves demolishing the lower half of house walls and floors & raising the house, demolishing the mechanical system and crawl space

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INSPECTION REPORT SYNOPSIS (cont)

Building Conditions Survey

Date of Construction:	1928
Apparent Building Use:	Residential
Setting:	Residential
Front Entry Faces:	Side A, Faces North
Design:	1-Story, Ranch-Style
Construction Type:	Wood framed, wood siding
Lot Type:	Flat
Roof:	Good, no apparent roof leaks (new roof 2 yrs old)
Foundation:	Cinderblock with crawlspace (soil floor) – Note: House is scheduled to be elevated for future flood protection as part of the planned work
Front Lawn Condition:	No bare soil
Back Lawn Condition:	Approx. < 10% bare soil
Drip Line Condition:	Good – no paint chips seen
Site Evaluation:	Good – other than hurricane damage
Exterior Structural Condition:	Exterior structural is good for the house
Interior Structural Condition:	Good
Overall Building/Site Condition:	Good other than storm related damage

PAINT CONDITION SURVEY

Please Note: EPA and HUD have provided a specific definition for the term “deteriorated paint.” Deteriorated paint is defined as “any interior or exterior paint or other coating that is peeling, chipping, chalking or cracking, or any paint or coating located on an interior or exterior surface or fixture that is otherwise damaged or separated from the substrate.” This definition is most typically associated with surface conditions only. Usage of this term in describing conditions other than those associated with surface coatings are not known to be defined by EPA or HUD.

Continued

**PRE-REHABILITATION LEAD HAZARD RISK ASSESSMENT &
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INSPECTION REPORT SYNOPSIS (cont)

Identified Deteriorated Paint, Paint Conditions, Lead Content, & Most Apparent Cause of Deterioration:

- Black metal handrail, exterior side A, most likely weather related damage.
- Gray painted old wooden siding shingles, Mechanical Room Side A, (old siding shingles), most likely age related damage

The remaining paint exhibited no apparent signs of deterioration, as of the date of the Assessment.

INTERIOR DUST SAMPLING:

A total of 9 single surface dust wipe samples were collected in an effort to help to determine the levels of lead-containing dust on the interior window sills and floors. These samples were collected from areas most likely to be lead-contaminated if lead-in-dust is present. These samples were collected in accordance with the requirements of ASTM Standard E-1728, Standard Practice for Field Collection of Settled Dust Samples Using Wipe Sampling Methods for Lead Determination by Atomic Spectrometry Techniques. EPA, HUD and State of Connecticut regulations define the following as hazardous levels for lead dust in residences: floors – ≥ 40 mg/ft² (micrograms per square foot); interior window sills – ≥ 250 mg/ft². There is no EPA dust-lead hazard standard for window troughs. Please refer to *Appendix B – Dust Wipe Analytical Results* for the laboratory reports and to *Appendix I – Lead and Lead Safety Information and Resources* for a list of publications and resources addressing lead hazards and their health effects; both are located at the end of this report.

Six of the nine samples collected were within acceptable levels. A summary list is given below, see attached analysis reports and drawings for details. **Samples noted in bold below exceeded HUD and CT-DPH standards and represent dust-lead hazards. These samples constitute dust-lead hazards in those rooms.**

Sample #	Date	Location	Surface	Dust Wipe Result (ug/sq ft)	CT-DPH Standard (ug/sq ft)
183-99-1D	6/20/2014	Side Foyer by entry door	Floor	47.4	40
183-99-2D	6/20/2014	Living Room by entry door	Floor	24.4	40
183-99-3D	6/20/2014	Living Room	Window Sill	BDL <18.5	250
183-99-4D	6/20/2014	Kitchen on hardwood	Floor	BDL <12.9	40
183-99-5D	6/20/2014	Kitchen – Side D	Window Sill	BDL <69.0	250
183-99-6D	6/20/2014	Bedroom 1 on hardwood	Floor	168.1	40
183-99-7D	6/20/2014	Bedroom 1 – Side C	Window Sill	BDL <28.6	250
183-99-8D	6/20/2014	Bedroom 2 on hardwood	Floor	64.7	40
183-99-9D	6/20/2014	Bedroom 2 – Side B	Window Sill	BDL <31.2	250
183-99-10D	6/20/2014	-	Blank	BDL <12.9	-
183-99-11D	6/20/2014	-	Blank	BDL <12.9	-

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INSPECTION REPORT SYNOPSIS (cont)

SOIL SAMPLING AND LABORATORY INFORMATION

Two (2) soil samples were collected at this residence in accordance with the requirements of ASTM Standard E-1727, Standard Practice for Field Collection of Soil Samples for Lead Determination by Atomic Spectrometry Techniques. One of the samples identified lead concentrations above the levels that EPA, HUD or CT-DPH identifies as hazardous. See the following table for a summary of the soil sampling results. Please refer to *Appendix C – Soil Sample Analytical Data* for the detailed analytical reports. Testing data in **bold face** indicates soil lead levels at or above the EPA Hazardous Levels of Lead regulations that were published on January 5, 2001.

Sample #	Date	Location	Surface	Soil Concentration (mg/kg)	CT-DPH Standard (mg/kg)
183-99-1S	6/20/2014	Side C 2' from crawlspace entrance	Soil 2" deep	729.8	400
183-99-2S	6/20/2014	Side D, 2' from house, 2' from backyard fence	Soil 2" deep	243.0	400

HAZARDOUS WASTE EVALUATION

Because toxic levels of lead were detected, a Hazardous Waste Evaluation was done to determine if the waste products from the renovation are potentially a hazardous waste.

An initial hazardous evaluation was done using a modified (for XRF data as opposed to paint chip data) "knowledge of process" technique intended to approximate the method described by the CT Department of Energy and Environmental Protection (DEEP). That method is one of six methods outlined in the CT DEEP "Guidance for the Management and Disposal of Lead-Contaminated Materials Generated in the Lead Abatement, Renovation and Demolition Industries" (11/4/94) for hazardous waste evaluation. For our modified method, data gathered during the XRF inspection is used to calculate for hazardous waste vs. other methods that require TCLP (Toxicity Characteristic Leaching Procedure) testing.

This modified method resulted in the waste being **20 mg/kg of lead**, which is considered **not likely to be a lead hazardous waste** since it is < 100 mg/kg (the threshold for this modified method). This evaluation includes the foundation.

This method is the least expensive method of hazardous waste evaluation but has limited applicability. The other methods include the following:

- Demolish and Test (TCLP test and needs to be done during the renovation or demolition)
- Composite-Sample and Demolish (TCLP test done before the renovation and destructive testing required and challenging to do for renovations if we don't know what the waist stream is actually going to be in the dumpster)

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RECOMMENDATIONS

Lead Hazard Control Options Lead-safe work practices and worker/occupant protection practices complying with current EPA, HUD and OSHA standards will be necessary to safely complete all work involving the disturbance of LBP coated surfaces and components. In addition, any work considered lead hazard control will enlist the use of interim control (temporary) methods and/or abatement (permanent) methods. It should be noted that all lead hazard control activities have the potential of creating additional hazards or hazards that were not present before.

Details for the listed lead hazard control options and issues surrounding occupant/worker protection practices can be found in the publication entitled: *Guidelines for the Evaluation and Control of LBP Hazards in Housing* published by HUD, the Environmental Protection Agency (EPA) lead-based paint regulations, and the Occupational Safety and Health Administration (OSHA) regulations found in its Lead in Construction Industry Standard. The associated cost estimates, unless otherwise noted, include the labor and materials to accomplish the stated activity and most additional funds typically found to be necessary to complete worker protection, site containment, and cleanup procedures. These are approximate estimates only and due to a variety of potential factors, may not accurately reflect all local cost factors. A precise estimate must be obtained from a certified LBP abatement contractor or a contractor trained in lead-safe work practices. Properly trained and/ or licensed persons, as well as properly licensed firms (as mandated) should accomplish all abatement/interim control activities conducted at this residence.

Interim controls, as defined by HUD, means a set of measures designed to temporarily reduce human exposure to LBP hazards and/or lead containing materials. These activities include, but are not limited to: component and/or substrate repairs; paint and varnish repairs; the removal of dust-lead hazards; renovation; remodeling; maintenance; temporary containment; placement of seed, sod or other forms of vegetation over bare soil areas; the placement of at least 6 inches of an appropriate mulch material over an impervious material, laid on top of bare soil areas; the tilling of bare soil areas; extensive and specialized cleaning; and, ongoing LBP maintenance activities.

Abatement, as defined by HUD, means any set of measures designed to permanently eliminate LBP and/ or LBP hazards. The product manufacturer and/or contractor must warrant abatement methods to last a minimum of twenty (20) years, or these methods must have a design life of at least twenty (20) years. These activities include, but are not necessarily limited to: the removal of LBP from substrates and components; the replacement of components or fixtures with lead containing materials and/or lead containing paint; the permanent enclosure of LBP with construction materials; the encapsulation of LBP with approved products; the removal or permanent covering (concrete or asphalt) of soil-lead hazards; and, extensive and specialized cleaning activities. (EPA's definition is substantively the same.)

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RECOMMENDATIONS (cont)

CT DEEP Hazardous Waste evaluation: Contractor generated waste from lead paint chips or component removal must be evaluated to determine if it is hazardous using one of the many techniques as described in the CT 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" (11/4/94). This guidance document allows for homeowners to take up to 10 cubic yards to be disposed of as part of normal house hold waste (even if it contains lead). Under the household waste exclusion, in order for the waste to be exempt, the homeowner must have the means to dispose of it in a manner typical for routine household wastes: that is, either via curbside pickup, or by taking it themselves to their local transfer station.

EPA's RRP rule sets up requirements for firms and individuals performing renovations in pre-1978 housing and child-occupied facilities, such as schools and day cares. The RRP Rule requires that renovators be trained in the use of lead safe work practices, that renovators and firms be certified, that providers of renovation training be accredited, and that renovators follow specific work practice standards.

Because this is a pre-1978 house, contractors (including renovation, repair and painting workers, plumbers, electricians, HVAC professionals, etc.) working on this project must be EPA certified and trained in lead-safe work practices when conducting renovation, repair and painting activities that will disturb more than six (6) square feet of painted surfaces on the interior of a building or more than twenty (20) square feet on the exterior and all window replacements jobs. Additional information on this rule can be found at <http://www.epa.gov/lead/pubs/renovation.htm>.

OSHA 1926.62 (worker protection): Work that disturbs surfaces that contain Lead Based Paint (or any detectable amount of Lead) such as is the case for this work must be done according to OSHA regulation 1926.62 OSHA requires employers to conduct air sampling on workers disturbing lead to establish exposure levels to lead for those workers. The recorded levels are then compared to two different airborne concentrations in the OSHA standard: the action limit (AL) and the permissible exposure limit (PEL). Currently, the AL is set at 30 micrograms of lead per cubic meter of air ($\mu\text{g}/\text{m}^3$) and the PEL is 50 $\mu\text{g}/\text{m}^3$. At a minimum the following is required even for air sample results below the action level (this is known as Category 1):

1. Train employees
2. Conduct Exposure Monitoring (air sampling, as mentioned above)
3. Maintain Records

See details below if your sampling exceeds the standards. Chem Scope, Inc could help with compliance assistance as needed.

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RECOMMENDATIONS (cont)

OSHA 1926.62 – Additional Details:

Category 2: OSHA regulations require; Same as category I, plus: Provide respirator at employee request, Conduct exposure monitoring every 3 months, and Conduct blood lead monitoring when the exposure monitoring results are 30–50 ug/m³ (above the action level, but below the PEL).

Category 3: OSHA Regulations require; Same as category II, plus, enforce respirator use, enforce use of protective clothing, develop monitoring every 6 months, enforce housekeeping, provide hygiene facilities and enforce washing when the exposure monitoring results are 50 ug/m³ and over (above the PEL).

See separate Asbestos Pre-renovation Inspection report and Mold Assessment report for additional details.

If you have any questions or need more information please call me. Thank you for calling on us.

Sincerely,



Dan Sullivan
Vice President, Operations

Appendix A XRF Lead-Based Paint Testing Results

Site Name: Site 009 Date of Inspection: 4/29/2014
 Site Address: 31 Morehouse Avenue, Milford, CT CS# 183-99
 Customer Name: Diversified Technology Consultants (DTC)
 Customer Address: 2321 Whitney Avenue, Suite 301 / Hamden, CT 06518
 Work Area: Interior / Exterior Page 1 of 6
 Site Description: Single-Family Residential Year of Construction: 1928
 Name of Individual Doing Testing: Dan Sullivan CT DPH Lic# 2131
 CO-57 Date Source Installed: 11/2/2012 Software version # N/A Serial # 1647

Test #	Clock Time	NIST Calibration Standard	Results QM (mg/CM2)
1	8 ³⁰ am	NIST SRM 2573 Red	1.0
2	8 ³¹ am	NIST SRM 2573 Red	1.0
3	8 ³² am	NIST SRM 2573 Red	1.0
130	10 ¹⁹ a.m.	NIST SRM 2573 Red	1.0
131	10 ²⁰ am	NIST SRM 2573 Red	1.0
132	10 ²¹ am	NIST SRM 2573 Red	1.0
		NIST SRM 2573 Red	
		NIST SRM 2573 Red	
4	8 ³³ am	NIST SRM 2570 White (Blank)	-0.3
133	10 ²² am	NIST SRM 2570 White (Blank)	-0.1

Note: each entry represents a single test on the surface indicated.

- Acceptance limits for calibration are 0.7-1.3.
- 1.0 mg/cm² or higher = lead based paint (LBP)
- All values run under Quick Mode (QM), unless noted otherwise under comments above.
- Calibration std SRM 2573 has 1.0 mg/cm² of lead, expiration of std is 7/1/20.
- DEF under comments means the surface has defective lead based paint

INSPECTOR SIGNATURE/Date/REVIEWED BY/Date:

Dan Sullivan, 4/29/14, Pa, S-15-14

Site Name: Site 009Date of Inspection: 4/29/2014Site Address: 31 Morehouse Avenue, Milford, CTCS# 183-99Work Area: InteriorPage 2 of 6

Test # / Side	Int/Ext	Room #	Component	Defective (Y/N)	Color	Substrate	Results QM (mg/CM2)	LPB (Y/N)	
840 5	A1	INT	Bedroom 1	wall	N	Brown	Sheetrock	-0.2	N
6	"	"	"	"	"	"	-0.2	N	QC
7	B	"	"	"	"	"	-0.3	N	
8	"	"	"	"	"	"	-0.2	N	QC
9	C	"	"	"	"	"	-0.2	N	
10	"	"	"	"	"	"	-0.3	N	QC
11	D	"	"	"	"	"	-0.4	N	
12	"	"	"	"	"	"	-0.3	N	QC
13	A1	"	"	Baseboard	"	white	wood	-0.2	N
14	"	"	"	"	"	"	-0.2	N	QC
15	"	"	"	Crown molding	"	"	"	-0.2	N
16	"	"	"	"	"	"	-0.2	N	QC
17	C	"	"	Window sill 2	"	"	"	-0.2	N
18	"	"	"	"	"	"	-0.2	N	QC
19	"	"	"	Window casing 2	"	"	"	-0.2	N
20	"	"	"	"	"	"	-0.2	N	QC
21	"	"	"	Window frame 2	"	"	"	-0.2	N
22	"	"	"	"	"	"	-0.1	N	QC
23	"	"	"	Window sash 2	N	White	Vinyl	-0.2	N
24	"	"	"	"	"	"	-0.3	N	QC
25	"	"	"	Window well	"	"	"	-0.3	N
26	"	"	"	Floor	Y	Wood stain	hardwood	-0.4	N
27	"	"	"	ceiling	N	White	text. Sheetrock	-0.3	N
28	A2	"	"	door	N	white	wood	-0.4	N
29	"	"	"	door casing	N	"	"	-0.3	N
30	"	"	"	door frame	N	"	"	-0.3	N
900 31	A1	"	"	closet door	N	"	"	-0.2	N

Signature: Don AllDate: 4/29/14

Site Name: Site 009

Date of Inspection: 4/29/2014

Site Address: 31 Morehouse Avenue, Milford, CT

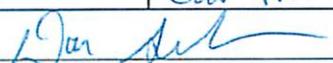
CS#183-99

Work Area:

Page 3 of 6

908
am

Test # / Side	Int/Ext	Room #	Component	Defective (Y/N)	Color	Substrate	Results QM (mg/CM2)	LPB (Y/N)
32 A	IWT	Bathroom	wall-upper	N	Lt. brown	Sheetrock	-0.3	N
33 B2	"	"	"	"	"	6"x6" ceramic	-1.0	N
34 A	"	"	wall-lower	"	white	Sheetrock vinyl wallboard	-0.2	N
35 "	"	"	chair rail	"	"	"	-0.1	N
36 "	"	"	ceiling	"	white	Sheetrock	-0.3	N
37 "	"	"	Floor	"	brown	ceramic	-0.6	N
38 D	"	"	baseboard	N	white	wood	0.0	N
39 "	"	"	door	Yes	"	"	-0.6	N
40 "	"	"	door casing	"	"	"	-0.2	N
41 "	"	"	door frame	"	"	"	-0.4	N
42 A	"	Bedroom 2	wall	N	Lt. purple	Sheetrock	-0.3	N
43 B	"	"	"	"	"	"	-0.2	N
44 C	"	"	"	"	"	"	-0.3	N
45 D	"	"	"	"	"	"	-0.2	N
46 "	"	"	baseboard	"	white	wood	-0.7	N
47 "	"	"	Floor	"	wood stain	hardwood	-0.1	N
48 B	"	"	window sill 2	N	white	wood	-0.1	N
49 "	"	"	" apron 2	"	"	"	-0.3	N
50 "	"	"	" casing 2	"	"	"	-0.1	N
51 C	"	"	closet door	"	"	"	-0.2	N
52 "	"	"	closet door run	"	"	"	-0.2	N
53 "	"	"	door 2	"	"	"	-0.4	N
54 "	"	"	door 2 frame	"	"	"	-0.2	N
55 A	"	Bed 2 CL1	CL wall ^{4/29/14} CL wall	N	Wood stain	wood	-0.5	N
56 "	"	"	" floor	N	"	hard wood	-0.3	N
57 "	"	"	" ceiling	"	"	wood	-0.2	N
58 C	"	"	door frame	N	white	wood	-0.0	N

907
amSignature: 

Date: 4/29/14

Site Name: Site 009

Date of Inspection: 4/29/2014

Site Address: 31 Morehouse Avenue, Milford, CT

CS#183-99

Work Area: Interior

Page 4 of 6

Test # / Side	Int/Ext	Room #	Component	Defective (Y/N)	Color	Substrate	Results QM (mg/CM2)	LPB (Y/N)
59 D	Int	Kitchen	Upper wall	N	white	sheetrock	-0.3	N
60	"	"	lower wall	"	lt. blue	wood	-0.3	N
61	"	"	chair rail	"	white	wood	-0.3	N
62	"	"	baseboard	"	white	wood	-0.2	N
63	"	"	floor	"	wood stain	wood	-0.4	N
64	"	"	window sill 1	"	white	wood	-0.2	N
65	"	"	" casing 1	"	"	"	-0.3	N
66 C	"	"	door	"	"	"	-0.5	N
67	"	"	door casing	"	"	"	-0.1	N
68	"	"	door frame	"	"	"	-0.0	N
69	"	"	crown molding	"	lt. blue	wood	-0.1	N
70 D	"	"	^{2w 4th} radiator	Y	white	metal	-0.1	N
71 B	"	"	upper wall	Y	white	SR	-0.2	N
72	"	"	lower wall	"	lt. blue	wood	-0.1	N
73	"	"	lower cabinet frame	"	white	wood	-0.1	N
74	"	"	" door	"	white	wood	-0.1	N
75 D	"	"	lower cabinet frame	"	"	"	-0.2	N
76	"	"	" door T	"	"	"	-0.2	N
77 A	"	dining room	wall	N	lt. blue	SR	-0.2	N
78 D	"	"	"	"	"	"	-0.3	N
79	"	"	radiator	Y	white	metal	-0.2	N
80	"	"	floor	"	wood stain	hardwood	-0.4	N
81 C	"	living room	wall	N	lt. blue	SR	-0.1	N
82 B	"	"	wall	"	"	"	-0.2	N
83	"	"	radiator	Y	white	metal	-0.1	N
84	"	"	window sill	"	white	wood	-0.3	N
85	"	"	window casing 2	N	"	"	-0.0	N

Signature: Dan [Signature]

Date: 4/29/14

Site Name: Site 009

Date of Inspection: 4/29/2014

Site Address: 31 Morehouse Avenue, Milford, CT

CS# 183-99

Work Area: _____

Page 5 of 6

944 m

419 zw

95 m

96 c

97 c

98 c

1003 a.m.

Test #/ Side	Int/Ext	Room #	Component	Defective (Y/N)	Color	Substrate	Results QM (mg/CM2)	LPB (Y/N)
86 C	Int	Living room	wall	Y	white	wood	-0.5	N
87 A	"	"	door	N	"	metal	-0.1	N
88 A	"	"	door casing	N	"	wood	-0.4	N
89 A	"	"	door frame	"	"	"	-0.1	N
90	"	"	floor	"	wood stain	hard wood	-0.2	N
91 A	"	side foyer	floor tile ceramic	N	red	Ceramic	-0.7	N
92 D	"	"	door tile	"	white	metal	-0.5	N
93 "	"	"	door frame	"	"	wood	-0.3	N
94 "	"	"	door threshold	"	"	"	-0.3	N
95 C	"	"	upper well	N	"	SR	-0.1	N
96 C	"	"	lower well	"	white	vinyl board	-0.1	N
97 C	"	"	chair rail	"	"	wood	-0.5	N
98 C	"	"	base board	"	"	"	-0.2	N
99 D	Ext	—	porch floor	Y	gray	conc	-0.5	N
100 "	"	"	stair tread	"	"	"	-0.5	N
101 "	"	"	stair ^{nw} noser	"	"	"	-0.4	N
102 "	"	"	hand rail	"	black	metal	-0.2	N
103 "	"	"	Foundation Wall	Y	Gray	conc	-0.6	N
104 "	"	"	Siding	N	lt. gray	vinyl	-0.2	N
105 C	"	"	"	"	"	"	-0.4	N
106 "	"	"	Foundation wall	Y	gray	conc	-0.4	N
107 D ₂	"	"	stair tread	"	gray	conc	-0.2	N
108 "	"	"	stair noser	"	"	"	-0.3	N
109 D ₁	"	"	basement window	Y	black	metal	-0.1	N
110 A	"	"	hand rail	"	black	"	-0.1	N
111 "	"	"	"	"	"	"	-0.0	N
112 "	"	"	stair tread	"	gray	conc	-0.2	N

4/29
ATY
6:00 c

Signature: Don Full

Date: 4/29/17

Site Name: Site 009 Date of Inspection: 4/29/2014

Site Address: 31 Morehouse Avenue, Milford, CT CS# 183-99

Work Area: Exterior / Interior Page 6 of 6

Test # / Side	Int/Ext	Room #	Component	Defective (Y/N)	Color	Substrate	Results QM (mg/CM2)	LPB (Y/N)
113	A	Ext	Stair ^{2nd try} hand ^{nicer}	Y	gray	conc	-0.2	N
114	"	"	Porch Floor	Y	"	"	-0.2	N
115	"	"	door	N	black	metal	-0.2	N
116	"	"	door casing	"	white	vint	-0.3	N
117	"	"	door frame	"	"	wood	-0.3	N
118	"	"	Siding	N	Lt. gray	vint	-0.2	N
119	"	"	foundation wall	Y	gray	conc	-0.1	N
120	B	"	"	"	"	"	0.1	N
121	"	"	"	"	"	"	-0.1	N
122	B	"	fence	"	"	wood	-0.1	N
123	A	Int	mechanical ^{room} floor	^{2nd try} Y "	gray	wood	-0.2	N
124	A	"	wall A	"	"	"	4.0	Y
125	C	"	wall	"	green	SR	-0.3	N
126	C	"	"	"	off white	^{2nd try} SR & wood	0.1	N
127	C	"	"	"	"	"	0.2	N
128	B	"	wall	"	gray	wood	0.4	N
129	A	"	lower wall	"	gray	cinder block	-0.3	N

2nd try 4/29

63 sec

60 sec

Signature: Don Sule Date: 4/29/14

EVALUATING THE QUALITY OF XRF:

Site Name: Site 009
 Site Address: 31 Morehouse Avenue, Milford, CT

CS# 183-99
 Date: 4/29/2014

Location	Original Reading	Retest Reading	Square of Original Reading	Square of Retest Reading
1. Interior - Bedroom 1 - Side A - Wall	-0.2	-0.2	0.04	0.04
2. Interior - Bedroom 1 - Side B - Wall	-0.3	-0.2	0.09	0.04
3. Interior - Bedroom 1 - Side C - Wall	-0.2	-0.3	0.04	0.09
4. Interior - Bedroom 1 - Side D - Wall	-0.4	-0.3	0.16	0.09
5. Interior - Bedroom 1 - Side A - Baseboard	-0.2	-0.2	0.04	0.04
6. Interior - Bedroom 1 - Side A - Crown Molding	-0.2	-0.2	0.04	0.04
7. Interior - Bedroom 1 - Side C - Window Sill 2	-0.2	-0.2	0.04	0.04
8. Interior - Bedroom 1 - Side C - Window Casing 2	-0.2	-0.2	0.04	0.04
9. Interior - Bedroom 1 - Side C - Window Frame 2	-0.2	-0.2	0.04	0.04
10. Interior - Bedroom 1 - Side C - Window Sash 2	-0.2	-0.3	0.04	0.09
Sum of ten squared averages ("C"):			0.57	0.55
	"C" times 0.0072 ("D"):		0.004104	0.00396
	"D" plus 0.032 ("E"):		0.036104	0.03596
	Square root of "E" ("F"):		0.19001	0.189631221
	"F" times 1.645 (Retest Tolerance Limit):		0.3126	0.3119
Average of the ten XRF Readings:			-0.23	-0.23
Absolute difference of the two averages:			0.0000	

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest.

Appendix B Lead in Dust and Soil Sample Analysis Reports

ChemScope INDUSTRIAL HYGIENE • ENVIRONMENTAL CHEMISTRY

15 Moulthrop Street, North Haven, CT 06473-3686 • Phone (203) 865-5605 • Fax (203) 498-1610

Diversified Technology Consultants
2321 Whitney Avenue, Suite 301
Hamden CT 06518

Application #1253
6/26/2014
CS# 183-99

LEAD ANALYSIS BY ATOMIC ABSORPTION

Lead dust wipe and soil samples from Site 009, 31 Morehouse Avenue, Milford CT, collected by ChemScope, Inc., on 6/20/2014:

See attached chain of custody and EAS Analytical Services, Inc., reports for sample descriptions and analytical data; and applicable standards on reverse side of this page.

*NOTE: The EAS Analytical Services, Inc. report provides the lead soil concentration in mg/kg which is equivalent to ppm (parts per million).



Suzanne Cristante or
Laboratory Director
SC

Izabela Kremens or
Quality Manager
IK

Ronald D. Arena
President
RDA

LEAD STANDARDS AND GUIDELINES

(Revised 4/2013)

The following are some existing known standards and guidelines as they relate to lab analysis for lead by AAS. ChemScope assumes no liability for the use of these data. All values are expressed as pure lead, Pb.

1. *Lead in Dust Standards: Connecticut DPH, EPA & HUD:*

Dust-Wipe Re-Occupancy Testing:

Floors: 40 micrograms/sq ft

Sills: 250 micrograms/sq ft

Window Wells: 400 micrograms/sq ft

Toxic Level of lead in dry paint: 0.5%

*NOTE: City of Stamford has a stricter standard of .06%

2. For Air Samples: OSHA PEL (Permissible Exposure Limit) is 50 micrograms/cubic meter and the AL (Action Level) is 30 micrograms/cubic meter.

3. For Soil: 400 PPM is considered contaminated.

State regulations (CT DEEP RCSA 22a-133K) require lead-contaminated soil to be cleaned up to a concentration of 500 ppm in residential areas and 1,000 ppm in industrial and commercial areas. But in practice the Department of [Energy and] Environmental Protection (DEEP) and state and local health departments apply a 400 ppm standard in residential areas. DEEP has begun the process of adopting the 400 ppm standard in regulation.

OLR Research Report, October 11, 2006, 2006-R-0596

4. For any material to be disposed of: the DEP and EPA Standard for TCLP lead is 5 milligrams/liter. In addition, other substances besides lead may need to be tested which are not in the scope of this test report.

5. Consumer Product Safety Commission: Lead in paint for sale 0.06%.

6. For Drinking Water Samples (First Draw and Fully Flushed samples):

State of Connecticut Action Level: 0.015 mg/l

EPA Action Level: 15 ppb

NOTE: .015 mg/l = 15 ppb



Eastern Analytical Services, Inc.

Wipe Sample Report

RE: CPN 183-99 - Diversified Technology Consultants (DTC) - Site 009, Application #1253 -
31 Morehouse Avenue - Milford, CT

Date Collected: 06/20/2014
Collected By: Dan Sullivan
Date Received: 06/21/2014
Date Analyzed: 06/24/2014
Analyzed By: Everton Byron Barrett
Signature: 
Analyte: Pb Dust
Analytical Method: EPA 3050B/7000B
NYS Lab Number: 10851

Client: Chem Scope, Inc.
15 Moulthrop Street
North Haven, CT 06473

Sample ID# / Lab ID#	Sample Location	Sample Notes	Concentration
183-99-1D 2294571	Side Foyer - Floor	Dust Wipe - 12" x 12" Area	47.4 µg/ft ²
183-99-2D 2294572	Living Room - Floor	Dust Wipe - 12" x 12" Area	24.4 µg/ft ²
183-99-3D 2294573	Living Room - Window Sill	Dust Wipe - 3.25" x 31" Area	BDL < 18.5 µg/ft ²
183-99-4D 2294574	Kitchen - Floor	Dust Wipe - 12" x 12" Area	BDL < 12.9 µg/ft ²
183-99-5D 2294575	Kitchen - Window Sill	Dust Wipe - 1" x 27" Area	BDL < 69.0 µg/ft ²
183-99-6D 2294576	Bedroom 1 - Floor	Dust Wipe - 12" x 12" Area	168.1 µg/ft ²
183-99-7D 2294577	Bedroom 1 - Window Sill	Dust Wipe - 2.5" x 26" Area	BDL < 28.6 µg/ft ²
183-99-8D 2294578	Bedroom 2 - Floor	Dust Wipe - 12" x 12" Area	64.7 µg/ft ²
183-99-9D 2294579	Bedroom 2 - Window Sill	Dust Wipe - 2.25" x 26.5" Area	BDL < 31.2 µg/ft ²

BDL = Below Detectable Limits Reporting Limit = 0.3 ppm
Liability Limited to Cost of Analysis
Results Applicable to Those Items Tested Results are Not Blank Corrected All QC within Control Limits Unless Otherwise Indicated
AIHA Accreditation No. 100263 Rhode Island DOH No. AAL-072T3 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AAS-2095



Eastern Analytical Services, Inc.

Wipe Sample Report

RE: CPN 183-99 - Diversified Technology Consultants (DTC) - Site 009, Application #1253 -
31 Morehouse Avenue - Milford, CT

Date Collected: 06/20/2014
Collected By: Dan Sullivan
Date Received: 06/21/2014
Date Analyzed: 06/24/2014
Analyzed By: Everton Byron Barrett
Signature: 
Analyte: Pb Dust
Analytical Method: EPA 3050B/7000B
NYS Lab Number: 10851

Client: Chem Scope, Inc.
15 Moulthrop Street
North Haven, CT 06473

Sample ID# / Lab ID#	Sample Location	Sample Notes	Concentration
183-99-10D 2294580	Not Applicable	Field Blank	BDL < 12.9 µg
183-99-11D 2294581	Not Applicable	Field Blank	BDL < 12.9 µg



Eastern Analytical Services, Inc.

Bulk Sample Report

RE: CPN 183-99 - Diversified Technology Consultants (DTC) - Site 009, Application #1253 -
31 Morehouse Avenue - Milford, CT

Date Collected: 06/20/2014
Collected By: Dan Sullivan
Date Received: 06/21/2014
Date Analyzed: 06/24/2014
Analyzed By: Everton Byron Barrett
Signature: 
Analyte: Pb Bulk
Analytical Method: EPA 3050B/7000B
NYS Lab Number: 10851

Client: Chem Scope, Inc.
15 Moulthrop Street
North Haven, CT 06473

Sample ID# / Lab ID#	Sample Location	Sample Notes	Concentration
183-99-1S 2294582	2' From Crawspace Entrance	2" Deep Soil	729.8 mg/kg 0.07 %
183-99-2S 2294583	2' From House - 2' From Fence	2" Deep Soil	243.0 mg/kg 0.02 %

BDL = Below Detectable Limits Reporting Limit = 0.3 ppm

Liability Limited to Cost of Analysis

Results Applicable to Those Items Tested Results are Not Blank Corrected All QC within Control Limits Unless Otherwise Indicated Soil Samples Reported on Dry Weight Basis - Paint Samples Reported as Received
AIHA Accreditation No. 100263 Rhode Island DOH No. AAL-072T3 Massachusetts DOL No. A A 000072 Connecticut DOH No. PH-0622 Maine DEP No. LA-024 Vermont DOH No. AAS-2095

CHAIN OF CUSTODY

Emailed _____
 Faxed _____
 Called _____
 Logged

#1259

Site 009, Application #1253

Sample Source: 31 Morehouse Avenue, Milford, CT CS Job CS# 183-99

Sampled by: Don Fuller Date Sampled: 6/20/14 Customer Name: Diversified Technology Consultants (DTC) -

CS Sample#	Client Sample#	Sample Description	Comments
183-99-1D	Side Foyer	Floor 12"x12" on quarry tile	1.0 sg ft
-2D	Living Room	Floor 12"x12" on hardwood	1.0 sg ft
-3D	" "	Sill 3.25" x 31" on white wood sill	0.70 sg ft
-4D	Kitchen	Floor 12"x12" on hardwood	1.0 sg ft
-5D	" "	Sill 1" x 27" on whitewood sill	0.19 sg ft
-6D	Bedroom 1	Floor 12"x12" on hardwood	1.0 sg ft
-7D	" "	Sill 2.5" x 26" on white wood sill	0.45 sg ft
-8D	Bedroom 2	Floor 12"x12" on hardwood	1.0 sg ft
-9D	" "	Sill 2.25" x 26.5" on white wood sill	0.41 sg ft
-10D	-	Blank	-
-11D	-	Blank	-
183-99-15	Side C	2' from crawlspace entrance 2" deep	2" deep soil
-25	Side B	2' from house, 2' from fence	" " "

Sample Turnaround: 1 week

Analysis Requested (if variable, use comment column) Lead in Dust / Lead in Soil

Check if you want sample returned _____ (sampled will be disposed of after 30 days).

Relinquished by Don Fuller Date 6/20/14 Time 5:30 am Received by _____
 Relinquished by _____ Date _____ Time _____ Received by _____

Other Special Instructions: _____

Result Transmittal Instructions (for Chem Scope to transmit): Tell DS for report

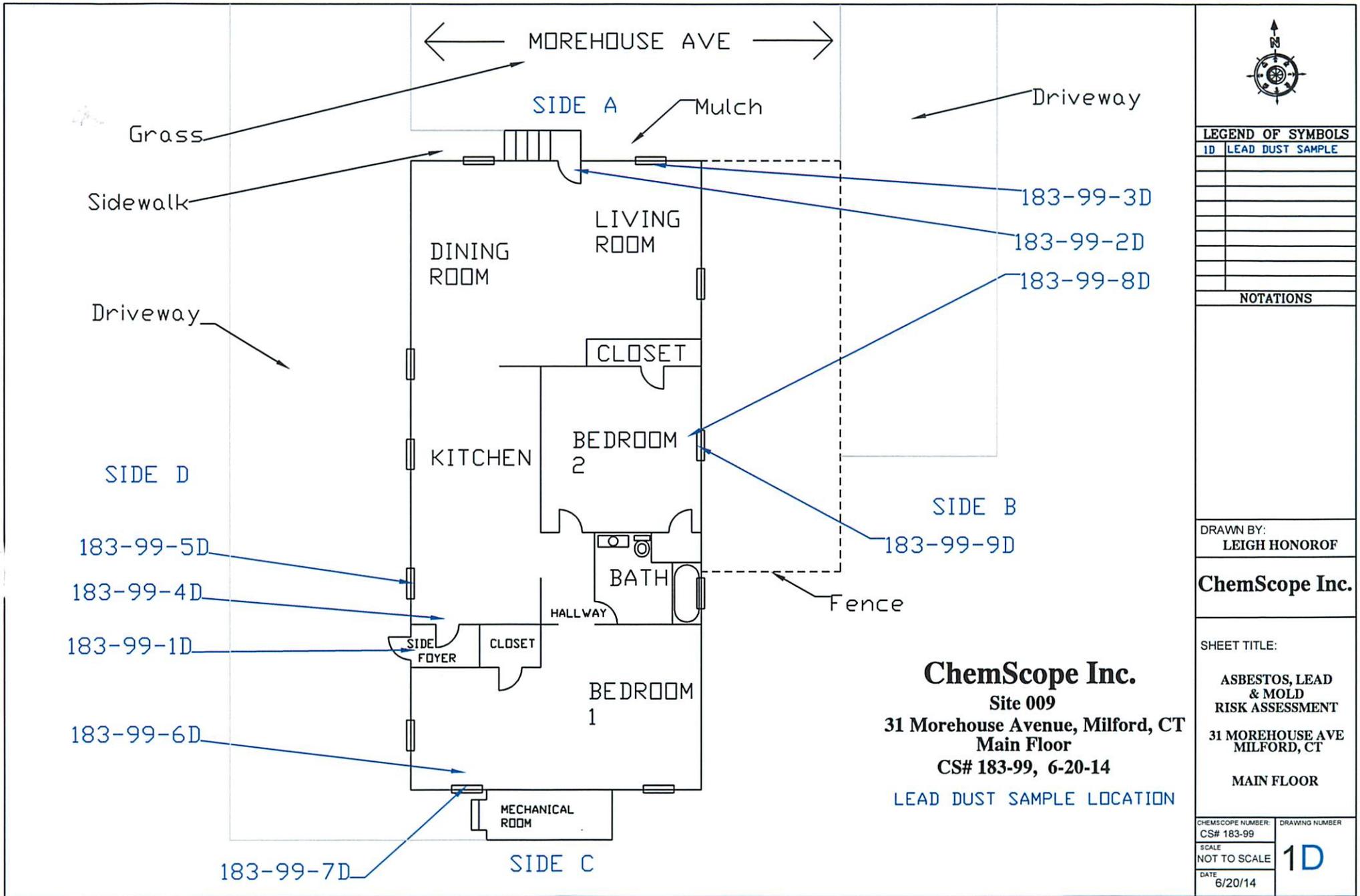
FOR CHEM SCOPE, INC. TO FILL OUT IF SAMPLES ARE GOING TO OUTSIDE LAB:

Name of Laboratory: EAS Method of Transportation to Laboratory: Driven by NY

Result Transmittal Instructions (for outside Lab to Chem Scope, Inc): PLEASE FAX RESULTS

The person submitting samples is responsible for obtaining true and representative samples, for complying with applicable regulations and for the use of the data obtained from the analysis. For example, many states have licensing and laboratory approval requirements. Please contact the individual states if you have any questions regarding specific sampling or approval requirements. For Connecticut sites, we have licensed inspectors available to collect client samples and to perform building inspections.

Appendix C Sample Location Drawings



LEGEND OF SYMBOLS

ID	LEAD DUST SAMPLE

NOTATIONS

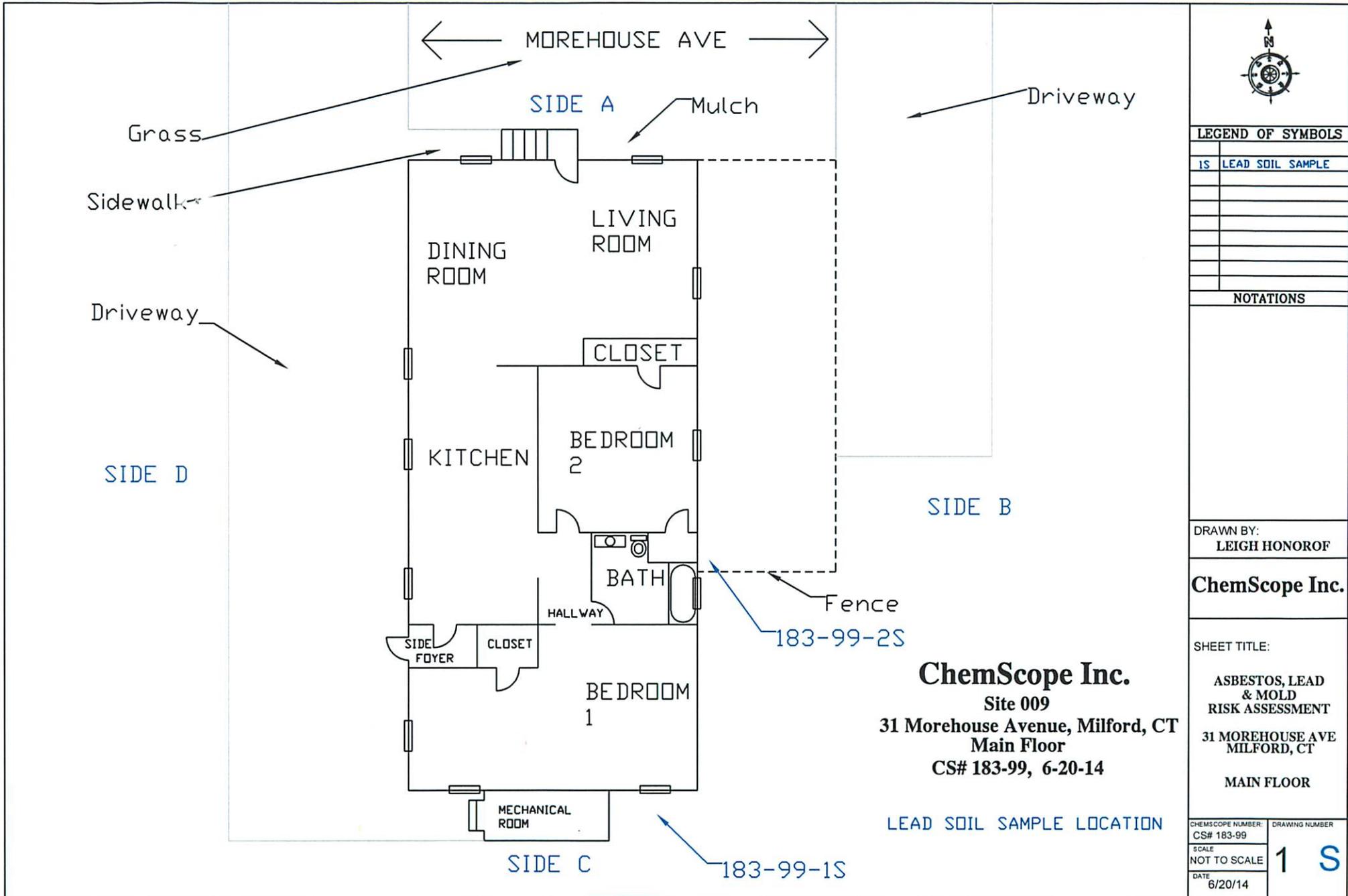
DRAWN BY:
LEIGH HONOROF

ChemScope Inc.

SHEET TITLE:
ASBESTOS, LEAD & MOLD RISK ASSESSMENT
31 MOREHOUSE AVE
MILFORD, CT
MAIN FLOOR

ChemScope Inc.
Site 009
31 Morehouse Avenue, Milford, CT
Main Floor
CS# 183-99, 6-20-14
LEAD DUST SAMPLE LOCATION

CHEMSCOPE NUMBER: CS# 183-99	DRAWING NUMBER
SCALE NOT TO SCALE	1D
DATE 6/20/14	



LEGEND OF SYMBOLS

IS	LEAD SOIL SAMPLE

NOTATIONS

DRAWN BY:
LEIGH HONOROF

ChemScope Inc.

SHEET TITLE:
ASBESTOS, LEAD & MOLD RISK ASSESSMENT
31 MOREHOUSE AVE MILFORD, CT
MAIN FLOOR

CHEMSCOPE NUMBER: CS# 183-99	DRAWING NUMBER
SCALE NOT TO SCALE	1 S
DATE 6/20/14	

Appendix D Hazardous Waste Evaluation Worksheet

Site Name: Site 009
 Site Address: 31 Morehouse Avenue, Milford, CT

CS# 183-99
 Date: 4/29/2014

Building Component	Average XRF Readings		Material Mass g/cm ²	mg Lead/kg of Mass		Component Est % of Mass	Weighting Factor	Weighting Factor x mg/kg of lead	
	w/ hot spots	w/o hot spots		w/hot spots	w/o hot spots			w/ hot spots	w/o hot spots
Unpainted Wood	0	0	0.6	0.0	0.0	27	0.27	0.0	0.0
Painted/Stained Wood	0.076	0.011	0.6	126.7	18.3	15	0.15	19.0	2.8
Sheetrock	0	0	0.45	0.0	0.0	20	0.20	0.0	0.0
Vinyl floor	0	0	0.2	0.0	0.0	1	0.01	0.0	0.0
Vinyl Wallboarded	0	0	0.5	0.0	0.0	1	0.01	0.0	0.0
Ceramic Floor Tile	0	0	1.3	0.0	0.0	1	0.01	0.0	0.0
Unpainted CB	0	0	60	0.0	0.0	25	0.25	0.0	0.0
Metal	recycle	recycle				10	0.10	0.0	0.0
						Total 100	Total*	19.0	2.8

*Compared to criterion of > 100 mg/kg lead - (DEEP: "Guidance for the Management and Disposal of Lead-Contaminated Materials Generated in the Lead Abatement, Renovation and Demolition Industries" (11/4/94)

A value by this method of >100 mg/kg lead indicates the material is potentially a hazardous waste.

Appendix E Copy of Risk Assessor's License/Certification

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

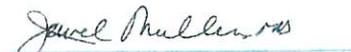
PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT
THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A

LEAD INSPECTOR RISK ASSESSOR

DANIEL P. SULLIVAN

CERTIFICATION NO.
002131
CURRENT THROUGH
04/30/15
VALIDATION NO.
03-790779


SIGNATURE


COMMISSIONER

CERT# L-600 - 763

**CHEMSCOPE TRAINING DIVISION
LEAD INSPECTOR/RISK ASSESSOR REFRESHER
8HOUR TRAINING CERTIFICATE**

**Daniel P. Sullivan
15 Moulthrop Street , North Haven CT**

Has attended an 8 hour course on the subject discipline on
11/08/2013 and has passed a written and hands on skills examination.

The above individual has successfully completed the above training course approved in accordance with the Department of Public Health Standards established pursuant to Section 20-477 of the Connecticut General Statutes.

Course syllabus includes all required topics of State of Connecticut DPH and EPA.

Examination Date: 11/08/2013

Expiration Date: 11/08/2014

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (U.S.C. 1001 and 15 U.S.C. 2615), I certify that this training complies with all applicable requirements of Title IV of TSCA, 40 CFR part 745 and any other applicable Federal, State, or local requirements.



Ronald D. Arena or Brian Santos
Training Director Training Manager

Chem Scope, Inc.
15 Moulthrop Street
North Haven CT 06473
(203) 865-5605

Appendix F Copy of Firm's Lead Activity License/Certification

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS LICENSED
BY THIS DEPARTMENT AS A
LEAD CONSULTANT CONTRACTOR

CHEMSCOPE INC

LICENSE NO
000164

CURRENT THROUGH
07/31/15

VALIDATION NO.
03-847539


SIGNATURE


COMMISSIONER



**Connecticut Department of
Energy & Environmental Protection**
79 Elm Street
Hartford, CT 06106-5127
www.ct.gov/deep

CHEM SCOPE, INC.
15 MOULTHROP STREET
NORTH HAVEN, CT 06473

12/30/2013

Dear Registrant:

Enclosed is a Certificate of Use for the Radioactive Materials and Industrial X-Ray Device Registration submitted by your facility to the department.

This certificate will serve two purposes. First, this is a way for us to acknowledge to you that your registration has been processed. Second, it is a way for our inspection staff to know that you have the appropriate registration for your radioactive materials and equipment.

The Radioactive Materials and Industrial X-Ray Device Registration must be renewed each year. Notification will be sent to you in the month of November prior to the expiration of this registration to renew your registration.

When corresponding with our office regarding your registration please use the "Application No." indicated on the certificate. This number is unique to your facility and its location.

If you have any questions regarding the Radioactive Materials and Industrial X-Ray Device Registration please feel free to call the Radiation Division at 860-424-3029.

Enclosure



Connecticut Department of
Energy & Environmental Protection
79 Elm Street
Hartford, CT 06106-5127
www.ct.gov/deep

Certificate of Use

Issued To

CHEM SCOPE, INC.

For

Radioactive Material and Industrial X-Ray Device Registration

Daniel C. Esty
Commissioner

Site Located at:
15 Moulthrop St,
North Haven, CT 06473
Reference: 0808-2014

Application No: 201306468
Issue Date: 12/24/2013
Expiration Date: 12/31/2014

**Appendix G Copy of XRF Training Certificate and XRF Performance
Characteristics Sheet**

Certificate of Achievement

This is to certify that

Daniel P. Sullivan
of Chem Scope

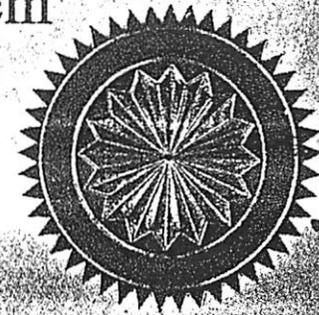
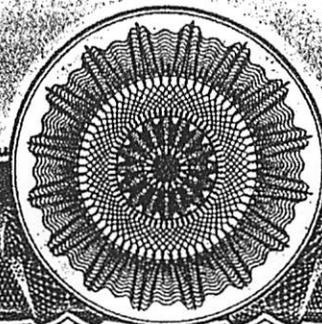
on the 2nd day of December 1994 successfully completed the factory training for

RMD's LPA-1 Lead Paint Inspection System

including, but not limited to, the topics of Radiation Safety
and the Proper Use of the Instrument.



Jacob Paster, Vice-President of RMD
44 Hunt St., Watertown, Massachusetts



Performance Characteristic Sheet

EFFECTIVE DATE: December 1, 2006

EDITION NO.: 5

MANUFACTURER AND MODEL:

Make: *Radiation Monitoring Devices*Model: *LPA-1*Source: *⁵⁷Co*

Note: This sheet supersedes all previous sheets for the XRF instrument of the make, model, and source shown above for instruments sold or serviced after June 26, 1995. For other instruments, see prior editions.

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS:

Quick mode or 30-second equivalent standard (Time Corrected) mode readings.

XRF CALIBRATION CHECK LIMITS:

0.7 to 1.3 mg/cm ² (inclusive)

SUBSTRATE CORRECTION:

For XRF results below 4.0 mg/cm², substrate correction is recommended for:

Metal using 30-second equivalent standard (Time Corrected) mode readings.
None using quick mode readings.

Substrate correction is not needed for:

Brick, Concrete, Drywall, Plaster, and Wood using 30-second equivalent standard (Time Corrected) mode readings
Brick, Concrete, Drywall, Metal, Plaster, and Wood using quick mode readings

THRESHOLDS:

30-SECOND EQUIVALENT STANDARD MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm ²)
Results corrected for substrate bias on metal substrate only	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	0.9
	Plaster	1.0
	Wood	1.0

QUICK MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm ²)
Readings not corrected for substrate bias on any substrate	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated from the EPA/HUD evaluation using archived building components. Testing was conducted on approximately 150 test locations in July 1995. The instrument that performed testing in September had a new source installed in June 1995 with 12 mCi initial strength.

OPERATING PARAMETERS:

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

XRF CALIBRATION CHECK:

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm² in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm² film).

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds.

SUBSTRATE CORRECTION VALUE COMPUTATION :

Chapter 7 of the HUD Guidelines provides guidance on correcting XRF results for substrate bias. Supplemental guidance for using the paint film nearest 1.0 mg/cm² for substrate correction is provided:

XRF results are corrected for substrate bias by subtracting from each XRF result a correction value determined separately in each house for single-family housing or in each development for multifamily housing, for each substrate. The correction value is an average of XRF readings taken over the NIST SRM paint film nearest to 1.0 mg/cm² at test locations that have been scraped bare of their paint covering. Compute the correction values as follows:

Using the same XRF instrument, take three readings on a bare substrate area covered with the NIST SRM paint film nearest 1 mg/cm². Repeat this procedure by taking three more readings on a second bare substrate area of the same substrate covered with the NIST SRM.

Compute the correction value for each substrate type where XRF readings indicate substrate correction is needed by computing the average of all six readings as shown below.

For each substrate type (the 1.02 mg/cm² NIST SRM is shown in this example; use the actual lead loading of the NIST SRM used for substrate correction):

$$\text{Correction value} = (1^{\text{st}} + 2^{\text{nd}} + 3^{\text{rd}} + 4^{\text{th}} + 5^{\text{th}} + 6^{\text{th}} \text{ Reading}) / 6 - 1.02 \text{ mg/cm}^2$$

Repeat this procedure for each substrate requiring substrate correction in the house or housing development.

EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing. Use either the Quick Mode or 30-second equivalent standard (Time Corrected) Mode readings.

Conduct XRF re-testing at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below.

Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family and multi-family housing, a result is defined as a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF results.

Compute the average of all ten re-test XRF results.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

BIAS AND PRECISION:

Do not use these bias and precision data to correct for substrate bias. These bias and precision data were computed without substrate correction from samples with reported laboratory results less than 4.0 mg/cm² lead. The data which were used to determine the bias and precision estimates given in the table below have the following properties. During the July 1995 testing, there were 15 test locations with a laboratory-reported result equal to or greater than 4.0 mg/cm² lead. Of these, one 30-second standard mode reading was less than 1.0 mg/cm² and none of the quick mode readings were less than 1.0 mg/cm². The instrument that tested in July is representative of instruments sold or serviced after June 26, 1995. These data are for illustrative purposes only. Actual bias must be determined on the site. Results provided above already account for bias and precision. Bias and precision ranges are provided to show the variability found between machines of the same model.

30-SECOND STANDARD MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm ²)	PRECISION* (mg/cm ²)
0.0 mg/cm ²	Brick	0.0	0.1
	Concrete	0.0	0.1
	Drywall	0.1	0.1
	Metal	0.3	0.1
	Plaster	0.1	0.1
	Wood	0.0	0.1
0.5 mg/cm ²	Brick	0.0	0.2
	Concrete	0.0	0.2
	Drywall	0.0	0.2
	Metal	0.2	0.2
	Plaster	0.0	0.2
	Wood	0.0	0.2
1.0 mg/cm ²	Brick	0.0	0.3
	Concrete	0.0	0.3
	Drywall	0.0	0.3
	Metal	0.2	0.3
	Plaster	0.0	0.3
	Wood	0.0	0.3
2.0 mg/cm ²	Brick	-0.1	0.4
	Concrete	-0.1	0.4
	Drywall	-0.1	0.4
	Metal	0.1	0.4
	Plaster	-0.1	0.4
	Wood	-0.1	0.4

*Precision at 1 standard deviation.

CLASSIFICATION RESULTS:

XRF results are classified as positive if they are greater than the upper boundary of the inconclusive range, and negative if they are less than the lower boundary of the inconclusive range, or inconclusive if in between. The inconclusive range includes both its upper and lower bounds. Earlier editions of this *XRF Performance Characteristic Sheet* did not include both bounds of the inconclusive range as "inconclusive." While this edition of the Performance Characteristics Sheet uses a different system, the specific XRF readings that are considered positive, negative, or inconclusive for a given XRF model and substrate remain unchanged, so previous inspection results are not affected.

DOCUMENTATION:

An EPA document titled *Methodology for XRF Performance Characteristic Sheets* provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD. A HUD document titled *A Nonparametric Method for Estimating the 5th and 95th Percentile Curves of Variable-Time XRF Readings Based on Monotone Regression* provides supplemental information on the methodology for variable-time XRF instruments. A copy of this document can be obtained from the HUD lead web site, www.hud.gov/offices/lead.

This XRF Performance Characteristic Sheet was developed by QuanTech, Inc., under a contract from the U.S. Department of Housing and Urban Development (HUD). HUD has determined that the information provided here is acceptable when used as guidance in conjunction with Chapter 7, Lead-Based Paint Inspection, of HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*.

Appendix H "LEAD SPEAK" – A Brief Glossary

Abatement: A measure or set of measures designed to permanently eliminate lead-based paint hazards or lead-based paint. Abatement strategies include the removal of lead-based paint, enclosure, encapsulation, replacement of building components coated with lead-based paint, removal of lead-contaminated dust, and removal of lead-contaminated soil or overlaying of soil with a durable covering such as asphalt (grass and sod are considered interim control measures). All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, monitoring. (For full EPA definition, see 40 CFR 745.223).

Bare soil: Soil not covered with grass, sod, some other similar vegetation, or paving, including the sand in sandboxes.

Chewable surface: An interior or exterior surface painted with lead-based paint that a young child can mouth or chew. A chewable surface is the same as an “accessible surface” as defined in 42 U.S.C. 4851b(2). Hard metal substrates and other materials that cannot be dented by the bite of a young child are not considered chewable.

Deteriorated paint: Any paint coating on a damaged or deteriorated surface or fixture, or any interior or exterior lead-based paint that is peeling, chipping, blistering, flaking, worn, chalking, alligating, cracking, or otherwise becoming separated from the substrate.

Dripline/foundation area: The area within 3 feet out from the building wall and surrounding the perimeter of a building.

Dust-lead hazard: Surface dust in residences that contains an area or mass concentration of lead equal to or in excess of the standard established by the EPA under Title IV of the Toxic Substances Control Act. EPA standards for dust-lead hazards, which are based on wipe samples, are published at 40 CFR 745.65(b); as of the publication of this edition of these *Guidelines*, these are 40 µg/ft² on floors and 250 µg/ft² on interior windowsills. Also called lead-contaminated dust.

Friction surface: Any interior or exterior surface, such as a window or stair tread, subject to abrasion or friction.

Garden area: An area where plants are cultivated for human consumption or for decorative purposes.

Impact surface: An interior or exterior surface (such as surfaces on doors) subject to damage by repeated impact or contact.

Interim controls: A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. Such measures include, but are not limited to, specialized cleaning, repairs, maintenance, painting, temporary containment, and the establishment and operation of management and resident education programs. Monitoring, conducted by owners, and reevaluations, conducted by professionals, are integral elements of interim control. Interim controls include dust removal; paint film stabilization; treatment of friction and impact surfaces; installation of soil coverings, such as grass or sod; and land use controls. Interim controls that disturb painted surfaces are renovation activities under EPA's Renovation, Repair and Painting Rule.

Lead-based paint: Any paint, varnish, shellac, or other coating that contains lead equal to or greater than 1.0 mg/cm² as measured by XRF or laboratory analysis, or 0.5 percent by weight (5000 mg/g, 5000 ppm, or 5000 mg/kg) as measured by laboratory analysis. (Local definitions may vary.)

Lead-based paint hazard: A condition in which exposure to lead from lead-contaminated dust, lead-contaminated soil, or deteriorated lead-based paint would have an adverse effect on human health (as established by the EPA at 40 CFR 745.65, under Title IV of the Toxic Substances Control Act). Lead-based paint hazards include, for example, **paint-lead hazards, dust-lead hazards, and soil-lead hazards.**

Paint-lead hazard: Lead-based paint on a friction surface that is subject to abrasion and where a dust-lead hazard is present on the nearest horizontal surface underneath the friction surface (e.g., the window sill, or floor); damaged or otherwise deteriorated lead-based paint on an impact surface that is caused by impact from a related building component; a chewable lead-based painted surface on which there is evidence of teeth marks; or any other deteriorated lead-based paint in any residential building or child-occupied facility or on the exterior of any residential building or child-occupied facility.

Play area: An area of frequent soil contact by children of under age 6 as indicated by, but not limited to, such factors including the following: the presence of outdoor play equipment (e.g., sandboxes, swing sets, and sliding boards), toys, or other children's possessions, observations of play patterns, or information provided by parents, residents, care givers, or property owners.

Soil-lead hazard: Bare soil on residential property that contains lead in excess of the standard established by the EPA under Title IV of the Toxic Substances Control Act. EPA standards for soil-lead hazards, published at 40 CFR 745.65(c), as of the publication of this edition of these *Guidelines*, is 400 µg/g in play areas and 1,200 µg/g in the rest of the yard. Also called lead-contaminated soil.

Appendix I Additional Lead and Lead Safety Resource

Key Units of Measurement

Gram (g or gm): A unit of mass in the metric system. A nickel weighs about 1 gram, as does a 1 cube of water 1 centimeter on each side. A gram is equal to about 35/1000 (thirty-five thousandths of an ounce). Another way to think of this is that about 28.4 grams equal 1 ounce.

µg (microgram): A microgram is 1/1000th of a milligram. To put this into perspective, a penny weighs 2 grams. To get a microgram, you would need to divide the penny into 2 million pieces. A microgram is one of those two million pieces.

µg/dL (microgram per deciliter): used to measure the level of lead in children's and worker's blood to establish whether intervention is needed. A deciliter is a little less than a half a cup.

µg/ft² (micrograms per square feet): the unit used to express levels of lead in dust samples. All reports should report levels of lead in dust in µg/ft².

mg/cm² (milligrams per square centimeter): used to report levels of lead in paint thru XRF testing.

ppm (parts per million): Typically used to express the concentrations of lead in soil. Can also be used to express the amount of lead in a surface coating on a mass concentration basis. This measurement can also be shown as: µg/g, mg/kg or mg/l.

ppb (parts per billion): Typically used to express the amount of lead found in drinking water. This measurement is also sometimes expressed as: µg/L (micrograms per liter). EPA/HUD Lead-Based Paint and Lead-Based Paint Hazard Standards

Lead-Based Paint (may be determined in either of two ways)

- Surface concentration (mass of lead per area) 1.0 µg/cm²
- Bulk concentration (mass of lead per volume) 0.5%, 5000 µg/g, or 5000 ppm

Dust-thresholds for Lead-Contamination

- Floors 40 µg/ft²
- Interior Window Sills 250 µg/ft²
- Window Troughs (clearance examination only) 400 µg/ft²

Soil-thresholds for Lead Contamination

- Play areas (used by children under age 6) 400 µg/g, or 400 ppm
- Other areas 1200 µg/g, or 1200 ppm

Resources For Additional Information On Lead-Based Paint And Lead-Based Paint Hazards:

National Lead information Center & Clearinghouse: 1-800-424 LEAD

www.epa.gov/lead/pubs/nlic.htm

Centers for Disease Control and Prevention Lead Program: www.cdc.gov/lead Toll-free

CDC Contact Center: 800-CDC-INFO; TTY 888-232-6348

Consumer Product Safety Commission www.cpsc.gov Toll-free consumer hotline: 1-800-638-2772; TTY 301-595-7054

Environmental Protection Agency Lead Program: www.epa.gov/lead 202-566-0500

HUD Office of Healthy Homes and Lead Hazard Control: www.hud.gov/offices/lead 202-402-7698

Connecticut Department of Public Health, Lead Poisoning Prevention Program

<http://www.ct.gov/dph/>

Hearing- or speech-challenged individuals may access the federal agency numbers above through TTY by calling the toll-free Federal Relay Service at 800-877-8339; see also

<http://www.federalrelay.us/tty>.

ChemScope INDUSTRIAL HYGIENE • ENVIRONMENTAL CHEMISTRY

15 Moulthrop Street, North Haven, CT 06473-3686 • Phone (203) 865-5605 • Fax (203) 498-1610 • www.chem-scope.com

Scott Feulner
Diversified Technology Consultants (DTC)
2321 Whitney Avenue, Suite 301
Hamden, CT 06518

5/8/2014

**ASBESTOS PRE-RENOVATION INSPECTION
SITE 009 – 31 MOREHOUSE AVENUE, MILFORD, CT
APPLICATION #1253
CS#183-99, 4/29/2014, PAGE 1 OF 5**

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Limitations of the Inspection	4
Recommendations	5

Attachments:

- Scope of Inspection Drawing(s) – 2 page(s)
- PLM Certificate of Analysis report with chain of custody - 7 page(s)
- Sample location drawing(s) - 2 page(s)

Report Distribution:

Scott Feulner, DTC Scott.Feulner@teamdtc.com
Curtis Graham, DTC graham.curtis@teamdtc.com
Michael Casey, DTC michael.casey@teamdtc.com

File Location:

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**ASBESTOS PRE-RENOVATION INSPECTION
SITE 009 – 31 MOREHOUSE AVENUE, MILFORD, CT
APPLICATION #1253
CS#183-99, 4/29/2014, PAGE 2 OF 4**

INTRODUCTION

EXECUTIVE SUMMARY: Asbestos Containing Materials (ACM) as defined by DPH and EPA were not detected within the scope of this inspection. The basement window glazing material contained <1% asbestos and while not regulated by DPH or EPA, OSHA regulations require proper procedures be used to prevent exposure to workers performing the related disturbance. Please see Recommendation Section for details.

BUILDING DESCRIPTION: The subject building is a single-family, one-story, bungalow-style house totaling approximately 1000 sq ft, which was built in 1928 of wood-frame construction. Heat is supplied from a boiler in the mechanical room, through radiators. The boiler appears to have been installed in 2011 and had no suspect accessible components. There is a crawlspace under the main portion of the house (not including the mechanical room). At the time of our screening, there were no children under the age of six residing at this subject house and the house was not being used as a daycare facility.

BACKGROUND: We understand the subject house suffered damage as a result of hurricane Sandy on October 29-30, 2012. The house is scheduled to be renovated and raised. We understand the water from the storm reached just above the floor level. We understand the scope of the renovations to be as follows: demolition of all floors and lower walls, demolition of mechanical room and everything located in the crawlspace below the house.

SCOPE OF INSPECTION: Asbestos Pre-Renovation Inspection of the lower walls and floors throughout the first floor at the subject house, as directed by our client.

Our work included the following:

- Collection and analysis of building materials within the scope of renovation for asbestos, as required by the regulations.
- A list with quantity, type and location of asbestos containing materials (ACM) in the scope.
- Report of the findings including ACM location drawings.

This investigation and information provided in this report depends partly on background information provided by the client. This report is intended for the use of the client. The scope of services performed may not be appropriate for other users and any use of this report by third parties is at their sole risk. This report is intended to be used in its entirety. No excerpts may be taken to be representative of this report.

TEST PARAMETERS: This is an Asbestos Pre-Renovation Inspection intended to identify the presence, location, and quantity of any asbestos containing building materials which are part of the Renovation for compliance with OSHA 1926.1101 (k)(2)(i) and CT DPH 19a-332a-1 through 16.

For sampling, EPA Wet Methods are used to prevent fiber release. Building materials sampled are analyzed at our laboratory by EPA method 600/R-93/116. This is currently the approved EPA Test method, which uses Polarized Light Microscopy with Dispersion Staining. The laboratory is accredited by NIST/NVLAP and AIHA, and is a Connecticut Approved Environmental Laboratory for Asbestos Analysis.

**ASBESTOS PRE-RENOVATION INSPECTION
SITE 009 – 31 MOREHOUSE AVENUE, MILFORD, CT
APPLICATION #1253
CS#183-99, 4/29/2014, PAGE 3 OF 4**

INSPECTION REPORT SYNOPSIS

LOCATION NAME AND ADDRESS: Site 009
31 Morehouse Avenue, Milford, CT
Application #1253

INSPECTION DATE(S): 4/29/2014

QUALIFICATIONS: The Inspection was conducted by Daniel P. Sullivan:

- EPA & State of Connecticut Accredited Asbestos Inspector, Project Monitor & Project Designer
- State of Connecticut Licensed Asbestos Inspector/Management Planner (#000019)
- State of Connecticut Licensed Asbestos Project Monitor (#000036)
- State of Connecticut Licensed Asbestos Project Designer (#000096)

Dan was assisted by Ziyang Wang.

For information about Chem Scope, Inc., log onto <http://www.chem-scope.com>.

FINDINGS: NO ASBESTOS WAS DETECTED WITHIN THE SCOPE OF OUR INSPECTION.

The following is a summary table of the materials that tested as non-Asbestos Containing Material (ACM) (<1%) within the Scope of Work (not already summarized previously):

Material	Location	Sample #'s	Findings
Light gray crumbly sheetrock with brown fibrous paper backing and brown face coat	Throughout	183-99-1,2,3	No Asbestos Detected
White crumbly sheetrock taping compound	Throughout	183-99-4,5,6	No Asbestos Detected
Pink fibrous paper (under hardwood floor, on plywood subfloor)	Throughout	183-99-7,8,9	No Asbestos Detected
White hard fibrous wallboard (wood-style, nailed to sheetrock lower wall)	Side Foyer, Hallway, Bathroom	183-99-10,11	No Asbestos Detected
Black hard ceramic tile grout and Gray hard ceramic tile mortar (from tan 6"x6" ceramic floor tiles)	Side Foyer	183-99-12,13,14,15	No Asbestos Detected
Black hard ceramic tile grout and Light gray hard ceramic tile mortar (from brown marble-style ceramic floor tiles)	Bathroom	183-99-16,17,18,19	No Asbestos Detected
White and Light gray crumbly window glazing (interior and exterior basement windows at interface of metal sash and glass)	Crawlspace	183-99-20,21,22,23	<1%Chrysotile Asbestos*

* Materials with <1% asbestos (such as the window glazing) are not defined as asbestos containing materials in DPH and EPA regulations. However, OSHA regulations require proper procedures be used to prevent exposure to workers performing the related disturbance. This includes training and protection for employees who may be exposed above the OSHA PEL.

ASBESTOS PRE-RENOVATION INSPECTION
SITE 009 – 31 MOREHOUSE AVENUE, MILFORD, CT
APPLICATION #1253
CS#183-99, 4/29/2014, PAGE 4 OF 4

LIMITATIONS OF INSPECTION

It is important to note that every effort is made to detect asbestos (ACM) in the path of the renovation by our inspectors. It is not practical or prudent to demolish the entire wall and floor system during an inspection. The owner should be aware of this in case suspect materials or concealed suspect materials are uncovered during the actual renovation.

If suspect materials that were previously not accessible or not sampled during this inspection are discovered during the renovation, or if the scope of the renovation changes to include disturbance of new materials not inspected, then renovation must stop and the materials must be sampled by a CT DPH licensed asbestos inspector prior to disturbance of these materials.

RECOMMENDATIONS

Although no asbestos containing materials were detected within the scope of this inspection it is important to understand that Asbestos removal is regulated by federal and state agencies. Abatement work must be done by a licensed asbestos abatement contractor using proper procedures and practices, including containment, decontamination facilities, negative air units and trained and CT DPH licensed workers. Final reoccupancy testing is also required, if the building is going to be reoccupied after the asbestos removal and strongly recommended even if the building is not going to be re-occupied such as in the case of building demolition, for removal of greater than three (3) sq. ft or linear ft of ACM. A CT DPH Licensed Project Monitor is always required for final visual inspections after asbestos removal.

Materials with <1% asbestos (such as the interior and exterior basement window glazing compounds) are not defined as asbestos containing materials in DPH or EPA regulations. However, OSHA regulations require proper procedures be used to prevent exposure to workers performing the related disturbance. This includes training and protection for employees who may be exposed above the OSHA PEL.

OSHA regulations 1926.1101 requires that before asbestos removal or repair work (class I, II or III work) is initiated, building owners/facility owners must notify their own employees and employers who are bidding on such work, of the quantity and location of ACM or PACM (presumed asbestos containing material) present in such areas. Also for inadvertently discovered ACM or PACM there is a 24-hour notification requirement to the owner and all employers at the site.

If you have any questions or need more information please call me. Thank you for calling on us.

Sincerely,



Dan Sullivan
Vice President, Operations

ChemScope Inc.

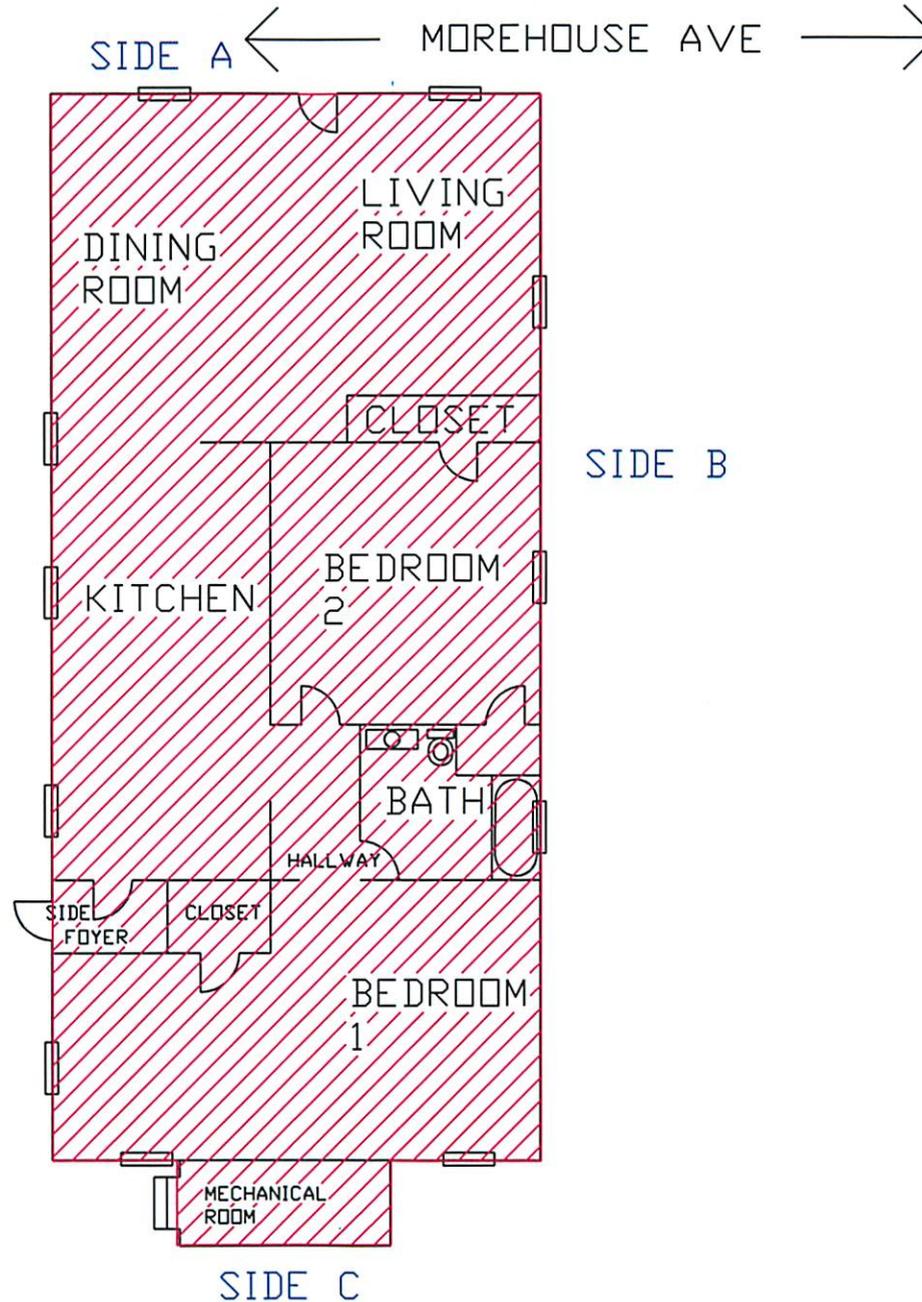
Site 009

31 Morehouse Avenue, Milford, CT

Main Floor

CS# 183-99, 4-29-14

SCOPE OF INSPECTION DRAWING



LEGEND OF SYMBOLS

	Scope of Inspection

NOTATIONS

DRAWN BY:
LEIGH HONOROF

ChemScope Inc.

SHEET TITLE:
ASBESTOS, LEAD & MOLD INSPECTION
31 MOREHOUSE AVE
MILFORD, CT
MAIN FLOOR

CHEMSCOPE NUMBER: CS# 183-99	DRAWING NUMBER
SCALE: NOT TO SCALE	1 S
DATE: 4/29/14	

ChemScope Inc.

Site 009

31 Morehouse Avenue, Milford, CT

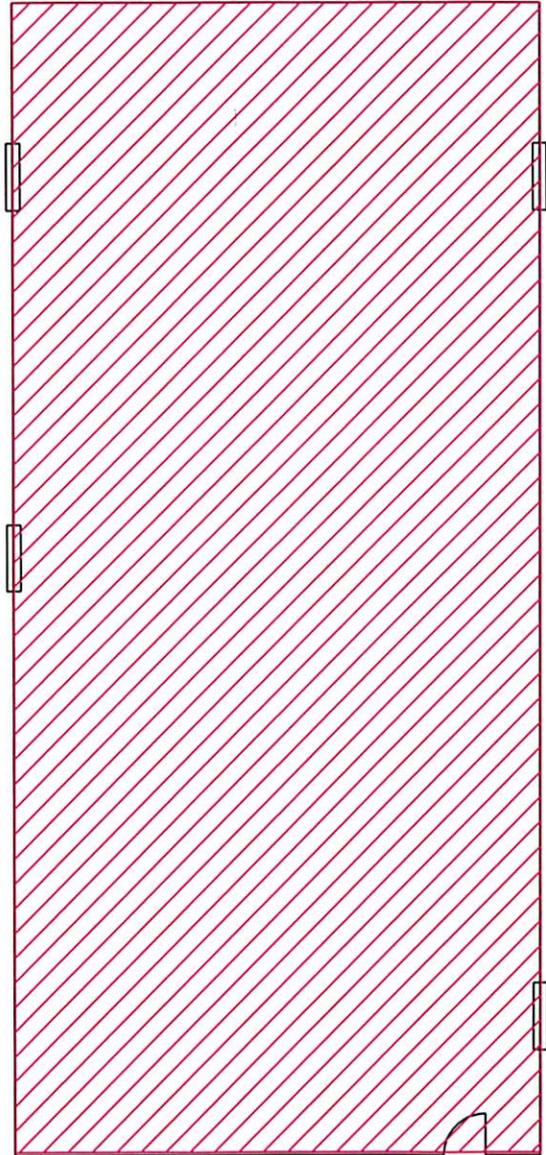
Basement

CS# 183-99, 4-29-14

SCOPE OF INSPECTION DRAWING

SIDE A

← MOREHOUSE AVE →



SIDE D

SIDE B

SIDE C



LEGEND OF SYMBOLS

 Scope of Inspection

NOTATIONS

DRAWN BY:
LEIGH HONOROF

ChemScope Inc.

SHEET TITLE:

ASBESTOS, LEAD &
MOLD INSPECTION

31 MOREHOUSE AVE
MILFORD, CT

BASEMENT

CHEMSCOPE NUMBER:
CS# 183-99

DRAWING NUMBER

SCALE
NOT TO SCALE

DATE
4/29/14

2 S

Certificate Of Analysis

Diversified Technology Consultants (DTC) - Scott Feulner

2321 Whitney Avenue

Suite 301

Hamden CT 06518

5/6/2014

CS# 183-99

Page 1 of 5

Bulk sample(s) from Site 009, Application #1253, 31 Morehouse Avenue, Milford, CT collected by Dan Sullivan on 4/29/2014

Asbestos Identification in the samples. Examination made by Polarized Light Microscopy (PLM) per EPA Test Method 600/R-93/116

Sample Identification

Findings (Analyzed 5/6/14)

183-99-1 Light gray crumbly sheetrock with brown fibrous paper backing and brown face coat (wall) / Bedroom 1

*No Asbestos Detected
63% Non- Fibrous Particles
11% Fiberglass
26% Volatile on Ignition*

183-99-2 Light gray crumbly sheetrock with brown fibrous paper backing and light purple face coat (wall) / Bedroom 2

*No Asbestos Detected
68% Non- Fibrous Particles
12% Fiberglass
20% Volatile on Ignition*

183-99-3 Light gray crumbly sheetrock with brown fibrous paper backing and light blue face coat (wall) / Living Room

*No Asbestos Detected
65% Non- Fibrous Particles
11% Fiberglass
24% Volatile on Ignition*

183-99-4 White crumbly sheetrock taping compound (wall) / Bedroom 1

*No Asbestos Detected
80% Non- Fibrous Particles
20% Volatile on Ignition*

183-99-5 White crumbly sheetrock taping compound (wall) / Bedroom 2

*No Asbestos Detected
84% Non- Fibrous Particles
16% Volatile on Ignition*

Bulk sample(s) from Site 009, Application #1253, 31 Morehouse Avenue, Milford, CT collected by Dan Sullivan on 4/29/2014

Asbestos Identification in the samples. Examination made by Polarized Light Microscopy (PLM) per EPA Test Method 600/R-93/116

Sample Identification

Findings (Analyzed 5/6/14)

183-99-6 White crumbly sheetrock taping compound (wall) / Living Room

*No Asbestos Detected
76% Non- Fibrous Particles
24% Volatile on Ignition*

183-99-7 Pink fibrous paper (under hardwood floor, on plywood subfloor) / Dining Room

*No Asbestos Detected
10% Non- Fibrous Particles
90% Volatile on Ignition*

183-99-8 Pink fibrous paper (under hardwood floor, on plywood subfloor) / Kitchen

*No Asbestos Detected
9% Non- Fibrous Particles
91% Volatile on Ignition*

183-99-9 Pink fibrous paper (under hardwood floor, on plywood subfloor) / Bedroom 2

*No Asbestos Detected
10% Non- Fibrous Particles
90% Volatile on Ignition*

183-99-10 White hard fibrous wallboard (wood-style, nailed to sheetrock lower wall) / Side Foyer

*No Asbestos Detected
37% Non- Fibrous Particles
63% Volatile on Ignition*

183-99-11 White hard fibrous wallboard (wood-style, nailed to sheetrock lower wall) / Side Foyer

*No Asbestos Detected
37% Non- Fibrous Particles
63% Volatile on Ignition*

183-99-12 Black hard ceramic tile grout (between tan 6"x6" ceramic floor tiles) / Side Foyer

*No Asbestos Detected
96% Non- Fibrous Particles
4% Volatile on Ignition*

Bulk sample(s) from Site 009, Application #1253, 31 Morehouse Avenue, Milford, CT collected by Dan Sullivan on 4/29/2014

Asbestos Identification in the samples. Examination made by Polarized Light Microscopy (PLM) per EPA Test Method 600/R-93/116

Sample Identification

Findings (Analyzed 5/6/14)

183-99-13 Black hard ceramic tile grout (between tan 6"x6" ceramic floor tiles) / Side Foyer

*No Asbestos Detected
97% Non- Fibrous Particles
3% Volatile on Ignition*

183-99-14 Gray hard ceramic tile mortar (under tan 6"x6" ceramic floor tiles) / Side Foyer

*No Asbestos Detected
94% Non- Fibrous Particles
6% Volatile on Ignition*

183-99-15 Gray hard ceramic tile mortar (under tan 6"x6" ceramic floor tiles) / Side Foyer

*No Asbestos Detected
96% Non- Fibrous Particles
4% Volatile on Ignition*

183-99-16 Black hard ceramic tile grout (between brown marble-style ceramic floor tiles) / Bathroom

*No Asbestos Detected
95% Non- Fibrous Particles
5% Volatile on Ignition*

183-99-17 Black hard ceramic tile grout (between brown marble-style ceramic floor tiles) / Bathroom

*No Asbestos Detected
94% Non- Fibrous Particles
6% Volatile on Ignition*

183-99-18 Light gray hard ceramic tile mortar (under brown marble-style ceramic floor tiles) / Bathroom

*No Asbestos Detected
91% Non- Fibrous Particles
9% Volatile on Ignition*

183-99-19 Light gray hard ceramic tile mortar (under brown marble-style ceramic floor tiles) / Bathroom

*No Asbestos Detected
84% Non- Fibrous Particles
16% Volatile on Ignition*

Bulk sample(s) from Site 009, Application #1253, 31 Morehouse Avenue, Milford, CT collected by Dan Sullivan on 4/29/2014

Asbestos Identification in the samples. Examination made by Polarized Light Microscopy (PLM) per EPA Test Method 600/R-93/116

Sample Identification

Findings (Analyzed 5/6/14)

183-99-20 White crumbly window glazing (at interface of metal sash and glass) / Crawlspace - Side D, Window 2

*<1% Chrysotile Asbestos (point counted)
92% Non- Fibrous Particles
8% Volatile on Ignition*

183-99-21 Light gray crumbly window glazing (at interface of metal sash and glass) / Crawlspace - Side B, Window 2

*No Asbestos Detected
92% Non- Fibrous Particles
8% Volatile on Ignition*

183-99-22 White crumbly window glazing (at interface of metal sash and glass) / Exterior - Side D, Window 2

*<1% Chrysotile Asbestos (point counted)
96% Non- Fibrous Particles
4% Volatile on Ignition*

183-99-23 White crumbly window glazing (at interface of metal sash and glass) / Exterior - Side B, Window 2

*No Asbestos Detected
90% Non- Fibrous Particles
10% Volatile on Ignition*

**PARAMETERS
ASBESTOS PLM ANALYSIS
(Revised 3/22/13)**

1. *Materials which contain >1% asbestos (greater than 1%) by PLM (polarizing light microscopy) analysis are considered to be asbestos containing materials under EPA and the State of Connecticut Regulations. OSHA still regulates material with <1%. (Contact laboratory for information.) {Note: A more sensitive method is available called TEM (transmission electron microscopy). TEM may detect asbestos fibers that PLM cannot see, but the above agencies' enforcement is based on PLM analysis. Rules may differ for states other than Connecticut. It is best to check with the individual state. For example, New York State requires TEM confirmation of negative PLM results on floor tile}.*
2. *If no asbestos is detected in a sample, or if the asbestos content is less than 1% by PLM, additional samples of the same material should be submitted for confirmation. Please check with the laboratory for guidance on the number of samples needed. Sample collection in Connecticut must be by a DPH Licensed Asbestos Inspector. Many other states also require licensing.*
3. *Floor Tile Mastic: Mastic under floor tile should be separately sampled by scraping some of the mastic from the floor to avoid contamination from the floor tile.*
4. *Although Chem Scope, Inc. takes great effort to insure accuracy in the estimation of asbestos in the materials analyzed, no quantitation method is without some uncertainty. Based on independent calibration studies and comparison of Chem Scope's quantitative results with NVLAP and AIHA round robin programs we estimate our uncertainty in quantitation to be relatively small. The average relative uncertainty of the estimate is calculated to be 35% for samples that contain less than 10% asbestos. This means a estimate of 10% asbestos in a sample has a probable range of 6.5% to 13.5% while an estimate of 1% has a range of 0.65% to 1.35%.*
5. *The presence of non-asbestos components, which are recognized by the PLM analyst, is reported with the estimated amounts. This is not an exhaustive analysis for the non-asbestos materials since the primary purpose is to determine if asbestos is present and, if so, how much is present of each type of asbestos.*
6. *Results reported apply only to the sample(s) analyzed.*
7. *Special treatment of samples: Chem Scope, Inc. routinely uses gravimetric sample reduction techniques such as low temperature ashing or acid dissolution on samples like floor tile, roofing materials, glue dots, or high cellulose content samples prior to PLM analysis. These methods are used to aid in the PLM analysis and to provide better quantitative data. Layered samples, if possible, are analyzed separately as individual layers. However, in accordance with the method, if any layer contains >1% asbestos (greater than 1%) it is to be considered an asbestos containing material. All results are reported to the original sample basis.*
8. *Sample results are not corrected for blanks. Analytical blanks are run daily and if contamination is suspected the samples are rerun.*
9. *Chem Scope, Inc. performs "400 point" point counting when the asbestos content is visually estimated to be less than 10%. There is no additional charge for this analysis.*

The Scope of Accreditation referenced in this report applies to bulk asbestos fiber analysis by PLM (Polarized Light Microscopy).

Accreditation does not imply endorsement by NVLAP, NIST or any Federal or State Agency.

This report pertains only to the samples tested and may not be reproduced in part.

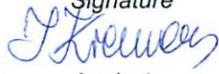
Condition of the samples at the time of receipt was acceptable unless otherwise noted on the Certificate of Analysis.

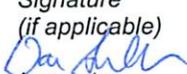
See test parameters above and attached chain of custody form.

We would love to hear from you. Comments? Questions? Please call or email us at chem.scope@snet.net.

**ChemScope, Inc. is accredited by AIHA LAP, LLC LAB #100134
NVLAP Lab Code 101061-0.**

Connecticut Department of Public Health (DPH) Approved Environmental Lab PH 0581

Signature

Analyst

Signature
(if applicable)

Inspector

Authorized Signature or
Suzanne Cristante
Laboratory Director

Authorized Signature or
Izabela Kremens
Quality Manager

Authorized Signature

Ronald Arena
President

Dear Laboratory Customer or Potential Customer,

New laboratory accreditation standards require us to provide our clients information about our services to make sure that your requirements for testing are adequately defined, documented and understood. The following is for your information. Please call us if you have any questions or comments.

Type of Samples:

- / / PCM cassettes are routinely run by NIOSH Method 7400.
- / / Bulk materials are run by EPA Method: #600/R-93/116.

Air Samples: NIOSH 7400 Method counts all fibers. This method may be used for personal air samples and for finals. Two field blanks must be submitted for each set of samples. In the unlikely event that there is to be any deviation from the standard test, you will be consulted by phone before the work begins. Those clients who have not had NIOSH 582 or AHERA asbestos training courses (either supervisor or project monitor) should consult with the lab director for more information. The test parameters are further explained in the analytical report.

Bulk materials: sampled are analyzed by the latest EPA Method: (#600/R-93/116) which uses polarized light microscopy (PLM). When asbestos is detected and the amount is estimated to be <10%, we automatically point count the samples. When there are interfering substances present, we may use ashing, acid washing or other procedures described in the method to handle the interference. Those clients who have not had AHERA asbestos training courses (either inspector, supervisor or project designer) should consult with the lab director for more information. The test parameters are further explained in the analytical report.

All Samples must be clearly labeled with source name and identification number or sufficient information from the client to make this sample uniquely identified. (We will then add our notebook #, page # (batch) and unique number within the batch.) Samples must be in a clean, air tight package such as a zip loc bag. Appropriate completed paperwork must accompany the sample. Bulk and air samples may not be submitted in the same package.

As soon as available bench top results will be faxed to you and reports will then be mailed. We will retain air samples for at least three months and bulk samples for 6 months unless you advise us otherwise.

You are welcome to visit the laboratory at any time to discuss the work, monitor the work or verify our testing services. We appreciate your business and encourage any feedback regarding improving our services or our quality system. Please take a minute to complete the following survey and mail/fax it to ChemScope, Inc.

Customer Service Survey

To help us improve our services give your opinions to the following:

- 1- The printed laboratory report was complete and easy to understand. YES NO
If no, please explain _____.
- 2- The turn around time for results met your expectations/needs. YES NO
If no, please explain _____.
- 3- How likely are you to recommend ChemScope Inc. to someone?
 Excellent Very Good Good Fair Poor
- 4- How likely are you to return to ChemScope in the future if the need arises?
 Excellent Very Good Good Fair Poor
5. On a scale of 1 to 5 where 1 represents "Satisfied" and 5 represents "Dissatisfied", how would you rate your level of overall satisfaction.
 1 2 3 4 5
- 6- Please add any additional comments or suggestions that would be helpful when you use our services:

Name _____ Company _____
Address _____ Telephone/e-mail _____

Can we contact you regarding this survey? YES NO

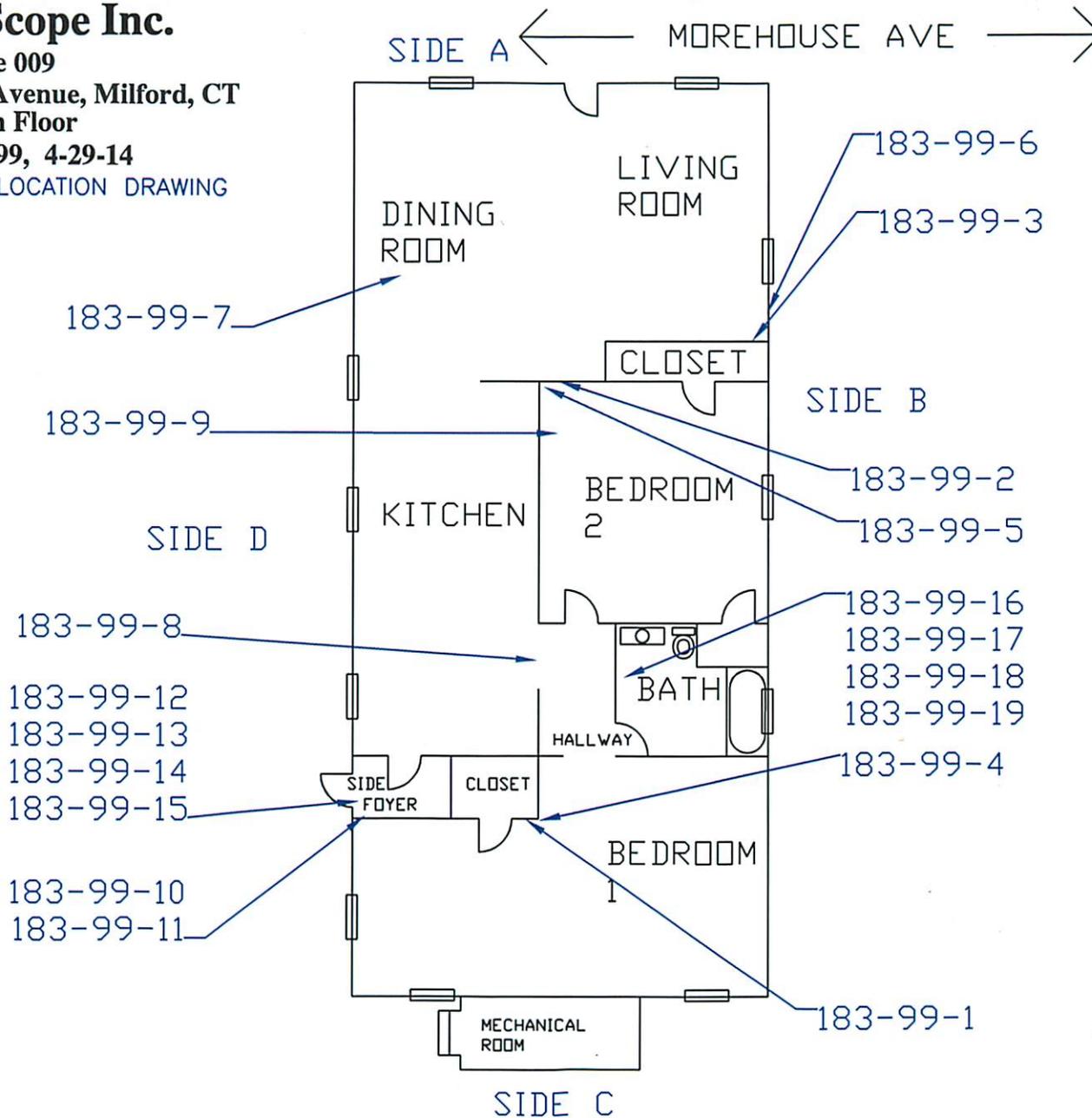
ChemScope Inc.

Site 009

31 Morehouse Avenue, Milford, CT
Main Floor

CS# 183-99, 4-29-14

BULK SAMPLE LOCATION DRAWING



LEGEND OF SYMBOLS

1	Bulk Sample No.

NOTATIONS

DRAWN BY:
LEIGH HONOROF

ChemScope Inc.

SHEET TITLE:

ASBESTOS, LEAD & MOLD INSPECTION
31 MOREHOUSE AVE
MILFORD, CT

MAIN FLOOR

CHEMSCOPE NUMBER
CS# 183-99
SCALE
NOT TO SCALE
DATE
4/29/14

DRAWING NUMBER

1 B

ChemScope Inc.

Site 009

31 Morehouse Avenue, Milford, CT

Basement

CS# 183-99, 4-29-14

BULK SAMPLE LOCATION DRAWING

SIDE A ← MOREHOUSE AVE →

183-99-22

SIDE D

183-99-20

183-99-23

SIDE B

183-99-21

SIDE C



LEGEND OF SYMBOLS

1	Bulk Sample No.

NOTATIONS

DRAWN BY:
LEIGH HONOROF

ChemScope Inc.

SHEET TITLE:

ASBESTOS, LEAD &
MOLD INSPECTION

31 MOREHOUSE AVE
MILFORD, CT

BASEMENT

CHEMSCOPE NUMBER:
CS# 183-99

DRAWING NUMBER

SCALE
NOT TO SCALE

2 B

DATE
4/29/14

ChemScope INDUSTRIAL HYGIENE • ENVIRONMENTAL CHEMISTRY

15 Moulthrop Street, North Haven, CT 06473-3686 • Phone (203) 865-5605 • Fax (203) 498-1610

Scott Feulner
Diversified Technology Consultants (DTC)
2321 Whitney Avenue, Suite 301
Hamden, CT 06518

5/14/2014

**PRELIMINARY MOLD ASSESSMENT
SITE 009 – 31 MOREHOUSE AVENUE, MILFORD, CT
APPLICATION #1253
CS#183-99, 4/29/2014, PAGE 1 OF 6**

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Assessment Report Synopsis	2-4
Recommendations	4-6
Limitations of Assessment	6

Attachments:

- Location of Mold Damage Drawing - 2 page(s)

Report Distribution:

Scott Feulner, DTC Scott.Feulner@teamdtc.com
Curtis Graham, DTC graham.curtis@teamdtc.com
Michael Casey, DTC michael.casey@teamdtc.com

File Location:

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This investigation and information provided in this report depends partly on background information provided by the client. This report is intended for the use of the client. The scope of services performed may not be appropriate for other users and any use of this report by third parties is at their sole risk. This report is intended to be used in its entirety. No excerpts may be taken to be representative of this report.

It is possible that hidden mold may be growing inside the building cavities. Some floor, wall or ceiling demolition would be needed to find hidden mold.

**PRELIMINARY MOLD ASSESSMENT
SITE 009 – 31 MOREHOUSE AVENUE, MILFORD, CT
APPLICATION #1253
CS#183-99, 4/29/2014, PAGE 2 OF 6**

INTRODUCTION

EXECUTIVE SUMMARY: Mold and moisture issues, as a result of a past water-damage, need to be resolved. There is visible mold in the behind lower wall panels and under hardwood floors. There is some visible mold on the wood components of the crawlspace as well.

BUILDING DESCRIPTION: The subject building is a single-family, one-story, bungalow-style house totaling approximately 1000 sq ft, which was built in 1928 of wood-frame construction. Heat is supplied from a boiler in the mechanical room, through radiators. There is a crawlspace under the main portion of the house (not including the mechanical room).

BACKGROUND: We understand the subject house suffered damage as a result of hurricane Sandy on October 29-30, 2012. The house is scheduled to be renovated and raised. We understand the water from the storm reached just above the floor level. We understand the scope of the renovations to be as follows: demolition of all floors and lower walls, demolition of mechanical room and everything located in the crawlspace below the house.

SCOPE OF WORK: We conducted a preliminary mold assessment, as directed by our client, in the areas affected by the water-damage only (First Floor and Crawlspace). See the attached drawing for details.

Our work included:

- Visual inspection
- Temperature/Humidity testing
- Percent Moisture in selected building materials

MOLD ASSESSMENT REPORT SYNOPSIS

Observations from Visual Inspection/temperature and humidity testing:

Dan Sullivan of Chem Scope, Inc. was at the site on 4/29/2014 to conduct the subject tests. Dan was assisted by Ziyang Wang. All of the doors and windows were closed at the time of our inspection. We arrived on site at around 8:00 AM. The weather was overcast at the time of our assessment. The exterior temperature at the time of our assessment was about 55 °F. We were let into the subject house by the homeowner and our client.

There is visible mold on some of the wooden baseboards, on sheetrock walls behind lower wall panels and under hardwood floors. There is some visible mold on the wood components of the crawlspace as well. There were no noticeable unusual smells or odors in any of the areas assessed, with the exception of a musty odor in the muddy crawlspace below the house (which is typical). Heat is normally supplied from boiler in the Mechanical Room to baseboard radiators throughout the house. The heat and water were off and electricity was on. The house has not been occupied since the storm.

The crawlspace had a soil floor, which was damp at the time of our inspection. Most of the rooms in the house had sheetrock ceilings, sheetrock walls and hardwood floors. The bathroom and side foyer had ceramic floors. Some rooms had lower vinyl or wood wallboards.

Continued

**PRELIMINARY MOLD ASSESSMENT
 SITE 009 – 31 MOREHOUSE AVENUE, MILFORD, CT
 APPLICATION #1253
 CS#183-99, 4/29/2014, PAGE 3 OF 6**

MOLD ASSESSMENT REPORT SYNOPSIS (cont)

Observations from Visual Inspection/temperature and humidity testing (cont):

The temperature and humidity, inside vs outside was determined using a sling psychrometer. Normal dew point levels are generally considered between 10 and 21 °C (50 and 69 °F). In areas with dew points under 10 °C (50 °F), the air is considered too dry. In areas with dew points above 21 °C (69 °F), the air is considered too humid. Normal relative humidity for a house is 30-50% depending on the outdoor climate. The dew point is elevated in comparison with the exterior conditions, considering the heat was not on. Relative humidity was elevated for the season in the house and crawlspace.

Table 1 - Temperature & Humidity Results (4/29/2014)

Location	Dry Bulb (°F) (Room / Air Temperature)	Wet Bulb (°F)	%RH	Dew Point (°F)
Bedroom 1	55.5	50	68	45
Bathroom	55	50	70	46
Bedroom 2	55	50	70	46
Kitchen	56	50	65	45
Living Room	55	50	70	46
Mechanical Rm	48	45	79	42
Crawlspace	49	46	80	43
Exterior	46	44	86	42

The sling psychrometer is the classical method for measuring humidity. Two ASTM thermometers are secured to a device that is spun through the air. One of the thermometers has a wick on the end soaked in water (WB or wet bulb reading). The other thermometer has no wick (DB or dry bulb reading = room temperature). The principle is that for a given temperature, the difference in WB and DB readings is a direct measure of the amount of water in the air. If air were very dry, it would evaporate much more water from the DB and the evaporation causes cooling. Results can be converted to %RH and dew point (DP). The dew point is a measure of the absolute amount of water in the air and is more useful in comparisons than the relative humidity, which is also affected by temperature.

A Protimeter Moisture Measurement System (Marlow England) is used to measure the amount of moisture in various surfaces and materials in terms of wood moisture equivalents (WME). This device has two pin-point probes, which are inserted in the surface and the conductivity is used to measure moisture in the material as % H₂O. Moisture is important to detect potential biological growth. The normal amount of moisture in each material varies with humidity. Materials which have >30% H₂O are relatively damp and may be wet enough to permit mold growth. A material with 70% H₂O is very wet and likely to have mold growth. This instrument does not measure below 7% moisture, which is considered bone dry.

Table 2 (on page 4) is a summary of our visual observations and moisture readings (mold and moisture issues are shown in ***BOLD Italics***). There is visible mold on some of the wooden baseboards, on sheetrock walls behind lower wall panels and under hardwood floors. There is some visible mold on the wood components of the crawlspace as well.

**PRELIMINARY MOLD ASSESSMENT
SITE 009 – 31 MOREHOUSE AVENUE, MILFORD, CT
APPLICATION #1253
CS#183-99, 4/29/2014, PAGE 4 OF 6**

MOLD ASSESSMENT REPORT SYNOPSIS (cont)

Table 2 – Visible Mold and % Moisture in Building materials (4/29/2014)

Room / Material	% Moisture (WME)	Notes
Bedroom 1/ SR walls <1' above floor level	14-29%	No visible mold
Bedroom 1/ SR walls 2' above floor level	10-14%	No visible mold
Bedroom 1/ Hardwood floor – water-damaged	10-18%	No visible mold
Bedroom1/ Wooden baseboard	11-17%	No visible mold
Bathroom/ Wooden baseboard	14-17%	No visible mold
Bedroom 2/ SR walls <1' above floor level	14-48%	No visible mold
Bedroom 2/ SR walls 2' above floor level	10-14%	No visible mold
Bedroom 2/ Hardwood floor	10-18%	Visible Mold under hardwood floors
Bedroom2/ Wooden baseboard	11-17%	No visible mold
Hallway/ Wood wallboard walls <1' above floor level	10-16%	No visible mold
Hallway/ Wood wallboard walls 2' above floor level	7–10%	No visible mold
Hallway/ Hardwood floor – water-damaged	11-15%	No visible mold
Hallway/ Wooden baseboard	16-19%	No visible mold
Kitchen/ Wood wallboard <1' above floor level	13-19%	Visible mold on sheetrock under wallboard
Kitchen/ Wood wallboard walls 2' above floor level	9-13%	Visible mold on sheetrock under wallboard
Kitchen/ Hardwood floor	11-18%	No visible mold
Kitchen/ Wooden baseboard	11-16%	No visible mold
Dining Rm & Living Rm / SR walls <1' above floor level	14-45%	No visible mold
Dining Rm & Living Rm / SR walls 2' above floor level	11-14%	No visible mold
Dining Rm & Living Rm / Wooden baseboard	11-16%	No Visible Mold
Dining Rm & Living Rm / Hardwood floor – water-damaged	10-16%	No Visible Mold
Mechanical Rm / Wood floor	18-25%	No Visible Mold
Mechanical Rm/ SR walls <3' above floor level	25-50%	No Visible Mold
Mechanical Rm/ Wooden walls	15-20%	No Visible Mold
Crawlspace/ Wood ceiling and beams	17-30	Visible Mold

General Information about Mold: Mold is always present indoors and outdoors and is a natural and necessary part of the environment. There are no Connecticut or federal health based standards for molds. The EPA does not call for routinely testing for mold in assessments. EPA and other agencies report that molds have the potential to cause health effects. The main concerns are people with allergies, asthma and compromised immune systems. There are thousands of mold species, and many are not yet identified. There is much more to learn and new information is becoming available regularly. In a mold assessment, we strive to detect moisture problems that cause excessive biological growth and when appropriate, recommend a plan of corrective action. When moisture problems occur, mold growth is likely if organic materials are not promptly dried up. Hidden mold may exist which cannot be seen without demolition. For guidance on mold, log onto EPA.gov and search mold remediation or the state DPH web site.

**PRELIMINARY MOLD ASSESSMENT
SITE 009 – 31 MOREHOUSE AVENUE, MILFORD, CT
APPLICATION #1253
CS#183-99, 4/29/2014, PAGE 5 OF 6**

RECOMMENDATIONS

See our separate Asbestos Pre-Renovation Inspection Report and Lead Pre-renovation XRF Screening Report for details regarding asbestos and lead present in these areas.

In general, correction of water damage requires first eliminating the source of the water. With the house being raised there should be a great increase in the ventilation below the house, which should address the excess humidity in the crawlspace.

Instructions for Moisture Remediation: These instructions are intended for trained moisture/mold remediation contractors who are familiar with the terms used and skilled in the operations involved in moisture/mold remediation. Although no mold was seen on sheetrock walls, based on the homeowner's previous renovations, mold is assumed to exist inside the wall cavities and the following instructions should be used:

For the First Floor Dining Room, Kitchen, Bathroom, Side Foyer, Entry Room and Laundry Room Flooring and Lower Walls and Crawlspace:

1. The work area must be unoccupied except for authorized personnel during subsequent work. Use poly to isolate the work areas from the rest of the building.
2. Stored materials should be removed prior to the cleanup.
3. Negative air must be used to purge out the areas using HEPA filtered blowers, at least 2000 CFM per area. Negative air must be exhausted outside.
4. HEPA vacuums must be used for the cleanup. Thorough HEPA vacuuming is essential.
5. Remove all lower 4' of sheetrock walls and wall paneling on sheetrock walls from the First Floor Dining Room, Kitchen, Bathroom, Side Foyer, Entry Room and Laundry Room walls.
6. If hidden mold is uncovered during the wall removal the scope will have to be revised to address the additional mold.
7. Remove all kitchen and bathroom cabinets, so that all flooring may be removed.
8. Remove all hardwood flooring and paper under hardwood flooring.
9. Remove wood subflooring.
10. Abrasively clean any visible mold from the crawlspace. Abrasive removal should be done within a negative pressure containment or enclosure and cleaned using HEPA vacuums and tack cloths.
11. Clean out any debris and clean all surfaces. With the owner's approval, spray cleaned surfaces, especially wall cavities with mold inhibitor. Quaternary ammonium compounds are preferred mold growth inhibitors. Only EPA/DEP registered fungicides may be used such as Fiberloc Shockwave[®] and Aftershock[®]. Any product used at the contractor's discretion to kill mold or to deter future mold growth must be an EPA/DEP registered fungicide including any sealant finishing products.
12. Replace with new mold-free similar materials. Any new Sheetrock installed should be offset at least ¼" from the floor.
13. After the work is complete, a final visual inspection is suggested for quality control. Air samples could be run at the conclusion of the work at the owner's discretion. Any testing should be done after the negative air units have been shut off for at least a day.

**PRELIMINARY MOLD ASSESSMENT
SITE 009 – 31 MOREHOUSE AVENUE, MILFORD, CT
APPLICATION #1253
CS#183-99, 4/29/2014, PAGE 6 OF 6**

LIMITATIONS OF MOLD ASSESSMENT AND REMOVAL

Once water source has been corrected, the main focus of the remediation is to remove or clean water damaged materials as appropriate and thereby reduce the amount of mold to the extent practicable. It is well known in the industry that mold can never completely be removed from a site because of the constant presence of mold spores in the outdoor environment and the ability of molds to remain dormant within a building. If moisture problems recur, new mold growth is likely. Hidden mold may exist which cannot be seen without demolition.

Please call me if there are any questions about this report or if you need further assistance.

Thank you for calling on us.



Dan Sullivan
Vice President, Operations

ChemScope Inc.

Site 009

31 Morehouse Avenue, Milford, CT

Main Floor

CS# 183-99, 4-29-14

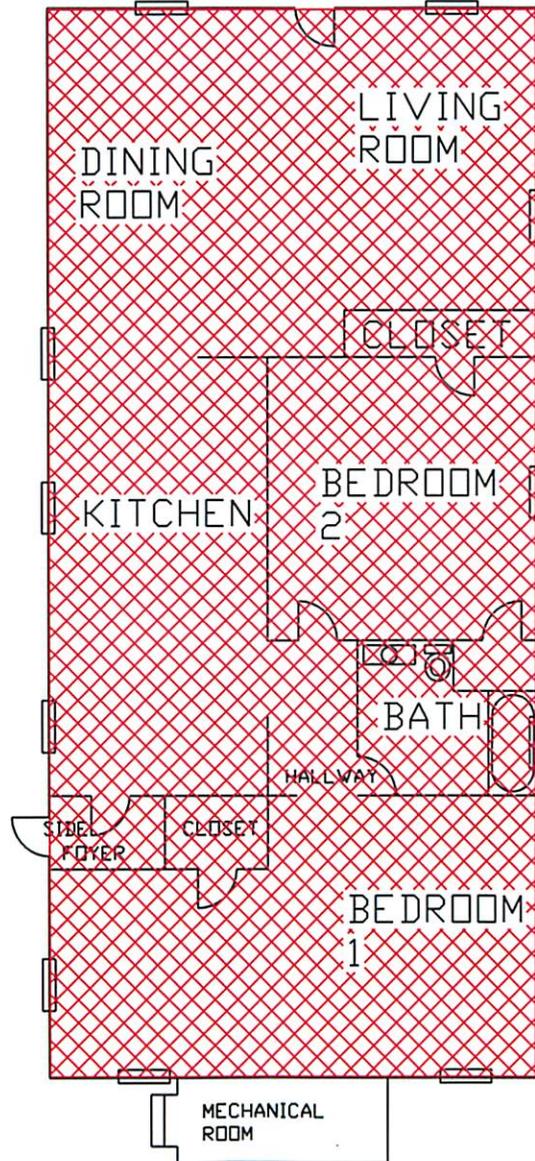
MOLD LOCATION DRAWING

SIDE A ← MOREHOUSE AVE →

SIDE D

SIDE B

SIDE C



LEGEND OF SYMBOLS

	Location of Mold on lower walls and floors, in scope of Assessment only

NOTATIONS

DRAWN BY:
LEIGH HONOROF

ChemScope Inc.

SHEET TITLE:
ASBESTOS, LEAD & MOLD INSPECTION
31 MOREHOUSE AVE MILFORD, CT
MAIN FLOOR

CHEMSCOPE NUMBER: CS# 183-99	DRAWING NUMBER
SCALE NOT TO SCALE	1M
DATE 4/29/14	

ChemScope Inc.

Site 009

31 Morehouse Avenue, Milford, CT

Basement

CS# 183-99, 4-29-14

MOLD LOCATION DRAWING

SIDE A

MOREHOUSE AVE

SIDE B

SIDE D

SIDE C



LEGEND OF SYMBOLS

 Location of visible mold in Scope of Our Assessment

NOTATIONS

DRAWN BY:
LEIGH HONOROF

ChemScope Inc.

SHEET TITLE:

ASBESTOS, LEAD &
MOLD INSPECTION

31 MOREHOUSE AVE
MILFORD, CT

BASEMENT

CHEMSCOPE NUMBER:
CS# 183-99

SCALE:
NOT TO SCALE

DATE:
4/29/14

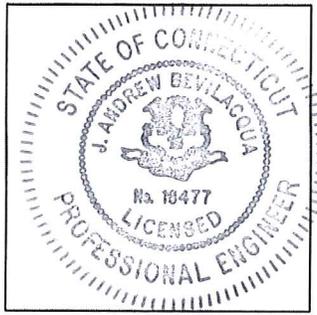
DRAWING NUMBER

2 M

Appendix B

DECD/SHPO/DOH Professional Certification Form

For all General Permit Applications submitted as part of the Flood Management Certification for Disaster Recovery Activities, the following certification must be signed and sealed by a professional engineer licensed to practice in Connecticut.

Property: 31 Morehouse Street, Milford, CT 06460 Application Number: 1253 "I certify that in my professional judgment, the above referenced project has been designed consistent with the Flood Management Certification for Disaster Recovery Activities as approved by DEEP and that the information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in the submitted information may, pursuant to Section 22a-6 of the General Statutes, be punishable as a criminal offense under Section 53a-157b of the General Statutes, and may also be punishable under Section 22a-438 of the General Statutes."	
_____ Signature of Applicant	8/20/2014 _____ Date
_____ Name of Applicant (print or type)	_____ Title
 _____ Signature of Professional Engineer	8/20/2014 _____ Date
J. Andrew Belivacqua _____ Name of Professional Engineer (print or type)	18477 _____ P.E. Number
Affix P.E. Stamp Here	
	

Location 31 MOREHOUSE AVE
Mblu 30/ 638/ 21/ /
Acct# 008646
Owner MASURY RONALD G

Assessment \$136,280
Appraisal \$194,680
PID 6811
Building Count 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2012	\$105,580	\$89,100	\$194,680

Assessment			
Valuation Year	Improvements	Land	Total
2012	\$73,910	\$62,370	\$136,280

Owner of Record

Owner MASURY RONALD G
Co-Owner
Address 31 MOREHOUSE AV
MILFORD, CT 06460
Sale Price \$99,000
Book & Page 02223/0066
Sale Date 06/03/1997

Ownership History

Ownership History			
Owner	Sale Price	Book & Page	Sale Date
HEAGY MICHAEL & PERNAL PATRICI	\$0	01653/0053	06/01/1988

Building Information

Building 1 : Section 1

Year Built: 1928
Living Area: 960
Replacement Cost: \$131,975
Building Percent 33
Good:
Replacement Cost
Less Depreciation: \$43,550

Building Attributes	
Field	Description
Style	Bungalow
Model	Residential
Grade:	Below Average

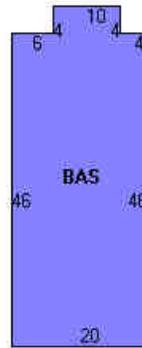
Stories:	1 Story
Occupancy	1
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Flr 1	Carpet
Interior Flr 2	
Heat Fuel	Gas
Heat Type:	Hot Water
AC Type:	None
Total Bedrooms:	2 Bedrooms
Total Bthrms:	1
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	4 Rooms
Bath Style:	Average
Kitchen Style:	Updated
Bath Desc.	1-Full

Building Photo



(<http://images.vgsi.com/photos/MilfordCTPhotos//\00\03\38\71>)

Building Layout



Building Sub-Areas			<u>Legend</u>
Code	Description	Gross Area	Living Area
BAS	First Floor	960	960
		960	960

Extra Features

Extra Features		<u>Legend</u>
No Data for Extra Features		

Land

Land Use

Use Code	1010
Description	SINGLE FAM MDL-01
Zone	R5
Neighborhood	E

Land Line Valuation

Size (Sqr Feet)	4356
Frontage	40
Depth	105
Assessed Value	\$62,370

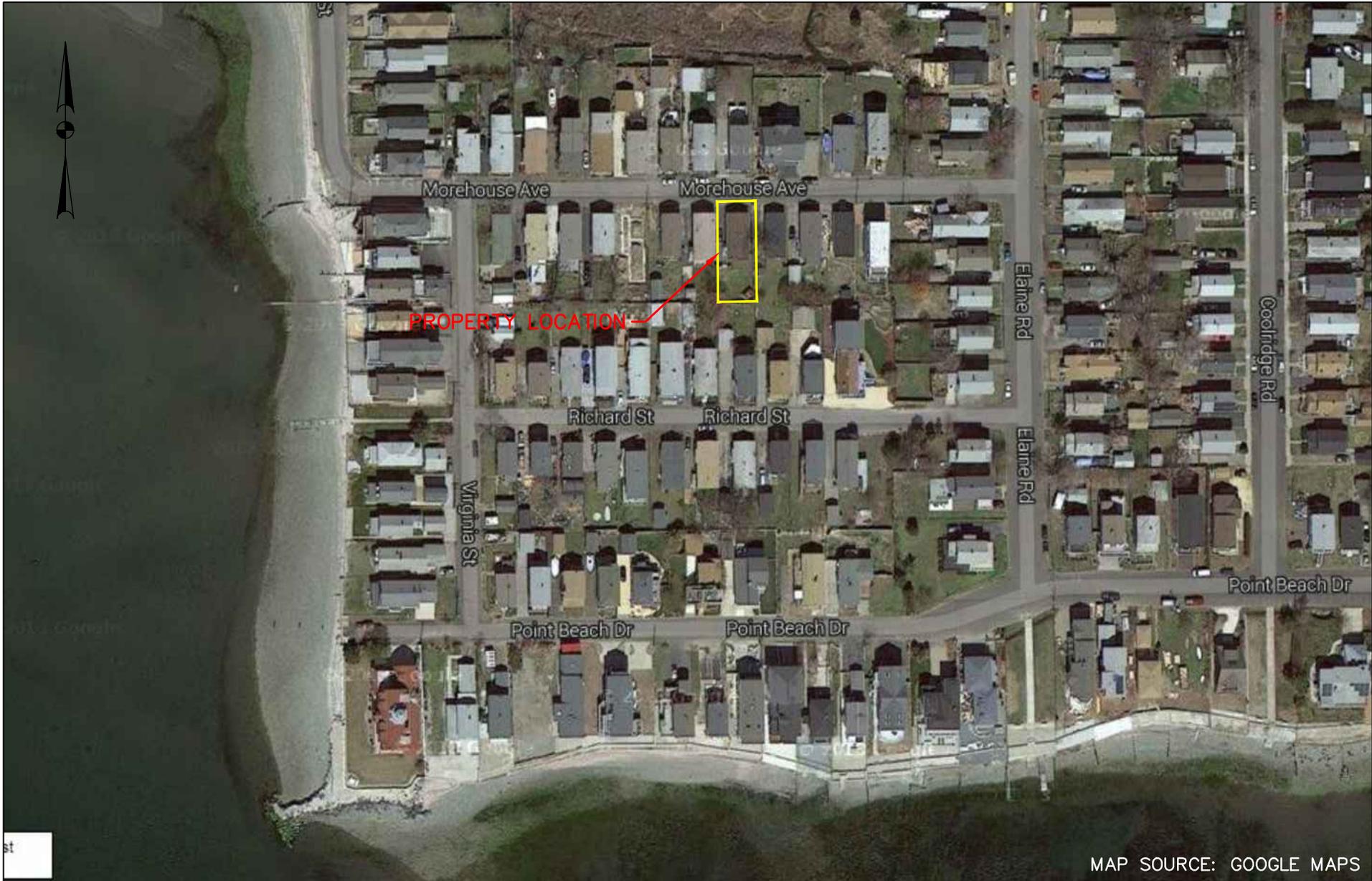
Outbuildings

Outbuildings	Legend
No Data for Outbuildings	

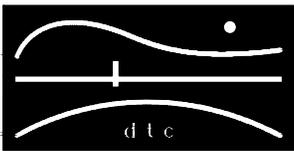
Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2011	\$79,190	\$89,100	\$168,290
2009	\$124,030	\$109,340	\$233,370
2008	\$124,030	\$109,340	\$233,370

Assessment			
Valuation Year	Improvements	Land	Total
2011	\$55,430	\$62,370	\$117,800
2009	\$86,820	\$76,540	\$163,360
2008	\$86,820	\$76,540	\$163,360



MAP SOURCE: GOOGLE MAPS

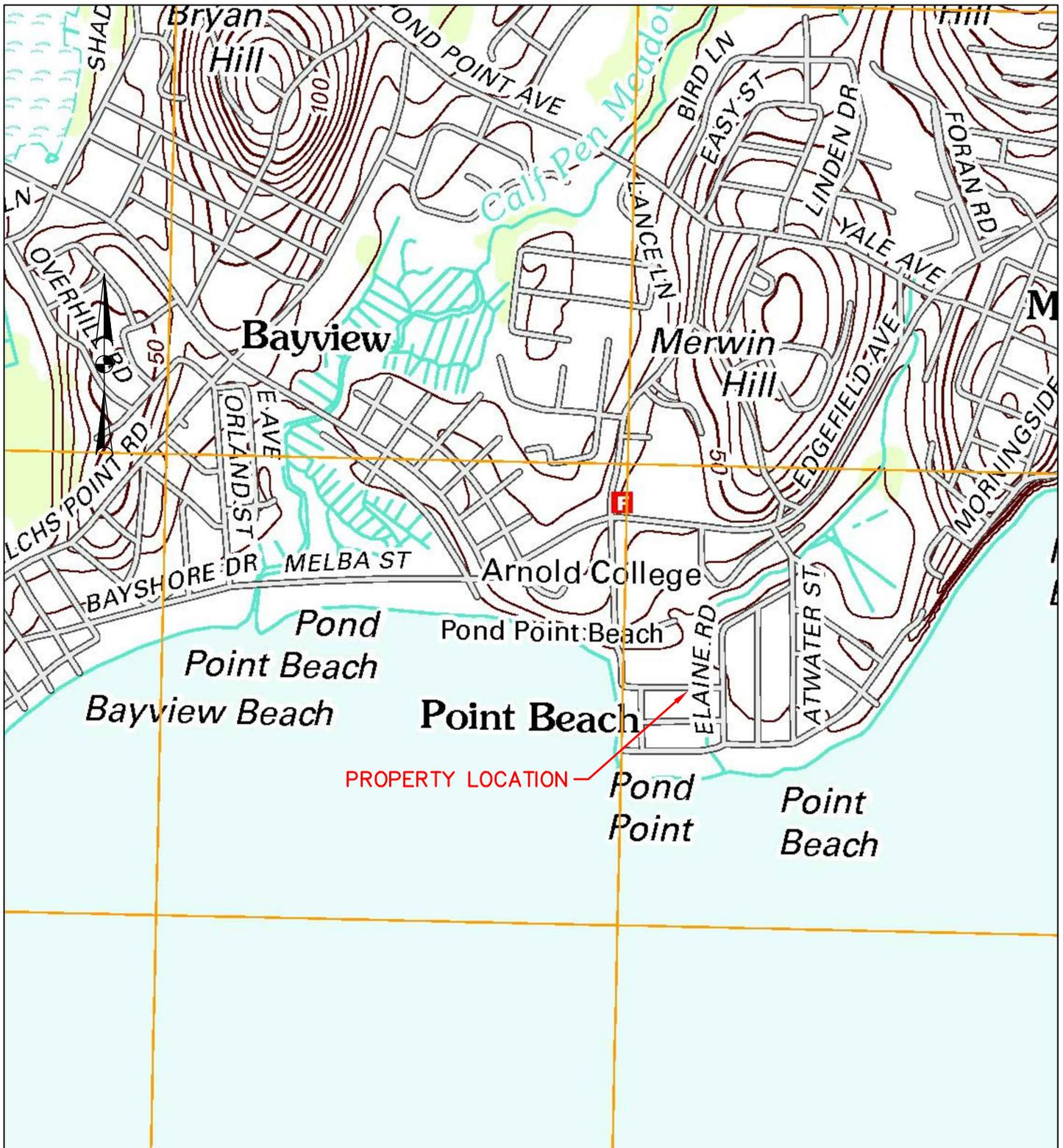


DIVERSIFIED TECHNOLOGY CONSULTANTS
 2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
 Ph: 203 239 4200 Fax: 203 234 7376

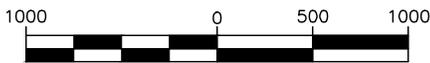
DEPARTMENT OF HOUSING
 COMMUNITY DEVELOPMENT BLOCK GRANT
 DISASTER RECOVERY
 31 MOREHOUSE AVENUE
 MILFORD, CT

ATTACHMENT 15
 AERIAL PHOTOGRAPH

PROJECT NUMBER:	13-449-009	APPLICANT NO:	1253	SCALE:	NTS	DRAWN BY:	LEC
				DATE:	07/15/14	CHECKED BY:	JAB

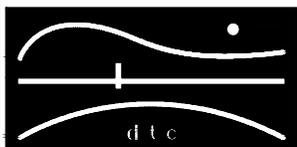


GRAPHIC SCALE



(IN FEET)

MAP SOURCE: UNITED STATES GEOLOGICAL SURVEY



DIVERSIFIED TECHNOLOGY CONSULTANTS
2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
Ph: 203 239 4200 Fax: 203 234 7376

DEPARTMENT OF HOUSING
COMMUNITY DEVELOPMENT BLOCK GRANT
DISASTER RECOVERY

31 MOREHOUSE AVENUE
MILFORD, CT

ATTACHMENT 16
TOWN TOPO

SCALE: 1"=2000'

DRAWN BY: LEC

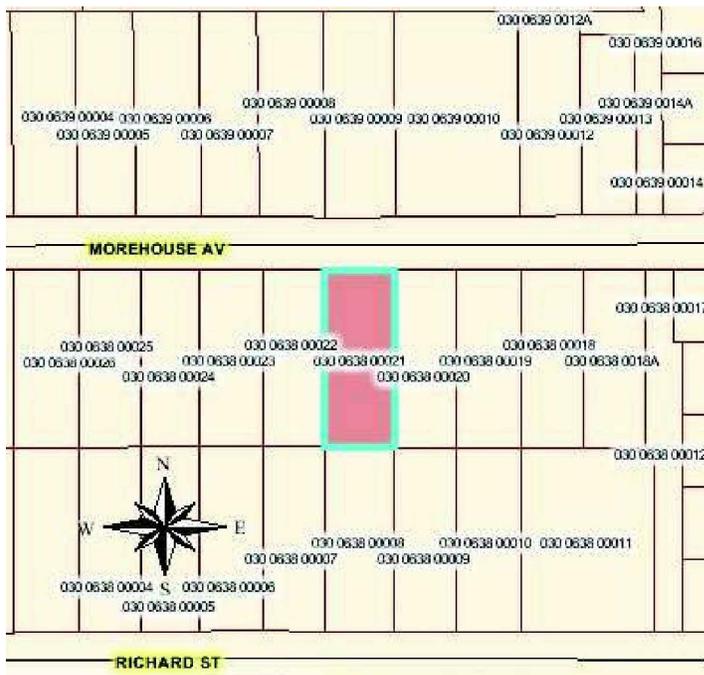
PROJECT NUMBER: 13-449-009

APPLICANT NO:

1253

DATE: 07/15/2014

CHECKED BY: JAB



Legend

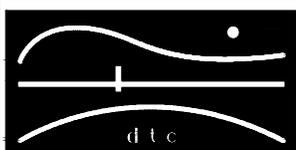
-  Streets
-  Tax Parcels
-  Town Boundary

GRAPHIC SCALE



(IN FEET)

MAP SOURCE: TOWN OF MILFORD GIS



DIVERSIFIED TECHNOLOGY CONSULTANTS
 2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
 Ph: 203 239 4200 Fax: 203 234 7376

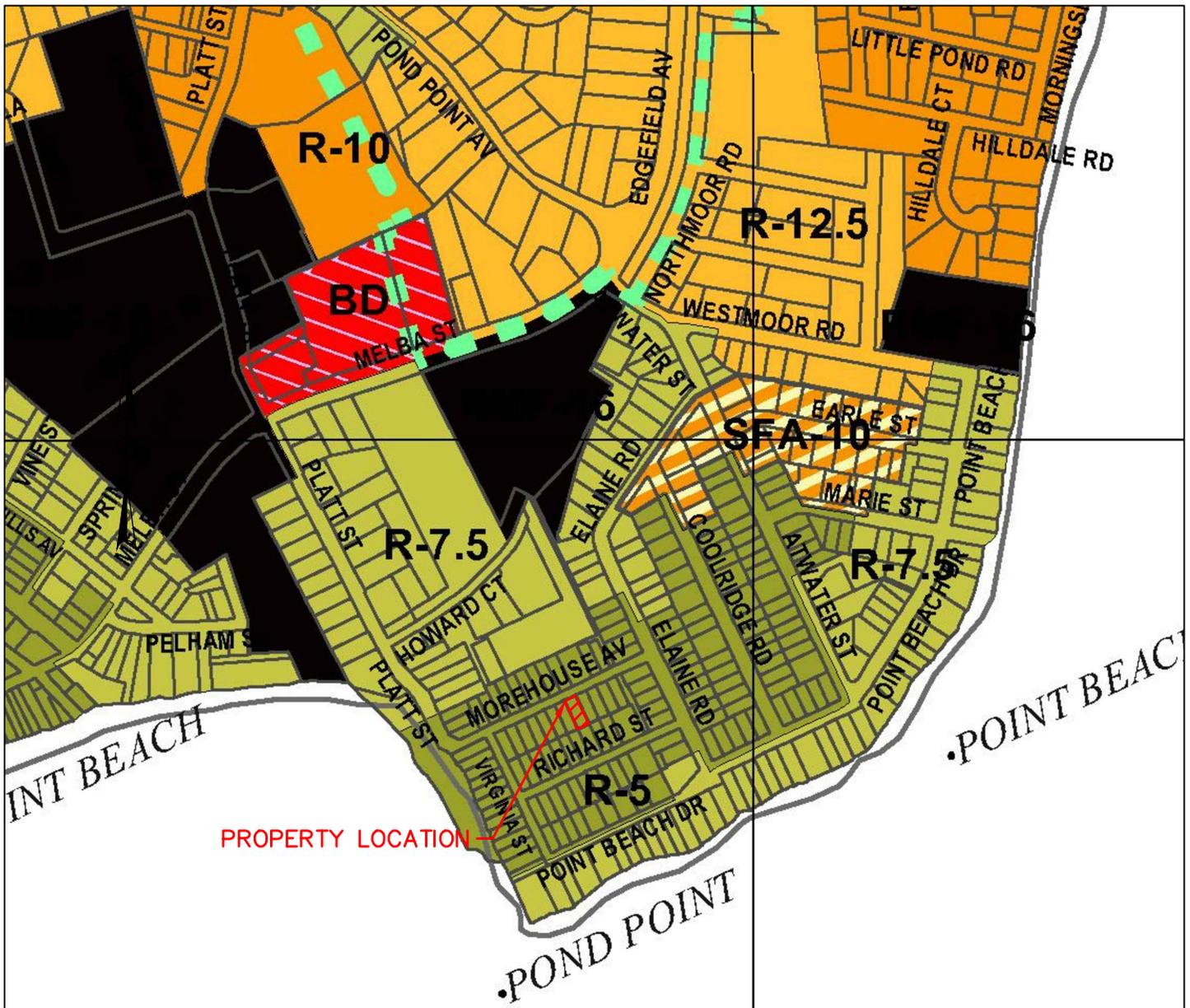
DEPARTMENT OF HOUSING
 COMMUNITY DEVELOPMENT BLOCK GRANT
 DISASTER RECOVERY

31 MOREHOUSE AVENUE
 MILFORD, CT

ATTACHMENT 17
 TAX ASSESSORS MAP

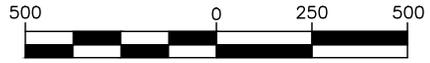
SCALE: 1"=100'	DRAWN BY: LEC
DATE: 07/15/2014	CHECKED BY: JAB

PROJECT NUMBER: 13-449-009 APPLICANT NO: 1253



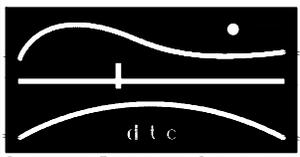
PROPERTY LOCATION

GRAPHIC SCALE



(IN FEET)

MAP SOURCE: TOWN OF MILFORD GIS



DIVERSIFIED TECHNOLOGY CONSULTANTS
 2321 Whitney Avenue - Hamden Center II - Hamden CT 06518
 Ph: 203 239 4200 Fax: 203 234 7376

DEPARTMENT OF HOUSING
 COMMUNITY DEVELOPMENT BLOCK GRANT
 DISASTER RECOVERY
 31 MOREHOUSE AVENUE
 MILFORD, CT

ATTACHMENT 18
 ZONING MAP

PROJECT NUMBER: 13-449-009 APPLICANT NO: 1253

SCALE: 1"=500'	DRAWN BY: LEC
DATE: 07/15/2014	CHECKED BY: JAB