

ENVIRONMENTAL REVIEW REPORT

**Community Development Block Grant – Disaster Recovery
Owner Occupied Rehabilitation and Rebuilding Program**

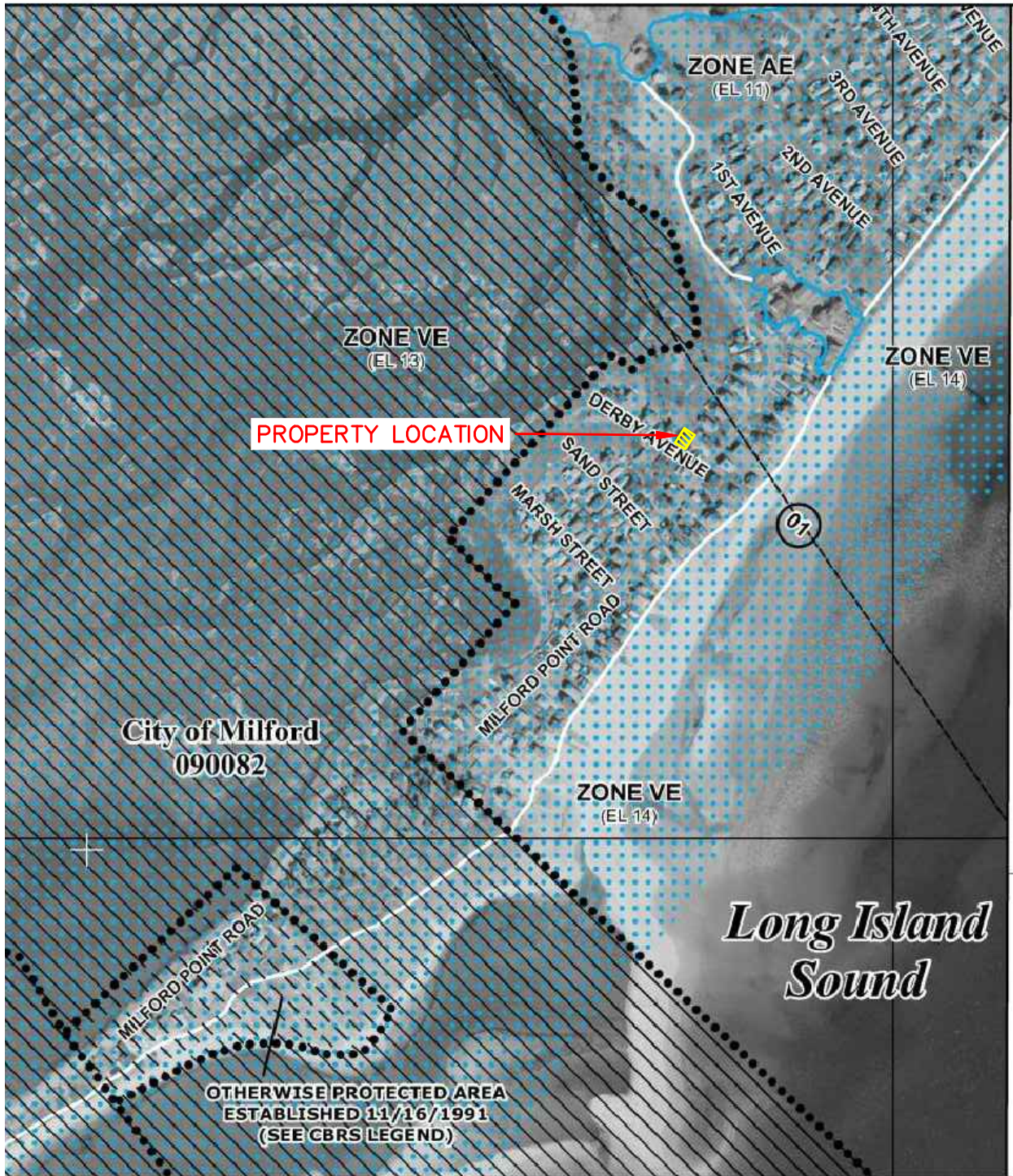
Applicant # 1405

**9 Derby Avenue
Milford, Connecticut**

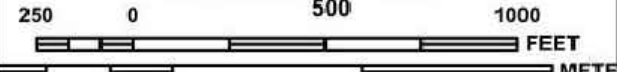
April 11, 2016

Prepared by:









**Diversified Technology Consultants
2321 Whitney Avenue
Hamden, Connecticut 06518**



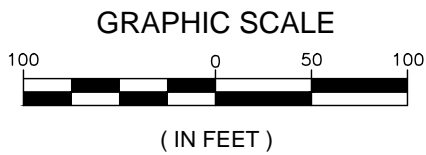
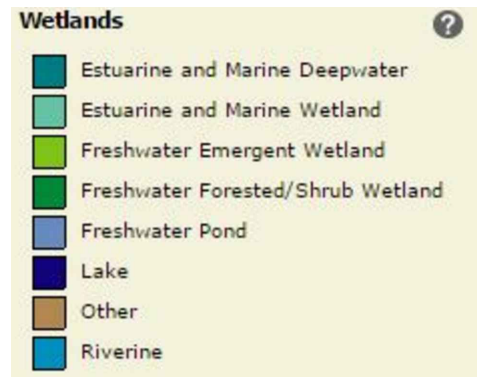
MAP SCALE 1" = 500'



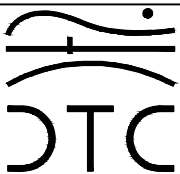
LEGEND

-  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

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



MAP SOURCE: FWS NATIONAL WETLANDS INVENTORY



DEPARTMENT OF HOUSING
COMMUNITY DEVELOPMENT BLOCK GRANT
DISASTER RECOVERY

9 DERBY AVENUE
MILFORD, CT

ATTACHMENT 2
FWS WETLAND MAP

SCALE: 1"=100'

DRAWN BY: EPZ

PROJECT NUMBER: 13-449-014

APPLICANT NO: 1405


DATE: 04/11/2016

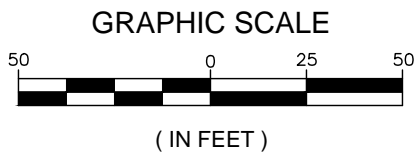
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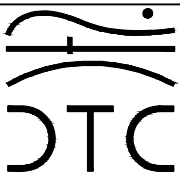


Legend

-  Streets
-  Wetlands
-  Tax Parcels
-  Color Aerial Photos
-  Town Boundary



MAP SOURCE: CITY WEBSITE



DEPARTMENT OF HOUSING
COMMUNITY DEVELOPMENT BLOCK GRANT
DISASTER RECOVERY

9 DERBY AVENUE
MILFORD, CT

ATTACHMENT 3
GIS WETLAND MAP

SCALE: 1"=50'

DRAWN BY: EPZ

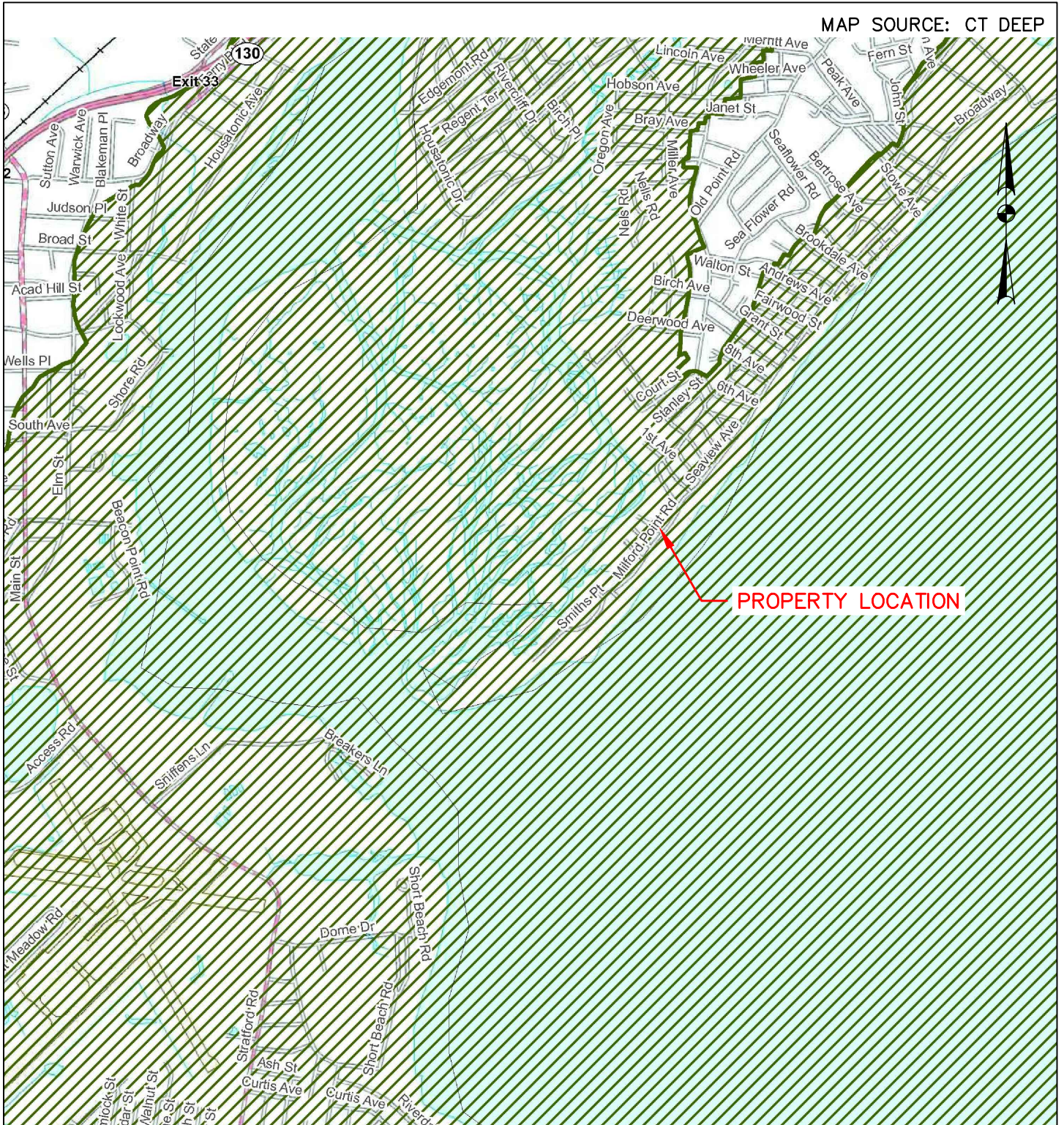
PROJECT NUMBER: 13-449-014

APPLICANT NO: 1405

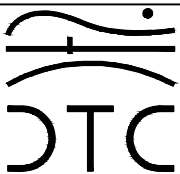
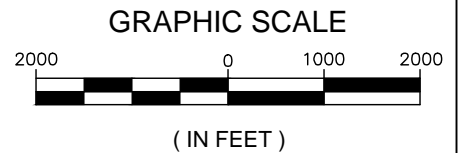
DATE: 04/11/2016

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 Coastal Boundary



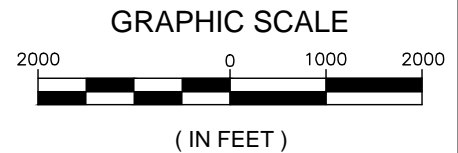
DEPARTMENT OF HOUSING
COMMUNITY DEVELOPMENT BLOCK GRANT
DISASTER RECOVERY

9 DERBY AVENUE
MILFORD, CT

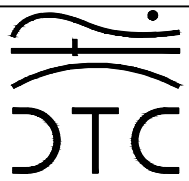
ATTACHMENT 4
CAM AREA MAP

SCALE: 1"=2000'	DRAWN BY: EPZ
DATE: 04/11/2016	CHECKED BY: JAB

PROJECT NUMBER: 13-449-014	APPLICANT NO: 1405
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 State and Federal Listed Species and Significant Natural Communities*



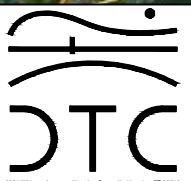
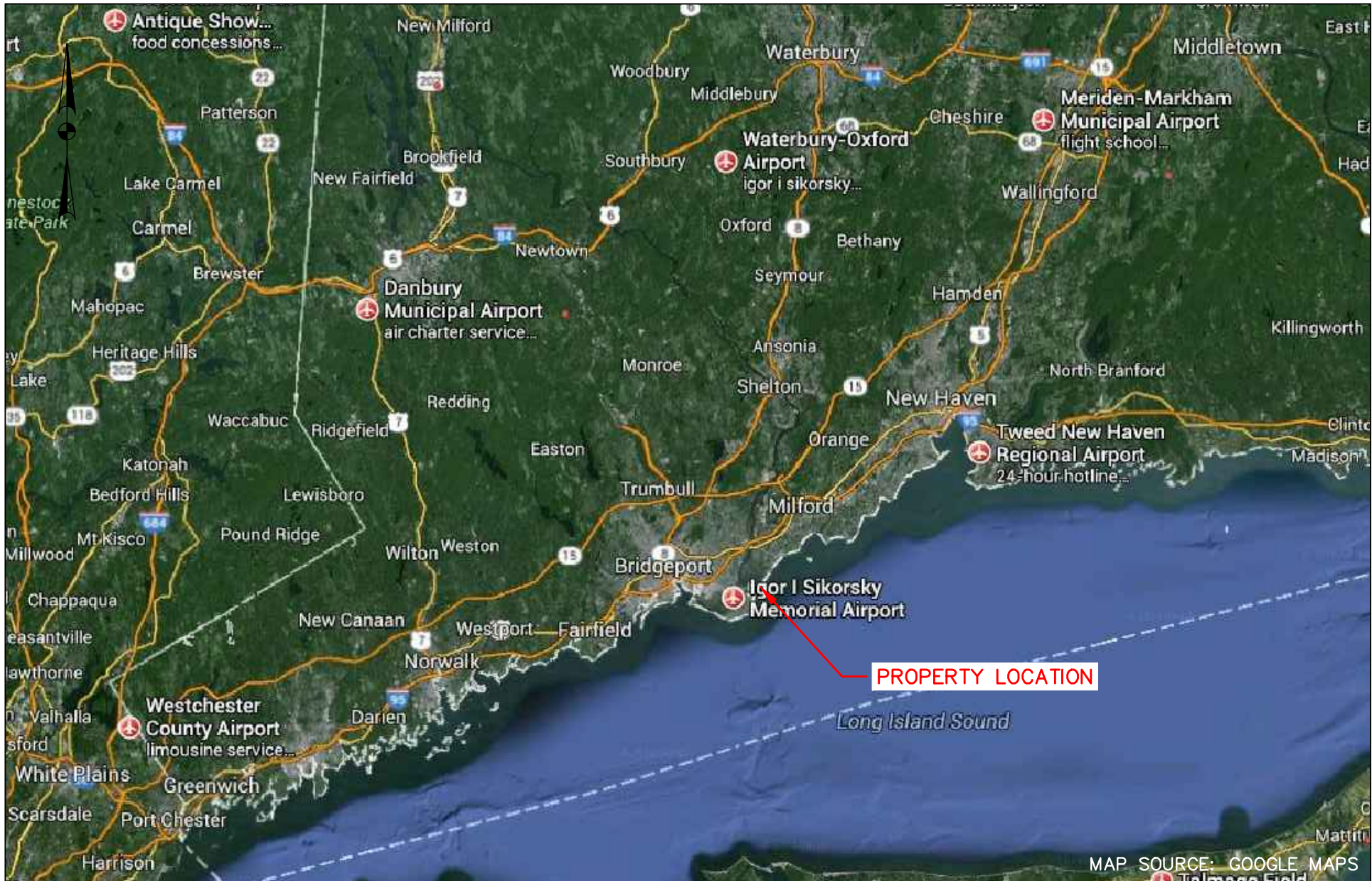
DEPARTMENT OF HOUSING
COMMUNITY DEVELOPMENT BLOCK GRANT
DISASTER RECOVERY

9 DERBY AVENUE
MILFORD, CT

ATTACHMENT 5
NDDB AREA MAP

SCALE: 1"=2000'	DRAWN BY: EPZ
DATE: 04/11/2016	CHECKED BY: JAB

PROJECT NUMBER: 13-449-014	APPLICANT NO: 1405
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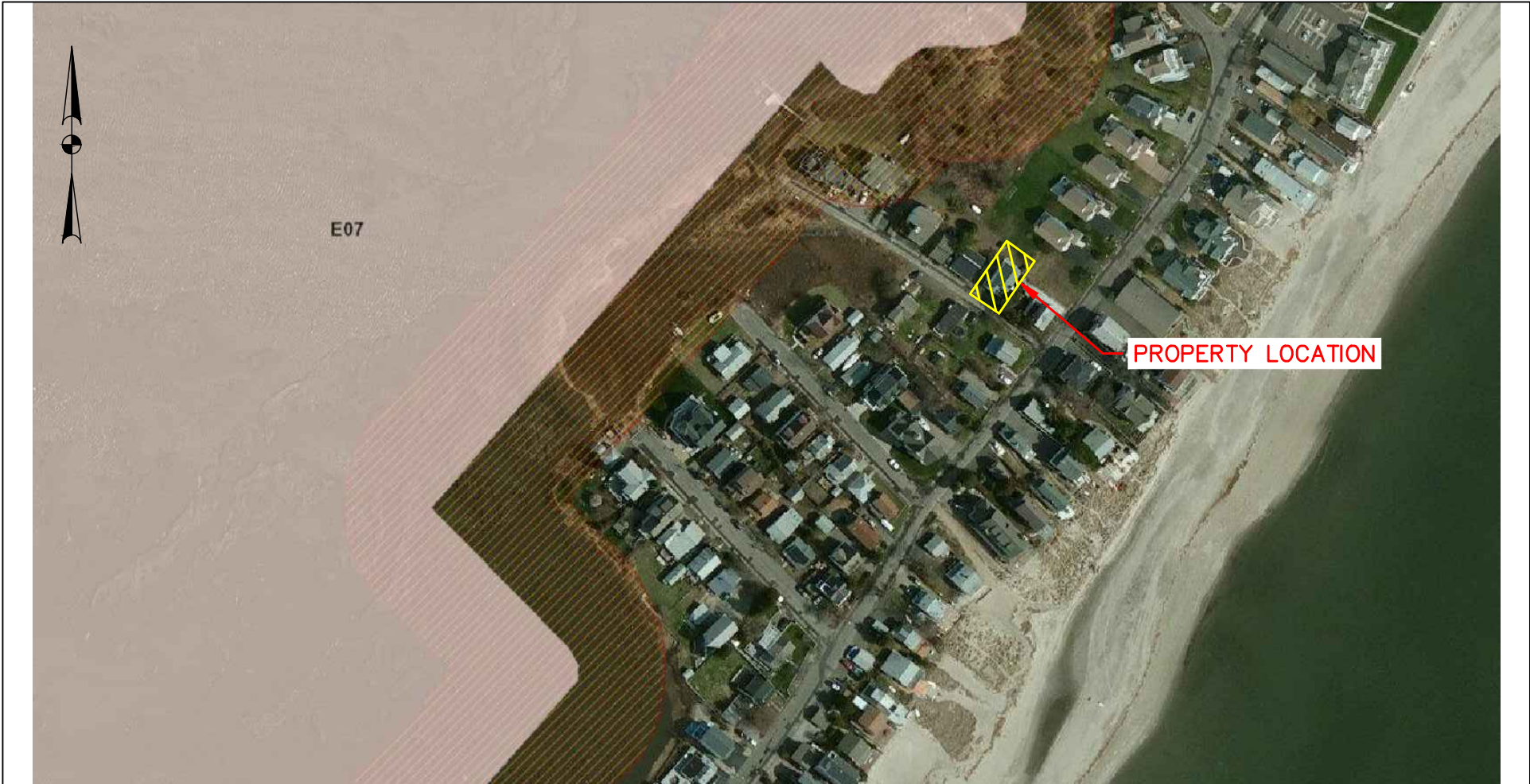
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DEPARTMENT OF HOUSING
 COMMUNITY DEVELOPMENT BLOCK GRANT
 DISASTER RECOVERY

9 DERBY AVENUE
 MILFORD, CT

ATTACHMENT 6
 AIRPORT VICINITY MAP

PROJECT NUMBER:	13-449-014	APPLICANT NO:	1405	SCALE:	NTS	DRAWN BY:	EPZ
				DATE:	04/11/2016	CHECKED BY:	JAB

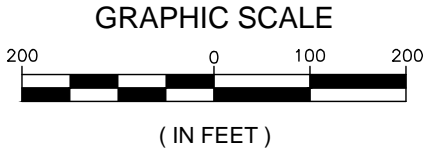


CBRS Units

- Otherwise Protected Area
- System Unit

CBRS Buffer Zone

- CBRS Buffer Zone



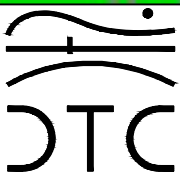
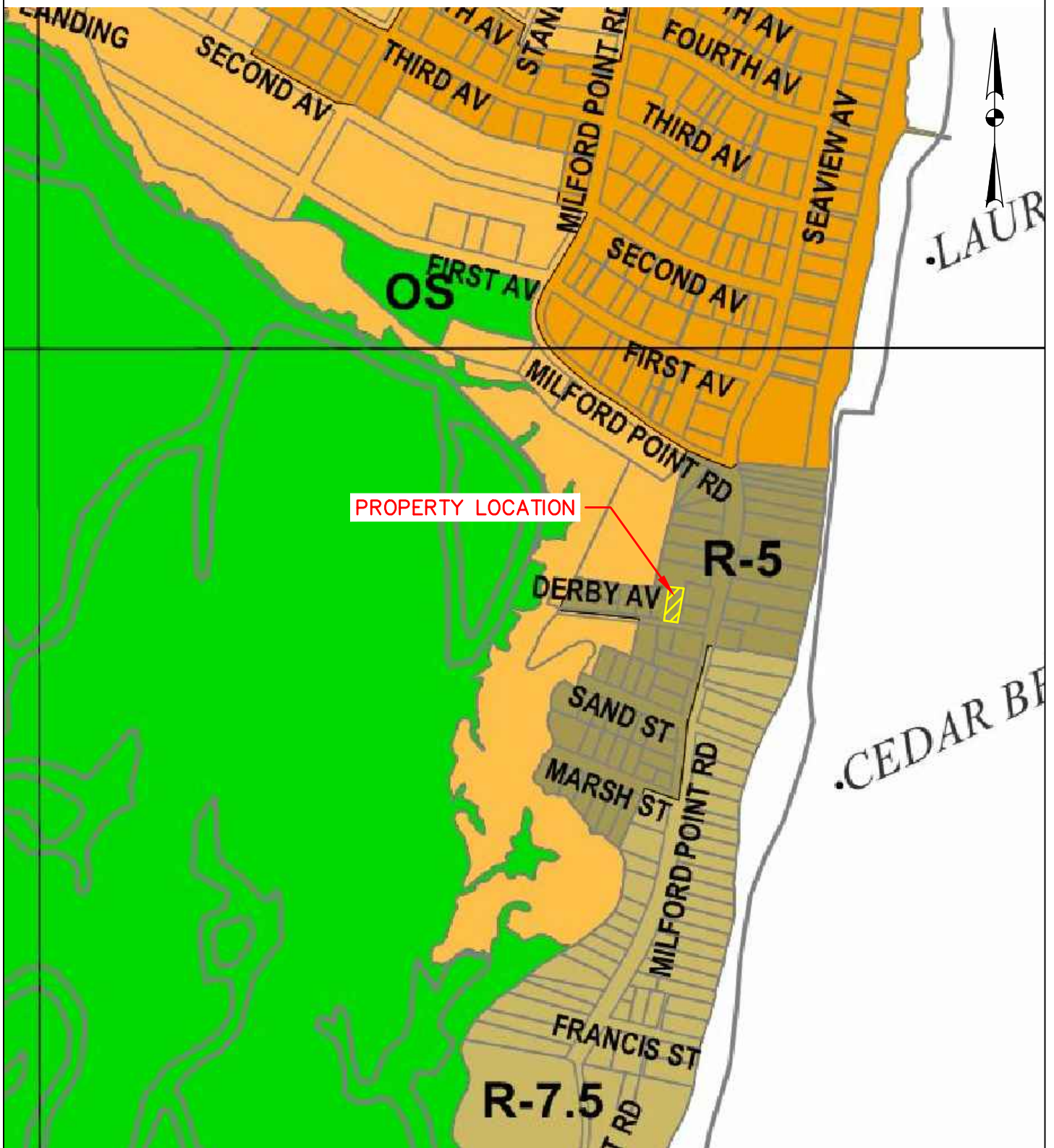
MAP SOURCE: FWS COASTAL BARRIER RESOURCES

DEPARTMENT OF HOUSING
COMMUNITY DEVELOPMENT BLOCK GRANT
DISASTER RECOVERY
9 DERBY AVENUE
MILFORD, CT

PROJECT NUMBER: 13-449-014 APPLICANT NO: 1405

**ATTACHMENT 7
COASTAL BARRIER MAP**

SCALE: 1"=200'	DRAWN BY: EPZ
DATE: 04/11/2016	CHECKED BY: JAB



DEPARTMENT OF HOUSING
COMMUNITY DEVELOPMENT BLOCK GRANT
DISASTER RECOVERY

9 DERBY AVENUE
MILFORD, CT

ATTACHMENT 8
ZONING MAP

SCALE: NTS

DRAWN BY: EPZ

PROJECT NUMBER: 13-449-014

APPLICANT NO:

1405

DATE: 04/11/2016

CHECKED BY: JAB

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United States Department of the Interior



FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 COMMERCIAL STREET, SUITE 300
CONCORD, NH 03301
PHONE: (603)223-2541 FAX: (603)223-0104
URL: www.fws.gov/newengland

Consultation Code: 05E1NE00-2016-SLI-0982

February 22, 2016

Event Code: 05E1NE00-2016-E-01335

Project Name: 1405 Maciag

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: 1405 Maciag

Official Species List

Provided by:

New England Ecological Services Field Office

70 COMMERCIAL STREET, SUITE 300

CONCORD, NH 03301

(603) 223-2541

<http://www.fws.gov/newengland>

Consultation Code: 05E1NE00-2016-SLI-0982

Event Code: 05E1NE00-2016-E-01335

Project Type: ** OTHER **

Project Name: 1405 Maciag

Project Description: Repair damage caused by hurricane Sandy and build new mechanical room above the base flood elevation.

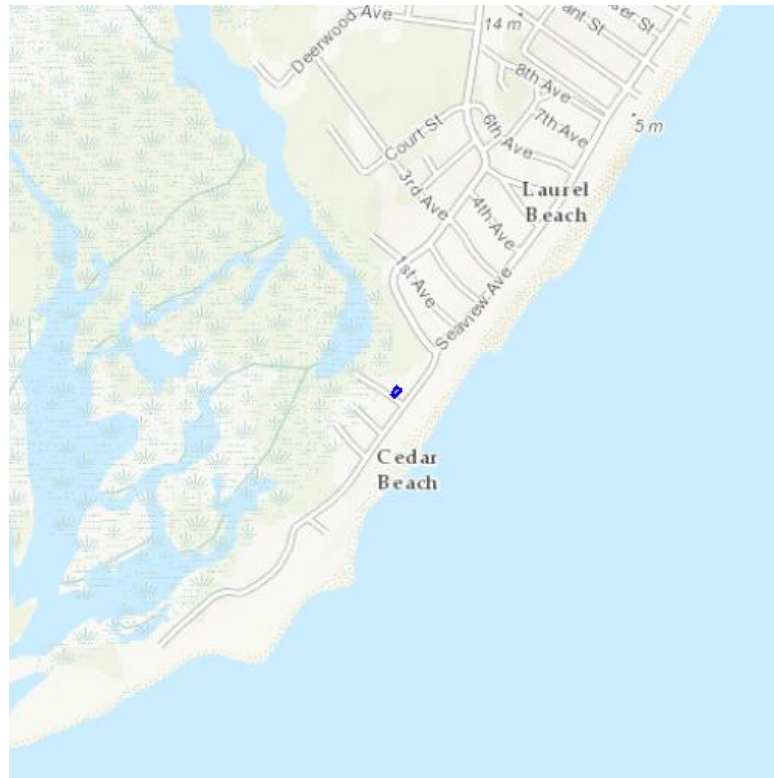
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior
Fish and Wildlife Service

Project name: 1405 Maciag

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.09752613306044 41.17947157803976, -73.0974081158638 41.17941303377276, -73.09756368398666 41.17925153207522, -73.09767365455627 41.17931815157372, -73.09752613306044 41.17947157803976)))

Project Counties: New Haven, CT



United States Department of Interior
Fish and Wildlife Service

Project name: 1405 Maciag

Endangered Species Act Species List

There are a total of 2 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	Status	Has Critical Habitat	Condition(s)
Red Knot (<i>Calidris canutus rufa</i>)	Threatened		
Mammals			
Northern long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: 1405 Maciag

Critical habitats that lie within your project area

There are no critical habitats within your project area.

Appendix B

DECED/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: 9 Derby Avenue, Milford, CT 06460

Application Number: 1405

"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."

5/3/2016

Signature of Applicant

Date

Hermia Delaire

CDBG-DR

Program Manager

Name of Applicant (print or type)

Title

4/11/2016

Signature of Professional Engineer

Date

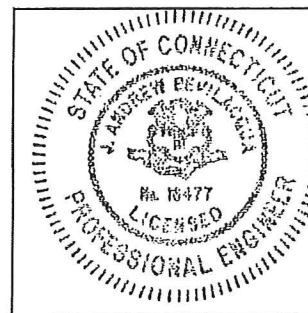
J. Andrew Belivacqua

18477

Name of Professional Engineer (print or type)

P.E. Number

Affix P.E. Stamp Here



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

3/23/2016

**ASBESTOS PRE-RENOVATION INSPECTION
MACIAG RESIDENCE – 9 DERBY AVENUE, MILFORD, CT
APPLICATION #1405
CS#190-150, 2/29/2016, PAGE 1 OF 4**

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Limitations of the Inspection	4
Recommendations	4

Attachments:

- Scope of Inspection Drawing(s) – 1 page(s)
- PLM Certificate of Analysis report with chain of custody - 6 page(s)
- Sample location drawing(s) - 1 page(s)

Report Distribution:

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

File Location:

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**ASBESTOS PRE-RENOVATION INSPECTION
MACIAG RESIDENCE – 9 DERBY AVENUE, MILFORD, CT
APPLICATION #1405
CS#190-150, 2/29/2016, 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.

BUILDING DESCRIPTION: The subject building is a one-family, two-story, conventional-style, residential structure totaling approximately 1200 sq ft, which was built in 1994 of wood-frame construction. The house is currently elevated with only the mechanical room being located at ground level.

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. The scope of work is to demolish the existing basement mechanical room and to install a new mechanical room as an addition to the first floor. The current furnace is new and may be salvaged for re-use.

SCOPE OF INSPECTION: Asbestos Pre-Renovation Inspection of the basement level mechanical room, the exterior sheetrock ceiling and exterior siding 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 Laboratory Accreditation program, LLC, and is a Connecticut Approved Environmental Laboratory for Asbestos Analysis.

**ASBESTOS PRE-RENOVATION INSPECTION
MACIAG RESIDENCE – 9 DERBY AVENUE, MILFORD, CT
APPLICATION #1405
CS#190-150, 2/29/2016, PAGE 3 OF 4**

INSPECTION REPORT SYNOPSIS

LOCATION NAME AND ADDRESS: Maciag Residence, Application #1405
9 Derby Avenue, Milford, CT

INSPECTION DATE(S): 2/29/2016

QUALIFICATIONS: The Inspection was conducted by Daniel P. Sullivan and Ziyang Wang:

Mr. Sullivan is certified as follows:

- 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)

Mr. Wang is certified as follows:

- EPA and State of Connecticut Accredited Asbestos Inspector.
- State of Connecticut Licensed Asbestos Inspector (#000876)

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

SITE OBSERVATIONS: (See attached drawing) We met our client and the owner, at the site. They showed us the work areas and provided some background information. The following observations were made:

- The lower level mechanical room has an unpainted concrete floor, unpainted sheetrock walls, and unpainted sheetrock ceilings. The lower sheetrock walls have been removed exposing foam insulation board.
- The first floor has mainly hardwood floors and sheetrock walls and ceilings, all in good shape.

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:

Material	Location	Sample #'s	Findings
Light gray crumbly sheetrock with brown fibrous paper backing and white crumbly taping compound (walls and ceilings)	Basement Level: Mechanical Room Ext. Parking Area	190-150-(1-10)	No Asbestos Detected
Yellow foam insulation board with brown fibrous paper and foil paper backing	Basement Level: Mechanical Room	190-150-11,12	No Asbestos Detected
Off- pliable caulking (between vinyl siding and concrete column)	Exterior	190-150-13,14	No Asbestos Detected
Gray sticky pipe caulking (between vinyl siding and pipe penetration, < 1 sf)	Exterior Side C	190-150-15	No Asbestos Detected
White/Dark Blue fibrous paper (between exterior vinyl siding and wood)	Exterior	190-150-16,17	No Asbestos Detected

**ASBESTOS PRE-RENOVATION INSPECTION
MACIAG RESIDENCE – 9 DERBY AVENUE, MILFORD, CT
APPLICATION #1405
CS#190-150, 2/29/2016, 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 structure 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.

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
President

ChemScope Inc.

Maciag Residence - Application #1405 - 9 Derby Ave, Milford, CT

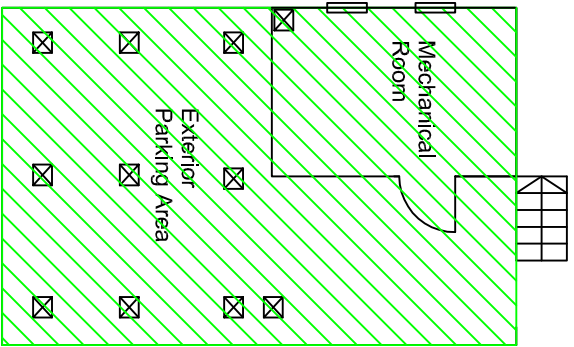
Basement

CS# 190-150

02-29-2016

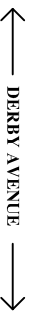
SCOPE OF WORK DRAWING

SIDE C



SIDE B

SIDE D



SIDE A



LEGEND OF SYMBOLS
 Scope of Inspection
 See Report for Detail

NOTATIONS

PROJECT: LEIGH ELLIAB
ChemScope Inc.

ASBESTOS INSPECTION
9 DERBY AVE MILFORD, CT
BASEMENT

DATE: 02/29/2016	S-1
NOT TO SCALE	
CS#190-150	

Certificate Of Analysis

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

03/07/2016
CS#: 190-150
Page 1 of 4

Bulk sample(s) from Maciag Residence, Application #1405, 9 Derby Ave, Milford, CT collected by Ziyang Wang on 02/29/2016

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

Sample Identification

190-150-1 Light gray crumbly sheetrock with brown fibrous paper backing (top layer ceiling)/Basement level exterior parking area

Findings (Analyzed 03/07/2016)

*No Asbestos Detected
77% Non Fibrous Particles
23% Volatile on Ignition*

190-150-2 Light gray crumbly sheetrock with brown fibrous paper backing (top layer ceiling)/Basement level exterior parking area

*No Asbestos Detected
66% Non Fibrous Particles
8% Fiberglass
26% Volatile on Ignition*

190-150-3 Light gray crumbly sheetrock with brown/light green fibrous paper backing (with white crumbly sheetrock taping compound, bottom layer ceiling)/Basement level exterior parking area

*No Asbestos Detected
78% Non Fibrous Particles
22% Volatile on Ignition*

190-150-4 Light gray crumbly sheetrock with brown/light green fibrous paper backing (with white crumbly sheetrock taping compound, bottom layer ceiling)/Basement level exterior parking area

*No Asbestos Detected
72% Non Fibrous Particles
28% Volatile on Ignition*

190-150-5 White crumbly sheetrock taping compound (from sample # 3)/Basement level exterior parking area

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

Bulk sample(s) from Maciag Residence, Application #1405, 9 Derby Ave, Milford, CT collected by Ziyang Wang on 02/29/2016

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

Sample Identification

Findings (Analyzed 03/07/2016)

190-150-6 White crumbly sheetrock taping compound (from sample # 4)/Basement level exterior parking area

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

190-150-7 Light gray crumbly sheetrock with brown fibrous paper backing (wall)/Basement level mechanical room

No Asbestos Detected
74% Non Fibrous Particles
4% Fiberglass
22% Volatile on Ignition

190-150-8 Light gray crumbly sheetrock with brown fibrous paper backing (ceiling)/Basement level mechanical room

No Asbestos Detected
71% Non Fibrous Particles
4% Fiberglass
25% Volatile on Ignition

190-150-9 White crumbly sheetrock taping compound (wall)/Basement level mechanical room

No Asbestos Detected
87% Non Fibrous Particles
13% Volatile on Ignition

190-150-10 White crumbly sheetrock taping compound (ceiling)/Basement level mechanical room

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

190-150-11 Yellow pliable foam insulation with brown fibrous paper and foil paper backing (wall)/Basement level mechanical room

No Asbestos Detected
7% Non Fibrous Particles
<1% Mineral Wool
93% Volatile on Ignition

190-150-12 Yellow pliable foam insulation with brown fibrous paper and foil paper backing (wall)/Basement level mechanical room

No Asbestos Detected
15% Non Fibrous Particles
2% Mineral Wool
83% Volatile on Ignition

Bulk sample(s) from Maciag Residence, Application #1405, 9 Derby Ave, Milford, CT collected by Ziyang Wang on 02/29/2016

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

Sample Identification

Findings (Analyzed 03/07/2016)

190-150-13 Off-white pliable caulking (between off-white vinyl wall board and concrete column)/Basement level exterior, Side B

No Asbestos Detected
81% Non Fibrous Particles
19% Volatile on Ignition

190-150-14 Off-white pliable caulking (between off-white vinyl wall board and concrete column)/Basement level exterior, Side B

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

190-150-15 Gray sticky pipe caulking (between 1" OD wiring and off-white vinyl wall board)/Basement level exterior, Side C

No Asbestos Detected
71% Non Fibrous Particles
29% Volatile on Ignition

190-150-16 White/dark blue fibrous paper insulation (behind off-white vinyl wall board on wood on wall)/Basement level exterior, Side C

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

190-150-17 White/dark blue fibrous paper insulation (behind off-white vinyl wall board on wood on wall)/Basement level exterior, Side C

No Asbestos Detected
1% Non Fibrous Particles
99% 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

<i>Signature</i>	<i>Signature (if applicable)</i>	<i>Authorized Signature or Authorized Signature or Authorized Signature</i>		
<i>Analyst</i>	<i>Inspector</i>	<i>Suzanne Cristante Laboratory Director</i>	<i>Izabela Kremens Quality Manager</i>	<i>Ronald D. Arena Senior Consultant</i>



LEGEND OF SYMBOLS

Bulk Sample

NOTATIONS

INSPECTOR: LEIGH ELLMAN
ChemScope Inc.

ASBESTOS INSPECTION
9 DERRBY AVE
MILFORD, CT

BASEMENT

DATE: 02/29/2016

NOT TO SCALE
B-1

ChemScope Inc.

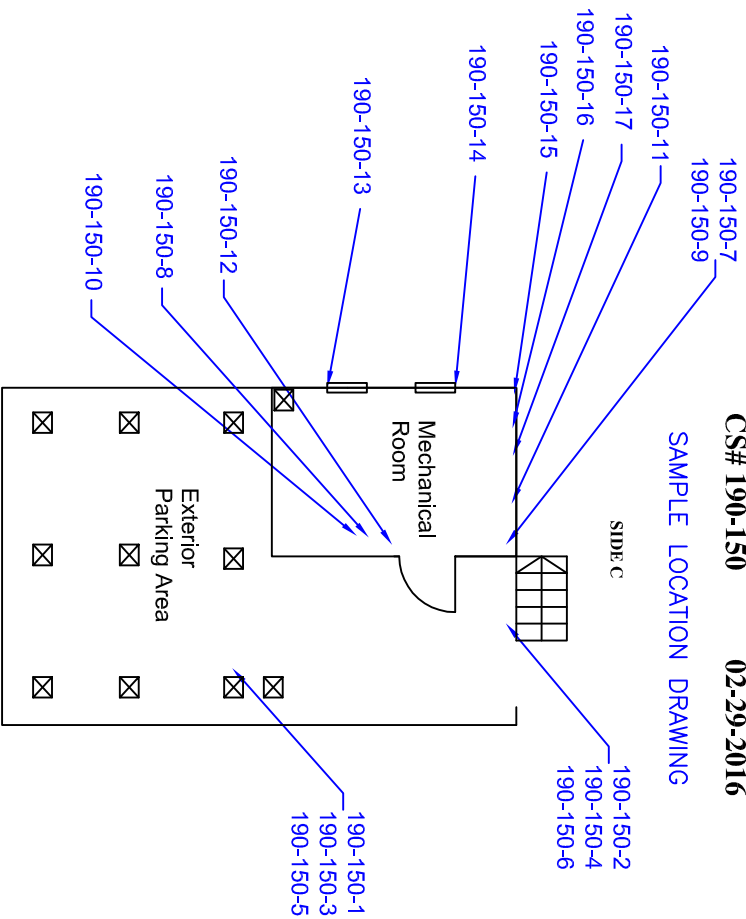
Maciag Residence - Application #1405 - 9 Derby Ave, Milford, CT

Basement

CS# 190-150

02-29-2016

SAMPLE LOCATION DRAWING



← DERRBY AVENUE →

SIDE A

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

3/23/2016

**PRELIMINARY MOLD ASSESSMENT
MACIAG RESIDENCE – 9 DERBY AVENUE, MILFORD, CT
APPLICATION #1405
CS#190-150, 2/29/2016, PAGE 1 OF 4**

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Recommendations	4
Limitations of Assessment	4

Attachments:

Scope of Assessment Drawing(s) – 1 page(s)

Report Distribution:

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

File Location:

D(dan):\myfilesds\mydocuments\Mold\indoorfo_2014.doc

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
MACIAG RESIDENCE – 9 DERBY AVENUE, MILFORD, CT
APPLICATION #1405
CS#190-150, 2/29/2016, PAGE 2 OF 4**

INTRODUCTION

EXECUTIVE SUMMARY: The only mold visible within the scope of our assessment was on stored materials in the basement mechanical room.

BUILDING DESCRIPTION: The subject building is a one-family, two-story, conventional-style, residential structure totaling approximately 1200 sq ft, which was built in 1994 of wood-frame construction. The house is currently elevated with only the mechanical room being located at ground level.

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. The scope of work is to demolish the existing basement mechanical room and to install a new mechanical room as an addition to the first floor. The current furnace is new and may be salvaged for re-use.

INSPECTION AND TESTING: Dan Sullivan of Chem Scope, Inc. was at the site on 2/29/2016 to conduct the subject tests. All of the doors and windows were closed at the time of our inspection. Our work included:

- Visual inspection
- Temperature/Humidity and Moisture in building materials

SCOPE OF WORK: Our client has hired us to do a preliminary mold assessment of the basement mechanical room and first floor only, where there was past water damage.

MOLD ASSESSMENT REPORT SYNOPSIS

Observations from Visual Inspection/temperature and humidity testing: We arrived on site at around 9:00 AM. The weather was cool and clear at the time of our assessment. The temperature at the time of our assessment was about 45-50 deg F. We were let into the house by our client and the homeowner. There was no visible mold growth on the first floor level and there were no unusual smells or odors.

The basement mechanical has an unpainted concrete floor and unpainted sheetrock walls and ceiling. The lower walls of the mechanical room had been removed, which exposed a yellow Styrofoam insulation board. The sheetrock walls, wood studs and sheetrock ceiling all tested as < 20 % WME (wood moisture equivalent). There were no unusual smells or odors in the basement or crawlspace. There was visible suspect mold growth on the three wooden furniture items in the room and wooden pallets. The suspect mold on the stored furniture appeared to be surface mold, which could be cleaned (although we understand from the owner she intends to dispose of the stored materials in the mechanical room).

**PRELIMINARY MOLD ASSESSMENT
MACIAG RESIDENCE – 9 DERBY AVENUE, MILFORD, CT
APPLICATION #1405
CS#190-150, 2/29/2016, PAGE 3 OF 4**

MOLD ASSESSMENT REPORT SYNOPSIS (cont)

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. Remaining lower sheetrock walls and sheetrock above the one foot high cut lines in the containment all tested at < 15% WME, the carpets in the containment tested as <10% WME.

Interior dew point and humidity levels indicate that the air is consistent with the exterior conditions. 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.

Table 1 - Temperature & Humidity Results (2/29/2016, P = 752 mm Hg, 1002 mbars)

Location	Dry Bulb (°F) (Room / Air Temperature)	Wet Bulb (°F)	%RH	Dew Point (°F)
Basement Mechanical Rm	51	45	62	37
1 st Floor Laundry Rm	67	57	54	50
Exterior, 9:30am	50	45	68	40

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.

General Information about Mold: EPA does not call for routinely air testing for mold in assessment. 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. 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 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.

**PRELIMINARY MOLD ASSESSMENT
MACIAG RESIDENCE – 9 DERBY AVENUE, MILFORD, CT
APPLICATION #1405
CS#190-150, 2/29/2016, PAGE 4 OF 4**

RECOMMENDATIONS

In general, correction of water damage requires first eliminating the source of the water.

For guidance on mold, log onto EPA.gov and search mold remediation or the CT-DPH web site.

1. Begin drying the subject rooms and continue drying until standard dry conditions are reached.
2. Dehumidifiers and air scrubbers should be throughout the subject rooms and if possible, installed into a fixed drain so that it can run without interruption.
3. Perform mold remediation (see below).

Crawlspace (For Removal and/or Disposal of Stored materials with Mold Contamination):

1. The work area must be unoccupied except for authorized personnel during subsequent work. Use poly to isolate the work area (entire air) from the rest of the house. Critical barriers must be put over the return air plenum openings to the second floor. The HVAC system must be shut down (locked-out/tagged-out) and isolated.
2. Mold contaminated stored materials and furniture should be removed. Any visible dust should be cleaned from the items before moving. Porous materials should be removed and disposed of providing owner approves. An inventory of such materials should be kept.
3. Non-porous materials should be carefully cleaned and moved to a storage area for a visual inspection by the owner.
4. Negative air must be used to purge out the areas using HEPA filtered blowers, at least 2000 CFM per area.
5. 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.

Limitations of Mold Removal: 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, mold growth is likely.

For guidance on mold, log onto EPA.gov and search mold remediation or the state DPH web site.

See our separate Asbestos Pre-Renovation Inspection Report for details regarding asbestos present in these areas.

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
President

ChemScope Inc.

Maciag Residence - Application #1405 - 9 Derby Ave, Milford, CT

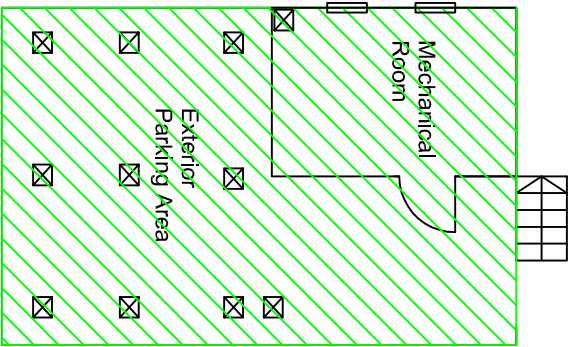
Basement

CS# 190-150

02-29-2016

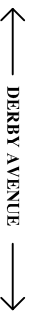
SCOPE OF WORK DRAWING

SIDE C



SIDE B

SIDE D



SIDE A



LEGEND OF SYMBOLS
 Scope of Inspection
 See Report for Detail

NOTATIONS

PROJECT: LEIGH ELLIAB
ChemScope Inc.

ASBESTOS INSPECTION
9 DERRBY AVE MILFORD, CT
BASEMENT

DATE: 02/29/2016	S-1
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Department of Economic and
Community Development

Connecticut
still revolutionary

May 13, 2013

received
5-21-14 D6H

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

Subject: CDBG-DR Review
Proposed Rehabilitation of
9 Derby Avenue, Milford, CT

Dear Ms. Delaire:

The State Historic Preservation Office has reviewed the information submitted for the above-named pursuant to the provisions of Section 106 of the National Historic Preservation Act of 1966.

Based on the information provided, we would need additional plans and specifications in order to make a determination of effect for the project. We have determined, however, that the property is located within and contributing to the proposed Milford Point National Register District.

For further information please contact me, at (860) 256-2766 or stacey.vairo@ct.gov.

Sincerely,

A handwritten signature in blue ink that reads "Stacey Vairo".

Stacey Vairo
Deputy State Historic Preservation Officer