

**Abatement Work Plan (AWP)
For The
Abatement Project
12 North Main Street
Westford, Massachusetts**

BACKGROUND:

The roof at 12 North Main Street has collapsed and roofing materials has fallen into the building. Refer to the attached photos. The Town of Westford would like to have the collapsed roofs and all known Asbestos Containing Materials (ACM) removed to ease the weight on the building until the building is either renovated or demolished. As part of this phase, roofing flashing, pipe sealant and flooring materials (might be disturbed) would need to be removed. The ACM will need to be removed using Bulk Loading per 310CMR 7.15.

Representative of the Department of Environmental Protection (DEP) has previously visited the site and bulk samples were collected from the exterior of the building. To our understanding no asbestos was found in the samples.

SAMPLING:

Bulk samples were previously collected from various materials suspected to contain asbestos. The following materials were found to contain asbestos:

Roofing materials flashing (90 LF);
Red poured flooring and adhesive (200 SF);
Brown flooring sheeting (800 SF);
Dark brown flooring sheeting (1,500 SF);
Roofing vents pipe sealant (20 LF).

Refer to the attached bulk sampling results.

SCOPE OF WORK AND ALTERNATIVE PROCEDURES:

The scope of work will include the removal and disposal of approximately 350 tons of asbestos containing materials (ACM) listed above that might get intermixed with other building materials to be performed by bulk loading. Refer to outlined detailed scope of work listed below.

The following requirement listed in 310 CMR 7.15 could not be established or followed: 310 CMR 7.15, 7(C, D & E) for the following reasons:

- Containment could not be erected as the contaminated structure require the use of large equipments to demolish and dispose;
- A ventilation system could not be used as there is no possibility of erecting containment on top of the structure.

The Contractor will provide continuous wetting of all ACM/contaminated materials during removal, handling and loading to reduce any possibility of a fiber release or significant risk to public health. The building is more than 150 to the nearest building as there appear to be no school or residential buildings within the

site. Continuous on-site project monitoring will be performed at all points of the work area. Refer to Project Monitoring below.

PROJECT APPROACH:

Upon receipt of the MA DEP Waiver, the Contractor will mobilize materials, equipment and supplies to the site. All removal activities will be performed in accordance with all applicable local, state, and federal regulations governing asbestos abatement.

SCHEDULE:

Upon receipt of the MA DEP Waiver, the Contractor will mobilize materials, equipment, and supplies to the site. It is anticipated that removal will take approximately 8 weeks to complete.

The DEP will be notified 24-hours prior to start of work for pre-abatement inspection and post abatement visual inspection.

PROJECT MONITORING:

During all abatement activities full time project monitoring including visual inspection and continuous air sampling will be performed at the perimeter of the work area by a Massachusetts licensed project monitor in accordance with the Environmental Protection Agency AHERA regulations. A minimum of six (6) monitoring stations will be performed daily during work. Refer to the attached plan for anticipated locations of air monitoring stations. Stations will change in accordance with the sequence of removal. The project monitor will mark a floor plan daily of the locations of the stations.

Air Monitoring will be performed by a Massachusetts licensed asbestos project monitor, samples will be analyzed by Phase Contrast Microscopy (PCM) on site. Ambient air monitoring around the circumference of the work area will be performed on a continuous basis during all activities. Two (2) sets of air monitoring will be performed daily and results will be provided to the DEP on the day they are collected.

Analyses of the perimeter air samples will be performed immediately upon collection and results reported by the project monitor to the asbestos supervisor and facility owner within one (1) hour of collection, so that corrections in the work practices can be made immediately. If the air monitoring results exceed the Massachusetts Division of Occupational Safety's (DOS) clean air criteria of 0.01 f/cc, then all work will stop, engineering controls will be adjusted sufficiently to reduce airborne concentrations of asbestos fibers below 0.01 f/cc of air and DEP notified immediately.. The work methods will be evaluated by the project monitor, the Asbestos Site Supervisor and the removal site supervisor prior to continuing any further work. DEP will be notified by telephone on that same day of the air monitoring exceedance and the updated emission control procedures. All sample analyses will be performed by analysts, who are properly trained by holding a NIOSH Course 582 or 582 Equivalent Certification. The analyst will also be a successful participant in the American Industrial Hygiene Association's Asbestos Analytical Registry (AIHA's AAR), deemed "proficient" in the current round of the Proficiency Analytical Testing ("PAT") program or alternatively, be an employee of a laboratory, which holds a current and valid license issued by the DLS to perform such analysis, and said laboratory will also be accredited with either the AIHA or National Voluntary Laboratory Accreditation Program ("NVLAP").

All perimeter air samples will be collected in the general breathing zone, which for the purpose of this AWP, is located at a minimum of forty-eight inches (48") and a maximum of seventy-two inches (72") above

the ground level. All samples will be collected utilizing high flow pumps and will be collected at a flow rate (8-12) LPM, with a minimum volume of 1,100 liters per sample.

No work pursuant to this AWP will commence unless the project monitor is at the Site and all air monitoring stations, both perimeter and employee monitoring, are in full operation.

The contractor's performing asbestos handling at the Site will perform employee air monitoring. This is not to be confused with OSHA personal monitoring requirements. Employee air monitoring will be performed by the contractor and subcontractor performing asbestos related work at the Site. At least one in four workers, for the assigned job duty, will wear a personal air monitor. This includes supervisors, ground crew in the asbestos work area, and ground crew outside the asbestos work area, asbestos removers, and equipment operators. The employee air monitoring will be performed on a continuous basis during all phases of the work.

All employee air monitoring samples will be collected in the breathing zone, which for the purpose of this AWP, is located at a maximum of twelve inches (12") from the nose and mouth of the individual. The sampling pump will be calibrated to operate at a flow rate of two and one-half (2.5) liters of air per minute. The device used to measure the flow rates for the employee monitoring samples will have been calibrated by a primary calibration device within six (6) months of utilization at the Site. A record of the calibration record for the of the measurement devices used at the Site will be kept at the Site by the contractor for the duration of the project and a copy of the calibration record will be submitted to DEP prior to commencing any work pursuant to this AWP, and will accompany the air monitoring data required below. Air filter cassettes will be changed periodically during the day's employee monitoring to prevent particulate overloading. The air filter cassette will have the start and stop time and associated start and stop flow rates recorded in the contractor's Site logbook for review by DEP. Sample results of the filter cassette will be calculated and reported individually. Air monitoring series which repeatedly reveal samples that are overloaded with particulate and cannot be analyzed will be considered to be in noncompliance with the AWP, and potentially subject the facility, and their contractors and consultants, to enforcement action by DEP.

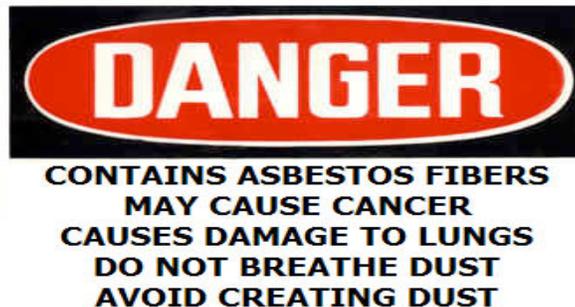
Analyses of the employee air samples will be performed daily by analysts who are properly trained by holding a NIOSH Course 582 or 582 Equivalent Certification. The analyst performing the analysis of the employee monitoring samples will also be a successful participant in the American Industrial Hygiene Association's Asbestos Analytical Registry (AIHA's AAR), deemed "proficient" in the current round of the Proficiency Analytical Testing ("PAT") program or alternatively, be an employee of a laboratory, which holds a current and valid license issued by the DLS to perform such analysis, and said laboratory will also be accredited with either the AIHA or National Voluntary Laboratory Accreditation Program ("NVLAP").

All employee air sampling analyses results will be reported, in writing, to the project monitor and property owner, on the morning following the date they were collected and before any work will be allowed to commence on every day other than the first day of operations. If the employee air monitoring results exceed the DLS clean air criterion of one - one hundredth fiber per cubic centimeter (0.010 f/cc) of air, then all activity at the Site will halt and DEP will be notified by telephone within one (1) hour of receipt of the results showing the exceedance in order to evaluate the work and to institute necessary changes in the work procedures.

Closure reports will be emailed within 30-days of completion.

The following work area activities will be performed to complete the abatement project. Refer to the attached site plans.

1. One regulated area will be established utilizing asbestos barrier tape and asbestos warning signs around the building. All work will be performed utilizing wet method with no water runoff.
- 2: A remote three stage decontamination chamber (4' x 10') will be erected contiguous to the regulated area. The decontamination chamber will consist of three separate, adjacent rooms separated by curtained entrances, constructed in accordance with applicable regulations. Waste water will be collected and placed double lined asbestos bags for proper disposal. All bags will be labeled in accordance with EPA 40CFR 61.150(a)(1)(iv) and 29 CFR 1910.1001(j)(94).



3. One wash area (15'x 30') will be established within the vicinity of the building. The wash area will consist of the installation of two layers of rubber flooring, hay bails with the edges folded to eliminate the overflow of water and debris beyond the area. Collect water and debris for proper disposal using pumps. Wash and remove the rubber flooring upon completion of work. Location of the wash areas will be determined depending on access. Refer to site plan for anticipated locations.
4. Lined trucks will be provided with two layers of 10-mil pre-formed liners (bladder bags) appropriately sized to fit the trucks and will be used to perform live loading. The lined trucks will be placed on top of the wash area during live loading. The lined trucks will be leak-tight sealable container in accordance with 310 CMR 7.15 (15). Placard 2212 will be placed on the trucks prior to leaving the site.
5. Trucks will be washed in the wash area along with tires of vehicle and water will be collected for proper disposal. Collection, handling and disposal of the water will be in accordance with 310 CMR 7.15(7) (f) for off-site disposal.
6. All Laborers within the regulated work area will have the proper asbestos training & licensing and done the proper personal protective equipment (PPE.). Employees working inside the regulated areas will have current asbestos training certificates, medical clearance records, respiratory fit tests, and current Massachusetts asbestos licenses. Operators within the machinery will have Asbestos Awareness Training and will not leave the enclosed cab of the excavator within the regulated area.
7. Personal OSHA Air Monitoring will be conducted during this operation, as required.
8. Debris will be removed by heavy equipment with grapples and live loaded as ACM waste into the lined trucks. The lined trucks will be leak-tight sealable container in accordance with 310 CMR 7.15 (15). Once the trucks are loaded, the liners will be individually sealed utilizing duct tape and spray glue and labeled with proper asbestos warning labels and generator labels. The exterior of the trailers will be labeled on all sides with placards to properly identify the waste when transporting the

material to an EPA certified landfill. The Contractor will provide continuous wetting utilizing a minimum of 2-1-1/2" fire hose from an existing hydrant on the property during removal process. The Contractor will be spraying the water houses in opposite directions to eliminate visible emissions and prevent run-off. No visible emission at any time will be aloud during the work.

9. The licensed asbestos supervisor and project monitor will perform a visual inspection of each work area prior to performing final visual inspection for any remaining loose ACM and/or demolition debris in accordance with 310 CMR 7.15 (8). All visible suspect ACM will be removed and placed into double 6-mil lined asbestos bags for proper disposal. The bags with comply with EPA NESHAP requirements related to thickness and also in accordance with 310 CMR 7.15 (15) and will be leak-tight with proper warning labels. Refer to #2 above.
10. Once all debris is removed, all remaining ACM that was not disturbed during roof collapse will be removed by the contractor utilizing full containment method.
11. Upon completion of the work a UEC licensed project monitor will perform a final visual inspection to verify that the asbestos abatement work is complete.
12. All equipments will be decontaminated upon completion of entire project in the wash area. Collection, handling and disposal of the water will be in accordance with 310 CMR 7.15(7) (f) for off-site disposal.
13. No stock piling >100 CY will be allowed.
14. Loading areas will be cleaned with all visible debris removed and visually inspected at the end of each shift.
15. DEP will be notified prior to start of work for pre-abatement inspection and for post-abatement inspection. The DEP will be given 24-48 hours prior to the beginning and ending of the project.
16. Asbestos contaminated debris will be shipped to an approved landfill for disposal. Waste hauler would be either Minerva Enterprises and/or Red Technologies and Disposal Landfill will be Minerva Enterprises, Waynesburg, OH.

FORM AQ36:

Attached is a copy of the completed Form AQ36.



Ammar M. Dieb
Asbestos Designer
AD900326



Massachusetts Department of Environmental Protection Bureau of Waste Prevention

BWP AQ 36 Application for Non-Traditional Asbestos Abatement Work Practice Approval

A. Work Site Information

Facility

Vacant Industrial Building
Facility Name or Site Description

12 North Main Street
Facility Address

Westford
City/Town

MA
State

01886
ZIP Code

Owner

Town of Westford
Owner Name

55 Main Street
Owner Address

Westford
City/Town

MA
State

01886
ZIP Code

978-692-5501
Telephone Number

jmangiaratti@westfordma.gov
Email Address

Applicant - Check here if same as Owner and skip to next section. Otherwise, complete fields below.

Universal Environmental Consultants

Applicant Name

12 Brewster Road
Applicant Address

Framingham
City/Town

MA
State

01702
ZIP Code

508-628-5486
Telephone Number

adieb@uec-env.com
Email Address

B. Project Information

Asbestos Abatement Project Designer

Ammar M Dieb
Name

AD-900326

Department of Labor Standards (DLS) Contractor License Number

12 Brewster Road
Address

Framingham
City/Town

MA
State

01702
ZIP Code

508-628-5486
Telephone Number

adieb@uec-env.com
Email Address

Asbestos Abatement Contractor

Unknown

Contractor Name

Department of Labor Standards (DLS) Contractor License Number

Address

City/Town

State

ZIP Code

Telephone Number

Email Address

Important:
When completing forms on a computer, use only the tab key to move your cursor - do not use the return key.





Massachusetts Department of Environmental Protection Bureau of Waste Prevention

BWP AQ 36 Application for Non-Traditional Asbestos Abatement Work Practice Approval

B. Project Information (continued)

Demolition Contractor (If Applicable)

Unknown

Address

City/Town

State

ZIP Code

Telephone Number

Email Address

Circumstances – Check the appropriate box(es) to indicate why a Non-Traditional Asbestos Abatement Work Practice Approval is needed.

- Facility is being demolished under a state or local government order because it is structurally unsound and in danger of imminent collapse. (Please attach a copy of the order to your work plan proposal.)
- Asbestos Containing Material (ACM) or Asbestos Containing Waste Material (ACWM) was not accessible for testing, therefore not discovered until after demolition began and, as a result, cannot be safely removed.
- Abatement activity is being conducted as part of an emergency renovation operation.
- Asbestos abatement activity is being conducted to clean up and decontaminate a facility or portion of a facility where:
 - Previous asbestos abatement activities were not conducted in compliance with 310 CMR 7.15.
 - ACM deterioration, if not immediately attended to, would present a safety or public health hazard.
- Wetting during a facility renovation would unavoidably damage equipment or present a safety hazard.
- The project requires bulk loading of ACM and/or ACWM.

List the requirements of 310 CMR 7.15 that you are unable to comply with and explain why:

Roofing and other building materials were found to contain asbestos. The roof has collapsed and requires removal.

Other Project Details

Types & Amounts of ACM Requiring Non-Traditional Work Practice(s):

<input type="checkbox"/> Friable	_____	<input checked="" type="checkbox"/> Non-Friable	<u>350 CY</u>
	Quantity in Cubic Meters (Cubic Yards)		Quantity in Cubic Meters (Cubic Yards)

Location(s) of ACM in the Facility:

Roof and interior of building.



Massachusetts Department of Environmental Protection Bureau of Waste Prevention

BWP AQ 36 Application for Non-Traditional Asbestos Abatement Work Practice Approval

C. Certification

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment. I am aware that this permit application or notification shall not be deemed valid unless payment of the applicable fee is made."

Signature

Ammar Dieb

Printed Name

Project Designer

Title

3/18/2016

Date (MM/DD/YYYY)

D. Submission of Application

Note:
MassDEP review will begin only after your submissions have been received at both locations.

STEP 1: Submit Fee Payment

Send the materials below to the P.O. box address below to:

MassDEP
P.O. Box 4062
Boston, MA 02211

- A copy of this completed and signed form.
- Fee payment of \$600 (check or money order payable to "Commonwealth of Massachusetts").

The following entities are exempt from this fee:

- Cities, towns, counties or districts of the Commonwealth
- Federally recognized Indian tribe housing authorities
- Municipal housing authorities
- The Massachusetts Bay Transportation Authority (MBTA)

Entities that are exempt from the fee must still submit a copy of this completed and signed form, without payment, to the P.O. box above.

STEP 2: Submit Application

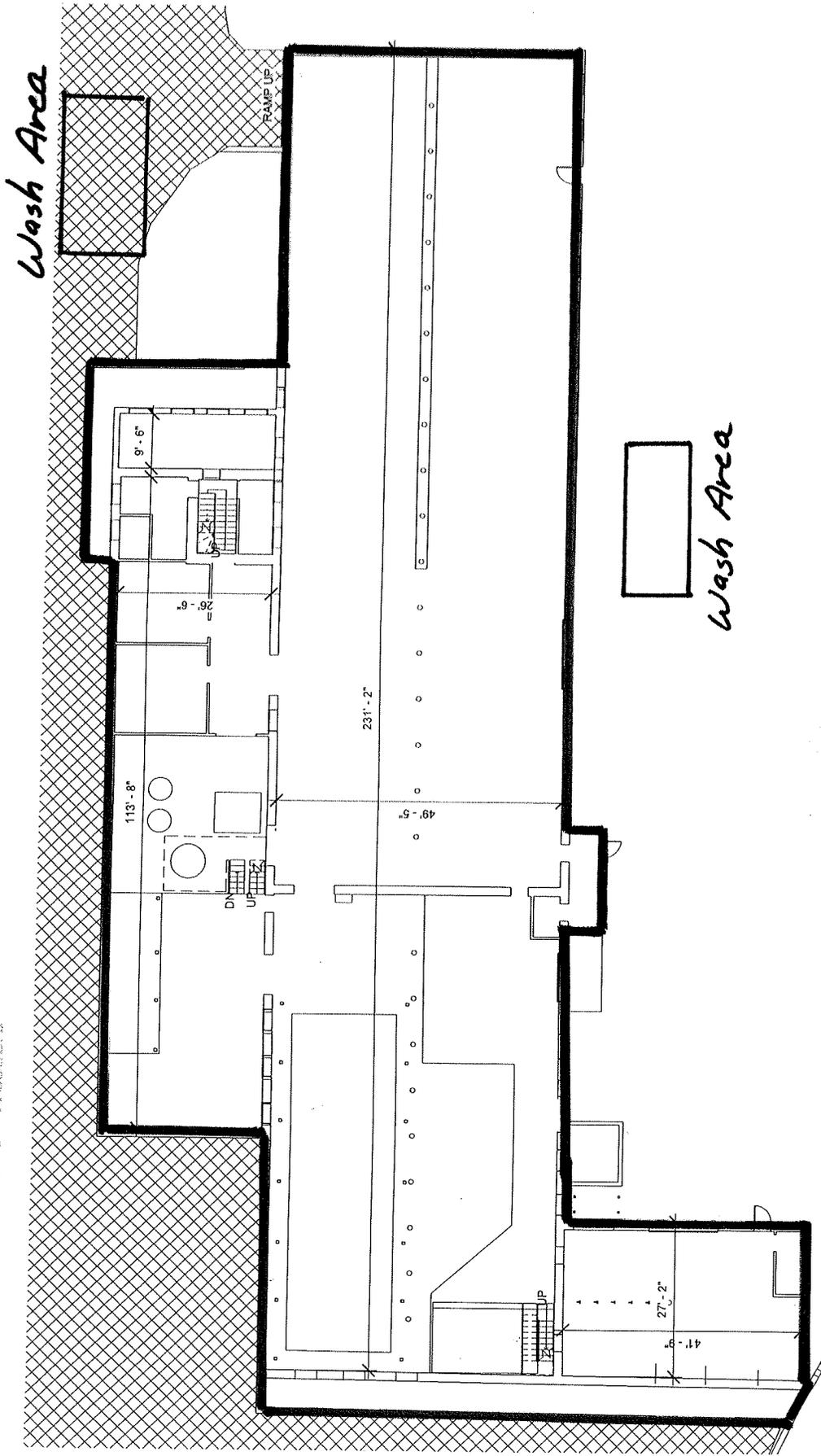
Send the following materials to the appropriate MassDEP Regional Office*, Attention: Asbestos Section:

- This original completed and signed form.
- A copy of the check or money order from Step 1.
- Your proposed work plan, describing work practices, duration and schedule. The proposal must:
 - Include signature of the Asbestos Project Designer who prepared it.
 - Demonstrate that the deviations from 310 CMR 7.15 and alternatives proposed will not cause any visible emissions to the outside air or pose significant risk to public health, safety or the environment.
- All supporting documentation.

*Find the MassDEP Regional Office for the community where this work will be done:

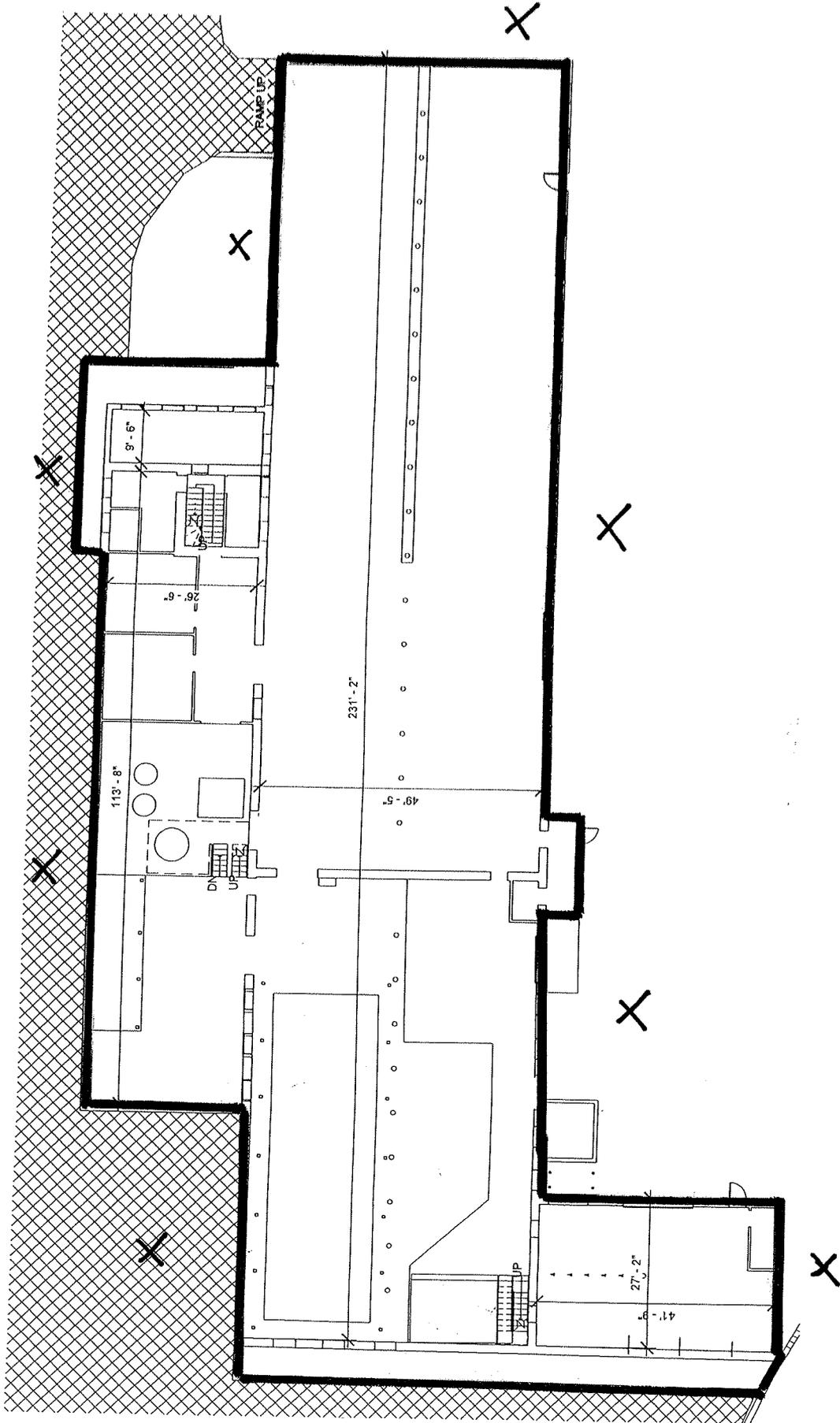
<http://www.mass.gov/eea/agencies/massdep/about/contacts/>

12 North Main Street Westford



bhfa

12 North Main Street Westford



X: Air Sampling Stations

bhta