

Notice of Intent

**975 Massachusetts Avenue
Assessor's Parcel 14-001
Boxborough, MA**

April 30, 2025

Prepared for:
BHG109 LLC
881 Massachusetts Ave, Unit A
Boxborough, MA 01719

Prepared by:
Goldsmith, Prest & Ringwall, Inc.
39 Main Street, Suite 301
Ayer, MA 01432



April 30, 2025

Town of Boxborough
Conservation Commission
29 Middle Road
Boxborough, MA 01719

Subject: Notice of Intent (NOI)
975 Massachusetts Ave
Boxborough, MA 01719

Dear Commissioners:

On behalf of the Applicant, BHG109 LLC, Goldsmith, Prest & Ringwall, Inc. (GPR) is pleased to submit this Notice of Intent (NOI) for work within the 100-foot buffer zone to Bordering Vegetated Wetlands (BVW) and within Bordering Vegetated Wetlands (BVW) at 975 Massachusetts Avenue (the Property). The Project involves the construction of an indoor 8-unit contractor storage facility with associated site improvements to support small business operations (the Project). Work within the BVW is limited to a proposed driveway crossing and associated grading. Work within the 100-foot buffer zone to the BVW is limited to the grading associated with the driveway access, stormwater management system and subsurface sewage disposal system. This NOI has been prepared in accordance with the Massachusetts Wetland Protection Act (MGL c.131 § 40) and its implementing regulations (310 CMR 10.00) (the Act). The project has described would qualify as a limited project under the Massachusetts Wetland Protection Act, as well as the Town of Boxborough Wetland Bylaw.

Enclosed are two complete copies of the NOI submission package, full-size Site Plans, and a check made payable to the Town of Boxborough for \$2,487.50, of which \$1,750.00 for the Boxborough NOI filing fee and \$737.50 for the Town share of the WPA NOI filing fee. An electronic copy of the application will also be submitted to the Conservation Commission.

As required, a copy of this filing has been provided to the Northeast Regional Office of the Department of Environmental Protection (MassDEP). A separate check for \$712.50 has been sent

Goldsmith, Prest & Ringwall, Inc.

to the MassDEP Lock Box. In accordance with the Act, abutters within 300 feet of the property have been notified via certified mail on the same date as this submission.

For any questions or additional information, please contact us at (978) 772-1590 or by email at: ltiv@gpr-inc.com. Thank you for considering this Notice of Intent. We look forward to meeting with the Commission at the next public hearing.

Sincerely,

Goldsmith, Prest & Ringwall, Inc

Limhuot Tiv

Limhuot Tiv, PE

cc: MassDEP (CERO) Division of Wetlands and Waterways
Brett Gutheil

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1. Notice of Intent Forms

WPA Form 3 – Notice of Intent
NOI Wetland Fee Transmittal Form



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Boxborough

City/Town

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



Note:
Before
completing this
form consult
your local
Conservation
Commission
regarding any
municipal bylaw
or ordinance.

A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

975 Massachusetts Ave

a. Street Address

Latitude and Longitude:

14

f. Assessors Map/Plat Number

Boxborough

01719

b. City/Town

c. Zip Code

42.48373

71.42415

d. Latitude

e. Longitude

001

g. Parcel /Lot Number

2. Applicant:

a. First Name

BHG109 LLC

c. Organization

881 Mass Ave, Unit A

d. Street Address

Boxborough

e. City/Town

781-259-3331

h. Phone Number

i. Fax Number

b. Last Name

01719

g. Zip Code

MA

f. State

brettgutheil@verizon.net

j. Email Address

3. Property owner (required if different from applicant): Check if more than one owner

a. First Name

b. Last Name

c. Organization

d. Street Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email address

4. Representative (if any):

a. First Name

b. Last Name

Goldsmith, Prest & Ringwall, Inc.

c. Company

39 Main Street

d. Street Address

Ayer

MA

01432

e. City/Town

f. State

g. Zip Code

978-772-1590

i. Fax Number

j. Email address

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

\$1,450

a. Total Fee Paid

\$712.50

b. State Fee Paid

\$737.50

c. City/Town Fee Paid



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A. General Information (continued)

6. General Project Description:

Construction of a proposed commercial building, parking area, utilities and driveway access crossing wetland area.

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

1. <input type="checkbox"/> Single Family Home	2. <input type="checkbox"/> Residential Subdivision
3. <input checked="" type="checkbox"/> Commercial/Industrial	4. <input type="checkbox"/> Dock/Pier
5. <input type="checkbox"/> Utilities	6. <input type="checkbox"/> Coastal engineering Structure
7. <input type="checkbox"/> Agriculture (e.g., cranberries, forestry)	8. <input type="checkbox"/> Transportation
9. <input type="checkbox"/> Other	

7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

1. Yes No If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

310 CMR 10.53(e): construction of a new driveway.

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR 10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Southern Middlesex

30653A

a. County

b. Certificate # (if registered land)

01532

138

c. Book

d. Page Number

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

- Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
- Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.



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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. <input type="checkbox"/> Bank	----	----
b. <input checked="" type="checkbox"/> Bordering Vegetated Wetland	1. linear feet 860± 1. square feet	2. linear feet 1,100± 2. square feet
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	---- 1. square feet ---- 3. cubic yards dredged	---- 2. square feet
 <u>Resource Area</u>	 <u>Size of Proposed Alteration</u>	 <u>Proposed Replacement (if any)</u>
d. <input type="checkbox"/> Bordering Land Subject to Flooding	---- 1. square feet ---- 3. cubic feet of flood storage lost	---- 2. square feet ---- 4. cubic feet replaced
e. <input type="checkbox"/> Isolated Land Subject to Flooding	---- 1. square feet ---- 2. cubic feet of flood storage lost	---- 3. cubic feet replaced
f. <input type="checkbox"/> Riverfront Area	---- 1. Name of Waterway (if available) - specify coastal or inland	
2. Width of Riverfront Area (check one):		
	<input type="checkbox"/> 25 ft. - Designated Densely Developed Areas only	
	<input type="checkbox"/> 100 ft. - New agricultural projects only	
	<input type="checkbox"/> 200 ft. - All other projects	
3. Total area of Riverfront Area on the site of the proposed project:		---- square feet
4. Proposed alteration of the Riverfront Area:		
---- a. total square feet	---- b. square feet within 100 ft.	---- c. square feet between 100 ft. and 200 ft.
5. Has an alternatives analysis been done and is it attached to this NOI?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
6. Was the lot where the activity is proposed created prior to August 1, 1996?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
3. <input type="checkbox"/> Coastal Resource Areas: (See 310 CMR 10.25-10.35)		

Note: for coastal riverfront areas, please complete **Section B.2.f.** above.



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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users:
Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below	

	1. square feet	

	2. cubic yards dredged	
c. <input type="checkbox"/> Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. <input type="checkbox"/> Coastal Beaches	----	2. cubic yards beach nourishment
	1. square feet	
e. <input type="checkbox"/> Coastal Dunes	----	2. cubic yards dune nourishment
	1. square feet	
<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>	
f. <input type="checkbox"/> Coastal Banks	----	
	1. linear feet	
g. <input type="checkbox"/> Rocky Intertidal Shores	----	
	1. square feet	
h. <input type="checkbox"/> Salt Marshes	----	2. sq ft restoration, rehab., creation
	1. square feet	
i. <input type="checkbox"/> Land Under Salt Ponds	----	
	1. square feet	
j. <input type="checkbox"/> Land Containing Shellfish	----	
	2. cubic yards dredged	

	1. square feet	
k. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	

	1. cubic yards dredged	
l. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	----	
	1. square feet	
4. <input type="checkbox"/> Restoration/Enhancement	If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.	

	a. square feet of BVW	b. square feet of Salt Marsh
5. <input type="checkbox"/> Project Involves Stream Crossings	----	
	a. number of new stream crossings	b. number of replacement stream crossings



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C. Other Applicable Standards and Requirements

This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

a. Yes No

If yes, include proof of mailing or hand delivery of NOI to:

Online Mapping

b. Date of map

Natural Heritage and Endangered Species Program
Division of Fisheries and Wildlife
1 Rabbit Hill Road
Westborough, MA 01581

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); OR complete Section C.2.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

c. Submit Supplemental Information for Endangered Species Review*

1. Percentage/acreage of property to be altered:

(a) within wetland Resource Area

percentage/acreage

(b) outside Resource Area

percentage/acreage

2. Assessor's Map or right-of-way plan of site

2. Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **

(a) Project description (including description of impacts outside of wetland resource area & buffer zone)

(b) Photographs representative of the site

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <https://www.mass.gov/mass-endangered-species-act-mesa-regulatory-review>).

Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

** MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.



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C. Other Applicable Standards and Requirements (cont'd)

(c) MESA filing fee (fee information available at <https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review>).

Make check payable to "Commonwealth of Massachusetts - NHESP" and **mail to NHESP** at above address

Projects altering 10 or more acres of land, also submit:

(d) Vegetation cover type map of site

(e) Project plans showing Priority & Estimated Habitat boundaries

(f) OR Check One of the Following

1. Project is exempt from MESA review.

Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, <https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat>; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. Separate MESA review ongoing.

a. NHESP Tracking #

b. Date submitted to NHESP

3. Separate MESA review completed.

Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

a. Not applicable – project is in inland resource area only b. Yes No

If yes, include proof of mailing, hand delivery, or electronic delivery of NOI to either:

South Shore - Bourne to Rhode Island border, and
the Cape & Islands:

North Shore - Plymouth to New Hampshire border:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: dmf.envreview-south@mass.gov

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: dmf.envreview-north@mass.gov

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.

c. Is this an aquaculture project?

d. Yes No

If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

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C. Other Applicable Standards and Requirements (cont'd)

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

a. Yes No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.

b. ACEC

5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?

a. Yes No

6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?

a. Yes No

7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?

a. Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:

1. Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)
2. A portion of the site constitutes redevelopment
3. Proprietary BMPs are included in the Stormwater Management System.

b. No. Check why the project is exempt:

1. Single-family house
2. Emergency road repair
3. Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

Online Users: Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

1. USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
2. Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.



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D. Additional Information (cont'd)

3. Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4. List the titles and dates for all plans and other materials submitted with this NOI.

Commercial Development

a. Plan Title

Goldsmith, Prest & Ringwall, Inc.

b. Prepared By

April 2025

d. Final Revision Date

Limhuot Tiv, PE

c. Signed and Stamped by

As noted

e. Scale

f. Additional Plan or Document Title

g. Date

5. If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. Attach NOI Wetland Fee Transmittal Form

9. Attach Stormwater Report, if needed.

E. Fees

1. Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

2. Municipal Check Number

3. Check date

4. State Check Number

5. Check date

6. Payor name on check: First Name

7. Payor name on check: Last Name



Massachusetts Department of Environmental Protection

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WPA Form 3 – Notice of Intent

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F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

Limhuet Tiu GPR, AS AGENT OF APPLICANT

4/22/2025

1. Signature of Applicant

2. Date

3. Signature of Property Owner (if different)

4. Date

Limhuet Tiu

4/22/2025

5. Signature of Representative (if any)

6. Date

For Conservation Commission:

Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

For MassDEP:

One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:

If the applicant has checked the “yes” box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.



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NOI Wetland Fee Transmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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



A. Applicant Information

1. Location of Project:

975 Massachusetts Ave

a. Street Address

c. Check number

Boxborough

b. City/Town

\$712.50

d. Fee amount

2. Applicant Mailing Address:

Brett

a. First Name

BHG109 LLC

c. Organization

881 Mass Ave, Unit A

d. Mailing Address

Boxborough

e. City/Town

781-259-3331

h. Phone Number

i. Fax Number

MA

f. State

01719

g. Zip Code

brettgutheil@verizon.net

j. Email Address

3. Property Owner (if different):

a. First Name

b. Last Name

c. Organization

d. Mailing Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

B. Fees

Fee should be calculated using the following process & worksheet. **Please see Instructions before filling out worksheet.**

Step 1/Type of Activity: Describe each type of activity that will occur in wetland resource area and buffer zone.

Step 2/Number of Activities: Identify the number of each type of activity.

Step 3/Individual Activity Fee: Identify each activity fee from the six project categories listed in the instructions.

Step 4/Subtotal Activity Fee: Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

Step 5/Total Project Fee: Determine the total project fee by adding the subtotal amounts from Step 4.

Step 6/Fee Payments: To calculate the state share of the fee, divide the total fee in half and subtract \$12.50. To calculate the city/town share of the fee, divide the total fee in half and add \$12.50.

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).



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NOI Wetland Fee Transmittal Form

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B. Fees (continued)

C. Submittal Requirements

a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection
Box 4062
Boston, MA 02211

b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

To MassDEP Regional Office (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)

2. Project Narrative

2.1. Project Summary

The Project involves the construction of an indoor 8-unit contractor storage facility with associated site improvements to support small business operations. The facility will consist of eight individual storage units designed to accommodate contractor equipment, materials, and vehicles within a secure, enclosed structure. The total building footprint is approximately $10,800\pm$ SF. The Project includes the construction of designated parking for tenants and visitors, an on-site well for potable water supply, and an on-site sewage disposal system to accommodate sanitary needs. Additionally, a stormwater management system will be implemented to ensure compliance with local and state regulations, effectively treating and mitigating runoff impacts, and protecting adjacent resources. The Project will also include the construction of an access driveway designed to accommodate commercial and emergency vehicles while ensuring safe and efficient site circulation. The overall design will prioritize functionality and regulatory compliance, integrating best management practices to minimize site disturbance while meeting operational requirements.

2.2. Wetland Resource Areas

Bordering vegetated wetlands (BVW) are located along the southern boundary of the property and have an approximate area of $35,883\pm$ SF (0.82 \pm AC). The BVW was delineated by Matthew S. Marrow Environmental on August 28, 2024. Flags were located by on-the ground survey conducted by GPR Inc., between September 2024 through January of 2025.

2.2.1. Activities within Bordering Vegetated Wetlands (BVW) 100-Foot Buffer

The Project layout has been developed to minimize work in undisturbed areas within the buffer zone. All proposed land disturbance activities in the buffer zone are limited to the grading associated with the driveway access, stormwater management system and subsurface sewage disposal system.

2.2.2. Activities within Bordering Vegetated Wetlands (BVW)

Under 310 CMR 10.53(3)(e), alteration to resource area is allowed as a limited project for the construction of a driveway of minimum legal and practical width, as deemed acceptable by the Planning Board, when no reasonable alternative means of access from a public way to upland areas under the same ownership is available. The driveway must be constructed in a manner that does not restrict the flow of water.

At the Site, the BVW extend along the entire frontage. To access the upland area, the proposed driveway will cross a narrow portion of the BVW, requiring approximately $860\pm$ SF

of BVW to be filled. The driveway is designed to be 20 feet wide to comply with the National Fire Protection Association (NFPA) code requirements for fire apparatus access.

To maintain the hydrologic connectivity of the existing drainage channel under the driveway crossing, a 24" RCP half buried culvert is proposed under the driveway.

The Project is proposing to replicate approximately 1,100± SF of the wetland area as shown on the attached site plans.

2.2.2.a. Alternative Analysis for Limited Project

Massachusetts Wetlands Protection Act, projects affecting wetland areas require careful evaluation of alternatives that minimize environmental impacts. The purpose of this alternative analysis is to assess the feasibility of the proposed driveway crossing of a wetland area and to explore alternative solutions that may better protect the wetland resource areas. This analysis considers the project's necessity, possible alternatives, and a preference for methods that minimize environmental degradation while meeting the needs of the applicant to ensure the scope and cost of the alternatives would not be prohibitive to the project's feasibility.

Alternative Access

Reasonable alternative means of access may include any previously or currently available alternatives such as realignment or reconfiguration of the project to conform to 310 CMR 10.54 through 10.58 or to otherwise minimize adverse impacts on resource areas. The issuing authority may require the applicant to utilize access over an adjacent parcel of land currently or formerly owned by the applicant, or in which the applicant has, or can obtain, an ownership interest. The Project does not have the ability to relocate access as the project site is abutting a property with floodplain on the western side and Town's conservation land along the northern side. Although there is potential to gain common access from the abutting property on the eastern side, crossing from this side will require working and installing structure within 50-ft buffer limit of a certified vernal pool.

Bridge Spanning

Constructing an elevated crossing or bridge over the wetland area was considered. This method would minimize direct impacts on the wetland by avoiding excavation or filling in the wetland. The driveway could be supported by pilings or other structures to elevate it above the wetland vegetation and hydrology.

The challenges that come with this alternative would be the prohibitive cost associated with the design and construction of a bridge that can span across a footprint of

approximately 25'x35' footprint and would support the load of an emergency vehicle. Based on the proposed use of the project, the alternative bridge structure was estimated at approximately between \$250,000 - \$350,000. This alternative was reviewed and ultimately was deemed infeasible.

2.3. Protective Measures

The following is a discussion of the relationship of the Project to the interests of the Act as defined by 310 CMR 10.01(2):

2.3.1. Protection of Public and Private Water Supply and Protection of Ground Water Supply

The public and private water supply and groundwater supply protection interests of the Act and Bylaw will be upheld. The Site is not located within recharge areas for public water supplies as defined in 310 CMR 22.02 (Zone I_s, Zone I_{Is} and Interim Wellhead Protection Areas for groundwater sources and Zone A_s for surface water sources).

2.3.2. Flood Control and Storm Damage Prevention

The flood control and storm damage prevention interests of the Act and Boxborough Bylaw will be maintained. The Flood Insurance Rate Map (Appendix A FIRMETTE) indicates that the Project is outside all FEMA-designated flood zones.

Per 310 CMR 10.05(6)(l.)2 the 2008 MassDEP Stormwater Handbook standards, the Project has been designed to capture, treat and detain runoff from the proposed development, maintaining and/or reducing peak stormwater runoff rates for the site. See Stormwater Management Report.

2.3.3. Prevention of Pollution

The pollution interests of the Act and Bylaw will be upheld. Sedimentation control barriers, construction entrance will be installed prior to construction as depicted on the Site Plans and will be maintained in working order throughout the duration of the Project.

The project will disturb approximately 2± acres of land and therefore will be required to obtain coverage under the 2022 EPA NPDES Construction General Permit (CGP).

2.3.4. Protection of Land Containing Shellfish, Fisheries and Wildlife Habitat

The fisheries, shellfisheries, and wildlife habitat interests of the Act and Bylaw will be upheld. The Site is not within Areas of Critical Environmental Concern (ACEC), or habitats designated by the Natural Heritage and Endangered Species Program (NHESP) for rare wildlife or species. There is a certified vernal pool located on the adjacent property at 881 Mass Ave, which per 314 CMR 4.06 (2) is a Class B Outstanding Resource Water (ORW). All

wetlands bordering other Class B, SB or SA ORW are also designated as ORWs to the boundary of the defined area; therefore, the onsite BVW would be classified as an ORW. In compliance with 310 CMR 10.55(4)(b) a wetland replication area has been proposed to prevent the loss of wildlife habitat.

Stormwater management system has been designed to treat stormwater runoff prior to allowing discharge to continue onto the ORW.

2.4. Conclusion

The Applicant seeks approval from the Boxborough Conservation Commission to construct the Project. Both long-term and temporary mitigation measures are proposed and the Project is anticipated to have no negative impacts on resource areas. The Applicant respectfully requests the issuance of an Order of Conditions for this work.

Appendix A: Waiver Request Letter

April 18, 2025

Town of Boxborough
Conservation Commission
29 Middle Road
Boxborough, MA 01719

**Subject: Waiver Request Letter
Notice of Intent (NOI)
975 Massachusetts Ave
Boxborough, MA 01719**

Dear Commission Members,

On behalf of the Applicant, BHG109 LLC, Goldsmith, Prest & Ringwall, Inc (GPR) respectfully requests relief from the following provisions of the Town of Boxborough Wetland Bylaw Regulations for the proposed commercial development at 975 Massachusetts Avenue (Assessor's Parcel 14-001).

Section 2.3.3.1 *The replicated wetland must be constructed in full and conditionally approved prior to construction of any structures.*

The Wetland replication area is located on the other side of the BVW crossing and would require access to perform the replication work, therefore it is respectfully requested that wetland replication be performed during the construction period.

Section 2.5.3.1 *Any part of a new sanitary waste disposal system including the grading required for these systems is prohibited within the Adjacent Land Resource Area.*

After multiple test pits were dug on site, it was determined that the location as proposed is the only viable area for locating a new subsurface sanitary waste disposal system. Although the system as proposed is located outside of the Adjacent Land Resource Area (100-ft Wetland Buffer Limit), the

Goldsmith, Prest & Ringwall, Inc.

grading associated with the system encroaches into the Adjacent Land Resource Area, approximately 70 ft away from the nearest point of the BVW.

For any questions or additional information, please contact us at (978) 772-1590 or by email at: ltiv@gpr-inc.com. Thank you for considering this Application. We look forward to meeting with the Board at the next public hearing.

Sincerely,

Goldsmith, Prest & Ringwall, Inc

Limhuot Tiv

Limhuot Tiv, PE

cc: 241090
BHG109 LLC

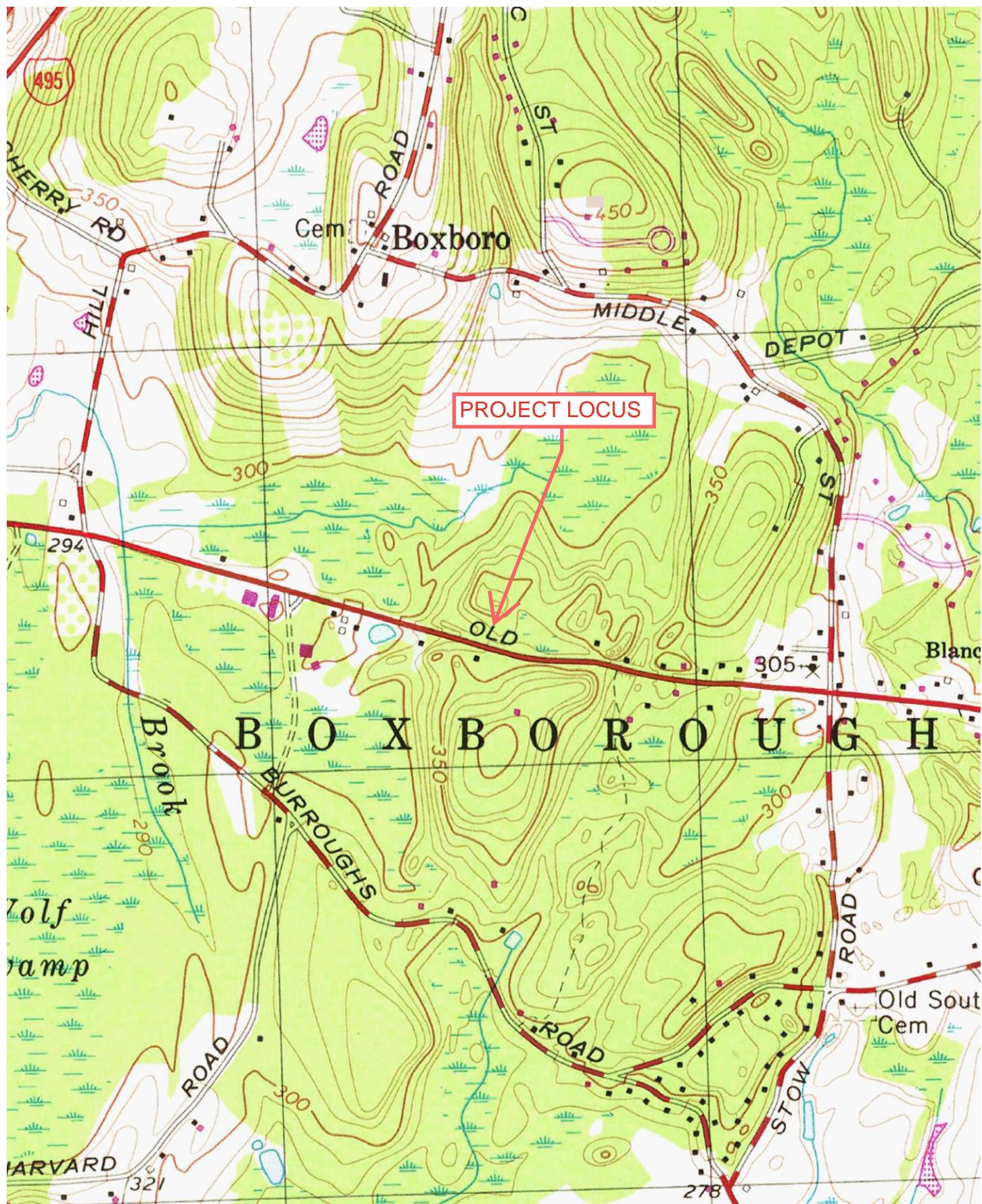
Appendix B: Exhibits

USGS Locus Map

Aerial Locus Map

Assessor's Map

FEMA Firmette



Mercator Projection

WGS84

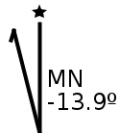
UTM Zone 19T

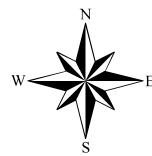
 CALTOPO

0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4k

0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 mi

Scale 1:12000 1 inch = 1000 feet





975 Mass Ave

Boxborough, MA

1 inch = 400 Feet

March 11, 2025

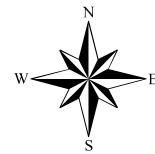


CAI Technologies
Precision Mapping. Geospatial Solutions.

www.cai-tech.com

0 400 800 1200





975 Mass Ave

Boxborough, MA

1 inch = 300 Feet

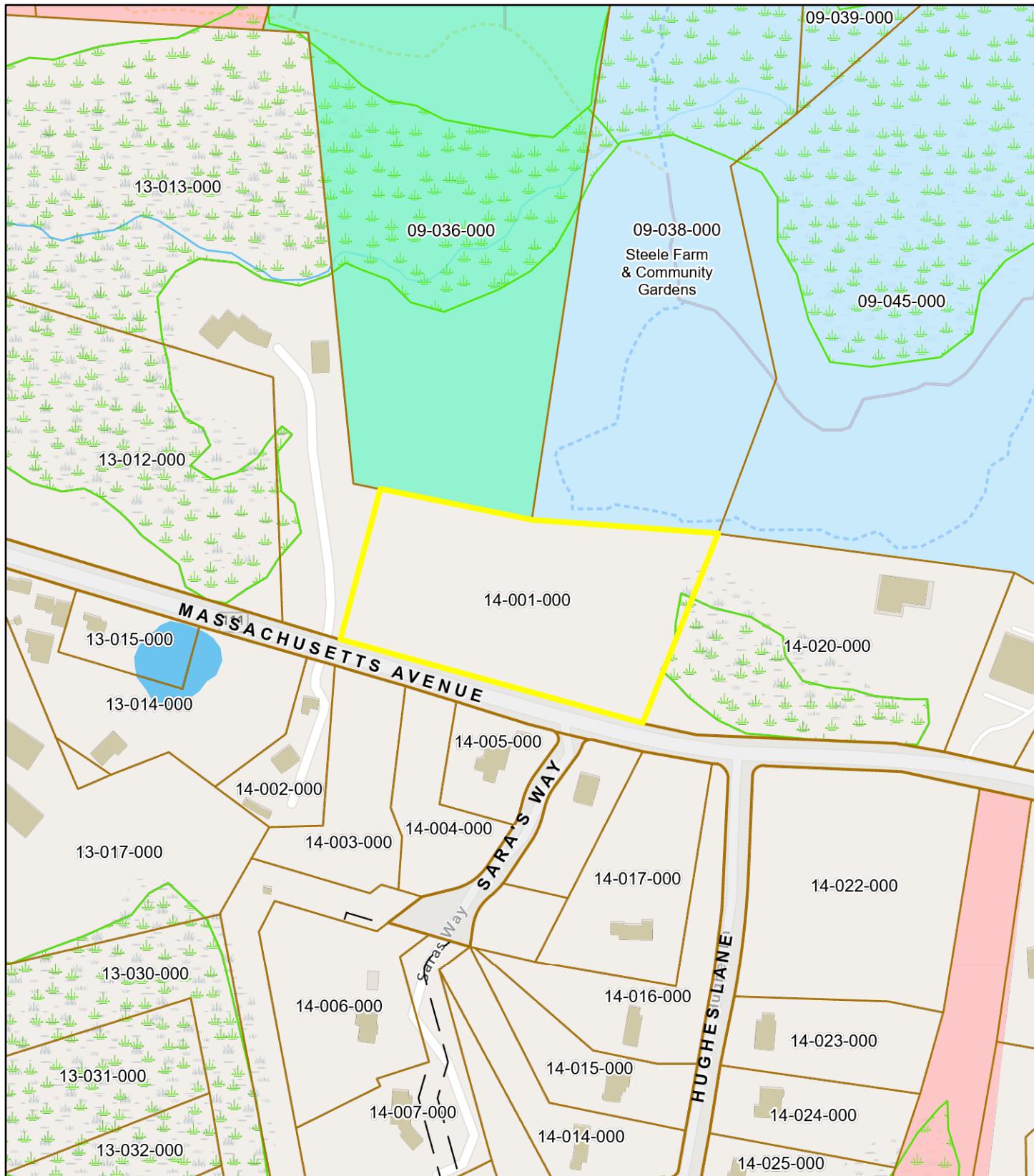
March 11, 2025



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0 300 600 900



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National Flood Hazard Layer FIRMette



Legend

71°31'44"W 42°29'15"N

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT



Appendix C: Abutter Notification Information

Certified List of Abutters

Abutter Notification Form

Affidavit of Services

**TOWN OF BOXBOROUGH**

Assessors

29 Middle Road

Boxborough, Massachusetts 01719

978-264-1721 • FAX 978-264-3127

assessor@boxborough-ma.gov

REQUESTER
OFFICE
TOWN BOARD **RECEIVED****MAR 12 2025**Assessors
Boxborough, MA**REQUEST FOR ABUTTERS**

DATE OF REQUEST:

3/12/2025

DATE LIST NEEDED:

3/24/2025

PROPERTY
LOCATION:

975 Mass Ave

MAP

14

LOT

001

BLOCK

PROPERTY
OWNER:**REASON FOR LIST**

- CONSERVATION COMMISSION
- ZONING BOARD OF APPEALS
- PLANNING BOARD
 - PRELIMINARY PLAN
 - SITE PLAN
 - DEFINITIVE PLAN
 - SPECIAL PERMIT
- BOARD OF SELECTMEN
- OTHER _____

RADIUS OF 300 FEET WILL BE USED FOR ALL ABUTTERS' LIST REQUEST**REQUESTER INFORMATION**

NAME

Goldsmith, Prest & Ringwall, Inc.

ADDRESS

39 Main Street

Ayer, MA

PHONE

978-772-1590

EMAIL

reception@gpr-inc.com

OFFICE USE ONLY

DATE LIST PREPARED:

3/12/2025

FEE CHARGED:

\$ 22

AMOUNT PAID \$

22.00

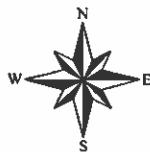
DATE PAID:

3/18/2025

CHECK #

3144

 CASHFEE SCHEDULE: \$1.00 PER NAME IF THE LIST IS FOR CONSERVATION COMMISSION, \$2.00 PER NAME OTHERWISE
\$10.00 MINIMUM
\$30.00 MAXIMUMLIST IS VALID FOR SIX (6) MONTHS. TOWN ASSESSOR IS ALLOWED TEN (10) BUSINESS DAYS FROM DATE OF REQUEST TO PROVIDE
CERTIFIED LIST OF ABUTTERS.



Boxborough, MA

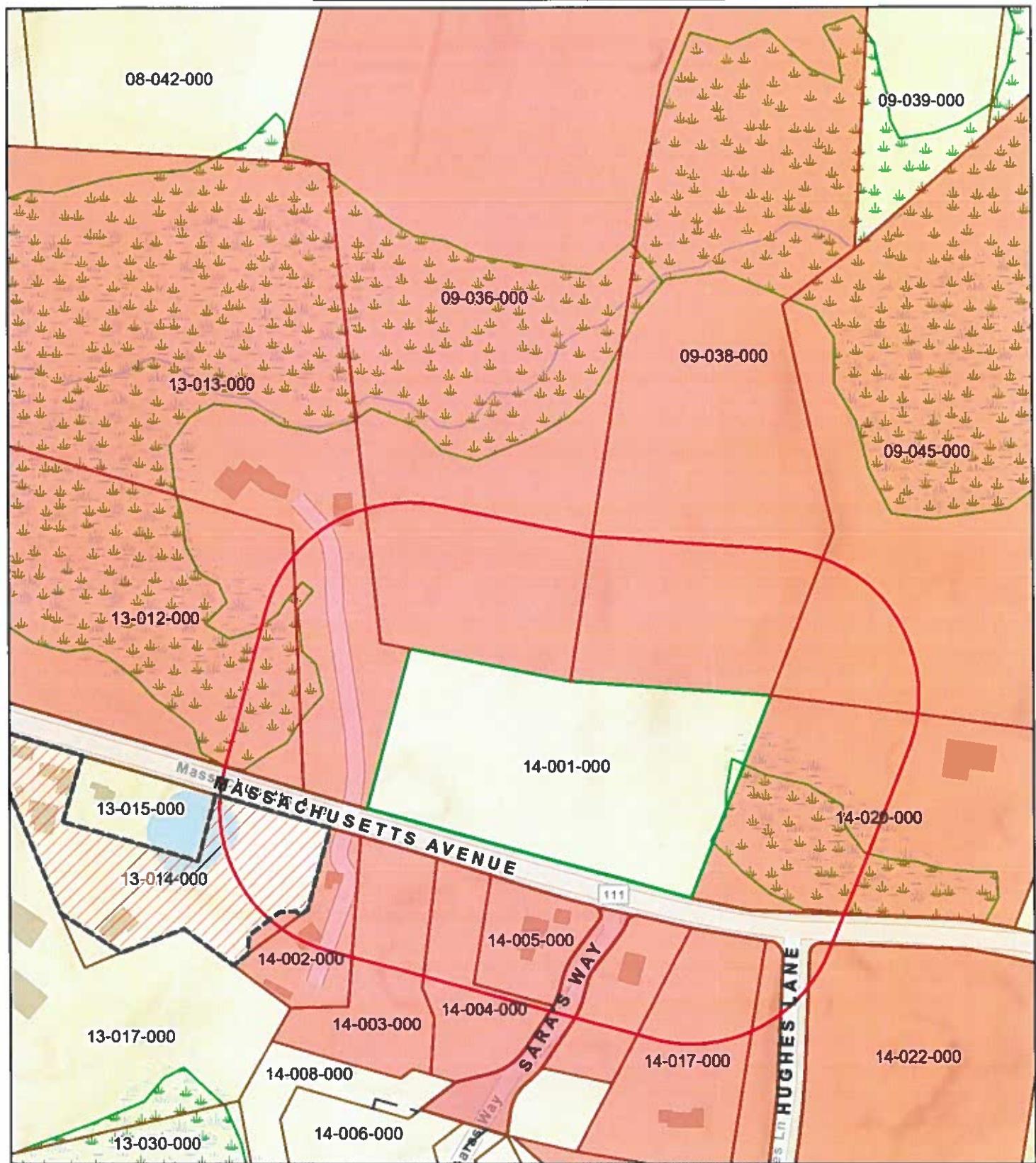
1 inch = 278 Feet

CAI Technologies
Precision Mapping. Geospatial Solutions

www.cai-tech.com

March 12, 2025

0 278 556 834



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300 feet Abutters List Report

Boxborough, MA

March 12, 2025

Subject Property:

Parcel Number: 14-001-000
CAMA Number: 14-001-000
Property Address: 975 MASSACHUSETTS AVENUE

Mailing Address: GUTHEIL BRETT
881 MASSACHUSETTS AVE UNIT A
BOXBOROUGH, MA 01719

Abutters:

Parcel Number: 09-036-000
CAMA Number: 09-036-000
Property Address: 484 MIDDLE ROAD

Mailing Address: BOXBOROUGH TOWN OF MUNICIPAL
29 MIDDLE ROAD
BOXBOROUGH, MA 01719

Parcel Number: 09-038-000
CAMA Number: 09-038-000
Property Address: 420 MIDDLE ROAD

Mailing Address: BOXBOROUGH TOWN OF MUNICIPAL
29 MIDDLE ROAD
BOXBOROUGH, MA 01719

Parcel Number: 09-045-000
CAMA Number: 09-045-000
Property Address: 296 MIDDLE ROAD

Mailing Address: BOXBOROUGH TOWN OF MUNICIPAL
29 MIDDLE ROAD
BOXBOROUGH, MA 01719

Parcel Number: 13-012-000
CAMA Number: 13-012-000
Property Address: 1145 MASSACHUSETTS AVENUE

Mailing Address: 1145 MASS AVE REALTY, LLC
1145 MASSACHUSETTS AVENUE
BOXBOROUGH, MA 01719

Parcel Number: 13-013-000
CAMA Number: 13-013-000
Property Address: 1035 MASSACHUSETTS AVENUE

Mailing Address: STROM GREGORY
1035 MASSACHUSETTS AVENUE
BOXBOROUGH, MA 01719

Parcel Number: 13-014-000
CAMA Number: 13-014-000
Property Address: 1102 MASSACHUSETTS AVENUE

Mailing Address: SMITH ROBERT M JR SMITH BRENDA S
1102 MASSACHUSETTS AVENUE
BOXBOROUGH, MA 01719

Parcel Number: 14-002-000
CAMA Number: 14-002-000
Property Address: 1034 MASSACHUSETTS AVENUE

Mailing Address: 1034 MASS AVE LLC
188 STOW ROAD
HARVARD, MA 01451

Parcel Number: 14-003-000
CAMA Number: 14-003-000
Property Address: 996 MASSACHUSETTS AVENUE

Mailing Address: 984 MASSACHUSETTS AVENUE LLC
984 MASSACHUSETTS AVENUE
BOXBOROUGH, MA 01719

Parcel Number: 14-004-000
CAMA Number: 14-004-000
Property Address: 38 SARA'S WAY

Mailing Address: 984 MASSACHUSETTS AVENUE LLC
984 MASSACHUSETTS AVENUE
BOXBOROUGH, MA 01719

Parcel Number: 14-005-000
CAMA Number: 14-005-000
Property Address: 984 MASSACHUSETTS AVENUE

Mailing Address: 984 MASSACHUSETTS AVENUE LLC
984 MASSACHUSETTS AVENUE
BOXBOROUGH, MA 01719



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Page 1 of 2



300 feet Abutters List Report

Boxborough, MA

March 12, 2025

Parcel Number: 14-016-000
CAMA Number: 14-016-000
Property Address: 51 HUGHES LANE

Mailing Address: CHHAN DAVID LU WEINA
51 HUGHES LANE
BOXBOROUGH, MA 01719

Parcel Number: 14-017-000
CAMA Number: 14-017-000
Property Address: 958 MASSACHUSETTS AVENUE

Mailing Address: WOODS JOHN F WOODS ENID C
958 MASSACHUSETTS AVENUE
BOXBOROUGH, MA 01719

Parcel Number: 14-019-000
CAMA Number: 14-019-000
Property Address: 972 MASSACHUSETTS AVENUE

Mailing Address: WHITE MARK R
972 MASSACHUSETTS AVENUE
BOXBOROUGH, MA 01719

Parcel Number: 14-020-000
CAMA Number: 14-020-000
Property Address: 881 MASSACHUSETTS AVENUE

Mailing Address: BREEZY RIDGE LLC
PO BOX 376
LINCOLN, MA 01773

Parcel Number: 14-022-000
CAMA Number: 14-022-000
Property Address: 886 MASSACHUSETTS AVENUE

Mailing Address: WHEELER BRUCE D, TRUSTEE FAIR
OAKS PARK REALTY TRUST
148 PARK STREET
NORTH READING, MA 01864

Parcel Number: 14-206-000
CAMA Number: 14-206-000
Property Address: 0 SARA'S WAY

Mailing Address: WHITE LAURENCE B.
984 MASSACHUSETTS AVENUE
BOXBOROUGH, MA 01719

THIS IS A CERTIFIED ABUTTERS LIST FROM THE
TOWN OF BOXBOROUGH. WE CERTIFY THAT ALL
THE NAMES AND ADDRESSES OF ALL
PROPERTY OWNERS ARE ACCURATE TO
THE BEST OF OUR KNOWLEDGE.

Ken R. L.
Office of the Board of Assessors

3/12/2025
Date



www.cai-tech.com

3/12/2025

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Page 2 of 2

1034 MASS AVE LLC
188 STOW ROAD
HARVARD, MA 01451

WHITE MARK R
972 MASSACHUSETTS AVENUE
BOXBOROUGH, MA 01719

1145 MASS AVE REALTY, LLC
1145 MASSACHUSETTS AVENUE
BOXBOROUGH, MA 01719

WOODS JOHN F
WOODS ENID C
958 MASSACHUSETTS AVENUE
BOXBOROUGH, MA 01719

984 MASSACHUSETTS AVENUE
984 MASSACHUSETTS AVENUE
BOXBOROUGH, MA 01719

BOXBOROUGH TOWN OF
MUNICIPAL
29 MIDDLE ROAD
BOXBOROUGH, MA 01719

BREEZY RIDGE LLC
PO BOX 376
LINCOLN, MA 01773

CHHAN DAVID
LU WEINA
51 HUGHES LANE
BOXBOROUGH, MA 01719

SMITH ROBERT M JR
SMITH BRENDA S
1102 MASSACHUSETTS AVENUE
BOXBOROUGH, MA 01719

STROM GREGORY
1035 MASSACHUSETTS AVENUE
BOXBOROUGH, MA 01719

WHEELER BRUCE D, TRUSTEE
FAIR OAKS PARK REALTY TRU
148 PARK STREET
NORTH READING, MA 01864

WHITE LAURENCE B.
984 MASSACHUSETTS AVENUE
BOXBOROUGH, MA 01719

**Notification to Abutters Under the
Massachusetts Wetlands Protection Act
and
The Boxborough Wetlands By-Law**

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and the Boxborough Wetlands By-Law you are hereby notified of the following:

- A. The name of the applicant is BHG109 LLC

- B. The applicant has filed a Notice or Request with the Boxborough Conservation Commission seeking permission to remove, fill, dredge, alter, or delineate an area subject to protection under the Wetlands Protection Act (General Laws, Chapter 131, section 40) and the Boxborough Wetlands By-Law.
- C. The address of the lot where the activity is proposed is 975 Massachusetts Ave

- Description of Project Construction of a new commercial building with associated parking area, on site well, subsurface sewage disposal system, stormwater management system, and a private driveway which will require crossing an existing strip of Bordering Vegetated Wetland.

- D. Copies of the Notice or Request may be examined at the Boxborough Town Hall, 29 Middle Rd., Boxborough, MA 01719 between the hours of 9:00 a.m. and 4:00 p.m. Monday, Tuesday, and Wednesday (excluding holidays). For more information call 978.264.1722.
- E. Copies of the Notice or Request may be obtained from either (circle one) the applicant or the **applicant's representative**, by calling this telephone number (978) 772-1590 between the hours of 9:00 AM and 5:00 PM on the following days of the week: Monday – Friday
_____.
- F. Information regarding the date, time, and place of the public hearing may be obtained from the Boxborough Conservation Commission by calling this number 978.264.1722 between the hours of 9:00 a.m. and 4:00 p.m. Monday, Tuesday, and Wednesday.

Note: Notice of the public hearing, including its date, time, and place, will be published at least five (5) days in advance in a paper of local circulation.

Note: Notice of the public hearing, including its date, time, and place, will be posted in the Town Hall and on the Town web site <https://www.boxborough-ma.gov> not less than forty-eight (48) hours in advance.

Note: You also may contact your local Conservation Commission or the nearest Department of Environmental Protection Regional Office for more information about this application or the Wetlands Protection Act. To contact DEP, call: Central Regional Office at 508-792-7650

AFFIDAVIT OF SERVICE
Under the Massachusetts Wetlands Protection Act

(to be submitted to the Massachusetts Department of Environmental Protection and the Boxborough Conservation Commission when filing a Notice of Intent)

I, Limhuot Tiv, GPR (name of person making affidavit), hereby certify under the pains and penalties of perjury that on 5/8/2025 (date), I gave notification to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and the DEP Guide to Abutter Notification dated April 8, 1994, in connection with the following matter:

The form of the notification and a list of the abutters to whom it was given and their addresses are attached to this Affidavit of Service.

Linkeut Tiv

Name _____

Date

Appendix D: Letter of Agent Authorization

March 20, 2025

**Subject: 975 Massachusetts Ave, Boxborough, MA
Tax Map Parcel ID 14-001**

To Whom It May Concern:

I hereby authorize Goldsmith, Prest & Ringwall, Inc., 39 Main Street, Suite 301, Ayer, MA, 978.772.1590, to act as my agent in administrative and civil engineering matters pertaining to the proposed Commercial Development at the subject site. This authorization covers the execution of application forms, presentation of plans and designs, and communication with involved parties.

Respectfully,



BHG109 LLC
881 Massachusetts Ave, Unit A
Boxborough, MA 01719

Copy: Goldsmith, Prest & Ringwall, Inc.
241090

Appendix E: Wetland Field Data Forms

MATTHEW S. MARRO ENVIRONMENTAL CONSULTING

45 Lisa Drive
Leominster, Ma
Phone (978) 314-7858
Fax (888) 435-5999
www.marro-consulting.com

Wetland Delineation Report

975 Mass Ave Boxborough

Matthew S. Marro | March 10, 2025

MATTHEW S. MARRO ENVIRONMENTAL CONSULTING

45 Lisa Drive
Leominster, Ma
Phone (978) 314-7858
Fax (888) 435-5999
www.marro-consulting.com

On August 28, 2024 Matthew S. Marro Environmental Consulting Completed a delineation at 975 Mass Ave, Boxborough, MA in accordance with MA DEP policy 95-1 and the Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands (BVW's) Second Edition, September 2022. The results of the delineation and further detail on methodology are outlined in the subsequent sections of this report. Please note there was no snow on the ground on this site present at the time of this delineation.

Summary:

The lot in question is a 6.16-acre undeveloped commercial lot.¹ The lot has a bordering vegetated wetland that is bisecting the property at the Northeasterly to Westerly sections of the property by the Mass Ave. frontage. Soils in this area were sampled and are outlined in the enclosed datum sheets. This wetland system is a bordering vegetated wetland (BVW) system bordering an intermittent stream as defined by USGS.

Defined wetland edge:

Matthew S. Marro Environmental Consulting completed an in the field delineation of the bordering vegetated wetland resource. The flagging was completed with a series WF 1 to WF 72 consisting of pink flagging material with the words "wetland delineation" imprinted on the flagging material.

The following on page 2 outlines the mix of vegetation that was noted on the site:

(note: My evaluation of some of the street-side flags areas were based on vegetation only due to conditions on site indicating a strict compliance with DEP 95-1 being sufficient with the spot checking of soils. The flags by MEC, were placed in the boundaries exhibiting subtle transition indicators which utilized soils for confirmation and one typical sample transect data sheets are enclosed with this report for that section of BVW.)

¹ As per mass GIS 2025

Botanical Name	Common Name	Wetland Indicator Status ⁱ	Stratum layer
<i>Onoclea sensibilis</i>	Sensitive Fern	FACW	Herbaceous
<i>Osmundastrum cinnamomeum</i>	Cinnamon Fern	FACW	Herbaceous
<i>Acer Rubrum</i>	Red Maple	FAC	Overstory/Sapling
<i>Symplocarpus foetidus</i>	Skunk Cabbage	OBL	Herbaceous
<i>Osmunda regalis</i>	Royal Fern	OBL	Herbaceous
<i>Vaccinium corymbosum</i>	High Bush Blueberry	FAC	Shrub
<i>Pinus Strobus</i>	White Pine	FACU	Overstory
<i>Leycesteria formosa</i>	Hollow Stemmed Honey Suckle	FACU	Shrub
<i>Quercus rubra</i>	Northern Red Oak	FAC	Overstory

Environmental Attributes

Mass GIS Overlay Evaluation:ⁱⁱ

Examination of the lot on the Commonwealth's MassGIS database revealed the following:

1. The lot is not within a priority or estimated habitat.
2. The lot is not within an ACEC.
3. There is no portion of the lot within the floodplain as noted in the enclosed FEMA FIRMette.
4. There are no certified vernal pools nor potential vernal pools that are located on the subject lot. The wetland on the property contains no attributes of such.
5. The USGS reveals there is no riverfront on this lot.

Thank you for the opportunity to participate in protecting our natural resources.

Sincerely,



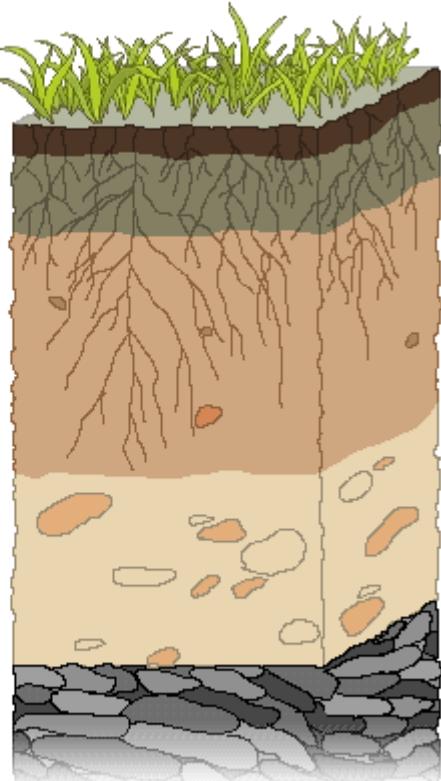
Matthew S. Marro

Principal Consultant



Methodology:

The wetland, delineated by DEP policy 95-1, utilized the analysis of plants that had a 50% or greater dominance at the edge of the wetland. Hydrology (water, the presence of flow via sheet flow or channelized) and soils analysis as outlined in the summary section above. Below, on Page 4, is an insert provided by the USDA soils evaluation manual. Please note, for purposes of this delineation, the use of the A/B (surface/subsoil) layer is deemed sufficient within standard practice.

<p>Horizons</p> <p>O (Organic)</p> <p>A (Surface)</p> <p>B (Subsoil)</p> <p>C (Substratum)</p> <p>R (Bedrock)</p> 	<p>O) Organic surface layer: Plant <u>litter</u> layer, the upper part often relatively undecomposed, but the lower part may be strongly humified.</p> <p>A) Surface soil: Layer of mineral soil with most <u>organic matter</u> accumulation and <u>soil life</u>. Additionally, due to <u>weathering</u>, <u>oxides</u> (mainly iron oxides) and <u>clay</u> minerals are formed and accumulated. It has a pronounced soil structure. But in some soils, clay minerals, <u>iron</u>, <u>aluminum</u>, organic compounds, and other constituents are soluble and move downwards. When this <u>eluviation</u> is pronounced, a lighter coloured E subsurface soil horizon is apparent at the base of the A horizon. The A horizon may also be the result of a combination of soil <u>bioturbation</u> and surface processes that winnow fine particles from biologically mounded <u>topsoil</u>. In this case, the A horizon is regarded as a "biomantle".</p> <p>B) Subsoil: This layer has normally less organic matter than the A horizon, so its colour is mainly derived from iron oxides. Iron oxides and clay minerals accumulate as a result of weathering. In soil, where substances move down from the topsoil, this is the layer where they accumulate. The process of accumulation of clay minerals, iron, aluminum, and organic compounds, is referred to as <u>illuviation</u>. The B horizon has generally a soil structure.</p> <p>C) Substratum: Layer of non-indurated poorly weathered or unweathered rocks. This layer may accumulate more soluble compounds like CaCO_3. Soils formed <i>in situ</i> from non-indurated material exhibit similarities to this C layer.</p> <p>R) Bedrock: R horizons denote the layer of partially weathered or unweathered bedrock at the base of the soil profile. Unlike the above layers, R horizons largely comprise continuous masses (as opposed to boulders) of hard rock that cannot be excavated by hand. Soils formed <i>in situ</i> from bedrock will exhibit strong similarities to this bedrock layer.</p>
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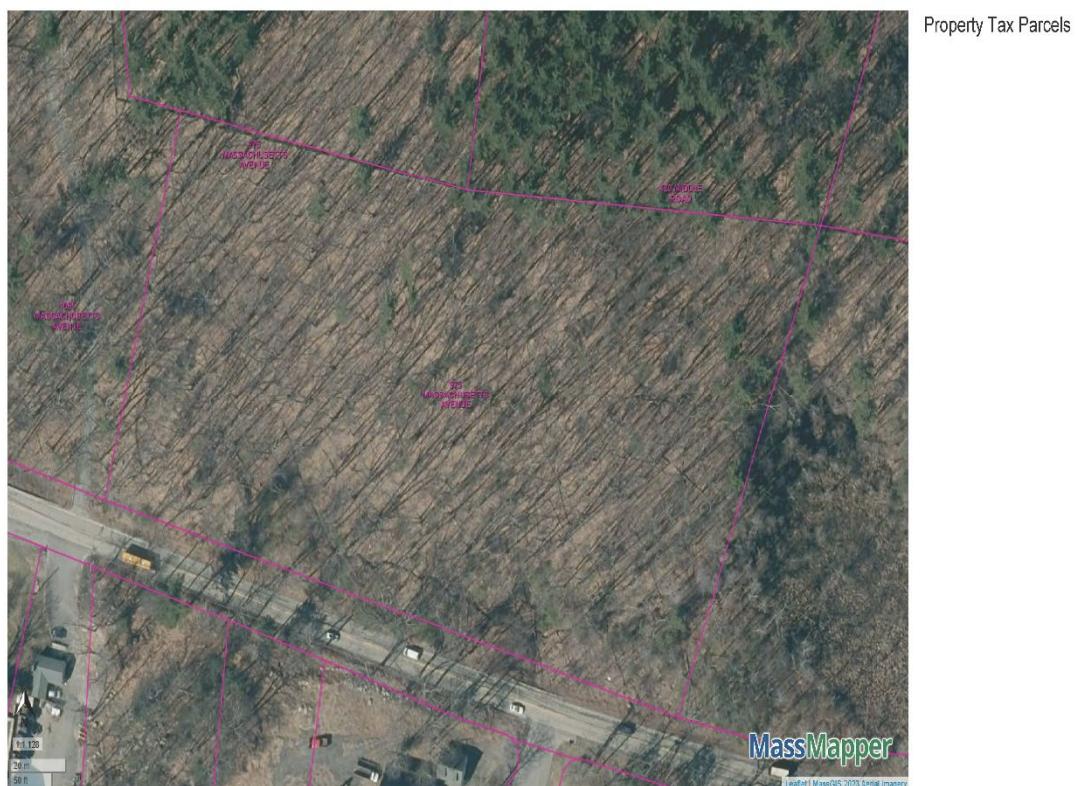
ⁱ OBL= Obligate. FAC= Facultative. UPL = Upland

Notation: FACW = Facultative wetland species

ⁱⁱ Per Mass GIS online, December 2024

EXHIBITS MASS GIS OVERLAY AND USGS LOCUS

975 Mass Ave



USGS MAP



National Flood Hazard Layer FIRMette



71°31'45"W 42°29'15"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) Zone A, V, A90
	With BFE or Depth Zone AE, AO, AH, VE, AR
	Regulatory Floodway

0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile. Zone X

Future Conditions 1% Annual Chance Flood Hazard Zone X

Area with Reduced Flood Risk due to Levee. See Notes. Zone X

Area with Flood Risk due to Levee. Zone D

OTHER AREAS OF FLOOD HAZARD

NO SCREEN Area of Minimal Flood Hazard Zone X

Effective LOMRs

OTHER AREAS Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES

Channel, Culvert, or Storm Sewer

Levee, Dike, or Floodwall

20.2 Cross Sections with 1% Annual Chance

17.5 Water Surface Elevation

Coastal Transect

Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

Digital Data Available

No Digital Data Available

Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/10/2023 at 10:12 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Basemap Imagery Source: USGS National Map 2.0 2023



975 Mass Ave



March 10, 2025

Wetlands

- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Estuarine and Marine Wetland
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currency of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

TRANSECT SHEETS

Please note that the following sample transect are a portion of the delineation that are representative of the community as a whole. A sample is included to illustrate the basic technique utilized on the delineation. A field evaluation is always recommended.

WETLAND DETERMINATION FIELD DATA FORM

Project/Site: 975 Mass Ave City/County: Boxborough /Middlesex Sampling Date: 8.28.2024
 Applicant/Owner: Goldsmith Prest and Ringwall State: Ma Sampling Point: 4 Wet
 Investigator(s): Matthew Marro Section, Township, Range: Boxborough
 Landform (hillslope, terrace, etc.): Flat to mild slope Local relief (concave, convex, none): concave Slope (%): <3
 Subregion (LRR or MLRA): Lat: 42.48322 Long: -71.52479 Datum:
 Soil Map Unit Name: Hollis NWI classification: PSS1E
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ✓
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>✓</u> No <u> </u> Hydric Soil Present? Yes <u>✓</u> No <u> </u> Wetland Hydrology Present? Yes <u>✓</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>✓</u> No <u> </u>
Remarks: Between flags 12 through flags 16	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators</u> (minimum of one is required; check all that apply) <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Surface Water (A1) </td> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Aquatic Fauna (B13) </td> </tr> <tr> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> High Water Table (A2) </td> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Marl Deposits (B15) (LRR U) </td> </tr> <tr> <td style="width: 50%; padding: 2px;"> <input checked="" type="checkbox"/> Saturation (A3) </td> <td style="width: 50%; padding: 2px;"> <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) </td> </tr> <tr> <td style="width: 50%; padding: 2px;"> <input checked="" type="checkbox"/> Water Marks (B1) </td> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) </td> </tr> <tr> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Sediment Deposits (B2) </td> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Presence of Reduced Iron (C4) </td> </tr> <tr> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Drift Deposits (B3) </td> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) </td> </tr> <tr> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Algal Mat or Crust (B4) </td> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Thin Muck Surface (C7) </td> </tr> <tr> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Iron Deposits (B5) </td> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Other (Explain in Remarks) </td> </tr> <tr> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) </td> <td style="width: 50%; padding: 2px;"></td> </tr> <tr> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Water-Stained Leaves (B9) </td> <td style="width: 50%; padding: 2px;"></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Marl Deposits (B15) (LRR U)	<input checked="" type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Water-Stained Leaves (B9)		<u>Secondary Indicators</u> (minimum of two required) <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Surface Soil Cracks (B6) </td> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) </td> </tr> <tr> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Drainage Patterns (B10) </td> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Moss Trim Lines (B16) </td> </tr> <tr> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Dry-Season Water Table (C2) </td> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Crayfish Burrows (C8) </td> </tr> <tr> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) </td> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Geomorphic Position (D2) </td> </tr> <tr> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> Shallow Aquitard (D3) </td> <td style="width: 50%; padding: 2px;"> <input type="checkbox"/> FAC-Neutral Test (D5) </td> </tr> <tr> <td style="width: 50%; padding: 2px;"> <input checked="" type="checkbox"/> Sphagnum moss (D8) (LRR T, U) </td> <td style="width: 50%; padding: 2px;"></td> </tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> FAC-Neutral Test (D5)	<input checked="" type="checkbox"/> Sphagnum moss (D8) (LRR T, U)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)																																
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<input checked="" type="checkbox"/> Sphagnum moss (D8) (LRR T, U)																																	

Field Observations: Surface Water Present? Yes <u> </u> No <u> </u> Depth (inches): <u> </u> Water Table Present? Yes <u>✓</u> No <u> </u> Depth (inches): <u>15</u> Saturation Present? (includes capillary fringe) Yes <u>✓</u> No <u> </u> Depth (inches): <u>6</u>	Wetland Hydrology Present? Yes <u>✓</u> No <u> </u>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Remarks:
------------------------------------------------------------------------------------------------------------	----------

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: 4 Wet

<u>Tree Stratum</u> (Plot size: 30 foot radii 75 foot rect.)				Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A) Total Number of Dominant Species Across All Strata: 12 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: .65 (A/B)			
1. <i>acer rubrum</i>	20	Yes	FAC							
2. <i>pinus strobus</i>	10	Yes	FACU							
3. <i>Quercus Rubra</i>	10	Yes	FACU							
4. _____	_____	_____	_____							
5. _____	_____	_____	_____							
6. _____	_____	_____	_____	40 = Total Cover						
				50% of total cover: 25	20% of total cover: 10					
<u>Sapling Stratum</u> (Plot size: 30 foot radii)				Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species 2 x 1 = 2 _____ FACW species 3 x 2 = 6 _____ FAC species 3 x 3 = 9 _____ FACU species 4 x 4 = 16 _____ UPL species _____ x 5 = _____ Column Totals: 12 (A) 33 (B)			
1. <i>Acer Rubrum</i>	20	Yes	FAC							
2. <i>Quercus Rubra</i>	10	Yes	FAC							
3. <i>pinus strobus</i>	20	Yes	FACU							
4. _____	_____	_____	_____							
5. _____	_____	_____	_____							
6. _____	_____	_____	_____	50 = Total Cover						
				50% of total cover: 30	20% of total cover: 12					
<u>Shrub Stratum</u> (Plot size: 30 foot radii)				Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)			
1. <i>Leycesteria formosa</i>	10	Yes	FACU							
2. <i>Vaccinium corymbosum</i>	20	Yes	FACW							
3. _____	_____	_____	_____							
4. _____	_____	_____	_____							
5. _____	_____	_____	_____							
6. _____	_____	_____	_____	30 = Total Cover						
				50% of total cover: 15	20% of total cover: 6					
<u>Herb Stratum</u> (Plot size: 30 foot radii)				Absolute % Cover	Dominant Species?	Indicator Status	Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).			
1. <i>Symplocarpus foetidus</i>	10	Yes	OBL							
2. <i>Osmunda regalis</i>	10	Yes	OBL							
3. <i>Osmundastrum cinnamomeum</i>	10	Yes	FACW							
4. <i>Onoclea sensibilis</i>	10	Yes	FACW							
5. _____	_____	_____	_____							
6. _____	_____	_____	_____							
7. _____	_____	_____	_____							
8. _____	_____	_____	_____							
9. _____	_____	_____	_____							
10. _____	_____	_____	_____							
11. _____	_____	_____	_____	40 = Total Cover						
				50% of total cover: 25	20% of total cover: 10					
<u>Woody Vine Stratum</u> (Plot size: not inventoried)				Absolute % Cover	Dominant Species?	Indicator Status	Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.			
1. _____	_____	_____	_____							
2. _____	_____	_____	_____							
3. _____	_____	_____	_____							
4. _____	_____	_____	_____							
5. _____	_____	_____	_____	0 = Total Cover						
				50% of total cover: _____	20% of total cover: _____					
Remarks: (If observed, list morphological adaptations below).										
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>										

SOIL

Sampling Point: 4 Wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Organic Bodies (A6) (LRR P, T, U)
- 5 cm Mucky Mineral (A7) (LRR P, T, U)
- Muck Presence (A8) (LRR U)
- 1 cm Muck (A9) (LRR P, T)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Coast Prairie Redox (A16) (MLRA 150A)
- Sandy Mucky Mineral (S1) (LRR O, S)
- Sandy Gleayed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR P, S, T, U)
- Polyvalue Below Surface (S8) (LRR S, T, U)
- Thin Dark Surface (S9) (LRR S, T, U)
- Loamy Mucky Mineral (F1) (LRR O)
- Loamy Gleayed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR U)
- Depleted Ochric (F11) (MLRA 151)
- Iron-Manganese Masses (F12) (LRR O, P, T)
- Umbric Surface (F13) (LRR P, T, U)
- Delta Ochric (F17) (MLRA 151)
- Reduced Vertic (F18) (MLRA 150A, 150B)
- Piedmont Floodplain Soils (F19) (MLRA 149A)
- Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

1 cm Muck (A9) (LRR O)
2 cm Muck (A10) (LRR S)
Reduced Vertic (F18) (outside MLRA 150A, B)
Piedmont Floodplain Soils (F19) (LRR P, S, T)
Anomalous Bright Loamy Soils (F20)
(MLRA 153B)
Red Parent Material (TF2)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (**LRR O**)
- 2 cm Muck (A10) (**LRR S**)
- Reduced Vertic (F18) (**outside MLRA 150A, B**)
- Piedmont Floodplain Soils (F19) (**LRR P, S, T**)
- Anomalous Bright Loamy Soils (F20)
(MLRA 153B)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

WETLAND REPLICATION PLAN

975 Massachusetts Ave, Boxborough, MA

The following is a replication plan for an area of wetland currently that is currently under consideration for an Order of Conditions.

Matthew S. Marro Environmental Consulting
March 2025

WETLAND REPLICATION PLAN

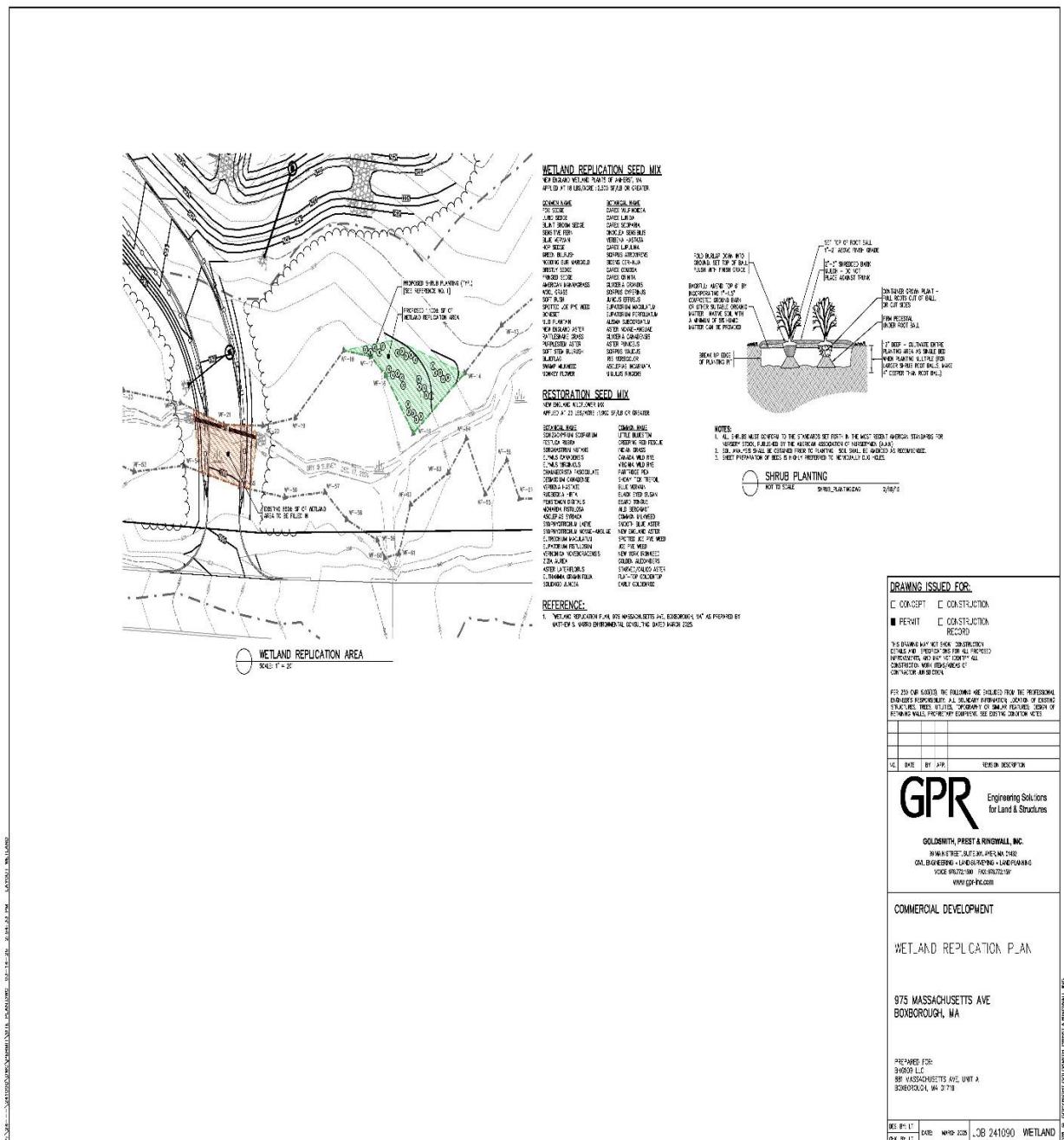
975 Massachusetts Ave, Boxborough, MA

The following is a narrative plan for the replication of an area of Bordering Vegetated Wetland located at 975 Massachusetts Ave in Boxborough Massachusetts. Construction activity proposed is in the form of a crossing for access across a Bordering Vegetated Wetland area as defined by 310 CMR 10 and Local Wetland Protective By-law. The current condition of the site is a mixed deciduous/evergreen forested area. This replication narrative is based on a plan by GPR entitled “Wetland Replication Plan”. Please refer to the plan for detail concerning this narrative.

Replication of Bordering
Vegetated Wetland

As the result of construction activities proposed, an area of 800 square feet of Bordering Vegetated wetland is proposed to be replicated between wetland flags 14-18 (see figure 1). The proposed replication is 1,100 square feet. The shrub layer and over story in the area surrounding the proposed replication are in excellent condition and will unlikely be degraded as a result of the replication activity.

The soil in the area of fill is proposed to be hydric soils excavated for the crossing and if necessary extra volumes also purchased and stockpiled for future spreading in the replication area. The area to be replicated will be excavated in elevation just below the adjacent wetland resource area. Prior to the spread of hydric soils into the replication area, I recommend the area be viewed by a wetland scientist to ensure satisfaction with elevation excavated and area shape for conformity with approved plan. After inspection, hydric soils obtained will be spread with loam added, if necessary, to the soils to allow for the sufficient establishment of a hydric/organic soils base. There shall be no heavy equipment to enter the remaining wetland resource area. The replication area will require planting and will be seeded with a standard conservation mix, similar to the vegetation which is pre-existing, as noted in a subsequent section of this plan in order to blend in with the existing resource area. The area will then be allowed to stabilize. It is estimated that the majority of any re-seeding and the re-growth of the herbaceous layer should be within the first growing season if the vegetation is not well established. A second growing season may be needed to re-seed any areas that did not take from the first seeding. Tree planting is not currently proposed as the abutting over story population consisting of red maple, red oak and white pine in dominance should provide adequate shading of the replicated wetland.



WETLAND REPLICATION DETAIL

Proposed seed mixture

The following seed mix is proposed as the species in the mix are in similar nature to the wetland resource and native to the area:

NOTE: The following seed mixture listed was obtained from New England Wetland Plants of Amherst, MA.

Fox Sedge, (Carex vulpinoidea), Lurid Sedge, (Carex lurida), Blunt Broom Sedge, (Carex scoparia), Sensitive Fern, (Onoclea sensibilis), Blue Vervain, (Verbena hastata), Hop Sedge, (Carex lupulina), Green Bulrush, (Scirpus atrovirens), Nodding Bur Marigold, (Bidens cernua), Bristly Sedge, (Carex comosa), Fringed Sedge, (Carex crinita), American Mannagrass, (Glyceria grandis), Wool Grass, (Scirpus cyperinus), Soft Rush, (Juncus effusus), Spotted Joe Pye Weed, (Eupatorium maculatum), Boneset, (Eupatorium perfoliatum), Mud Plantain, (Alisma subcordatum), New England Aster, (Aster novae-angliae), Rattlesnake Grass, (Glyceria canadensis), Purplestem aster (Aster puniceus), Soft Stem Bulrush, (Scirpus validus), Blueflag (Iris versicolor), Swamp Milkweed, (Asclepias incarnata), Monkey Flower, (Mimulus ringens). The functionality of each mix will remain unchanged, although mix composition may vary during the year.

This mixture can be spread either by mechanical means or by hand. It must be lightly raked into the soil. If planted in the fall, germination will commence however it will not likely be in full germination until the following spring. *Certain species will produce seeds in the first growing season while the remaining seeds shall produce seeds in the second growing season, allowing for a fuller growth that can handle most weather conditions. The greatest advantage to this mix is it is a progressive mix made to germinate in different seasons of the year to allow for continuous regeneration.* This seed mix is commonly commercially available and is suited for replication/restoration and is mixed to produce a minimum of 75% growth as required in the wetland protection act regulation performance standards. (310 CMR 10.55(4)).

PROPOSED SHRUB PLANTINGS

The proposed plantings will be placed within the seeded herbaceous layer proposed on the following page. The work proposed for restoration is planned to allow for a reasonable timeline for the herbaceous layer to establish and to allow for re-establishment of prior hydraulic flow. Shrubs, in 5-gallon buckets, consisting of Winterberry, High Bush Blueberry and Meadowsweet (30 in total) will be planted within the replication area. (10 of each variety)

The previously demarcated wetland noted on the referenced plan was re-verified by Marro Environmental Consulting. The commission evaluation should confirm the prior delineation of the wetland as the basis for the restoration plan. The overall mix of planting of shrubs (5 feet offset from each other) was calculated based on the planting offsets that assume as a

square landscaped planting pattern for an approximate total 30 shrubs that are of a minimum 5-gallon stock pail as commercially available.

The proposed planting plan also takes into account natural regeneration of the shrub and overstory layer that will reestablish naturally over time. The proposed plantings are planned in such a manner to allow for the replanting and the natural regeneration to blend in together. This will help to prevent the natural regeneration, from creating a situation where the plantings become so dense, they either start to outcompete each other or will grow in a manner where the total population will be dense and not exhibit a healthy regrowth.

Wildflower Mix

The following wildflower mix chart will also be utilized in the adjacent upland resource area altered as a result of the creation of the replicated wetland. This may be planted in commercial loamy soils. The use of soils transplantation such as in standard replication is not necessary to be utilized in the completion for planting of this mix.

Botanical Name	Common Name	Indicator
<i>Elymus virginicus</i>	Virginia Wild Rye	FACW-
<i>Desmodium paniculatum</i>	Panicledleaf Tick Trefoil	
<i>Schizachyrium scoparium</i>	Little Bluestem	FACU
<i>Andropogon gerardii</i>	Big Bluestem	FAC
<i>Festuca rubra</i>	Red Fescue	FACU
<i>Sorghastrum nutans</i>	Indian Grass	UPL
<i>Panicum virgatum</i>	Switch Grass	FAC
<i>Rhus typhina</i>	Staghorn Sumac	
<i>Cornus racemosa</i>	Grey Dogwood	FAC
<i>Cornus amomum</i>	Silky Dogwood	FACW
<i>Oenothera biennis</i>	Evening Primrose	FACU-
<i>Asclepias tuberosa</i>	Butterfly Milkweed	NI
<i>Rudbeckia hirta</i>	Black Eyed Susan	FACU-
<i>Chamaecrista fasciculata</i>	Partridge Pea	FACU
<i>Eupatorium fistulosum (Eutrochium fistulosum)</i>	Hollow-Stem Joe Pye Weed	FACW

During the monitoring period of the regrowth of this area, any invasive species encountered will be removed by hand and properly disposed. It is assumed that the blending of all natural layers will allow for a healthy and diverse restoration of all affected areas.

Respectfully Submitted,



A handwritten signature in black ink, appearing to read "MSM".

Matthew S. Marro, PWS, PWTPO, CSI
Consulting Agent/Principle

TABLE OF PROPOSED EVENTS

Proposed Wetland Replication

EVENT	START	END	PROPOSED MONITORING
<i>Bordering wetland and Buffer zone</i>			
Area to be excavated For filling	Fall 2025	Fall 2025	Once per week during
Soils spreading Vegetation planting	Fall 2025	Fall 2025	Once per day during
Allow for growth	Spring 2026	Fall 2026	Once per month May -October
Re-seeding	Spring 2026	Fall 2026	May 30 and October 30

Note: Monitoring reports to be submitted at the end of each growing cycle. Schedule is subject to change for reasons including, but not limited to, items such as the time required for permits approval or construction mobilization. Any change in schedule shall be submitted to the Conservation Agent for review and approval.