Project Narrative – Borthwick Avenue (Liberty Mutual Parking Lot)

Portsmouth Land Use Application #: LU-26-9

The project proposes maintenance of a stormwater detention pond at the Liberty Mutual property along existing paved parking lot (Liberty Mutual). Project will include replacement of failed 24" culvert 1. Work includes removing 2 feet of sediment from the detention pond (9,500 sq. ft., proposed pond bottom elevation: 28 ft above sea level), replacing the existing 24" HDPE culvert ("Culvert 1"), and removing/trimming vegetation. The replacement of Culvert 1 proposes temporary wetland impacts of 225 sq. ft. at the outfall in the adjacent City of Portsmouth Prime Wetland. The project also proposes 50 sq. ft. of permanent and 5,850 sq. ft. of temporary impacts to the City of Portsmouth 100-foot buffer. Culvert 1 is buried and flow is restricted, requiring removal and replacement.

Culvert 2, 3, and 4 outfalls into stormwater treatment area are to be cleaned and reset. Clearing of vegetation along banks, berm and along the stomwater area is also proposed. Approximately 2 feet of sediment which has accumulated within bottom of stormwater area is to be removed. Wetland area adjacent to the proposed impact is noted as a prime wetland, likely within very poorly drained soil areas. NHDES wetland staff have review proposed work plan and have noted no wetland permit is required per the exemption in the statute to maintenance dredge a man-made pond and replacing that outlet: RSA 482-A:3 IV. (b). Impacts to the Prime Wetland and City of Portsmouth Wetland Buffer have been minimized to the maximum extent possible.

A total fee of $1,300 is due for this application as impacts greater than 1,000 sq. ft. are proposed. The fee of $500 was submitted with the original application. An additional fee of $800 was submitted on March 24, 2026 (Check #296).

Findings of Fact | Wetland Conditional Use Permit
City of Portsmouth Planning Board

Date: June 18, 2026
Property Address: 0 Borthwick Avenue
Application #: LU-26-9
Decision: □ Approve □ Deny □ Approve with Conditions

Findings of Fact:

Per RSA 676:3, I: The local land use board shall issue a final written decision which either approves or disapproves an application for a local permit and make a copy of the decision available to the applicant. **The decision shall include specific written findings of fact that support the decision. Failure of the board to make specific written findings of fact supporting a disapproval shall be grounds for automatic reversal and remand by the superior court upon appeal, in accordance with the time periods set forth in RSA 677:5 or RSA 677:15, unless the court determines that there are other factors warranting the disapproval.** If the application is not approved, the board shall provide the applicant with written reasons for the disapproval. If the application is approved with conditions, the board shall include in the written decision a detailed description of all conditions necessary to obtain final approval.

In order to grant Wetland Conditional Use permit approval the Planning Board shall find the application satisfies criteria set forth in the Section 10.1017.50 (Criteria for Approval) of the Zoning Ordinance.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	**Finding** **(Meets Criteria for Approval)**	**Supporting Information**
1	*1. The land is reasonably suited to the use activity or alteration.*	**Meets** **Does Not Meet**	This area is an existing stormwater detention pond with failing culverts and outlet infrastructure. This is considered maintenance work with the exception of a culvert replacement.
2	2. *There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.*	**Meets** **Does Not Meet**	This area is an existing stormwater system that collects and releases stormwater coming from the parking lots across the street from Liberty Mutual. There is already significant stormwater infrastructure in place both beneath the parking lot and in the area of work that was put in place to remediate sheet flow from the parking lot into the wetland and wetland buffer. Moving this project to a new location outside of the buffer would create an even greater disturbance size to the buffer and prime wetland.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	Finding (Meets Criteria for Approval)	Supporting Information
3	*3. There will be no adverse impact on the wetland functional values of the site or surrounding properties.*	**Meets** **Does Not Meet**	If the area of work is contained to the current extent and construction equipment and debris can be cleaned and moved off site to limit the spread of invasive species, it will reduce the risk of harm to the nearby prime wetland. This has been noted on the updated Grading & Drainage Plan (C-103). The project will improve stormwater management by restoring proper flow and treatment capacity, which is expected to benefit wetland functions over the long term.
4	*4. Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.*	**Meets** **Does Not Meet**	The plans do not detail the existing vegetation on site, but plans propose trimming and removal of vegetation in an area outside of proposed dredging and the removal of 16 trees on site. The applicant should note on plans and in the invasive management plan what the long-term maintenance plans are for these areas (ex. Routine trimming, mowing, planting, leaving undisturbed, etc.). In addition, the applicant should consider planting additional trees along the detention pond as part of this project to offset the loss of trees.
5	*5. The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this section.*	**Meets** **Does Not Meet**	The area of work appears to be minimized in order to avoid additional impacts to the prime wetland and wetland buffer. The restoration of the existing failing stormwater system should reduce current impacts from stormwater coming off the adjacent parking lot.
6	*6. Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.*	**Meets** **Does Not Meet**	Information is lacking on proposed vegetation in this area. The applicant should provide information on the routine vegetation maintenance within 25' of wetland edge. All temporarily disturbed buffer areas will be restored through seeding, mulching, and stabilization measures following construction. Invasive species removal is also proposed, which may enhance long-term vegetative quality.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	Finding (Meets Criteria for Approval)	Supporting Information
7	<u>Other Board Findings:</u>		

City of Portsmouth, New Hampshire

Wetland Conditional Use Permit Application Checklist

This wetland conditional use permit application checklist is a tool designed to assist the applicant in the planning process and for preparing the application for Conservation Commission and Planning Board review. The checklist is required to be uploaded as part of your wetland conditional use permit application to ensure a full and complete application is submitted to the Planning and Sustainability Department and to the online portal. A pre-application conference with a member of the Planning and Sustainability Department is encouraged as additional project information may be required depending on the size and scope of the project. The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all wetland conditional use permit requirements. Please refer to Article 10 of the City of Portsmouth Zoning Ordinance for full details.

Applicant Responsibilities: Applicable fees are due upon application submittal to the Planning Board (no fees are required for Conservation Commission submission). The application will be reviewed by Planning and Sustainability Department staff to determine completeness. Incomplete applications which do not provide required information for the evaluation of the proposed site development shall not be provided review by the Conservation Commission or Planning Board.

Name of Applicant: Liberty Mutual Date Submitted: 1/28/2026

Application # (in City's online permitting): _____

Site Address: Borthwick Avenue - Liberty Mutual Parking Lot Map: 240 Lot: 3

☑	Required Items for Submittal	Item Location (e.g. Page or Plan Sheet/Note #)
✔	Complete application form submitted via the City's web-based permitting program	
✔	All application documents, plans, supporting documentation, this checklist and other materials uploaded to the application form in OpenGov in digital **Portable Document Format (PDF)**. One hard copy of all plans and materials shall be submitted to the Planning and Sustainability Department by the published deadline.	

☑	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)
✔	Basic property and wetland resource information. **(10.1017.21)**	Existing conditions plan Proposed conditions Plan - FR Env dated 1 28 2026
✔	Additional information required for projects proposing greater than 250 square feet of permanent or temporary impacts. **(10.1017.22)**	Existing conditions plan Proposed conditions Plan - FR Env dated 1 28 2026
✔	Demonstrate impacts as they relate to the criteria for approval set forth in Section 10.1017.50 (or Section 10.1017.60 in the case of utility installation in a right-of-way). **(10.1017.23)**	NA
✔	Balance impervious surface impacts with removal and/or wetland buffer enhancement plan. **(10.1017.24)**	NA

☑	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)
✔	Wetland buffer enhancement plan. **(10.1017.25)**	NA
✔	Living shoreline strategy provided for tidal wetland and/or tidal buffer impacts. **(10.1017.26)**	NA
✔	Stormwater management must be in accordance with Best Management Practices including but not limited to: *1. New Hampshire Stormwater Manual, NHDES, current version.* *2. Best Management Practices to Control Non-point Source Pollution: A Guide for Citizens and City Officials, NHDES, January 2004.* **(10.1018.10)**	NA
✔	Vegetated Buffer Strip slope of greater than or equal to 10%. **(10.1018.22)**	NA
✔	Removal or cutting of vegetation, use of fertilizers, pesticides and herbicides. **(10.1018.23/10.1018.24/10.1018.25)**	Existing conditions plan Proposed conditions Plan - FR Env dated 1 28 2026
✔	All new pavement within a wetland buffer shall be porous pavement. **(10.1018.31)**	NA
✔	An application that proposes porous pavement in a wetland buffer shall include a pavement maintenance plan. **(10.1018.32)**	NA
✔	Permanent wetland boundary markers shall be shown on the plan submitted with an application for a conditional use permit and shall be installed during project construction. **(10.1018.40)**	Existing conditions plan Proposed conditions Plan - FR Env dated 1 28 2026
☑	**Requested Items for Submittal**	**Item Location (e.g. Page or Plan Sheet/Note #)**
✔	A narrative/letter addressed to the Conservation Commission Chair (if recommended to Planning Board then an additional narrative addressed to the Planning Board Chair at that time) describing the project and any proposed wetland and/or wetland buffer impacts. Please visit the WCUP instruction page for further application instructions.	Existing conditions plan Proposed conditions Plan - FR Env dated 1 28 2026
✔	If New Hampshire Department of Environmental Services (NHDES) Standard Dredge and Fill Permit is required for this work, please provide this permit application at the same time as your submission for a Wetland Conditional Use Permit.	Not required per RSA 482-A:3 IV(b)

Applicant's Signature: Damon E. Burt **Date:** 1/28/2026

FRAGGLE ROCK ENVIRONMENTAL, LLC
Damon E. Burt, CWS, CPESC
38 Garland Road, Strafford, NH 03884
(603) 969-5574
FREnvironmental@gmail.com

January 27, 2026

TO: Liberty Mutual Insurance
C/O Tyler Munger
175 Berkley Street
Boston, MA 02116

RE: Letter of Authorization to Submit City of Portsmouth CUP
Subject Property: Borthwick Avenue, Portsmouth, NH (Tax Map 240, Lot 3)

Mr. Munger,

The City of Portsmouth requires authorization from the property owner for the acting representative to prepare and submit a Conditional Use Permit for the required work at the subject property.

Please print your name, sign, and date below to indicate you authorize Damon E. Burt of Fraggle Rock Environmental to act on your behalf to prepare, submit, and represent the Conditional Use Permit (CUP) application to the City of Portsmouth.

Owner Name: Liberty Mutual

Owner Signature: Olivia Connors **Date:** 1/28/2026

Sincerely,

Damon E. Burt

Damon E. Burt
Fraggle Rock Environmental, LLC

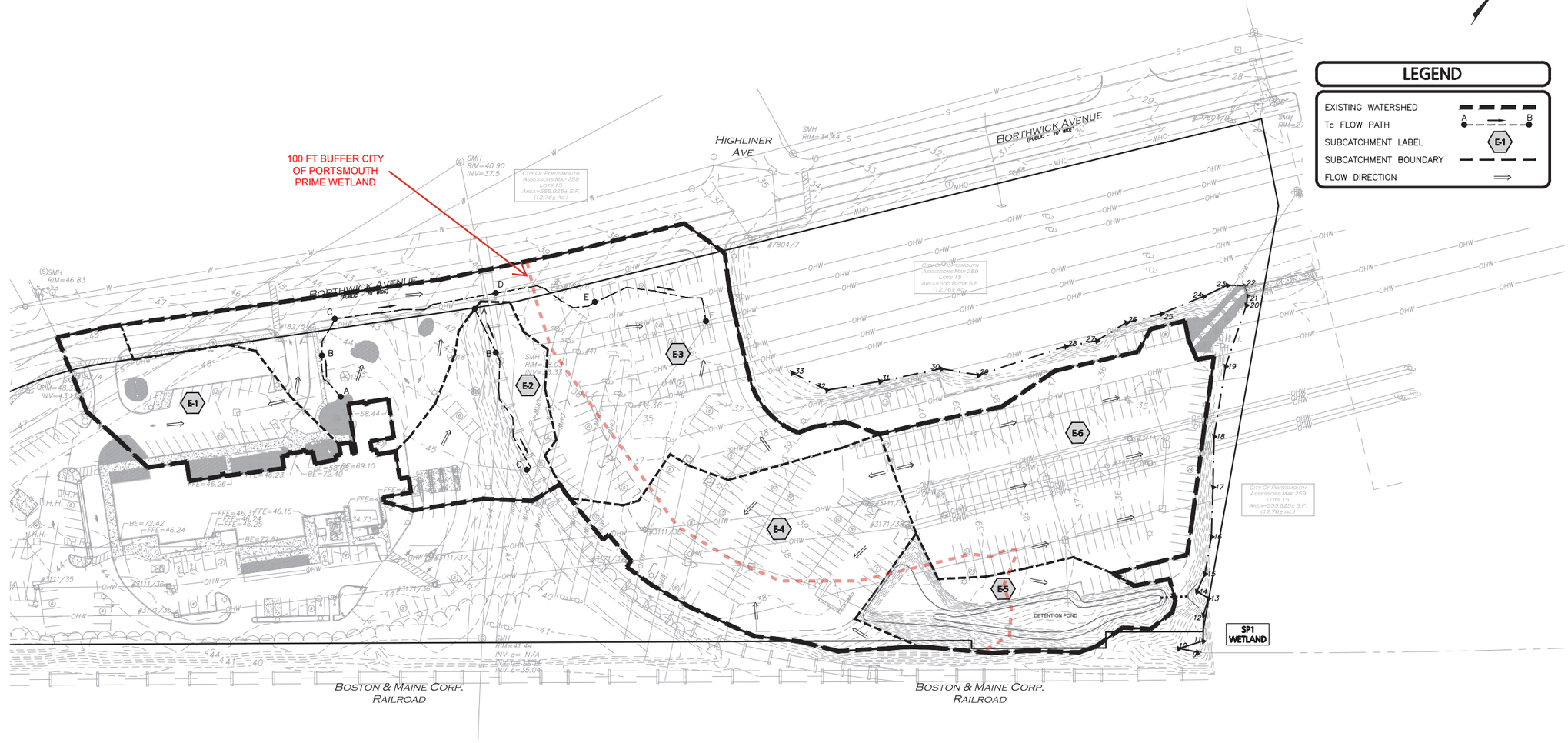
FRAGGLE ROCK ENIVRONMENTAL
CITY OF PORTSMOUTH CONDITIONAL USE PERMIT

EXISTING CONDITIONS

BORTHWICK AVENUE PORTSMOUTH, NH
(MAP 240, LOT 3)

JANUARY 28, 2026
UPDATED MARCH 20, 2026

BASE PLAN:ALLEN & MAJOR ASSOCIATES, INC.
PROPERTY OWNER: LIBERTY MUTUAL INSURANCE



LEGEND

- EXISTING WATERSHED
- Tc FLOW PATH (A – B)
- SUBCATCHMENT LABEL (E-1)
- SUBCATCHMENT BOUNDARY
- FLOW DIRECTION

DIG SAFE

BEFORE YOU DIG
CALL 811 OR
1-888-DIG-SAFE
1-888-344-7233

PLAN NOTES:

1. EXISTING CONDITIONS WERE COMPILED FROM AN ON THE GROUND SURVEY PERFORMED BY ALLEN & MAJOR ASSOCIATES, INC. IN JUNE OF 2024, AS WELL AS AVAILABLE RECORD PLANS OBTAINED FROM THE CITY OF PORTSMOUTH AND OTHER SOURCES.
2. THE INFORMATION SHOWN ON THIS PLAN IS THE SOLE PROPERTY OF ALLEN & MAJOR ASSOCIATES, INC. IT'S INTENDED USE IS TO PROVIDE INFORMATION. ANY ALTERATION, MISUSE, OR RECALCULATION OF INFORMATION OR DATA WITHOUT THE EXPRESSED, WRITTEN CONSENT OF ALLEN & MAJOR ASSOCIATES, INC. IS STRICTLY PROHIBITED.

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

R:\PROJECTS\3250-02\CIVIL\DRAWINGS\CURRENT\C-3250-02_WATERSHED-EXISTING.DWG

ISSUED FOR REVIEW
OCTOBER 10, 2024

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION

APPLICANT\OWNER:

APEX DESIGN BUILD
9550 W. HIGGINS ROAD, STE 170
ROSEMONT, IL 60018

PROJECT:

100 BORTHWICK AVENUE
PORTSMOUTH, NH

PROJECT NO.	3250-02	DATE:	10-10-24
SCALE:	1" = 60'	DWG. NAME:	C3250-02
DESIGNED BY:	JRG	CHECKED BY:	BDJ

PREPARED BY:

ALLEN & MAJOR ASSOCIATES, INC.
civil engineering ◆ land surveying
environmental consulting ◆ landscape architecture
www.allenmajor.com
400 HARVEY ROAD
MANCHESTER, NH 03103
TEL: (603) 627-5500
FAX: (603) 627-5501
WOBURN, MA ◆ LAKEVILLE, MA ◆ MANCHESTER, NH

DRAWING TITLE:

EXISTING WATERSHED PLAN

SHEET No.

WS-1

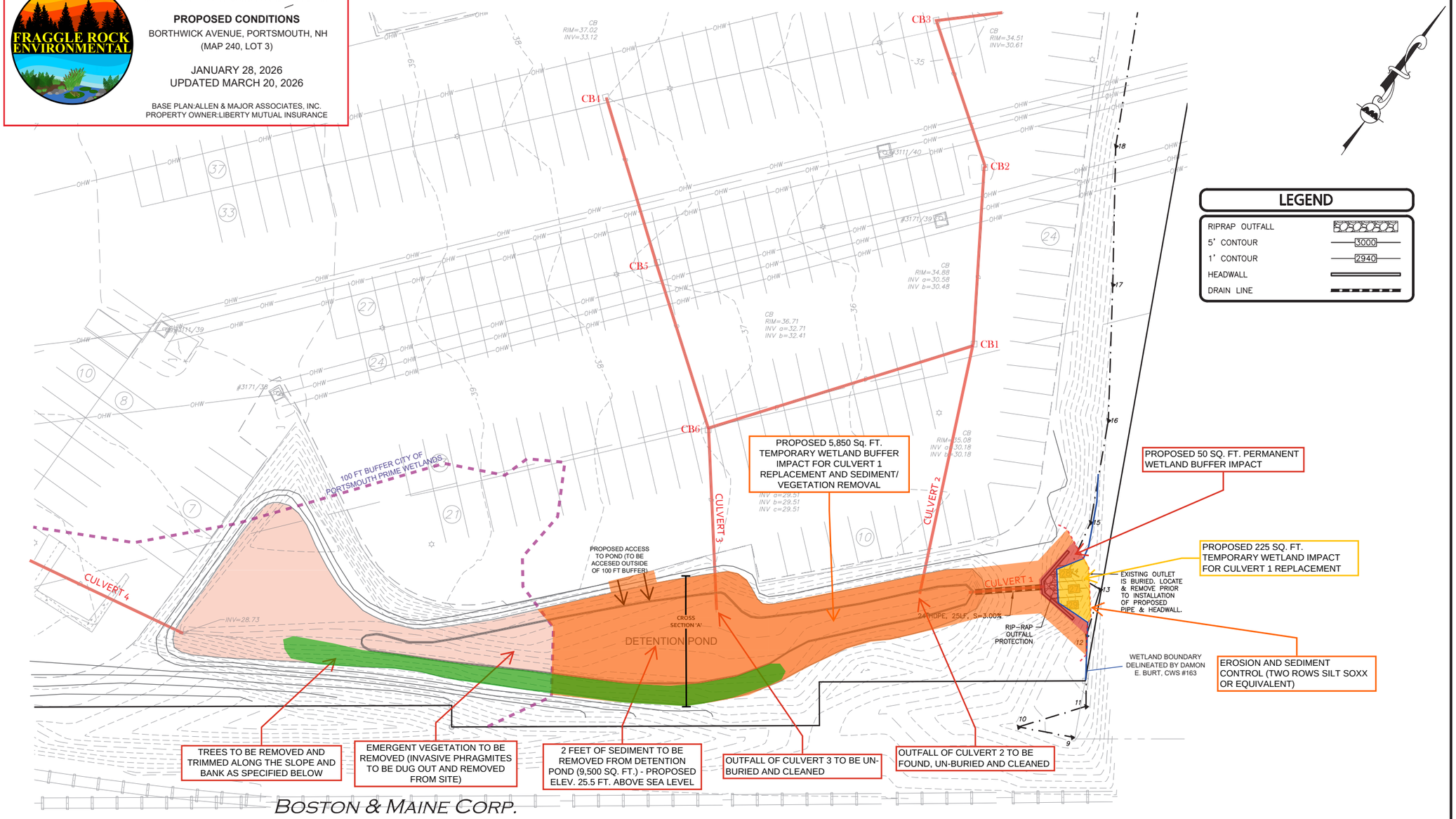
FRAGGLE ROCK ENIVRONMENTAL
CITY OF PORTSMOUTH CONDITIONAL USE PERMIT

PROPOSED CONDITIONS

BORTHWICK AVENUE, PORTSMOUTH, NH
(MAP 240, LOT 3)

JANUARY 28, 2026
UPDATED MARCH 20, 2026

BASE PLAN:ALLEN & MAJOR ASSOCIATES, INC.
PROPERTY OWNER:LIBERTY MUTUAL INSURANCE



LEGEND

RIPRAP OUTFALL	
5' CONTOUR	3000
1' CONTOUR	2940
HEADWALL	
DRAIN LINE	

DIG SAFE

BEFORE YOU DIG
CALL 811 OR
1-888-DIG-SAFE
1-888-344-7233

Wetlands on-site were delineated by Damon E. Burt, NH CWS #13, on October 14, 2025 to the following standards.
1) U.S. Army Corps of Engineers. (1987). *Corps of Engineers Wetland Delineation Manual* (ER/EL-87-1). U.S. Army Engineer Waterways Experiment Station. 2) U.S. Army Corps of Engineers. (2012). *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)* (ERDC/EL TR-12-1). U.S. Army Engineer Research and Development Center. 3) Federal Geographic Data Committee. (2013). *Classification of wetlands and deepwater habitats of the United States.* FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC. 4) United States Department of Agriculture, Natural Resources Conservation Service. (2024). *Field Indicators of Hydric Soils in the United States* (Version 9.0). 5) New England Hydric Soils Technical Committee. (2017). *Field Indicators for Identifying Hydric Soils in New England* (Version 4). New England Interstate Water Pollution Control Commission, Lowell, MA. 6) U.S. Army Corps of Engineers. (2016). *National Wetland Plant List/State List* (Version 3.3). 7) NH Revised Statutes. (2024). Title L - Water Management and Protection, Chapter 482-A - Fill and Dredge in Wetlands. 8) NH Code of Administrative Rules (Env-Wt 100-900).

PROJECT NARRATIVE:

1) Plans shall be reviewed by site personnel.
2) Sediment and erosion controls (two rows of silt soxx or equivalent) will be installed as noted on the site plans.
3) Invasive species (*Phragmites australis*) shall be removed from the site as described in the Invasive Species Management and Site Maintenance Plan prepared by Fraggle Rock Environmental, dated March 20, 2026.
4) Culvert 1 will be removed. Work will only be completed within the permitted wetland and wetland buffer impact areas, with special care not to impact the adjacent City of Portsmouth Prime Wetland.
5) Excess sediment will be removed from the detention pond and adjacent to Culvert 1 to restore flow and remove any restriction. Culvert 2 and 3 outlets will be cleared of sediment. Sediment will be removed from the project site. Riprap at Culvert 2, 3, and 4 outfalls shall be restored as needed.
6) Vegetation will be removed and trimmed within the detention pond as described on the site plan and with direction from the monitoring wetland scientist
7) Culvert 1 will be installed as shown. Culvert 1 elevations shall be field verified to ensure appropriate flow. Riprap shall be restored at culvert outfall.
8) Disturbed areas will be seeded and mulched with straw.
9) All construction equipment shall be cleaned after work is completed to reduce the spread of invasives.

TREES TO BE REMOVED:
1) Three (3) red maple – 8" DBH (dead), 5" DBH, 3" DBH
2) Two (2) white pine – 2" DBH & 4" DBH
3) Eleven (11) quaking aspen – 6" (dead), 10 x 4-8"

Total: 16 trees to be removed
TREES TO REMAIN: Many red maple, white pine, and quaking aspen

	PERMANENT	TEMPORARY
WETLAND IMPACT	0	225 SQ. FT.
WETLAND BUFFER IMPACT	50 SQ. FT.	5,850 SQ. FT.

PLAN NOTES:

1. EXISTING CONDITIONS WERE COMPILED FROM AN ON THE GROUND SURVEY PERFORMED BY ALLEN & MAJOR ASSOCIATES, INC. IN JUNE OF 2024, AS WELL AS AVAILABLE RECORD PLANS OBTAINED FROM THE CITY OF PORTSMOUTH AND OTHER SOURCES.
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GRAPHIC SCALE

20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

ISSUED FOR REVIEW
OCTOBER 10, 2024

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION

APPLICANT\OWNER:

APEX DESIGN BUILD
9550 W. HIGGINS ROAD, STE 170
ROSEMONT, IL 60018

PROJECT:

100 BORTHWICK AVENUE
PORTSMOUTH, NH

PROJECT NO.	3250-02	DATE:	10-10-24
SCALE:	1" = 20'	DWG. NAME:	C3250-02
DESIGNED BY:	JRG	CHECKED BY:	BDJ

PREPARED BY:

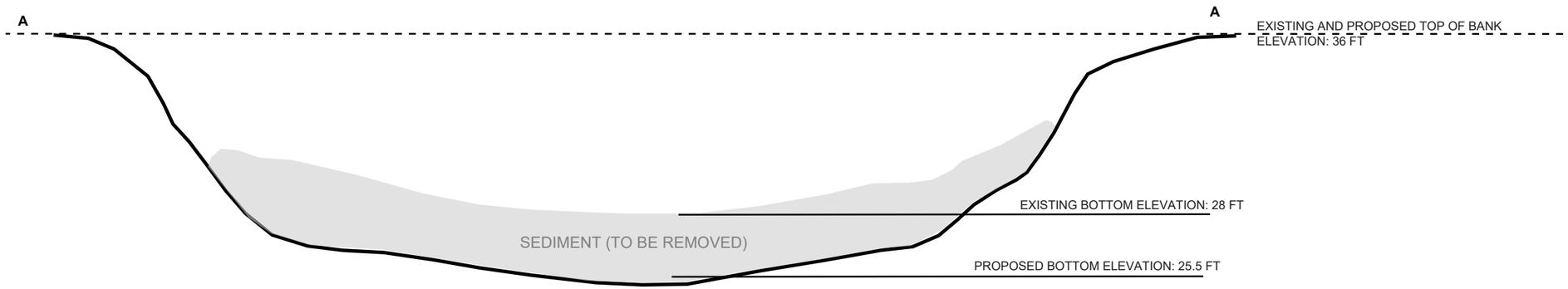
ALLEN & MAJOR ASSOCIATES, INC.
civil engineering ◆ land surveying
environmental consulting ◆ landscape architecture
www.allenmajor.com
400 HARVEY ROAD
MANCHESTER, NH 03103
TEL: (603) 627-5500
FAX: (603) 627-5501
WOBURN, MA ◆ LAKEVILLE, MA ◆ MANCHESTER, NH

DRAWING TITLE: GRADING & DRAINAGE PLAN

SHEET No. C-103

R:\PROJECTS\3250-02\CIVIL\DRAWINGS\CURRENT\C-3250-02A_GRADING & DRAINAGE.DWG

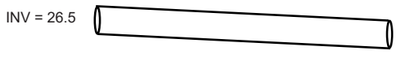
STORMWATER DETENTION POND PROFILE VIEW: 'CROSS SECTION A'
(NOT TO SCALE)



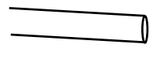
EXISITNG AND PROPOSED CULVERT ELEVATIONS:
(NOT TO SCALE)

CULVERT 1 EXISTING:

CULVERT 1 PROPOSED:



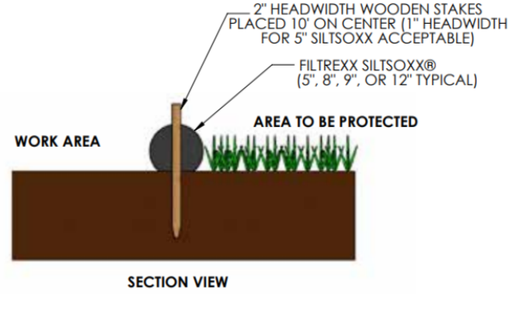
CULVERT 2 OUTFALL EXISTING & PROPOSED:



CULVERT 3 OUTFALL EXISTING & PROPOSED:

CULVERT 4 OUTFALL EXISTING & PROPOSED:

FILTREXX SILTSOXX®



FRAGGLE ROCK ENIVRONMENTAL
CITY OF PORTSMOUTH CONDITIONAL USE PERMIT

DETAIL PLAN
BORTHWICK AVENUE, PORTSMOUTH, NH
(MAP 240, LOT 3)

MARCH 20, 2026

BASE PLAN:ALLEN & MAJOR ASSOCIATES, INC.
PROPERTY OWNER:LIBERTY MUTUAL INSURANCE

INVASIVE SPECIES MANAGEMENT AND STORMWATER MAINTENANCE PLAN

LIBERTY MUTUAL
Borthwick Avenue
Portsmouth, NH
Map 240, Lot 3

Prepared for:
Liberty Mutual Insurance
225 Borthwick Avenue
Portsmouth, NH 03801

Prepared by:
Fraggle Rock Environmental
Damon E. Burt, CWS, CPESC
Briana B. Stringer, WSA
38 Garland Road
Strafford, NH 03884

March 22, 2026

PART 1: PROJECT INFORMATION

1.1 PROJECT NAME AND LOCATION		
PROJECT NAME: Liberty Mutual Insurance		
SITE OWNER: Liberty Mutual Insurance Company		
PROJECT STREET ADDRESS: Borthwick Avenue – Liberty Mutual Lot		
TOWN/CITY: Portsmouth	STATE: NH	ZIP CODE: 03801
TAX MAP/LOT/UNIT: Tax Map 240, Lot 3		

1.2 WILDLIFE BIOLOGIST INFORMATION		
NAME: Damon E. Burt		
COMPANY NAME: Fraggle Rock Environmental		
ADDRESS: 38 Garland Road		
TOWN/CITY: Strafford	STATE: NH	ZIP CODE: 03884
PHONE: (603) 969 – 5574		
EMAIL: FREnvironmental@gmail.com		

1.3 SITE PLANS/MAPS/ATTACHMENTS

1) Methods for Disposing Non-Native Invasive Plants – UNH Cooperative Extension

2) City of Portsmouth Conditional Use Permit Proposed Conditions Plan – Prepared by Fraggle Rock Environmental – Updated March 20, 2026

3) Site Photos taken by Fraggle Rock Environmental documenting proposed impacts and site maintenance

PART 2: INVASIVE SPECIES IDENTIFICATION

The site was reviewed on June 5, 2025, October 14, 2025, and March 20, 2026 by Damon E. Burt, of Fraggle Rock Environmental, for the presence of invasive species. The following species were identified on the project parcel:

1. Common Read (*Phragmites australis*)

Phragmites were observed within the stormwater detention pond on site.

PART 3: PROPOSED ON-SITE MANAGEMENT FOR INVASIVE SPECIES

1. Contractor and all personnel involved with clearing and grubbing of the site should review and be familiar with invasive species and project-specific recommendations for invasive removal and control on-site.

2. **To remove *phragmites,* all plant material, including roots, should be removed from the site with a separate dump truck to be disposed of separately.** The *phragmites* disposal material and soil material should be kept separate from other soil material and covered during transport. Material will be trucked off the Liberty Mutual Campus. The disposal site shall be determined by the contractor and coordinated with the monitoring environmental scientist. The contractor shall not stockpile *Phragmites* waste soil material, but will it bury at least 4 feet below ground within areas outside of wetlands and wetland buffers.

    a. Proposed removal of invasive *Phragmites* within should be completed before the seed head has developed, if possible. Invasives shall be managed as described in detail above.
    b. No work shall be completed in areas containing invasive species until the plant has been removed and dealt with.

3. Any new sprouting material should be removed when observed.

4. Vehicles and equipment used during the removal of invasive species will need to be carefully cleaned and cleared of invasive species and/or seeds before leaving the site.

5. Presence/return of invasive *Phragmites* should be reviewed by an environmental monitor annually and removal shall be repeated as described above if needed.

PART 4: PROPOSED STORMWATER MONITORING

1. Culvert 1 inlet and outlet, and Culvert 2, 3, and 4 outlets shall be monitored to ensure they remain clean and in good working order.

2. Stormwater area shall be monitored to assess the success of the culvert restoration, sediment removal, and vegetation clearing. The goal is to ensure stormwater flow can enter the detention pond, sediment is able to settle, and the outlet of the pond is not restricted (Culvert 1).

3. The following general site questions shall be answered during the site assessment and the systems detailed below shall be reviewed:

General Site Questions	
1	Is the site permanently stabilized with no open disturbed areas?
2	Is stormwater flow entering the detention pond as intended via culverts or overland flow with no restrictions or noticeable clogs?
3	Do culvert inlets into the Stormwater Area remain free of debris or excess sediment?
4	Do culverts appear to remain undamaged?
5	Is the stormwater area adequately able to hold excess stormwater as intended?
6	Are invasive species, such as *Phragmites*, present within or adjacent to the detention pond?
7	Is excess woody vegetation present within the detention pond?
8	If applicable, is snow storage located outside of wetlands, the stormwater detention pond, and the 100-foot City of Portsmouth wetland buffer as required? Please reference the snow and ice management plan prepared by Liberty Mutual Insurance and dated March of 2026.

Inspection & Maintenance Checklist		
BMP/System	Inspection Requirements	Maintenance
Stormwater Area	• Check for trash and debris • Check for sediment buildup at culvert inlets/outlets • Check for excess woody vegetation growth • Check for invasive species	• Remove trash and debris • Remove excess sediment and vegetation • Remove invasive species as described in detail above
Culverts and Riprap Outlet Protection	• Check for sediment Build up and/or structure damage	• Remove Excess sediment • Clear clogs • Repair damage

PART 5: MONITORING SCHEDULE

Annual monitoring shall be completed by an environmental scientist to document the progress/success of the invasive removal and to ensure the stormwater area is in good working condition. A monitoring report shall be prepared documenting the findings detailed in Part 3 and Part 4 above after the site review. The report shall include action items as needed and/or descriptions of work completed. The initial monitoring report shall be prepared by June 30, 2027.

Sincerely,

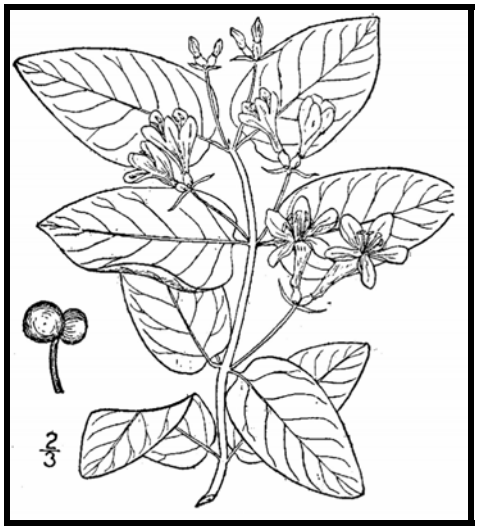
Damon E. Burt

Damon E. Burt
Fraggle Rock Environmental
NH Certified Wetland Scientist #163
Certified Professional in Erosion and Sediment Control (CPESC #3213)

University of New Hampshire Cooperative Extension

Methods for Disposing Non-Native Invasive Plants

Prepared by the Invasives Species Outreach Group, volunteers interested in helping people control invasive plants. Assistance provided by the Piscataquog Land Conservancy and the NH Invasives Species Committee. Edited by Karen Bennett, Extension Forestry Professor and Specialist.



Tatarian honeysuckle
Lonicera tatarica
USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. Vol. 3: 282.

Non-native invasive plants crowd out natives in natural and managed landscapes. They cost taxpayers billions of dollars each year from lost agricultural and forest crops, decreased biodiversity, impacts to natural resources and the environment, and the cost to control and eradicate them.

Invasive plants grow well even in less than desirable conditions such as sandy soils along roadsides, shaded wooded areas, and in wetlands. In ideal conditions, they grow and spread even faster. There are many ways to remove these non-native invasives, but once removed, care is needed to dispose the removed plant material so the plants don't grow where disposed.

Knowing how a particular plant reproduces indicates its method of spread and helps determine the appropriate disposal method. Most are spread by seed and are dispersed by wind, water, animals, or people. Some reproduce by vegetative means from pieces of stems or roots forming new plants. Others spread through both seed and vegetative means.

Because movement and disposal of viable plant parts is restricted (see NH Regulations), viable invasive parts can't be brought to most transfer stations in the state. Check with your transfer station to see if there is an approved, designated area for invasives disposal. This fact sheet gives recommendations for rendering plant parts non-viable.

Control of invasives is beyond the scope of this fact sheet. For information about control visit www.nhinvasives.org or contact your UNH Cooperative Extension office.

New Hampshire Regulations

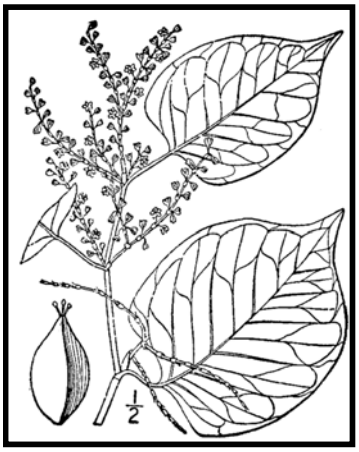
Prohibited invasive species shall only be disposed of in a manner that renders them nonliving and nonviable. (Agr. 3802.04)

No person shall collect, transport, import, export, move, buy, sell, distribute, propagate or transplant any living and viable portion of any plant species, which includes all of their cultivars and varieties, listed in Table 3800.1 of the New Hampshire prohibited invasive species list. (Agr 3802.01)

How and When to Dispose of Invasives?

To prevent seed from spreading remove invasive plants before seeds are set (produced). Some plants continue to grow, flower and set seed even after pulling or cutting. Seeds can remain viable in the ground for many years. If the plant has flowers or seeds, place the flowers and seeds in a heavy plastic bag "head first" at the weeding site and transport to the disposal site. The following are general descriptions of disposal methods. See the chart for recommendations by species.

Burning: Large woody branches and trunks can be used as firewood or burned in piles. For outside burning, a written fire permit from the local forest fire warden is required unless the ground is covered in snow. Brush larger than 5 inches in diameter can't be burned. Invasive plants with easily airborne seeds like black swallow-wort with mature seed pods (indicated by their brown color) shouldn't be burned as the seeds may disperse by the hot air created by the fire.



Japanese knotweed
Polygonum cuspidatum
USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. Vol. 1: 676.

Bagging (solarization): Use this technique with softer-tissue plants. Use heavy black or clear plastic bags (contractor grade), making sure that no parts of the plants poke through. Allow the bags to sit in the sun for several weeks and on dark pavement for the best effect.

Tarping and Drying: Pile material on a sheet of plastic and cover with a tarp, fastening the tarp to the ground and monitoring it for escapes. Let the material dry for several weeks, or until it is clearly nonviable.

Chipping: Use this method for woody plants that don't reproduce vegetatively.

Burying: This is risky, but can be done with watchful diligence. Lay thick plastic in a deep pit before placing the cut up plant material in the hole. Place the material away from the edge of the plastic before covering it with more heavy plastic. Eliminate as much air as possible and toss in soil to weight down the material in the pit. Note that the top of the buried material should be at least three feet underground. Japanese knotweed should be at least 5 feet underground!

Drowning: Fill a large barrel with water and place soft-tissue plants in the water. Check after a few weeks and look for rotted plant material (roots, stems, leaves, flowers). Well-rotted plant material may be composted. A word of caution- seeds may still be viable after using this method. Do this before seeds are set. This method isn't used often. Be prepared for an awful stink!

Composting: Invasive plants can take root in compost. Don't compost any invasives unless you know there is no viable (living) plant material left. Use one of the above techniques (bagging, tarping, drying, chipping, or drowning) to render the plants nonviable before composting. Closely examine the plant before composting and avoid composting seeds.

Be diligent looking for seedlings for *years* in areas where removal and disposal took place.

Suggested Disposal Methods for Non-Native Invasive Plants

This table provides information concerning the disposal of removed invasive plant material. If the infestation is treated with herbicide and left in place, these guidelines don't apply. Don't bring invasives to a local transfer station, unless there is a designated area for their disposal, or they have been rendered non-viable. This listing includes wetland and upland plants from the New Hampshire Prohibited Invasive Species List. The disposal of aquatic plants isn't addressed.

<table>
<tr><th>Woody Plants</th><th>Method of Reproducing</th><th>Methods of Disposal</th></tr>
<tr><td rowspan="2">Norway maple
(Acer platanoides)
European barberry
(Berberis vulgaris)
Japanese barberry
(Berberis thunbergii)
autumn olive
(Elaeagnus umbellata)
burning bush
(Euonymus alatus)
Morrow's honeysuckle
(Lonicera morrowii)
Tatarian honeysuckle
(Lonicera tatarica)
showy bush honeysuckle
(Lonicera x bella)
common buckthorn
(Rhamnus cathartica)
glossy buckthorn
(Frangula alnus)</td><td rowspan="2">Fruit and Seeds
  </td><td>Prior to fruit/seed ripening
Seedlings and small plants
▪ Pull or cut and leave on site with roots exposed. No special care needed.
Larger plants
▪ Use as firewood.
▪ Make a brush pile.
▪ Chip.
▪ Burn.</td></tr>
<tr><td>After fruit/seed is ripe
Don't remove from site.
▪ Burn.
▪ Make a covered brush pile.
▪ Chip once all fruit has dropped from branches.
▪ Leave resulting chips on site and monitor.</td></tr>
<tr><td rowspan="2">oriental bittersweet
(Celastrus orbiculatus)
multiflora rose
(Rosa multiflora)</td><td rowspan="2">Fruits, Seeds, Plant Fragments
  </td><td>Prior to fruit/seed ripening
Seedlings and small plants
▪ Pull or cut and leave on site with roots exposed. No special care needed.
Larger plants
▪ Make a brush pile.
▪ Burn.</td></tr>
<tr><td>After fruit/seed is ripe
Don't remove from site.
▪ Burn.
▪ Make a covered brush pile.
▪ Chip – only after material has fully dried (1 year) and all fruit has dropped from branches. Leave resulting chips on site and monitor.</td></tr>
</table>

Non-Woody Plants	Method of Reproducing	Methods of Disposal
garlic mustard *(Alliaria petiolata)* spotted knapweed *(Centaurea maculosa)* ▪ Sap of related knapweed can cause skin irritation and tumors. Wear gloves when handling. black swallow-wort *(Cynanchum nigrum)* ▪ May cause skin rash. Wear gloves and long sleeves when handling. pale swallow-wort *(Cynanchum rossicum)* giant hogweed *(Heracleum mantegazzianum)* ▪ Can cause major skin rash. Wear gloves and long sleeves when handling. dame's rocket *(Hesperis matronalis)* perennial pepperweed *(Lepidium latifolium)* purple loosestrife *(Lythrum salicaria)* Japanese stilt grass *(Microstegium vimineum)* mile-a-minute weed *(Polygonum perfoliatum)*	**Fruits and Seeds** 	**Prior to flowering** Depends on scale of infestation Small infestation ▪ Pull or cut plant and leave on site with roots exposed. Large infestation ▪ Pull or cut plant and pile. (You can pile onto or cover with plastic sheeting). ▪ Monitor. Remove any re-sprouting material. **During and following flowering** Do nothing until the following year or remove flowering heads and bag and let rot. Small infestation ▪ Pull or cut plant and leave on site with roots exposed. Large infestation ▪ Pull or cut plant and pile remaining material. (You can pile onto plastic or cover with plastic sheeting). ▪ Monitor. Remove any re-sprouting material.
common reed (*Phragmites australis*) Japanese knotweed *(Polygonum cuspidatum)* Bohemian knotweed *(Polygonum x bohemicum)*	**Fruits, Seeds, Plant Fragments** Primary means of spread in these species is by plant parts. Although all care should be given to preventing the dispersal of seed during control activities, the presence of seed doesn't materially influence disposal activities.	**Small infestation** ▪ Bag all plant material and let rot. ▪ Never pile and use resulting material as compost. ▪ Burn. **Large infestation** ▪ Remove material to unsuitable habitat (dry, hot and sunny or dry and shaded location) and scatter or pile. ▪ Monitor and remove any sprouting material. ▪ Pile, let dry, and burn.

January 2010

Photo 1 – Liberty Mutual – View looking east along the parking lot which drains toward the Stormwater Area (Photo taken 3/20/2026).

Photo 2 – Liberty Mutual – View looking southwest at the maintenance area (Photo taken 3/20/2026).

Photo 3 – Liberty Mutual – View looking southeast along the parking lot toward the Stormwater Area where impacts are proposed (Photo taken 3/20/2026).

Photo 4 – Liberty Mutual – View looking west along edge of the parking lot and the Stormwater Area (Photo taken 3/20/2026).

Photo 5 – Liberty Mutual – View looking east along the Stormwater Area (Photo taken 3/20/2026).

Photo 6 – Liberty Mutual – View looking west along the Stormwater Area along the edge of parking lot (Photo taken 3/20/2026).

Photo 7 – Liberty Mutual – View looking toward the Stormwater Area and towards the inlet of Culvert #1 (Photo taken 3/20/2026).

Photo 8 – Liberty Mutual – View looking at outlet area of Culvert #1 from the Stormwater Area (Photo taken 3/20/2026).

Photo 9 – Liberty Mutual – View looking north along the edge of the Stormwater area along proposed tree clearing (Photo taken 3/20/2026).

Photo 10 – Liberty Mutual – View looking along the Stormwater Area (Photo taken 3/20/2026).

Photo 11 – Liberty Mutual – View looking west within the Stormwater Area and towards the outlet of Culvert $4 (Photo taken 3/20/2026).

Photo 12 – Liberty Mutual – Another View looking towards the edge of parking lot (Photo taken 3/20/2026).

Photo 13 – Liberty Mutual – View looking east along the Stormwater Area (Photo taken 6/5/2025).

Photo 14 – Liberty Mutual – View of the outlet of Culvert #1 (Photo taken 6/5/2025)

Photo 15 – Liberty Mutual – View west within the Stormwater Area (Photo taken 6/5/2025)

Photo 16 – Liberty Mutual – View looking south along the existing slopes of the Stormwater Area (Photo taken 6/5/2025)

Snow and Ice Management Plan

Properties: 225 & 100 Borthwick Avenue
Location: Portsmouth, New Hampshire
Last Updated: February 2026
Prepared By: Olivia Connors

Plan Summary

This plan describes snow plowing, snow storage, deicing practices, and stormwater protection measures for a wetlands-adjacent commercial property. The intent is to maintain safe access while minimizing impacts to adjacent wetlands and the stormwater system.

1. Purpose

The purpose of this Snow and Ice Management Plan is to establish consistent winter maintenance practices at 225 & 100 Borthwick Avenue:

- Maintain safe pedestrian and vehicular access (including accessible/ADA routes).
- Prevent snow placement, sediment, and deicing materials from entering adjacent wetlands or stormwater structures.
- Minimize chloride use through calibrated application and anti-icing/best management practices.
- Provide clear roles, documentation, and annual review procedures.

2. Site Description

The property consists of a commercial office building and associated surface parking areas. The site is adjacent to wetlands. Stormwater runoff is managed through on-site catch basins and drainage infrastructure before discharge.

100-foot wetland boundary and any applicable buffer limits are identified on Exhibit A. No snow storage, salt storage, or waste disposal is permitted within wetlands or within the delineated 100-foot wetland buffer.

3. Responsible Parties

Role	Organization/Name	Phone	Email

Property Owner	Liberty Mutual	N/A	N/A
Site Representative	Olivia Connors	603-812-3165	olivia.connors@libertymutual.com
Snow/Ice Contractor	Elf's Landscaping	603-332-8324	N/A
After-hour emergency	On-site Security	603-245-3137	N/A

4. Pre-Season Preparation

- Hold a pre-season site walk with the contractor to review Exhibit A (wetlands, buffers, storm drains, no-push zones, and snow storage areas).
- Mark 100-foot wetland buffer limits and sensitive edges in the field as needed (stakes/flags) for plow visibility.
- Inspect and repair pavement/curbing that could direct snowmelt to wetlands or block drainage paths.
- Calibrate all spreaders/dispensers at least annually; retain calibration documentation.
- Confirm spill kits are available in contractor vehicles and on-site maintenance areas.

5. Service Triggers and Priorities

- Plowing begins when snowfall accumulation reaches approximately 1–2 inches, or earlier if conditions warrant.
- Pedestrian routes and building entrances are treated as needed to maintain safe access.
- Accessible parking spaces, ramps, and primary walk routes receive priority during and after storms.

6. Snow Plowing Procedures

Plowing priorities generally follow this order:

- Emergency access routes and fire lanes
- Building entrances and accessible/ADA routes
- Primary driving aisles
- Remaining parking areas

Wetland and stormwater protection requirements:

- Do not push, pile, or throw snow into wetlands or within the delineated 100-foot wetland buffer.
- Do not place snow where meltwater will flow directly to wetlands, drainage swales leading to wetlands, or stormwater outfalls.
- Keep catch basins clear; do not bury storm drains under snow piles where practicable.

- Avoid creating windrows that redirect runoff toward wetlands or block drainage flow paths.

7. Snow Storage and Off-Site Removal

Snow storage areas are in upland portions of the site away from wetlands, stormwater outfalls, and drainage paths that flow directly to wetlands.

Snow storage controls:

- Maintain maximum practical separation from wetlands and stormwater discharge points.
- Do not store snow in landscaped areas that drain to wetlands unless specifically designated.
- Do not store snow where it blocks sight lines, pedestrian routes, fire lanes, or stormwater structures.
- If on-site storage capacity is exceeded, remove snow off-site to an approved upland facility, document dates and destination.

8. Ice Control and Deicing Practices

Deicing materials may include sodium chloride (rock salt), treated salt, or other City/State-acceptable alternatives. Materials and application practices are selected to balance safety and environmental protection.

Salt minimization and controls:

- Use calibrated spreaders; avoid over-application and “insurance salting.”
- Where feasible, use anti-icing (e.g., brine or treated salt) to reduce total chloride application.
- Adjust application based on pavement temperature and forecast; do not apply ineffective amounts.
- Use spot-treatments on high-risk areas (entrances, ramps, crosswalks) rather than broadcast application.
- Clean up spills immediately; do not load/unload salt adjacent to catch basins.
- On-site salt storage (if used): Salt supplies may be stored temporarily during winter months in a covered structure on an impervious surface and protected from runoff. Stockpiles are removed from the site when not in use.

9. Stormwater Protection Measures

- Inspect catch basins during prolonged storms and after plowing operations; clear as needed to maintain drainage.

- Minimize sand use; if sand is used for traction, sweep promptly after winter conditions end.
- Conduct spring sweeping as soon as practical to remove accumulated sand/sediment and prevent discharge.
- Inspect and clean catch basins after the season (or more frequently if heavy sand use occurs).

10. Spill Prevention and Response

In the event of a fuel, hydraulic fluid, or material spill, stop the source, contain the spill immediately, and prevent discharge to storm drains or wetlands. Notify the Site Representative and follow applicable reporting requirements.
Recommended additions for your internal version: list emergency numbers (contractor dispatch, City, and NHDES spill reporting).

9. Recordkeeping

Records shall be maintained for a minimum of three (3) years and include:

- Dates/times of plowing and treatment events
- Weather conditions (optional but recommended)
- Material type and estimated quantities applied
- Off-site snow removal documentation (if applicable)
- Season-end sweeping and catch basin cleaning documentation

10. Annual Review

This plan will be reviewed annually before the winter season and updated as necessary to ensure compliance with City of Portsmouth and NHDES requirements and industry best practices.

Exhibit A: Attach a site plan or aerial map showing at minimum: 100-foot wetland boundary and buffer, stormwater structures (catch basins/outfalls), approved snow storage areas, and salt storage location (if applicable).

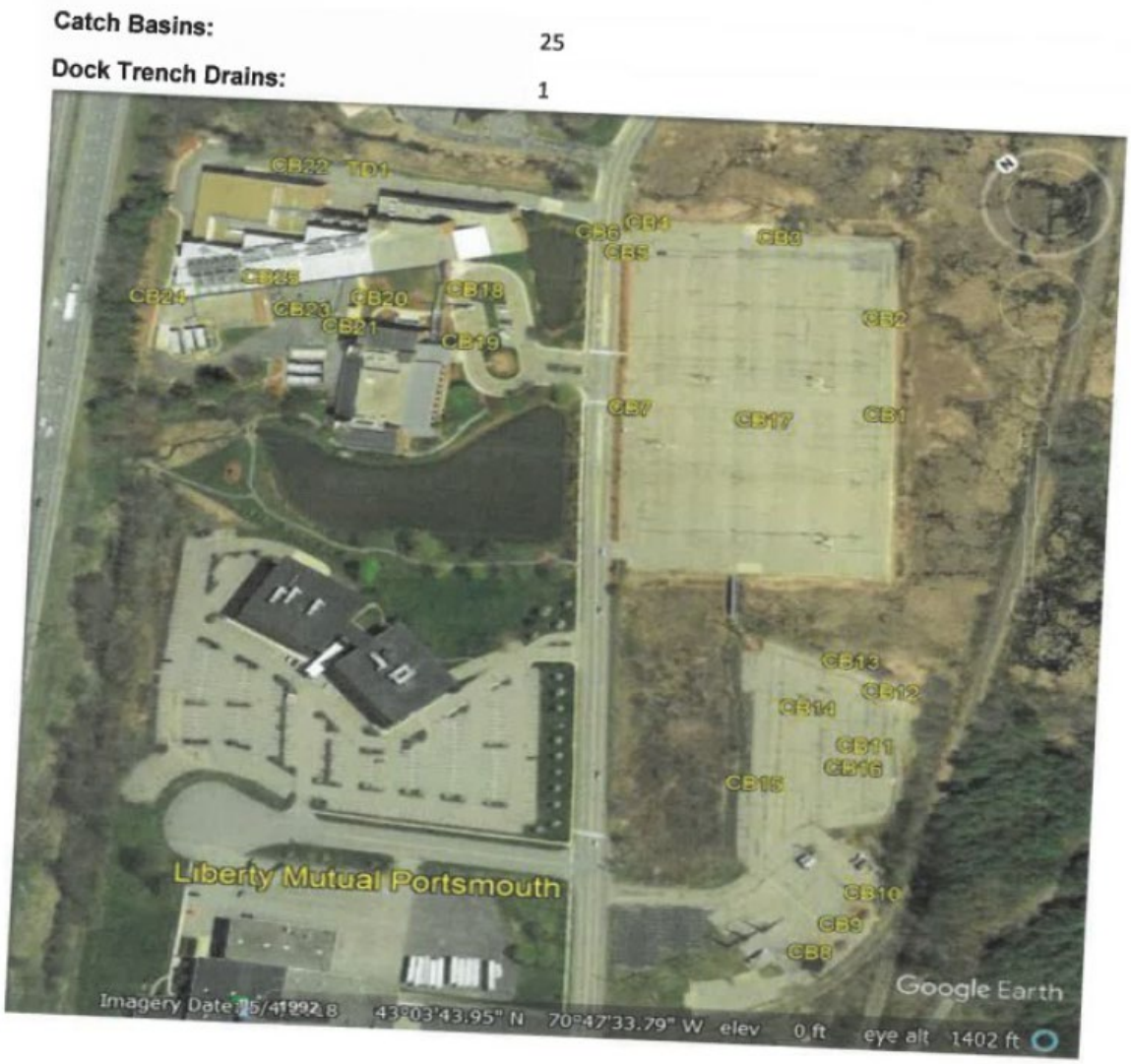
- **Parking lot outline:**

A) Campus:
225 Borthwick Ave – Map Lot: 0240-0001-0000

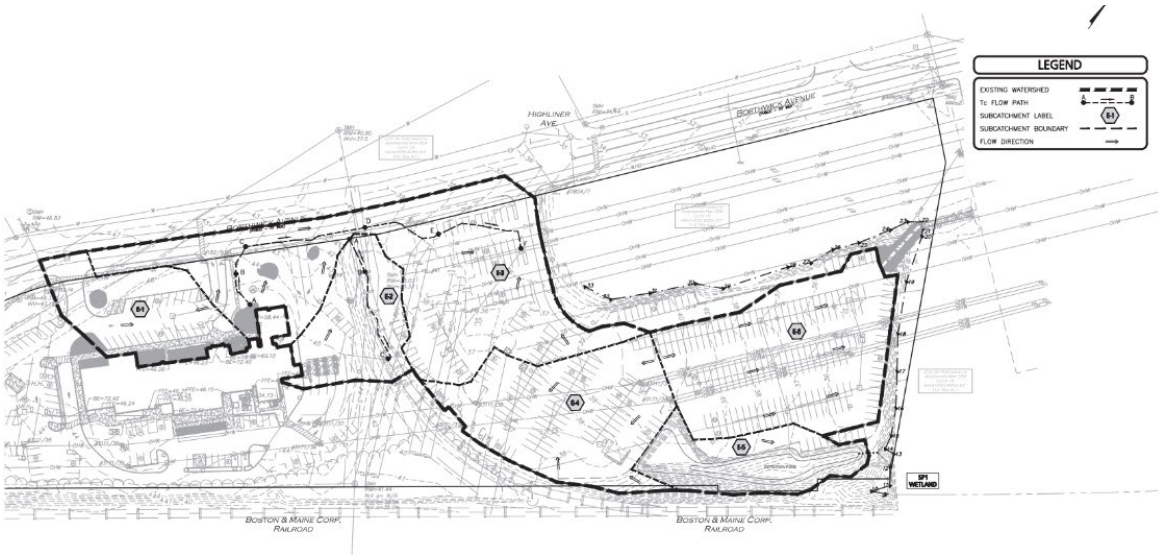
B) Primary Parking Lot
225 Borthwick Ave – Map Lot: 0240-0003-0000

C) Auxiliary Parking Lot
100 Borthwick Ave – Map Lot: 0259-0015-0000

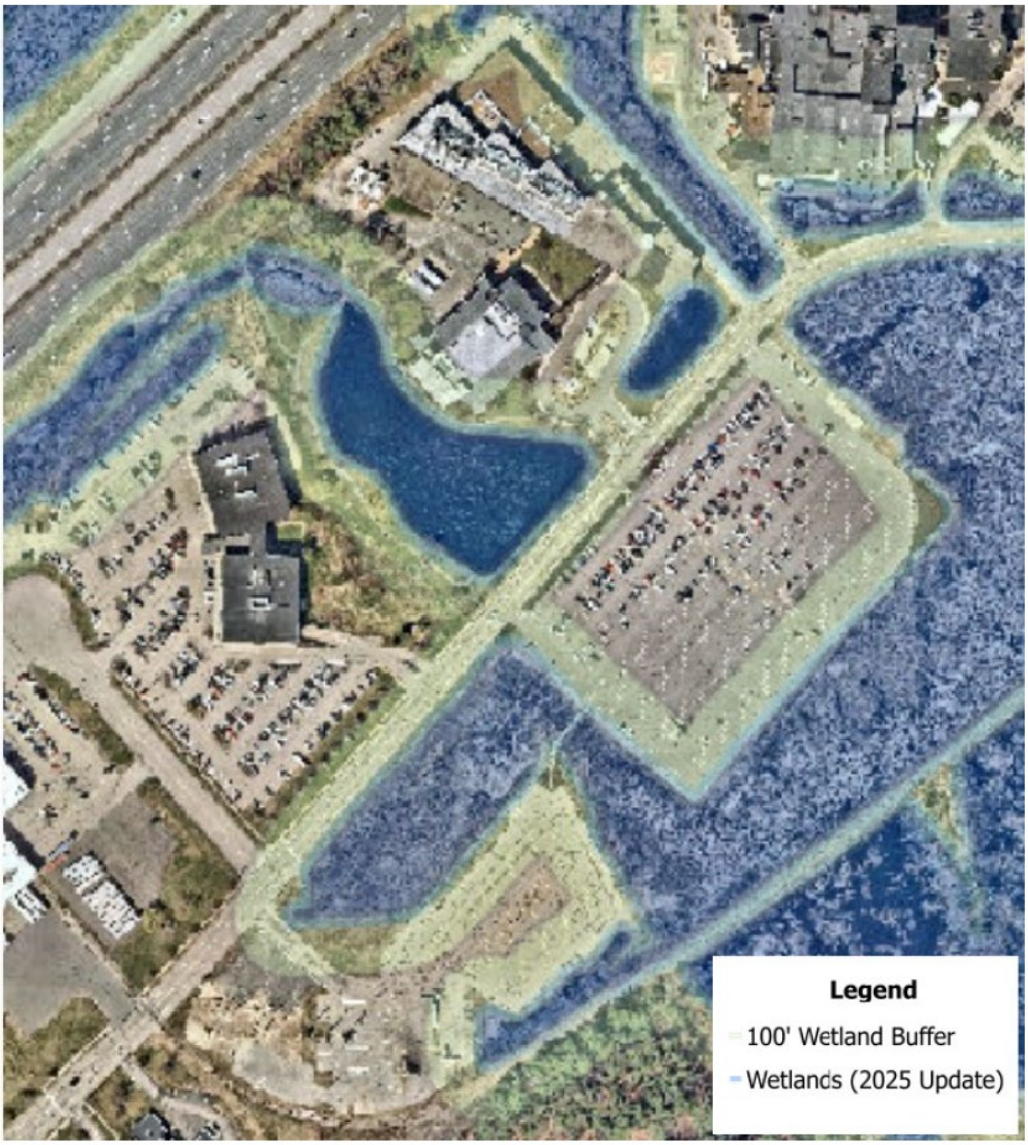
- **Stormwater Structures map:**



- **Stormwater outfalls map:**



- **100-foot Wetland boundary and buffer map (2025):**



- **Proposed snow and salt storage locations:**

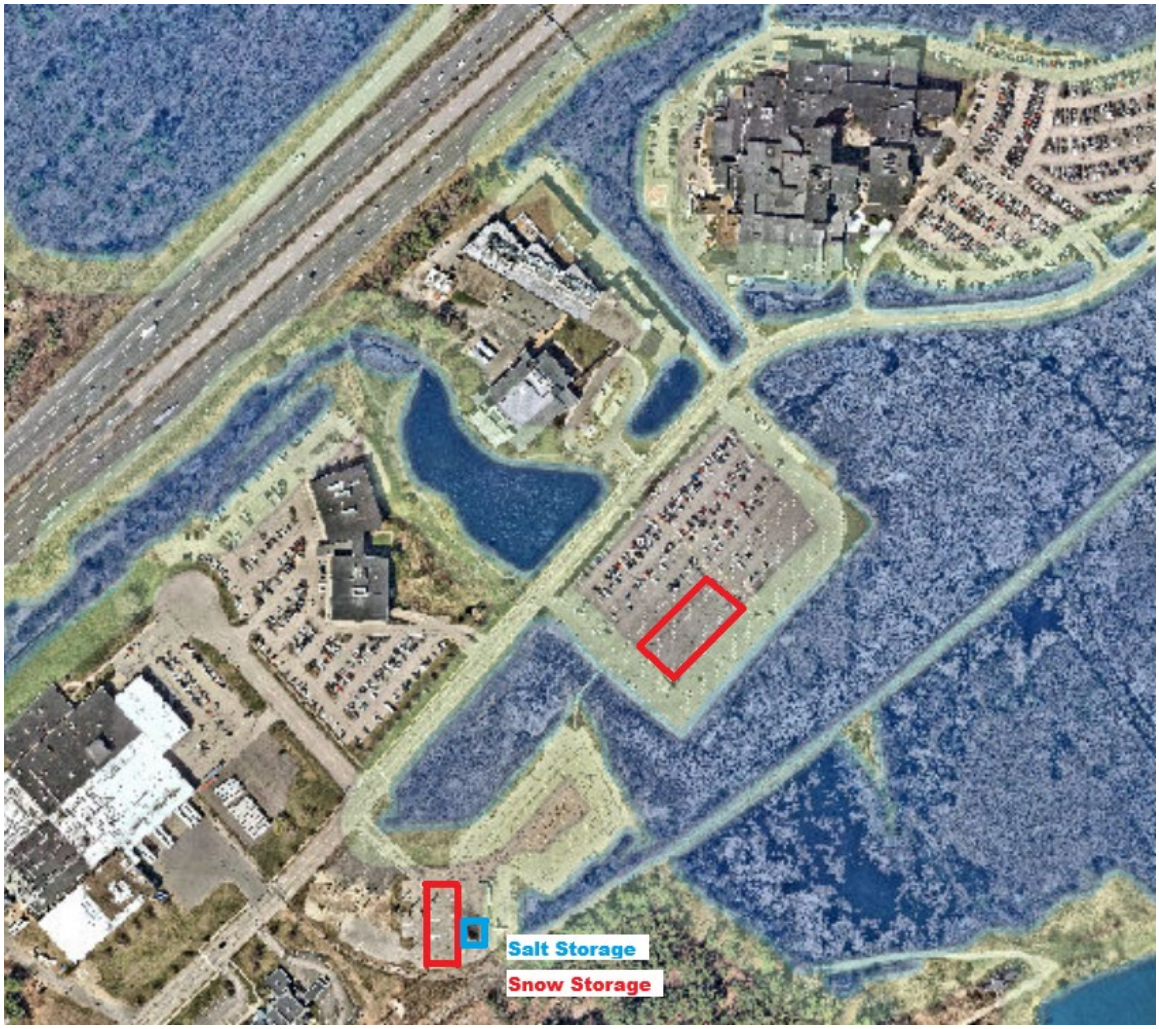


Exhibit B: Site de-icing log

Site De-Icing Log

The owner or owner's representative shall keep a log of de-icing activities to trach the amount of de-icing materials applied to the site.			
Date:	**De-Icing Material:**	**Amount:**	**Notes:**