



Office of the Planning Board

Incorporated December 15, 1727

NEWMARKET PLANNING BOARD
TUESDAY, MARCH 15, 2022
TOWN COUNCIL CHAMBERS
7:00 PM

AGENDA

- 1. Pledge of Allegiance**
- 2. Public Comments**
- 3. Review and Approval of Minutes**
 - a. 02/08/22
- 4. Regular Business**
 - a. b. Seacoast Pool Plastering LLC/Robert MacInnis - Continuation of a public hearing for an application for Site Plan & Special Use Permit to permit the proposed construction of a 6,000 square foot building consisting of 1,000 sq. ft. of office space and 5,000 sq. ft. for an equipment/construction storage warehouse. Two existing lots will be combined and access will be from an existing paved driveway off Route 152 (Wadleigh Fall Road). The office/warehouse is expected to consist of three employees, proposed paved driveway extension and 8 paved parking spaces, a proposed septic system and leach field, well and water line, and approximately 78,000 sq. ft. of gravel parking for storage of truck trailers, containers and equipment. The applicant is requesting a Special Use Permit for a wetlands buffer disturbance for the proposed driveway extension for site access and minor grading near a small wetlands buffer area pursuant Section 32-155 (e) of the Zoning Ordinance. A. portion of the proposed building and site and drainage improvements, including a bioretention area (rain garden) fall within the Town's Aquifer Protection Overlay District under Section 32-153 of the Zoning Ordinance. The lots are located at 446 & 451 Wadleigh Falls Road, Tax Map R6, Lots 50-7 & 50-8, B3 Zone.
 - b. Notice is hereby given for public hearings in accordance with RSA 231:158 for tree pruning and clearing on Town of Newmarket scenic roads by Eversource Energy. This public hearing is scheduled for Tuesday, March 15, 2022, at 7:00 p.m. at Newmarket Town Hall in the Council Chambers, 186 Main Street. This hearing is scheduled in accordance with RSA 231:158, as requested by Eversource Energy to engage in tree pruning and cutting along Bay Road in the Town of Newmarket. The proposed activity will include, but not be limited to, tree cutting, trimming, and removal of brush and trees. All proposed activity and criteria for action by the applicants will be presented and reviewed at this public hearing.
 - c. There will be a hearing for an application for Design Review, requested by Bingham Junction LLC/Shawn McGowan, for the renovation of the Rockingham Junction rail

depot to include the relocation of the existing building to a new foundation on the existing site. The use of the building will for be the owner's professional office space. The work is focused on software engineering, software investing, and advanced data analytics. A small addition to the structure and a storage barn will be added. The property is located at 3 Rockingham Junction, Tax Map R3, Lot 13A, B1 Zone.

- 5. New/Old Business**
- 6. Chairman's Report**
- 7. Committee Reports**
- 8. Planner's Report**
- 9. Adjourn**



Town Hall
186 Main Street
Newmarket, NH 03857

Tel: (603) 659-3617
Fax: (603) 659-8508

Founded December 15, 1727
Chartered January 1, 1991

TOWN OF NEWMARKET, NEW HAMPSHIRE



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ATTACHMENTS:

Description	Upload Date	Type
Cover Letter	11/22/2021	Backup Material
Legal Notice	11/22/2021	Cover Memo
Waiver Requests	11/22/2021	Backup Material
Abutters List	11/22/2021	Backup Material
Summary Drainsge Report	11/22/2021	Backup Material
Drainsge Report	11/22/2021	Backup Material
Stormwater Mgt Checklist	11/22/2021	Backup Material
Plans	11/22/2021	Backup Material
Revised Plan	2/7/2022	Backup Material

S5132-001
November 18, 2021

Diane Hardy, Town Planner/Zoning Administrator
Town of Newmarket, NH
186 Main Street
Newmarket, NH 03857

Re: **Proposed Office and Equipment Storage - Tax Map R6 Lots 50-7 & 50-8
446 & 451 Wadleigh Falls Road, Newmarket, New Hampshire**

Dear Ms. Hardy:

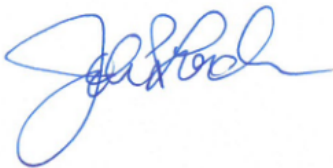
On behalf of our client, Rob MacInnis of Seacoast Pool Plastering, LLC, enclosed please find a submission for Major Site Review and a Special Use Permit for the above-referenced project. The following material are included in this submission:

- Abutters List (12 copies and 3 set of mailing labels);
- \$1063 Fee, payable to the Town of Newmarket;
- Plans "446 & 450 Wadleigh Falls Road, Newmarket, New Hampshire Proposed Office and Equipment Storage Permit Drawings", prepared by Tighe & Bond, dated November 12, 2021 (3 copies at 22"x34", 9 copies at 11"x17", and an electronic copy);
- Drainage Report (3 Full reports, 9 summary reports)
- PB Comprehensive Application Form & Owner's Authorization (12 copies);
- Stormwater Management Checklist (12 copies);
- Waiver Request letter (12 copies); and
- Special Use Permit Request (12 copies)

The project proposes to construct a 6,000 sf office/warehouse building with 8 paved parking spaces, utilities and stormwater practices. In addition, an area of approximately 78,000 sf of gravel space will be provided for equipment storage. The project proposes to combine lots 7 & 8 into one larger lot and utilize the existing entrance off Wadleigh Fall Road/Route 152 for access. A small portion of the 25' poorly drained buffer will be impacted for site access while avoiding impacts to the on-site wetlands. The disturbance to the 25' poorly drained buffer will require a Special Use Permit.

We look forward to reviewing this project with the Planning Board and respectfully request to be added to the December 14, 2021 Planning Board agenda.

Very truly yours,
TIGHE & BOND, INC.



John Lorden, PE
Project Manager

cc: Robert MacInnis - (emailed copy)



FOUNDED DECEMBER 15, 1727

CHARTERED JANUARY 1, 1991



TOWN OF NEWMARKET, NEW HAMPSHIRE
PLANNING OFFICE

LEGAL NOTICE

NEWMARKET PLANNING BOARD

**TUESDAY, DECEMBER 14, 2021
7:00 P.M.**

TOWN COUNCIL CHAMBERS

There will be a public hearing for an application for Site Plan & Special Use Permit to permit the proposed construction of a 6,000 square foot building consisting of 1,000 sq. ft. of office space and 5,000 sq. ft. for an equipment/construction storage warehouse. Two existing lots will be combined and access will be from an existing paved driveway off Route 152 (Wadleigh Falls Road). The office/warehouse is expected to consist of three employees, proposed paved driveway extension and 8 paved parking spaces, a proposed septic system and leach field, well and water line, and approximately 78,000 sq. ft. of gravel parking for storage of truck trailers, containers and equipment, requested by Seacoast Pool Plastering LLC/Robert MacInnis. The applicant is requesting a Special Use Permit for a wetlands buffer disturbance for the proposed driveway extension for site access and minor grading near a small wetlands buffer area pursuant Section 32-155 (e) of the Zoning Ordinance and a portion of the proposed building and site and drainage improvements, including a bioretention area (rain garden) which fall within the Town's Aquifer Protection Overlay District under Section 32-153 of the Zoning Ordinance. The lots are located at 446 & 451 Wadleigh Falls Road, Tax Map R6, Lots 50-7 & 50-8, B3 Zone.

S-5132-001
November 12, 2021

Diane Hardy, Town Planner/Zoning Administrator
Town of Newmarket
186 Main Street
Newmarket, NH 03857

Re: **Proposed Office & Equipment Storage – Tax Map R6 Lots 7 & 8
446 & 450 Wadleigh Falls Road, Newmarket, New Hampshire**

Dear Ms. Hardy and Members of the Planning Board:

On behalf of our client, Seacoast Pool Plastering, LLC, please allow this letter to be submitted as a request for waivers for the above-referenced project.

Based on our interpretation of the Town of Newmarket's Site Plan Regulations, we are requesting relief in the form of waivers from the following sections as part of the Site Plan Review submission:

Waiver Request #1

Requirement: Section 3.06 (A)(3)(a): In all districts except the M-1 and M-2 districts, either newly planted or existing trees shall be provided at the rate of one tree per 500 square feet of disturbed area.

Reason for Waiver: The existing street buffer is to remain as well as many existing trees on site are to remain throughout the site. Based on a disturbance of 191,427 sf, we are required to plant or maintain 383 trees. Counting the existing trees to remain would be a very large effort.

Waiver Request #2

Requirement: Section 4.08: A scale of 1" equals 20' shall be used in all cases.

Reason for Waiver: Matchlines would be necessary to achieve a scale of 1" equals 20' and can hinder the clarity of the proposed plans. Plans have been provided at a scale of 1" equals 40', which adequately represent the project area.

Waiver Request #3

Requirement: Section 4.10(C)(5): Proposed site plan showing pedestrian, bicycle and transit amenities.

Reason for Waiver: The overall use of the facility is expected to be for 3 office employees that will park on site in the dedicated spaces. The use of pedestrian sidewalks, dedicated bicycle lanes, and transit amenities are not expected to be necessary. Given the site is located outside of the downtown area these requirements would be in excess of the need for this particular development.



Waiver Request #4

Requirement: Section 4.10(D): Elevation view of the front of any building to be altered or constructed.

Reason for Waiver: The building size has been determined by the applicant and is expected to be a typical prefabricated metal building constructed on a concrete slab. The applicant requests that the review of the elevation be a condition of approval until the applicant determines the building to incorporate.

Waiver Request #5

Requirement: Section 3.02(A)1: Minimum number of parking spaces.

Reason for Waiver: Using the parking ratios for office and industrial for the proposed use, the total number of required parking spaces equals 14 spaces. For this commercial use the number of calculated required spaces is far beyond what will be expected for the proposed use of this space. The maximum expected use of the office is 3 employees and the proposed 8 spaces will more than adequately accommodate that expectation.

Waiver Request #6

Requirement: Section 4.10(C)7: Landscaping.

Reason for Waiver: The site is expected to be used by employees only and no customers are expected to visit the business location. A buffer is being maintained between the street and the building and parking areas in the form of existing trees and brush.

Waiver Request #7

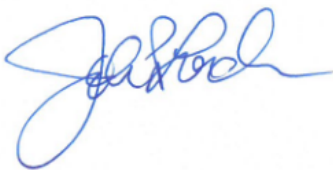
Requirement: Section 4.10(C)13: Outdoor lighting, including type, design, mounting height, shielding and other specifications as needed.

Reason for Waiver: Due to the nature of the business, absence of customers on site, and operating hours, lighting for the gravel area is not necessary.

We look forward to reviewing this project with the Planning Board on December 14, 2021.

Very truly yours,

TIGHE & BOND, INC.



John Lorden, PE
Project Manager

cc: Robert MacInnis – via email

ABUTTERS LIST
Seacoast Pool Plastering, LLC
446 & 450 Wadleigh Falls Road
Newmarket, New Hampshire 03857
November 15, 2021

R6-50-7/Locus/Applicant
Seacoast Pool Plastering, LLC
90 Depot Road
Greenland, NH 03840

R6-50-8/Locus/Applicant
Same as R6-50-7

R6-50
LGT Realty LLC
51 Smith Garrison Road
Newmarket, NH 03857

R6-50-6
Aqua Tech Irrigation LLC
199 Woodland Road
Hampton, NH 03842

R6-6
Paul R Lebeau
443 Wadleigh Falls Road
Newmarket, NH 03857

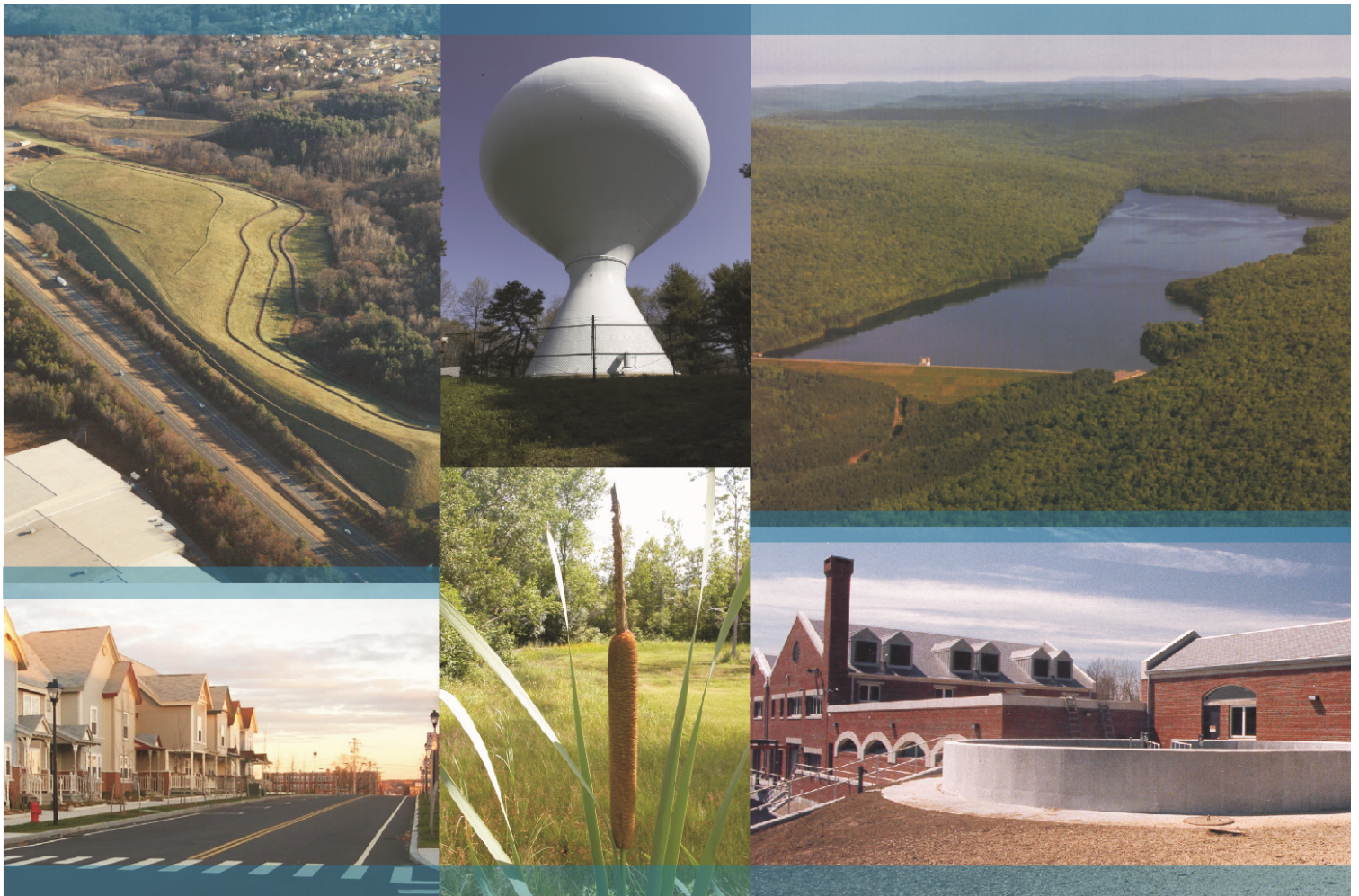
R6-7
David L & Michelle L Silvia
457 Wadleigh Falls Road
Newmarket, NH 03857

R6-8
Eudin & Aida L Aviles
89 Mast Road
Lee, NH 03861-6522

R6-50B
Town of Newmarket
186 Main Street
Newmarket, NH 03857

**Applicant's Agent/Engineer/Wetland
Scientist**
Tighe & Bond
177 Corporate Drive
Portsmouth, New Hampshire 03801

Applicant's Land Surveyor
Doucet Survey, LLC
102 Kent Place
Newmarket, NH 03857



Tighe&Bond

Proposed Office and Equipment
Storage

Drainage Report

Prepared For:

**Seacoast Pool Plastering
90 Depot Road
Greenland, NH 03824**

November 12, 2021

Section 1 Narrative

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Section 4 Rip Rap Apron Calculations**Section 5 Long-Term Operation & Maintenance Plan****Appendices**

A	Extreme Precipitation Tables
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Section 1

Narrative

The proposed project is located along Route 152 / Wadleigh Falls Road, in Newmarket, New Hampshire just prior to the turn for Ashswamp Road and is comprised of 2 lots. Lot 50-7 is 3.4 acres and lot 50-8 is 5.04 acres for a total project area of 8.44 acres. Currently, the lots are vacant mostly wooded lots and considered previously undeveloped except for a small portion of an existing access driveway on Lot 50-8. The driveway was constructed as part of a town approved private site development that was not fully executed. There are no building structures on either of the lots. The proposed project will consist of a 6,000-sf building, associated utilities, stormwater management, parking for a 1,000-sf office space within the proposed building, and a gravel area of approximately 78,000-sf for the storage of truck trailers, storage containers as well as construction equipment.

1.1 On-Site Soil Description

The site consists of terrain that is generally slopping from the northwest corner of the lot to the southeast corner to a portion of a wetland system that consist of poorly, very poorly drained soils and a designated prime wetland along the eastern edge of the property. The existing property has an approximate high point of elevation 140 at the northwestern most corner.

A site-specific soils survey was conducted by Leonard Lord, PhD, CSS, CWS of Tighe & Bond, Inc on April 26, 2021 and can be found in Section 9 of this Report. Based on the soil survey, the runoff analyzed within these studies has been modeled using mostly Hydrologic Soil Group C soils and some portions of Hydrologic Soil Group B and a very small portion of D soils, as much of the site is comprised of Udorthents with two drainage classifications, moderately well drained soils, somewhat poorly drained and portions of poorly drained soils.

1.2 Pre- & Post-Development Flow Comparison

For the purposes of this analysis, runoff generated by the site has been analyzed at three (3) distinct points of analysis (PA-1, PA-2 and PA-3). PA-1 was chosen to be able to compare the Pre and Post-development flows at a point along the eastern property line where the small on-site wetland (intermittent stream) combines to the larger wetland and prime wetland the southeastern portion of the wetland. PA-2 and PA-3 were chosen to analyze the Pre and Post-development flows along the Right of Way and what currently contributes to Wadleigh Falls Road and to determine if any additional runoff would be directed to these areas.

The peak discharge rates at these points of analysis were determined by analyzing Type III 24-hour storm events. The rainfall data for these storm events was obtained from the data published by the Northeast Regional Climate Center at Cornell University which can be found in Appendix A. Furthermore, the site is located within a Coastal and Great Bay Community, therefore an added factor of safety of 15% was included as required by Env-Wq 1503.08(l).

Table 1.2**Comparison of Pre- and Post-Development Flows (CFS)**

	1-Year Storm	2-Year Storm	10-Year Storm	25-Year Storm	50-Year Storm
Pre-Development Watershed					
PA-1	6.10	9.40	21.26	31.55	41.49
PA-2	0.71	0.99	1.91	2.67	3.38
PA-3	0.04	0.05	0.08	0.10	0.12
Post-Development Watershed					
PA-1	3.25	5.03	13.05	26.78	37.10
PA-2	0.71	0.99	1.91	2.67	3.38
PA-3	0.04	0.05	0.08	0.10	0.12

The Peak Runoff Control Requirements of Env-Wq 1507.06 are required to be met for the point of analysis. As shown in Table 1.2 the Post-development flows are decreased from the Pre-development flows for the point of analysis in PA-1 and are unchanged in PA-2 and PA-3.

The Channel Protection requirements of Env-Wq 1507.05 are met for point of analysis PA-1 and are as follows:

PA-1: The 2-year, 24-hour post-development peak flowrate (5.03 cfs) is less than or equal to the 1-year, 24-hour pre-development peak flowrate (6.10 cfs).

The Channel Protection requirements of Env-Wq 1507.05 are not being met for points of analysis PA-2 and PA-3. There is no change in land cover or change to the flow pattern as there is no work proposed in these areas.

1.3 Best Management Practices

All soil erosion and sediment control measures have been designed in accordance with the *NH Stormwater Manual, Volume 3: Erosion and Sediment Controls During Construction*. The intent of the outlined measures is to minimize erosion and sedimentation during construction, stabilize and protect the site from erosion after construction is complete and improve stormwater quality from the site. Best Management Practices for this project include:

- Temporary erosion and sediment control practices to be implemented during construction;
- Permanent stabilization practices to be implemented prior to the completion of construction; and
- Stormwater treatment practices including a sediment forebay and a rain garden/bio-retention basin.

Section 3

Drainage Analysis

3.1 Calculation Methods

The design storms analyzed in this study are the 2-year, 10-year, 25-year and 50-year 24-hour duration storm events. The stormwater modeling system, HydroCAD 10.0 was utilized to predict the peak runoff rates from these storm events. A Type III storm pattern was used in the model.

The time of concentration was computed using the TR-55 Method, which provides a means of determining the time for an entire watershed to contribute runoff to a specific location via sheet flows, shallow concentrated flow and channel flow. Runoff curve numbers were calculated by estimating the coverage areas and then summing the curve number for the coverage area as a percent of the entire watershed.

References:

1. HydroCAD Stormwater Modeling System, by HydroCAD Software Solutions LLC, Chocorua, New Hampshire.
2. New Hampshire Stormwater Management Manual, Volume 2, Post-Construction Best Management Practices Selection and Design, December 2008.
3. "Extreme Precipitation in New York & New England." Extreme Precipitation in New York & New England by Northeast Regional Climate Center (NRCC), 26 June 2012.

3.2 Pre-Development Conditions

To analyze the pre-development condition, the site has been modeled utilizing three (3) distinct points of analysis (PA-1, PA-2 and PA-3). These points of analysis and watersheds are depicted on the plan entitled "Pre-Development Watershed Plan", Sheet C-801.

The points of analysis and their contributing watershed areas are described below:

Point of Analysis One (PA-1)

Point of analysis 1 is comprised of one subcatchment area (PRE-1.0). This area includes mostly wooded areas of the lot. Runoff from this area travels from the northwest corner of the lot over land to the southeast corner to small on-site wetlands which flows into a larger system of wetlands and to Point of Analysis 1.

Point of Analysis One (PA-2)

Point of analysis 2 is comprised of one subcatchment area (PRE-2.0). This area is comprised of the area adjacent to the roadway and including the on-site wetlands along the roadway. Two 12" RCPs are present and connect the roadside ditch and existing wetland areas. Runoff from this area travels to Point of Analysis 2.

Point of Analysis One (PA-3)

Point of analysis 3 is comprised of one subcatchment area (PRE-3.0). This area includes existing pavement at the entrance. Runoff from this area flows towards Wadleigh Falls Road and to Point of Analysis 3.

3.3 Post-Development Conditions

The post-development drainage conditions are characterized by three (3) watershed areas modeled at the same points of analysis as the pre-development condition. This point of analysis and subcatchments are depicted on the plan entitled "Post Development Watershed Plan", Sheets C-802.

The points of analysis and their contributing watershed areas are described below:

Point of Analysis One (PA-1)

Post-development subcatchment 1.0 (POST-1.0) is comprised of the area adjacent to the gravel area, a portion of proposed driveway and existing wetland areas and wooded areas. This area directs runoff towards the wetlands in the same general manner as in the Pre-Conditions.

Post-development subcatchment 1.1 (POST-1.1) is comprised of the largest area on site. Runoff from this area travels overland from the southwest corner of the property and flows over the proposed gravel surface and transitions from gravel to pavement and terminates at the on-site treatment practices.

Point of Analysis Two (PA-2)

Post-development subcatchment 2.0 (POST 2.0) is the same as Pre 2.0, this area is comprised of the area adjacent to the roadway and including the on-site wetlands along the roadway. Two 12" RCPs are present and connect the roadside ditch and existing wetland areas. Runoff from this area travels to Point of Analysis 2.

Point of Analysis Three (PA-3)

Post-development subcatchment 3.0 (POST 3.0) is the same as Pre 3.0, this area includes existing pavement at the entrance. Runoff from this area flows towards Wadleigh Falls Road and to Point of Analysis 3.

3.3.1 Post-Development Watershed Plan

3.3.2 Post-Development Soil Plan

3.3.3 Post-Development Calculation

3.4 Peak Rate Comparisons

The following table summarizes and compares the pre- and post-development peak runoff rates from the 2-year, 10-year, 25-year and 50-year storm events at each point of analysis.

Table 3.4

Comparison of Pre- and Post-Development Flows (CFS)

	1-Year Storm	2-Year Storm	10-Year Storm	25-Year Storm	50-Year Storm
Pre-Development Watershed					
PA-1	6.10	9.40	21.26	31.55	41.49
PA-2	0.71	0.99	1.91	2.67	3.38
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PA-3	0.04	0.05	0.08	0.10	0.12

The Peak Runoff Control Requirements of Env-Wq 1507.06 are required to be met for the point of analysis. As shown in Table 3.4 the Post-development flows are decreased from the Pre-development flows for the point of analysis in PA-1 and are unchanged in PA-2 and PA-3.

The Channel Protection requirements of Env-Wq 1507.05 are met for point of analysis PA-1 and are as follows:

PA-1: The 2-year, 24-hour post-development peak flowrate (5.03 cfs) is less than or equal to the 1-year, 24-hour pre-development peak flowrate (6.10 cfs).

The Channel Protection requirements of Env-Wq 1507.05 are not being met for points of analysis PA-2 and PA-3. There is no change in land cover or change to the flow pattern as there is no work proposed in these areas.

3.5 Mitigation Description

3.5.1 Mitigation Calculations

The proposed project area has been evaluated to treat the required water quality flow (WQF) per the requirements of Env-Wq 1500. These calculations have been provided in Section 6 of this report (BMP Worksheets).

3.5.2 Pre-Treatment Methods for Protecting Water Quality

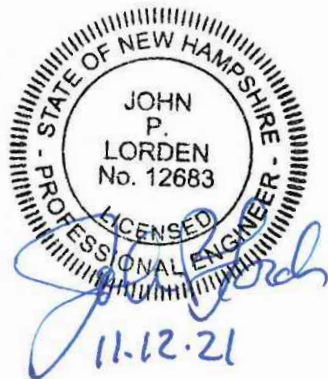
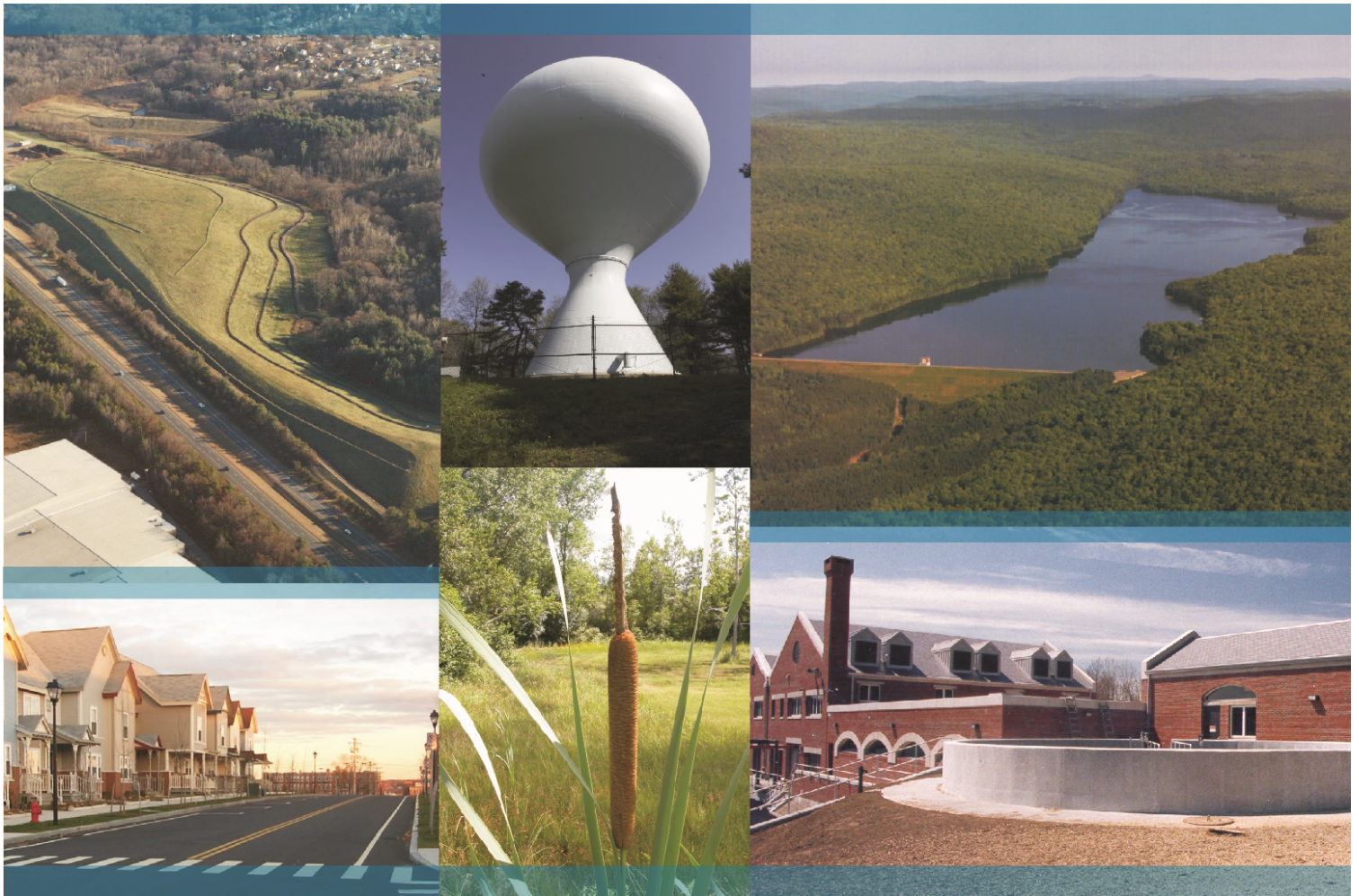
Pretreatment methods for protecting water quality on this site include a sediment forebay.

3.5.3 Treatment Methods for Protecting Water Quality

Treatment for the site is included by means of a Rain Garden. The Rain Garden has been sized to contain the 50-year storm without overtopping, as well as treat a volume of runoff greater than the WQV. Due to poor infiltration rates of the surrounding soils, the bottom of the rain garden is proposed to be lined and outfitted with underdrains to convey treated runoff to the system's outlet structure.

The BMP Worksheets for this treatment practice have been included in Section 6 of this report.

The pollutant removal efficiencies for a Rain Garden for Total Suspended Solids, Total Nitrogen and Total Phosphorus are 90%, 65% and 65% respectively. Pollutant Removal efficiencies are taken from NH Stormwater Manual Volume 2, Appendix B.



Tighe&Bond

Proposed Office and Equipment
Storage

Drainage Report

Prepared For:

Seacoast Pool Plastering
90 Depot Road
Greenland, NH 03824

November 12, 2021

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Section 4 Rip Rap Apron Calculations**Section 5 Long-Term Operation & Maintenance Plan****Appendices**

A	Extreme Precipitation Tables
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Section 1

Narrative

The proposed project is located along Route 152 / Wadleigh Falls Road, in Newmarket, New Hampshire just prior to the turn for Ashswamp Road and is comprised of 2 lots. Lot 50-7 is 3.4 acres and lot 50-8 is 5.04 acres for a total project area of 8.44 acres. Currently, the lots are vacant mostly wooded lots and considered previously undeveloped except for a small portion of an existing access driveway on Lot 50-8. The driveway was constructed as part of a town approved private site development that was not fully executed. There are no building structures on either of the lots. The proposed project will consist of a 6,000-sf building, associated utilities, stormwater management, parking for a 1,000-sf office space within the proposed building, and a gravel area of approximately 78,000-sf for the storage of truck trailers, storage containers as well as construction equipment.

1.1 On-Site Soil Description

The site consists of terrain that is generally slopping from the northwest corner of the lot to the southeast corner to a portion of a wetland system that consist of poorly, very poorly drained soils and a designated prime wetland along the eastern edge of the property. The existing property has an approximate high point of elevation 140 at the northwestern most corner.

A site-specific soils survey was conducted by Leonard Lord, PhD, CSS, CWS of Tighe & Bond, Inc on April 26, 2021 and can be found in Section 9 of this Report. Based on the soil survey, the runoff analyzed within these studies has been modeled using mostly Hydrologic Soil Group C soils and some portions of Hydrologic Soil Group B and a very small portion of D soils, as much of the site is comprised of Udorthents with two drainage classifications, moderately well drained soils, somewhat poorly drained and portions of poorly drained soils.

1.2 Pre- & Post-Development Flow Comparison

For the purposes of this analysis, runoff generated by the site has been analyzed at three (3) distinct points of analysis (PA-1, PA-2 and PA-3). PA-1 was chosen to be able to compare the Pre and Post-development flows at a point along the eastern property line where the small on-site wetland (intermittent stream) combines to the larger wetland and prime wetland the southeastern portion of the wetland. PA-2 and PA-3 were chosen to analyze the Pre and Post-development flows along the Right of Way and what currently contributes to Wadleigh Falls Road and to determine if any additional runoff would be directed to these areas.

The peak discharge rates at these points of analysis were determined by analyzing Type III 24-hour storm events. The rainfall data for these storm events was obtained from the data published by the Northeast Regional Climate Center at Cornell University which can be found in Appendix A. Furthermore, the site is located within a Coastal and Great Bay Community, therefore an added factor of safety of 15% was included as required by Env-Wq 1503.08(l).

Table 1.2**Comparison of Pre- and Post-Development Flows (CFS)**

	1-Year Storm	2-Year Storm	10-Year Storm	25-Year Storm	50-Year Storm
Pre-Development Watershed					
PA-1	6.10	9.40	21.26	31.55	41.49
PA-2	0.71	0.99	1.91	2.67	3.38
PA-3	0.04	0.05	0.08	0.10	0.12
Post-Development Watershed					
PA-1	3.25	5.03	13.05	26.78	37.10
PA-2	0.71	0.99	1.91	2.67	3.38
PA-3	0.04	0.05	0.08	0.10	0.12

The Peak Runoff Control Requirements of Env-Wq 1507.06 are required to be met for the point of analysis. As shown in Table 1.2 the Post-development flows are decreased from the Pre-development flows for the point of analysis in PA-1 and are unchanged in PA-2 and PA-3.

The Channel Protection requirements of Env-Wq 1507.05 are met for point of analysis PA-1 and are as follows:

PA-1: The 2-year, 24-hour post-development peak flowrate (5.03 cfs) is less than or equal to the 1-year, 24-hour pre-development peak flowrate (6.10 cfs).

The Channel Protection requirements of Env-Wq 1507.05 are not being met for points of analysis PA-2 and PA-3. There is no change in land cover or change to the flow pattern as there is no work proposed in these areas.

1.3 Best Management Practices

All soil erosion and sediment control measures have been designed in accordance with the *NH Stormwater Manual, Volume 3: Erosion and Sediment Controls During Construction*. The intent of the outlined measures is to minimize erosion and sedimentation during construction, stabilize and protect the site from erosion after construction is complete and improve stormwater quality from the site. Best Management Practices for this project include:

- Temporary erosion and sediment control practices to be implemented during construction;
- Permanent stabilization practices to be implemented prior to the completion of construction; and
- Stormwater treatment practices including a sediment forebay and a rain garden/bio-retention basin.

Section 2

BMP Worksheets

The calculations for water quality volume (WQV) are provided on the following Best Management Practice (BMP) worksheets. These calculations comply with the requirements of the NHDES Alteration of Terrain Bureau and have been developed for the proposed stormwater management system (i.e. rain gardens).



FILTRATION PRACTICE DESIGN CRITERIA (Env-Wq 1508.07)

Type/Node Name:

Rain Garden

Enter the type of filtration practice (e.g., bioretention system) and the node name in the drainage analysis, if applicable.

		Check if you reviewed the restrictions on unlined systems outlined in Env-Wq 1508.07(a).	
3.86	ac	A = Area draining to the practice	
2.03	ac	A _I = Impervious area draining to the practice	
0.53	decimal	I = Percent impervious area draining to the practice, in decimal form	
0.52	unitless	R _v = Runoff coefficient = 0.05 + (0.9 x I)	
2.02	ac-in	WQV = 1" x R _v x A	
7,333	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")	
1,833	cf	25% x WQV (check calc for sediment forebay volume)	
5,499	cf	75% x WQV (check calc for surface sand filter volume)	
Sed Forebay		Method of Pretreatment? (not required for clean or roof runoff)	
2,864	cf	V _{SED} = Sediment forebay volume, if used for pretreatment	≥ 25%WQV
Calculate time to drain if system IS NOT underdrained:			
	sf	A _{SA} = Surface area of the practice	
	iph	K _{sat} _{DESIGN} = Design infiltration rate ¹	
		If K _{sat} (prior to factor of safety) is < 0.50 iph, has an underdrain been provided?	
Yes	Yes/No	(Use the calculations below)	
-	hours	T _{DRAIN} = Drain time = V / (A _{SA} * I _{DESIGN})	≤ 72-hrs
Calculate time to drain if system IS underdrained:			
98.12	ft	E _{WQV} = Elevation of WQV (attach stage-storage table)	
0.91	cfs	Q _{WQV} = Discharge at the E _{WQV} (attach stage-discharge table)	
4.48	hours	T _{DRAIN} = Drain time = 2WQV/Q _{WQV}	≤ 72-hrs
95.00	feet	E _{FC} = Elevation of the bottom of the filter course material ²	
93.92	feet	E _{UD} = Invert elevation of the underdrain (UD), if applicable	
91.75	feet	E _{SHWT} = Elevation of SHWT (if none found, enter the lowest elevation of the test pit)	
91.75	feet	E _{ROCK} = Elevation of bedrock (if none found, enter the lowest elevation of the test pit)	
1.08	feet	D _{FC to UD} = Depth to UD from the bottom of the filter course	≥ 1'
3.25	feet	D _{FC to ROCK} = Depth to bedrock from the bottom of the filter course	≥ 1'
3.25	feet	D _{FC to SHWT} = Depth to SHWT from the bottom of the filter course	≥ 1'
101.23	ft	Peak elevation of the 50-year storm event (infiltration can be used in analysis)	
102.25	ft	Elevation of the top of the practice	
YES		50 peak elevation ≤ Elevation of the top of the practice	← yes
If a surface sand filter or underground sand filter is proposed:			
YES	ac	Drainage Area check.	< 10 ac
-	cf	V = Volume of storage ³ (attach a stage-storage table)	≥ 75%WQV
-	inches	D _{FC} = Filter course thickness	18", or 24" if within GPA
Sheet		Note what sheet in the plan set contains the filter course specification.	
-	Yes/No	Access grate provided?	← yes

YES	ac	Drainage Area no larger than 5 ac?	← yes
8,584	cf	V = Volume of storage ³ (attach a stage-storage table)	≥ WQV
24.0	inches	D _{FC} = Filter course thickness	18", or 24" if within GPA
Sheet	C-503	Note what sheet in the plan set contains the filter course specification	
3.0	:1	Pond side slopes	≥ 3:1
Sheet	C-503	Note what sheet in the plan set contains the planting plans and surface cover	
If porous pavement is proposed:			
	acres	Type of pavement proposed (Concrete? Asphalt? Pavers? Etc.) A _{SA} = Surface area of the pervious pavement	
	:1	Ratio of the contributing area to the pervious surface area	≤ 5:1
	inches	D _{FC} = Filter course thickness	12", or 18" if within GPA
Sheet		Note what sheet in the plan set contains the filter course spec.	mod. 304.1 (see spec)

1. Rate of the limiting layer (either the filter course or the underlying soil). K_{sat_design} includes factor of safety. See Env-Wq 1504.14 for guidance on determining the infiltration rate.
2. See lines 34, 40 and 48 for required depths of filter media.
3. Volume without depending on infiltration. The volume includes the storage above the filter (but below the invert of the outlet structure, if any), the filter media voids, and the pretreatment area. The storage above the filter media shall not include the volume above the outlet structure, if any.

Designer's Notes:

Section 3

Drainage Analysis

3.1 Calculation Methods

The design storms analyzed in this study are the 2-year, 10-year, 25-year and 50-year 24-hour duration storm events. The stormwater modeling system, HydroCAD 10.0 was utilized to predict the peak runoff rates from these storm events. A Type III storm pattern was used in the model.

The time of concentration was computed using the TR-55 Method, which provides a means of determining the time for an entire watershed to contribute runoff to a specific location via sheet flows, shallow concentrated flow and channel flow. Runoff curve numbers were calculated by estimating the coverage areas and then summing the curve number for the coverage area as a percent of the entire watershed.

References:

1. HydroCAD Stormwater Modeling System, by HydroCAD Software Solutions LLC, Chocorua, New Hampshire.
2. New Hampshire Stormwater Management Manual, Volume 2, Post-Construction Best Management Practices Selection and Design, December 2008.
3. "Extreme Precipitation in New York & New England." Extreme Precipitation in New York & New England by Northeast Regional Climate Center (NRCC), 26 June 2012.

3.2 Pre-Development Conditions

To analyze the pre-development condition, the site has been modeled utilizing three (3) distinct points of analysis (PA-1, PA-2 and PA-3). These points of analysis and watersheds are depicted on the plan entitled "Pre-Development Watershed Plan", Sheet C-801.

The points of analysis and their contributing watershed areas are described below:

Point of Analysis One (PA-1)

Point of analysis 1 is comprised of one subcatchment area (PRE-1.0). This area includes mostly wooded areas of the lot. Runoff from this area travels from the northwest corner of the lot over land to the southeast corner to small on-site wetlands which flows into a larger system of wetlands and to Point of Analysis 1.

Point of Analysis One (PA-2)

Point of analysis 2 is comprised of one subcatchment area (PRE-2.0). This area is comprised of the area adjacent to the roadway and including the on-site wetlands along the roadway. Two 12" RCPs are present and connect the roadside ditch and existing wetland areas. Runoff from this area travels to Point of Analysis 2.

Point of Analysis One (PA-3)

Point of analysis 3 is comprised of one subcatchment area (PRE-3.0). This area includes existing pavement at the entrance. Runoff from this area flows towards Wadleigh Falls Road and to Point of Analysis 3.

3.2.1 Pre-Development Watershed Plan

3.2.2 Pre-Development Soil Plan

3.2.3 Pre-Development Calculation

LEGEND

4

SOIL NUMBER PER LEGEND

SITE SPECIFIC SOIL BOUNDARY

PRE-DEVELOPMENT WATERSHED BOUNDARY

→→→→→

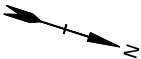
LONGEST FLOW PATH

PRE 1.0

PRE DEVELOPMENT WATERSHED AREA DESIGNATION

PA-1

POINT OF ANALYSIS



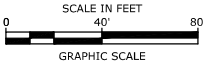
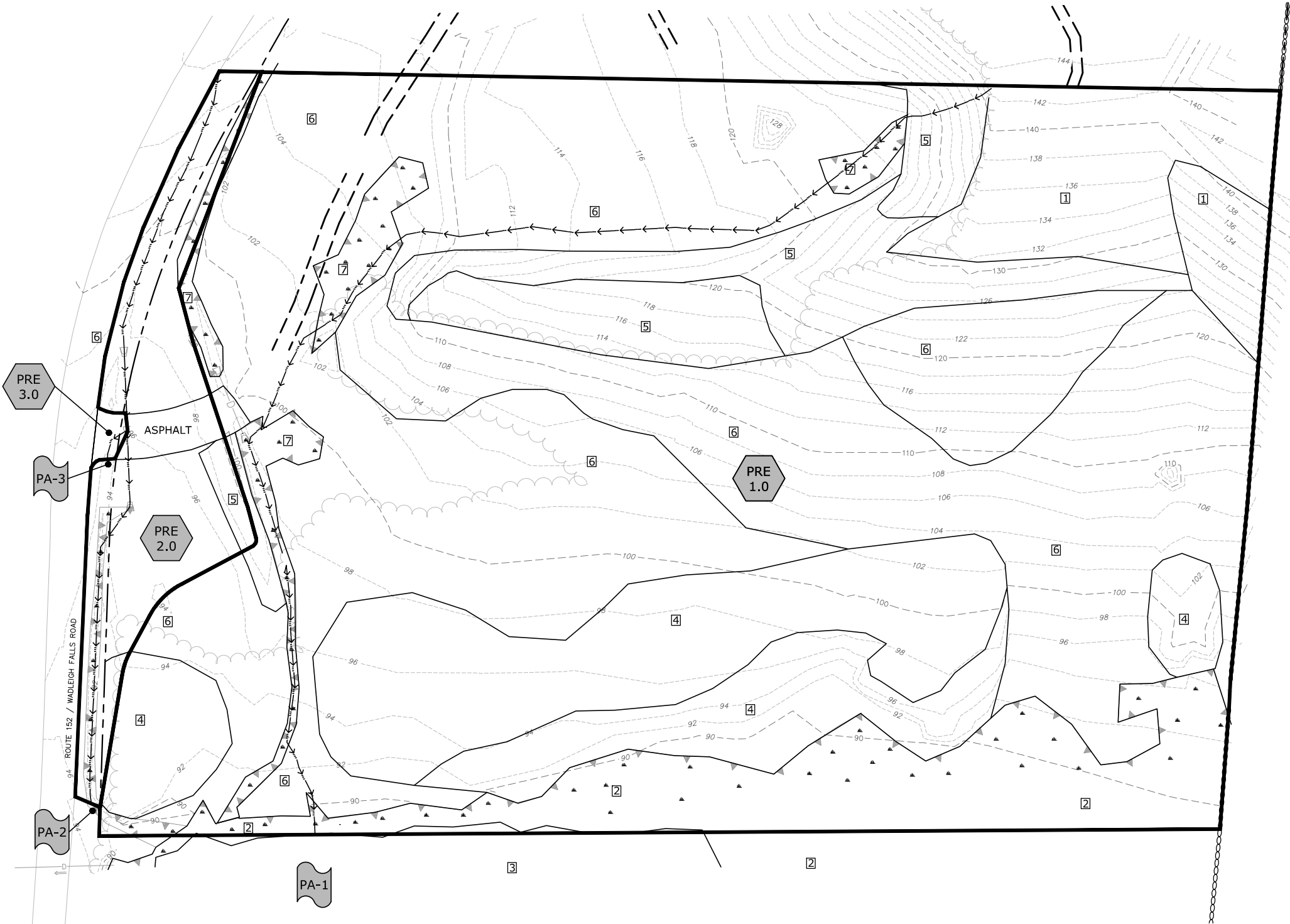
SITE SPECIFIC SOIL SURVEY HYDROLOGIC SOIL GROUP (HSG) LEGEND

(SOIL #) MAP NUMBER*/DISTURBED SOIL NUMERATOR**	SOIL TYPE	HSG
(1) 29	WOODBIDGE	C
(2) 33	SCITICO	C
(3) 134	MAYBID	D
(4) 299*/DFABB	UDORTHERNTS, SMOOTHED	B
(5) 500*/DCCCC	UDORTHERNTS, LOAMY	C
(6) 500*/EFCCE	UDORTHERNTS, LOAMY	C
(7) 600*/FFCCC	ENDOAQUENTS, LOAMY	C

* INDICATES THE LOCATION OF THE SLOPE CLASS IDENTIFIER (A-F)
** SUPPLEMENTAL SYMBOLS ARE USED TO FURTHER CHARACTERIZE DISTURBED SOILS FOR ALTERATION OF TERRAIN PERMITS

NOTES:

- HYDROLOGIC SOIL GROUPS FOR DISTURBED SOILS WERE BASED ON MOST SIMILAR SOIL SERIES LISTED IN *KSAT VALUES FOR NH SOILS*, SSSNNE SPECIAL PUBLICATION NO. 5, 2009.
- FIELDWORK FOR THIS MAP WAS CONDUCTED BY LEONARD A. LORD, PHD, NHCSS #19 ON APRIL 26, 2021.
- THIS DETAILED SITE SPECIFIC SOIL MAP CONFORMS TO THE STANDARDS OF SSSNNE PUBLICATION NO. 3, AS AMENDED, *SITE SPECIFIC SOIL MAPPING STANDARDS FOR NH AND VT*.
- THIS MAP HAS BEEN PREPARED TO COMPLY WITH SOIL MAPPING REQUIREMENTS OF RSA 485 A:17 AND NHDES ENV-WQ, ALTERATION OF TERRAIN.
- SEE ACCOMPANYING NARRATIVE REPORT FOR METHODOLOGY, MAP SYMBOL LEGEND, AND INTERPRETATIONS.



PERMIT DRAWINGS

Proposed Office and Equipment Storage

Seacoast Pool Plastering, LLC

446 & 450
Wadleigh Falls Road
Newmarket,
New Hampshire

MARK	DATE	DESCRIPTION
PROJECT NO:	S5132-001	
DATE:	10/22/2021	
FILE:	S5132_C-HYDR.dwg	
DRAWN BY:	JRW/BJL	
CHECKED BY:	JPL	
APPROVED BY:	BLM	

PRE-DEVELOPMENT WATERSHED PLAN

SCALE: AS SHOWN

C-801

LEGEND

	HYDROLOGIC SOIL GROUP A
	HYDROLOGIC SOIL GROUP B
	HYDROLOGIC SOIL GROUP C
	HYDROLOGIC SOIL GROUP D
	IMPERVIOUS AREA

SITE SPECIFIC SOIL SURVEY HYDROLOGIC SOIL GROUP (HSG) LEGEND

(SOIL #) MAP NUMBER*/ DISTURBED SOIL NUMERATOR**	SOIL TYPE	HSG
(1) 29	WOODBIDGE	C
(2) 33	SCITICO	C
(3) 134	MAYBID	B
(4) 299*/DFABB	UDORTHERNTS, SMOOTHED	B
(5) 500*/DCCCC	UDORTHERNTS, LOAMY	C
(6) 500*/EFCCC	UDORTHERNTS, LOAMY	C
(7) 600*/FFCCC	ENDOAQUENTS, LOAMY	C

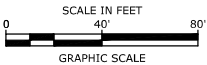
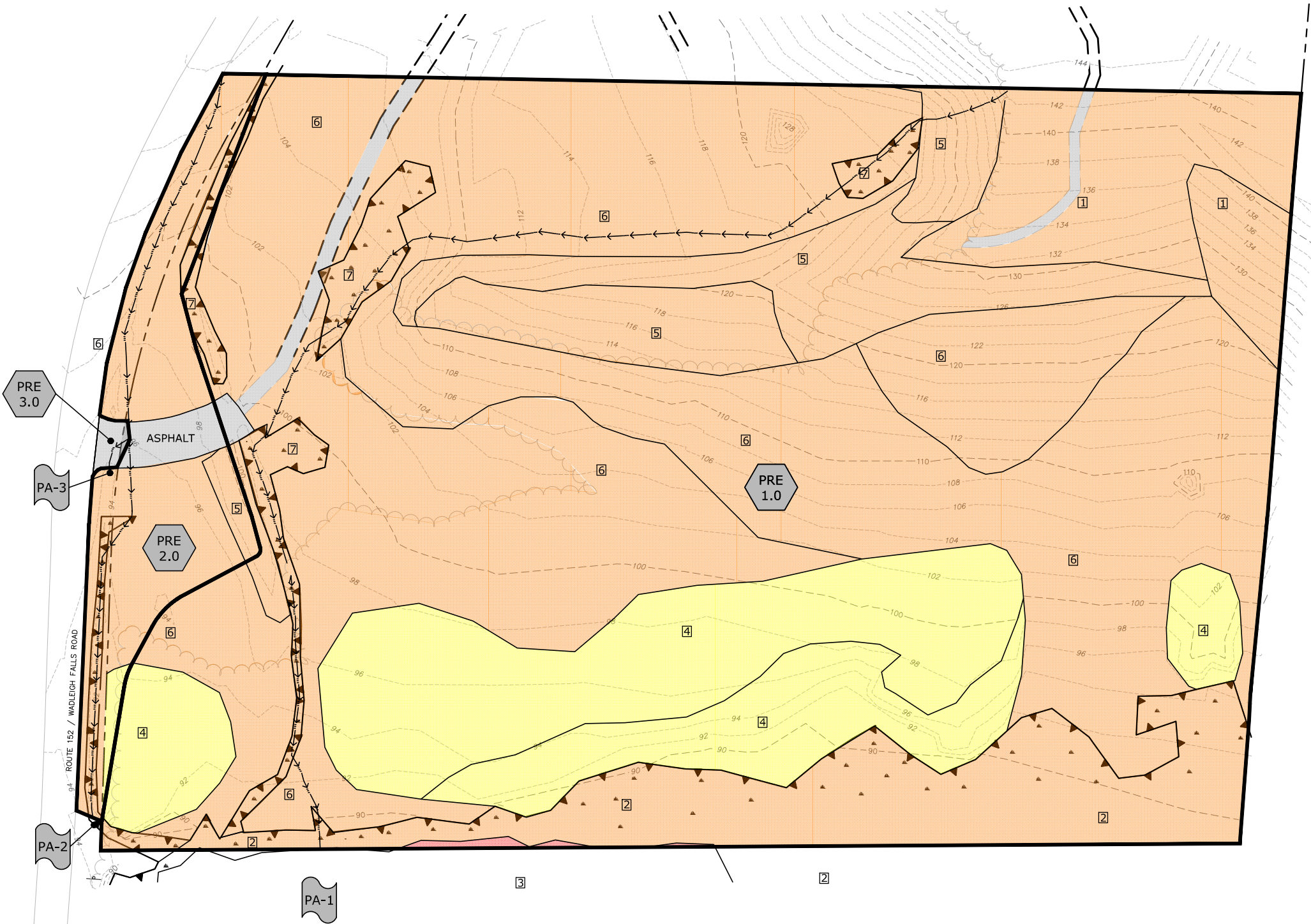
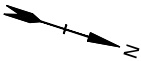
* INDICATES THE LOCATION OF THE SLOPE CLASS IDENTIFIER (A-F)
** SUPPLEMENTAL SYMBOLS ARE USED TO FURTHER CHARACTERIZE DISTURBED SOILS FOR ALTERATION OF TERRAIN PERMITS

NOTES:

1. HYDROLOGIC SOIL GROUPS FOR DISTURBED SOILS WERE BASED ON MOST SIMILAR SOIL SERIES LISTED IN *KSAT VALUES FOR NH SOILS*, SSSNNE SPECIAL PUBLICATION NO. 5, 2009.
2. FIELDWORK FOR THIS MAP WAS CONDUCTED BY LEONARD A. LORD, PHD, NHCSS #19 ON APRIL 26, 2021.
3. THIS DETAILED SITE SPECIFIC SOIL MAP CONFORMS TO THE STANDARDS OF SSSNNE PUBLICATION NO. 3, AS AMENDED, *SITE SPECIFIC SOIL MAPPING STANDARDS FOR NH AND VT*.
4. THIS MAP HAS BEEN PREPARED TO COMPLY WITH SOIL MAPPING REQUIREMENTS OF RSA 485 A:17 AND NHDES ENV-WQ, ALTERATION OF TERRAIN.
5. SEE ACCOMPANYING NARRATIVE REPORT FOR METHODOLOGY, MAP SYMBOL LEGEND, AND INTERPRETATIONS.

LEGEND

	SOIL NUMBER PER LEGEND
	SITE SPECIFIC SOIL BOUNDARY
	PRE-DEVELOPMENT WATERSHED BOUNDARY
	LONGEST FLOW PATH
PRE 1.0	PRE DEVELOPMENT WATERSHED AREA DESIGNATION
PA-1	POINT OF ANALYSIS



PERMIT DRAWINGS

Proposed Office and Equipment Storage

Seacoast Pool Plastering, LLC

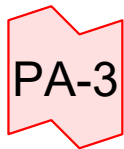
446 & 450
Wadleigh Falls Road
Newmarket,
New Hampshire

MARK	DATE	DESCRIPTION
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DATE:	10/22/2021	
FILE:	S5132_C-HYDR.dwg	
DRAWN BY:	JRW/BJL	
CHECKED BY:	JPL	
APPROVED BY:	BLM	

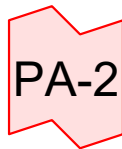
PRE-DEVELOPMENT COLOR SOILS PLAN

SCALE: AS SHOWN

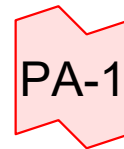
C-803



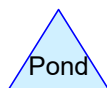
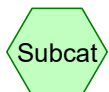
to Wadleigh Fall Rd



to Wetlands



to Wetlands



Routing Diagram for S5132-001_PRE

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S5132-001_PRE

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Page 2

Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
632	69	50-75% Grass cover, Fair, HSG B (PRE 2.0)
123,579	79	50-75% Grass cover, Fair, HSG C (PRE 1.0, PRE 2.0)
3,487	96	Gravel surface, HSG C (PRE 1.0)
3,001	98	Paved parking, HSG C (PRE 1.0, PRE 2.0, PRE 3.0)
180,223	73	Woods, Fair, HSG C (PRE 1.0, PRE 2.0)
617	79	Woods, Fair, HSG D (PRE 1.0)
64,381	55	Woods, Good, HSG B (PRE 1.0)
375,920	72	TOTAL AREA

S5132-001_PRE

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Page 3

Soil Listing (selected nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
65,013	HSG B	PRE 1.0, PRE 2.0
310,290	HSG C	PRE 1.0, PRE 2.0, PRE 3.0
617	HSG D	PRE 1.0
0	Other	
375,920		TOTAL AREA

S5132-001_PRE

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Type III 24-hr 2 Year Rainfall=3.60"

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Page 4

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPRE 1.0:

Runoff Area=350,736 sf 0.13% Impervious Runoff Depth>1.18"
Flow Length=866' Tc=9.1 min CN=72 Runoff=9.40 cfs 34,619 cf

SubcatchmentPRE 2.0:

Runoff Area=24,572 sf 7.80% Impervious Runoff Depth>1.71"
Flow Length=498' Tc=9.4 min CN=80 Runoff=0.99 cfs 3,508 cf

SubcatchmentPRE 3.0:

Runoff Area=612 sf 100.00% Impervious Runoff Depth>3.37"
Flow Length=26' Slope=0.0780 '/' Tc=0.2 min CN=98 Runoff=0.06 cfs 172 cf

Link PA-1: to Wetlands

Inflow=9.40 cfs 34,619 cf
Primary=9.40 cfs 34,619 cf

Link PA-2: to Wetlands

Inflow=0.99 cfs 3,508 cf
Primary=0.99 cfs 3,508 cf

Link PA-3: to Wadleigh Fall Rd

Inflow=0.06 cfs 172 cf
Primary=0.06 cfs 172 cf

Total Runoff Area = 375,920 sf Runoff Volume = 38,299 cf Average Runoff Depth = 1.22"
99.20% Pervious = 372,919 sf 0.80% Impervious = 3,001 sf

S5132-001_PRE

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Type III 24-hr 10 Year Rainfall=5.47"

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPRE 1.0:

Runoff Area=350,736 sf 0.13% Impervious Runoff Depth>2.56"
Flow Length=866' Tc=9.1 min CN=72 Runoff=21.26 cfs 74,865 cf

SubcatchmentPRE 2.0:

Runoff Area=24,572 sf 7.80% Impervious Runoff Depth>3.30"
Flow Length=498' Tc=9.4 min CN=80 Runoff=1.91 cfs 6,761 cf

SubcatchmentPRE 3.0:

Runoff Area=612 sf 100.00% Impervious Runoff Depth>5.23"
Flow Length=26' Slope=0.0780 '/ Tc=0.2 min CN=98 Runoff=0.09 cfs 267 cf

Link PA-1: to Wetlands

Inflow=21.26 cfs 74,865 cf
Primary=21.26 cfs 74,865 cf

Link PA-2: to Wetlands

Inflow=1.91 cfs 6,761 cf
Primary=1.91 cfs 6,761 cf

Link PA-3: to Wadleigh Fall Rd

Inflow=0.09 cfs 267 cf
Primary=0.09 cfs 267 cf

Total Runoff Area = 375,920 sf Runoff Volume = 81,893 cf Average Runoff Depth = 2.61"
99.20% Pervious = 372,919 sf 0.80% Impervious = 3,001 sf

Summary for Subcatchment PRE 1.0:

Runoff = 21.26 cfs @ 12.14 hrs, Volume= 74,865 cf, Depth> 2.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Rainfall=5.47"

Area (sf)	CN	Description
64,381	55	Woods, Good, HSG B
179,969	73	Woods, Fair, HSG C
101,810	79	50-75% Grass cover, Fair, HSG C
3,487	96	Gravel surface, HSG C
472	98	Paved parking, HSG C
617	79	Woods, Fair, HSG D
350,736	72	Weighted Average
350,264		99.87% Pervious Area
472		0.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	60	0.3500	0.35		Sheet Flow, Grass: Dense n= 0.240 P2= 3.60"
0.3	69	0.0510	3.64		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.3	255	0.0420	3.30		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	40	0.1250	5.69		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.5	89	0.0330	2.92		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.9	161	0.0310	2.83		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
3.2	192	0.0410	1.01		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
9.1	866	Total			

Summary for Subcatchment PRE 2.0:

Runoff = 1.91 cfs @ 12.13 hrs, Volume= 6,761 cf, Depth> 3.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Rainfall=5.47"

Area (sf)	CN	Description
632	69	50-75% Grass cover, Fair, HSG B
21,769	79	50-75% Grass cover, Fair, HSG C
1,917	98	Paved parking, HSG C
254	73	Woods, Fair, HSG C
24,572	80	Weighted Average
22,655		92.20% Pervious Area
1,917		7.80% Impervious Area

S5132-001_PRE

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Type III 24-hr 10 Year Rainfall=5.47"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	50	0.0300	0.13		Sheet Flow, Grass: Dense n= 0.240 P2= 3.60"
0.6	150	0.0670	4.17		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.3	97	0.0110	5.15	4.05	Pipe Channel, 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
1.9	201	0.0120	1.76		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
9.4	498	Total			

Summary for Subcatchment PRE 3.0:

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.09 cfs @ 12.00 hrs, Volume= 267 cf, Depth> 5.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Rainfall=5.47"

Area (sf)	CN	Description
612	98	Paved parking, HSG C
612		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	26	0.0780	1.92		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.60"

Summary for Link PA-1: to Wetlands

Inflow Area = 350,736 sf, 0.13% Impervious, Inflow Depth > 2.56" for 10 Year event

Inflow = 21.26 cfs @ 12.14 hrs, Volume= 74,865 cf

Primary = 21.26 cfs @ 12.14 hrs, Volume= 74,865 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Summary for Link PA-2: to Wetlands

Inflow Area = 24,572 sf, 7.80% Impervious, Inflow Depth > 3.30" for 10 Year event

Inflow = 1.91 cfs @ 12.13 hrs, Volume= 6,761 cf

Primary = 1.91 cfs @ 12.13 hrs, Volume= 6,761 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Summary for Link PA-3: to Wadleigh Fall Rd

Inflow Area = 612 sf, 100.00% Impervious, Inflow Depth > 5.23" for 10 Year event
Inflow = 0.09 cfs @ 12.00 hrs, Volume= 267 cf
Primary = 0.09 cfs @ 12.00 hrs, Volume= 267 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

S5132-001_PRE

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Type III 24-hr 25 Year Rainfall=6.95"

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPRE 1.0: Runoff Area=350,736 sf 0.13% Impervious Runoff Depth>3.78"
Flow Length=866' Tc=9.1 min CN=72 Runoff=31.55 cfs 110,500 cf

SubcatchmentPRE 2.0: Runoff Area=24,572 sf 7.80% Impervious Runoff Depth>4.64"
Flow Length=498' Tc=9.4 min CN=80 Runoff=2.67 cfs 9,505 cf

SubcatchmentPRE 3.0: Runoff Area=612 sf 100.00% Impervious Runoff Depth>6.71"
Flow Length=26' Slope=0.0780 ' / ' Tc=0.2 min CN=98 Runoff=0.11 cfs 342 cf

Link PA-1: to Wetlands Inflow=31.55 cfs 110,500 cf
Primary=31.55 cfs 110,500 cf

Link PA-2: to Wetlands Inflow=2.67 cfs 9,505 cf
Primary=2.67 cfs 9,505 cf

Link PA-3: to Wadleigh Fall Rd Inflow=0.11 cfs 342 cf
Primary=0.11 cfs 342 cf

Total Runoff Area = 375,920 sf Runoff Volume = 120,347 cf Average Runoff Depth = 3.84"
99.20% Pervious = 372,919 sf 0.80% Impervious = 3,001 sf

S5132-001_PRE

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Type III 24-hr 50 Year Rainfall=8.33"

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPRE 1.0: Runoff Area=350,736 sf 0.13% Impervious Runoff Depth>4.98"
Flow Length=866' Tc=9.1 min CN=72 Runoff=41.49 cfs 145,493 cf

SubcatchmentPRE 2.0: Runoff Area=24,572 sf 7.80% Impervious Runoff Depth>5.93"
Flow Length=498' Tc=9.4 min CN=80 Runoff=3.38 cfs 12,136 cf

SubcatchmentPRE 3.0: Runoff Area=612 sf 100.00% Impervious Runoff Depth>8.09"
Flow Length=26' Slope=0.0780 '/' Tc=0.2 min CN=98 Runoff=0.13 cfs 413 cf

Link PA-1: to Wetlands Inflow=41.49 cfs 145,493 cf
Primary=41.49 cfs 145,493 cf

Link PA-2: to Wetlands Inflow=3.38 cfs 12,136 cf
Primary=3.38 cfs 12,136 cf

Link PA-3: to Wadleigh Fall Rd Inflow=0.13 cfs 413 cf
Primary=0.13 cfs 413 cf

Total Runoff Area = 375,920 sf Runoff Volume = 158,042 cf Average Runoff Depth = 5.04"
99.20% Pervious = 372,919 sf 0.80% Impervious = 3,001 sf

3.3 Post-Development Conditions

The post-development drainage conditions are characterized by three (3) watershed areas modeled at the same points of analysis as the pre-development condition. This point of analysis and subcatchments are depicted on the plan entitled "Post Development Watershed Plan", Sheets C-802.

The points of analysis and their contributing watershed areas are described below:

Point of Analysis One (PA-1)

Post-development subcatchment 1.0 (POST-1.0) is comprised of the area adjacent to the gravel area, a portion of proposed driveway and existing wetland areas and wooded areas. This area directs runoff towards the wetlands in the same general manner as in the Pre-Conditions.

Post-development subcatchment 1.1 (POST-1.1) is comprised of the largest area on site. Runoff from this area travels overland from the southwest corner of the property and flows over the proposed gravel surface and transitions from gravel to pavement and terminates at the on-site treatment practices.

Point of Analysis Two (PA-2)

Post-development subcatchment 2.0 (POST 2.0) is the same as Pre 2.0, this area is comprised of the area adjacent to the roadway and including the on-site wetlands along the roadway. Two 12" RCPs are present and connect the roadside ditch and existing wetland areas. Runoff from this area travels to Point of Analysis 2.

Point of Analysis Three (PA-3)

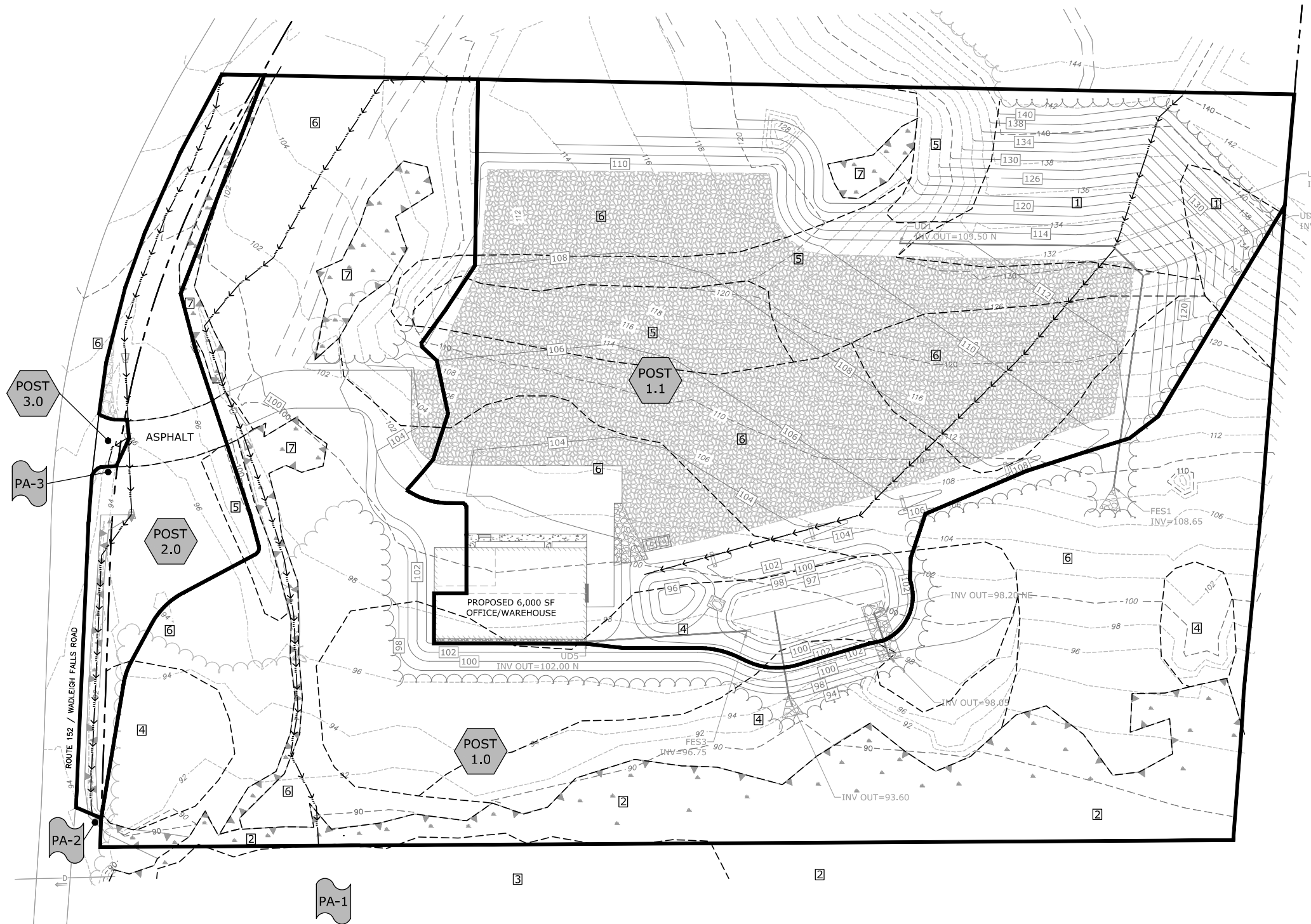
Post-development subcatchment 3.0 (POST 3.0) is the same as Pre 3.0, this area includes existing pavement at the entrance. Runoff from this area flows towards Wadleigh Falls Road and to Point of Analysis 3.

3.3.1 Post-Development Watershed Plan

3.3.2 Post-Development Soil Plan

3.3.3 Post-Development Calculation

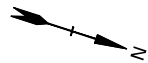
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Tighe & Bond 21352122 Seacoast Pool Plastering, LLC 001 446 & 450 Wadleigh Falls Rd Drawings_Figures/AutoCAD/Sheet/S5132_C-HYDR.dwg



SITE SPECIFIC SOIL SURVEY HYDROLOGIC SOIL GROUP (HSG) LEGEND			
(SOIL #) MAP NUMBER*/	DISTURBED SOIL NUMERATOR**	SOIL TYPE	HSG
(1) 29		WOODBIDGE	C
(2) 33		SCITTICO	C
(3) 134		MAYBID	D
(4) 299*/DFABB		UDORTHENTS, SMOOTHED	B
(5) 500*/DCCCC		UDORTHENTS, LOAMY	C
(6) 500*/EFCCC		UDORTHENTS, LOAMY	C
(7) 600*/FFCCC		ENDOQUENTS, LOAMY	C
* INDICATES THE LOCATION OF THE SLOPE CLASS IDENTIFIER (A-F)			
** SUPPLEMENTAL SYMBOLS ARE USED TO FURTHER CHARACTERIZE DISTURBED SOILS FOR ALTERATION OF TERRAIN PERMITS			

- NOTES:**
1. HYDROLOGIC SOIL GROUPS FOR DISTURBED SOILS WERE BASED ON MOST SIMILAR SOIL SERIES LISTED IN *KSAT VALUES FOR NH SOILS*, SSSNNE SPECIAL PUBLICATION NO. 5, 2009.
 2. FIELDWORK FOR THIS MAP WAS CONDUCTED BY LEONARD A. LORD, PHD, NHCSS #19 ON APRIL 26, 2021.
 3. THIS DETAILED SITE SPECIFIC SOIL MAP CONFORMS TO THE STANDARDS OF SSSNNE PUBLICATION NO. 3, AS AMENDED, *SITE SPECIFIC SOIL MAPPING STANDARDS FOR NH AND VT*.
 4. THIS MAP HAS BEEN PREPARED TO COMPLY WITH SOIL MAPPING REQUIREMENTS OF RSA 485 A:17 AND NHDES ENV-WQ, ALTERATION OF TERRAIN.
 5. SEE ACCOMPANYING NARRATIVE REPORT FOR METHODOLOGY, MAP SYMBOL LEGEND, AND INTERPRETATIONS.

LEGEND	
	SOIL NUMBER PER LEGEND
	SITE SPECIFIC SOIL BOUNDARY
	POST-DEVELOPMENT WATERSHED BOUNDARY
	LONGEST FLOW PATH
	PRE DEVELOPMENT WATERSHED AREA DESIGNATION
	POST-DEVELOPMENT POND DESIGNATION
	POINT OF ANALYSIS



Tighe&Bond

PERMIT DRAWINGS

Proposed Office and Equipment Storage

Seacoast Pool Plastering, LLC

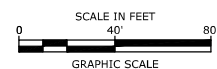
446 & 450
Wadleigh Falls Road
Newmarket,
New Hampshire

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DATE:	10/22/2021	
FILE:	S5132_C-HYDR.dwg	
DRAWN BY:	JRW/BJL	
CHECKED BY:	JPL	
APPROVED BY:	BLM	

POST-DEVELOPMENT WATERSHED PLAN

SCALE: AS SHOWN

C-802



LEGEND

HYDROLOGIC SOIL GROUP A

HYDROLOGIC SOIL GROUP B

HYDROLOGIC SOIL GROUP C

HYDROLOGIC SOIL GROUP D

IMPERVIOUS AREA

SITE SPECIFIC SOIL SURVEY HYDROLOGIC SOIL GROUP (HSG) LEGEND			
(SOIL #) MAP NUMBER*/DISTURBED SOIL NUMERATOR**	SOIL TYPE	HSG	
(1) 29	WOODBIDGE	C	
(2) 33	SCITTICO	C	
(3) 134	MAYBID	D	
(4) 299*/DFABB	UDORTHENTS, SMOOTHED	B	
(5) 500*/DCCCC	UDORTHENTS, LOAMY	C	
(6) 500*/EFCCC	UDORTHENTS, LOAMY	C	
(7) 600*/FFCCC	ENDOQUENTS, LOAMY	C	
* INDICATES THE LOCATION OF THE SLOPE CLASS IDENTIFIER (A-F)			
** SUPPLEMENTAL SYMBOLS ARE USED TO FURTHER CHARACTERIZE DISTURBED SOILS FOR ALTERATION OF TERRAIN PERMITS			

- NOTES:
1. HYDROLOGIC SOIL GROUPS FOR DISTURBED SOILS WERE BASED ON MOST SIMILAR SOIL SERIES LISTED IN *KSAT VALUES FOR NH SOILS*, SSSNNE SPECIAL PUBLICATION NO. 5, 2009.
 2. FIELDWORK FOR THIS MAP WAS CONDUCTED BY LEONARD A. LORD, PHD, NHCSS #19 ON APRIL 26, 2021.
 3. THIS DETAILED SITE SPECIFIC SOIL MAP CONFORMS TO THE STANDARDS OF SSSNNE PUBLICATION NO. 3, AS AMENDED, *SITE SPECIFIC SOIL MAPPING STANDARDS FOR NH AND VT*.
 4. THIS MAP HAS BEEN PREPARED TO COMPLY WITH SOIL MAPPING REQUIREMENTS OF RSA 485 A:17 AND NHDES ENV-WQ, ALTERATION OF TERRAIN.
 5. SEE ACCOMPANYING NARRATIVE REPORT FOR METHODOLOGY, MAP SYMBOL LEGEND, AND INTERPRETATIONS.

LEGEND

4

SOIL NUMBER PER LEGEND

SITE SPECIFIC SOIL BOUNDARY

POST-DEVELOPMENT WATERSHED BOUNDARY

LONGEST FLOW PATH

POST 1.0

PRE DEVELOPMENT WATERSHED AREA DESIGNATION

POST POND 1

POST-DEVELOPMENT POND DESIGNATION

PA-1

POINT OF ANALYSIS

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PERMIT DRAWINGS

Proposed Office and Equipment Storage

Seacoast Pool Plastering, LLC

446 & 450
Wadleigh Falls Road
Newmarket,
New Hampshire

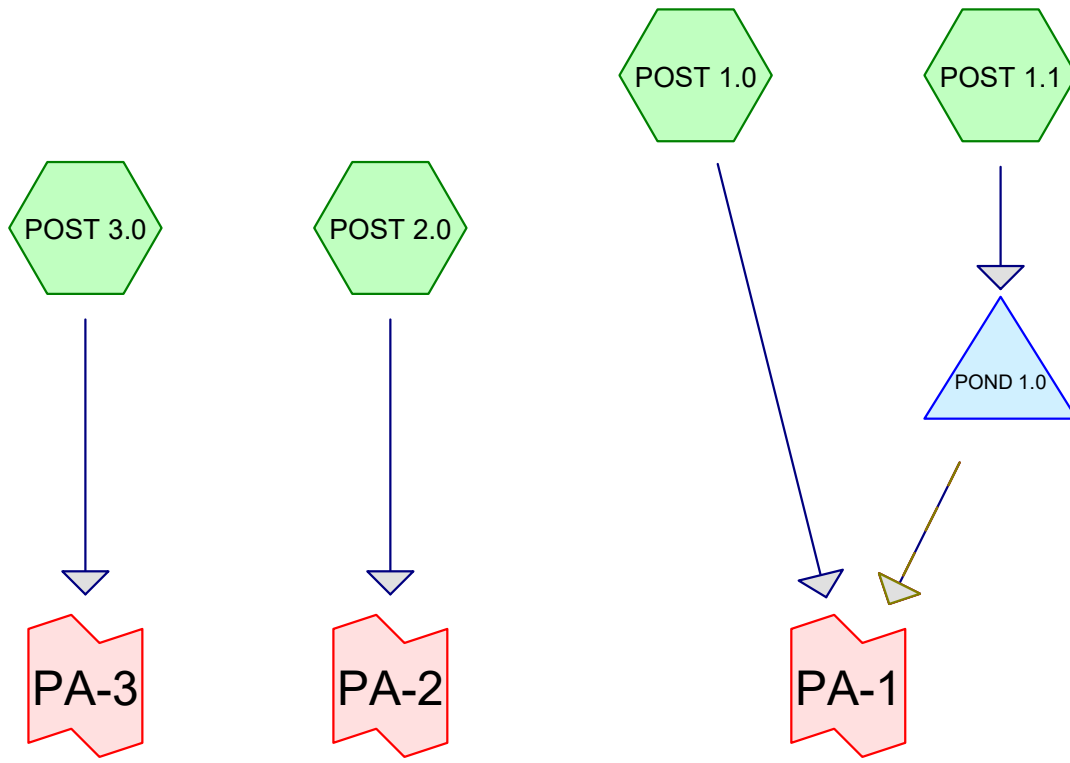
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DATE:	10/22/2021	
FILE:	S5132_C-HYDR.dwg	
DRAWN BY:	JRW/BJL	
CHECKED BY:	JPL	
APPROVED BY:	BLM	

POST-DEVELOPMENT COLOR SOILS PLAN

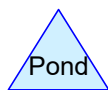
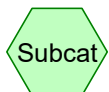
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C-804

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Plotted On: Oct 14, 2021 1:22pm
File: S5132_C-HYDR.dwg
Project: Seacoast Pool Plastering, LLC, 446 & 450 Wadleigh Falls Rd, Newmarket, NH 03854



to Wadleigh Fall Rd to Wetlands



S5132-001_POST

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Page 2

Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
632	69	50-75% Grass cover, Fair, HSG B (POST 2.0)
21,383	79	50-75% Grass cover, Fair, HSG C (POST 2.0)
20,622	61	>75% Grass cover, Good, HSG B (POST 1.0, POST 1.1)
107,420	74	>75% Grass cover, Good, HSG C (POST 1.0, POST 1.1)
386	89	Gravel roads, HSG C (POST 2.0)
1,273	96	Gravel surface, HSG B (POST 1.0, POST 1.1)
78,517	96	Gravel surface, HSG C (POST 1.0, POST 1.1)
13,365	98	Paved parking, HSG C (POST 1.0, POST 1.1, POST 2.0, POST 3.0)
536	98	Unconnected roofs, HSG B (POST 1.1)
5,898	98	Unconnected roofs, HSG C (POST 1.0, POST 1.1)
41,950	60	Woods, Fair, HSG B (POST 1.0)
83,321	73	Woods, Fair, HSG C (POST 1.0, POST 1.1, POST 2.0)
617	79	Woods, Fair, HSG D (POST 1.0)
375,920	78	TOTAL AREA

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Soil Listing (selected nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
65,013	HSG B	POST 1.0, POST 1.1, POST 2.0
310,290	HSG C	POST 1.0, POST 1.1, POST 2.0, POST 3.0
617	HSG D	POST 1.0
0	Other	
375,920		TOTAL AREA

S5132-001_POST*Type III 24-hr 1 Year Rainfall=3.00"*

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment POST 1.0: Runoff Area=187,704 sf 2.83% Impervious Runoff Depth>0.76"
Flow Length=618' Tc=18.0 min CN=71 Runoff=2.37 cfs 11,835 cf

Subcatchment POST 1.1: Runoff Area=163,032 sf 7.34% Impervious Runoff Depth>1.59"
Flow Length=498' Tc=7.0 min CN=85 Runoff=6.65 cfs 21,553 cf

Subcatchment POST 2.0: Runoff Area=24,572 sf 7.80% Impervious Runoff Depth>1.25"
Flow Length=498' Tc=9.4 min CN=80 Runoff=0.71 cfs 2,555 cf

Subcatchment POST 3.0: Runoff Area=612 sf 100.00% Impervious Runoff Depth>2.77"
Flow Length=26' Slope=0.0780 '/' Tc=5.0 min CN=98 Runoff=0.04 cfs 141 cf

Pond POND 1.0: Peak Elev=98.37' Storage=8,069 cf Inflow=6.65 cfs 21,553 cf
Primary=0.95 cfs 21,189 cf Secondary=0.00 cfs 0 cf Tertiary=0.06 cfs 108 cf Outflow=1.01 cfs 21,298 cf

Link PA-1: Inflow=3.25 cfs 33,133 cf
Primary=3.25 cfs 33,133 cf

Link PA-2: to Wetlands Inflow=0.71 cfs 2,555 cf
Primary=0.71 cfs 2,555 cf

Link PA-3: to Wadleigh Fall Rd Inflow=0.04 cfs 141 cf
Primary=0.04 cfs 141 cf

Total Runoff Area = 375,920 sf Runoff Volume = 36,084 cf Average Runoff Depth = 1.15"
94.73% Pervious = 356,121 sf 5.27% Impervious = 19,799 sf

S5132-001_POST*Type III 24-hr 2 Year Rainfall=3.60"*

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment POST 1.0: Runoff Area=187,704 sf 2.83% Impervious Runoff Depth>1.12"
Flow Length=618' Tc=18.0 min CN=71 Runoff=3.73 cfs 17,562 cf

Subcatchment POST 1.1: Runoff Area=163,032 sf 7.34% Impervious Runoff Depth>2.10"
Flow Length=498' Tc=7.0 min CN=85 Runoff=8.80 cfs 28,551 cf

Subcatchment POST 2.0: Runoff Area=24,572 sf 7.80% Impervious Runoff Depth>1.71"
Flow Length=498' Tc=9.4 min CN=80 Runoff=0.99 cfs 3,508 cf

Subcatchment POST 3.0: Runoff Area=612 sf 100.00% Impervious Runoff Depth>3.36"
Flow Length=26' Slope=0.0780 '/' Tc=5.0 min CN=98 Runoff=0.05 cfs 172 cf

Pond POND 1.0: Peak Elev=98.98' Storage=10,718 cf Inflow=8.80 cfs 28,551 cf
Primary=1.07 cfs 25,963 cf Secondary=0.00 cfs 0 cf Tertiary=0.52 cfs 2,300 cf Outflow=1.59 cfs 28,263 cf

Link PA-1: Inflow=5.03 cfs 45,825 cf
Primary=5.03 cfs 45,825 cf

Link PA-2: to Wetlands Inflow=0.99 cfs 3,508 cf
Primary=0.99 cfs 3,508 cf

Link PA-3: to Wadleigh Fall Rd Inflow=0.05 cfs 172 cf
Primary=0.05 cfs 172 cf

Total Runoff Area = 375,920 sf Runoff Volume = 49,792 cf Average Runoff Depth = 1.59"
94.73% Pervious = 356,121 sf 5.27% Impervious = 19,799 sf

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Type III 24-hr 10 Year Rainfall=5.47"

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment POST 1.0: Runoff Area=187,704 sf 2.83% Impervious Runoff Depth>2.47"
Flow Length=618' Tc=18.0 min CN=71 Runoff=8.69 cfs 38,613 cf

Subcatchment POST 1.1: Runoff Area=163,032 sf 7.34% Impervious Runoff Depth>3.80"
Flow Length=498' Tc=7.0 min CN=85 Runoff=15.69 cfs 51,644 cf

Subcatchment POST 2.0: Runoff Area=24,572 sf 7.80% Impervious Runoff Depth>3.30"
Flow Length=498' Tc=9.4 min CN=80 Runoff=1.91 cfs 6,761 cf

Subcatchment POST 3.0: Runoff Area=612 sf 100.00% Impervious Runoff Depth>5.23"
Flow Length=26' Slope=0.0780 '/' Tc=5.0 min CN=98 Runoff=0.08 cfs 267 cf

Pond POND 1.0: Peak Elev=100.44' Storage=18,394 cf Inflow=15.69 cfs 51,644 cf
Primary=1.37 cfs 38,206 cf Secondary=3.10 cfs 3,256 cf Tertiary=1.10 cfs 9,807 cf Outflow=5.57 cfs 51,270 cf

Link PA-1: Inflow=13.05 cfs 89,883 cf
Primary=13.05 cfs 89,883 cf

Link PA-2: to Wetlands Inflow=1.91 cfs 6,761 cf
Primary=1.91 cfs 6,761 cf

Link PA-3: to Wadleigh Fall Rd Inflow=0.08 cfs 267 cf
Primary=0.08 cfs 267 cf

Total Runoff Area = 375,920 sf Runoff Volume = 97,284 cf Average Runoff Depth = 3.11"
94.73% Pervious = 356,121 sf 5.27% Impervious = 19,799 sf

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Type III 24-hr 10 Year Rainfall=5.47"

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Summary for Subcatchment POST 1.0:

Runoff = 8.69 cfs @ 12.26 hrs, Volume= 38,613 cf, Depth> 2.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Rainfall=5.47"

Area (sf)	CN	Description
41,950	60	Woods, Fair, HSG B
77,925	73	Woods, Fair, HSG C
1,117	96	Gravel surface, HSG B
2,020	96	Gravel surface, HSG C
4,678	98	Paved parking, HSG C
11,804	61	>75% Grass cover, Good, HSG B
46,963	74	>75% Grass cover, Good, HSG C
630	98	Unconnected roofs, HSG C
617	79	Woods, Fair, HSG D
187,704	71	Weighted Average
182,396		97.17% Pervious Area
5,308		2.83% Impervious Area
630		11.87% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	50	0.1050	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.60"
1.3	246	0.0390	3.18		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.9	54	0.0019	1.03	0.81	Pipe Channel, 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.025 Corrugated metal
2.2	77	0.0013	0.58		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
3.2	191	0.0400	1.00		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
18.0	618	Total			

Summary for Subcatchment POST 1.1:

Runoff = 15.69 cfs @ 12.10 hrs, Volume= 51,644 cf, Depth> 3.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Rainfall=5.47"

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Type III 24-hr 10 Year Rainfall=5.47"

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Area (sf)	CN	Description
8,818	61	>75% Grass cover, Good, HSG B
60,457	74	>75% Grass cover, Good, HSG C
536	98	Unconnected roofs, HSG B
5,268	98	Unconnected roofs, HSG C
5,142	73	Woods, Fair, HSG C
156	96	Gravel surface, HSG B
76,497	96	Gravel surface, HSG C
6,158	98	Paved parking, HSG C
163,032	85	Weighted Average
151,070		92.66% Pervious Area
11,962		7.34% Impervious Area
5,804		48.52% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.2300	0.19		Sheet Flow, Grass: Bermuda n= 0.410 P2= 3.60"
0.2	71	0.2200	7.55		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.3	210	0.0300	2.79		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.0	167	0.0360	2.85		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
7.0	498	Total			

Summary for Subcatchment POST 2.0:

Runoff = 1.91 cfs @ 12.13 hrs, Volume= 6,761 cf, Depth> 3.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Rainfall=5.47"

Area (sf)	CN	Description
1,917	98	Paved parking, HSG C
254	73	Woods, Fair, HSG C
386	89	Gravel roads, HSG C
632	69	50-75% Grass cover, Fair, HSG B
21,383	79	50-75% Grass cover, Fair, HSG C
24,572	80	Weighted Average
22,655		92.20% Pervious Area
1,917		7.80% Impervious Area

S5132-001_POST

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Type III 24-hr 10 Year Rainfall=5.47"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	50	0.0300	0.13		Sheet Flow, Grass: Dense n= 0.240 P2= 3.60"
0.6	150	0.0670	3.88		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
0.3	97	0.0110	5.15	4.05	Pipe Channel, 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
1.9	201	0.0120	1.76		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
9.4	498	Total			

Summary for Subcatchment POST 3.0:

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.08 cfs @ 12.07 hrs, Volume= 267 cf, Depth> 5.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Rainfall=5.47"

Area (sf)	CN	Description
612	98	Paved parking, HSG C
612		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	26	0.0780	1.92		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.60"
0.2	26	Total, Increased to minimum Tc = 5.0 min			

Summary for Pond POND 1.0:

Inflow Area = 163,032 sf, 7.34% Impervious, Inflow Depth > 3.80" for 10 Year event
 Inflow = 15.69 cfs @ 12.10 hrs, Volume= 51,644 cf
 Outflow = 5.57 cfs @ 12.40 hrs, Volume= 51,270 cf, Atten= 65%, Lag= 18.1 min
 Primary = 1.37 cfs @ 12.40 hrs, Volume= 38,206 cf
 Secondary = 3.10 cfs @ 12.40 hrs, Volume= 3,256 cf
 Tertiary = 1.10 cfs @ 12.40 hrs, Volume= 9,807 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 100.44' @ 12.40 hrs Surf.Area= 5,903 sf Storage= 18,394 cf
 Flood Elev= 102.25' Surf.Area= 7,415 sf Storage= 28,745 cf

Plug-Flow detention time= 90.5 min calculated for 51,163 cf (99% of inflow)
 Center-of-Mass det. time= 85.9 min (890.3 - 804.4)

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Type III 24-hr 10 Year Rainfall=5.47"

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Volume	Invert	Avail.Storage	Storage Description
#1	93.92'	28,745 cf	Custom Stage Data (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
93.92	3,064	249.0	0.0	0	0	3,064
95.00	3,064	249.0	40.0	1,324	1,324	3,333
97.00	3,064	249.0	30.0	1,838	3,162	3,831
98.00	3,821	262.0	100.0	3,436	6,598	4,418
100.00	5,505	300.0	100.0	9,275	15,872	6,208
102.00	7,415	337.0	100.0	12,873	28,745	8,189

Device	Routing	Invert	Outlet Devices
#1	Primary	93.92'	6.0" Round Culvert L= 59.0' Ke= 0.500 Inlet / Outlet Invert= 93.92' / 93.60' S= 0.0054 '/' Cc= 0.900 n= 0.013, Flow Area= 0.20 sf
#2	Device 1	93.92'	10.000 in/hr Exfiltration over Surface area
#3	Secondary	100.20'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Tertiary	98.20'	6.0" Round Culvert-Through Spillway L= 30.0' Ke= 0.500 Inlet / Outlet Invert= 98.20' / 98.05' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 0.20 sf

Primary OutFlow Max=1.37 cfs @ 12.40 hrs HW=100.44' TW=0.00' (Dynamic Tailwater)↑ **1=Culvert** (Passes 1.37 cfs of 1.60 cfs potential flow)↑ **2=Exfiltration** (Exfiltration Controls 1.37 cfs)**Secondary OutFlow** Max=3.09 cfs @ 12.40 hrs HW=100.44' TW=0.00' (Dynamic Tailwater)↑ **3=Sharp-Crested Rectangular Weir** (Weir Controls 3.09 cfs @ 1.61 fps)**Tertiary OutFlow** Max=1.10 cfs @ 12.40 hrs HW=100.44' TW=0.00' (Dynamic Tailwater)↑ **4=Culvert-Through Spillway** (Barrel Controls 1.10 cfs @ 5.61 fps)**Summary for Link PA-1:**

Inflow Area = 350,736 sf, 4.92% Impervious, Inflow Depth > 3.08" for 10 Year event
 Inflow = 13.05 cfs @ 12.35 hrs, Volume= 89,883 cf
 Primary = 13.05 cfs @ 12.35 hrs, Volume= 89,883 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Summary for Link PA-2: to Wetlands

Inflow Area = 24,572 sf, 7.80% Impervious, Inflow Depth > 3.30" for 10 Year event
 Inflow = 1.91 cfs @ 12.13 hrs, Volume= 6,761 cf
 Primary = 1.91 cfs @ 12.13 hrs, Volume= 6,761 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Summary for Link PA-3: to Wadleigh Fall Rd

Inflow Area = 612 sf, 100.00% Impervious, Inflow Depth > 5.23" for 10 Year event
Inflow = 0.08 cfs @ 12.07 hrs, Volume= 267 cf
Primary = 0.08 cfs @ 12.07 hrs, Volume= 267 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

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Type III 24-hr 25 Year Rainfall=6.95"

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment POST 1.0: Runoff Area=187,704 sf 2.83% Impervious Runoff Depth>3.67"
Flow Length=618' Tc=18.0 min CN=71 Runoff=13.03 cfs 57,383 cf

Subcatchment POST 1.1: Runoff Area=163,032 sf 7.34% Impervious Runoff Depth>5.20"
Flow Length=498' Tc=7.0 min CN=85 Runoff=21.18 cfs 70,648 cf

Subcatchment POST 2.0: Runoff Area=24,572 sf 7.80% Impervious Runoff Depth>4.64"
Flow Length=498' Tc=9.4 min CN=80 Runoff=2.67 cfs 9,505 cf

Subcatchment POST 3.0: Runoff Area=612 sf 100.00% Impervious Runoff Depth>6.71"
Flow Length=26' Slope=0.0780 '/' Tc=5.0 min CN=98 Runoff=0.10 cfs 342 cf

Pond POND 1.0: Peak Elev=100.78' Storage=20,432 cf Inflow=21.18 cfs 70,648 cf
Primary=1.44 cfs 44,650 cf Secondary=11.33 cfs 13,171 cf Tertiary=1.20 cfs 12,391 cf Outflow=13.96 cfs 70,212 cf

Link PA-1: Inflow=26.78 cfs 127,595 cf
Primary=26.78 cfs 127,595 cf

Link PA-2: to Wetlands Inflow=2.67 cfs 9,505 cf
Primary=2.67 cfs 9,505 cf

Link PA-3: to Wadleigh Fall Rd Inflow=0.10 cfs 342 cf
Primary=0.10 cfs 342 cf

Total Runoff Area = 375,920 sf Runoff Volume = 137,878 cf Average Runoff Depth = 4.40"
94.73% Pervious = 356,121 sf 5.27% Impervious = 19,799 sf

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Type III 24-hr 50 Year Rainfall=8.33"

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment POST 1.0: Runoff Area=187,704 sf 2.83% Impervious Runoff Depth>4.85"
Flow Length=618' Tc=18.0 min CN=71 Runoff=17.25 cfs 75,880 cf

Subcatchment POST 1.1: Runoff Area=163,032 sf 7.34% Impervious Runoff Depth>6.53"
Flow Length=498' Tc=7.0 min CN=85 Runoff=26.28 cfs 88,666 cf

Subcatchment POST 2.0: Runoff Area=24,572 sf 7.80% Impervious Runoff Depth>5.93"
Flow Length=498' Tc=9.4 min CN=80 Runoff=3.38 cfs 12,136 cf

Subcatchment POST 3.0: Runoff Area=612 sf 100.00% Impervious Runoff Depth>8.09"
Flow Length=26' Slope=0.0780 '/' Tc=5.0 min CN=98 Runoff=0.12 cfs 412 cf

Pond POND 1.0: Peak Elev=101.02' Storage=21,986 cf Inflow=26.28 cfs 88,666 cf
Primary=1.49 cfs 50,042 cf Secondary=19.14 cfs 23,292 cf Tertiary=1.26 cfs 14,829 cf Outflow=21.89 cfs 88,163 cf

Link PA-1: Inflow=37.10 cfs 164,044 cf
Primary=37.10 cfs 164,044 cf

Link PA-2: to Wetlands Inflow=3.38 cfs 12,136 cf
Primary=3.38 cfs 12,136 cf

Link PA-3: to Wadleigh Fall Rd Inflow=0.12 cfs 412 cf
Primary=0.12 cfs 412 cf

Total Runoff Area = 375,920 sf Runoff Volume = 177,095 cf Average Runoff Depth = 5.65"
94.73% Pervious = 356,121 sf 5.27% Impervious = 19,799 sf

3.4 Peak Rate Comparisons

The following table summarizes and compares the pre- and post-development peak runoff rates from the 2-year, 10-year, 25-year and 50-year storm events at each point of analysis.

Table 3.4

Comparison of Pre- and Post-Development Flows (CFS)

	1-Year Storm	2-Year Storm	10-Year Storm	25-Year Storm	50-Year Storm
Pre-Development Watershed					
PA-1	6.10	9.40	21.26	31.55	41.49
PA-2	0.71	0.99	1.91	2.67	3.38
PA-3	0.04	0.05	0.08	0.10	0.12
Post-Development Watershed					
PA-1	3.25	5.03	13.05	26.78	37.10
PA-2	0.71	0.99	1.91	2.67	3.38
PA-3	0.04	0.05	0.08	0.10	0.12

The Peak Runoff Control Requirements of Env-Wq 1507.06 are required to be met for the point of analysis. As shown in Table 3.4 the Post-development flows are decreased from the Pre-development flows for the point of analysis in PA-1 and are unchanged in PA-2 and PA-3.

The Channel Protection requirements of Env-Wq 1507.05 are met for point of analysis PA-1 and are as follows:

PA-1: The 2-year, 24-hour post-development peak flowrate (5.03 cfs) is less than or equal to the 1-year, 24-hour pre-development peak flowrate (6.10 cfs).

The Channel Protection requirements of Env-Wq 1507.05 are not being met for points of analysis PA-2 and PA-3. There is no change in land cover or change to the flow pattern as there is no work proposed in these areas.

3.5 Mitigation Description

3.5.1 Mitigation Calculations

The proposed project area has been evaluated to treat the required water quality flow (WQF) per the requirements of Env-Wq 1500. These calculations have been provided in Section 6 of this report (BMP Worksheets).

3.5.2 Pre-Treatment Methods for Protecting Water Quality

Pretreatment methods for protecting water quality on this site include a sediment forebay.

3.5.3 Treatment Methods for Protecting Water Quality

Treatment for the site is included by means of a Rain Garden. The Rain Garden has been sized to contain the 50-year storm without overtopping, as well as treat a volume of runoff greater than the WQV. Due to poor infiltration rates of the surrounding soils, the bottom of the rain garden is proposed to be lined and outfitted with underdrains to convey treated runoff to the system's outlet structure.

The BMP Worksheets for this treatment practice have been included in Section 6 of this report.

The pollutant removal efficiencies for a Rain Garden for Total Suspended Solids, Total Nitrogen and Total Phosphorus are 90%, 65% and 65% respectively. Pollutant Removal efficiencies are taken from NH Stormwater Manual Volume 2, Appendix B.

Section 4

Rip Rap Apron Calculations

(see following sheets)

In order to determine an accurate size of the Rip-Rap at FES 1, the contributing 6" underdrain pipe was evaluated for the maximum flow that can be expected when flowing at maximum capacity.

Tighe&Bond

Engineers | Environmental Specialists

Project: Seacoast Pool Plastering
 Location: Newmarket, NH
 T&B #: S5132-001
 Calculations By: JRW
 Checked By: JPL
 Date: 10/14/2021

APRON DESIGN

Terms: Rip-Rap Apron 1

length of apron (ft.) L_a
 discharge from pipe (cfs) Q (25 YR STORM EVENT)
 pipe dia. or channel width (ft.) Do
 tailwater depth (ft.) T_w
 width of apron (at outlet)(ft) $W1$
 width of apron (downstream)(ft) $W2$
 median stone diameter (ft.) d_{50}

Equations Used:

Length of Apron (L_a)
 when $T_w < .5 * Do$ $L_a = \frac{1.8(Q)}{Do^{(3/2)}} + 7Do$
 when $T_w \geq .5 * Do$ $L_a = \frac{3(Q)}{Do^{(3/2)}} + 7Do$
 Width of Apron ($W1$)
 $W1 = 3Do$
 Width of Apron ($W2$)
 when $T_w < .5 * Do$ $W2 = 3Do + La$
 when $T_w \geq .5 * Do$ $W2 = 3Do + 0.4La$
 Median Diameter $d_{50} = \frac{0.02 * Q^{(1.3)}}{(T_w * Do)}$

Input:		
Q (cfs)	0.52	cfs
Do (ft.)	0.50	ft
T_w (ft.)	0.20	ft
Output:		
Width of Apron ($W1$)	2	ft.
Width of Apron ($W2$)	8	ft.
Length of Apron (L_a)	6	ft.
Median Diameter	0.50	ft.
Riprap min. depth	1.13	ft.

Tighe&Bond

Engineers | Environmental Specialists

Project: Seacoast Pool Plastering
 Location: Newmarket, NH
 T&B #: S5132-001
 Calculations By: JRW
 Checked By: JPL
 Date: 10/15/2021

APRON DESIGN

Terms: Rip-Rap Apron

length of apron (ft.) L_a
 discharge from pipe (cfs) Q (25 YR STORM EVENT)
 pipe dia. or channel width (ft.) Do
 tailwater depth (ft.) T_w
 width of apron (at outlet)(ft) $W1$
 width of apron (downstream)(ft) $W2$
 median stone diameter (ft.) d_{50}

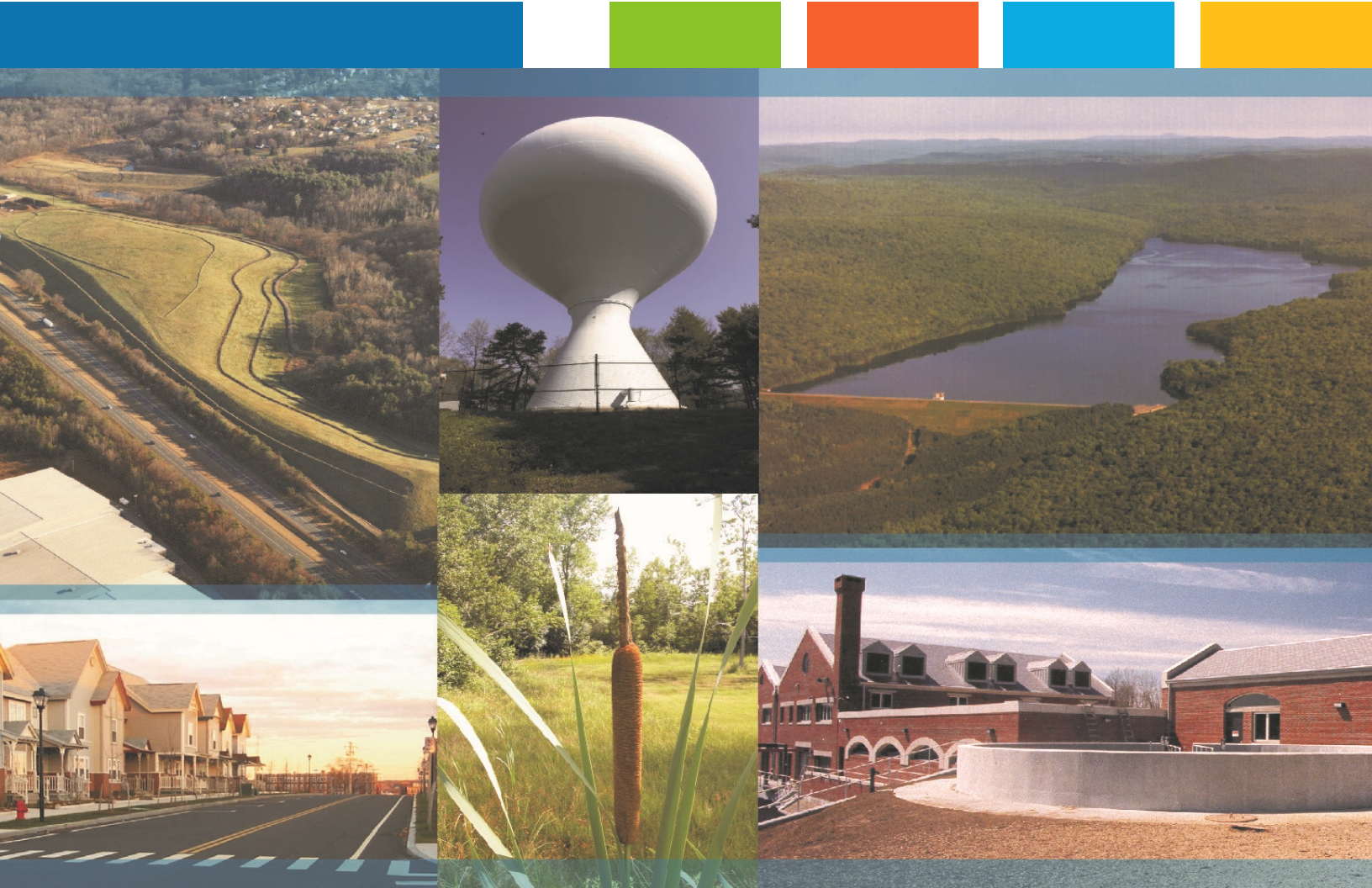
Equations Used:

Length of Apron (L_a)
 when $T_w < .5 * Do$ $L_a = \frac{1.8(Q)}{Do^{(3/2)}} + 7Do$
 when $T_w \geq .5 * Do$ $L_a = \frac{3(Q)}{Do^{(3/2)}} + 7Do$
 Width of Apron ($W1$)
 $W1 = 3Do$
 Width of Apron ($W2$)
 when $T_w < .5 * Do$ $W2 = 3Do + La$
 when $T_w \geq .5 * Do$ $W2 = 3Do + 0.4La$
 Median Diameter $d_{50} = \frac{0.02 * Q^{(1.3)}}{(T_w * Do)}$

Input:		
Q (cfs)	1.44	cfs
Do (ft.)	0.50	ft
T_w (ft.)	0.20	ft
Output:		
Width of Apron ($W1$)	2	ft.
Width of Apron ($W2$)	12	ft.
Length of Apron (L_a)	11	ft.
Median Diameter	0.50	ft.
Riprap min. depth	1.13	ft.

Section 5

Long-Term Operation & Maintenance Plan



Proposed Office and Equipment Storage

Town of Newmarket, NH

Operation and Maintenance Manual

Prepared For:

Seacoast Pool Plastering, LLC

90 Depot Road

Greenland, New Hampshire 03824

November, 2021

Executive Summary**Section 1 Long Term Operation & Maintenance Plan**

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1.2	Maintenance Items	1-1
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Section 2 Invasive Species**Section 3 Annual Updates and Log Requirements**

Section 1

Long Term Operation & Maintenance Plan

It is the intent of this Operation and Maintenance Plan to identify the areas of this site that need special attention and consideration, as well as implementing a plan to assure routine maintenance. By identifying the areas of concern as well as implementing a frequent and routine maintenance schedule the site will maintain a high-quality stormwater runoff.

1.1 Contact/Responsible Party

Seacoast Pool Plastering LLC
90 Depot Road
Greenland, NH 03824

(Note: The contact information for the Contact/Responsible Party shall be kept current. If ownership changes, the Operation and Maintenance Plan must be transferred to the new party.)

1.2 Maintenance Items

Maintenance of the following items shall be recorded:

- Litter/Debris Removal
- Landscaping
- Pavement Sweeping
- Rain Garden
- Rip Rap Outlets

The following maintenance items and schedule represent the minimum action required. Periodic site inspections shall be conducted, and all measures must be maintained in effective operating condition. The following items shall be observed during site inspection and maintenance:

- Inspect vegetated areas, particularly slopes and embankments for areas of erosion. Replant and restore as necessary
- Inspect site for trash and debris

1.3 Overall Site Operation & Maintenance Schedule

Maintenance Item	Frequency of Maintenance	Location
Litter/Debris Removal	Weekly	Lot
Pavement Sweeping - Sweep impervious areas to remove sand and litter.	Annually	Map R-6, Lot 7 & 8
Rain Garden - Trash and debris to be removed. - Any required maintenance shall be addressed.	Two (2) times annually and after any rainfall event exceeding 2.5" in a 24-hr period	Map R-6, Lot 7 & 8

1.3.1 Disposal Requirements

Disposal of debris, trash, sediment and other waste material should be done at suitable disposal/recycling sites and in compliance with all applicable local, state and federal waste regulations.

1.4 Rain Garden Maintenance Requirements

Rain Garden Inspection/Maintenance Requirements		
Inspection/ Maintenance	Frequency	Action
Monitor to ensure that Rain Gardens function effectively after storms	Two (2) times annually and after any rainfall event exceeding 2.5" in a 24-hr period	- Trash and debris to be removed - Any required maintenance shall be addressed
Inspect Vegetation	Annually	- Inspect the condition of all Rain Garden vegetation - Prune back overgrowth - Replace dead vegetation - Remove any invasive species
Inspect Drawdown Time - The system shall drawdown within 48-hours following a rainfall event.	Annually	- Assess the condition of the facility to determine measures required to restore the filtration function, including but not limited to removal of accumulated sediments or reconstruction of the filter.

1.5 Rip Rap Maintenance Requirements

Rip Rap Inspection/Maintenance Requirements		
Inspection/ Maintenance	Frequency	Action
Visual Inspection	Annually	- Visually inspect for damage and deterioration - Repair damages immediately

1.6 Snow & Ice Management for Standard Asphalt and Walkways

Snow storage areas shall be located such that no direct untreated discharges are possible to receiving waters from the storage site (snow storage areas have been shown on the Site Plan). The property manager will be responsible for timely snow removal from all private sidewalks, driveways, and parking areas. Snow removal will be hauled off-site and legally disposed of when snowbanks exceed 6 feet in height. Salt storage areas shall be covered or located such that no direct untreated discharges are possible to receiving waters from the storage site. Salt and sand shall be used to the minimum extent practical (refer to the attached for de-icing application rate guideline from the New Hampshire Stormwater Management Manual, Volume 2).

Deicing Application Rate Guidelines

24' of pavement (typical two-lane road)

These rates are not fixed values, but rather the middle of a range to be selected and adjusted by an agency according to its local conditions and experience.

Pavement Temp. (°F) and Trend (↑↓)	Weather Condition	Maintenance Actions	Pounds per two-lane mile			
			Salt Prewetted / Pretreated with Salt Brine	Salt Prewetted / Pretreated with Other Blends	Dry Salt*	Winter Sand (abrasives)
> 30° ↑	Snow	Plow, treat intersections only	80	70	100*	Not recommended
	Freezing Rain	Apply Chemical	80 - 160	70 - 140	100 - 200*	Not recommended
30° ↓	Snow	Plow and apply chemical	80 - 160	70 - 140	100 - 200*	Not recommended
	Freezing Rain	Apply Chemical	150 - 200	130 - 180	180 - 240*	Not recommended
25° - 30° ↑	Snow	Plow and apply chemical	120 - 160	100 - 140	150 - 200*	Not recommended
	Freezing Rain	Apply Chemical	150 - 200	130 - 180	180 - 240*	Not recommended
25° - 30° ↓	Snow	Plow and apply chemical	120 - 160	100 - 140	150 - 200*	Not recommended
	Freezing Rain	Apply Chemical	160 - 240	140 - 210	200 - 300*	400
20° - 25° ↑	Snow or Freezing Rain	Plow and apply chemical	160 - 240	140 - 210	200 - 300*	400
20° - 25° ↓	Snow	Plow and apply chemical	200 - 280	175 - 250	250 - 350*	Not recommended
	Freezing Rain	Apply Chemical	240 - 320	210 - 280	300 - 400*	400
15° - 20° ↑	Snow	Plow and apply chemical	200 - 280	175 - 250	250 - 350*	Not recommended
	Freezing Rain	Apply Chemical	240 - 320	210 - 280	300 - 400*	400
15° - 20° ↓	Snow or Freezing Rain	Plow and apply chemical	240 - 320	210 - 280	300 - 400*	500 for freezing rain
0° - 15° ↑↓	Snow	Plow, treat with blends, sand hazardous areas	Not recommended	300 - 400	Not recommended	500 - 750 spot treatment as needed
< 0°	Snow	Plow, treat with blends, sand hazardous areas	Not recommended	400 - 600**	Not recommended	500 - 750 spot treatment as needed

* Dry salt is not recommended. It is likely to blow off the road before it melts ice.

** A blend of 6 - 8 gal/ton $MgCl_2$ or $CaCl_2$ added to $NaCl$ can melt ice as low as -10°.

Anti-icing Route Data Form				
Truck Station:				
Date:				
Air Temperature	Pavement Temperature	Relative Humidity	Dew Point	Sky
Reason for applying:				
Route:				
Chemical:				
Application Time:				
Application Amount:				
Observation (first day):				
Observation (after event):				
Observation (before next application):				
Name:				

Section 2

Invasive Species

With respect to a particular ecosystem, any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem is classified as an invasive species. Refer to the following fact sheet prepared by the University of New Hampshire Cooperative Extension entitled Methods for Disposing Non-Native Invasive Plants for recommended methods to dispose of invasive plant species.



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.nhinvases.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.

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.



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.

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.

Woody Plants	Method of Reproducing	Methods of Disposal
Norway maple <i>(Acer platanoides)</i> European barberry <i>(Berberis vulgaris)</i> Japanese barberry <i>(Berberis thunbergii)</i> autumn olive <i>(Elaeagnus umbellata)</i> burning bush <i>(Euonymus alatus)</i> Morrow's honeysuckle <i>(Lonicera morrowii)</i> Tatarian honeysuckle <i>(Lonicera tatarica)</i> showy bush honeysuckle <i>(Lonicera x bella)</i> common buckthorn <i>(Rhamnus cathartica)</i> glossy buckthorn <i>(Frangula alnus)</i>	Fruit and Seeds 	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.
		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.
oriental bittersweet <i>(Celastrus orbiculatus)</i> multiflora rose <i>(Rosa multiflora)</i>	Fruits, Seeds, Plant Fragments 	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.
		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.

Non-Woody Plants	Method of Reproducing	Methods of Disposal
garlic mustard (<i>Alliaria petiolata</i>) spotted knapweed (<i>Centaurea maculosa</i>) ▪ Sap of related knapweed can cause skin irritation and tumors. Wear gloves when handling. black swallow-wort (<i>Cynanchum nigrum</i>) ▪ May cause skin rash. Wear gloves and long sleeves when handling. pale swallow-wort (<i>Cynanchum rossicum</i>) giant hogweed (<i>Heracleum mantegazzianum</i>) ▪ Can cause major skin rash. Wear gloves and long sleeves when handling. dame's rocket (<i>Hesperis matronalis</i>) perennial pepperweed (<i>Lepidium latifolium</i>) purple loosestrife (<i>Lythrum salicaria</i>) Japanese stilt grass (<i>Microstegium vimineum</i>) mile-a-minute weed (<i>Polygonum perfoliatum</i>)	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 (<i>Phragmites australis</i>) Japanese knotweed (<i>Polygonum cuspidatum</i>) Bohemian knotweed (<i>Polygonum x bohemicum</i>)	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

Managing Invasive Plants

Methods of Control

by Christopher Mattrick

They're out there. The problem of invasive plants is as close as your own backyard.

Maybe a favorite dogwood tree is struggling in the clutches of an Oriental bittersweet vine. Clawlike canes of multiflora rose are scratching at the side of your house. That handsome burning bush you planted few years ago has become a whole clump in practically no time ... but what happened to the azalea that used to grow right next to it?

If you think controlling or managing invasive plants on your property is a daunting task, you're not alone. Though this topic is getting lots of attention from federal, state, and local government agencies, as well as the media, the basic question for most homeowners is simply, "How do I get rid of the invasive plants in my own landscape?" Fortunately, the best place to begin to tackle this complex issue is in our own backyards and on local conservation lands. We hope the information provided here will help you take back your yard. We won't kid you—there's some work involved, but the payoff in beauty, wildlife habitat, and peace of mind makes it all worthwhile.

PLAN OF ATTACK

Three broad categories cover most invasive plant control: mechanical, chemical, and biological. Mechanical control means physically removing plants from the environment



Spraying chemicals to control invasive plants.

through cutting or pulling. Chemical control uses herbicides to kill plants and inhibit regrowth. Techniques and chemicals used will vary depending on the species. Biological controls use plant diseases or insect predators, typically from the targeted species' home range. Several techniques may be effective in controlling a single species, but there is usually one preferred method—the one that is most resource efficient with minimal impact on non-target species and the environment.

MECHANICAL CONTROL METHODS

Mechanical treatments are usually the first ones to look at when evaluating an invasive plant removal project. These procedures do not require special licensing or introduce chemicals into the environment. They do require permits in some situations, such as wetland zones. [See sidebar on page 23.] Mechanical removal is highly labor intensive and creates a significant amount of site disturbance, which can lead to rapid reinvasion if not handled properly.

Pulling and digging

Many herbaceous plants and some woody species (up to about one inch in diameter), if present in limited quantities, can be pulled out or dug up. It's important to remove as much of the root system as possible; even a small portion can restart the infestation. Pull plants by hand or use a digging fork, as shovels can shear off portions of the root system, allowing for regrowth. To remove larger woody stems (up to about three inches in diameter), use a Weed Wrench™, Root Jack, or Root Talon. These tools, available from several manufacturers, are designed to remove the aboveground portion of the plant as well as the entire root system. It's easiest to undertake this type of control in the spring or early summer when soils are moist and plants come out more easily.



Using tools to remove woody stems.



Volunteers hand pulling invasive plants.

Suffocation

Try suffocating small seedlings and herbaceous plants. Place double or triple layers of thick UV-stabilized plastic sheeting, either clear or black (personally I like clear), over the infestation and secure the plastic with stakes or weights. Make sure the plastic extends at least five feet past the edge of infestation on all sides. Leave the plastic in place for at least two years. This technique will kill everything beneath the plastic—invasive and non-invasive plants alike. Once the plastic is removed, sow a cover crop such as annual rye to prevent new invasions.

Cutting or mowing

This technique is best suited for locations you can visit and treat often. To be effective, you will need to mow or cut infested areas three or four times a year for up to five years. The goal is to interrupt the plant's ability to photosynthesize by removing as much leafy material as possible. Cut the plants at ground level and remove all resulting debris from the site. With this treatment, the infestation may actually appear to get worse at first, so you will need to be as persistent as the invasive plants themselves. Each time you cut the plants back, the root system gets slightly larger, but must also rely on its energy reserves to push up new growth. Eventually, you will exhaust these reserves and the plants will die. This may take many years, so you have to remain committed to this process once you start; otherwise the treatment can backfire, making the problem worse.

CHEMICAL CONTROL METHODS

Herbicides are among the most effective and resource-efficient tools to treat invasive species. Most of the commonly known invasive plants can be treated using only two herbicides—glyphosate (the active ingredient in Roundup™ and Rodeo™) and triclopyr (the active ingredient in Brush-B-Gone™ and Garlon™). Glyphosate is non-selective, meaning it kills everything it contacts. Triclopyr is selective and does not injure monocots (grasses, orchids, lilies, etc.). Please read labels and follow directions precisely for both environmental and personal safety. These are relatively benign herbicides, but improperly used they can still cause both short- and long-term health and environmental problems. Special aquatic formulations are required when working in wetland zones. You are required to have a state-issued pesticide applicator license when applying these chemicals on land you do not own. To learn more about the pesticide regulations in your state, visit or call your state's pesticide control division, usually part of the state's Department of Agriculture. In wetland areas, additional permits are usually required by the Wetlands Protection Act. [See sidebar on page 23.]

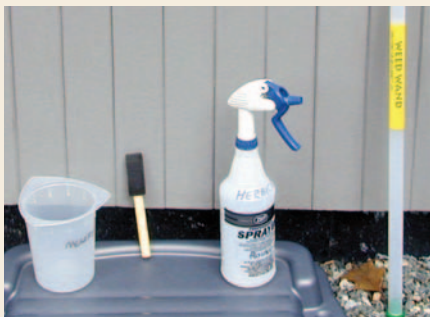
Foliar applications

When problems are on a small scale, this type of treatment is usually applied with a backpack sprayer or even a small handheld spray bottle. It is an excellent way to treat large monocultures of herbaceous plants, or to spot-treat individual plants that are difficult to remove mechanically, such as goutweed, swallowwort, or purple loosestrife. It is also an effective treatment for some woody species, such as Japanese barberry, multiflora rose, Japanese honeysuckle, and Oriental bittersweet that grow in dense masses or large numbers over many acres. The herbicide mixture should contain no more than five percent of the active ingredient, but it is important to follow the instructions on the product label. This treatment is most effective when the plants are actively growing, ideally when they are flowering or beginning to form fruit. It has been shown that plants are often more susceptible to this type of treatment if the existing stems are cut off and the regrowth is treated. This is especially true for Japanese knotweed. The target plants should be thoroughly wetted with the herbicide on a day when there is no rain in the forecast for the next 24 to 48 hours.

Cut stem treatments

There are several different types of cut stem treatments, but here we will review only the one most commonly used. All treatments of this type require a higher concentration of the active ingredient than is used in foliar applications. A 25 to 35 percent solution of the active ingredient should be used for cut stem treatments, but read and follow all label instructions. In most cases, the appropriate herbicide is glyphosate, except for Oriental bittersweet, on which triclopyr should be used. This treatment can be used on all woody stems, as well as phragmites and Japanese knotweed.

For woody stems, treatments are most effective when applied in the late summer and autumn—between late August and November. Stems should be cut close to the ground, but not so close that you will lose track of them. Apply herbicide directly to the cut surface as soon as possible after cutting. Delaying the application will reduce the effectiveness of the treatment. The herbicide can be applied with a sponge, paintbrush, or spray bottle.



Cut stem treatment tools.

For phragmites and Japanese knotweed, treatment is the same, but the timing and equipment are different. Plants should be treated anytime from mid-July through September, but the hottest, most humid days of the summer are best

for this method. Cut the stems halfway between two leaf nodes at a comfortable height. Inject (or squirt) herbicide into the exposed hollow stem. All stems in an infestation should be treated. A wash bottle is the most effective application tool, but you can also use an eyedropper, spray bottle, or one of the recently developed high-tech injection systems.

It is helpful to mix a dye in with the herbicide solution. The dye will stain the treated surface and mark the areas that have been treated, preventing unnecessary reapplication. You can buy a specially formulated herbicide dye, or use food coloring or laundry dye.

There is not enough space in this article to describe all the possible ways to control invasive plants. You can find other treatments, along with more details on the above-described methods, and species-specific recommendations on The Nature Conservancy Web site (tncweeds.ucdavis.edu). An upcoming posting on the Invasive Plant Atlas of New England (www.ipane.org) and the New England Wild Flower Society (www.newfs.org) Web sites will also provide further details.



Hollow stem injection tools.

Biological controls—still on the horizon

Biological controls are moving into the forefront of control methodology, but currently the only widely available and applied biocontrol relates to purple loosestrife. More information on purple loosestrife and other biological control projects can be found at www.invasiveplants.net.

DISPOSAL OF INVASIVE PLANTS

Proper disposal of removed invasive plant material is critical to the control process. Leftover plant material can cause new infestations or reinfest the existing project area. There are many appropriate ways to dispose of invasive plant debris. I've listed them here in order of preference.

1. **Burn it**—Make a brush pile and burn the material following local safety regulations and restrictions, or haul it to your town's landfill and place it in their burn pile.
2. **Pile it**—Make a pile of the woody debris. This technique will provide shelter for wildlife as well.
3. **Compost it**—Place all your herbaceous invasive plant debris in a pile and process as compost. Watch the pile closely for resprouts and remove as necessary. Do not use the resulting compost in your garden. The pile is for invasive plants only.



Injecting herbicide into the hollow stem of phragmites.

4. Dry it/cook it—Place woody debris out on your driveway or any asphalt surface and let it dry out for a month. Place herbaceous material in a doubled-up black trash bag and let it cook in the sun for one month. At the end of the month, the material should be non-viable and you can dump it or dispose of it with the trash. The method assumes there is no viable seed mixed in with the removed material.

Care should be taken in the disposal of all invasive plants, but several species need extra attention. These are the ones that have the ability to sprout vigorously from plant fragments and should ideally be burned or dried prior to disposal: Oriental bittersweet, multiflora rose, Japanese honeysuckle, phragmites, and Japanese knotweed.

Christopher Mattrick is the former Senior Conservation Programs Manager for New England Wild Flower Society, where he managed conservation volunteer and invasive and rare plant management programs. Today, Chris and his family work and play in the White Mountains of New Hampshire, where he is the Forest Botanist and Invasive Species Coordinator for the White Mountain National Forest.



Controlling Invasive Plants in Wetlands

Special concerns; special precautions

Control of invasive plants in or around wetlands or bodies of water requires a unique set of considerations. Removal projects in wetland zones can be legal and effective if handled appropriately. In many cases, herbicides may be the least disruptive tools with which to remove invasive plants. You will need a state-issued pesticide license to apply herbicide on someone else's property, but all projects in wetland or aquatic systems fall under the jurisdiction of the Wetlands Protection Act and therefore require a permit. ***Yes, even hand-pulling that colony of glossy buckthorn plants from your own swampland requires a permit.*** Getting a permit for legal removal is fairly painless if you plan your project carefully.

1. Investigate and understand the required permits and learn how to obtain them. The entity charged with the enforcement of the Wetlands Protection Act varies from state to state. For more information in your state, contact:

ME: Department of Environmental Protection
www.state.me.us/dep/blwq/docstand/nrpapage.htm

NH: Department of Environmental Services
www.des.state.nh.us/wetlands/

VT: Department of Environmental Conservation
www.anr.state.vt.us/dec/waterq/permits/htm/pm_cud.htm

MA: Consult your local town conservation commission

RI: Department of Environmental Management
www.dem.ri.gov/programs/benviron/water/permits/fresh/index.htm

CT: Consult your local town Inland Wetland and Conservation Commission

2. Consult an individual or organization with experience in this area. Firsthand experience in conducting projects in wetland zones and navigating the permitting process is priceless. Most states have wetland scientist societies whose members are experienced in working in wetlands and navigating the regulations affecting them. A simple Web search will reveal the contact point for these societies. Additionally, most environmental consulting firms and some nonprofit organizations have skills in this area.
3. Develop a well-written and thorough project plan. You are more likely to be successful in obtaining a permit for your project if you submit a project plan along with your permit application. The plan should include the reasons for the project, your objectives in completing the project, how you plan to reach those objectives, and how you will monitor the outcome.
4. Ensure that the herbicides you plan to use are approved for aquatic use. Experts consider most herbicides harmful to water quality or aquatic organisms, but rate some formulations as safe for aquatic use. Do the research and select an approved herbicide, and then closely follow the instructions on the label.
5. If you are unsure—research, study, and most of all, ask for help. Follow the rules. The damage caused to aquatic systems by the use of an inappropriate herbicide or the misapplication of an appropriate herbicide not only damages the environment, but also may reduce public support for safe, well-planned projects.

Section 3

Annual Updates and Log Requirements

The Owner and/or Contact/Responsible Party shall review this Operation and Maintenance Plan once per year for its effectiveness and adjust the plan and deed as necessary.

A log of all preventative and corrective measures for the stormwater system shall be kept on-site and be made available upon request by any public entity with administrative, health environmental or safety authority over the site including NHDES.

Copies of the Stormwater Maintenance report shall be submitted to the City of Portsmouth on an annual basis.

Stormwater Management Report						
		Seacoast Pool Plastering LLC				
BMP Description	Date of Inspection	Inspector	BMP Installed and Operating Properly?	Cleaning / Corrective Action Needed	Date of Cleaning / Repair	Performed By
Rain Garden			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			
			☐ Yes ☐ No			

APPENDIX A

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	New Hampshire
Location	
Longitude	70.985 degrees West
Latitude	43.081 degrees North
Elevation	0 feet
Date/Time	Wed, 11 Nov 2020 12:26:17 -0500

2 yr=3.60"

5 yr=4.57"

10 yr=5.47"

25 yr=6.95"

50 yr=8.33"

100 yr=9.98"

add 15% for coastal community

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.26	0.40	0.50	0.65	0.82	1.04	1yr	0.70	0.98	1.21	1.55	2.01	2.61	2.82	1yr	2.31	2.72	3.12	3.84	4.43	1yr
2yr	0.32	0.49	0.61	0.81	1.02	1.29	2yr	0.88	1.17	1.50	1.91	2.44	3.13	3.47	2yr	2.77	3.33	3.84	4.56	5.19	2yr
5yr	0.37	0.57	0.72	0.97	1.23	1.59	5yr	1.07	1.45	1.86	2.39	3.08	3.97	4.45	5yr	3.52	4.28	4.89	5.79	6.56	5yr
10yr	0.41	0.64	0.81	1.10	1.43	1.86	10yr	1.23	1.70	2.20	2.84	3.67	4.76	5.38	10yr	4.21	5.17	5.88	6.95	7.82	10yr
25yr	0.47	0.75	0.95	1.31	1.74	2.29	25yr	1.50	2.11	2.72	3.56	4.64	6.04	6.91	25yr	5.34	6.65	7.50	8.84	9.89	25yr
50yr	0.52	0.84	1.08	1.50	2.03	2.70	50yr	1.75	2.48	3.22	4.24	5.55	7.24	8.36	50yr	6.41	8.04	9.02	10.61	11.81	50yr
100yr	0.59	0.95	1.23	1.74	2.36	3.17	100yr	2.04	2.92	3.80	5.03	6.61	8.68	10.12	100yr	7.68	9.73	10.86	12.74	14.11	100yr
200yr	0.66	1.07	1.39	1.99	2.75	3.74	200yr	2.37	3.44	4.51	5.99	7.91	10.41	12.25	200yr	9.21	11.78	13.06	15.31	16.87	200yr
500yr	0.77	1.27	1.66	2.41	3.38	4.64	500yr	2.91	4.28	5.61	7.52	10.01	13.24	15.77	500yr	11.72	15.16	16.69	19.54	21.38	500yr

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.24	0.37	0.45	0.60	0.74	0.90	1yr	0.64	0.88	0.94	1.26	1.54	2.04	2.51	1yr	1.81	2.41	2.90	3.37	3.96	1yr
2yr	0.32	0.49	0.60	0.81	1.00	1.18	2yr	0.86	1.16	1.36	1.82	2.34	3.03	3.36	2yr	2.68	3.23	3.72	4.42	5.00	2yr
5yr	0.35	0.54	0.67	0.92	1.17	1.40	5yr	1.01	1.37	1.61	2.14	2.76	3.68	4.07	5yr	3.25	3.92	4.50	5.44	6.07	5yr
10yr	0.39	0.59	0.74	1.03	1.33	1.61	10yr	1.15	1.57	1.82	2.43	3.11	4.21	4.71	10yr	3.73	4.53	5.20	6.33	6.93	10yr
25yr	0.44	0.67	0.84	1.20	1.57	1.92	25yr	1.36	1.87	2.11	2.83	3.64	4.88	5.67	25yr	4.32	5.46	6.29	7.74	8.61	25yr
50yr	0.49	0.74	0.93	1.33	1.79	2.20	50yr	1.55	2.15	2.36	3.19	4.09	5.54	6.51	50yr	4.90	6.26	7.25	9.02	9.95	50yr
100yr	0.55	0.83	1.04	1.50	2.05	2.52	100yr	1.77	2.46	2.65	3.58	4.59	6.28	7.47	100yr	5.56	7.18	8.38	10.51	11.46	100yr
200yr	0.61	0.92	1.16	1.68	2.35	2.88	200yr	2.02	2.82	2.95	4.01	5.14	7.10	9.30	200yr	6.29	8.94	9.68	12.25	13.23	200yr
500yr	0.71	1.06	1.36	1.98	2.82	3.47	500yr	2.43	3.39	3.43	4.66	6.01	8.33	11.36	500yr	7.37	10.93	11.73	15.02	15.95	500yr

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.28	0.44	0.53	0.71	0.88	1.08	1yr	0.76	1.05	1.24	1.72	2.19	2.85	3.08	1yr	2.52	2.97	3.44	4.14	4.83	1yr
2yr	0.33	0.51	0.62	0.85	1.04	1.25	2yr	0.90	1.22	1.47	1.94	2.49	3.28	3.59	2yr	2.90	3.45	3.97	4.73	5.45	2yr
5yr	0.40	0.61	0.76	1.04	1.32	1.59	5yr	1.14	1.55	1.85	2.48	3.16	4.27	4.84	5yr	3.78	4.65	5.30	6.16	7.05	5yr
10yr	0.46	0.71	0.88	1.23	1.59	1.93	10yr	1.37	1.89	2.23	3.01	3.80	5.30	6.08	10yr	4.69	5.84	6.61	7.58	8.68	10yr
25yr	0.57	0.86	1.07	1.53	2.01	2.49	25yr	1.74	2.43	2.88	3.91	4.86	7.20	8.24	25yr	6.37	7.92	8.85	10.00	11.08	25yr
50yr	0.66	1.00	1.25	1.79	2.41	3.01	50yr	2.08	2.95	3.49	4.75	5.87	8.95	10.40	50yr	7.92	10.00	11.05	12.33	13.57	50yr
100yr	0.77	1.16	1.46	2.11	2.89	3.65	100yr	2.49	3.57	4.24	5.80	7.10	11.14	13.12	100yr	9.86	12.61	13.78	15.22	16.64	100yr
200yr	0.90	1.35	1.71	2.48	3.45	4.43	200yr	2.98	4.33	5.16	7.08	8.58	13.92	15.42	200yr	12.32	14.83	17.20	18.76	20.44	200yr
500yr	1.10	1.64	2.12	3.07	4.37	5.70	500yr	3.77	5.58	6.68	9.23	11.03	18.70	20.70	500yr	16.55	19.91	23.06	24.79	26.85	500yr

[Sec. 6.01.] - Stormwater management checklist.

Stormwater Management Checklist

Please use the following checklist as a guide to assess whether the various stormwater management components as required by Site Plan Regulations have been completed and are included in the site design and application materials. Please check each box as it applies consistent with the regulations. If certain items could not be completed or are not included in the site design, please provide separate written explanations as to why these items could not be completed or be included in the site design process due to site conditions.

Project Contact Information		
Project Name <u>Proposed Office and Equipment Storage</u>		
Project Street Address <u>446 & 450 Wadleigh Falls Road</u>		
Applicant's Name <u>Seacoast Pool Plastering, LLC</u> <u>Robert P. MacInnis</u>	Phone No. <u>617-504-2833</u>	Email <u>rmacinnis@myfairpoint.net</u>
Engineer's Name /Company <u>John P. Lorden / Tighe & Bond</u>	Phone No. <u>603-433-8818</u>	Email <u>jlorden@tighebond.com</u>
Property Owner (if different)	Phone No.	Email
Architect	Phone No.	Email
Basic Project Information and Type of Development		
☒	Completed Site Plan Review Application	Date of Submittal <u>11/18/ 2021</u>
☒	New Development	☐ Redevelopment
☒	Describe Type of Development <u>The proposed project is for the construction of a 1,000 SF office and 5,000 SF proposed equipment/construction storage warehouse area. The existing vacant lots are proposed to be combined and the access will be maintained from the existing paved driveway segment that was previously constructed. The 6,000-sf office/warehouse is expected to consist of 3 employees, 14 paved parking spaces and approximately 80,000 sf of gravel parking for storage of truck trailers, containers and equipment.</u>	
☒	Total Area of Site <u>8.44</u> acres	
☒	Describe Existing Use/Land Cover of Property <u>The existing lots are currently vacant wooded lots previously used as gravel pits. A small portion of a 30' wide paved driveway off of Route 152 / Wadleigh Falls Road will be maintained. Along the frontage of the property there exists a small wetland that flows to a larger wetland along the western property line. A portion of the site is within the Aquifer Protection Overlay District</u>	
☒	List Adjacent Receiving Water Bodies <u>unnamed wetland</u>	
☒	Onsite and Adjacent Wetland Areas have been Delineated	
Thresholds for Requiring a Stormwater Management and Erosion Control Report		
Total Area of Proposed Disturbance		Square Feet
☐	< 20,000 square feet	Not Required
☐	> 20,000 square feet	Required
OR		
Total Amount of new impervious area added		Square Feet
☐	< 5,000 square feet impervious area	Not Required
☒	> 5,000 square feet impervious area	Required
Stormwater Management and Erosion Report Contents		
☒	Existing Conditions Plans	Section 3.07 (B) (1)
☒	Title Block, Scale, Legend, Datum, Locus Plan, Professional Stamp(s)	
☒	Topographic Contours and Benchmarks	
☒	Pre-development Watershed Boundaries, Drainage Patterns, Channelized Flow Areas	
☒	Conveyance Structures, Location where runoff exits the site	
☒	Buffer and Setback limits as required by Town Ordinances and State Regulations	
☒	Buildings, Structures, Wells, Septic systems, Utilities	
☒	Water Bodies, Wetlands, Hydrologic Features, Soils Codes	

☒	Areas of Existing vegetation and mature trees shown		
☒	Proposed Conditions Plans		<i>Section 3.07 (B) (2)</i>
☒	Title Block, Scale, Legend, Datum, Locus Plan, Professional Stamp(s)		
☒	Topographic Contours and Benchmarks		
☒	Post-development Watershed boundaries, drainage patterns, channelized flow areas		
☒	Proposed areas of disturbance		
☒	Proposed impervious areas		
☒	Temporary stock pile areas		
☐	Construction refueling areas		
☒	Temporary and permanent stormwater treatment BMP location and details are shown		
☒	Erosion Control Measure locations and details are shown on plans		
☒	Stormwater outlet locations		
☐	Drainage and Access Maintenance Easements		
☒	Name of Receiving Waters		
☐	Connection to municipal stormwater drainage facilities		
☒	Drainage Analysis Completed		<i>Section 3.07 B (3)</i>
	24 – Hour Storm Event	Runoff	Pre-development
	2-Year	Rate	(CFS)
	2-Year	Volume	(CF)
	10-Year	Rate	(CFS)
	10-Year	Volume	(CF)
	25-Year see attached	Rate	(CFS)
	25-Year	Volume	(CF)
	50-Year	Rate	(CFS)
	50-Year	Volume	(CF)
	100-Year	Rate	(CFS)
	100-Year	Volume	(CF)
Stormwater BMP Design			
Have Low Impact Development measures been included in Design ☒ Yes, list below; ☐ No, Explain separately			
List LID Measures included: Bioretention and preserving the wooded buffer to the maximum extent practicable			
☒	Have the stormwater BMP and erosion control measures been designed and sized in accordance with NHDES Stormwater Manual Design Guidance as required by Site Plan Regulations 3.07 (B) 6		
☒	Percentage of Impervious Area Treated 87%	Type of BMP treatment: Bioretention System	
☐	Landscaping plans and details of planting areas have been included and specify planting species that are native, non-invasive and appropriate for site conditions. <i>Section 3.07 (B) (7)</i>		
☐	Covenants and deed restrictions for access prepared for filing with the Register of Deeds. <i>Section 3.07 (B) (9)</i>		
☐	Other Permits or Plans Required by US EPA or NH DES (as applicable) <i>Section 3.07 (B) (10)</i>		
☒	US EPA Notice of Intent		
☒	NHDES Alteration of Terrain Permit		
☒	Other (Please list) NH DES Individual Sewage Disposal System		
☒	Operations and Maintenance Plan <i>Section 3.07 (B) (8)</i>		
	Responsible Party for Future Maintenance Robert P. MacInnis		
☐	Need for 3rd Party Review	Yes	No

[Sec. 6.02.] - Application completeness checklist for minor review.

[Sec. 6.03.] - Application completeness checklist for major review.

Newmarket Site Plan Review Regulations

Major Review

Application Completeness Checklist

Applicable Section of
Site Plan Regulations:

(PB Application Checklists.xls)

		Provided?			Waiver Req.
		YES	NO	N.A.	
Application Form:					
2.04 (A)(1)	correctly completed	X			
2.04 (A)(1)	signed by owner(s)	X			
Abutters List:					
2.04 (A)(2)	includes all abutters	X			
RSA 676:4 I, (b)	includes owner(s)	X			
RSA 676:4 I, (d)	includes authorized representative	X			
2.10	includes towns/regions for regional notice if required	X			
2.04 (A)(2)	includes 3 sets of mailing labels: 1" X 2.75"	X			
2.04 (A)(2)	signed and dated by preparer	X			
RSA 676:4 I, (b)	dated within 5 days of submittal of application	X			
Fees: Site Plan Review + Special Use Permit fees					
2.04 (A)(3)	amount for administration: \$ <u>850</u>				
2.04 (A)(3)	amount for public notice: \$ <u>150 + \$63 (abutter fees)</u>				
	total amount paid: \$ <u>1063.00</u>				
	correct amount paid	X			
Site Plan:					
2.04 (A)(4)	three paper copies submitted	X			
4.01	correct size: 22" X 34"	X			
title block:					
4.03 (A)(1)	title of sheet/name of project	X			
4.03 (A)(2)	name of owner	X			
4.03 (A)(4)	tax map & parcel number	X			
4.03 (A)(5)	name and address fo preparer	X			
scale:					
4.03 (B)	given in text and graphic form	X			
4.08	correct: 1" = 20'				X
4.03 (C)	north arrow	X			

		Y	N	N/A	WAIVER
dates:					
4.03 (D)	original preparation	X			
4.03 (D)	updates, with description of changes	X			
approval sheet:					
4.06 (A)	2" X 4" approval block for Board	X			
4.06 (B)	supplemental plat note w/names & dates	X			
4.06 (C)	locus map	X			
4.07	match lines for multiple sheets			X	
area of coverage:					
4.09	correctly determined	X			
4.09	supplemental location drawing	X			
4.04	LLS stamp and signature where needed	X			
4.05	PE stamp and signature where needed	X			
boundary survey:					
4.10 (A)	prepared by LLS	X			
4.10 (A)(1)	complete boundary survey documentation	X			
4.10 (A)(2)	names, addresses and map/parcel of abutters	X			
4.10 (A)(3)	roads, ROWs, intersections & driveways within 50'	X			
existing conditions on the site:					
4.10 (B)(1)	contours at 2' intervals, with elevation benchmark	X			
4.10 (B)(2)	soil types	X			
4.10 (B)(3)	buildings in plan view, w/sizes and uses			X	
4.10 (B)(4)	approx. location of buildings within 50' of site			X	
4.10 (B)(5)	details of existing site improvements	X			
4.10 (B)(6)	surface waters, stone walls & other resources	X			
4.10 (B)(7)(a)	notes re: easements, deed restrictions, covenants	X			
4.10 (B)(7)(b)	notes re: base and overlay zoning districts	X			
4.10 (B)(7)(c)	notes re: area of lot and length of road frontage	X			
4.10 (B)(8)	municipal and zoning district boundaries	X			
4.10 (B)(9)	setbacks	X			
4.10 (B)(10)	elevation contour of the 100 year floodplain			X	
4.10 (B)(10)	first floor elevations of buildings within floodplain			X	
proposed site plan:					
4.05	stamped and signed by a PE	X			
4.10 (C)(1)	contours at 2' intervals	X			

		Y	N	N/A	WAIVER
4.10 (C)(2)	buildings in plan view, w/sizes and uses	X			
4.10 (C)(3)	design of new or modified site improvements	X			
4.10 (C)(4)	parking calculations	X			
4.10 (C)(4)	accessible parking spaces	X			
4.10 (C)(5)	pedestrian and bicycle facilities				X
4.10 (C)(6)	snow storage areas	X			
4.10 (C)(10)	wheelchair access	X			
4.10 (C)(7)	landscaping				X
4.10 (C)(8)	drainage facilities and paths of drainage flow	X			
4.10 (C)(9)	location of utilities, water and sewage disposal	X			
4.10 (C)(12)	solid waste and recycling facilities			X	
4.10 (C)(13)	outdoor lighting				X
4.10 (C)(11)	elevation contour of the 100 year floodplain			X	
4.10 (C)(11)	first floor elevations of buildings within floodplain			X	
4.10 (C)(14)(a)	notes re: easements, deed restrictions, covenants				
4.10 (C)(14)(b)	notes re: base and overlay zoning districts	X			
4.10 (C)(14)(c)	notes re: area of lot and length of road frontage	X			
4.10 (C)(14)(d)	notes re: calculation of impervious area	X			
4.10 (C)(14)(e)	notes re: plan for snow removal	X			
4.10 (C)(14)(f)	notes re: list of waivers and substitutions	X			
4.10 (C)(15)	other as needed				
4.10 (D)	elevation view of the front of proposed/alterd building				X
Other Documentation:					
2.04 (A)(5)(a)	letter to Police Chief	X			
2.04 (A)(5)(a)	letter to Fire Chief	X			
2.04 (A)(5)(a)	letter to Code Enforcement Officer re: compliance	X			
2.04 (A)(5)(a)	letter to Public Works Director	X			
application for State permits:					
2.04 (A)(5)(b)	septic	X			
2.04 (A)(5)(b)	driveway	X			
2.04 (A)(5)(b)	wetlands			X	
2.04 (A)(5)(b)	site specific	X			
2.04 (A)(5)(b)	underground storage tank			X	
2.04 (A)(5)(b)	other: _____				

Stormwater Management Checklist Attachment

		Rate (cfs)		Volume (cf)		Rate (cfs)		Volume (cf)		Rate (cfs)		Volume (cf)		Rate (cfs)		Volume (cf)	
PA-1		2 yr		10 yr		25 yr		50 yr		100 yr							
	Pre	9.40	34,619	21.26	74,865	31.55	110,500	41.49	145,493	53.57	188,799						
	Post	5.03	45,825	13.05	89,883	26.78	127,595	37.10	164,044	48.32	208,374						
PA-2		2 yr		10 yr		25 yr		50 yr		100 yr							
	Pre	0.99	3,508	1.91	6,761	2.67	9,505	3.38	12,136	4.23	15,341						
	Post	0.99	3,508	1.91	6,761	2.67	9,505	3.38	12,136	4.23	15,341						
PA-3		2 yr		10 yr		25 yr		50 yr		100 yr							
	Pre	0.05	172	0.08	267	0.10	342	0.12	412	0.14	496						
	Post	0.05	172	0.08	267	0.10	342	0.12	412	0.14	496						

446 & 450 WADLEIGH FALLS ROAD

NEWMARKET, NEW HAMPSHIRE

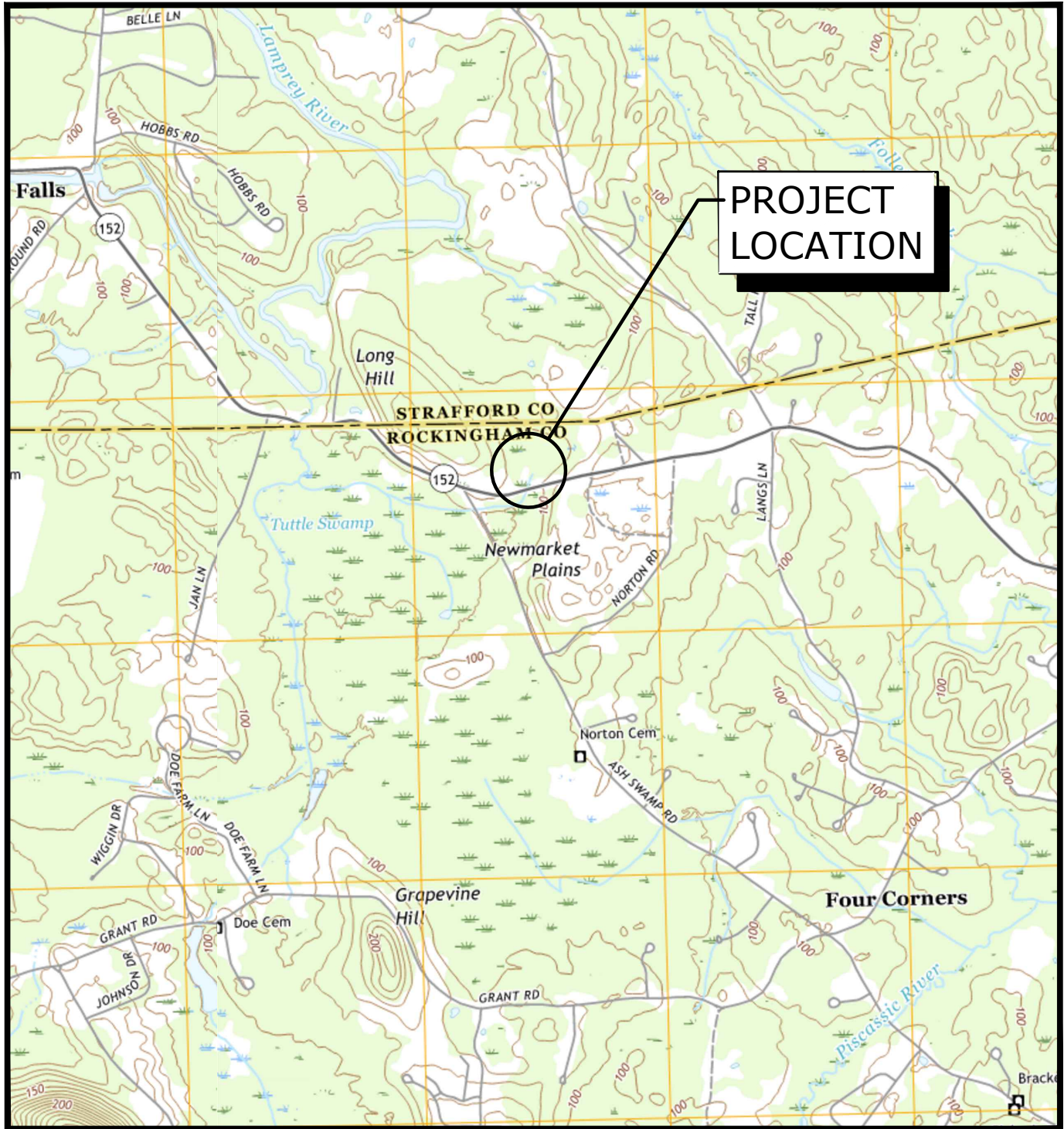
PROPOSED OFFICE AND EQUIPMENT STORAGE

PERMIT DRAWINGS

NOVEMBER 12, 2021

LIST OF DRAWINGS	
SHEET NO.	SHEET TITLE
	COVER
1 OF 1	EXISTING CONDITIONS PLAN (BY DOUCET SURVEY)
C-101	EXISTING & DEMOLITION PLAN
C-102	SITE PLAN
C-103	GRADING, DRAINAGE, AND EROSION CONTROL PLAN
C-104	UTILITY PLAN
C-105	PHASING PLAN
C-501	EROSION CONTROL NOTES
C-502	DETAILS
C-503	DETAILS
C-504	DETAILS

LIST OF PERMITS	
PERMIT	STATUS
SITE PLAN REVIEW/SPECIAL USE PERMIT (WETLAND BUFFER IMPACTS)	SUBMITTED
NHDOT - DRIVEWAY PERMIT	SUBMITTED
NHDES - ALTERATION OF TERRAIN PERMIT	SUBMITTED
NHDES - INDIVIDUAL SEWAGE DISPOSAL SYSTEM	SUBMITTED
USEPA - NOTICE OF INTENT	PENDING SUBMITTAL



LOCATION MAP
SCALE: 1" = 2000'

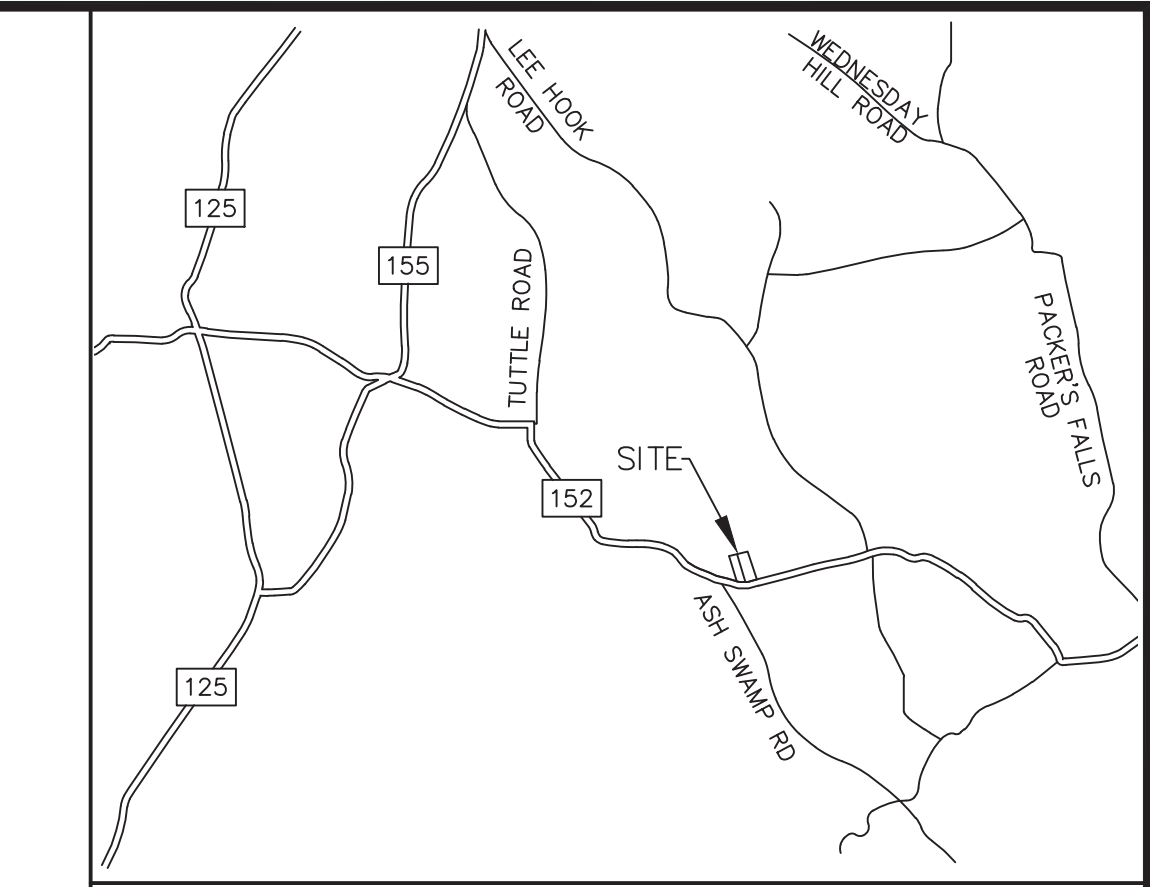
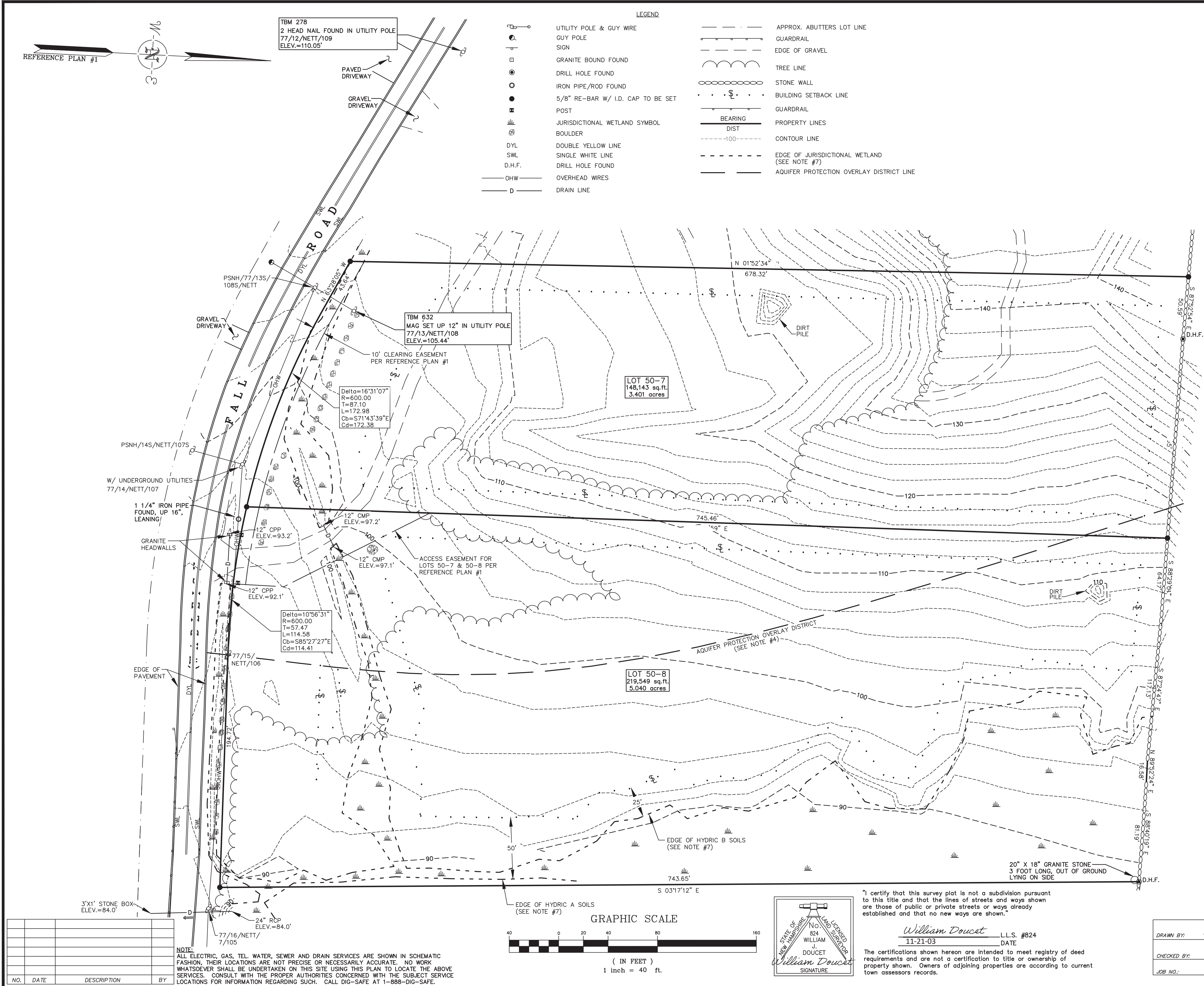
PREPARED BY:
Tighe&Bond
Engineers | Environmental Specialists



PREPARED FOR:
SEACOAST POOL PLASTERING, LLC
ROBERT P. MACINNIS
90 DEPOT ROAD
GREENLAND, NEW HAMPSHIRE 03840

PREPARED WITH:
DOUCET SURVEY LLC
102 KENT PLACE
NEWMARKET, NEW HAMPSHIRE 03857

Last Saved: 11/10/2021 3:55pm By: J.Winston
Plotted On: Nov 10, 2021 3:55pm
File & Print: S:\S132 Seacoast Pool Plastering LLC\001 446 & 450 Wadleigh Falls Rd\Drawings Figures\AutoCAD\Sheet\S5132 C-COV.Rdw

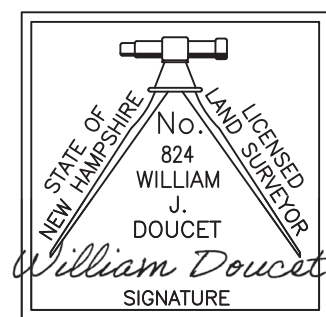


- NOTES:
- REFERENCE: TAX MAP R-6, LOTS 50-7 & 50-8
 - TOTAL PARCEL AREA: LOT 50-7 148,143 sq. ft. OR 3.401 AC.
LOT 50-8 219,549 sq. ft. OR 5.040 AC.
 - OWNER OF RECORD:
GREYSTONE OF MAINE LTD.
334 DURHAM ROAD
WADSBURY, NH 03824
R.C.R.D. BOOK 3058, PAGE 2450
 - ZONE: B-3
DIMENSIONAL REQUIREMENTS:
MIN. LOT AREA 2 AC.
MIN. FRONTAGE 150 ft.
MIN. ROAD SETBACK 75 ft.
MIN. SIDE/REAR SETBACK 20 ft.
MIN. SIDE/REAR SETBACK TO RESIDENTIAL DISTRICT 75 ft.
MIN. HYDRIC A SOIL SETBACK 50 ft.
MIN. HYDRIC B SOIL SETBACK 25 ft.
PORTIONS OF THE PARCELS ARE ALSO LOCATED IN THE WETLANDS PROTECTION OVERLAY DISTRICT AND THE AQUIFER PROTECTION OVERLAY DISTRICT. SEE THE TOWN OF NEWMARKET ZONING ORDINANCE FOR SPECIFIC REGULATIONS.
 - FIELD SURVEY PERFORMED BY K.J.B. & J.G.G. ON 11/03 USING A LEICA TCRA 1105 PLUS TOTAL STATION AND A SOKKIA B20 AUTO LEVEL. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS.
 - FLOOD HAZARD ZONE: "X" PER COMMUNITY PANEL #330136 0005 B DATED 5/2/91
 - HYDRIC SOILS DELINEATED BY N.H. SOIL CONSULTANTS, INC. DURING OCTOBER 2003 IN ACCORDANCE WITH THE 1987 CORPS OF ENGINEERS WETLANDS DELINEATIONS MANUAL, TECHNICAL REPORT Y-87-1.
 - HORIZONTAL DATUM IS BASED ON REFERENCE PLAN #1.
 - VERTICAL DATUM IS BASED ON NGVD 29.
 - THE INTENT OF THIS PLAN IS TO SHOW THE LOCATION OF BOUNDARIES IN ACCORDANCE WITH AND IN RELATION TO THE CURRENT LEGAL DESCRIPTION, AND IS NOT AN ATTEMPT TO DEFINE UNWRITTEN RIGHTS, DETERMINE THE EXTENT OF OWNERSHIP, OR DEFINE THE LIMITS OF TITLE.
- REFERENCE PLANS:
- "SUBDIVISION PLAN FOR GREYSTONE OF MAINE, WADLEIGH FALLS ROAD (ROUTE 152) NEWMARKET, NH," BY DOUCET SURVEY, INC., DATED NOVEMBER 3, 1999.
 - "SUBDIVISION PLAN FOR LEO P. LAROCHELLE IN NEWMARKET, N.H." BY BRUCE L. POHOPEK, DATED MARCH 12, 1982. R.C.R.D. PLAN # D-10780.
 - "PLAN OF LAND SHOWING PROPOSED SUBDIVISION FOR JOHN W. CLARK IN NEWMARKET, N.H." BY BRUCE L. POHOPEK DATED MAY 17, 1977. R.C.R.D. PLAN # C-6943
 - "SUBDIVISION OF LAND FOR LLOYD WALKER IN NEWMARKET, N.H." BY BRUCE L. POHOPEK DATED MAY 17, 1977. R.C.R.D. PLAN # D-7311.
 - "PLAN OF SUBDIVISION FOR HERBERT RICHMOND, ROUTE 152, WADLEIGH FALLS ROAD, LEE & NEWMARKET, NEW HAMPSHIRE" BY K.E. MOORE & B.G. STAPLES, DATED MAY 1978. S.C.R.D. PLAN #170-68.
 - "SUBDIVISION OF LAND OF HERBERT RICHMOND, ROUTE 152, LEE, N.H." BY ERNEST J. COTE, DATED JUNE 2, 1979. S.C.R.D. PLAN #19A-23.
 - "PLAN OF LAND OF HERBERT RICHMOND, OFF ROUTE 152, LEE, N.H." BY ERNEST J. COTE, DATED SEPTEMBER 1981, S.C.R.D. PLAN # 22A-15.
 - "LOT LINE AMENDMENTS FOR RUSSELL RICHMOND & PATRICIA KUCHARSKI IN LEE, N.H." BY BRUCE L. POHOPEK, DATED FEBRUARY 17, 1986. S.C.R.D. PLAN #29-61.
 - "PLAN OF LAND FOR CHICK TRUCKING INC., ROUTE 152, NEWMARKET, N.H." BY DOUCET SURVEY, INC. DATED FEBRUARY 21, 1996.
 - "PLAN OF BOUNDARY LINE AGREEMENT BETWEEN LEBEAU, LUNDGREN & CLARK, WADLEIGH FALLS ROAD, NEWMARKET, N.H." BY DOUCET SURVEY, INC. DATED APRIL 20, 1998.

EXISTING CONDITIONS PLAN
FOR
PROULX NORTH INVESTMENTS
ROUTE 152 (WADLEIGH FALLS ROAD)
NEWMARKET, NEW HAMPSHIRE

DRAWN BY:	M.W.F.	DATE:	NOV. 12, 2003
CHECKED BY:	S.V.M.	DRAWING NO.:	1677A
JOB NO.:	1677	SHEET	1 OF 1

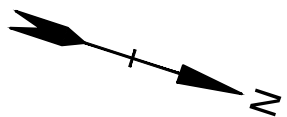
 **DOUCET SURVEY**
Serving Your Professional Surveying & Mapping Needs
28 Beech Street Extension, Unit 102, Newmarket, NH 03857
(603) 659-6560 <http://www.doucetsurvey.com>



"I certify that this survey plat is not a subdivision pursuant to this title and that the lines of streets and ways shown are those of public or private streets or ways already established and that no new ways are shown."

William Doucet L.L.S. #824
11-21-03 DATE

The certifications shown hereon are intended to meet registry of deed requirements and are not a certification to title or ownership of property shown. Owners of adjoining properties are according to current town assessors records.



EXISTING CONDITIONS PLAN NOTES:

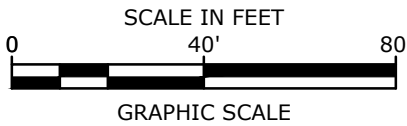
- EXISTING CONDITIONS ARE BASED ON A FIELD SURVEY BY DOUCET SURVEY, LLC, DATED 2004 AND UPDATED CONDITIONS IN OCTOBER 2020.
- JURISDICTIONAL WETLANDS WERE DELINEATED SEPTEMBER 23, 2020 BY LEONARD A. LORD, PHD, NHCWS #14, NHCSS #19 OF TIGHE & BOND. WETLAND CRITERIA USED INCLUDES: CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1 (JANUARY 1987), REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, NORTHCENTRAL AND NORTHEAST REGION (JANUARY 2012), FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4 (2018), U.S. ARMY CORPS OF ENGINEERS NORTHCENTRAL AND NORTHEAST 2016 REGIONAL WETLAND PLANT LIST (LICHVAR ET AL., 2016), AND NHDES WETLANDS BUREAU ADMINISTRATIVE RULES (2020), AND FIELD LOCATED BY DOUCET, SURVEY, LLC.
- HORIZONTAL DATUM IS ASSUMED AND BASED ON WORK PREVIOUSLY COMPLETED BY DOUCET SURVEY, LLC ON THIS SITE. MORE SPECIFICALLY, NEW WORK WAS COORDINATED TO MONUMENTATION FOUND ON SITE AT TIME OF SURVEY AS ALL OTHER SURVEY CONTROL HAS BEEN DESTROYED.
- VERTICAL DATUM IS APPROXIMATELY BASED ON THE ELEVATION PREVIOUSLY MEASURED AT THE SOUTH END OF THE STONE BOX CULVERT ON THE EAST END OF THE PROJECT AS SHOWN HEREON. ALL OTHER SURVEY CONTROL HAS BEEN DESTROYED AND ALL OTHER CULVERTS WITHIN THE AREA OF SURVEY HAVE BEEN RECONSTRUCTED.
- THIS IS NOT A BOUNDARY SURVEY AND SHALL NOT BE USED AS SUCH. APPROXIMATE LOT LINES ARE BASED ON SURVEY COMPLETED BY DOUCET SURVEY, LLC IN 2004 AND HAVE NOT BEEN VERIFIED.

DEMOLITION NOTES:

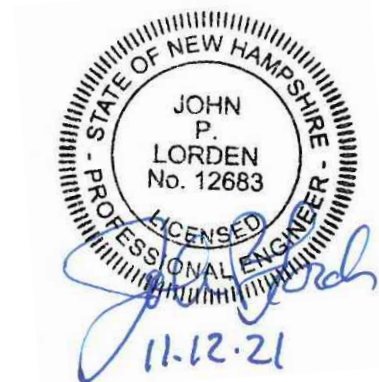
- THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
- THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES. CALL DIG SAFE AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION/CONSTRUCTION ACTIVITIES.
- ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND CODES.
- COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
- ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO MATCH ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- SAW CUT AND REMOVE PAVEMENT ONE (1) FOOT OFF PROPOSED EDGE OF PAVEMENT.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS OF ALL OF THE PERMIT APPROVALS.
- THE CONTRACTOR SHALL OBTAIN AND PAY FOR ADDITIONAL PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK AND ARRANGE FOR AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK, EXCEPT FOR WORK NOTED TO BE COMPLETED BY OTHERS.
- COORDINATE ALL WORK WITHIN THE PUBLIC RIGHT OF WAYS WITH THE TOWN OF NEWMARKET AND NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.
- REMOVE TREES AND BRUSH AS REQUIRED FOR COMPLETION OF WORK. CONTRACTOR SHALL GRUB AND REMOVE ALL STUMPS WITHIN LIMITS OF WORK AND DISPOSE OF OFF SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS. ALL STUMPS WITHIN WETLAND BUFFERS SHALL REMAIN IN PLACE.
- CONTRACTOR SHALL PROTECT ALL PROPERTY MONUMENTATION THROUGHOUT DEMOLITION AND CONSTRUCTION OPERATIONS. SHOULD ANY MONUMENTATION BE DISTURBED BY THE CONTRACTOR, THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED SURVEYOR TO REPLACE DISTURBED MONUMENTS.
- PROVIDE INLET PROTECTION BARRIERS. INLET PROTECTION BARRIERS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. INLET PROTECTION BARRIERS SHALL BE "HIGH FLOW SILT SACK" BY ACF ENVIRONMENTAL OR EQUAL. INSPECT BARRIERS WEEKLY AND AFTER EACH RAIN EVENT OF 0.25 INCHES OR GREATER. CONTRACTOR SHALL COMPLETE A MAINTENANCE INSPECTION REPORT AFTER EACH INSPECTION. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED OR SEDIMENT HAS ACCUMULATED TO 1/3 THE DESIGN DEPTH OF THE BARRIER.
- EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES.
- THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFETY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE.

LEGEND

TBR	TO BE REMOVED
TYP	TYPICAL
DYL	DOUBLE YELLOW LINE
SWL	SINGLE WHITE LINE
W	EXISTING MONITORING WELL
U	EXISTING UTILITY POLE
G	EXISTING GUY POLE
B	EXISTING BOULDER
F	EXISTING FLARED END SECTION
P	PERCOLATION TEST
TP	TEST PIT
---	APPROXIMATE LIMIT OF PROPOSED SAW CUT
---	LIMIT OF WORK
---	PROPERTY LINE
---	PROPERTY LINE TO BE ELIMINATED
---	EDGE OF PRIME WETLAND
---	EDGE OF PRIME WETLAND/POORLY DRAINED SOILS
---	EDGE OF AQUIFER PROTECTION OVERLAY DISTRICT
---	125' SEPTIC SETBACK FROM PRIME
---	100' STRUCTURE SETBACK FROM PRIME
---	75' PRIME WETLAND BUFFER
---	25' POORLY DRAINED BUFFER
---	50' VERY POORLY DRAINED BUFFER
---	EDGE OF EXISTING GRAVEL PATH
---	MAJOR CONTOUR LINE
---	MINOR CONTOUR LINE
---	EXISTING TREELINE
---	EXISTING TREELINE TO BE REMOVED
---	PROPOSED TREELINE
---	EDGE OF WETLAND
---	SILT SOCK
---	DOUBLE ROW OF SILT SOCK
---	STONE WALL
---	EXISTING DRAIN LINE/FLOW PATH
---	APPROX. CENTERLINE OF INTERMITTENT STREAM
---	SETBACK LINE
---	EXISTING GUARDRAIL
---	WETLANDS



Tighe & Bond



PERMIT DRAWINGS

Proposed Office and Equipment Storage

Seacoast Pool Plastering, LLC

446 & 450
Wadleigh Falls Road
Newmarket,
New Hampshire

MARK	DATE	DESCRIPTION
PROJECT NO:	S5132-001	
DATE:	11/12/2021	
FILE:	S5132_C-DSGN.dwg	
DRAWN BY:	JRW/BIL	
CHECKED BY:	JPL	
APPROVED BY:	BLM	

EXISTING & DEMOLITION PLAN

SCALE: AS SHOWN

C-101



1. STRIPE PARKING AREAS AS SHOWN, INCLUDING PARKING SPACES, ADA SYMBOLS, AND PAINTED ISLANDS SHALL BE FAST DRYING TRAFFIC PAINT. (ALL MARKINGS EXCEPT CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING WHITE TRAFFIC PAINT. CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING YELLOW TRAFFIC PAINT. ALL TRAFFIC PAINT SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F").
2. ALL PAVEMENT MARKINGS AND SIGNS TO CONFORM TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS, LATEST EDITIONS.
3. SEE DETAILS FOR PARKING STALL MARKINGS, ADA SYMBOLS, SIGNS AND SIGN POSTS.
4. PAINTED ISLANDS SHALL BE FOUR (4) INCH WIDE DIAGONAL LINES AT 3'-0" O.C. BORDERED BY FOUR (4) INCH WIDE LINES.
5. THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED LAND SURVEYOR TO DETERMINE ALL LINES AND GRADES.
6. CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAW CUT LINE WITH RS-1 EMULSION IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
7. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE, AND LOCAL CODES & SPECIFICATIONS.
8. COORDINATE ALL WORK WITHIN PUBLIC RIGHT OF WAY WITH THE TOWN OF NEWMARKET AND NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.
9. CONTRACTOR TO SUBMIT AS-BUILT PLANS IN DIGITAL FORMAT (.DWG AND .PDF FILES) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR.
10. SEE BUILDING DRAWINGS FOR CONCRETE PAD.
11. ALL WORK SHALL CONFORM TO THE TOWN OF NEWMARKET DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS AND WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS OF ROAD AND BRIDGE CONSTRUCTION", CURRENT EDITIONS.
12. COORDINATE ALL WORK ADJACENT TO BUILDING WITH BUILDING CONTRACTOR.
13. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.

LOCATION: TAX MAP R-6, LOT 50-7 & 50-8
446 & 450 WADLEIGH FALLS ROAD
NEWMARKET, NEW HAMPSHIRE

MAXIMUM BUILDING HEIGHT: 35 FT <35 FT

PARKING SPACE REQUIREMENTS:
OFFICE:
 $1 \text{ SPACE} / 250 \text{ SF} = 1,000 \text{ SF} / 250 \text{ SF/SPACE} = 4 \text{ SPACES PLUS}$
INDUSTRIAL (WAREHOUSE):
 $1 / 500 \text{ SF} = 5,000 \text{ SF} / 500 \text{ SF/SPACE} = 10 \text{ SPACES}$

TOTAL REQUIRED PARKING: = 14 SPACES
TOTAL PROVIDED: = 8 SPACES*(INCLUDES

* WAIVER REQUESTED

PROPOSED BOLLARD
TYPICAL
PROPOSED CURB RADIUS
PROPOSED VERTICAL GRANITE CURB
PROPOSED ACCESSIBLE PARKING SPACE
PROPERTY LINE
EDGE OF POORLY DRAINED SOILS
EDGE OF WETLAND
FRONT/SIDE/REAR YARD SETBACKS
AQUIFER PROTECTION AREA OVERLAY DISTRICT
PROPOSED EDGE OF PAVEMENT
PROPOSED CURB
125' SEPTIC SETBACK FROM PRIME
100' STRUCTURE SETBACK FROM PRIME
75' PRIME WETLAND BUFFER
25' POORLY DRAINED BUFFER
50' VERY POORLY DRAINED BUFFER
EXISTING TREELINE
PROPOSED TREELINE

PROPOSED BUILDING

PROPOSED PAVEMENT

PROPOSED CONCRETE SIDEWALK

PROPOSED GRAVEL PARKING AREA

PROPOSED PAVEMENT PAINT

WETLANDS

PROPOSED SNOW STORAGE AREA

DATE: _____

SCALE IN FEET

0 40' 80'

GRAPHIC SCALE

Proposed Office and Equipment Storage

Seacoast Pool
Plastering, LLC

446 & 450
Wadleigh Falls Road
Newmarket,
New Hampshire

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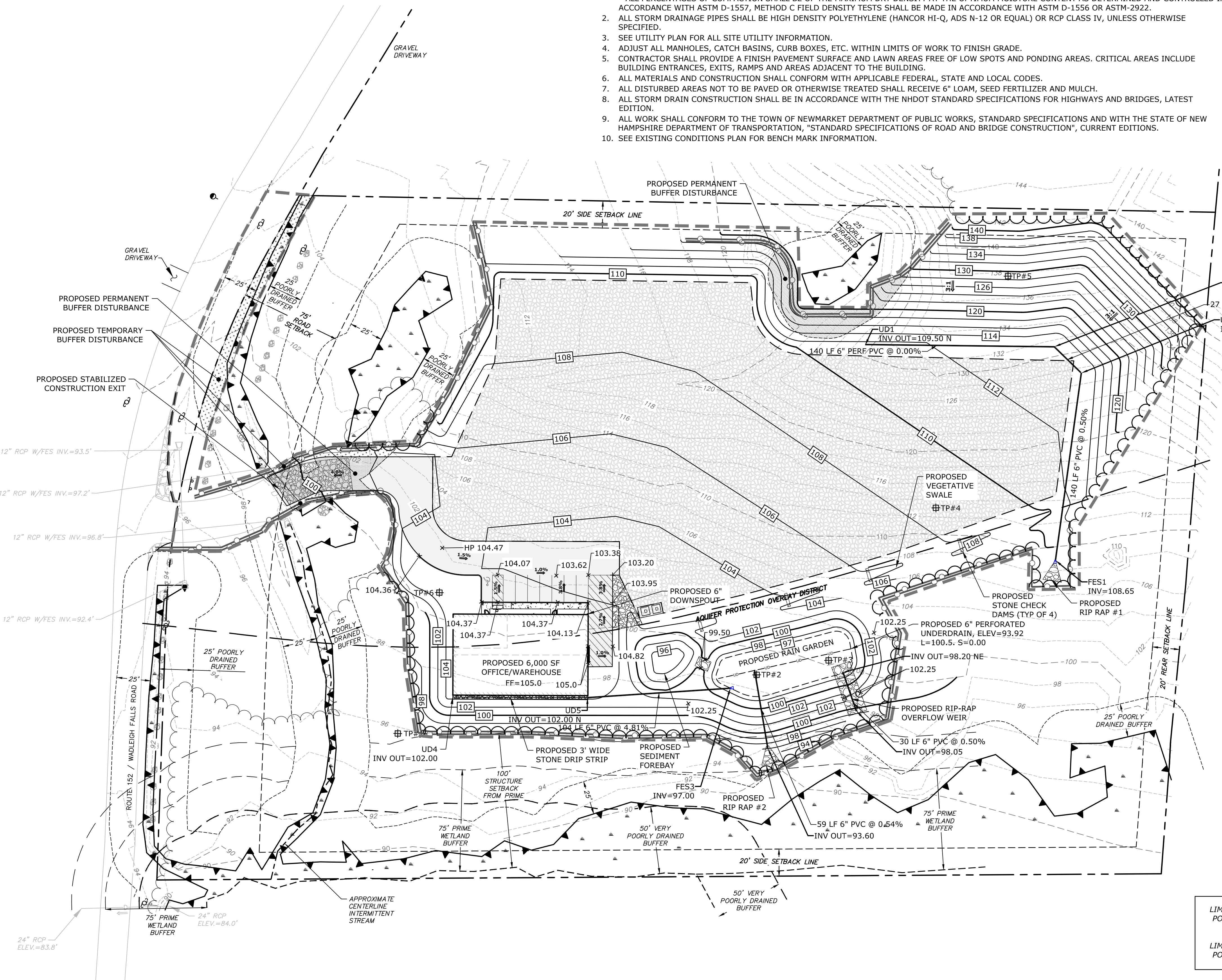
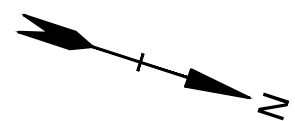
MARK	DATE	DESCRIPTION
PROJECT NO:	S5132-001	
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FILE:	S5132_C-DSGN.dwg	
DRAWN BY:	JRWB/BJL	
CHECKED BY:	JPL	
APPROVED BY:	BLM	

SITE PLAN

SCALE: AS SHOWN

C-102

Last Saved: 11/15/2021 3:55pm By: JWINSTON
Plotted On: Nov 15, 2021 3:55pm
Title & Content: S5132 Seacoast Pool Plastering LLC 001 446 & 450 Wadleigh Falls Rd Drawings Figures AutoCAD Sheet S5132 C-DSGN.dwg



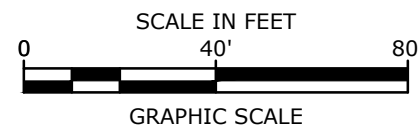
- GRADING AND DRAINAGE NOTES:**
1. COMPACTION REQUIREMENTS:
BELOW PAVED OR CONCRETE AREAS 95%
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL 95%
BELOW LOAM AND SEED AREAS 90%
* ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557, METHOD C FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM D-1556 OR ASTM-2922.
 2. ALL STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HANCOR HI-Q, ADS N-12 OR EQUAL) OR RCP CLASS IV, UNLESS OTHERWISE SPECIFIED.
 3. SEE UTILITY PLAN FOR ALL SITE UTILITY INFORMATION.
 4. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
 5. CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE AND LAWN AREAS FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCES, EXITS, RAMPS AND AREAS ADJACENT TO THE BUILDING.
 6. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES.
 7. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED FERTILIZER AND MULCH.
 8. ALL STORM DRAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NHDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
 9. ALL WORK SHALL CONFORM TO THE TOWN OF NEWMARKET DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS AND WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS OF ROAD AND BRIDGE CONSTRUCTION", CURRENT EDITIONS.
 10. SEE EXISTING CONDITIONS PLAN FOR BENCH MARK INFORMATION.

- EROSION CONTROL NOTES:**
1. INSTALL EROSION CONTROL BARRIERS AS SHOWN AS FIRST ORDER OF WORK.
 2. SEE GENERAL EROSION CONTROL NOTES ON "EROSION CONTROL NOTES & DETAILS SHEET".
 3. PROVIDE INLET PROTECTION AROUND ALL EXISTING AND PROPOSED CATCH BASIN INLETS WITHIN THE WORK LIMITS AS WELL AS CATCH BASINS/CURB INLETS THAT RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. MAINTAIN FOR THE DURATION OF THE PROJECT.
 4. INSTALL STABILIZED CONSTRUCTION EXIT.
 5. INSPECT INLET PROTECTION AND PERIMETER EROSION CONTROL MEASURES DAILY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE FILTER HEIGHT.
 6. CONSTRUCT EROSION CONTROL BLANKET ON ALL SLOPES STEEPER THAN 3:1.
 7. PRIOR TO ANY WORK OR SOIL DISTURBANCE COMMENCING ON THE SUBJECT PROPERTY, INCLUDING MOVING OF EARTH, THE APPLICANT SHALL INSTALL ALL EROSION AND SILTATION MITIGATION AND CONTROL MEASURES AS REQUIRED BY STATE AND LOCAL PERMITS AND APPROVALS.
 8. CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST AND WIND EROSION THROUGHOUT THE CONSTRUCTION PERIOD. DUST CONTROL MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, SPRINKLING WATER ON UNSTABLE SOILS SUBJECT TO ARID CONDITIONS.
 9. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
 10. ALL CATCH BASIN SUMPS AND PIPING SHALL BE THOROUGHLY CLEANED TO REMOVE ALL SEDIMENT AND DEBRIS AFTER THE PROJECT HAS BEEN FULLY PAVED.
 11. TEMPORARY SOIL STOCKPILE SHALL BE SURROUNDED WITH PERIMETER CONTROLS AND SHALL BE STABILIZED BY TEMPORARY EROSION CONTROL SEEDING. STOCKPILE AREAS TO BE LOCATED AS FAR AS POSSIBLE FROM THE DELINEATED EDGE OF WETLANDS.
 12. SAFETY FENCING SHALL BE PROVIDED AROUND STOCKPILES OVER 10 FT.

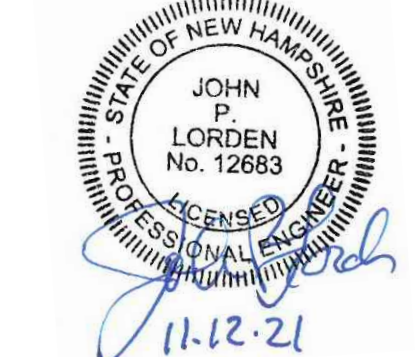
LEGEND

	PROPOSED MAJOR CONTOUR LINE
	PROPOSED MINOR CONTOUR LINE
	PROPOSED DRAIN LINE (TYP)
	PROPOSED SILT SOCK
	FLARED END SECTION
	FINISHED FLOOR ELEVATION
	ELEVATION
	INVERT
	LENGTH
	OUTLET CONTROL STRUCTURE
	PERFORATED
	POLYVINYL CHLORIDE
	SLOPE
	UNDERDRAIN

	LIMITS OF TEMPORARY DISTURBANCE: POORLY DRAINED WETLAND BUFFER = 2,847 SF
	LIMITS OF PERMANENT DISTURBANCE: POORLY DRAINED WETLAND BUFFER = 3,993 SF



Tighe&Bond



PERMIT DRAWINGS

Proposed Office and Equipment Storage

Seacoast Pool Plastering, LLC

446 & 450
Wadleigh Falls Road
Newmarket,
New Hampshire

MARK	DATE	DESCRIPTION
PROJECT NO:	S5132-001	
DATE:	11/12/2021	
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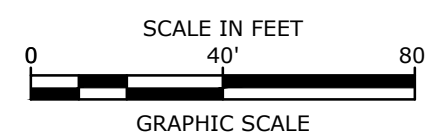
GRADING, DRAINAGE, AND EROSION CONTROL PLAN

SCALE: AS SHOWN



1. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES, AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
2. COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY COMPANY.
 - NATURAL GAS - PRIVATE
 - WATER - PRIVATE
 - SEWER - PRIVATE
 - ELECTRIC - EVERSOURCE
 - COMMUNICATIONS - CONSOLIDATED COMMUNICATIONS
3. SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION.
4. ALL SEWER PIPE SHALL BE PVC SDR 35 UNLESS OTHERWISE STATED.
5. COORDINATE ALL WORK WITHIN PUBLIC RIGHT OF WAYS WITH THE TOWN OF NEWMARKET AND THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.
6. CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO ABUTTING PROPERTIES THROUGHOUT CONSTRUCTION.
7. ALL ELECTRICAL MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, LATEST EDITION, AND ALL APPLICABLE STATE AND LOCAL CODES.
8. THE EXACT LOCATION OF NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE BUILDING DRAWINGS AND THE APPLICABLE UTILITY COMPANIES.
9. THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO THE COMPLETION OF THIS PROJECT.
10. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL.
11. THE CONTRACTOR SHALL CONTACT "DIG-SAFE" 72 HOURS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL HAVE THE "DIG-SAFE" NUMBER ON SITE AT ALL TIMES.
12. CONTRACTOR SHALL COORDINATE ALL ELECTRIC WORK INCLUDING BUT NOT LIMITED TO: CONDUIT CONSTRUCTION, MANHOLE CONSTRUCTION, UTILITY POLE CONSTRUCTION, OVERHEAD WIRE RELOCATION, AND TRANSFORMER CONSTRUCTION WITH POWER COMPANY.
13. COORDINATE PROPANE TANK SIZE AND THE EXACT LOCATION WITH UTILITY COMPANY TO ENSURE ALL MINIMUM SEPARATIONS ARE MET.

BLDG	BUILDING
TYP	TYPICAL
	PROPOSED CATCHBASIN
	PROPOSED DRAIN MANHOLE
	PROPOSED WELL
	EXISTING OVERHEAD UTILITY
	PROPOSED STORM DRAIN
	PROPOSED FORCE MAIN
	PROPOSED WATER
	PROPOSED GAS
	PROPOSED OVERHEAD ELECTRIC



Proposed Office and Equipment Storage

Seacoast Pool
Plastering, LLC

446 & 450
Wadleigh Falls Road
Newmarket,
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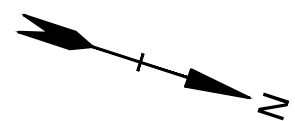
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UTILITY PLAN

SCALE: AS SHOWN

C-104

Last Saved: 10/22/2021 11:02:21 AM
Plotted On: Nov 10, 2021 11:02:21 AM
Tighe & Bond 21 US5132 Seacoast Pool Plastering LLC 001 446 & 450 Wadleigh Falls Rd Drawings Figures AutoCAD Sheet S5132 C-DSGN.dwg



GRAVEL DRIVEWAY

GRAVEL DRIVEWAY

ROUTE 152 / WADLEIGH FALLS ROAD

PE&C

PE&C

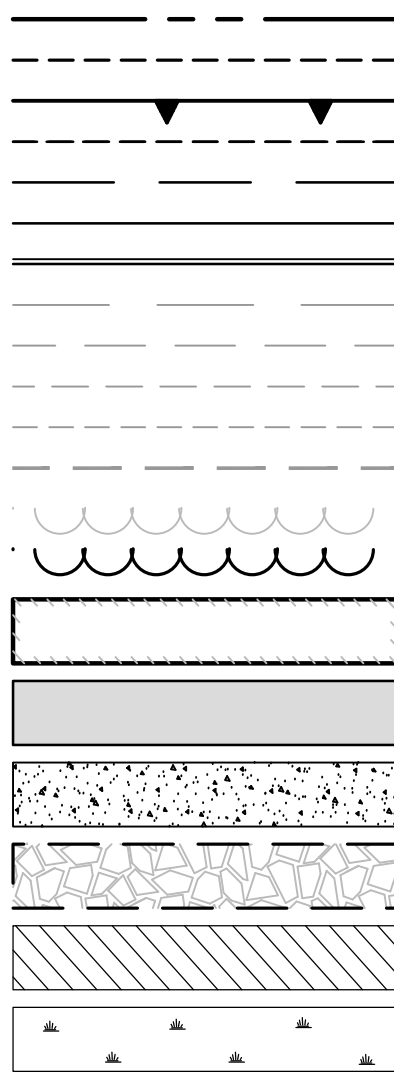
PE&C

PHASE 1

PHASE 2

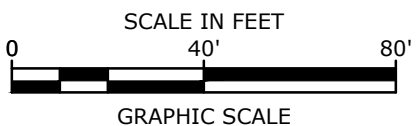
AQUIFER PROTECTION OVERLAY DISTRICT

- TYP
- 15'R
- VGC
- Ⓢ

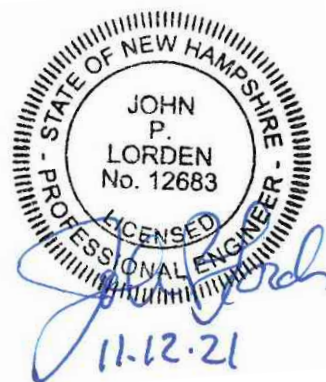
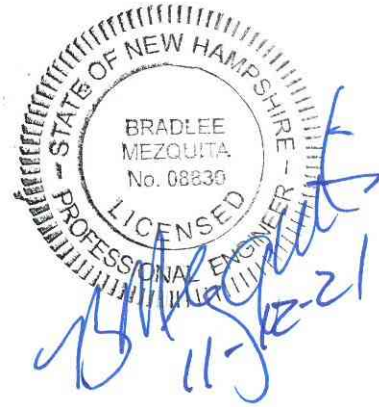


- LEGEND
- PROPOSED BOLLARD
 - TYPICAL
 - PROPOSED CURB RADIUS
 - PROPOSED VERTICAL GRANITE CURB
 - PROPOSED ACCESSIBLE PARKING SPACE
 - PROPERTY LINE
 - EDGE OF POORLY DRAINED SOILS
 - EDGE OF WETLAND
 - FRONT/SIDE/REAR YARD SETBACKS
 - AQUIFER PROTECTION AREA OVERLAY DISTRICT
 - PROPOSED EDGE OF PAVEMENT
 - PROPOSED CURB
 - 125' SEPTIC SETBACK FROM PRIME
 - 100' STRUCTURE SETBACK FROM PRIME
 - 75' PRIME WETLAND BUFFER
 - 25' POORLY DRAINED BUFFER
 - 50' VERY POORLY DRAINED BUFFER
 - EXISTING TREELINE
 - PROPOSED TREELINE

- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED BITUMINOUS SIDEWALK
- PROPOSED GRAVEL PARKING AREA
- PROPOSED PAVEMENT PAINT
- WETLANDS



Tighe&Bond



PERMIT DRAWINGS

Proposed Office and Equipment Storage

Seacoast Pool Plastering, LLC

446 & 450
Wadleigh Falls Road
Newmarket,
New Hampshire

MARK	DATE	DESCRIPTION
PROJECT NO:	S5132-001	
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DRAWN BY:	JRW/BJL	
CHECKED BY:	JPL	
APPROVED BY:	BLM	

PHASING PLAN

SCALE: AS SHOWN

C-105

Last Saved: 11/10/2021 11:40:06pm By: J.Winston
Plotted On: Nov 10, 2021 11:40:06pm
File & Window: S5132 - Seacoast Pool Plastering
LCC:001_446 & 450 Wadleigh Falls Rd Drawings - Figures\AutocAD\Sheet\S5132_C-DTLS.dwg

GENERAL PROJECT INFORMATION

PROJECT OWNER: SEACOAST POOL PLASTERING, LLC
90 DEPOT ROAD
GREENLAND, NH 03840
PROJECT NAME: PROPOSED OFFICE AND EQUIPMENT STORAGE
PROJECT ADDRESS: 446 & 450 WADLEIGH FALLS ROAD
NEWMARKET, NEW HAMPSHIRE
PROJECT MAP / LOT: MAP R-6/ LOT 50-7 & 8
PROJECT LATITUDE: 43.079640 N
PROJECT LONGITUDE: -70.985217 W

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF DEVELOPING A VACANT LOT WITH AN OFFICE AND EQUIPMENT STORAGE FACILITY ON A GRAVEL PAD AREA FOR TRUCK TRAILERS, STORAGE CONTAINERS AND EQUIPMENT VEHICLES.

DISTURBED AREA

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 4.75 ACRES.

SOIL CHARACTERISTICS

A SITE SPECIFIC SOIL SURVEY WAS CONDUCTED BY TIGHE & BOND ON APRIL 26, 2021. THE SOILS ON SITE CONSIST OF WOODBRIDGE, SCITICO, MAYBID, UDORTHENS, AND ENDOAQUENT SOILS WHICH ARE WELL DRAINED, POORLY DRAINED, VERY POORLY DRAINED, MODERATELY WELL DRAINED, SOMEWHAT POORLY DRAINED & POORLY DRAINED SOILS WITH HYDROLOGIC SOIL GROUP RATINGS OF B, C, D. REFER TO SITE SPECIFIC SOIL SURVEY REPORT FOR FULL DESCRIPTIONS.

NAME OF RECEIVING WATERS

THE STORMWATER RUNOFF FROM THE SITE WILL BE DISCHARGED VIA OVERLAND FLOW TO SURROUNDING UNNAMED WETLANDS AND ULTIMATELY FLOWS TO THE LAMPREY RIVER.

CONSTRUCTION SEQUENCE OF MAJOR ACTIVITIES:

- CUT AND CLEAR TREES.
- CONSTRUCT TEMPORARY AND PERMANENT SEDIMENT, EROSION AND DETENTION CONTROL FACILITIES. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATIONS THAT WILL INFLUENCE STORMWATER RUNOFF SUCH AS:
 - NEW CONSTRUCTION
 - DEVELOPMENT OF BORROW PIT AREAS
 - DISPOSAL OF SEDIMENT SPOIL, STUMP AND OTHER SOLID WASTE
 - EXCAVATION WORK
 - STREAM CHANNEL MODIFICATIONS
 - CONTROL OF DUST
 - CONSTRUCTION OF ACCESS ROAD AND PARKING AREAS
 - NEARNESS OF CONSTRUCTION SITE TO RECEIVING WATERS
 - CONSTRUCTION DURING LATE WINTER AND EARLY SPRING
- ALL PERMANENT DITCHES, SWALES, DETENTION, RETENTION AND SEDIMENTATION BASINS TO BE STABILIZED USING THE VEGETATIVE AND NON-STRUCTURAL BMPS PRIOR TO DIRECTING RUNOFF TO THEM.
- CLEAR AND DISPOSE OF DEBRIS.
- CONSTRUCT TEMPORARY CULVERTS AND DIVERSION CHANNELS AS REQUIRED.
- GRADE AND GRAVEL ROADWAYS AND PARKING AREAS - ALL ROADS AND PARKING AREA SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, PERIMETER EROSION CONTROL MEASURES, SEDIMENT TRAPS, ETC., MULCH AND SEED AS REQUIRED.
- SEDIMENT TRAPS AND/OR BASINS SHALL BE USED AS NECESSARY TO CONTAIN RUNOFF UNTIL SOILS ARE STABILIZED.
- FINISH PAVING DRIVEWAY AND PARKING LOT.
- INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES.
- COMPLETE PERMANENT SEEDING AND LANDSCAPING.
- REMOVE TRAPPED SEDIMENTS FROM COLLECTOR DEVICES AS APPROPRIATE AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES.

SPECIAL CONSTRUCTION NOTES:

- THE CONSTRUCTION SEQUENCE MUST LIMIT THE DURATION AND AREA OF DISTURBANCE.
- THE PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.

EROSION CONTROL NOTES:

- ALL EROSION CONTROL MEASURES AND PRACTICES SHALL CONFORM TO THE "NEW HAMPSHIRE STORMWATER MANUAL VOLUME 3: EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION" PREPARED BY THE NHDES.
- PRIOR TO ANY WORK OR SOIL DISTURBANCE, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR EROSION CONTROL MEASURES AS REQUIRED IN THE PROJECT MANUAL.
- CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL BARRIERS, INCLUDING HAY BALES, SILT FENCES, MULCH BERMS, SILT SACKS AND SILT SOCKS AS SHOWN IN THESE DRAWINGS AS THE FIRST ORDER OF WORK.
- SILT SACK INLET PROTECTION SHALL BE INSTALLED IN ALL EXISTING AND PROPOSED CATCH BASIN INLETS WITHIN THE WORK LIMITS AND BE MAINTAINED FOR THE DURATION OF THE PROJECT.
- PERIMETER CONTROLS INCLUDING SILT FENCES, MULCH BERM, SILT SOCK, AND/OR HAY BALE BARRIERS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT UNTIL NON-PAVED AREAS HAVE BEEN STABILIZED.
- THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
- ALL DISTURBED AREAS NOT OTHERWISE BEING TREATED SHALL RECEIVE 6" LOAM, SEED AND FERTILIZER.
- INSPECT ALL INLET PROTECTION AND PERIMETER CONTROLS WEEKLY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE FILTER HEIGHT.
- CONSTRUCT EROSION CONTROL BLANKETS ON ALL SLOPES STEEPER THAN 3:1.

STABILIZATION:

- AN AREA SHALL BE CONSIDERED STABLE WHEN ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED;
 - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.;
 - IN AREAS TO BE PAVED, "STABLE" MEANS THAT BASE COURSE GRAVELS MEETING THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM 304.2 HAVE BEEN INSTALLED.
- WINTER STABILIZATION PRACTICES:
 - ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS;
 - ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS;
 - AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT;
- STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES, AND DISTURBED AREAS,

- WHERE CONSTRUCTION ACTIVITY SHALL NOT OCCUR FOR MORE THAN TWENTY-ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA. STABILIZATION MEASURES TO BE USED INCLUDE:
- TEMPORARY SEEDING;
 - MULCHING.
- ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
 - WHEN CONSTRUCTION ACTIVITY PERMANENTLY OR TEMPORARILY CEASES WITHIN 100 FEET OF NEARBY SURFACE WATERS OR DELINEATED WETLANDS, THE AREA SHALL BE STABILIZED WITHIN SEVEN (7) DAYS OR PRIOR TO A RAIN EVENT. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN THESE AREAS, SILT FENCES, MULCH BERMS, HAY BALE BARRIERS AND ANY EARTH/DIKES SHALL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.
 - DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH SILT FENCES, MULCH BERMS, HAY BALE BARRIERS, OR SILT SOCKS. ALL STORM DRAIN BASIN INLETS SHALL BE PROVIDED WITH FLARED END SECTIONS AND TRASH RACKS. THE SITE SHALL BE STABILIZED FOR THE WINTER BY OCTOBER 15.

DUST CONTROL:

- THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST THROUGHOUT THE CONSTRUCTION PERIOD.
- DUST CONTROL METHODS SHALL INCLUDE, BUT BE NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING.
- DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ABUTTING AREAS.

STOCKPILES:

- LOCATE STOCKPILES A MINIMUM OF 50 FEET AWAY FROM CATCH BASINS, SWALES, AND CULVERTS.
- ALL STOCKPILES SHOULD BE SURROUNDED WITH TEMPORARY EROSION CONTROL MEASURES PRIOR TO THE ONSET OF PRECIPITATION.
- PERIMETER BARRIERS SHOULD BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIALS FROM THE STOCKPILE. THE INTEGRITY OF THE BARRIER SHOULD BE INSPECTED AT THE END OF EACH WORKING DAY.
- PROTECT ALL STOCKPILES FROM STORMWATER RUN-OFF USING TEMPORARY EROSION CONTROL MEASURES SUCH AS BERMS, SILT SOCK, OR OTHER APPROVED PRACTICE TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILES.

OFF SITE VEHICLE TRACKING:

- THE CONTRACTOR SHALL CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE(S) PRIOR TO ANY EXCAVATION ACTIVITIES.

VEGETATION:

- TEMPORARY GRASS COVER:
 - SEEDBED PREPARATION:
 - APPLY FERTILIZER AT THE RATE OF 600 POUNDS PER ACRE OF 10-10-10. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF THREE (3) TONS PER ACRE;
 - SEEDING:
 - UTILIZE ANNUAL RYE GRASS AT A RATE OF 40 LBS/ACRE;
 - WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF TWO (2) INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED;
 - APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). HYDROSEEDINGS, WHICH INCLUDE MULCH, MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING;
 - MAINTENANCE:
 - TEMPORARY SEEDING SHALL BE PERIODICALLY INSPECTED. AT A MINIMUM, 95% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES USED IN THE INTERIM (MULCH, FILTER BARRIERS, CHECK DAMS, ETC.).
- PERMANENT MEASURES AND PLANTINGS:
 - LIMESTONE SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM LAYER AT A RATE OF THREE (3) TONS PER ACRE IN ORDER TO PROVIDE A PH VALUE OF 5.5 TO 6.5;
 - FERTILIZER SHALL BE SPREAD ON THE TOP LAYER OF LOAM AND WORKED INTO THE SURFACE. FERTILIZER APPLICATION RATE SHALL BE 800 POUNDS PER ACRE OF 10-20-20 FERTILIZER;
 - SOIL CONDITIONERS AND FERTILIZER SHALL BE APPLIED AT THE RECOMMENDED RATES AND SHALL BE THOROUGHLY WORKED INTO THE LOAM. LOAM SHALL BE RAKED UNTIL THE SURFACE IS FINELY PULVERIZED, SMOOTH AND EVEN, AND THEN COMPACTED TO AN EVEN SURFACE CONFORMING TO THE REQUIRED LINES AND GRADES WITH APPROVED ROLLERS WEIGHING BETWEEN 4-1/2 POUNDS AND 5-1/2 POUNDS PER INCH OF WIDTH;
 - SEED SHALL BE SOWN AT THE RATE SHOWN BELOW. SOWING SHALL BE DONE ON A CALM, DRY DAY, PREFERABLY BY MACHINE, BUT IF BY HAND, ONLY BY EXPERIENCED WORKMEN. IMMEDIATELY BEFORE SEEDING, THE SOIL SHALL BE LIGHTLY RAKED. ONE HALF THE SEED SHALL BE SOWN IN ONE DIRECTION AND THE OTHER HALF AT RIGHT ANGLES TO THE ORIGINAL DIRECTION. IT SHALL BE LIGHTLY RAKED INTO THE SOIL TO A DEPTH NOT OVER 1/4 INCH AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF WIDTH;
 - HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AS INDICATED ABOVE;
 - THE SURFACE SHALL BE WATERED AND KEPT MOIST WITH A FINE SPRAY AS REQUIRED, WITHOUT WASHING AWAY THE SOIL, UNTIL THE GRASS IS WELL ESTABLISHED. ANY AREAS WHICH ARE NOT SATISFACTORILY COVERED WITH GRASS SHALL BE RESEEDD, AND ALL NOXIOUS WEEDS REMOVED;
 - THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE SEEDED AREAS UNTIL ACCEPTED;
 - A GRASS SEED MIXTURE CONTAINING THE FOLLOWING SEED REQUIREMENTS SHALL BE APPLIED AT THE INDICATED RATE:

SEED MIX	APPLICATION RATE
RED FESCUE (CREEPING)	50 LBS/ACRE
KENTUCKY BLUEGRASS	100 LBS/ACRE
PERENNIAL RYE GRASS	50 LBS/ACRE
- DORMANT SEEDING (SEPTEMBER 15 TO FIRST SNOWFALL):
 - FOLLOW PERMANENT MEASURES SLOPE, LIME, FERTILIZER AND GRADING REQUIREMENTS. APPLY SEED MIXTURE AT TWICE THE INDICATED RATE. APPLY MULCH AS INDICATED FOR PERMANENT MEASURES.

ALLOWABLE NON-STORMWATER DISCHARGES:

- FIRE-FIGHTING ACTIVITIES;
- FIRE HYDRANT FLUSHING;
- WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED;
- WATER USED TO CONTROL DUST;
- POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHING;
- ROUTINE EXTERNAL BUILDING WASH DOWN WHERE DETERGENTS ARE NOT USED;
- PAVEMENT WASH WATERS WHERE DETERGENTS ARE NOT USED;
- UNCONTAMINATED AIR CONDITIONING/COMPRESSOR CONDENSATION;
- UNCONTAMINATED GROUND WATER OR SPRING WATER;
- FOUNDATION OR FOOTING DRAINS WHICH ARE UNCONTAMINATED;
- UNCONTAMINATED EXCAVATION DEWATERING;
- LANDSCAPE IRRIGATION.

WASTE DISPOSAL:

- WASTE MATERIAL:
 - ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN A DUMPSTER;
 - NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE;

- ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.
- HAZARDOUS WASTE:
 - ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER;
 - SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.
 - SANITARY WASTE:
 - ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

SPILL PREVENTION:

- CONTRACTOR SHALL BE FAMILIAR WITH SPILL PREVENTION MEASURES REQUIRED BY LOCAL, STATE AND FEDERAL AGENCIES. AT A MINIMUM, CONTRACTOR SHALL FOLLOW THE BEST MANAGEMENT SPILL PREVENTION PRACTICES OUTLINED BELOW.
- THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES DURING CONSTRUCTION TO STORMWATER RUNOFF:
 - GOOD HOUSEKEEPING - THE FOLLOWING GOOD HOUSEKEEPING PRACTICE SHALL BE FOLLOWED ON SITE DURING CONSTRUCTION:
 - ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB SHALL BE STORED ON SITE;
 - ALL REGULATED MATERIALS STORED ON SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE, ON AN IMPERVIOUS SURFACE;
 - MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED;
 - THE SITE SUPERINTENDENT SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS;
 - SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER;
 - WHENEVER POSSIBLE ALL OF A PRODUCT SHALL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
 - THE TRAINING OF ON-SITE EMPLOYEES AND THE ON-SITE POSTING OF RELEASE RESPONSE INFORMATION DESCRIBING WHAT TO DO IN THE EVENT OF A SPILL OF REGULATED SUBSTANCES.
 - HAZARDOUS PRODUCTS - THE FOLLOWING PRACTICES SHALL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:
 - PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE;
 - ORIGINAL LABELS AND MATERIAL SAFETY DATA SHALL BE RETAINED FOR IMPORTANT PRODUCT INFORMATION;
 - SURPLUS PRODUCT THAT MUST BE DISPOSED OF SHALL BE DISCARDED ACCORDING TO THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL.
 - PRODUCT SPECIFIC PRACTICES - THE FOLLOWING PRODUCT SPECIFIC PRACTICES SHALL BE FOLLOWED ON SITE:
 - PETROLEUM PRODUCTS:
 - ALL ON SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE LEAKAGE;
 - PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
 - SECURE FUEL STORAGE AREAS AGAINST UNAUTHORIZED ENTRY;
 - INSPECT FUEL STORAGE AREAS WEEKLY;
 - WHEREVER POSSIBLE, KEEP REGULATED CONTAINERS THAT ARE STORED OUTSIDE MORE THAN 50 FEET FROM SURFACE WATER AND STORM DRAINS, 75 FEET FROM PRIVATE WELLS, AND 100 FEET FROM PUBLIC WELLS;
 - COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS;
 - SECONDARY CONTAINMENT IS REQUIRED FOR CONTAINERS CONTAINING REGULATED SUBSTANCES STORED OUTSIDE, EXCEPT FOR ON PREMISE USE HEATING FUEL TANKS, OR ABOVEGROUND OR UNDERGROUND STORAGE TANKS OTHERWISE REGULATED.
 - THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:
 - EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED;
 - PLACE DRIP PANS UNDER SPIGOTS, VALVES, AND PUMPS;
 - HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS;
 - USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES;
 - PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.
 - FUELING AND MAINTENANCE OF EXCAVATION, EARTHMOVING AND OTHER CONSTRUCTION RELATED EQUIPMENT SHALL COMPLY WITH THE REGULATIONS OF THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES THESE REQUIREMENTS ARE SUMMARIZED IN WD-DWGB-22-6 BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT, OR ITS SUCCESSOR DOCUMENT.
<https://www.des.nh.gov/organization/commissioner/pip/factsheets/dwgb/documents/dwgb-22-6.pdf>
 - FERTILIZERS:
 - FERTILIZERS USED SHALL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS;
 - ONCE APPLIED FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER;
 - STORAGE SHALL BE IN A COVERED SHED OR ENCLOSED TRAILERS. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.
 - PAINTS:
 - ALL CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE;
 - EXCESS PAINT SHALL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM;
 - EXCESS PAINT SHALL BE DISPOSED OF PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.
 - SPILL CONTROL PRACTICES - IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:
 - MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES;
 - MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS SHALL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE;
 - ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY;
 - THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE;
 - SPILLS OF TOXIC OR HAZARDOUS MATERIAL SHALL BE REPORTED TO THE APPROPRIATE LOCAL, STATE OR FEDERAL AGENCIES AS REQUIRED;
 - THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.
 - VEHICLE FUELING AND MAINTENANCE PRACTICE:
 - CONTRACTOR SHALL MAKE AN EFFORT TO PERFORM EQUIPMENT/VEHICLE FUELING AND MAINTENANCE AT AN OFF-SITE FACILITY;
 - CONTRACTOR SHALL PROVIDE AN ON-SITE FUELING AND MAINTENANCE AREA THAT IS CLEAN AND DRY;
 - IF POSSIBLE THE CONTRACTOR SHALL KEEP AREA COVERED;
 - CONTRACTOR SHALL KEEP A SPILL KIT AT THE FUELING AND MAINTENANCE AREA;
 - CONTRACTOR SHALL REGULARLY INSPECT VEHICLES FOR LEAKS AND DAMAGE;
 - CONTRACTOR SHALL USE DRIP PANS, DRIP CLOTHS, OR ABSORBENT PADS WHEN REPLACING SPENT FLUID.

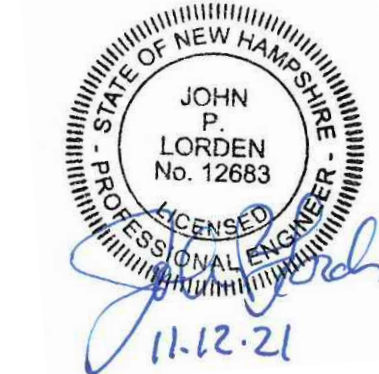
EROSION CONTROL OBSERVATIONS AND MAINTENANCE PRACTICES

- THIS PROJECT DOES EXCEED ONE (1) ACRE OF DISTURBANCE AND THUS DOES REQUIRE A SWPPP. THE SWPPP SHALL BE PREPARED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE FAMILIAR WITH THE SWPPP AND KEEP AN UPDATED COPY OF THE SWPPP ONSITE AT ALL TIMES.
- THE FOLLOWING REPRESENTS THE GENERAL OBSERVATION AND REPORTING PRACTICES THAT SHALL BE FOLLOWED AS PART OF THIS PROJECT:
 - OBSERVATIONS OF THE PROJECT FOR COMPLIANCE WITH THE SWPPP SHALL BE MADE BY THE CONTRACTOR AT LEAST ONCE A WEEK OR WITHIN 24 HOURS OF A STORM 0.25 INCHES OR GREATER;
 - AN OBSERVATION REPORT SHALL BE MADE AFTER EACH OBSERVATION AND DISTRIBUTED TO THE ENGINEER, THE OWNER, AND THE CONTRACTOR;
 - A REPRESENTATIVE OF THE SITE CONTRACTOR, SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR ACTIVITIES;
 - IF A REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS OF REPORT.

BLASTING NOTES:

- CONTRACTOR SHALL CONTACT THE NHDES PRIOR TO COMMENCING ANY BLASTING ACTIVITIES
- FOR ANY PROJECT FOR WHICH BLASTING OF BEDROCK IS ANTICIPATED, THE APPLICANT SHALL SUBMIT:
 - A BLASTING PLAN THAT IDENTIFIES:
 - WHERE THE BLASTING ACTIVITIES ARE ANTICIPATED TO OCCUR;
 - THE ESTIMATED QUANTITY OF BLAST ROCK IN CUBIC YARDS; AND
 - SITE-SPECIFIC BLASTING BEST MANAGEMENT PRACTICES.
 - IF MORE THAN 5000 CUBIC YARDS OF BLAST ROCK WILL BE GENERATED AND THERE ARE ONE OR MORE PUBLIC DRINKING WATER WELLS WITHIN 2000 FEET OF THE BLASTING ACTIVITIES, A PLAN TO MONITOR GROUNDWATER TO DETECT ANY CONTAMINATION IN SUFFICIENT TIME TO PROTECT THE WATER SUPPLY WELLS SHALL BE PROVIDED TO THE NHDES. THE GROUNDWATER MONITORING PLAN SHALL INCLUDE:
 - MONITORING FOR NITRATE AND NITRITE EITHER IN THE DRINKING WATER SUPPLY WELLS OR IN OTHER WELLS THAT ARE REPRESENTATIVE OF THE DRINKING WATER SUPPLY WELLS IN THE AREA:
 - THE GROUNDWATER SAMPLING PROGRAM MUST BE IMPLEMENTED ONCE APPROVED BY THE NHDES.
 - THE FOLLOWING BEST MANAGEMENT PROCEDURES FOR BLASTING SHALL BE COMPLIED WITH:
 - LOADING PRACTICES - THE FOLLOWING BLASTHOLE LOADING PRACTICES TO MINIMIZE ENVIRONMENTAL EFFECTS SHALL BE FOLLOWED:
 - DRILLING LOGS SHALL BE MAINTAINED BY THE DRILLER AND COMMUNICATED DIRECTLY TO THE BLASTER. THE LOGS SHALL INDICATE DEPTHS AND LENGTHS OF VOIDS, CAVITIES, AND FAULT ZONES OR OTHER WEAK ZONES ENCOUNTERED AS WELL AS GROUNDWATER CONDITIONS;
 - EXPLOSIVE PRODUCTS SHALL BE MANAGED ON-SITE SO THAT THEY ARE EITHER USED IN THE BOREHOLE, RETURNED TO THE DELIVERY VEHICLE, OR PLACED IN SECURE CONTAINERS FOR OFF-SITE DISPOSAL;
 - SPILLAGE AROUND THE BOREHOLE SHALL EITHER BE PLACED IN THE BOREHOLE OR CLEANED UP AND RETURNED TO AN APPROPRIATE VEHICLE FOR HANDLING OR PLACEMENT IN SECURED CONTAINERS FOR OFF-SITE DISPOSAL;
 - LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND SHALL NOT BE LEFT IN THE BLASTHOLES OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED;
 - LOADING EQUIPMENT SHALL BE CLEANED IN AN AREA WHERE WASTEWATER CAN BE PROPERLY CONTAINED AND HANDLED IN A MANNER THAT PREVENTS RELEASE OF CONTAMINANTS TO THE ENVIRONMENT;
 - EXPLOSIVES SHALL BE LOADED TO MAINTAIN GOOD CONTINUITY IN THE COLUMN LOAD TO PROMOTE COMPLETE DETONATION. INDUSTRY ACCEPTED LOADING PRACTICES FOR PRIMING, STEMMING, DECKING AND COLUMN RISE NEED TO BE ATTENDED TO.
 - EXPLOSIVE SELECTION - THE FOLLOWING BMPS SHALL BE FOLLOWED TO REDUCE THE POTENTIAL FOR GROUNDWATER CONTAMINATION WHEN EXPLOSIVES ARE USED:
 - EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION;
 - EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT HAVE THE APPROPRIATE WATER RESISTANCE FOR THE SITE CONDITIONS PRESENT TO MINIMIZE THE POTENTIAL FOR HAZARDOUS EFFECT OF THE PRODUCT UPON GROUNDWATER
 - PREVENTION OF MISFIRES. APPROPRIATE PRACTICES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISFIRES.
 - MUCK PILES MANAGEMENT - MUCK PILES (THE BLASTED PIECES OF ROCK) AND ROCK PILES SHALL BE MANAGED IN A MANNER TO REDUCE THE POTENTIAL FOR CONTAMINATION BY IMPLEMENTING THE FOLLOWING MEASURES:
 - REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE;
 - MANAGE THE INTERACTION OF BLASTED ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.
 - SPILL PREVENTION AND SPILL MITIGATION MEASURES SHALL BE IMPLEMENTED TO PREVENT THE RELEASE OF FUEL AND OTHER RELATED SUBSTANCES TO THE ENVIRONMENT DURING BLASTING OPERATIONS. THE MEASURES TO PREVENT SUCH RELEASES SHALL BE DETAILED IN THE GROUNDWATER MONITORING REPORT AND COMPLY WITH THE MEASURES AND BEST MANAGEMENT PRACTICES LISTED ON THIS SHEET.

Tighe&Bond



PERMIT DRAWINGS

Proposed Office and Equipment Storage

Seacoast Pool Plastering, LLC

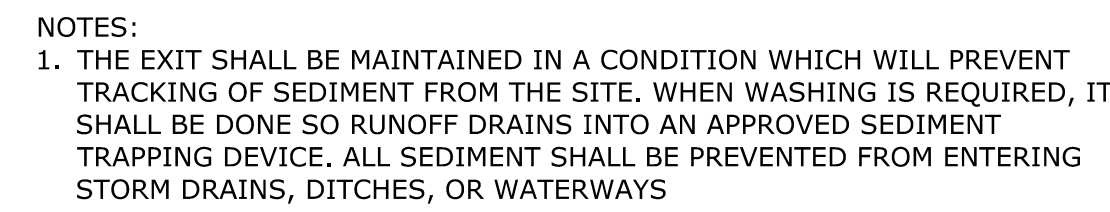
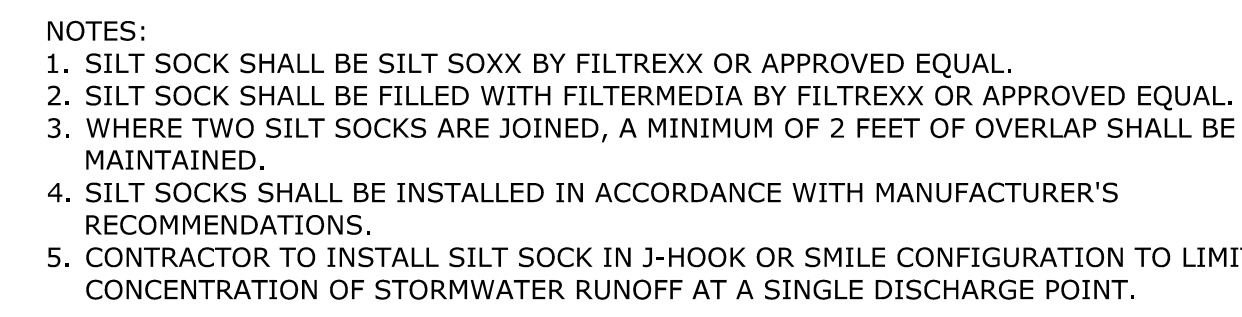
446 & 450
Wadleigh Falls Road
Newmarket,
New Hampshire

MARK	DATE	DESCRIPTION
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DATE:	11/12/2021	
FILE:	S5132_C-DTLS.dwg	
DRAWN BY:	JRW/BIL	
CHECKED BY:	JPL	
APPROVED BY:	BLM	

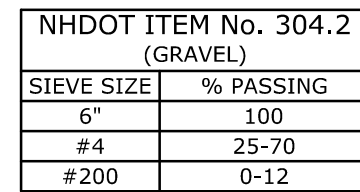
EROSION CONTROL NOTES

SCALE: AS SHOWN

C-501

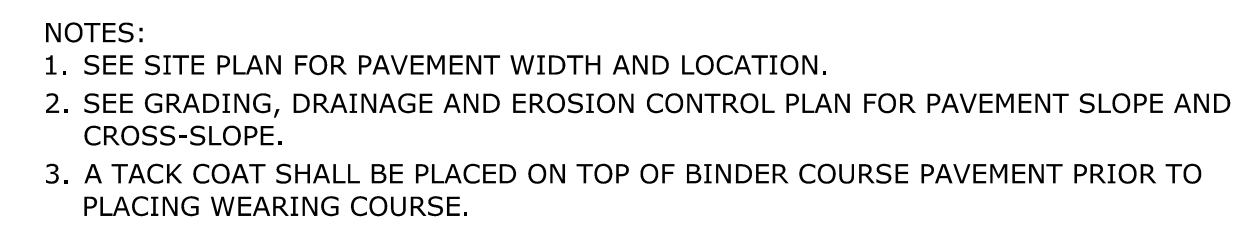


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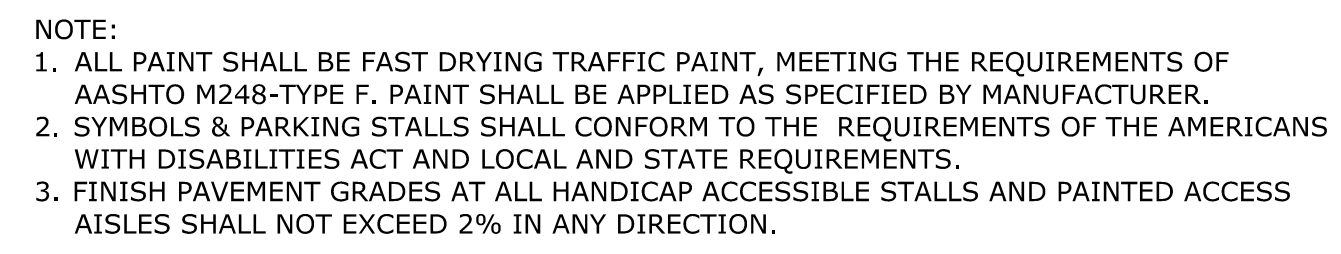


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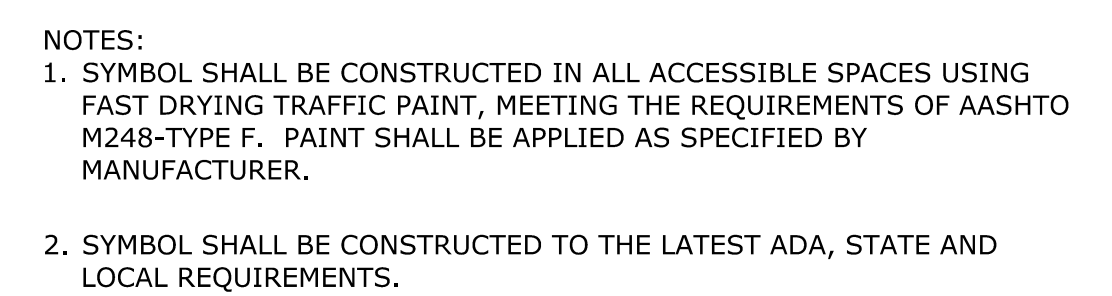
NHDOT ITEM No. 304.3 (CRUSHED GRAVEL)	
SIEVE SIZE	% PASSING
3"	100
2"	95-100
1"	55-85
#4	27-52
#200	0-12



NO SCALE



NO SCALE



POSSIBLE SY

Proposed Office and Equipment Storage

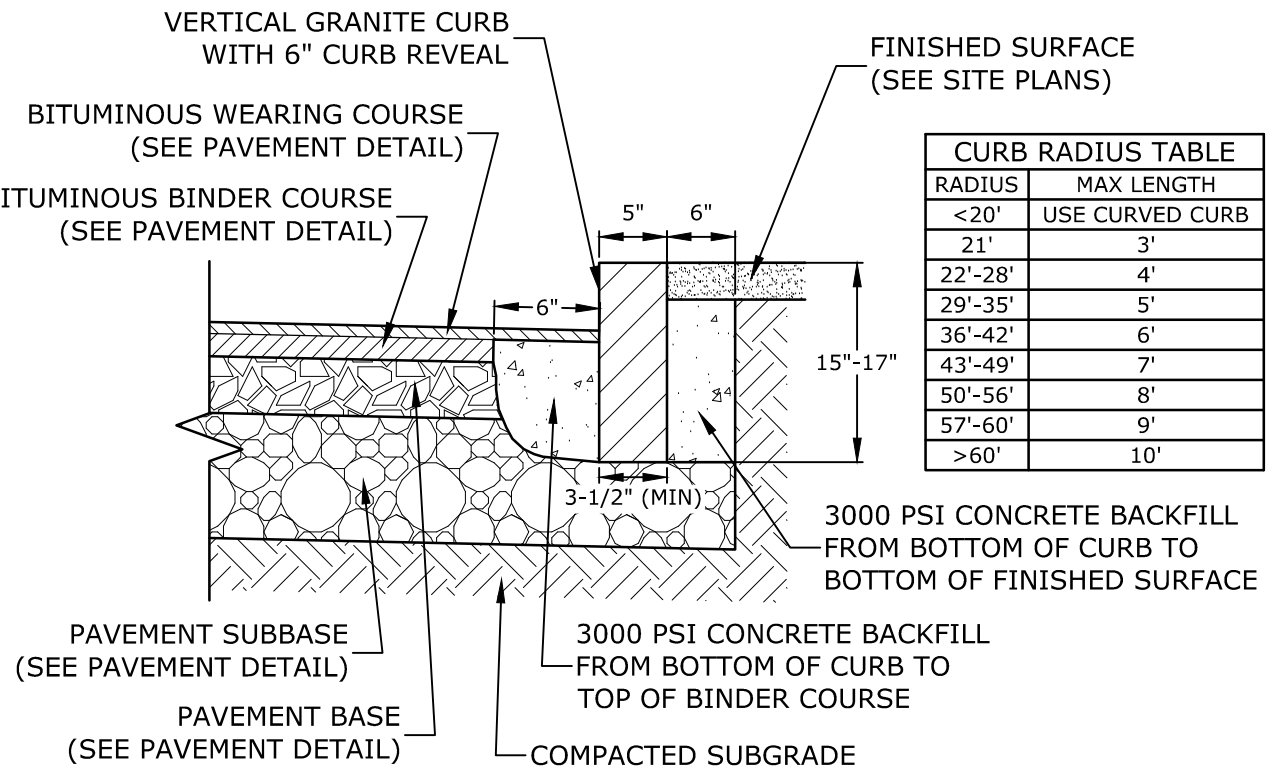
446 & 450
Wadleigh Falls Road
Newmarket,
New Hampshire

MARK	DATE	DESCRIPTION
PROJECT NO:		S5132-001
DATE:		11/12/2021
FILE:		S5132_C-DTLS.dwg
DRAWN BY:		JRW/BJL
CHECKED BY:		JPL
APPROVED BY:		RLM

SCALE: AS SHOWN

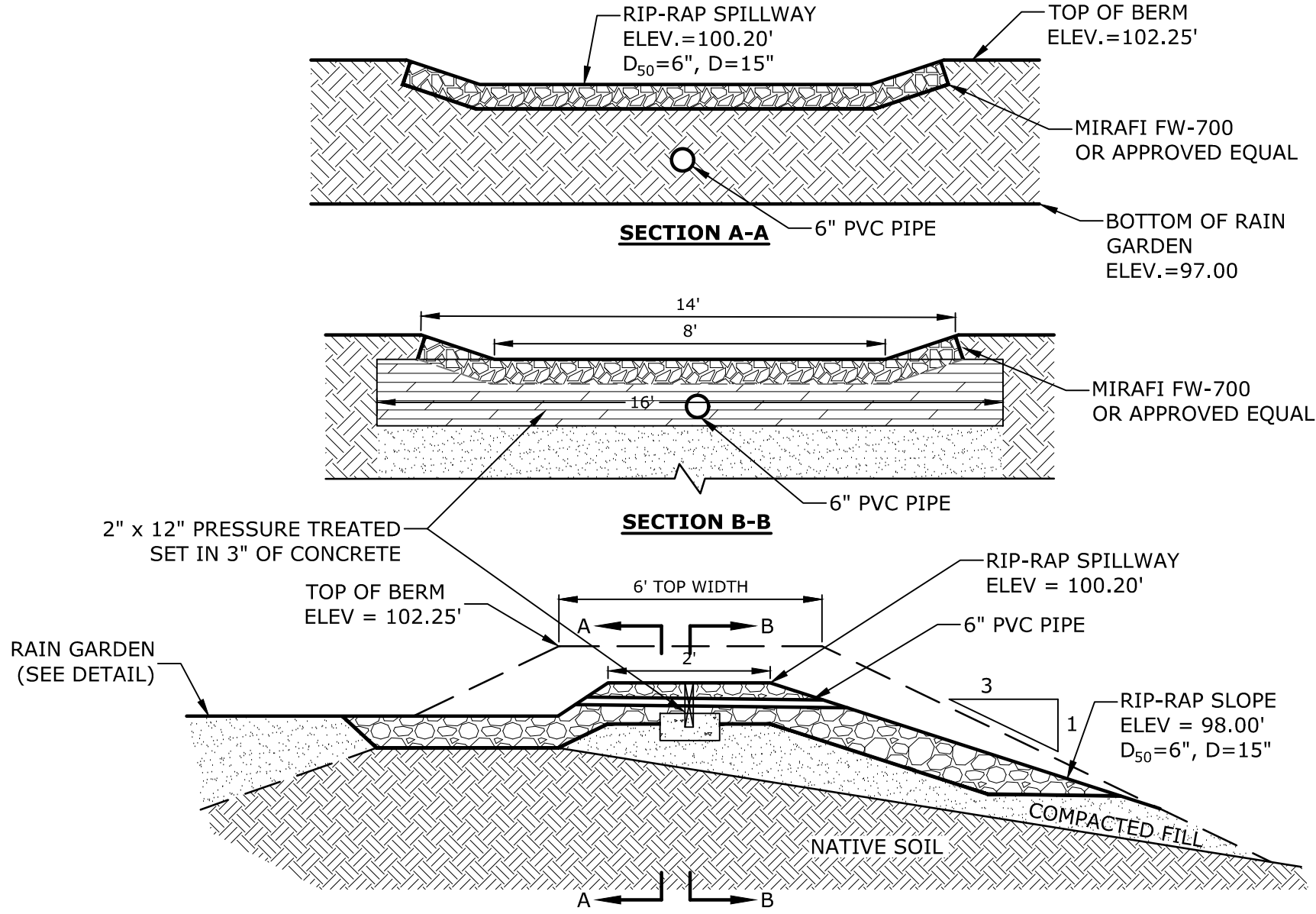
C-502

Last Saved: 11/17/2021 2:15pm By: J. Winston
Plotted On: Nov 17, 2021 2:15pm
Title & Content: 11-12-21 Seacoast Pool Plastering LLC 001 446 & 450 Wadleigh Falls Rd Drawings - Figures AUC-2-D Sheet S5132 - C-DTLS.dwg



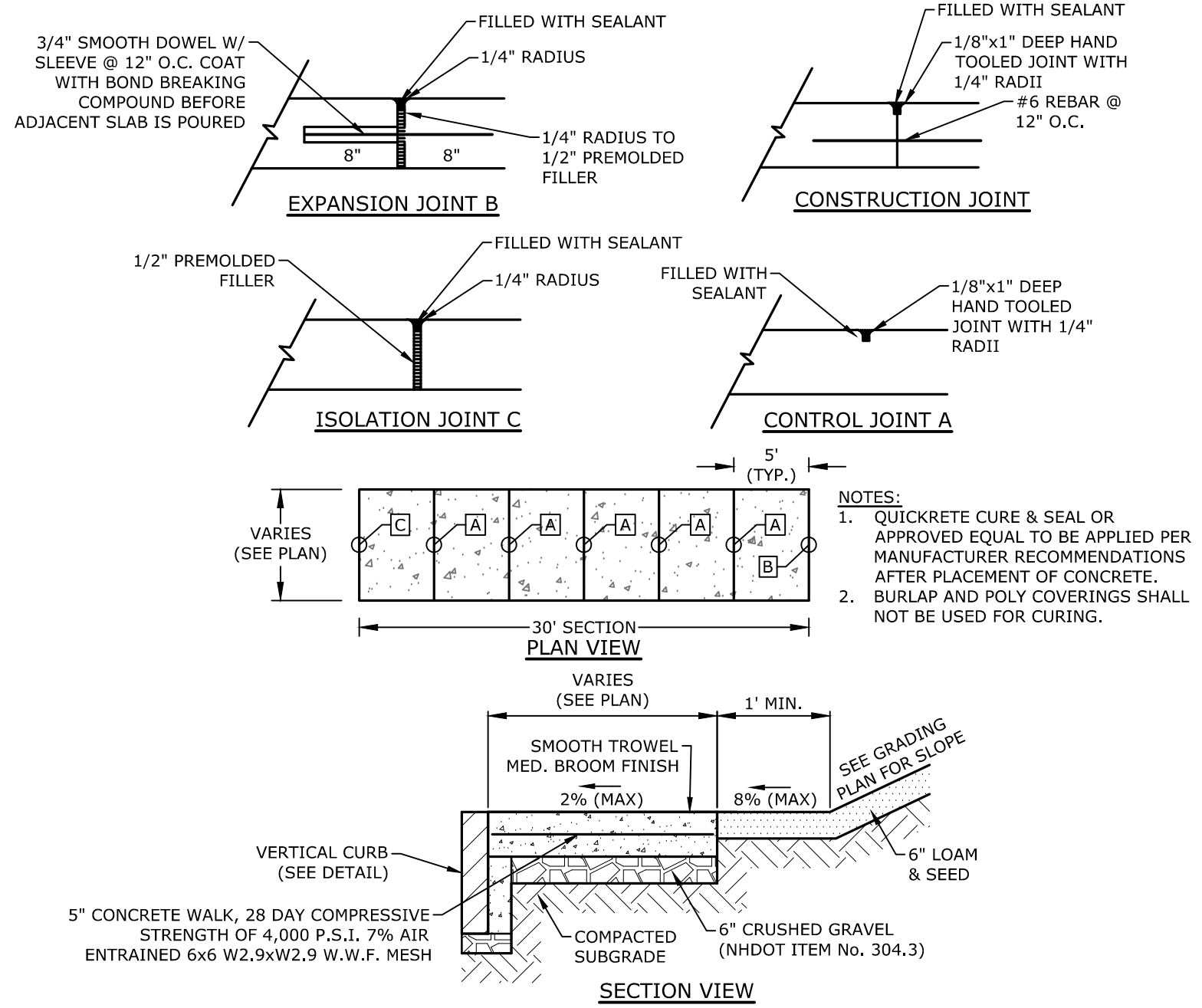
- NOTES:
1. SEE SITE PLAN FOR LIMITS OF VERTICAL GRANITE CURB (VGC).
 2. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
 3. MINIMUM LENGTH OF STRAIGHT CURB STONES = 3'
 4. MAXIMUM LENGTH OF STRAIGHT CURB STONES = 10'
 5. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES (SEE TABLE).
 6. ALL RADII 20 FEET AND SMALLER SHALL BE CONSTRUCTED USING CURVED SECTIONS.
 7. JOINTS BETWEEN STONES SHALL HAVE A MAXIMUM SPACING OF 1/2" AND SHALL BE MORTARED.

VERTICAL GRANITE CURB
NO SCALE

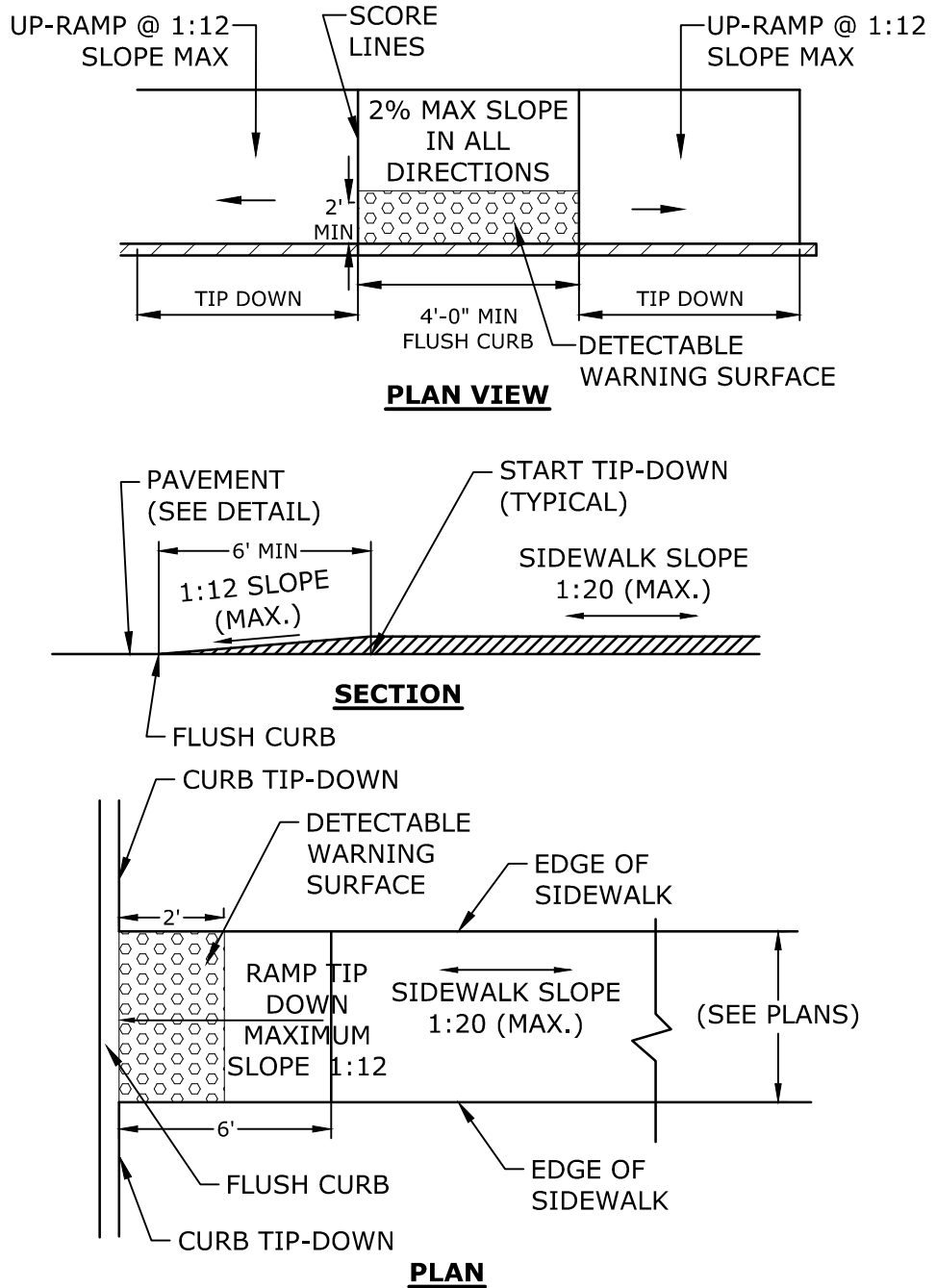


- NOTES:
1. SEE GRADING, DRAINAGE & EROSION CONTROL PLANS, SHEET C-103, FOR LOCATIONS AND ELEVATIONS.
 2. THE FOUNDATION AREA OF THE SPILLWAY SHALL BE CLEARED AND GRUBBED OF ALL TREES, BRUSH, STUMPS, AND OTHER OBJECTIONABLE MATERIAL. MATERIALS REMOVED SHALL BE DISPOSED OF SO THEY WILL NOT INTERFERE WITH THE CONSTRUCTION OR PROPER FUNCTIONING OF THE SPILLWAY.
 3. EARTH FILLS REQUIRED TO MEET SUBGRADE REQUIREMENTS BECAUSE OF OVER EXCAVATION OR TOPOGRAPHY SHALL BE COMPACTED TO THE SAME DENSITY AS THE SURROUNDING SOIL TO PREVENT UNEQUAL SETTLEMENT THAT COULD CAUSE DAMAGE TO THE COMPLETED SPILLWAY.
 4. RIP-RAP SHALL BE PLACED IN THE SPILLWAY PRIOR TO ALLOWING STORMWATER RUNOFF TO FLOW OVER THE WEIR.
 5. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING PLACEMENT OF THE ROCK RIPRAP BY PLACING A CUSHION OF SAND OVER THE FABRIC. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
 6. A WELL GRADED MIXTURE OF ROCK SIZES SHALL BE USED FOR THE STONE. FIFTY PERCENT BY WEIGHT OF THE STONE MIXTURE SHALL BE SMALLER THAN THE MEDIAN SIZE STONE (d50). THE LARGEST STONE SIZE IN THE MIXTURE SHALL BE 1.5 TIMES THE d50 SIZE.
 7. STONES FOR RIPRAP SHALL BE ANGULAR OR SUBANGULAR. THE STONES SHALL BE SHAPED SO THAT THE LEAST DIMENSION OF THE STONE FRAGMENT SHALL BE NOT LESS THAN ONE-THIRD OF THE GREATEST DIMENSION OF THE FRAGMENT. FLAT ROCKS SHALL NOT BE USED FOR RIPRAP.
 8. STONE FOR THE RIPRAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT DISPLACEMENT OF THE UNDERLYING MATERIALS. HAND PLACEMENT MAY BE REQUIRED TO PREVENT DAMAGE TO ANY PERMANENT STRUCTURES.
 9. VOIDS IN THE ROCK RIPRAP SHOULD BE FILLED WITH SPALLS AND SMALLER ROCKS.
 10. RIPRAP CHANNELS SHOULD BE INSPECTED PERIODICALLY AND AFTER EVERY MAJOR STORM TO SEE THAT ROCK IS STILL IN PLACE. IF ROCK HAS BEEN DISPLACED OR UNDERMINED, THE DAMAGED AREAS SHALL BE REPAIRED IMMEDIATELY.
 11. WOODY VEGETATION SHALL NOT BE ALLOWED TO BECOME ESTABLISHED IN THE ROCK RIPRAP, AND DEBRIS SHALL NOT BE ALLOWED TO ACCUMULATE IN THE CHANNEL.

RIP-RAP OVERFLOW WEIR
NO SCALE

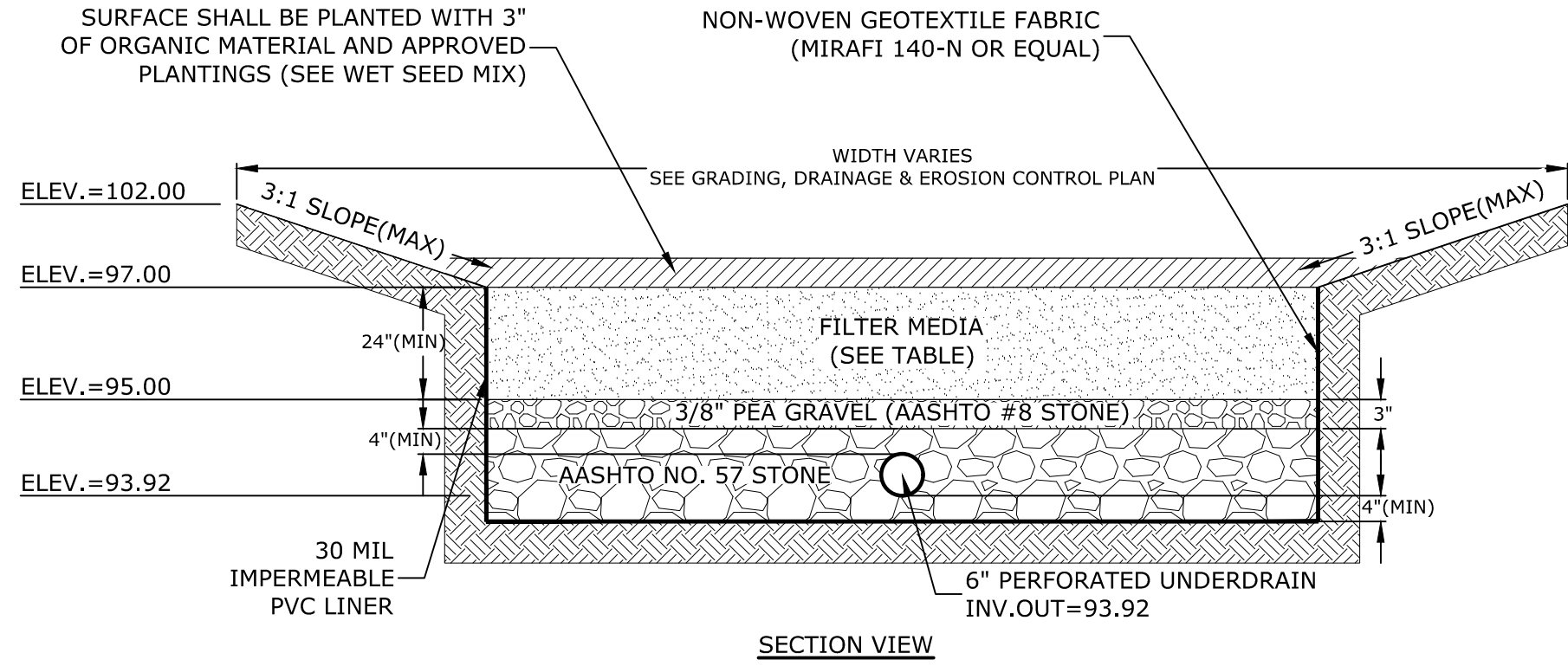


CONCRETE SIDEWALK
NO SCALE



- NOTES:
1. RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT AND LOCAL AND STATE REQUIREMENTS.
 2. A 9" COMPACTED CRUSHED GRAVEL BASE (NHDOT ITEM No. 304.3) SHALL BE PROVIDED BENEATH RAMPS.
 3. DETECTABLE WARNING PANEL SHALL BE CAST IRON WITH BLACK COATING

**CONCRETE SIDEWALK TIP-DOWN
RAMPS WITH DETECTABLE WARNING PANEL**
NO SCALE



WET SEED MIX
50% NEW ENGLAND WETLAND PLANTS-NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS & MOIST SITES

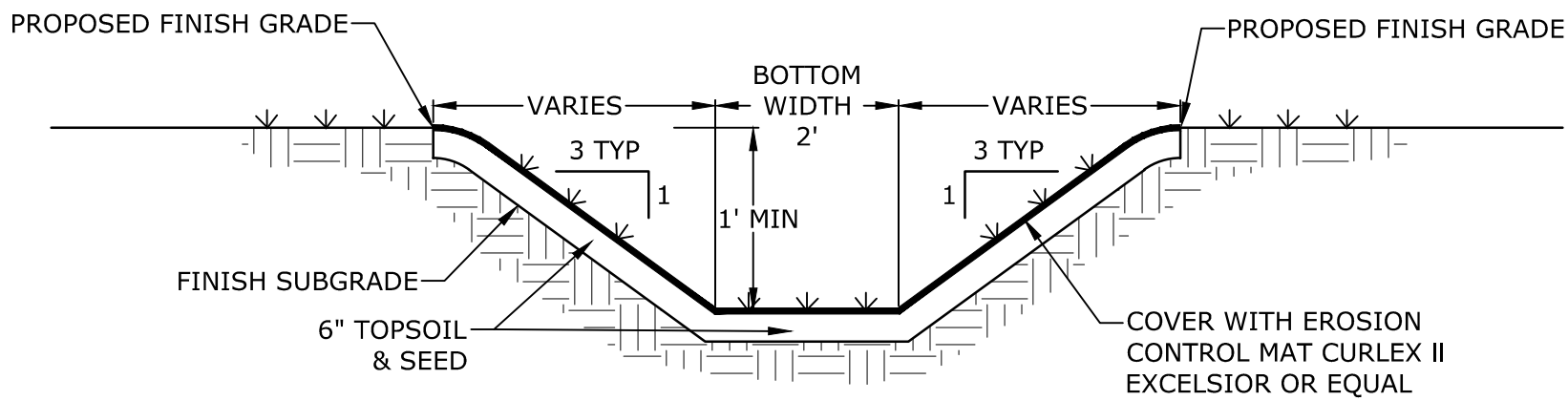
50% NEW ENGLAND PLANTS-NEW ENGLAND CONSERVATION WILDLIFE MIX

FILTER MEDIA COMPOSITION:				
COMPONENT MATERIAL	PERCENT OF MIXTURE BY VOLUME	GRADATION OF MATERIAL SIEVE NO.	PERCENT PASSING	
ASTM C-33 CONCRETE SAND	50-55	SEE NOTE #5		
LOAMY SAND TOPSOIL	20-30	200	15-25	
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH	20-30	200	5 MAX	

- NOTES:
1. RAIN GARDENS SHALL NOT BE PLACED INTO SERVICE UNTIL THE PRACTICE HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
 2. DO NOT TRAFFIC EXPOSED SOIL SURFACES WITH CONSTRUCTION EQUIPMENT. CONTRACTOR SHALL KEEP ALL EXCAVATION EQUIPMENT OUTSIDE OF THE LIMIT OF THE RAIN GARDEN.
 3. SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR LOCATIONS, LAYOUTS, AND ELEVATIONS.
 4. THE SAND PORTION OF THE FILTER MEDIA SHALL MEET THE FOLLOWING GRADATION (ASTM C-33):

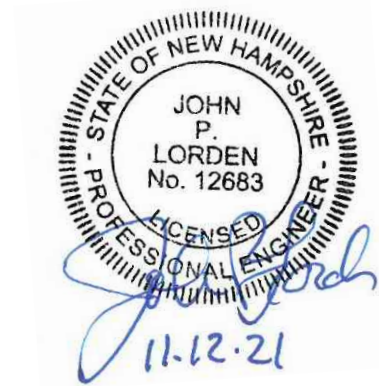
SIEVE SIZE	PERCENT PASSING	AASHTO #8 STONE (#8 to 3/8")	AASHTO #57 STONE (#4 to 1")
3/8"	100		
#4	95-100		
#8	80-100		
#16	50-85		
#30	25-60		
#50	5-30		
#100	0-10		

RAIN GARDEN
NO SCALE



GRASS-LINED SWALE
NO SCALE

Tighe&Bond



**PERMIT
DRAWINGS**

**Proposed Office
and Equipment
Storage**

**Seacoast Pool
Plastering, LLC**

**446 & 450
Wadleigh Falls Road
Newmarket,
New Hampshire**

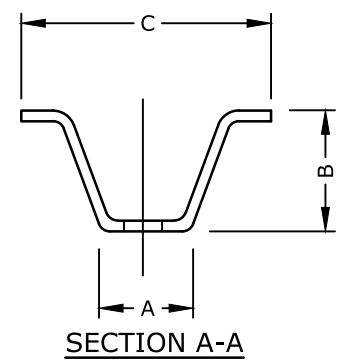
MARK	DATE	DESCRIPTION
PROJECT NO: S5132-001		
DATE: 11/12/2021		
FILE: S5132_C-DTLS.dwg		
DRAWN BY: JRW/BIL		
CHECKED BY: JPL		
APPROVED BY: BLM		

DETAILS

SCALE: AS SHOWN

C-503

Last Saved: 11/10/2021 11:06pm By: J. Winston
Title: C-504 Seacoast Pool Plastering, LLC001 446 & 450 Wadleigh Falls Rd Drawings Figures AutoCAD Sheet S5132 C-DTLS.dwg
Tighe & Bond 21/05/2021



R7-8
12"x18"
GREEN ON WHITE
W/WHITE ON BLUE
ACCESSIBLE SYMBOL



R7-8A
12"x6"
WHITE ON BLUE

NOTES:

1. STEEL FOR POSTS SHALL CONFORM TO THE MECHANICAL REQUIREMENTS OF ASTM A 499-81 GRADE 60 AND TO THE CHEMICAL REQUIREMENTS OF ASTM A1-76 CARBON STEEL TEE RAIL HAVING NOMINAL WEIGHT OF 91 LBS. OR GREATER PER LINEAR YARD.
2. AFTER FABRICATION, ALL STEEL POSTS SHALL BE GALVANIZED TO MEET THE REQUIREMENTS OF ASTM A 123.
3. ALL SIGN POSTS SHALL HAVE "BREAKAWAY" FEATURES THAT MEET AASHTO REQUIREMENTS CONTAINED IN "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS-1985." THE "BREAKAWAY" FEATURES SHALL BE STRUCTURALLY ADEQUATE TO CARRY THE SIGNS SHOWN IN THE PLANS AT 60 MPH WIND LOADINGS. INSTALLATIONS SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
4. TYPE A POSTS - 3 LB/FT TYPE B POSTS - 4 LB/FT.
5. ALL SIGNS TO BE CONSTRUCTED PER THE LATEST EDITION OF THE FHWA STANDARD HIGHWAY SIGNS MANUAL AND INSTALLED AS INDICATED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
6. MEET REQUIREMENTS OF SECTION 615 SIGNS OF NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2010 EDITION, AS AMENDED.

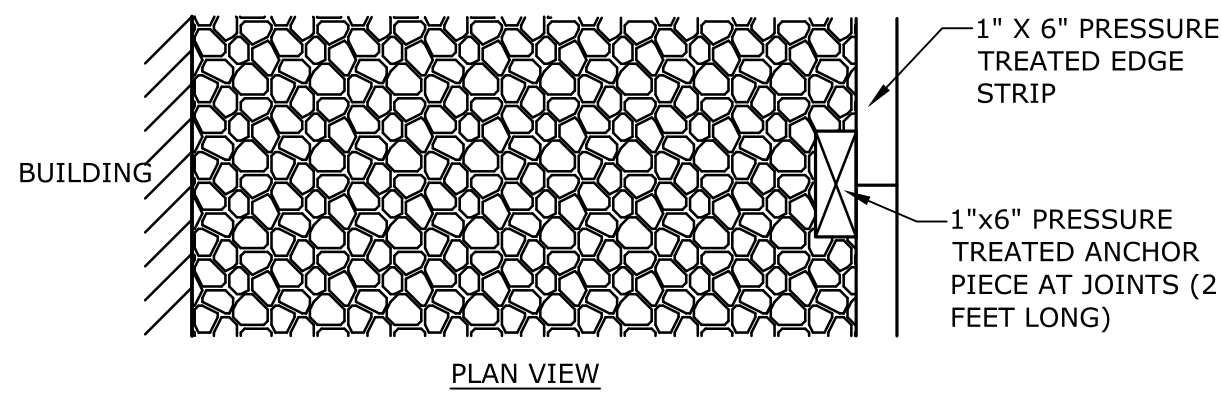
* IN LEDGE DRILL & GROUT TO A MIN OF 2'

WT.	A	B	C
3 LBS	1 3/8" OR 1 3/8"	1 3/8" OR 1 3/8"	3 1/4"
4 LBS	1 3/8"	1 3/8"	3 1/4"

SIGN POST TO COMPLY WITH ALL ASPECTS OF NHDOT SECTION 615.

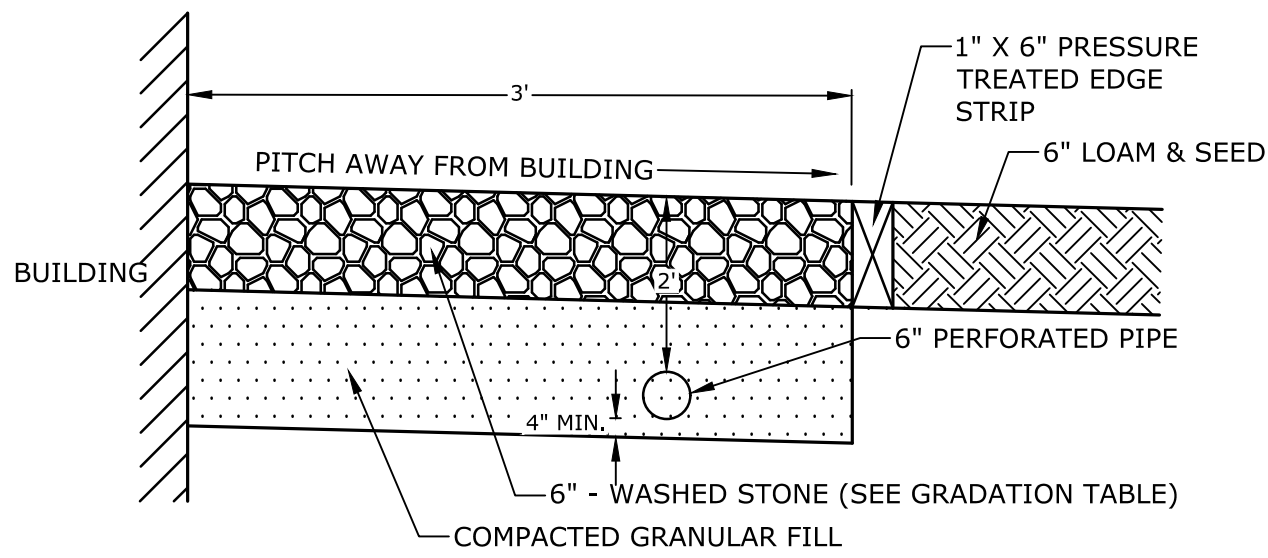
LENGTH: AS REQUIRED
WEIGHT PER LINEAR FOOT: 2.50 LBS (MIN.)
HOLES: 3/8" DIAMETER, 1" C-C FULL LENGTH
STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASSTMA-576 (GRADE 1070 - 1080)
FINISH: SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.

SIGN LEGEND & SIGN POST
NO SCALE



PLAN VIEW

WASHED STONE	
SIEVE SIZE	% FINER BY WEIGHT
1"	100
3/4"	90-100
3/8"	20-55
#4	0



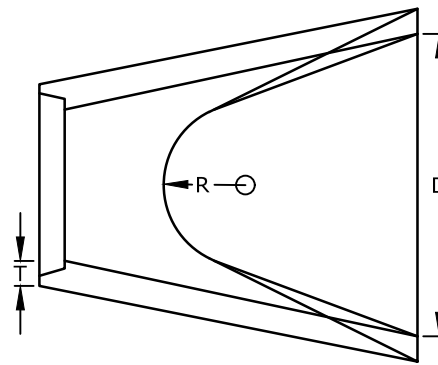
CROSS-SECTION

NOTES:

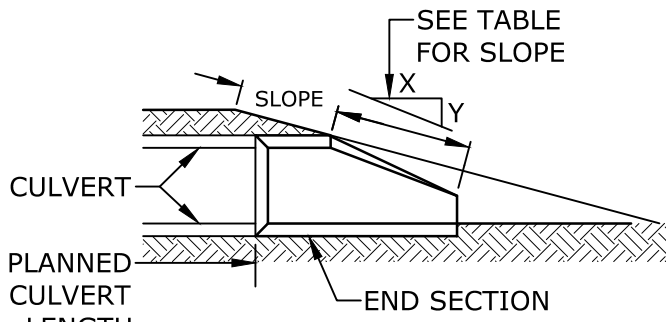
1. SEE SITE PLAN FOR LIMITS OF DRIP STRIP.
2. IN BUILDING CORNERS THE DRIP STRIP SHALL BE 5' OFF THE EDGE OF BUILDING.

DRIP STRIP
NO SCALE

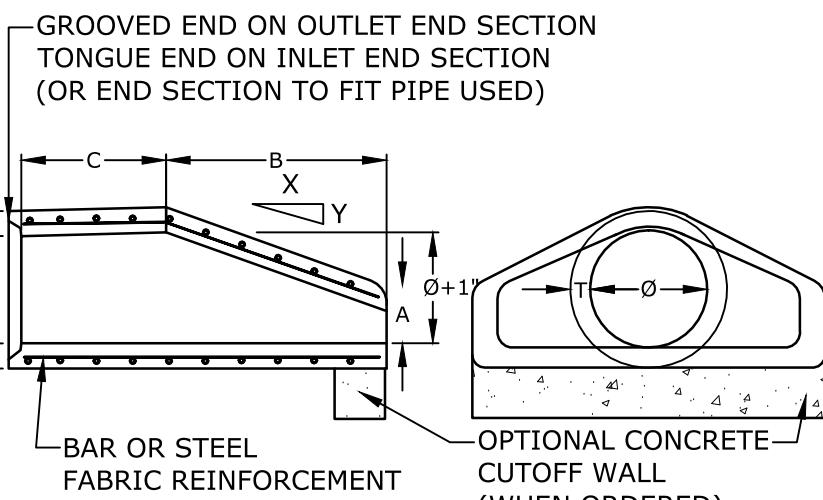
PIPE Ø	APPROX. SLOPE X to Y	A	B	C	D	R	T
12"	3 to 1	4"	24"	48-7/8"	24"	9"	2"
15"	3 to 1	6"	27"	46"	30"	11"	2-1/4"
18"	3 to 1	9"	27"	46"	36"	12"	2-1/2"
24"	3 to 1	9-1/2"	43-1/2"	30"	48"	14"	3"
30"	3 to 1	12"	54"	19-3/4"	60"	15"	3-1/2"
36"	3 to 1	15"	63"	33"	72"	20"	4"
42"	3 to 1	21"	63"	33"	78"	22"	4-1/2"
48"	3 to 1	24"	72"	24"	84"	22"	5"



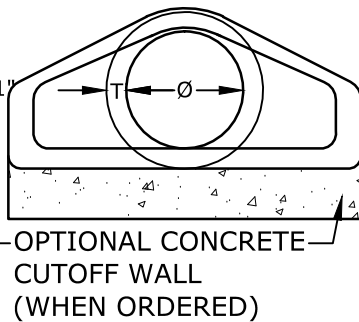
PLAN VIEW



SLOPE DETAIL



LONGITUDINAL SECTION

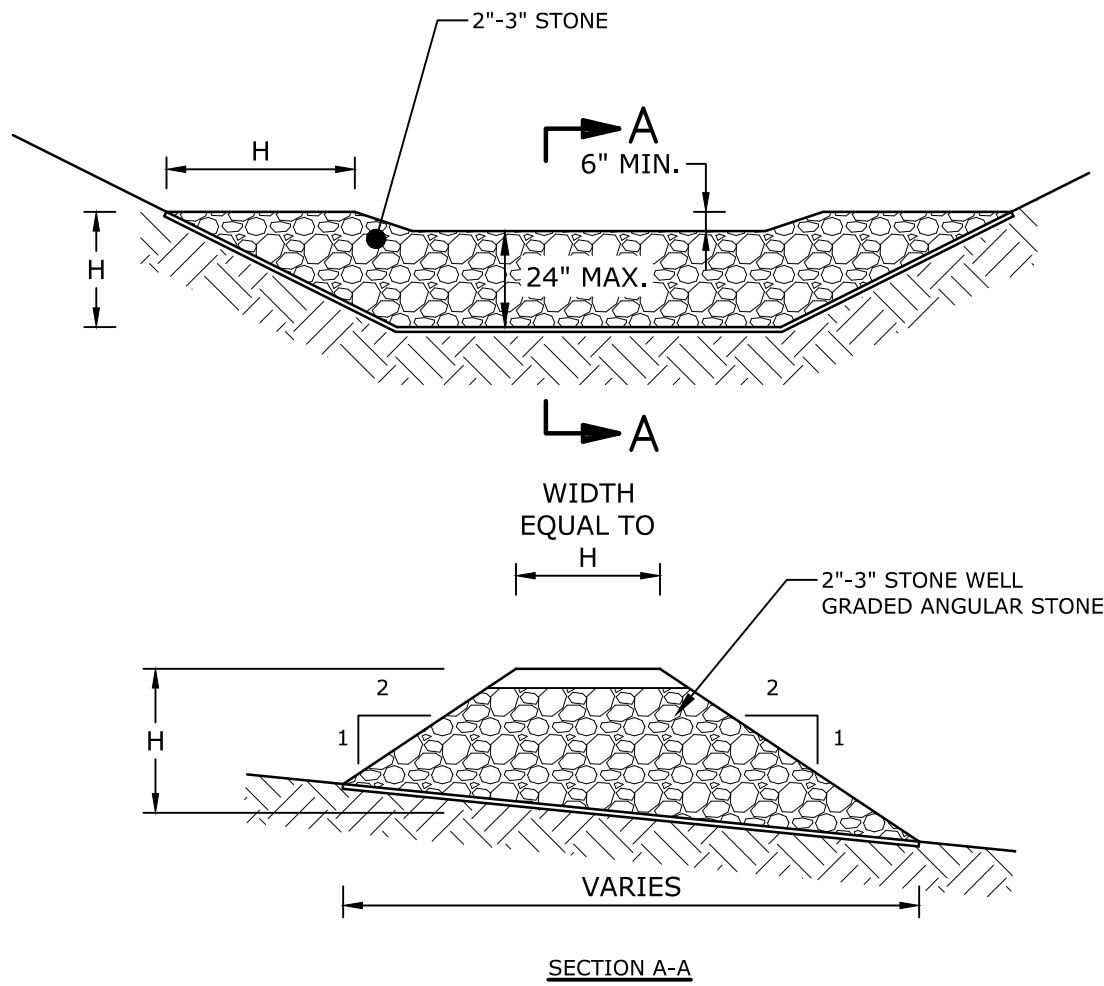


END VIEW

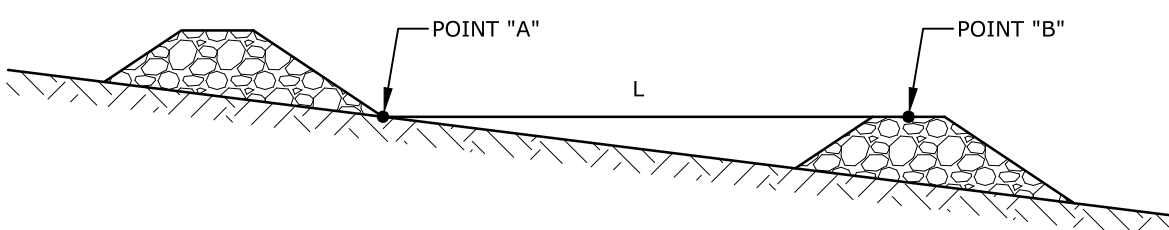
NOTES:

1. DESIGN OF END SECTION SHALL CONFORM TO STANDARD REINFORCED CONCRETE PIPE.
2. CUT OFF WALL TO BE POURED IN FIELD, IF NECESSARY, AS DIRECTED BY THE ENGINEER.

CONCRETE END SECTION
NO SCALE



SECTION A-A



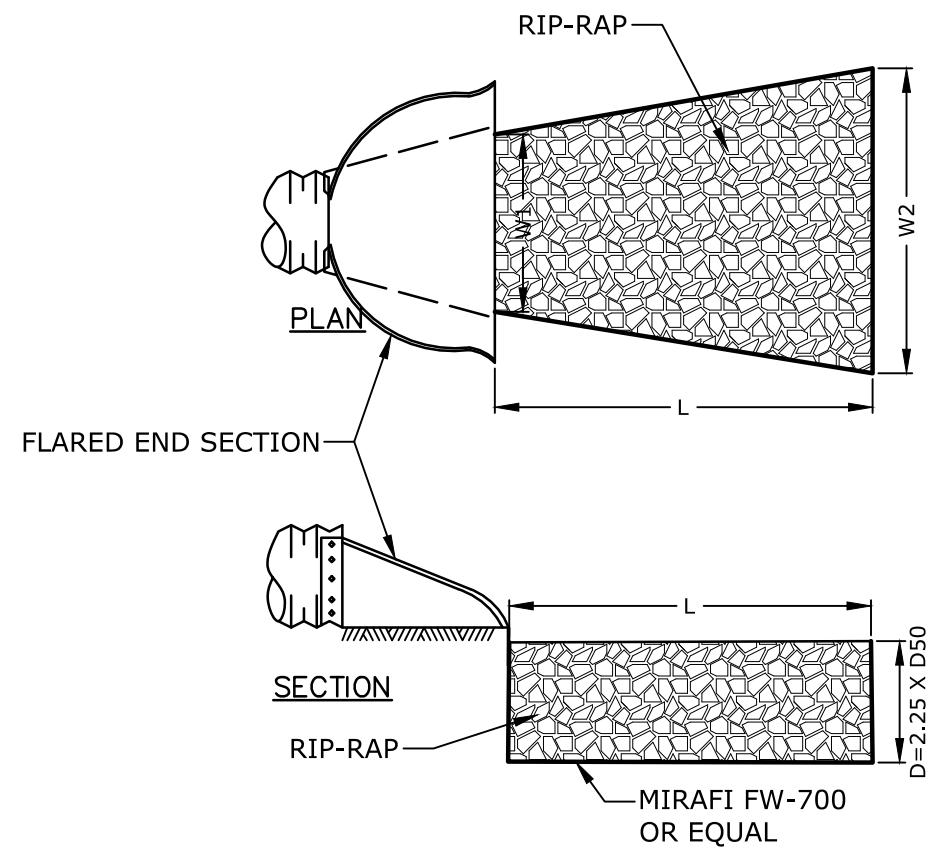
L = THE DISTANCE WHERE THE ELEVATION OF POINT "A" EQUALS THE ELEVATION OF POINT "B"

STONE CHECK DAM SPACING

NOTES:

1. CHECK DAMS SHOULD BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE OR DRAINAGE DITCH.
2. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE DAM SHOULD BE LESS THAN ONE ACRE.
3. THE CHECK DAM SHOULD NOT BE USED IN A FLOWING STREAM.
4. CHECK DAMS SHOWN ON THE DRAWINGS SHALL BE LEFT IN PLACE PERMANENTLY.
5. CHECK DAMS INSTALLED AS PART OF TEMPORARY EROSION CONTROL MEASURE SHALL BE REMOVED ONCE THE SWALE OR DITCH HAS BEEN STABILIZED:
 - a. IN TEMPORARY DITCHES AND SWALES, CHECK DAMS SHOULD BE REMOVED AND THE DITCH FILLED IN WHEN IT IS NO LONGER NEEDED
 - b. IN PERMANENT STRUCTURES, CHECK DAMS SHOULD BE REMOVED WHEN PERMANENT LINING HAS BEEN ESTABLISHED. IF THE PERMANENT LINING IS VEGETATION, THEN THE CHECK DAM SHOULD BE RETAINED UNTIL THE GRASS HAS MATURED TO PROTECT THE DITCH OR SWALE. THE AREA BENEATH THE CHECK DAM MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER REMOVAL.

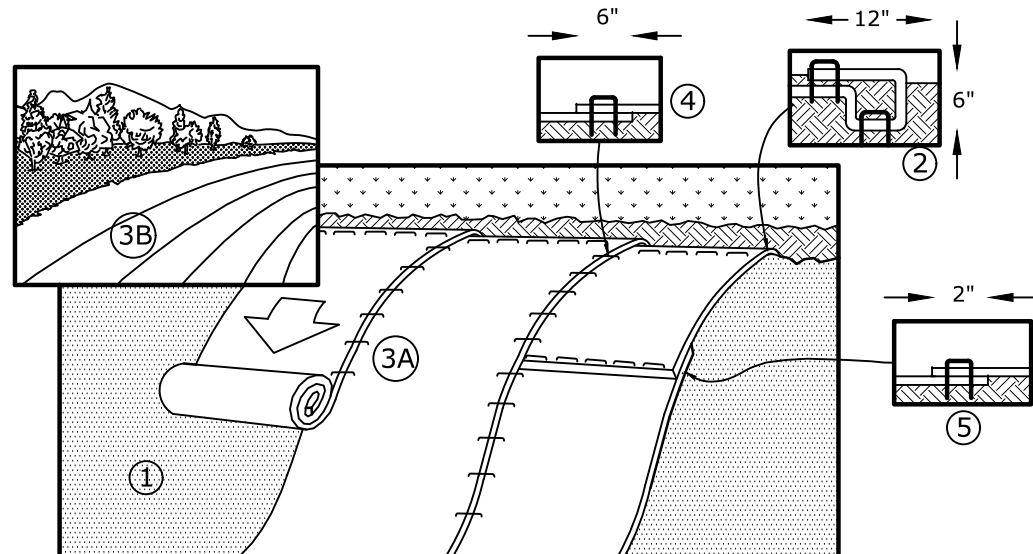
STONE CHECK DAM
NO SCALE



NOTES:

1. STONE SIZE AND MAT DIMENSIONS DETAILED ON PLANS.
2. STONE SHALL CONSIST OF SUB-ANGULAR FIELD STONE OR ROUGH UNHEWN QUARRY STONE OF APPROXIMATELY RECTANGULAR SHAPE. FLAT OR ROUND ROCKS ARE NOT ACCEPTABLE. THE STONE SHALL BE HARD AND OF SUCH QUALITY THAT IT WILL NOT DISINTEGRATE ON EXPOSURE TO WATER OR WEATHERING, BE CHEMICALLY STABLE AND IT SHALL BE SUITABLE IN ALL OTHER RESPECTS FOR THE PURPOSE INTENDED. THE BULK SPECIFIC GRAVITY (SATURATED SURFACE-DRY BASIS) OF THE INDIVIDUAL STONES SHALL BE AT LEAST 2.5.
3. THE STONE SHALL BE COMPOSED OF A WELL-GRADED MIXTURE DOWN TO THE ONE-INCH SIZE PARTICLE SUCH THAT 50 PERCENT OF THE MIXTURE BY WEIGHT SHALL BE LARGER THAN THE D50 SIZE SPECIFIED. A WELL-GRADED MIXTURE IS DEFINED AS A MIXTURE COMPOSED PRIMARILY OF THE LARGER STONE SIZE BUT WITH A SUFFICIENT MIXTURE OF OTHER SIZES TO FILL THE PROGRESSIVELY SMALLER VOIDS BETWEEN THE STONES. THE DIAMETER OF THE LARGEST STONE SIZE IN SUCH A MIXTURE SHALL BE 1.5 TIMES THE D50 SIZE.

RIP-RAP APRON DETAIL
NO SCALE

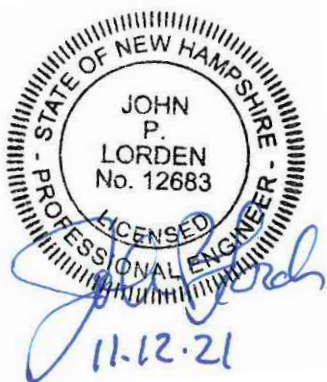


NOTES:

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE, 36" OVER THE GRADE BREAK, BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UPSLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES SPACED 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS DOWN THE SLOPE. ALL BLANKETS MUST BE SECURELY FASTENED TO THE SOIL SURFACE BY PLACING STAPLES IN APPROPRIATE LOCATIONS AS SHOWN ON THE STAPLE PATTERN GUIDE.
4. STAPLE LENGTHS SHALL BE A MINIMUM OF 8 INCHES.
5. EROSION CONTROL BLANKET SHALL BE INSTALLED WHERE SHOWN ON PLANS AND WHERE SLOPES EXCEED 3:1.

EROSION CONTROL BLANKET FOR SLOPE PROTECTION
NO SCALE

Tighe&Bond



PERMIT DRAWINGS

Proposed Office and Equipment Storage

Seacoast Pool Plastering, LLC

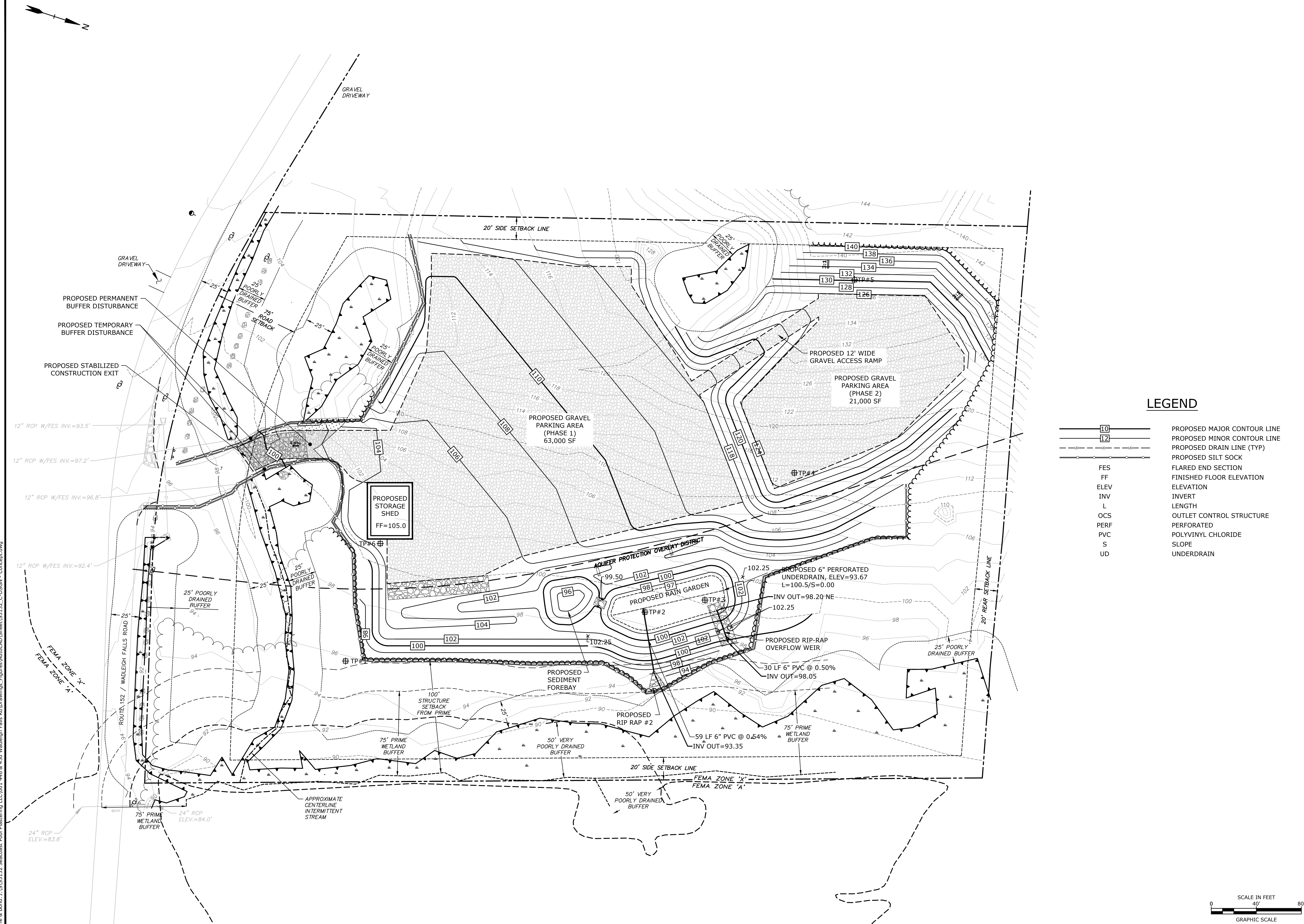
446 & 450
Wadleigh Falls Road
Newmarket,
New Hampshire

MARK	DATE	DESCRIPTION
PROJECT NO:	S5132-001	
DATE:	11/12/2021	
FILE:	S5132 C-DTLS.dwg	
DRAWN BY:	JRW/BIL	
CHECKED BY:	JPL	
APPROVED BY:	BLM	

DETAILS

SCALE: AS SHOWN

C-504



Proposed Material and Equipment Storage

446 & 450
Wadleigh Falls Road
Newmarket,
New Hampshire

[illegible]

CONCEPTUAL PLAN

SCALE: AS SHOWN



Town Hall
186 Main Street
Newmarket, NH 03857

Tel: (603) 659-3617
Fax: (603) 659-8508

Founded December 15, 1727
Chartered January 1, 1991

TOWN OF NEWMARKET, NEW HAMPSHIRE

ATTACHMENTS:

Description	Upload Date	Type
Legal Notice	2/24/2022	Cover Memo
Application, Map, Tree Info	2/24/2022	Backup Material

FOUNDED DECEMBER 15, 1727

CHARTERED JANUARY 1, 1991



TOWN OF NEWMARKET, NEW HAMPSHIRE
PLANNING OFFICE

LEGAL NOTICE

**TOWN OF NEWMARKET
PLANNING BOARD**

SCENIC ROAD HEARING RSA 231:158

Notice is hereby given for public hearings in accordance with RSA 231:158 for tree pruning and clearing on Town of Newmarket scenic roads by Eversource Energy.

This public hearing is scheduled for Tuesday, March 15, 2022, at 7:00 p.m. at Newmarket Town Hall in the Council Chambers, 186 Main Street. This hearing is scheduled in accordance with RSA 231:158, as requested by Eversource Energy to engage in tree pruning and cutting along Bay Road in the Town of Newmarket. The proposed activity will include, but not be limited to, tree cutting, trimming, and removal of brush and trees. All proposed activity and criteria for action by the applicants will be presented and reviewed at this public hearing.

Planning Board
Town of Newmarket
186 Main Street
Newmarket, NH 03857

RECEIVED

JAN 31 2022

**NEWMARKET, NH
PLANNING BOARD**

January 20, 2022

Dear Planning Board Members:

This letter is to inform the Town of Newmarket that Eversource is planning to trim and remove trees and brush adjacent to and beneath some of its power lines within the town. This work is necessary to ensure the safe distribution of power and to improve the reliability of electric service for our customers

According to Eversource records Bay Road has been designated as a scenic road by the Town. Please consider this letter a request from Eversource for a public hearing for the trimming and removal of trees and brush along these roads within the proposed work area pursuant to RSA 231:158. Please inform this office of the time and place of said meeting so that we may have a representative present. A map highlighting the areas to be trimmed is enclosed.

Eversource specifications call for the removal of brush and limbs which are located within eight feet to the side, ten feet below or fifteen above conductors. Trees which present a threat to Eversource lines or other equipment because of decay, or another defect will be removed on a case-by-case basis. A list of "risk" trees identified for removal by Eversource has been included. All trees are marked with a blue and white checkered ribbon.

All work will be performed in accordance with accepted arboricultural standards. Eversource has contracted with Asplundh Tree Expert to perform the actual clearing of trees. Eversource requires that our clearing contractor contact each landowner where trees are to be trimmed or removed prior to commencement of work on that property. Individual concerns will be addressed at this time.

All brush and limbs cut on roadside locations will be chipped. In wooded, undeveloped locations, these chips may be dispersed into the woods taking care not to allow chips to accumulate in piles or in ditches. Near developed land, the chips will be blown into a truck and disposed of offsite. The chips make good mulch and are often given to nearby property owners for landscaping purposes. If a central dumping location could be arranged, Eversource would be happy to make any unclaimed chips available to the Town at no cost. Brush and limbs cut on inaccessible lines will be stacked to the side of the right-of way and cut low to the ground. All wood will be left on site unless otherwise directed by the landowner.

Work is scheduled to begin in the near future.

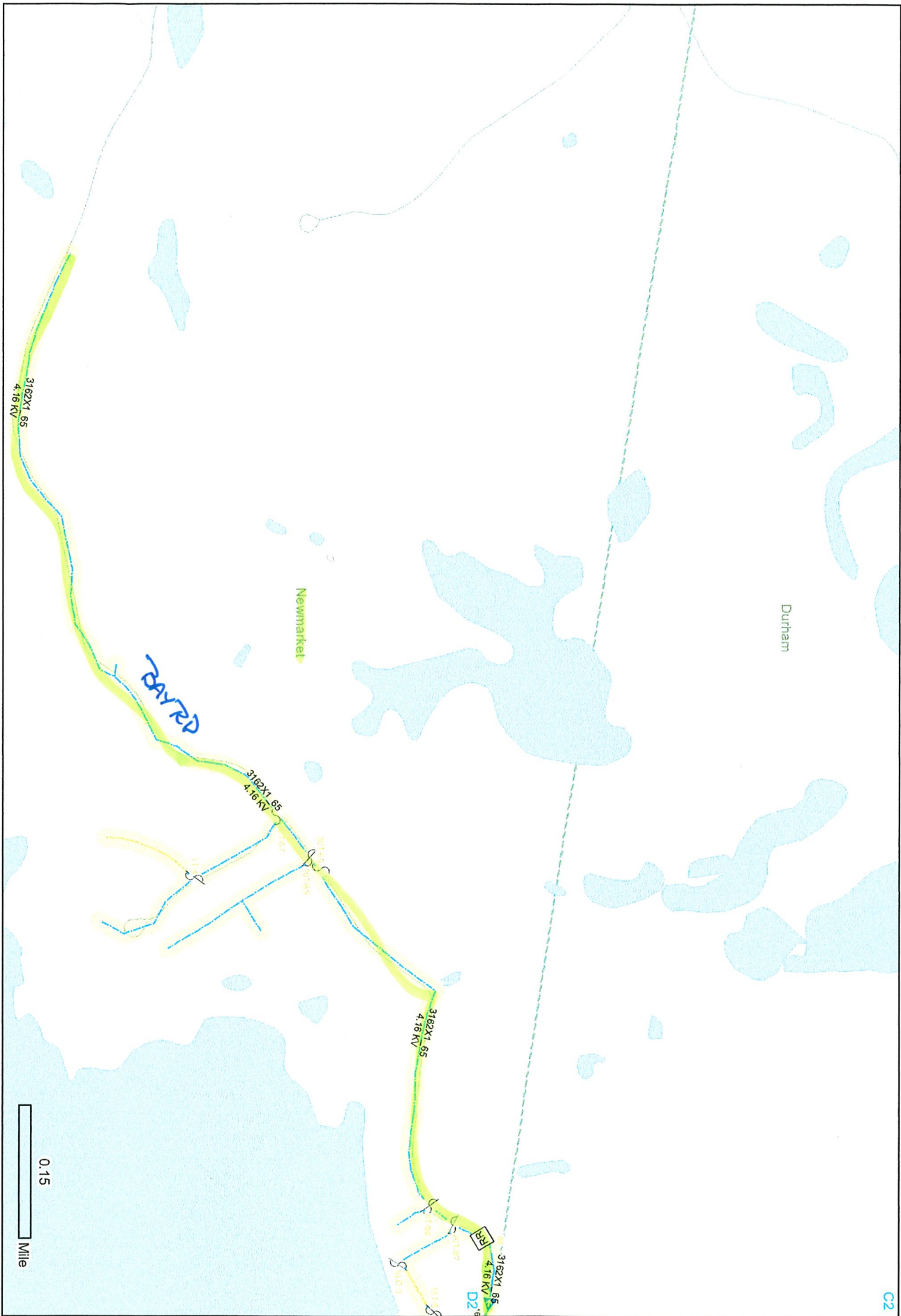
If you have any questions or comments, please feel free to contact me at the above address, by telephone at 603-634-3469 or by e-mail at Robert.Berner@Eversource.com.

Thank you for your concern and assistance.

Respectfully,



Robert J. Berner
Eastern Region Arborist
Eversource



Eversource

3162X1

S/S: 3162X1 TAP

Date: 11/23/2021

Feedback: Ronald.Riboux@eversource.com

Eversource Confidential and Proprietary

Grid: D1

Page 7 of 8



C2

D1

Town Name: Newmarket

AWC: Epling

Scenic Trees:

39

ETR Scenic (by Town)		Tree Information		Property Address	Location/Risk	
Tree #	Approved	DBH	Species		Town	Risk
1		10"	Maple	252 Bay Rd	Newmarket	Dead
2		11"	Ash (Codom)	252 Bay Rd	Newmarket	Dead
3		11"	Ash (Codom)	252 Bay Rd	Newmarket	Dead
4		16"	Hickory	252 Bay Rd	Newmarket	Dead
5		19 1/2"	Ash	246 Bay Rd.	Newmarket	Dead
6		16"	Ash (Codom)	246 Bay Rd.	Newmarket	Dead
7		13"	Ash (Codom)	246 Bay Rd.	Newmarket	Dead
8		16 1/2"	Ash (Codom)	246 Bay Rd.	Newmarket	Dead
9		21 1/2"	Ash	230 Bay Rd.	Newmarket	Dead
10		18 1/4"	Ash (Codom)	230 Bay Rd.	Newmarket	Dead
11		16"	Ash (Codom)	230 Bay Rd.	Newmarket	Dead
12		20 1/2"	Ash (Codom)	230 Bay Rd.	Newmarket	Dead
13		19"	Ash (Codom)	230 Bay Rd.	Newmarket	Dead
14		12 1/2"	Ash	213 Bay Rd.	Newmarket	Dead
15		14 1/2"	Ash	Bay Rd./ 1 Barbary Coast	Newmarket	Trunk/ Insect Dmg
16		19"	Maple	200 Bay Rd.	Newmarket	Trunk Disintegrating
17		20"	Ash	200 Bay Rd.	Newmarket	Dead
18		17 1/2"	Ash	200 Bay Rd.	Newmarket	Dead
19		6"	Maple	200 Bay Rd.	Newmarket	Trunk Rot
20		25"	Ash	200 Bay Rd.	Newmarket	Dead
21		14"	Maple	200 Bay Rd.	Newmarket	Svr. Trunk Rot
22		11 1/2"	Ash (Codom)	200 Bay Rd.	Newmarket	Dead
23		18 1/4"	Ash (Codom)	200 Bay Rd.	Newmarket	Dead
24		32 1/2"	Ash	200 Bay Rd.	Newmarket	Dead
25		23 1/2"	Pine	191 Bay Rd.	Newmarket	Svr Basil Rot
26		28 1/2"	Ash	191 Bay Rd.	Newmarket	Dead
27		16 1/2"	Ash	187 Bay Rd	Newmarket	Dead
28		19 1/2"	Ash	180 Bay Rd.	Newmarket	Dead
29		36"+	Ash	180 Bay Rd.	Newmarket	Dead
30		16"	Ash	180 Bay Rd.	Newmarket	Dead
31		11"	Ash	180 Bay Rd.	Newmarket	Dead
32		20 1/2"	Ash	180 Bay Rd.	Newmarket	Dead
33		11"	Ash	180 Bay Rd.	Newmarket	Dead
34		15"	Cherry	187 Bay Rd.	Newmarket	Dead

[illegible]



Town Hall
186 Main Street
Newmarket, NH 03857

Tel: (603) 659-3617
Fax: (603) 659-8508

Founded December 15, 1727
Chartered January 1, 1991

TOWN OF NEWMARKET, NEW HAMPSHIRE

ATTACHMENTS:

Description	Upload Date	Type
Legal Notice	2/24/2022	Backup Material
Application, Plans,	2/24/2022	Backup Material

FOUNDED DECEMBER 15, 1727

CHARTERED JANUARY 1, 1991



TOWN OF NEWMARKET, NEW HAMPSHIRE
PLANNING OFFICE

LEGAL NOTICE

NEWMARKET PLANNING BOARD

**TUESDAY, MARCH 15, 2022
7:00 P.M.**

TOWN COUNCIL CHAMBERS

There will be a hearing for an application for Design Review, requested by Bingham Junction LLC/Shawn McGowan, for the renovation of the Rockingham Junction rail depot to include the relocation of the existing building to a new foundation on the existing site. The use of the building will for be the owner's professional office space. The work is focused on software engineering, software investing, and advanced data analytics. A small addition to the structure and a storage barn will be added. The property is located at 3 Rockingham Junction, Tax Map R3, Lot 13A, B1 Zone.

The application and plans are available for viewing on the Town website www.newmarketnh.gov under the Planning Board meeting agenda and at the Newmarket Planning Office, 186 Main Street, Newmarket, NH during business hours.

TO: Applicants

FROM: Newmarket Planning Board

SUBJECT: Guidelines for Processing Applications

pd
4/59.00
28



The Newmarket Planning Board wants to process applications as speedily as possible. We understand that the Zoning Ordinance and our Regulations are complex and often confusing. These requirements are designed to deal with different situations from single-issue waivers and permits to large-scale residential developments and commercial site plans. Therefore, not all requirements may be applicable to your application.

Although it is not required, it is recommended that before you file your application if you have any questions or concerns, you should discuss your proposal informally with the Town Planner. The Town Planner will review your project conformance with the Town's Ordinances and Regulations and can advise you on procedures for obtaining approval as well as other governmental permits that may be required. Call (603) 659-8501 ext 1315 for an appointment or email: dhardy@newmarketnh.gov. Town of Newmarket Regulations and Ordinances are available online at www.newmarketnh.gov.

The key to receiving a prompt decision is to have all the necessary information in the Planning Department before the Planning Board meeting. All applications **MUST** be submitted to the Planning's office **TWENTY ONE DAYS** prior to the Planning Board meeting at which it will formally be reviewed. The Town Planner will schedule you for a Public Meeting. In order to be scheduled, your application must be substantially complete.

Type and Description of Project (this description will be used for notification purposes, please be detailed):

<u>Application Type:</u>	<u>Description of project or application:</u>
Subdivision:	Requesting a Design Review for the renovation of the Rockingham Junction rail depot. This includes the relocation of the existing building to a new foundation on the existing site. Additionally, a small addition to the structure, and a storage barn will be added. All requested items are believed to be in conformance.
Site Plan:	
Impact Fee Waiver:	
Special (Conditional) Use Permit:	
Other:	
	X

TOWN OF NEWMARKET COMPREHENSIVE APPLICATION

Note: This form and all required information must be filed at least **15 days** before the date of the meeting at which it is to be submitted to the Board. Revised plans of any type must be in the office **7 days** prior to the hearing date. Filing is to be done at the **Planning Department, Newmarket Town Hall, 186 Main Street, Newmarket, NH 03857.**

**** Note regarding information requested:** Name, mailing address, email, and telephone contacts must be supplied for an application to be scheduled for a hearing.

1. Name, mailing address, email, and telephone number of **owner of record**.

Bingham Junction LLC
Shawn McGowan
51 Hemlock Ct.
Newfields, NH 03856

603-502-4251

2. Name, mailing address, telephone numbers (voice and fax) and email of **agent**. The agent is the entity with the legal authority to bring the application to the board on behalf of the landowner. If the owner is not the applicant, the 'Authorization to Act as Agent' section must be filed with the Board.

8. Special (Conditional) Use Permit:

SPECIAL (CONDITIONAL) USE PERMITS . Pursuant to RSA 674:21,I(i), a provision which permits flexible and discretionary zoning among other innovative land use controls, the Town offers certain discretionary authority to the Planning Board in limited cases where generally stated standards appear inappropriate.

(A) Special (Conditional) Use Permits are provided in the following sections: § 1.05 (A)(3) for expansions of non-conforming uses; § 2.01(B)(2) for optional uses in the mills; § 2.04(B)(2)(a) for self-storage facilities within existing buildings in the mills; § 2.04(B)(2) for optional uses related to the golf course or outdoor recreation; § 2.07 (C) for flexible use development within the B-3 District; 5.01 (C)(7)(a) for excavations in the Aquifer Protection District; § 5.03 for impacts in the Wetland Overlay District; § 5.07(B)(3) for siting telecommunications facilities; § 7.01(B)(3) for permitting large home-based businesses; and § 7.05 Affordable Elderly Housing.

a. Section of Zoning Ordinance authorizing permit:

_____.

b. Information submitted must be sufficient for the Board to rule on the criteria found within the relevant section of ordinance authorizing the permit.

9. Name, mailing address, and telephone numbers (voice and fax) of additional professionals who are authorized to submit additional materials on behalf of the application. Additional professionals may include, but are not limited to: NH Certified Soil Scientist, Wetlands Scientist, Surveyor, Engineer, Attorney, or other Real Estate Professional. etc.

Scott Bordeau, NH Licensed Land Surveyor #961
2 Beatrice Ln, Newmarket, NH 03857
603-659-3468

Michael Graf, Architect
8 Exeter Road, Newmarket NH 03857
978-828-6566

10. Abutters:

The Application must include a completed and executed copy of Town of Newmarket –Abutter Notification Form. Include Map and Lot numbers of all abutters adjacent to the property. The legal definition for an abutter can be found at NH RSA 672:3, as amended; for purposes of notification, all parties in RSA 6764(l)(d), as amended:

APPLICATION FEES

In accordance with RSA 676:4, I(g), the applicant shall pay the following fees to compensate the Town for its expenses in processing, noticing and reviewing each application, one or more may apply, however, only one notice fee is required:

SUBDIVISION OF LAND

(A) Administration:

- (1) Lot Line Adjustment: \$70
- (2) Subdivision: \$500.00 plus \$175/lot
- (3) Minor Subdivision: \$250.00 plus \$75/lot

(B) Public Notice:

- (1) \$75.00 per notice; plus
- (2) \$7.00 per abutter or other party notified.

(C) Other costs incurred by the Board in reviewing the application (such as engineering, legal, and planner review), as limited in RSA 676:4 and the Newmarket Subdivision Regulations, shall be passed through to the applicant by the Board unless specifically waived.

(D) SEPARATE CHECK MADE OUT TO ROCKINGHAM COUNTY REGISTRY OF DEEDS - \$26.00 per sheet. Recording: *No sheets will be recorded until this and all other fees are paid.*

(E) SEPARATE CHECK MADE OUT TO ROCKINGHAM COUNTY REGISTRY OF DEEDS - \$25 for State LCHIP (Land & Community Heritage Investment Program) surcharge.

Each Lot/Parcel or Dwelling Unit

Public Notice Fee

Abutter Notification [12 (# of abutters) x \$7]

Total

\$

75.00
84.00
159.00

SITE PLAN REVIEW

(A) Administration:

- (1) Minor Review: \$125.00
- (2) Major Review, one or more of the following shall apply:
 - (a) Residential Base Fee \$250
Per Unit \$125
 - (b) Commercial Base Fee \$250
Plus per square foot of floor space-
 - 0-1,000 \$0.12 per sq. ft.
 - 1,001-5,000 \$0.10 per sq. ft.
 - 5,001-10,000 \$0.08 per sq. ft.
 - 10,001+ \$0.05 per sq. ft.
 - (c) Industrial Base Fee \$250
Plus per square foot of floor space-
 - 0-1,000 \$0.06 per sq. ft.
 - 1,001-5,000 \$0.05 per sq. ft.
 - 5,001-10,000 \$0.04 per sq. ft.
 - 10,001+ \$0.03 per sq. ft.

(B) Public Notice:

- (1) \$75.00 per notice; plus
- (2) \$7.00 per abutter or other party notified.

- (C) Other costs incurred by the Board in reviewing the application (such as engineering, legal, and planner review), as limited in RSA 676:4 and the Newmarket Subdivision Regulations, shall be passed through to the applicant by the Board unless specifically waived.
- (D) SEPARATE CHECK MADE OUT TO ROCKINGHAM COUNTY REGISTRY OF DEEDS - \$26.00 per sheet. Recording: *No sheets will be recorded until this and all other fees are paid.*
- (E) SEPARATE CHECK MADE OUT TO ROCKINGHAM COUNTY REGISTRY OF DEEDS -- \$25 for State LCHIP (Land & Community Heritage Investment Program) surcharge.

Administration Fee

Public Notice Fee

Abutter Notification [12 (# of abutters) x \$7]

Total

	<u>75.00</u>
	<u>84.00</u>
	<u>159.00</u>
\$	

IMPACT FEE WAIVER or SPECIAL USE PERMIT

(A) Public Notice:

(1) \$75.00 per notice; plus

(2) \$7.00 per abutter or other party notified.

(B) Other costs incurred by the Board in reviewing the application (such as engineering, legal, and planner review), as limited in RSA 676:4 and the Newmarket Subdivision Regulations, shall be passed through to the applicant by the Board unless specifically waived.

(C) SEPARATE CHECK MADE OUT TO ROCKINGHAM COUNTY REGISTRY OF DEEDS - \$26.00 per sheet. Recording: *No sheets will be recorded until this and all other fees are paid.*

Public Notice Fee

Abutter Notification [____(# of abutters) x \$7]

Total

\$

- There are no known violations of the Town of Newmarket Zoning Ordinance or Newmarket Planning Board Regulations present on the property that have not been disclosed as part of this application.
- To insure proper boundary monumentation at the project's completion in accordance with the Town of Newmarket Subdivision Regulations.

Authorization to Act as Agent

Mr./Ms. _____ of _____

is hereby designated as the person whom is authorized to act as my agent in securing any and all permits necessary from the Newmarket Planning Board for the development of my property, all communications to the owner may be addressed to the agent or applicant on the agent's behalf.

Signed: _____

Dated: _____

Witness: _____

Owner Address: _____

By _____
 Owner/President or Treasurer if a Corporation

TOWN OF NEWMARKET
ABUTTER NOTIFICATION FORM

Instructions:

1. List the map, parcel, name and mailing address of the property owner and all abutters as shown in Town records not more than 5 days prior to submittal, per RSA 676:4,1(b). This may be typed on a separate sheet. If using another sheet or multiple sheets, please indicate the date of preparation and sign your name on each sheet.
2. As applicable, list the name, mailing address, daytime phone number and fax number of: the Applicant's Authorized Agent; and any surveyor, engineer, architect or soil scientist whose stamp and signature appear in the application materials. Other required abutters are detailed in RSA 676:4(1)(b).
3. **Please attach three adhesive mailing labels for each entry on the list. Label size must not exceed 1" tall by 2.75" long. Labels must be legibly filled out with names & mailing addresses of all parties on abutters list.**
4. **The determination of abutters is the responsibility of the applicant, this list will not be reviewed for compliance with statutory requirements.**

Map	Parcel	Owner	Mailing Address
R3	11 A	Joseph M. Maclellan	17 Ashswamp Rd, Newmarket, NH 03857
R3	13-A	Bingham Junction, LLC	51 Hemlock Ct. Newfields NH 03856
R3	21	Guy L. Thibeault	20 Ashswamp Rd, Newmarket NH 03857
R3	11	Boston & Maine Railroad	Guilford Transportation, Iron Horse Park Billerica, MA 01862
R3	15, 20	Jim Ward	264 Lafayette Rd # 10, Portsmouth NH 03801
202	26	Jim Ward	264 Lafayette Rd # 10, Portsmouth NH 03801
R3	12	Peter Alonzo Clarke	15 Ashswamp Rd, Newmarket NH 03857
		Town of Newmarket	186 Main Street 03857

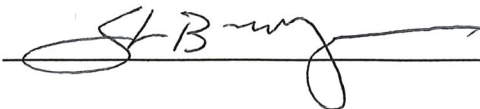
NEWFIELDS:

202	20,21,22	Boston & Maine Railroad	Guilford Transportation, Iron Horse Park Billerica, MA 01862
202	18, 20.1	State of New Hampshire Division of Parks	PO Box 1856 Concord NH 03302
202	24	Joanne and Joseph Clark	27 Ashswamp Rd PO Box 383 Newfields, NH 03856
202	17	Joan M. Booth	5 Old Route 108 Newmarket NH 03857
202	25	Lynda Raczek & Anthony Renes	29 Ashswamp Rd Newmarket, NH 03857
		Town of Newfields	65 Main Street Newfields, NH 03856

Date of preparation: 2/17/2022

I hereby certify that all information presented on this form is, to the best of my knowledge, correct.

Signature of preparer: _____



Hello,

My name is Shawn McGowan of Newfields, NH. I am the owner of the Rockingham Junction train station. The station is located physically on the Newmarket - Newfields town line. As you may have noticed over the last few years, I have slowly worked on improving the condition of the existing building and surrounding site. I have enjoyed interacting with the neighbors, trails users and railroad enthusiasts. These experiences and interactions have informed my vision for the Rockingham Junction. The property was purchased with two goals: preserving the history of the Rockingham Junction and ensuring long term access for our community. All parking and trail access is provided on private land. There is no current easement for trail access.

I am ready to engage in the overall renovations and am excited to share my plans with the planning board and direct neighbors of the Rockingham Junction. Post renovation the building will be used as my professional office space. The work is focused on software engineering, software investing and advanced data analytics.

My intention is to preserve and move the existing building. This will be accomplished by moving it away from the active rail line (Exhibit 1: Site Plan). The new location supports a small addition and storage barn (Exhibit 2: Building Design). This design preserves the existing Rockingham Junction building while bringing forward new opportunities for safe and productive use. The new location will allow for a modern foundation to address the water management challenges of the failing stone foundation. This new site location additionally addresses the numerous zoning and safety challenges of the existing building location. Based on the conforming plan design, no variances are being requested.

We have progressed discussions with the Trail Chief for the NH Bureau of Trails, NH Division of Parks & Recreation, and have offered an easement for long terms trail access across the property. This easement is contingent upon the development of a parking lot on the adjacent DOT land in Newfields (Exhibit 1: Site Plan). The town of Newfields planning board is supportive of this plan.

Attached you will find the site plan and building designs for the renovation.

Shawn B. McGowan
51 Hemlock Ct.
Newfields, NH 03856

Exhibit 1: Site Plan

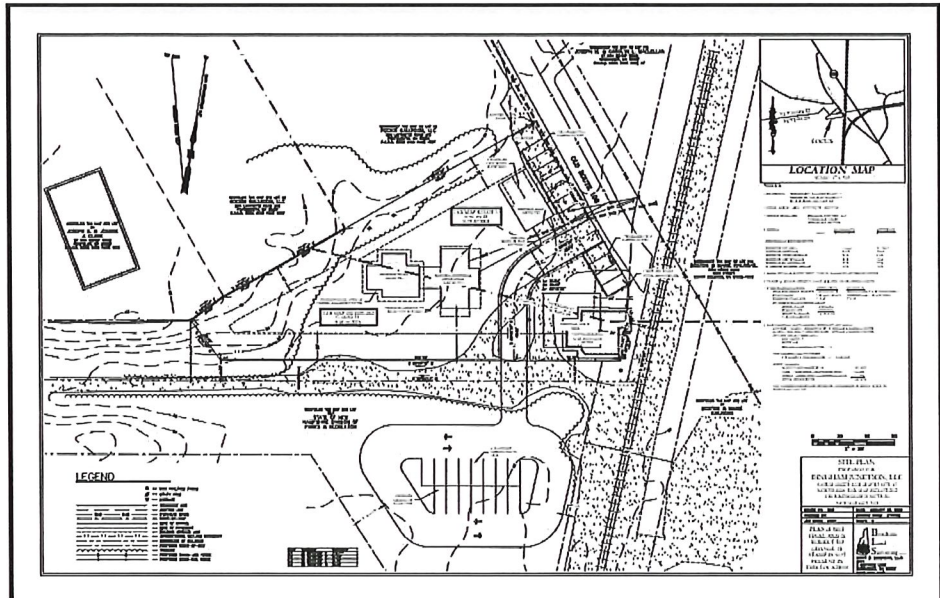
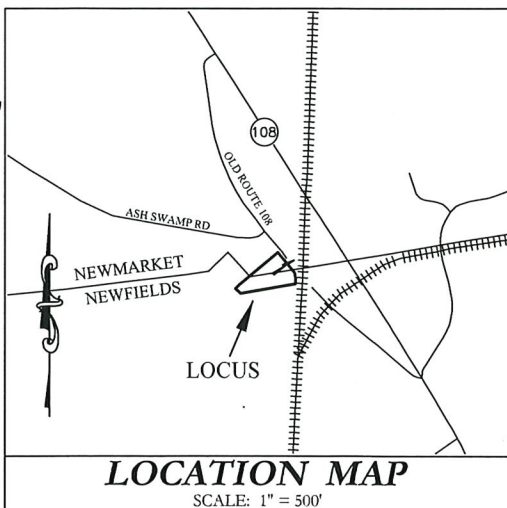
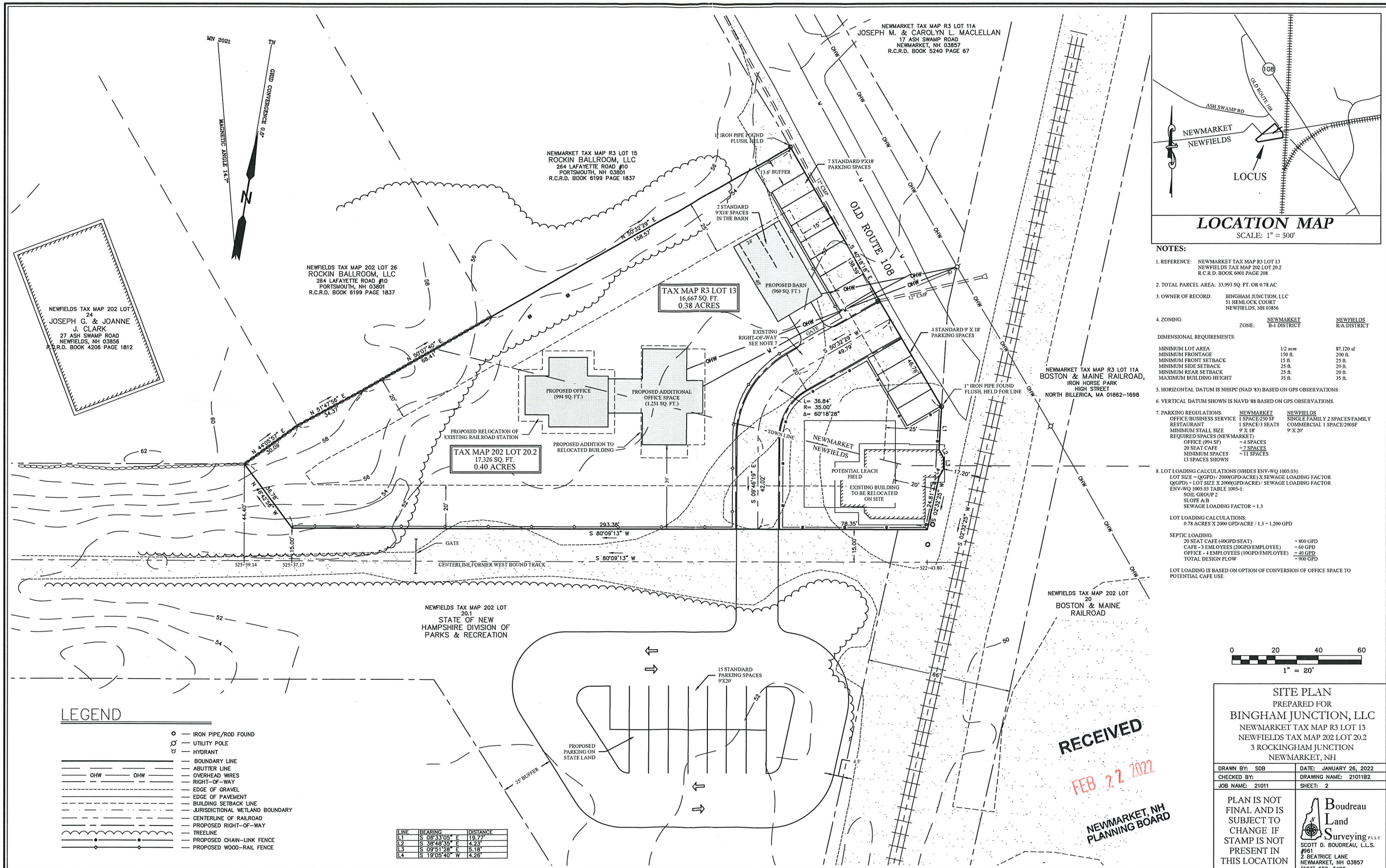


Exhibit 2: Building Design

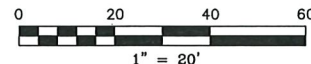




- NOTES:**
- REFERENCE: NEWMARKET TAX MAP R3 LOT 13
NEWFIELDS TAX MAP 202 LOT 20.2
R.C.R.D. BOOK 6001 PAGE 208
 - TOTAL PARCEL AREA: 33,993 SQ. FT. OR 0.78 AC.
 - OWNER OF RECORD: BINGHAM JUNCTION, LLC
51 HEMLOCK COURT
NEWFIELDS, NH 03856
 - ZONING: ZONE: NEWMARKET B-1 DISTRICT
NEWFIELDS R/A DISTRICT
 - DIMENSIONAL REQUIREMENTS:

	1/2 acre	87,120 sf
MINIMUM LOT AREA	150 ft.	200 ft.
MINIMUM FRONT SETBACK	15 ft.	25 ft.
MINIMUM SIDE SETBACK	25 ft.	20 ft.
MINIMUM REAR SETBACK	25 ft.	20 ft.
MAXIMUM BUILDING HEIGHT	35 ft.	35 ft.
 - HORIZONTAL DATUM IS NAD 83 (NAD '83) BASED ON GPS OBSERVATIONS.
 - VERTICAL DATUM SHOWN IS NAVD '88 BASED ON GPS OBSERVATIONS.
 - PARKING REGULATIONS:

NEWMARKET	NEWFIELDS
OFFICE/BUSINESS SERVICE	1 SPACE/250 SF
RESTAURANT	1 SPACE/3 SEATS
MINIMUM STALL SIZE	9' X 18'
REQUIRED SPACES (NEWMARKET)	4 SPACES
OFFICE (994 SF)	7 SPACES
20 SEAT CAFE	11 SPACES
MINIMUM SPACES	13 SPACES SHOWN
 - LOT LOADING CALCULATIONS (NHDES ENV-WQ 1005.03):
LOT SIZE = Q(GPD) / 2000(GPD/ACRE) X SEWAGE LOADING FACTOR
Q(GPD) = LOT SIZE X 2000(GPD/ACRE) / SEWAGE LOADING FACTOR
ENV-WQ 1005.03 TABLE 1005-1:
SOIL GROUP 2
SLOPE A/B
SEWAGE LOADING FACTOR = 1.3
LOT LOADING CALCULATIONS:
0.78 ACRES X 2000 GPD/ACRE / 1.3 = 1,200 GPD
SEPTIC LOADING:
20 SEAT CAFE (40GPD/SEAT) = 800 GPD
CAFE - 3 EMPLOYEES (20GPD/EMPLOYEE) = 60 GPD
OFFICE - 4 EMPLOYEES (10GPD/EMPLOYEE) = 40 GPD
TOTAL DESIGN FLOW = 900 GPD
LOT LOADING IS BASED ON OPTION OF CONVERSION OF OFFICE SPACE TO POTENTIAL CAFE USE.



- LEGEND**
- IRON PIPE/ROD FOUND
 - UTILITY POLE
 - HYDRANT
 - BOUNDARY LINE
 - ABUTTER LINE
 - OVERHEAD WIRES
 - RIGHT-OF-WAY
 - EDGE OF GRAVEL
 - EDGE OF PAVEMENT
 - BUILDING SETBACK LINE
 - JURISDICTIONAL WETLAND BOUNDARY
 - CENTERLINE OF RAILROAD
 - PROPOSED RIGHT-OF-WAY
 - TREELINE
 - PROPOSED CHAIN-LINK FENCE
 - PROPOSED WOOD-RAIL FENCE

LINE	BEARING	DISTANCE
L1	S 06°33'05" E	19.77'
L2	S 36°48'55" E	4.23'
L3	S 09°51'28" E	5.18'
L4	S 19°05'40" W	4.26'

RECEIVED
FEB 22 2022
NEWMARKET, NH PLANNING BOARD

SITE PLAN
PREPARED FOR
BINGHAM JUNCTION, LLC
NEWMARKET TAX MAP R3 LOT 13
NEWFIELDS TAX MAP 202 LOT 20.2
3 ROCKINGHAM JUNCTION
NEWMARKET, NH

DRAWN BY: SDB	DATE: JANUARY 26, 2022
CHECKED BY:	DRAWING NAME: 2101182
JOB NAME: 21011	SHEET: 2

PLAN IS NOT FINAL AND IS SUBJECT TO CHANGE IF STAMP IS NOT PRESENT IN THIS LOCATION

Boudreau Land Surveying, LLC
SCOTT D. BOUDREAU, L.L.S.
#951
2 BEATRICE LANE
NEWMARKET, NH 03857
(603) 659-3468