

Conditional Use Checklist **for WCOD and SPOD applications**

**To be filled out by the applicant/agent*

Address or location of property: 190 Piscataqua Road Durham NH

Applicant/agent: Terrain Planning & Design LLC

Owner, if different from applicant: Thomas J. Daly and Erin L. Daly, Trustees of the Thomas J. Daly Revocable Trust Erin L. Daly and Thomas J. Daly, Trustees of the Erin L. Daly Revocable Trust

Map: 12 Lot: 7 Date: May 12, 2021

The following items must be included in a conditional use application for activity within the Wetland Conservation Overlay District (WCOD) and the Shoreland Protection Overlay District (SPOD). Please mark the items below and return this form to the Planning Department.

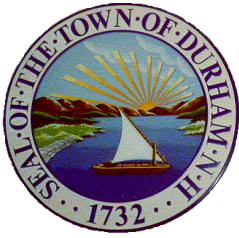
General items and documentation:

- Conditional use application
- This conditional use checklist
- A letter of intent/narrative describing the project
- A narrative addressing the 8 general conditional use criteria
- A narrative addressing the 4 specific criteria for activity within the WCOD and SPOD
- An electronic/pdf version of the plan (below)
- Application and notice fees. Please coordinate with Karen Edwards, Admin. Assistant.
- Abutters list including properties within 300 feet of the subject lot. Please coordinate with Karen Edwards.
- Letter or email from property owner authorizing agent to submit the application or represent them, if applicable
- Photograph(s) of the site showing where the proposed activity will occur
- Confirmation that the applicant will install a sign on the property about the public hearing once the hearing date with the Planning Board is set
- Confirmation that the applicant has seen the documents *Considerations for Potential Impacts on Wetlands* and *Wetland and Shoreland Resources for Applicants*. No action is required in regard to these documents; rather applicants are simply encouraged to review and consider information contained in the documents.
- Confirmation that the applicant has discussed their project with the Town Planner

Information to be included on the plan:

The function of the plan is to convey very clearly the nature and pertinent details of the project. Some of these items may not be needed depending on the character and scope of the proposal. Please check with the Town Planner with any questions. The Town Planner can advise the applicant about which items he believes may not be needed in order to save the applicant expense. However, the Conservation Commission and Planning Board make their own determination about particular items that are necessary to conduct their review. If the timeframe for the project is tight, the applicant is encouraged to provide more information up front to reduce the chances of the review being continued to an additional meeting allow for additional information to be submitted.

- A plan drawing to scale prepared by a surveyor, engineer, or other qualified professional
- A title block with title, owner's name, address of the property, date, and name, address and seal of the person preparing the plan
- A north arrow and a bar scale. A legend if applicable
- A locus plan showing the location of the subject lot at an appropriate scale (such as 1" = 500 feet or 1" = 1,000 feet)
- Names of owners of abutting lots
- Property lines and location of the proposed activity within the lot. Where the proposed activity is close to a property line and on larger, more significant projects inclusion of surveyed property lines may be needed.
- Existing buildings, structures, driveways, parking areas, utilities, drainage structures, water bodies, and other salient features in the vicinity of the proposed activity
- The wetland and edge of wetlands in the WCOD and the waterbody and reference line in the SPOD delineated by a qualified professional
- The buffer/setback line from the edge of wetlands or reference line
- All proposed activity within the buffer/setback area and in the vicinity of the buffer/setback area clearly delineated
- On larger or more significant projects existing and proposed contours in the vicinity of the proposed activity
- Erosion and sedimentation control measures, if applicable
- Restoration plan, if applicable
- Landscaping plan, if applicable



PLANNING DEPARTMENT

Town of Durham

8 Newmarket Road

Durham, NH 03824-2898

Phone (603) 868-8064

www.ci.durham.nh.us

CONDITIONAL USE APPLICATION

Date: May 11, 2021

Property information

Property address/location: 190 Piscataqua Road, Durham NH

Tax map #: Map 12_; lot #'s): __Lot 7__; Zoning District: Residential Costal (RC)

Property owner

Name (include name of individual):

Thomas J. Daly and Erin L. Daly, Trustees of the Thomas J. Daly Revocable Trust

Erin L. Daly and Thomas J. Daly, Trustees of the Erin L. Daly Revocable Trust

Mailing address: 5 Jasper Lane, Nashua, New Hampshire 03063

Telephone #: (603) 361-5033 Email: tjd@q7.io

Engineer, Surveyor, or Other Professional

Name (include name of individual): Eric Buck, Terrain Planning & Design LLC

Mailing address: 311 Kast Hill Road Hopkinton NH 03229

Telephone #: 603-491-2322 Email address: eric@terrainplanning.com

Proposed project

Activity within the WCOD __X__; Activity within the SPOD __X__; Other proposal or activity _____

What is the proposed project? Construction of a new Home and associated landscaping. Installation of a new permeable driveway, permeable patios, hot tub, swimming pool, revegetation plantings and enhanced storm water management systems to mitigate runoff and infiltrate stormwater. This project also includes the removal on non-conforming septic systems and the renovation of an existing cottage.

Which provision in the zoning ordinance calls for this conditional use? See attached project description

Justification for granting the conditional use: See attached project description

Have you completed the conditional use checklist? Yes, completed and attached

(over)

Other Information

Please note the following:

- Coordinate with Michael Behrendt, the Durham Town Planner, at 868-8064 or mbehrendt@ci.durham.nh.us about the process and other information that may be needed.
- Coordinate with Karen Edwards, Planning Department Administrative Assistant, at 868-8064 or kedwards@ci.durham.nh about fees and preparing the abutters list. All property owners within 300 feet of the site will be notified about the application and public hearing.
- Please be sure to attend all meetings of the Planning Board and the Conservation Commission, if the latter will be making a recommendation.
- The Planning Board may schedule a site walk after the first meeting.
- A public hearing will be held on the application. A sign must be placed on the property by the applicant at least 10 days prior to the hearing.
- The applicant will need to address the eight general conditional use criteria. For conditional uses within the Wetland or Shoreland Overlay Districts four additional specific criteria must be addressed by the applicant.
- For conditional uses within the Wetland or Shoreland Overlay Districts, the application will be presented to the Conservation Commission for a recommendation.
- See Article VII in the Zoning Ordinance for additional information about conditional uses.
- We encourage you to check with the New Hampshire Division of Environmental Services to see if any state permits are needed prior to spending money on any Town applications.

Submission of application

This application must be signed by the property owner(s) *and/or* the agent.

I (we) attest to the best of my(our) knowledge that all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As agent, I attest that I am duly authorized to act in this capacity.

Signature of property owner: Thomas Daly J

Date: May 11, 2021

Signature of agent: Eric R. Bumb May 11, 2021

TOWN OF DURHAM - PLANNING BOARD
8 Newmarket Road, Durham, New Hampshire 03824
Phone: (603) 868-6475 Fax: (603) 868-1858

ATTACHMENT TO CONDITIONAL USE APPLICATION

Property Location: 190 Piscataqua Road, Durham, New Hampshire 03824
Tax Map 12, Lot 7

Owners'/Applicants' Name: Thomas J. Daly and Erin L. Daly, Trustees of the
Thomas J. Daly Revocable Trust

 Erin L. Daly and Thomas J. Daly, Trustees of the
Erin L. Daly Revocable Trust

Owners'/Applicants' Telephone: (603) 361-5033

Owners'/Applicants' Address: 5 Jasper Lane, Nashua, New Hampshire 03063

Applicant's Representative: Eric Buck
Terrain Planning and Design
311 Kast Hill Rd. Hopkinton NH 03229

INTRODUCTION

Thomas J. Daly and Erin L. Daly, Trustees of the Thomas J. Daly Revocable Trust, and Erin L. Daly and Thomas J. Daly, Trustees of the Erin L. Daly Revocable Trust (jointly, the "Applicant") is the current owner of Tax Map 12, Lot 7 located at 190 Piscataqua Road (the "Property"). The Applicant is also under contract to purchase a portion of the abutting property currently known as 194 Piscataqua Road (the "Purchase"). The Applicant submits this Conditional Use Application seeking Conditional Use from the below described articles in the Durham Zoning Ordinance (the "Ordinance"). The Property is located in the Residence Coastal Zoning District (the "RC Zone") and partially in the Wetland Conservation Overlay District ("WCOD") and the Shoreland Protection Overlay District ("SPOD"), creating a uniquely shaped, conforming, buildable area of only approximately six thousand six hundred sixty-five (6,665) square feet.

Currently the Property contains a main house, three additional outbuildings, and two septic fields, all of which are nonconforming structures. Stormwater runoff from the existing nonconforming structures flows unfiltered into the adjacent wetlands to the north and/or towards Little Bay. There is an existing gravel driveway the runs parallel with and immediately along wetlands in the WCOD. The site is infested with a number of invasive species, such as Winged Euonymus and Japanese Barberry, throughout.

The Applicant intends to build a new home on the site by expanding the primary building footprint in the SPOD and WCOD in accordance with Article IX Section #175-30 Paragraph D Line 3 of the

Ordinance (the “Addition”) and by expanding the building footprint into conforming area on the site. Expansion of the primary building footprint by the Addition is expected to be approved by Code Enforcement Officer Audrey Cline upon submission of a building permit application.

If this Conditional Use Application is approved, the Applicant commits to improve overall conditions of the site as described below.

PROJECT DESCRIPTION

As stated in the introduction above, the Applicant intends to build a new home on the Property. In combination with design, development, and construction of the new home, the Applicant intends to construct a new permeable driveway and parking area in the WCOD, a permeable patio and hot tub in the SPOD, and a swimming pool and pool house spanning the WCOD and SPOD.

In the WCOD, a new driveway and parking area is proposed as a conditional use in accordance with Article XIII Section 175-61 Paragraph A Line 1 of the Ordinance. Article XXI (“Off Street Parking”) Section 175-111 Paragraph C Line 1 of the Ordinance requires that a driveway must be provided for each lot. This driveway will be constructed with permeable materials which will allow for the infiltration of stormwater runoff, rather than the sheet flow as seen on site today. Above ground utilities will also be placed underground, along the new driveway edge within the WCOD.

In the SPOD, a new permeable patio and hot tub is proposed as a conditional use in accordance with Article XIV Section 175-72 Paragraph A Line 4 of the Ordinance as an accessory structure. The patio will utilize permeable patio technology to allow for stormwater infiltration and proper management. As defined in Article II Section 175-7, the permeable patio and hot tub are accessory structures incidental, subordinate, and related to the principal building use, and customarily found in single-family homes in the underlying RC Zone.

Additionally, a new in-ground swimming pool is proposed as a conditional use in an area spanning the WCOD and SPOD in accordance with Article XIII Section 175-61 Paragraph A Line 4 and Article XIV Section 175-72 Paragraph A Line 4 of the Ordinance as an accessory structure. As defined in Article II Section 175-7, an in-ground pool is an accessory structure incidental, subordinate, and related to the principal building use, and customarily found in single-family homes in the underlying RC Zone. Excavation for this structure is proposed to be limited within the existing landscape space on the site. A retaining wall around its perimeter will allow a stepped grade transition, creating less runoff from lawn areas adjacent to Little Bay and wetlands to the north.

Finally, an existing non-conforming cottage which overlays the WCOD and SPOD is proposed to be renovated to become a pool house. In accordance with Article IX Section 175-28 Paragraph E, the existing non-conforming cottage will be converted from a non-conforming use to a conditional use permitted with a conditional use permit in accordance with Article XIII Section 175-61 Paragraph A Line 4 and Article XIV Section 175-72 Paragraph A Line 4 of the Ordinance as an accessory structure. As defined in Article II Section 175-7, a pool house is an accessory structure incidental, subordinate, and related to the principal building use, and customarily found in single-family homes in the underlying RC Zone.

A number of improvements are proposed to the Property to enhance conformity with the Ordinance:

- A new comprehensive storm water management plan for the entire site is introduced which utilizes Best Management Practices (BMPs) such as localized bio-retention areas and permeable pavements around the house and surrounding landscape spaces to enhance stormwater infiltration and mitigate runoff into Little Bay and the wetlands to the north.

- The introduction of enhanced native plantings in the SPOD and WCOD buffers to manage runoff and reduce localized erosion.
- A new Lawn Care program on the Property which will be in conformance with the restrictions set forth in the Shoreland Water Quality Protection Act (SWQPA).
- New shade trees will be installed in the SPOD to increase viewing buffer from Little Bay to the Property.
- A comprehensive survey and removal of non-native invasive species from the Property.

In addition to the improvements listed above, a number of non-conforming elements of the site will be mitigated, removed, and updated.

- The Applicant will remove and restore, as an enhanced wetland buffer, a significant amount of impervious compacted gravel driveway present in the WCOD buffer zone. The amount of buffer zone between the existing impervious compacted gravel driveway and the newly proposed permeable surface driveway will be increased for the benefit of protection to the wetland.
- The Applicant will remove an aged septic tank and septic field located in the SPOD and WCOD. Upon removal, this non-conforming use on the Property will be terminated.
- The Applicant will update the main septic tank and septic field serving the primary home to modern standards.

In accordance with Article XIII Section 175-61 Paragraph B, the Applicant concludes that there is no suitable alternative location outside of the WCOD for the driveway, parking area, permeable patio, pool, and pool house. Furthermore, soil disturbance will be minimized during construction, impact to the wetland will be minimized, mitigation activities will be undertaken to counterbalance adverse impacts, and the restoration activities will leave the site, as nearly as possible, in its existing condition and grade.

In accordance with Article XIII Section 175-72 Paragraph B, the Applicant concludes that there is no suitable alternative location outside of the SPOD for the permeable patio, hot tub, pool, and pool house. Furthermore, soil disturbance will be minimized during construction, impact to the shoreland and waterbody will be minimized, mitigation activities will be undertaken to counterbalance adverse impacts, and the restoration activities will leave the site, as nearly as possible, in its existing condition and grade.

The Applicant has received input on the proposed project from the Town Planner, Michael Behrendt, who provided a series of suggestions to improve the Property on January 26, 2021. The Applicant has had extensive discussions with the Town's Code Enforcement Officer, Audrey Cline regarding the Addition in accordance with Article IX Section #175-30 Paragraph D Line 3 of the Ordinance. Please see Attachment A ("Memorandum from Michael Behrendt to the Planning Board") as evidence of review of the new house footprint for conformance with the Ordinance and expansion of footprint in accordance with Article IX Section #175-30 Paragraph D Line 3 of the Ordinance.

The Applicant has consulted with TES Environmental Consultants, LLC on February 5, 2021 to assess and analyze the nature of the wetlands in the WCOD. A copy of this report is attached for reference in Appendix B ("Report By TES Environmental Consultants, LLC). The wetlands themselves will not be altered by the proposed project; impact will be limited to the wetland buffer. No impact to adjacent properties is anticipated.

Attached hereto are copies of plans of prepared for Tom & Erin Daly by Terrain Planning & Design LLC, (i) the plan numbered EX-01 depicts the existing structures and is titled “Existing Conditions Plan” (“Plan EX-01”) (ii) the plan numbered “L-01” depicts both the existing structures and the proposed changes to the Property and is titled “Conceptual Site Plan” (“Plan L-01”), and (iii) the plan numbered “L-02” depicts the proposed changes to the Property and is titled, “Proposed Structures” (individually, “Plan L-02” and together with Plan L-01, the “Plan”).

8 CONDITIONAL USE GENERAL CRITERIA
FACTS SUPPORTING THE REQUEST

The Applicant submits the following facts to satisfy the Ordinance's 8 Conditional Use General Criteria:

- **Site Suitability:** The Applicant intends to build a new single-family home on the site which is consistent with the current use of the site as it hosts a single-family home today. Construction of a new driveway system to the new home will allow for adequate vehicular and pedestrian access to the site. The new driveway system will provide for adequate availability of public services to the site, including those required for emergency services. Environmental constraints imposed by the WCOD and SPOD overlays on the site will be mitigated and enhanced by our proposed improvements to the site including comprehensive stormwater management, use of best management practices, bio-retention areas, and enhanced plantings in the buffer zones. Appropriate utilities, including water, sewage disposal, stormwater management, electricity, and communication services exist on the site. Legacy sewer disposal systems will be removed from the site.
- **External Impacts:** The Applicant intends to build a new single-family home on the site which is consistent with the current use of the site as it hosts a single-family home today. This Application does not create additional External Impacts nor burden as the purpose of use does not change. The location, nature, design, and height of the structure does not create an adverse effect on the surrounding environment, nor discourage the appropriate and orderly development and use of land or buildings in the neighborhood.
- **Character of the Site Development:** The layout and design of the site is compatible with the established character of the neighborhood in the RC Zone. The relationship of the primary home to the street is not significantly changed, off-street parking is maintained and appropriately screened, buffering to neighbors is maintained, and improvements to the shoreline buffer are planned. Provisions for vehicular and pedestrian access to and within the site are maintained.
- **Character of the Building and Structures:** The design of the new structures and buildings are compatible with the existing character of the neighborhood. The new driveway and parking area proposed as a conditional use is in accordance with Article XIII Section 175-61 Paragraph A Line 1 of the Ordinance. The new permeable patio, hot tub, in-ground swimming pool, and pool house are proposed as a conditional use in accordance with Article XIII Section 175-61 Paragraph A Line 4 and Article XIV Section 175-72 Paragraph A Line 4 of the Ordinance as accessory structures. The driveway, parking area, and accessory structures are incidental, subordinate, and related to the principal building use, and customarily found in single-family homes in the underlying RC Zone.
- **Preservation of Natural, Cultural, Historic, and Scenic Resources:** The proposed use of the site does not impact any identified cultural, historic, or scenic resources. The proposed improvements to the site enhance natural resources by removing aging septic structures, adopting modern stormwater management practices, improving natural buffers to the shoreline, and establishing best practice for lawn care management.

- **Impact on Property Values:** The proposed use will not cause any decline in property values for adjacent properties given that the nature of use is not changing.
- **Availability of Public Sewage & Facilities:** The proposed use will comply with standards for adequate and lawful facilities for sewage disposal through the use of a private septic system. The site is serviced by an existing on-site water well. No change to the demand on municipal services, including but not limited to, water, sewer, waste disposal, police protection, fire protection, and/or schools is foreseen as a result of approval.
- **Fiscal Impacts:** The proposed use will not have a negative fiscal impact on the Town of Durham.

4 CONDITIONAL USE WCOD CRITERIA

FACTS SUPPORTING THE REQUEST

The Applicant submits the following facts to satisfy the Ordinance's 4 Conditional Use WCOD Criteria:

- **Reasonable Alternatives:** In accordance with Article XIII Section 175-61 Paragraph B, the Applicant concludes that there is no suitable alternative location reasonably practical for the proposed use outside of the WCOD for the driveway, parking area, permeable patio, pool, and pool house. Given the combined constraints on the Site (described above) due to the SPOD, the applicant has designed the site to minimize impact to the WCOD (to the extent practical) while prioritizing the reduction of impact to the SPOD at the direction of Michael Behrendt, Durham Town Planner, and the Durham Conservation Commission.
- **Soil Disturbances:** Soil disturbance will be to the minimum necessary for the construction and operation of the driveway, parking area, permeable patio, pool, and pool house. A majority of the proposed excavation is limited to the areas already impacted by existing structures. Any proposed excavation beyond this area is designed to improve the existing conditions of the site so as to better direct storm water towards one of the many BMP's proposed within the project (as opposed the uncontrolled flow existing today).
- **Detrimental Impact on the Wetland:** The location, design, construction, and maintenance of the driveway, parking area, permeable patio, pool, and pool house will be undertaken to minimize any detrimental impact on the wetland through the mitigation activities planned, including enhanced WCOD buffer plantings, comprehensive stormwater management, bio-retention areas, and permeable surface technologies. These changes will improve stormwater management as opposed to the uncontrolled flow existing today. The removal of an aging septic system reduces the potential for detrimental impact on the wetland in case of leaking or spillage given the unknown nature of the condition of the system. The removal of the impervious gravel driveway will reduce uncontrolled stormwater flow into the wetland. Finally, removal of invasive species from the property will continue to counterbalance any adverse impacts.
- **Restoration Activities:** Outside of areas proposed for construction, the site plan requires that restoration activities leave the site, as nearly as possible, in its existing condition whenever possible.

4 CONDITIONAL USE SPOD CRITERIA

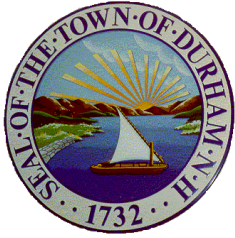
FACTS SUPPORTING THE REQUEST

The Applicant submits the following facts to satisfy the Ordinance's 4 Conditional Use SPOD Criteria:

- **Reasonable Alternatives:** In accordance with Article XIII Section 175-72 Paragraph B, the Applicant concludes that there is no suitable alternative location reasonably practical for the proposed use outside of the SPOD for the permeable patio, hot tub, pool, and pool house. The Applicant has carefully considered the tradeoffs of impact to both the SPOD and WCOD given the unique nature of the Site (described above) as part of site design, along with input from Michael Behrendt, Durham Town Planner, to minimize impact to the SPOD to the maximum extent practical.
- **Soil Disturbances:** Soil disturbance will be to the minimum necessary for the construction and operation of the permeable patio, hot tub, pool, and pool house. A majority of the proposed excavation is limited to the areas already impacted by existing structures. Any proposed excavation beyond this area is designed to improve the existing conditions of the site so as to better direct storm water towards one of the many BMP's proposed within the project (as opposed the uncontrolled flow existing today).
- **Detrimental Impact on the Shoreland and Waterbody:** The location, design, construction, and maintenance of the permeable patio, hot tub, pool, and pool house will be undertaken to minimize any detrimental impact on the shoreland and waterbody through the mitigation activities planned, including enhanced SPOD buffer plantings, comprehensive stormwater management, bio-retention areas, and permeable surface technologies. The removal of an aging septic system reduces the potential for detrimental impact on the wetland in case of leaking or spillage given the unknown nature of the condition of the system. Installation of shade trees to further buffer the Site from Little Bay and the removal of invasive species from the Property will continue to counterbalance any adverse impacts.
- **Restoration Activities:** Outside of areas proposed for construction, the site plan requires that restoration activities leave the site, as nearly as possible, in its existing condition whenever possible.

ATTACHMENT A:

MEMORANDUM FROM MICHAEL BEHRENDT TO PLANNING BOARD – MAY 11, 2021



MICHAEL BEHRENDT
Durham Town Planner
Town Of Durham
8 Newmarket Road
Durham, NH 03824-2898

Phone: (603) 868-8064
mbehrendt@ci.durham.nh.us
www.ci.durham.nh.us

MEMORANDUM

TO: Planning Board

FROM: Michael Behrendt, Durham Town Planner

DATE: May 11, 2021

SUBJ: 190 Piscataqua Road – House Footprint

Audrey Cline, Durham Building Official, and I reviewed the plans that Tom Daly and Erin Daly provided for potential development of their lot, Map 12, Lot 7, at 190 Piscataqua Road. The plan was developed by Terrain Planning & Design and is dated May 4, 2021 (issued for review on May 10, 2021). The plan was sent to me as a pdf from Tom Daly in an email of May 11 also describing the plans and the color code.

The footprint for the new house as proposed on the plans meets the Town of Durham zoning requirements in terms of general setbacks and setbacks under the Wetland Conservation Overlay District and Shoreland Protection Overlay District. The footprint falls within the triangle shown on the plan that lies outside of the side setback and WCOD and SPOD setbacks, the footprint for the existing house, and an allowance for 15% expansion beyond the existing footprint as allowed in the Nonconforming provisions. The zoning ordinance allows you to extend beyond the buildable area with any overhangs, cladding, or architectural details up to 18”.

Please note that all of the other elements on the site that would like within the WCOD and SPOD are subject to a conditional use to be approved by the Planning Board if the board determines that the four specific and eight general criteria are met. This conditional use includes the patio, spa, swimming pool, retaining walls, steps, fireplace, paver paths, other walkways, and driveway. Review for drainage structures, new plantings and removal of existing plantings, if applicable, will be conducted as specified in the WCOD and SPOD.

Please note that applications for all building permits will be reviewed by Audrey Cline in accordance with the Zoning Ordinance and the Building Code.

ATTACHMENT B:

REPORT BY TES ENVIRONMENTAL CONSULTANTS, LLC – FEBRUARY 5, 2021

TES Environmental Consultants, LLC

February 5, 2021

Ref: TES JN 19-0142

Mr. Paul Delaney, LLS
Gate City Survey
1 Tara Boulevard, Suite 200
Nashua, NH 03062

Re: Daly Property; 190 Piscataqua Road, Durham; Tax Map 12, Block 7
Wetlands Delineation and Description

Dear Mr. Delaney:

TES Environmental Consultants, L.L.C. (TES) has prepared this letter report to address the request from Durham Conservation Commission for a report on the delineation and description of the wetlands on the above-referenced 1.6-acre subject parcel.

At your request, on September 24, 2019 I delineated the boundaries of wetlands on the Daly parcel. The wetland identification and delineation were performed according to the methodology presented in the Corps of Engineers Wetland Delineation Manual (Technical Report Y-87-1), January 1987 and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0, January 2012, US Army Corps of Engineers. This methodology requires the presence of indicators for the three parameters: hydric soils, hydrophytic vegetation and evidence of hydrology at or near the surface for 14 days during the growing season.

One contiguous wetland was identified on the property, situated to the north of the existing house, sloping gradually eastward towards the abutting parcel (Tax Map 12, Block 6, Lot 2). The boundaries of this wetland were flagged with pink and black striped surveyors tape numbered sequentially from WF 1 (Wetland Flag 1) through WF 29 along the western side of the wetland; WF 2-1 through WF 2-19 along the eastern side; and WF 3-1 through WF 3-4 around a small upland "island" within the northern section of the wetland. The northern section of the wetland drains onto the abutting parcel (Tax Map 12, Block 6, Lot 2) via sheet flow (no well-defined channel), and the southern portion drains onto that same parcel via a narrow intermittently-flowing channel.

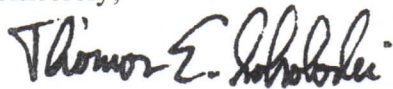
The site wetland is almost entirely forested, and would be best described as a forested swamp (Figure 1), classified under the U.S. Fish and Wildlife Service's wetland classification system (Cowardin et al., 1979) as Palustrine, Forested, Broad-leaved Deciduous, Seasonally Flooded (PFO1C). The dominant tree species in the wetland are red maple (*Acer rubrum*) and American elm (*Ulmus americana*); the most common shrub species are honeysuckle (*Lonicera* sp.), Japanese barberry (*Berberis vulgaris*), and poison ivy (*Toxicodendron radicans*). The most common herbaceous species are sensitive fern (*Onoclea sensibilis*), sedges (*Carex* spp.) and asters (*Symphyotrichum* spp.).

TES Environmental Consultants, LLC

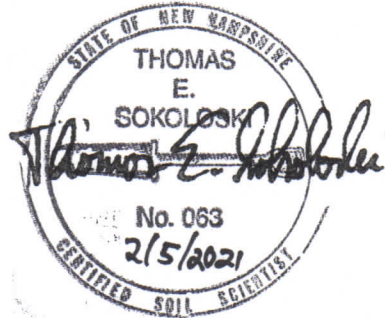
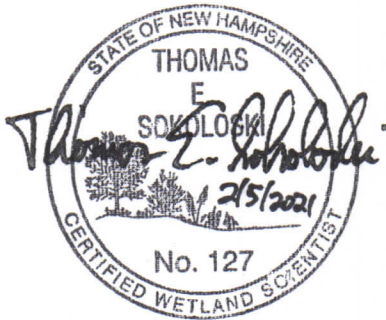
Soils within the wetland are poorly drained mineral soils similar to Scitico silt loam. This soil consists of a loamy surface underlain by a subsoil and/or substratum comprised of silt loam to silty clay loam that was deposited in marine environments in the distant past. On the day of the field visit (September 24, 2019), no surface water or groundwater was observed within the wetland, which is not unusual during that typically dry time of year within wetlands such as this one that are on the drier end of the wetland hydrology spectrum. Wetland hydrology was observed to be present within the wetland in the form of shallow tree roots and wetland drainage patterns (Figure 1), which include shallow channels formed by flowing water, exiting the southern portion of the wetland in an open channel (Figure 2).

If there are any questions regarding this report, please feel free to contact me directly.

Sincerely,



Thomas E. Sokoloski
New Hampshire Certified Wetland Scientist #127
New Hampshire Certified Soil Scientist #063



TES

TES ENVIRONMENTAL CONSULTANTS, L.L.C.



FIGURE 1

View Northwest Towards Wetland from Southern End of Wetland Showing Outlet Channel, House Out of View to Left of Photo (9/24/2019)



FIGURE 2

View North into Wetland Showing Typical Forested Swamp Vegetation, Shallow Tree Roots and Wetland Drainage Patterns (9/24/2019)

Environmental Planning & Permitting

Soil & Wetland Investigations

1494 Route 3A, Unit 1 Bow, NH 03304 Phone 856-8925

Email: tom@tesenviro.comcastbiz.net

ATTACHMENT C:
ABBUTTER LIST

**THOMAS J. DALY AND ERIN L. DALY, TRUSTEES OF
THE THOMAS J. DALY REVOCABLE TRUST
and
ERIN L. DALY AND THOMAS J. DALY, TRUSTEES OF
THE ERIN L.DALY REVOCABLE TRUST**

**190 PISCATAQUA ROAD
TAX MAP 12, LOT 7-0**

OWNER / APPLICANT:

12/7-0 THOMAS J. DALY AND ERIN L. DALY, TRUSTEES OF
THE THOMAS J. DALY REVOCABLE TRUST
ERIN L. DALY AND THOMAS J. DALY, TRUSTEES OF
THE ERIN L.DALY REVOCABLE TRUST
5 JASPER LANE
NASHUA NH 03063

ABUTTERS:

12/6-1 Leland Family LLC
431 Dover Point Rd Dover, NH 03820

12/6-2 John Leland
P.O. Box 797 Dover NH 03821

12/5-1 Karen M Garrison
P.O. Box 605 Durham, NH 03824

12/3-5 Smith Rev Trust, Jeffrey & Heather
195 Piscataqua Road Durham, NH 03 824

**Easement
Holder for
12/3-5** Society for the Protection of New Hampshire Forests
54 Portsmouth Street Concord, NH 03301

Thomas and Erin Daly
5 Jasper Lane
Nashua NH 03063
+1-603-361-5033 / tjed@q7.io

May 11, 2021

Town of Durham
8 Newmarket Road
Durham NH 03824

To Whom It May Concern:

We,

Thomas J. Daly and Erin L. Daly, Trustees of the Thomas J. Daly Revocable Trust
AND
Erin L. Daly and Thomas J. Daly, Trustees of the Erin L. Daly Revocable Trust,
AND
Owners of property located at 190 Piscataqua Road in Durham, NH,

in connection with our Conditional Use Application, confirm that we will install a sign on the property about the public hearing once the hearing date with the Planning Board is set.

Please let us know if you have any questions or concerns.

Thomas Daly

Erin Daly

Trustee

Trustee

May 11, 2021

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Thomas and Erin Daly
5 Jasper Lane
Nashua NH 03063
+1-603-361-5033 / tj@q7.io

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AND
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AND
Owners of property located at 190 Piscataqua Road in Durham, NH,

do hereby authorize members of Terrain Planning & Design, LLC to act as an agent on our behalf during any and all permitting processes.

Please let us know if you have any questions or concerns.

Thomas Daly

Erin Daly

Trustee

Trustee

May 11, 2021

May 11, 2021



190 Piscataqua Rd









Proposed Re-Vegetation Plantings in SPOD and WCOD



Aronia arbutifolia

Red Chokeberry

Family: Rosaceae (Rose)

- Type:** Shrub, woody plant
- Hardiness range:** 4B - 9A
- Height:** 6' to 8' / 1.80m to 2.40m
- Spread:** 36" to 4' / 90cm to 1.20m
- Growth rate:** Average
- Exposure:** Partial shade or partial sun to full sun
- Persistence:** Deciduous, broadleaf
- Form:** Oval

- Bloom season:** Spring
- Bloom color:** White
- Leaf color:** Green
- Fruit color:** Red

Environment:

Prefers moist to wet soil conditions
The pH preference is an acidic, neutral, slightly alkaline soil
This plant will grow in sandy and clay soil types.
Attracts birds, native





Clethra alnifolia 'Ruby Spice' Family: Clethraceae (White Alder)

Ruby Spice Summer Sweet, Coastal Sweet Pepperbrush, Sweet Pepperbush

Type: Shrub, woody plant
Hardiness range: 4A - 8B
Height: 36" to 7' / 90cm to 2.20m
Spread: 36" to 4' / 90cm to 1.20m
Growth rate: Fast
Exposure: Partial shade or partial sun to full sun
Persistence: Deciduous, broadleaf
Form: Oval, upright or erect

Bloom color: Pink
Bloom season: Summer
Leaf color: Green
Fruit color: Brown

Environment:
Prefers wet soil conditions
The pH preference is an acidic, neutral soil
This plant will grow in sandy, clay, and loamy soil types.
Suitable soil is moist acidic soil with organic matter.
Relatively pest free except for spider mites.





Comptonia peregrina

Family: Myricaceae (Bayberry)

Sweet Fern

- Type:** Shrub, woody plant
- Hardiness range:** 3A - 6B
- Height:** 24" to 4' / 60cm to 1.20m
- Spread:** 4' to 10' / 1.20m to 3.00m
- Growth rate:** Average
- Exposure:** Partial shade or partial sun to full sun
- Persistence:** Deciduous
- Form:** Rounded

- Bloom season:** Spring and Summer
- Bloom color:** Green, yellow
- Leaf color:** Green
- Fruit color:** Brown

Environment:

Prefers dry to moist soil conditions
 The pH preference is an acidic, neutral soil
 This plant will grow in sandy and loamy soil types.
 Fragrant foliage





***Ilex verticillata* 'Red Sprite'**

Family: Aquifoliaceae (Holly)

Red Sprite Winterberry, Black Alder, Holly

- Type:** Shrub, woody plant
Hardiness range: 4A - 9A
Height: 3' to 5' / 90cm to 1.60m
Spread: 6' to 10' / 1.80m to 3.00m
Growth rate: Slow
Exposure: Partial shade or partial sun to full sun
Persistence: Deciduous
Form: Rounded, vase

- Bloom color:** White
Bloom season: Spring
Leaf color: Green
Fruit color: Red

Environment:

Prefers wet soil conditions

The pH preference is an acidic, neutral

This plant will grow in sandy, clay, and loamy soil types.

Prefers adequate soil moisture and acidic pH

Berries attract birds





Kalmia angustifolia Family: Ericaceae (Heath)
Sheep Laurel, Lambkill, Pig Laurel

Type: Shrub
Hardiness range: 5A - 6A
Height: 24" to 36" / 60cm to 90cm
Spread: 4' to 6' / 1.20m to 1.80m
Growth rate: Slow
Exposure: Full shade to full sun
Persistence: Evergreen
Form: Rounded, spreading or horizontal

Bloom Season: Summer
Bloom color: Pink, purple
Leaf color: Blue, green
Fruit color: Brown

Environment:
Prefers moist soil conditions
The pH preference is an acidic, neutral, slightly alkaline soil
This plant will grow in clay and loamy soil types.
Native to North America





Myrica pensylvanica Family: Myricaceae (Bayberry)
Northern Bayberry, Candleberry

- Type:** Shrub
Hardiness range: 3A - 7A
Height: 10' to 15' / 3.00m to 4.60m
Spread: 6' to 10' / 1.80m to 3.00m
Growth rate: Slow
Exposure: Partial shade or partial sun to full sun
Persistence: Deciduous, broadleaf, semi-evergreen
Form: Rounded, vase
- Bloom season:** Spring
Bloom color: Green
Leaf color: Green
Fruit color: White

Environment:
Prefers wet soil conditions
The pH preference is an acidic, neutral soil
This plant will grow in sandy, clay, and loamy soil types.
Fragrant foliage
Attracts birds





Rhus aromatica 'Gro-low'

Family: Anacardiaceae (Cashew)

Fragrant Sumac

- Type:** Shrub, woody plant
- Hardiness range:** 3A - 9A
- Height:** 24" to 3' / 60cm to 90cm
- Spread:** 4' to 10' / 1.20m to 3.00m
- Growth rate:** Slow
- Exposure:** Partial shade or partial sun to full sun
- Persistence:** Deciduous, broadleaf
- Form:** Rounded, spreading horizontal

- Bloom season:** Spring
- Bloom color:** Yellow
- Leaf color:** Green
- Fruit color:** Red

Environment:

Prefers wet soil conditions
The pH preference is an acidic, neutral, slightly alkaline soil
This plant will grow in sandy, clay, and loamy soil types.
Attractive foliage





Vaccinium angustifolium Family: Ericaceae (Heath)
Lowbush Blueberry, Northern Lowbush Blueberry

Type: Shrub, ground cover
Hardiness range: 2B - 6A
Height: 12" to 24" / 30cm to 60cm
Spread: 24" to 4' / 60cm to 1.20m
Growth rate: Average
Exposure: Partial shade or partial sun to full sun
Persistence: Deciduous, broadleaf
Form: Rounded

Bloom season: Spring
Bloom color: White
Leaf color: Green
Fruit color: Blue

Environment:
Prefers moist to wet soil conditions
The pH preference is an acidic soil
This plant will grow in sandy, clay, and loamy soil types.
Attracts birds
Native to North America





Vaccinium corymbosum Family: Ericaceae (Heath)
Blueberry, American Blueberry, Highbush Blueberry, Swamp Blueberry

Type: Shrub, woody plant
Hardiness range: 3B - 8B
Height: 6' to 12' / 1.80m to 3.60m
Spread: 6' to 10' / 1.80m to 3.00m
Growth rate: Average
Exposure: Partial shade or partial sun to full sun
Persistence: Deciduous, broadleaf
Form: Rounded

Bloom season: Spring
Bloom color: White
Leaf color: Green
Fruit color: Blue

Environment:
Prefers moist soil conditions
The pH preference is an acidic soil
This plant will grow in sandy, clay, and loamy soil types.
Attracts birds
Native to North America





Eupatorium purpureum Family: Asteraceae (Aster)
Joe Pye Weed, Sweet Joe Pye Weed

- Type:** Perennial
Hardiness range: 3A - 9B
Height: 5' - 7'
Spread: 24" - 36"
Growth rate: Fast
Exposure: Partial shade or partial sun to full sun
Persistence: Deciduous
Form: Upright or erect
- Bloom season:** Late Summer to Mid Fall
Bloom color: Purple, white
Leaf color: Green, Purple
Fruit color: Brown

Environment:
Prefers moist soil conditions
Suitable soil is a loamy soil
This plant will grow in neutral & alkaline soils
Fragrant flower, naturalizing, attracts butterflies





Iris versicolor

Blue Flag Iris

Family: Iridaceae (Iris)

Type:	Perennial
Hardiness range:	3A - 9B
Height:	12" to 30" / 30cm to 75cm
Spread:	n/a
Growth rate:	Average
Exposure:	Partial shade or partial sun to full sun
Persistence:	Deciduous
Form:	Spreading or horizontal, upright or erect
Bloom season:	Early Summer to Late Summer
Bloom color:	Blue, lavender, purple
Leaf color:	Green
Fruit color:	n/a

Environment:

Prefers moist soil conditions

Suitable soil is a loamy soil

This plant will grow in neutral soils and acidic soils

Attractive foliage, Native to North America





Lobelia cardinalis

Family: Campanulaceae (Bellflower)

Cardinal Flower

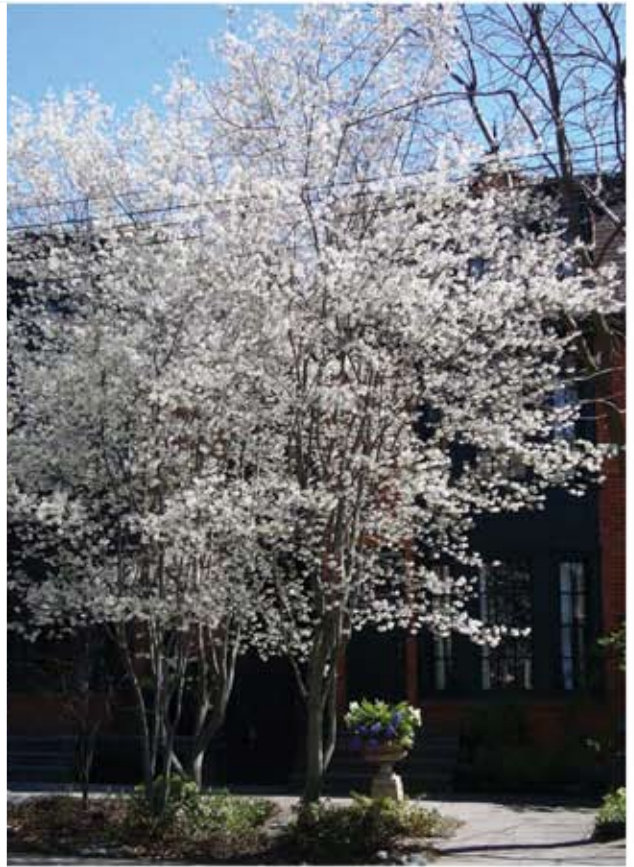
- Type:** Perennial
- Hardiness range:** 3A - 9B
- Height:** 30" to 36" / 75cm to 90cm
- Spread:** 6" to 12" / 15cm to 30cm
- Growth rate:** Average
- Exposure:** Full shade to full sun
- Persistence:** Deciduous, broadleaf
- Form:** Upright or erect

- Bloom season:** Mid Summer to mid Fall
- Bloom color:** Purple, red
- Leaf color:** Green
- Fruit color:** n/a

Environment:

Prefers moist to wet soil conditions
The pH preference is an acidic, neutral soil
This plant will grow in sandy, clay and loamy soil types.
Native to North America
Attracts birds





Amelanchier canadensis Family: Rosaceae (Rose)
 Serviceberry, Canada Serviceberry, Downy Serviceberry, Shadblow, Shadbush

Type: Tree, woody plant
Hardiness range: 4A - 7A
Height: 10' to 25' / 3.00m to 7.60m
Spread: 15' to 25' / 4.60m to 7.60m
Growth rate: Average
Exposure: Partial shade or partial sun to full sun
Persistence: Deciduous, broadleaf
Form: Upright or erect

Bloom season: Spring
Bloom color: White
Leaf color: Green
Fruit color: Purple, red

Environment:
 Prefers moist soil conditions
 The pH preference is an acidic, neutral soil
 This plant will grow in sandy, clay, and loamy soil types.
 Attracts birds
 Native to North America



Lawn Care within the Protected Shoreland

How you care for your lawn impacts the ecosystem in and around your waterbody. This fact sheet describes the restrictions on lawn and fertilizer imposed by the Shoreland Water Quality Protection Act (SWQPA). It also includes many tips on how to maintain a healthy and yet low-impact, and low-maintenance, lawn.

EXPANDING THE SIZE OF EXISTING LAWNS

Stormwater runoff is water from rain or melting snow that does not soak into the ground. Plants help remove the oils, salt, heavy metals, fertilizers, and other contaminants from stormwater runoff before they enter our lakes and rivers. Native plants slow down, absorb, and purify much more stormwater than plants with shallow roots typically found in lawns. The SWQPA restricts the removal of native plants in proximity to the water in order to preserve this natural benefit. This restriction includes the conversion of native vegetation into lawn, especially within 50 feet of the shoreline.

Within 50 feet of the reference line of public waterbodies, vegetation composed of trees, shrubs, or native ground cover may not be converted to lawn. Between 50 and 150 feet from the reference line, at least 25% of the area must be managed as Natural Woodland where all existing native ground cover, shrubs and trees are allowed to grow. Before expanding existing lawns or creating new lawns, ensure that you meet these requirements. Consult the Vegetation Management for Water Quality fact sheet for more information.

FERTILIZERS AND THE SHORELAND WATER QUALITY PROTECTION ACT

Phosphorus and nitrogen are used in fertilizers because they promote plant growth. Unfortunately, when these nutrients leach into waterbodies, they continue to promote growth and may trigger algal blooms (Figure 1). In turn, algal blooms **have a negative impact to water quality by reducing water clarity, reducing water oxygen levels, and ultimately threatening the survival of fish and other aquatic life.** The proper use and application of a fertilizer is therefore extremely important.

The SWQPA prohibits the use of fertilizers within 25 feet of the reference line of public waters. This includes organic products.



Figure 1 - Phosphate and nitrogen leaching into waterbodies trigger algal bloom.

Between 25 and 250 feet from the reference line, **only slow or controlled release fertilizer may be used**. Slow or controlled release fertilizer means fertilizer that is guaranteed, as indicated on the package label, to contain:

- At most 2% phosphorous, and
- A nitrogen component which contains at least 50% slow release nitrogen.

No chemicals, including organic pesticides, can be applied within 50 feet of the reference line, except by a professional licensed for pesticide application by the State of New Hampshire.

PROPER LAWN CARE WITHIN THE PROTECTED SHORELAND

Landowners can take several measures to reduce the impacts of their lawn care on the environment:

- *Grass Variety:* Choose grass varieties well-adapted for your area. Contact the [University of New Hampshire \(UNH\) Cooperative Extension](#) or another horticultural professional for recommendations.
- *Water:* Grass does need water, but improper watering can cause problems for lawns, such as diseases and shallow roots. Moreover, lawns with shallower roots are more susceptible to drought and erosion. Overwatering may also lead to nutrients leaching into waterbodies. A healthy lawn typically requires one good soaking of up to an inch of water per week.
- *Fertilizer:* Quick release fertilizers and pesticides can produce a green lawn in a short time. However, they may also disturb the natural chemical and biological balance of your lawn. The SWQPA only allows for the use of slow release, low phosphate fertilizer within the protected shoreland. Fertilizer may be applied no closer than 25 feet from the reference line. A single application of slow release, low phosphate **fertilizer** at the beginning of fall is adequate in most cases. To help protect the environment and reduce fertilization costs, it is recommended to have your soil tested to determine if fertilization is necessary for your lawn. You can have your soil tested by UNH labs or at several local garden centers.
- *Soil Aeration:* Soil can naturally contain clay or be packed down. In these circumstances it is difficult for water and air to penetrate the soil. The best method for aerating your soil is to use a machine that removes small cylindrical cores of soil from the lawn, allowing it to receive proper amounts of water and nutrients.
- *Mowing:* Leaving grass three inches or higher will encourage deeper roots and reduce fertilizer needs. Deeper roots enable the grass to tap into large volumes of nutrients and moisture. Longer grass will also shade and discourage weeds and helps a lawn survive heat and drought. Never cut more than one third of the height of the grass. If after mowing, the tips of grass blades are jagged or uneven, the lawn mower blades are dull and should be sharpened. Well sharpened blades reduce the fuel used by a mower.
- *Grass Clippings:* Mulch your grass as you mow your lawn. This is the best and most efficient way to fertilize your lawn as it naturally adds nutrients like nitrogen and potassium. Moreover, it will cut your mowing time by an average of 38% and will reduce the amount of solid waste in landfills. Thatch is a layer of undecomposed stems and roots that accumulates near the soil surface. Grass clippings on lawn that is not overwatered or over fertilized typically does not contribute to thatch accumulation.
- *Surround with Trees:* A shaded lawn requires less watering because grass is shielded from the sun's heat and will resist drying during the summer. Keeping a healthy, well distributed stand of trees will therefore benefit your lawn and the environment. Grass seed mixes are available that are tolerant of lower light conditions.
- *Consider Alternatives:* Use native ground cover, like Partridge-berry (*Mitchella repens*), as an alternative to grass. Ground cover can be hardier than grass, usually has a longer root system, and often stays healthier without the use of fertilizers.

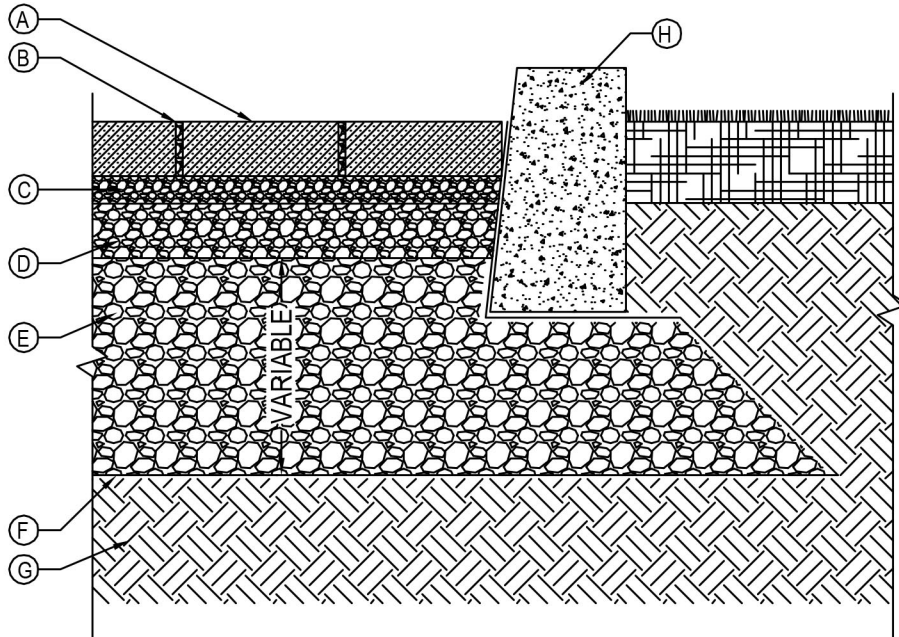
FOR MORE INFORMATION

For more information, please visit www.des.nh.gov. You may also contact the Wetlands Bureau by phone at (603) 271-2147, via email at shoreland@des.nh.gov, or by mail at 29 Hazen Drive; P.O. Box 95 Concord, NH 03302-0095.



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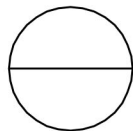
SECTION
CASE NO 1 - FULL INFILTRATION

LEGEND:

- (A) PERMEABLE PAVER FROM TECHO-BLOC, 2 3/8" TO 3 15/16" (60 TO 100 MM) THICK INFLO, MISTA RANDOM, PURE, VICTORIEN PERMEABLE, VILLAGIO OR VILLAGIO GRANDE CONFORMING TO ASTM C 936
- (B) JOINT FILLING MATERIAL, NO. 8 (FOR INFLO, PURE AND VILLAGIO) OR NO. 9 STONE (FOR MISTA RANDOM, VICTORIEN PERMEABLE AND VILLAGIO GRANDE) CONFORMING TO ASTM D 448
- (C) BEDDING COURSE, 2" (50 MM) THICK NO. 8 STONE CONFORMING TO ASTM D 448
- (D) BASE COURSE, 4" (100 MM) THICK NO. 57 STONE CONFORMING TO ASTM D 448
- (E) SUBBASE COURSE, THICKNESS AS PER DESIGN NO. 2 STONE CONFORMING TO ASTM D 448
- (F) GEOTEXTILE
- (G) SUBGRADE
- (H) EDGE RESTRAINT

NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 5058-007.



PERMEABLE PAVERS

PERMEABLE PAVERS (FULL INFILTRATION)