

Project Application Land Use Department

P.O. Box 660; 333 Calef Hwy, Barrington, NH 03825 ♦ Phone: 603-664-5798 ♦ Fax: 603-664-0188

Case Number: 121-28-GR-20-SR

Project Name: Barrington Shores Campground Date: 3/10/2020

Staff Signature required PRIOR to submittal

PRELIMINARY APPLICATION: Preliminary Conceptual Review ___ Design Review ___ Development of Regional Impact ___

FORMAL APPLICATION:
Subdivision Type: Major ___ Minor ___ Conventional ___ Conservation ___
Site Plan Review: Major ___ Minor x ___
Conditional Use Permit ___ Sign Permit ___ Boundary Line Adjustment ___ Special Permit ___
Change of Use ___ Extension for Site Plan or Subdivision Completion ___
Amendment to Subdivision/Site Plan Approval ___ Other ___

Project Name: Barrington Shores
Project Address: 7 Barrington Shores Drive
Current Zoning District(s): General Residential Area (Acres or S.F) ___

Request: Expansion of seasonal camp sites by 28. Including gravel roads, drainage, septic, water and utility service to camp sites.
Map(s) 121 Lot(s) 28

The property owner shall designate an agent for the project. This person (the applicant) shall attend pre-application conferences and public hearings, will receive the agenda, recommendations, and case reports, and will communicate all case information to other parties as required.
All contacts for this project will be made through the Applicant listed below.

Owner: Mr. Todd Green
Company Barrington Shores, LLC
Phone: _____
Address: 240 Revere Street Winthrop MA 02152 Fax: _____ E-mail: _____

Applicant (Contact): Tobin Farwell
Company Farwell Engineering Services, LLC
Phone: 603-292-5787
Address: 265 Wadleigh Falls Rd - Lee NH 03861 Fax: _____ E-mail: T_farwell@farwellengineering.com

Developer: _____
Company _____
Phone: _____
Address: _____ Fax: _____ E-mail: _____

Architect: _____
Company _____
Phone: _____
Address: _____ Fax: _____ E-mail: _____

Engineer: Tobin Farwell
Company Farwell Engineering Services, LLC
Phone: 603-292-5787
Address: 265 Wadleigh Falls Rd - Lee NH 03861 Fax: _____ E-mail: T_farwell@farwellengineering.com

see letter
Owner Signature
Barbara Arvini
Staff Signature

Applicant Signature
3/10/2020
Date

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LAND USE OFFICE

TOWN OF BARRINGTON - LAND USE DEPARTMENT

PROJECT NARRATIVE

PROJECT NAME Barrington Shores

CASE FILE NUMBER 121-28-GR-20-SR

PROJECT LOCATION 7 Barrington Shores Drive

DATE OF APPLICATION _____

Property Details:

Single-Family Residential Multi-Family Residential Commercial Industrial

Current Zoning: General Residential Lot Area Size 24.8 +/- acres

Setbacks: Front 40 Side 30 Rear 30

Parking Spaces Required: na Parking Spaces Provided: na

Please describe your project and its purpose and intent. You may attach a typed description.

This is a proposed expansion to a seasonal campground. We are proposing and additional 28 vehicle camper sites. This includes gravel roads, drainage, septic and water improvements.

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Narrative

Owner: Barrington Shores, LLC

Location: **7 Barrington Shores Drive, Barrington, Strafford County, New Hampshire**

Tax Map & Lot Number: **Map 121 Lot 28**

March 5, 2020

Dear Barrington Planning Board,

My client, Barrington Shores, LLC owns the Barrington Shores Campground. They currently have approximately 148 camping sites & 8 cabins on the 24+ acre property. They would like to create 28 additional sites in a wooded area near Hall Road. These sites are planned to be for seasonal campers which limits the amount of trailer movement in the area. Most or all the seasonal campers stay for multiple years and support local business.

Article 6, Section 6.2.3(2) requires a 100 foot buffer from all campsites to property lines. This is an existing non-conforming campground and many sites are well within the 100 foot. At the November 6th, 2018 conceptual meeting, it was discussed that a 50 foot buffer would be reasonable, therefore the current plan has a 50 foot buffer around the proposed development area. Site #28 is about 29 feet from the property line but falls within the existing tree line that is used for boat and vehicle storage. This site is more than 170 feet from the closet house. We are asking for a waiver from this Article to a 50 foot buffer with the exception at Site 28.

The proposed sites are significantly larger than the 1000 square foot minimum required by the ordinance. The hope with the larger size sites is to be able to retain as much of the mature vegetation and be able to place campers amongst the trees instead of clear cutting the hill. There will still need to be grading and cutting for the access roads, but the plan is to minimize cutting and grading.

Additional vegetation would be added as necessary to provide an adequate buffer between neighboring homes as recommended by Andy Fast from UNH Cooperative Extension. Tree clearing will be performed per the recommendations of Edward Roy from Urban Tree Service, see letters attached to this application.

We feel the 28 proposed sites are the maximum number that can be reasonably placed in this area. During construction, exact site locations may be shifted for better placement, but no increase in number of sites will be created.

Thank you for your time.
Sincerely:

Raymond A. Bisson

Raymond A. Bisson, LLS PLS
Stonewall Surveying

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Site Plan Waiver Request Form
Under Site Plan Regulations 3.9.8-Waivers and Article 8-Waiver Procedure

If there is more than one waiver requested, each waiver request is to be individually listed and described, as each waiver is considered individually by the Town of Barrington Planning Board. A petition for waiver shall be submitted in writing by the applicant with the application for review. The request shall fully state the grounds for which the waiver is requested and all facts supporting this request with reference to the applicable Barrington Site Plan Regulations article, section and paragraph. **Each waiver granted shall be listed on the approved site plan.**

Name of Site Plan (See Title Box): Barrington Shores

Case Number: _____

Site Location: 7 Barrington Shores Drive

Zoning District(s): General Residential

Owner (s): Barrington Shores, LLC Mr. Todd Green

Address of Owner(s): 240 Revere Street Winthrop MA 02152

Address Line 2: _____

Name of Applicant (if different from owner): Farwell Engineering Services, LLC - Tobin Farwell

Phone Number 603-292-5787 Email T_farwell@farwellengineering.com

Land Surveyor: Stonewall Surveying - Ray Bisson

I Tobin Farwell seek the following waiver to the Town of Barrington Site Plan regulations for the above case submittal: **Article 6.2.3(2) no site within the commercial recreational campground or camping park shall be located within 100 ft of a boundary line.**

we are proposing no closer than 50 ft to any property line and one no closer than 29 feet from the property line.

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Signature of Owner/Applicant Date

Letter of Authorization

March 4, 2020

To Barrington Planning Board:

I the undersigned, hereby authorize Raymond Bisson from Stonewall Surveying and his appointees and Tobin Farwell from Farwell Engineering and his appointees to act on our behalf in all manners relating to local and state permitting, including the signing of all documents related to these matters for our property located 7 Barrington Shores Drive, Barrington, NH, Tax Map 121 Lot 28. Any and all acts carried out by Raymond Bisson, Tobin Farwell and appointees on our behalf shall have the same effect as acts of our own.

This authorization is valid until further written notice from myself, Todd Green.

Sincerely



Barrington Shores, LLC
c/o Todd Green
240 Revere Street
Winthrop, MA 02152

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Applicant Barrington Shores Map/Lot# 121/28 Case# 121-28-GA-20-SR

**Site Review Application Checklist
Barrington Planning Board**

This checklist is intended to assist applicants in preparing a complete application for site review as required by the Barrington Site Review Regulations and must be submitted along with all site review applications. An applicant seeking site review approval shall be responsible for all requirements specified in the Barrington Site Review Regulations even if said requirements are omitted from this checklist.

An applicant seeking site review approval shall be responsible for providing all the information listed in the column below entitled "Site Review" and should place an "x" in each box to indicate that this information has been provided

SITE REVIEW APPLICATION CHECKLIST	Site Review		Waiver(s)
	Provided	NA	
Check the Appropriate Boxes below:			
Section I. General Requirements			
1. Completed Application Form (2.5.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Complete abutters list (2.6.3 (5) or 2.5.1 (6))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Payment of all required fees (2.6.3 (4) or 2.5.1 (5))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Three (3) full size sets of plans and twelve (12) sets of plans 11" by 17", submitted with all required information in accordance with the site review regulations and this checklist (2.6.3 (6) or 2.5.1 (7))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Copies of any proposed easement deeds, protective covenants or other legal documents (3.9.1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Any waiver request(s) submitted with justification in writing (3.9.8)	<input type="checkbox"/>	<input type="checkbox"/>	
7. Completed Application Checklist (2.5.1 (3))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Section II. General Plan Information			
1. Size and presentation of sheet(s) per registry requirements and the site review regulations (3.1.2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Title block information: (3.2.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
a. Drawing title (3.2.1 (1))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Name of site plan (3.2.1 (2))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Location of site plan (3.2.1 (3))	<input type="checkbox"/>	<input type="checkbox"/>	
d. Tax map & lot numbers of subject parcel(s) (3.2.1 (4))	<input type="checkbox"/>	<input type="checkbox"/>	
e. Name & address of owner(s) (3.2.1 (5))	<input type="checkbox"/>	<input type="checkbox"/>	
f. Date of plan (3.2.1 (6))	<input type="checkbox"/>	<input type="checkbox"/>	
g. Scale of plan (3.2.1 (7))	<input type="checkbox"/>	<input type="checkbox"/>	
h. Sheet number (3.2.1 (8))	<input type="checkbox"/>	<input type="checkbox"/>	
i. Name, address, & telephone number of design firm (3.2.1 (9))	<input type="checkbox"/>	<input type="checkbox"/>	
j. Name and address of Applicant (3.2.1 (10))	<input type="checkbox"/>	<input type="checkbox"/>	
3. Revision block with provision for amendment dates (3.2.3)	<input type="checkbox"/>	<input type="checkbox"/>	
4. Planning Board approval block provided on each sheet to be recorded (3.2.2)	<input type="checkbox"/>	<input type="checkbox"/>	
5. Certification block (for engineer or surveyor) (3.1.1)	<input type="checkbox"/>	<input type="checkbox"/>	
6. Match lines (if any)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. Zoning designation of subject parcel(s) including overlay districts (3.2.10 (4))	<input type="checkbox"/>	<input type="checkbox"/>	

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MAR 10 2023

SITE REVIEW APPLICATION CHECKLIST	Site Review		Waiver(s)
	Provided	NA	
Check the Appropriate Boxes below:			
8. Minimum lot area, frontage & setbacks dimensions required for district(s) 3.2.10(5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9. List Federal Emergency Management Agency (FEMA) sheet(s) used to Identify 100-year flood elevation, locate the elevation (3.2.10 (12))	x		
10. Note the following: "If, during construction, it becomes apparent that deficiencies exist in the approved design drawings, the Contractor shall be required to correct the deficiencies to meet the requirements of the regulations at no expense to the Town." (3.2.10 (16))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Note the following: "Required erosion control measures shall be installed prior to any disturbance of the site's surface area and shall be maintained through the completion of all construction activities. If, during construction, it becomes apparent that additional erosion control measures are required to stop any erosion on the construction site due to actual site conditions, the Owner shall be required to install the necessary erosion protection at no expense to the Town." (3.2.10(17))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. Note identifying which plans are to be recorded and which are on file at the town.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. Note the following: "All materials and methods of construction shall conform to Town of Barrington Site Review Regulations and the latest edition of the New Hampshire Department of Transportation's Standard Specifications for Road & Bridge Construction." (3.2.10 (18))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
14. North arrow (3.2.5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
15. Floodplains-Location and elevation(s) of one-hundred (100)-year flood zone per FEMA Flood Insurance Study or as determined by drainage study (3.3 (18))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
16. Plan and deed references (3.2.6)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
17. The following notes shall be provided:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
a. Purpose of plan (3.2.10 (1))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Existing and proposed use (3.2.10 (6))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Water Supply source (name of provider (company) if offsite) (3.2.10 (10))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d. Zoning variances/special exceptions with conditions (3.2.10 (11))	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e. List of required permits and permit approval numbers (3.2.10 (13))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
f. Vicinity sketch showing 1,000 feet surrounding the site (3.2.8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
g. Plan index indicating all sheets (3.2.9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
18. Boundaries-existing lot boundary defined by metes and bounds (3.3 (1))	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
19. Boundary monuments (3.3 (4))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
a. Monuments found (4.2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Map number and lot number, name addresses, and zoning of all abutting land owners (3.3 (5))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Monuments to be set (3.3 (4) & 4.2)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
20. Existing streets: (3.3 (6))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
a. Name labeled	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Status noted or labeled	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Right-of-way dimensioned	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d. Pavement width dimensioned	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
21. Municipal boundaries (If any) (3.3 (7))	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
22. Existing easements (identified by type) (3.3 (8))	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
a. Drainage easement(s)	<input type="checkbox"/>	<input type="checkbox"/>	
b. Slope easement(s)	<input type="checkbox"/>	<input type="checkbox"/>	
c. Utility easement(s)	<input type="checkbox"/>	<input type="checkbox"/>	
d. Temporary easement(s) (Such as temporary turnaround)	<input type="checkbox"/>	<input type="checkbox"/>	

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Application Checklist

Barrington Site Review Regulations

SITE REVIEW APPLICATION CHECKLIST

Check the Appropriate Boxes below:

	Site Review		Waiver(s)
	Provided	NA	
e. No-cut zone(s) along streams & wetlands (as may be requested by the Conservation Commission)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Vehicular & pedestrian access easements(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
g. Visibility easement(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
h. Fire pond/cistern(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
i. Roadway widening easement(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
j. Walking trail easement(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
a) Other easement(s) Note type(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
23. Designation of each proposed lot (by Map & Lot numbers as provided by the assessor)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
24. Area of each lot being developed (in acres & square feet): (3.3 (9))	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
a. Existing lot(s) (3.3 (9))	<input type="checkbox"/>	<input type="checkbox"/>	
b. Contiguous upland(s)	<input type="checkbox"/>	<input type="checkbox"/>	
25. Wetland delineation (including Prime Wetlands): (3.3 (13))	<input type="checkbox"/>	<input type="checkbox"/>	
a. Limits of wetlands (3.3 (13))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Wetland delineation criteria (3.3 (13))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Wetland Scientist certification (3.3 (13))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
26. Owner's signature(s) (3.3 (14))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
27. All required setbacks (3.3 (15))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
28. Physical features	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
a. Buildings (3.3 (21))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Wells (3.3 (16))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Septic systems (3.3 (16))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d. Stone walls (3.3 (16))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
e. Paved drives (3.3 (16))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
f. Gravel drives (3.3 (16))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
29. Location & name (if any) of any streams or water bodies (3.3 (17))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
30. Location of existing overhead utility lines, poles, towers, etc. (3.3 (19))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
31. Two-foot contour interval topography shown over all subject parcel (3.3 (3))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
32. Map & Lot #s, name, addresses, & zoning of all abutting land owners (3.3 (5))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
33.	<input type="checkbox"/>	<input type="checkbox"/>	

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APPLICATION AGREEMENT

I hereby apply for Site Plan Review and acknowledge I will comply with all of the Ordinances of the Town of Barrington, New Hampshire State Laws, as well as any stipulations of the Planning Board, in development and construction of this project. I understand that if any of the Site Plan Review or Application specifications are incomplete, the Application will be considered rejected.

In consideration for approval and the privileges accruing thereto, the subdivider thereby agrees:

- E. To carry out the improvements agreed upon and as shown and intended by said plat, including any work made necessary by unforeseen conditions which become apparent during construction of the site plan review.
E. To post all streets "Private" until accepted by the Town and to provide and install street signs as approved by the Selectmen of the Town for all street intersections.
E. To give the Town on demand, proper deeds for land or rights-of-way reserved on the plat for streets, drainage, or other purposes as agreed upon.
E. To save the Town harmless from any obligation it may incur or repairs it may make, because of my failure to carry out any of the foregoing provisions.
E. Mr/Mrs _____ of _____ The owners, by the communications to the subdivider may be addressed with any proceedings arising out of the agreement herein.

Signature of Owner: _____

Signature of Developer: _____

Technical Review Signatures: _____

Town Engineer/Planner Approval Signature: _____ The owners, by the filing of this application as indicated above, hereby give permission for any member of the Barrington Planning Board, the Town Engineer, The Conservation Commission and such agents or employees of the Town or other person as the Planning Board may authorize, to enter upon the property which is the subject of this application at all reasonable times for the purpose of such examinations, surveys, test and inspections as may be appropriate.

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(Refusal to sign this permission form does not invalidate an application, but the Planning Board may not be able to make an informed decision regarding unseen lands with potential areas of concerns).

Signature of Owner: _____

Note: The developer/individual in charge must have control over all project work and be available to the Road Agent and Code Enforcement Officer during the construction phase of the project. The Road Agent and Code Enforcement Officer must be notified within two (2) working days of any change by the individual in charge of the project.

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County Offices

Carroll County
447-3834

Cheshire County
352-4550

Coos County
788-4961

Grafton County
787-6944

Hillsborough County
641-6060

Merrimack County
796-2151

Rockingham County
679-5616

Strafford County
749-4445

Sullivan County
863-9200

**UNH Coop. Ext.
Education Center**
351-3831 (Office)
877-398-4769 (Toll Free)

**UNH Cooperative
Extension State Office**
862-1520



Ray Bisson
Stonewall Surveying
PO Box 458
Barrington, NH 03825

March 19, 2019

Ray,

Following up on our site visit, please see the following comments about the topics we discussed.

Visual Barrier. We discussed the fence, rather than vegetation is the most effective visual barrier. As such, plantings would serve to act as modest sound barrier and “enhance” the 50’ buffer around the outside of the campground.

Shade tolerance. One of the challenges that we discussed was the shade on the site. For most plantings, there is an open area and we have a variety of species to choose from. In this case, for much of the area, we are selecting shade tolerant species – that persist in the shade.

- Eastern hemlock is an option. It will persist in the shade and has full foliage that can assist as a visual and noise barrier. Be aware, there is an invasive forest insect (hemlock wooly adelgid) in the southern part of the state that will kill hemlock over a number of years.
- Balsam fir is another native softwood that can do alright in the shade.
- Other deciduous trees include Allegheny serviceberry and American hornbeam.
- Shrubs that persist well in the shade include gray dogwood, snowberry, and maple leaf viburnum

As there is more light (a few canopy trees removed or more), you start to get a little more flexibility and can introduce more native shrubs and trees. The New Hampshire State Forest Nursery has some great shrub packages (wildlife package, wetlands package, etc.) that are reasonably priced and good stock. Some of the species in these packages are more sun loving, but you could buy a lot of these and plant them as appropriate (based on sunlight and preferred location). There may be quite a bit of mortality, but there will also be quite a bit of shrub diversity that will be introduced – and a heavy shrub layer should act as an additional visual and sound barrier.

Viburnums, spiceberry, red maple, black birch, chokeberry, winterberry (moister sites), are additional considerations.

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County Offices

Carroll County
447-3834

Cheshire County
352-4550

Coos County
788-4961

Grafton County
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Hillsborough County
641-6060

Merrimack County
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679-5616

Strafford County
749-4445

Sullivan County
863-9200

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UNH Cooperative
Extension State Office
862-1520

Plant size. Depending on the individual's goals, there are different perspectives on the size of plants to purchase. I tend to recommend buying lots of seedlings (e.g. from the state nursery). A drawback is that they are very small and take time to grow up. However, you can purchase many hundreds for the price of a few larger (e.g. 2" caliper) trees. The seedlings can get established more naturally than some of the larger trees that are root pruned with small root balls relative to their crown size. It can also be good to sprinkle in some larger shrubs and trees for vertical, structural diversity (different height plants in the buffer).

Existing trees. As the campground is developed, you might retain as much of the hardwood composition as possible. If there are defects in a hardwood tree, I do not suggest retaining that instead of a pine, but all things being equal the campground would be well served keeping a strong hardwood component. The hardwoods seem to be in a size (and age) class where internal rot is less likely than some of the mature pines. However, that is a general observation and not a formal assessment. You can get a formal hazard tree assessment form a qualified arborist if you would like additional evaluation.

Sincerely,



Andy Fast
UNH Cooperative Extension
Belknap - Strafford County Forester

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URBAN
TREE
SERVICE

A Tree Health Company, Inc.

EXCELLENCE IN TREE, SHRUB AND TURF CARE
LICENSED ARBORIST IN N.H. & MAINE
EMAIL INFO@URBANTREESERVICE.COM
WWW.URBANTREESERVICE.COM

July 19, 2019

Barrington Shores LLC.
Attn: Todd Green
240 Revere Street
Winthrop, MA 02152

Stonewall Surveying
Attn: Mr. Raymond A. Bisson
P.O. Box 458
Barrington, NH 03825

Dear Todd and Raymond:

On June 12th, 2019 and on June 27th, 2019 I performed an inspection of the trees located within the "Proposed Site Plan" for new campsites at Barrington Shores, LLC in Barrington, New Hampshire. The purpose of the inspections was to identify trees that would pose an unreasonable risk of failure to the new camp sites and to identify trees that should be removed to improve the stand, and to identify trees that should be retained to keep and/or improve the sylvan nature of the site.

Observations

The stand of trees located within the area of the "Proposed Site Plan" is comprised almost entirely of white pine (*Pinus strobus*), American beech (*Fagus grandifolia*), and black birch (*Betula lenta*). Also noted in the stand were black oak (*Quercus velutina*), white ash (*Fraxinus americana*), red pine (*Pinus resinosa*), white birch (*Betula papyrifera*), hemlock (*Tsuga canadensis*) and poplar (*Populus tremuloides*).

The structure of the stand is comprised of three distinct strata with white pine dominating the upper strata. The average height of the pine trees is approximately 80 feet tall. The middle stratum is comprised almost exclusively of American beech, black birch and to a much lesser extent black oak. The trees in this stratum are approximately 40 to 50 feet tall and have a diameter at breast height (DBH) of greater

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than 3 inches. The trees in the lowest stratum have an average height of 20 to 30 feet tall and have a DBH of less than 3 inches.

The white pines are distributed evenly throughout the stand except for the southern corner which is comprised almost entirely of white pine. Little to no white pine regeneration was noted. Except for the southern corner of the stand, the two lower strata are densely populated with black birch, American beech, and to a lesser extent, black oak. There is extensive regeneration of black birch, American beech, and to a lesser extent, black oak. The stand is densely shaded due to the high density of trees in the middle and lower strata.

Evaluation

The first phase of the inspection was to determine which trees, in their current condition, pose an unacceptable risk to failure. To identify these trees a Level 1 inspection was performed as outlined in the International Society of Arboriculture's guide to performing tree risk evaluations. A Level 1 inspection is limited to only those defects that can be seen with the naked eye from the ground. Concealed defects, or those occurring higher up in the canopy may not be observed due to the limited scope of a Level 1 inspection.

In determining whether a tree poses an unacceptable risk of failure, several factors were considered. The first consideration in determining if a tree poses a risk, is determining the likelihood that it would hit something or someone if it were to fail. This site will be populated with camp sites. Therefore, the likelihood that something will be hit if a tree were to fall is very high. Because of this, all trees located within the site represent some level of risk. Even a perfect tree poses a risk if it would hit something if it fell. The question is what level of risk is acceptable. A perfect tree would be considered a low risk since the chance of it failing under normal weather conditions is very low.

Another factor would be the "species failure profile". White pines for example, are more likely to fall in high winds than oak trees. Norway maple trees tend to have brittle wood which breaks under heavy snow fall, whereas the branches of hemlock trees will bend a great deal under a snow load before they break.

Another important factor to consider is whether the tree has some sort of defect. Defects can be such things as disturbed roots systems, decay in the trunk, cracks in branches or the trunk, poor branching architecture, and severe lean. A pine tree with a large pocket of decay in its trunk and a potential target if it were to fail would be considered an unacceptable risk to failure and should be removed. All dead trees, regardless of species, are considered an unacceptable risk to failure for purposes of this evaluation.

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All trees within the site that were considered to be an unacceptable due to the above stated reasons are listed in Table 1. In the field, the trees that were considered an unacceptable risk are tagged with orange tape and were assigned a number that corresponds with Table 1.

In determining which trees should remain on the site to improve stand condition, several goals were considered. The first goal was to retain as many trees as possible while at the same time keeping inherent risks posed by trees to low levels. The second goal was to maintain or improve the existing diversity of trees. For example, trees that were less common were given more consideration for preservation. Trees that were in good health and physical condition were given preference. There are many trees on the site that have significant defects such as trunk wounds, severe lean, poor rooting condition or poor health. While these trees do not currently represent an unacceptable risk of failure due to their small size, they will likely turn into an unacceptable risk in the future as they get larger. Due to their existing defects, the stand would be improved by removing them. Figures 1 through 4 show examples of defects that make these trees undesirable for the stand.

Trees that were considered to have the desired attributes of good structure, good health, and diversity maintenance were tagged with pink tape and are listed in Table 2. The numbers in the table correspond to the numbers in the field. The list of trees to be retained is not meant to be exhaustive or complete, but rather a tool to help illustrate the type of tree that should be retained on the property. Figures 1 through 4 show examples of trees with defects that make them poor choices for stand improvement.

The removal of trees on this site should be performed in three phases. The first phase would be to remove all the trees that are considered an unacceptable risk to failure. These trees are a liability and have to be removed. The second phase would to remove trees that have existing defects but are not considered an unacceptable risk to failure at this time. Once these two phases are completed, then determining what remaining trees that need to be removed or retained to accommodate the camps sites and access road will be better understood.

As mentioned earlier, this report is not intended to be a complete or exhaustive instruction manual of exactly what trees should be removed or retained. Trees that have been listed as an unacceptable risk of failure should be removed. Your tolerance to risk may be lower or higher than that used by this evaluator, and the burden to remove or retain a tree is ultimately up to Barrington Shores Campground or its representatives. Not all defects and contingencies can be observed in a Level 1 inspection, and seemingly healthy and defect trees may fail, especially in extreme weather events.

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Figure 1. This tree illustrates a tree with a severe lean and is not a good candidate for retention. This tree would be more vulnerable to forces such as ice or snow loads.

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Figure 2. This tree shows an example of a tree that has a large trunk wound. Most likely the result of being hit by a fallen tree. A large pocket of decay is visible and this tree will be an unacceptable risk to failure as it gets larger.

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Figure 3. The roots of this tree are in direct conflict with another tree and are exposed. In addition, this tree has a strong lean due to its conflict with the large pine tree. The poor rooting structure and severe lean make this tree undesirable and should be removed.

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Figure 4. This tree has a large wound on the trunk and is growing very close to a large pine tree. In time, a large pocket of decay will develop at this point and as the trunk gets larger it will be in direct conflict with the pine tree. Removal is recommended.

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I.D. #	SPECIES	DBH (Inches)	Approx. Ht. (Ft.)	OBSERVED DEFECT
1	White Pine	26	60	Dead
2	White Pine	10	60	Dead
3	White Pine	22	90	Woodpecker damage/cracks in trunk
4	Red Oak	16	50	Basal decay
5	White Pine	8	60	Dead
6	White Pine	21	100	Dead
7	White Pine	10	40	Dead
8	White Pine	15	65	Dead
9	Red Pine	14	40	Boring insects/Very poor health
10	White Pine	10	50	Dead
11	White Pine	9	50	Dead
12	White Pine	10	50	Dead
13	White Pine	12	60	Dead
14	White Pine	12	60	Dead
15	White Pine	9	50	Dead
16	White Pine	9	50	Dead
17	White Pine	19	60	Basal decay/lean over horseshoe pit
18	White Pine	14	30	Dead
19	White Pine	14	70	Weak crotches
20	White Pine	20 & 23	100	Weak crotches
21	White Pine	13	40	Dead
22	White Pine	15	100	Multi decay areas on trunk
23	White Pine	12	70	Decay/woodpecker damage
24	White Pine	20	100	Weak crotches
24	White Pine	28	100	Weak crotches
26	White Pine	16	60	Dead
27	White Pine	14	80	Dead
28	White Pine	12	60	Dead
29	White Pine	16	90	Decay/lean
30	White Pine	11	80	Dead
31	White Pine	9	70	Dead
32	Poplar	13	70	Dean
33	Poplar	11	70	Severe lean
34	Poplar	10	60	Severe lean
35	Poplar	12	60	Severe lean
36	White Pine	23	100	Decay upper trunk
37	White Pine	9	70	Dead
38	White Ash	11	60	Basal defect
39	White Pine	24	100	Trunk defect

TABLE 1. All trees listed in Table 1 have defects or conditions which make them an unacceptable risk to failure.

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Tree I.D. #	Species	DBH (inches)
1	Black Birch	8
2	Beech	4
3	Black Oak	3
4	Black Birch	6
5	Black Birch	6
6	Black Birch	5
7	Beech	10
8	Black Birch	8
9	Black Birch	5
10	White Birch	3
11	Black Birch	5
12	Beech	4
13	Black Oak	3
14	Beech	5
15	Black Oak	24
16	Beech	4
17	Black Birch	57
18	Beech	37
19	Black Birch	69
20	Beech	4
21	Hemlock	66
22	Beech	39
23	Black Birch	64
24	Beech	20
25	Beech	50
26	Black Oak	11
27	Hemlock	31
28	Beech	33

Table 2. Among the criteria for determining if a tree should be retained were health and physical condition, size, and uniqueness of the species within the stand. **Though not specifically labeled and tagged, all mature pine trees not listed as an unacceptable risk in Table 1 should be retained in order to maintain the existing structure of the upper canopy.**

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Conclusion

If the recommendations and guidelines outlined in this report are followed, a healthy and low risk environment will be created. As the trees on this site will be subjected to new conditions and usage, it is important that follow up inspections are performed to help ensure that the trees remain in a healthy and safe condition. It would be the responsibility of Barrington Shores Campground to schedule any follow up inspections.

Thank you very much for the opportunity to prepare this report for the Barrington Shores Campground. If you have any questions, or require any clarifications, please do not hesitate to contact me.

Sincerely,



Edward A. Roy

I.S.A. Certified Arborist (NE1066A)

I.S.A. Tree Risk Assessment Qualified Arborist

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