

Planting Proposal



VIA EMAIL to a.chicooree@gmail.com

November 22, 2023

Mr. Amrishi 'Ash' Chicooree
90 F.W. Hartford Drive
Portsmouth, N.H. 03801

Re: Assessor's Map 269, Lot 45
90 F.W. Hartford Drive
Portsmouth, N.H.

Dear Mr. Chicooree,

The following remarks summarize our initial observations made during inspections of the above-referenced location conducted on October 12 and November 15, 2023. These remarks are intended to address the letter from the City of Portsmouth dated August 22, 2023 regarding potential unauthorized tree removal in wetlands or the wetland buffer.

Where they exist, wetlands were identified according to the New Hampshire Department of Environmental Services (NHDES) – NH Code of Administrative Rules – Section Env-Wt 100 – 900 and Article 10 – Environmental Protection Standards, Section 10.1010 – Wetlands Protection, of the Portsmouth Zoning Ordinance. Solid color pink survey ribbons/flags were placed in the field to delineate the wetland-upland boundary. The flags are labeled A1-A6. Flag A6 shares a locus with flag B4 (which is thought to lie on or very near the property line with the abutting property to the north). Numerous offset measurements from known points (such as house corners) were then obtained using a 200 foot fiberglass tape. The measurements are depicted on the attached sketch, the base map for which was prepared using the Portsmouth GIS system.

The portion of the wetland that falls within your property is 4,185 square feet (SF) in size per the Portsmouth GIS system. This wetland is contiguous to other offsite wetlands however and taken together the wetlands are more than 10,000 SF in size and are therefore jurisdictional per the Portsmouth zoning and thus are also subject to a 100 foot buffer per zoning §10.1014.22. The zoning also requires buffers of 25 and 50 feet per zoning §10.1018.20. As it relates to zoning §10.1018.22, the average slope in the area is considerably less than 10 percent. The 25 foot buffer is a no cut zone per zoning §10.1018.23(2), while the 25-50 buffer allows up to 50 percent of trees to be removed per zoning §10.1018.23(3).

We observed that a number of trees have been removed, as evidenced by their stumps, within the buffer to wetlands in two general locations. One tree was removed from within wetlands. No stumps had been pulled as of the date of our investigations. The two general areas of stumps are identified by blue 'clouds', which are identified as T1 and T2 on the attached sketch. The stumps within the cloud identified as T1 are not located within 50 feet of wetlands. The stumps within the cloud identified as T2 are located within 25 and/or 50 feet of wetlands.

We have provided a tally of stumps within the 25 and 50 foot buffers by species in Table 1 below. The diameter of each stump was measured at a representative location across the cut and is provided below. Each measurement represents a separate tree / stump. Each stump was sprayed with white paint after measuring to ensure that no stumps were missed or that stumps were not inadvertently counted more than once. Stumps within the 25 foot buffer to wetlands were sprayed with a white spot while those stumps between 25 and 50 feet were sprayed with a white 'x'. Refer to image 4.

TABLE 1

TREE SPECIES	0-25 FT BUFFER	25-50 FT BUFFER
	Diameter (inches)	Diameter (inches)
Red maple (<i>Acer rubrum</i>)	7, 9, 9, 9, 10, 13, 19	14*, 14
White pine (<i>Pinus strobus</i>)	5*, 6*, 8*, 18, 21, 21, 23, 24	8
Eastern hemlock (<i>Tsuga Canadensis</i>)	6, 7, 7, 9, 9, 11, 16	7, 7, 14
Black birch (<i>Betula lenta</i>)	9	NA
Red oak (<i>Quercus rubra</i>)	22	18, 22
TOTAL Number of Trees (live)	21 Total	7 Total

*These stumps represent dead trees or trees that were removed long before the trees that were recently removed.

Zoning §10.1018.23(3) prohibits the removal of more than 50 percent of trees greater than 6 inches diameter at breast height (dbh) within the 25-50 foot limited cut buffer. It is possible that the 8 inch diameter pine and the two 7 inch diameter hemlocks within the 25-50 foot buffer would not meet or exceed 6 inches dbh but there is no way to conclusively determine this now that the trees have been removed. Furthermore, based upon current measurements and available data, as well as limitations associated with measuring with a (fiberglass) tape, we are unable to conclusively determine if the removal of trees within the 25-50 foot buffer represents more than 50 percent of the 'area'. However, if the area is defined as the land that exists between the stumps, and does not necessarily include land between any stumps and the nearest tree line, then 100 percent of the trees have been removed from the limited cut buffer in this area of the site.

Regarding any future restoration of the buffer, we suggest that you install shrub plantings that include white pine and red maple, the dominant species in the area, as well as high bush blueberry (*Vaccinium corymbosum*), which were observed sporadically in adjacent natural forested wetlands.

Please contact me with any questions.

Cordially,

Marc Jacobs, CWS, ESS, CPESC



NOVEMBER 22, 2023



Image 1 – Looking west. Tree cutting area T1 in center. Note the shed and tree cutting area T2 in the background on the left.



Image 2 – Looking east. Subject property on the right. Tree cutting area T1 in center (more than 50 feet from locally jurisdictional wetlands). Note the shed on the far right in the foreground.



Image 3 – Looking westerly (from near the shed) at the wetland and tree cutting area T2.



Image 4 – Looking down at stumps (typical) in cutting area T2. 200 foot tape measure is for scale. Note white spray paint.

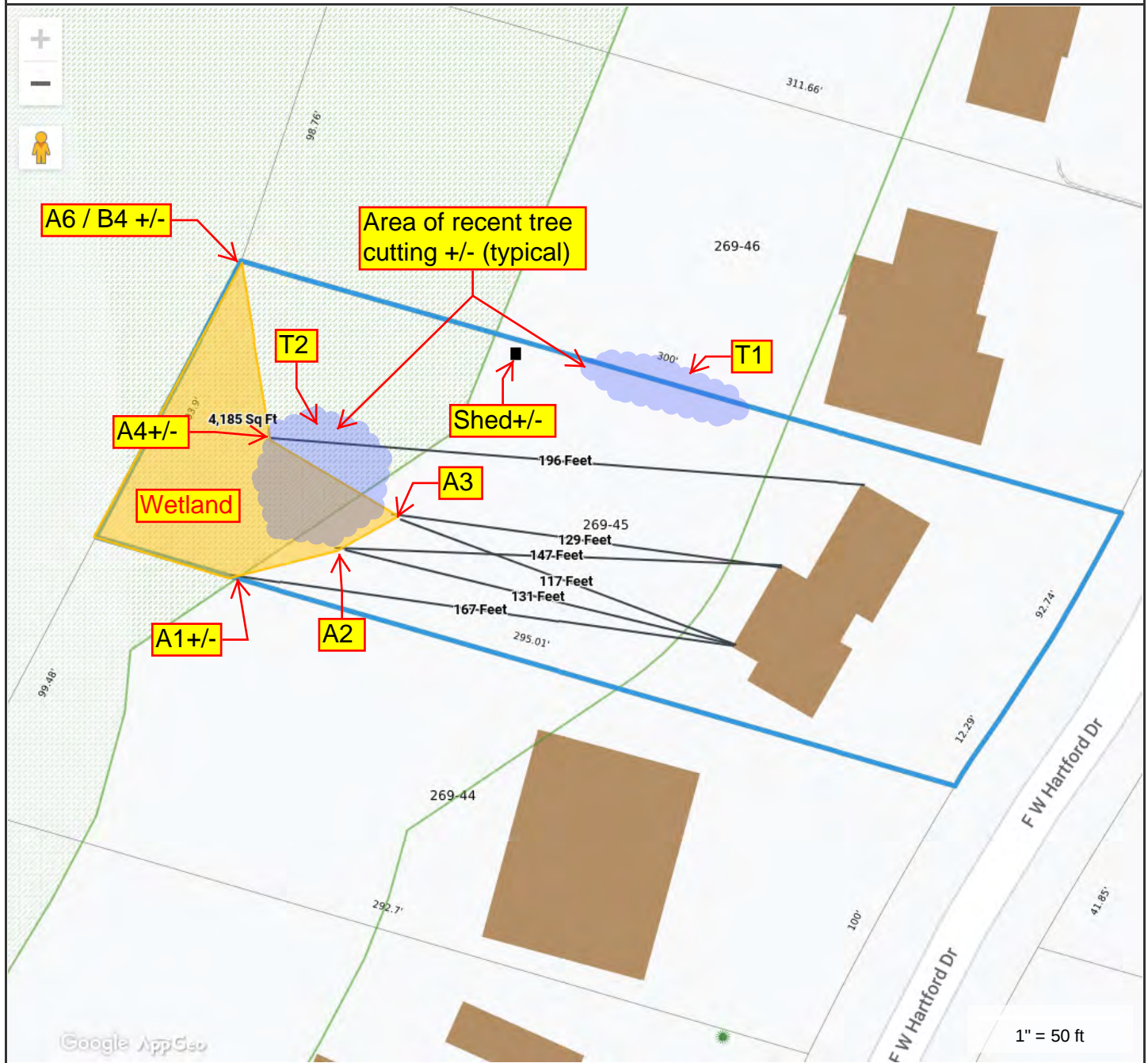


Image 5 – Looking east from the wetland and buffer and tree cutting area T2. Note part of tree cutting area T1 on left in background..



Image 6 – Looking west at the wetland and tree cutting area T2.

F W Hartford Drive



Property Information

Property ID 0269-0045-0000
 Location 90 FW HARTFORD DR
 Owner CHICOOREE AMRISHI A

Delineation Sketch
 Marc Jacobs, CWS
 Closed wetland polygon
 not intended to imply
 isolation. Flags A1-A6
 solid pink color. *MJ*



MAP FOR REFERENCE ONLY
 NOT A LEGAL DOCUMENT

City of Portsmouth, NH makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

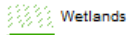
Geometry updated 08/24/2023
 Data updated 3/9/2022

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

90 F.W. Hartford Drive

Map Theme Legends

Wetlands



Wetlands

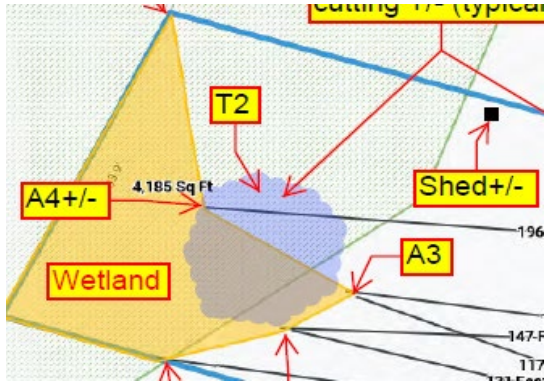


100ft Wetlands Buffer

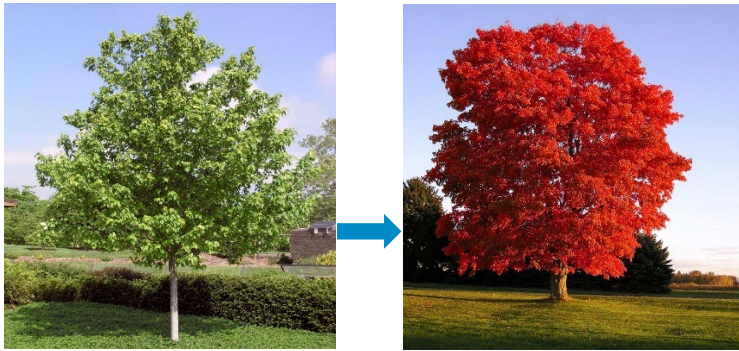
City of Portsmouth

Planting project: (Late Spring - Summer 2024)

Based on the recommendation of the wetland scientist, below is my plan. T2 area (shown below) is where all the trees were very clustered together and where the trees were removed. This is also one of the areas where the burning bush and buckthorn bush invasion wrapped around the trees and made it impossible to walk further back (reasonable enjoyment of my land). The T2 area is not a big area and all the trees taken were in a close cluster which caused problems including lack of proper growth and rot in general.



Red Maple Tree (x1)



Botanical Name	Acer rubrum Red Sunset
Mature Height:	40-50 ft.
Mature Width:	30-35 ft.
Sunlight:	Full-Partial
Growth Rate:	Fast (2-3 ft/year)
Drought Tolerance:	High
Trunk Width	24-32 inches
Shrub height	4-6 ft

Sugar Maple Tree (x1)



Botanical Name:	Acer saccharum
Mature Height:	55-75 ft.
Mature Width:	30-50 ft.
Sunlight:	Full-Partial
Growth Rate:	Fast
Trunk Width	29 - 36 inches
Shrub Height	4-6 ft

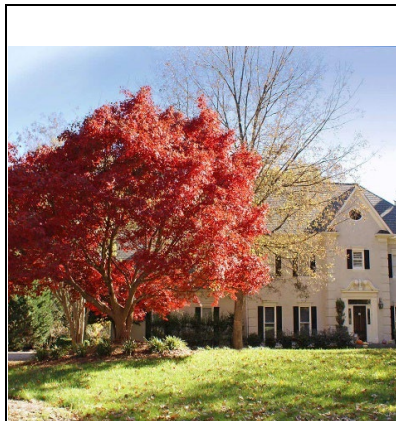
Ginkgo Tree (x1)



Botanical Name:	Ginkgo biloba (male)
Mature Height:	50-80 ft.
Mature Width:	30-40 ft.
Sunlight:	Full-Partial
Growth Rate:	Moderate
Trunk Width	24 - 36 inches

Although widely cultivated, the plant is listed as an endangered species by the IUCN Red List and is threatened in the wild. It is fungus and insect-resistant tree.

Red Japanese Maple Tree (x2)



Mature Height:	15-20 ft.
Mature Width:	15 ft.
Sunlight:	Best Color- Part Shade Tolerates Full Sun
Growth Rate:	Moderate
Botanical Name:	Acer palmatum
Trunk Width	12 inches

Highbush Blueberry Plant (x3)



Mature Height:	4-5 ft.
Mature Width:	2-3 ft.
Sunlight:	Full Sun
Growth Rate:	Moderate
Harvest Time:	June-July
Year to Bear:	Can Fruit the 1st Year!
Botanical Name:	Vaccinium corymbosum 'Hannah's Choice'

Apple Tree (x1) - Honeycrisp



The Honeycrisp Tree is disease resistant, so it doesn't need harsh chemicals or sprays. It thrives in temperatures as low as -30 degrees.

Mature Height:	8-10 ft.
Mature Width:	8-10 ft.
Sunlight:	Full Sun
Growth Rate:	Moderate
Harvest Time:	September
Year to Bear:	Can Fruit the 1st Year!
Botanical Name:	Malus pumila

Option 1:

1 Red maple + 1 Sugar Maple + 3 Blueberries

The red and sugar maple will grow to over 50ft and will need at a minimum 25ft-30ft distance between them with trunks reaching 29-36 inches in diameter.

They will need good spacing between them (between 25-30ft to allow for proper light, air circulation). They also need to be spaced away from the trees behind them (tall white pines).
Highbush blueberries are normally planted at least 5 feet apart.

Option 2:

1 Red maple + 2 Japanese maples + 3 Blueberries

The Japanese maples are smaller with width up to 15ft so the two Japanese maples will need to be spaced 15 ft from each other. The Red maple will be put in between the two Japanese maples and spaced between 25-30ft to allow growth, light and proper ventilation so as not to suffocate the other surrounding trees.

Option 3:

1 Red maple + 1 Ginko + 3 blueberries + 1 apple

Both the Red maples and the Ginko will mature into very big trees with width between 35-40ft. They will need proper spacing to allow sunlight and air circulation to grow healthy.

The blueberries and apple trees will need more sunlight, so they will be spaced away from the big trees to the right.

Option 4:

1 Red maple + 1 Eastern White Pine + 1 Japanese Maple + 2 Blueberry plants

Both the Red Maple and the White Pine are fast growing trees and will reach over 50ft (80ft for the white pine). Their mature spread is between 30ft to 40ft so they will need to be spaced properly (about 20ft apart) for light and air. Trunk diameter for both will be well over 24 inches with the white pine capable of reaching 40 inches with proper spacing. I am not a fan of big white pines as they tend to become top heavy and snap (already had 2 big ones snap at the top 1/3rd of the trees). The white pines are best grown in well drained soils and not wet soil or high moisture soil. The ones that were taken out lost all branches in the bottom and the needles became reddish-brown and sparse.

All the tree species mentioned are fast growing and cold hardy with some resistant to bugs and disease. The blueberry plants are made for northern weather.

NOTE:

Trees compete intensely for resources. Thinning is often the most important thing you can do to influence the growth and health of your forest. Proper spacing and thinning can reduce overcrowding and relieve tree stress. It also contributes to a more open forest stand, which enhances wildlife species' habitat. Trees that are overcrowded tend to be skinny for their height, with small, narrow crowns. The proportion of the tree length with live branches continues to decline, and trees become steadily more stressed. They tend to have little taper, small branches, and tight growth rings. By reducing competition, the remaining trees have greater access to sunlight, water and the nutrients found in soils.

With wider spaced trees, the crowns will be larger and have more branches. These trees may produce seed faster, and the wildlife is provided with food from the undergrowth. Providing your new tree with an ideal space to grow, both above and below ground, will help ensure the following:

- Healthy root and canopy development
- Ability to properly absorb nutrients and water from the soil
- Decreased competition with other trees/shrubs
- Increased protection against pests and disease

The general guidelines for the spacing of trees are as follows:

Plant small trees at least ten feet apart.

Medium-sized trees need around 20 feet.

Large trees need 50 to 100 feet, depending on the type of trees you're planting.

Trees/Plants that do well in wetlands conditions:

On the option provided, only the maples/blueberry and apple tree can tolerate very moist and wet soil conditions (the Ginko has tolerance to moist soil). Other trees that can tolerate wetlands:

- Green Ash
- Gray Dogwood (Cornus Racemosa)

- Swamp Azalea (*Rhododendrom Viscosum*)