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DEAN A. CHARTER, CONSULTING ARBORIST

ISA #NE-0333A

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January 15, 2024

Mr. Warren Gardner, Tree Warden, Town of Millbury

wsg.tree@gmail.com

Mr. Keith Caruso, Supervisor, Department of Public Works, Town of Millbury

kcaruso@townofmillbury.net

Gentlemen,

I am an Arborist certified by the International Society of Arboriculture (ISA # NE-0333A), with over forty-five years of experience in both the commercial and municipal fields. I served for 38 years as Tree Warden for the Town of Acton, and I have also served as the President of the New England Chapter, International Society of Arboriculture and as the President of the Massachusetts Tree Wardens' and Foresters' Association. I now provide Arborist consulting services to a variety of clients.

You asked me to evaluate three large Public Shade Trees (as defined by MGL Chapter 87) located at 27 Rice Road, Millbury, between utility poles 6 and 8. This area is under planning for a housing development and you had asked me for a visual inspection of the trees, suggestions about possible impact of development near these trees, and ideas for how to mitigate any possible damage to the trees. I inspected the trees on January 12, 2024, and conducted a ground level preliminary visual inspection.

Tree # 1 is a twin Shagbark Hickory (*Carya ovata*) that has two leaders, each 22 inches DBH (diameter breast height), approximately 60 feet high, and is located 8 feet of the edge of the roadway pavement and 16 feet off the edge of a paved driveway. This tree is in excellent condition with no obvious flaws, cavities, wood decay, or dead wood. The tree is well budded out and appears to be healthy.

Tree # 2 is a 67 inch DBH Red Oak (*Quercus rubra*), is approximately 60 feet high, and is about 5 feet off the edge of the roadway pavement. This tree has no obvious flaws, cavities, wood decay, and only one or two pieces of dead wood in the canopy. The tree is well budded out and appears to be healthy. The tree does have one large leader over the street that is very low and should be removed, as there are signs of numerous vehicle impacts (truck bodies) present. The tree is nothing less than spectacular

Tree # 3 is a 39 inch DBH Red Oak (*Quercus rubra*), is approximately 50 feet high, and is located about 4 feet off the edge of the roadway pavement. This tree is in excellent condition with no obvious flaws, cavities, wood decay, or dead wood. The tree is well budded out and appears to be healthy.

Absent any major disturbances or insect infestations, all three trees should thrive for many years, providing shade for the street, habitat for wildlife, and aesthetic beauty for the neighborhood. All three trees intercept and mitigate rainfall and provide great environmental value to the area.

Critical Root Zone (CRZ) is the area around trees that is necessary to provide water, nutrients, and gas exchange to keep trees healthy. Depending upon which resource you consult, the CRZ is generally calculated as being a distance of 12 to 18 inches in radius around a tree trunk for each inch in diameter of the tree trunk. Any grade changes, stockpiling of materials, trenching, excavation, or vehicle intrusion within the CRZ will damage the trees and must be avoided. Probably 90% of the root volume of a tree in our region will be located within 24 inches of the surface, so even brief compaction with a vehicle will harm the tree. All three trees have developed one sided root zones due to the presence of the roadway pavement (indeed the Hickory is also compromised due to the presence of the driveway), so it is imperative that the CRZ on the slope between the trees and the existing residence be protected from harm. Even if you assume the 12 to 1 CRZ ratio noted above, the three trees have interlocking root zones.

My recommendation is that the CRZ be fenced off during construction using 48 inch high chain link fence (not plastic snow fence) attached onto driven steel posts set at 10 foot intervals. The protected CRZ should be at the edge of the roadway pavement, and extend 65 feet uphill above the largest Oak, 39 feet behind the smaller Oak, and at the edge of the driveway and 22 feet uphill from the Hickory, so the CRZ will be roughly triangular. No intrusion into this area will be permitted without the presence of a Certified Arborist or trained observer. This CRZ should be shown on the development plan, mandated as a condition for approval, and respected in the field.

Please do not hesitate to contact me if I can be of more assistance.

Regards,

Dean A. Charter

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ISA Certified Arborist #NE-0333A



TOWN OF MILLBURY

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Warren Gardner
Tree Warden

January 8, 2024

Mr. Kenneth Perro , Chairman Millbury Board of Appeals

Subject: Trees on town property on Rice Road:

Rice Road # 27, between Pole # 6-7 & Pole #7-8 Two Large Oaks and One Twin Hickory.

The Oak Tree between Pole # 6-7 is one of the towns oldest and largest trees left in town. All of the trees I have listed need to be protected during the construction of this project, especially any digging or changing of grades within the full width of the trees.

I will be hiring an independent consulting arborist to inspect the trees and report back his recommendations to safeguard these trees. I will forward a copy to the board.

A site inspection date of January 12, 2024 is a tentative date.

Warren D. Gardner / Tree Warden

W-D-G.