# ARTICLE 9 § 5: TREE PROTECTION & PRESERVATION BYLAW

**SECTION 1. Purpose**

The Town of Boxborough finds that mature Trees have aesthetic appeal, improve air quality, provide glare and heat protection, reduce noise, aid in the stabilization of soil, provide natural flood and drainage control, create habitats for wildlife, enhance property values, contribute to the distinct rural character of neighborhoods and provide natural privacy to neighbors.

The intent of the Tree Protection & Preservation Bylaw (Tree Bylaw) is to encourage the preservation and protection of Trees on public and private property during significant demolition and/or development activity. The preservation and protection of certain Trees on public or private property, the requirement to replant Trees to replace those removed, and the collection of financial contributions to support the Town's Tree planting and maintenance efforts are public purposes that protect the public health, welfare, environment and aesthetics of the Town.

# SECTION 2. Responsibility for Administration

1. Trees Located on Private Land. The Planning Board shall be the permit granting authority for this bylaw Section 5 Disturbance of Land Greater than Three (3) Acres. Any powers granted to or duties imposed upon the Planning Board may be delegated in writing by the Planning Board to any Town employee, board, commission, committee or town agent, or third-party agent hereby known as the Reviewing Agent. The duties or responsibilities of the Planning Board shall include, but not be limited to, the following as may be further specified in this bylaw:
   1. Granting or denying and attaching reasonable conditions to all permits required under this bylaw.
2. Public Shade Trees. The Tree Warden shall be the Reviewing Agent for the Tree Protection & Preservation Bylaw Section 4 Public Shade Trees. The duties or responsibilities of the Tree Warden shall conform to General Law Chapter 87 and shall include, but not be limited to, the following as may be further specified in this bylaw:
3. Management of all Trees within public rights-of-way and adjacent to public buildings and commons; care and control of Trees on Town property, and on Town land owned by other departments such as Schools, Recreation and Conservation;
4. Expending funds appropriated for tree assessments and/or surveys, buying, planting and maintaining Trees on Town land under the jurisdiction of the Tree Warden;
5. Work to seek grants or other assistance concerning the preservation and maintenance of Trees in Town;
6. Development of Tree inventory, manuals and other data to carry out the purposes and intent of this bylaw for approval and promulgation by the Planning Board;
7. Enforcement of Bylaw Section 4 Public Shade Trees;

# SECTION 3. Tree Protection & Preservation Bylaw Definitions

* 1. Caliper shall mean diameter of a Tree trunk (in inches). For Trees up to and including four (4) inches in diameter, the Caliper is measured six (6) inches above the existing grade at the base of the Tree. For Trees larger than four (4) inches in diameter, the Caliper is measured twelve (12) inches above the existing grade at the base of the Tree.
  2. Certified Arborist shall mean professional arborist possessing current certification issued by the International Society of Arboriculture (I.S.A.) and/or the Massachusetts Arborist Association (M.A.A.).
  3. Critical Root Zone (CRZ) - The minimum area beneath the canopy of a Tree which must be left undisturbed in order to preserve a sufficient root mass to give a Tree a reasonable chance of survival. The CRZ is represented by a concentric circle centering on the Tree's trunk and extending outward towards the Tree's drip-line. The minimum area of the CRZ shall be dependent on the required minimum radius of the CRZ; the required minimum radius of the CRZ shall be determined by multiplying a Tree's DBH (in inches by eighteen (18) inches, with the resulting product constituting the minimum

radius of the CRZ. Example: A Tree with a DBH of twenty (20) inches shall have a CRZ with a minimum radius of three hundred sixty (360) inches or thirty (30) feet (20" x 18" = 360"

or 30').

* 1. Diameter at Breast Height (DBH) shall mean the diameter (in inches) of a Tree trunk four and one-half (4.5) feet above the existing grade at the base of the Tree. If a Tree has multiple trunks, the aggregate diameters of the multiple trunks shall be used.
  2. Disturbance of Land Action to alter the existing vegetation and/or underlying soil of a site, such as clearing, grading, site preparation (e.g., excavating, cutting, and filling), soil compaction, and movement and stockpiling of top soils.
  3. Drip Line - The area surrounding the Tree from the trunk to the outermost branches. This area is distinguished from, and not to be confused with Critical Root Zone.
  4. Invasive Species shall mean any plant listed on the most recent version of the Massachusetts Prohibited Plant List as published by the Massachusetts Department of Agriculture.
  5. Protected Tree with a Disturbance of Land greater than three (3) acres, Protected Tree shall mean any existing Tree or Tree that was removed within twelve (12) months prior to the submittal

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of an application for Tree protection & mitigation to the Planning Board, on private land, with a DBH of six (6) inches or greater (or any multiple trunk Tree with a DBH of fifteen

(15) inches or greater), provided that the Tree is not hazardous. Invasive Species (as defined herein) shall not be considered Protected Trees.

Public Shade Tree shall mean any Tree within the public right­ of-way except for state highways that has any portion of the stem actively growing in to the public right-of-way.

Replacement Inch shall mean the unit used when determining mandated replanting,

Reviewing Agent shall mean any agent delegated by this Bylaw in writing to administer and implement the Tree Bylaw.

Significant Tree shall mean any tree of six (6) inch DBH or greater.

Tree - Any self-supporting, woody perennial plant usually having a single trunk with a DBH of three (3) inches or more which normally attains a mature height of six (6) feet or greater.

Tree Preservation Fund shall mean an account established pursuant to (M.G.L. 44 § 53E½) for the deposit of contributions in lieu of Tree replanting as required by this Tree Bylaw. Funds deposited in this account shall be used solely for the purpose of buying, planting and maintaining Trees in the Town.

Tree Protection & Mitigation Plan shall mean a plan submitted to the Reviewing Agent for approval prior to the commencement of demolition and/or construction on a property on which a Protected Tree is located.

Tree Removal shall mean mechanical demolition of a living Tree, or any act (a) that has caused or will cause a Tree to die within the previous 12 months or (b) is likely to cause significant decline or death as determined by the Reviewing Agent based on arboricultural practices recommended by the International Society of Arboriculture (LS.A.).

Tree Save Area shall mean the area surrounding all Protected Trees which includes at a minimum the (CRZ) and Drip Line of all Protected Trees. The Tree Save Area must be enclosed within a fence and remain undisturbed so as to prevent damage to the Tree.

## Public Shade Trees

A Public Shade Tree may not be cut, pruned, removed or damaged (trunk, limbs or roots) by any person of the Town until and unless the Tree Warden issues a written permit pursuant to this section.

1. Procedures. Any person seeking to prune or remove a Public Shade Tree shall submit an application to the Tree Warden in accordance with any application requirements issued by the Tree Warden. The Planning Board shall hold a public hearing on applications for removal which the Tree Warden will attend and make a recommendation upon. Said hearing attendance shall be at the expense of the applicant, in accordance with the provisions outlined within General Law Chapter

87. The permit issued by the Tree Warden may specify schedules, terms, and conditions, including requiring the planting of replacement Trees.

1. Planting of Trees on Public Land. Any person seeking to plant a Tree on public land under the jurisdiction of the Tree Warden must obtain written permission from the Tree Warden. Such a permission may specify schedules, terms, and conditions as deemed appropriate by the Tree Warden.

# SECTION 5. Disturbance of Land Greater Than Three (3) Acres on Public or Private Land

1. No construction, Disturbance of Land, or improvement of impervious surfaces resulting in total Disturbance of Land greater than three (3) acres shall commence prior to issuance of a Permit for Tree Removal and Mitigation by the Planning Board.
2. Procedures. When a total Disturbance of Land greater than three (3) acre is planned, the owner of the property shall submit to the Planning Board a site plan drawn and stamped by a registered

land surveyor showing all existing Trees on the property of six (6) inch DBH or greater (or any multiple trunk Tree with a DBH of fifteen (15) inches or greater), provided that the Tree is not hazardous as deemed by a Certified Arborist. Invasive Species (as defined herein) shall not be considered Protected Trees.

* 1. If any Protected Trees will be removed or damaged in connection with a Disturbance of Land greater than three (3) acres, the owner of the property shall submit an Application for Tree Protection & Mitigation to the Planning Board. Additionally, if any Protected Trees were removed during the twelve (12) months preceding the application, a Tree Removal and Mitigation Proposal regarding the Protected Trees already removed shall be submitted to the Planning Board. The proposal shall satisfy the mitigation requirements set forth below and any rules, regulations or manuals promulgated by the Planning Board.

1. Such construction or demolition shall require public notice to abutters and shall include all persons owning land within three hundred (300) feet of any part of the applicant's land at least fourteen (14) days before said hearing. The Planning Board shall rule within twenty (20) days of the public hearing.
2. Tree Protection. Each Protected Tree to be retained on property planned for demolition and/or construction activity shall be protected by the establishment of a fenced-off Tree Save Area. The Tree Save Area shall be delineated within the submitted Tree Protection & Mitigation Plan, shall be installed prior to any issuance of applicable permits, demolition or site work, and shall remain in place until work is completed on the property. The applicant shall submit written documentation, prepared, stamped, dated and signed by a Certified Arborist, to the Planning Board confirming that the required Tree Save Area has been installed as identified in the Tree Protection & Mitigation Plan before work on the property commences.
3. Failure to protect Trees not removed. Trees left on site must be protected. If not done so as required by this bylaw, the Town shall hire a Certified Arborist at the expense of the owner/builder, who may impose the following:
   1. Certified Arborist may undertake Tree protection measures and bill for any labor and material charges incurred.
   2. Certified Arborist may require replacement plantings larger than three inches in diameter to replace Trees damaged during construction.
   3. Certified Arborist hourly charges will be billed to the owner/builder to ensure that Trees left on the site will survive and remain healthy.
   4. Certified Arborist may impose fines as per the fine schedule in Section 11 Tree Preservation Bylaw Fine Schedule of this bylaw.
4. Tree Mitigation. A Protected Tree shall not be removed unless at least one of the following provisions is satisfied.
   1. Replanting of Trees: such replanting shall be on the basis of one inch of Caliper of new Tree(s) for each Replacement Inch of DBH of Tree(s) removed except that, to encourage the planting of native, large shade species, for each replanted Tree listed in the Recommended Large Shade Trees list of Boxborough Tree Management Manual replanting shall be on the basis of½ inch of Caliper of new Tree(s) for each Replacement Inch of DBH of Tree(s) removed and each replanted Tree must have a minimum Caliper of three (3) inches. The replanting shall occur prior to the issuance of a Final Certificate of Occupancy, either on applicant's land or on land abutting applicant's land with express written approval of the owner of such abutting land;
   2. Contribution into the Boxborough Tree Preservation

Fund, provided such fund is reauthorized to the extent required by law, or otherwise to the surplus revenue of the Town; such contribution shall be $100 per Replacement Inch of Protected Tree or Public Shade Tree removed not already mitigated per item 1) Replanting of Trees above. Tree Fund contributions shall be received by the Town prior to the issuance of all applicable permits.

* 1. All evergreens planted as replacement Trees must be a minimum of six (6) feet in height and must include, without limitation, native species of pine, hemlock, spruce and fir. Low-growing or dwarf species of evergreens shall not be accepted as replacement Trees.
  2. Exemption: The Planning Board may waive the requirements of section 5 by a majority vote for the Disturbance of Land on public property, or land owned by the Town of Boxborough, which is conveyed to a developer for the purpose of creating affordable housing.

# SECTION 6. Maintenance of Protected and Replanted Trees

1. Protected Trees: Each Protected Tree retained shall be maintained in good health for a period of no less than twenty-four (24) months from the date of Final Inspection, or issuance of a Certificate of Occupancy if applicable. Should such Tree die or significantly decline in the opinion of the Town appointed Certified Arborist within this twenty-four (24) month period, the owner of the property shall be required to provide mitigation consistent with the requirements for the removal of a Protected Tree as contained herein within nine (9) months from said determination.
2. Replanted Trees: All new Trees planted to mitigate the removal of Protected Tree(s) shall be maintained in good health for a period of no less than twenty-four (24) months from the date of planting. Should such Tree die within this twenty-four (24) month period, the owner of the property shall be responsible for replacing the Tree with a Tree equal to or greater than the size of the original Replanted Tree at installation; such replacement Tree shall be planted within nine (9) months of the death or serious decline of the original Replanted Tree.

# SECTION 7. Tree Protection & Mitigation Plan Review

1. Tree Protection & Mitigation Plan Submittal: Prior to the issuance of a permit in connection with one or more of the circumstances set forth in this Tree Bylaw on property on which a Protected Tree is located or was located within twelve (12) months prior to application, the owner of the property shall submit a Tree Protection & Mitigation Plan to the Planning Board along with the applicable application and fee.
   1. The Town Planner shall set an application fee. Such a fee shall be at least $5 per DBH inch of Protected Tree to be removed.
   2. Tree Protection & Mitigation Plan Requirements: The submitted Tree Protection & Mitigation Plan shall be a to-scale survey or site plan, along with accompanying documentation, containing information prepared, stamped, dated and signed by an individual(s) appropriately licensed and authorized by the State of Massachusetts to attest to and certify such information, unless a specific certification is referenced herein.
   3. Boundaries of the subject property, including all property lines, easements, and right-of- ways of public and private ways;
   4. The location of all existing buildings, driveways, retaining walls and other site improvements, with an indication of those features to be retained or removed/demolished;
   5. The location of all planned buildings, driveways, retaining walls and other improvements;

(t) The location, height, DBH, and species of all existing Protected Trees and all Protected Trees that were removed within twelve (12) months prior to the submittal of an application for Tree protection & mitigation to the Planning Board, with an indication of those Protected Trees to be removed and those to be retained, if applicable;

1. The Critical Root Zone (CRZ), Drip Line and location of the Tree Save Area shall be shown for all Protected Trees to be retained;
2. The location, Caliper, species, and planting schedule of Trees to be replanted to mitigate the removal of a Protected Tree(s), if applicable;
3. The landscape shall be preserved in its natural state insofar as practical by minimizing removal of Significant Trees. Every effort shall be made through the design, layout, and construction of any project to save as many Significant Trees as possible;
4. Clearing of other vegetation and alteration of topography shall be replicated with native vegetation planted in disturbed areas as needed to enhance or restore wildlife habitat, if any;
5. A maintenance plan prepared, stamped, dated and signed by a Certified Arborist for all Protected Trees which are proposed to have encroachment within the CRZ and/or Drip Line, if applicable;
   1. The amount to be contributed to the Tree Fund to mitigate the removal of a Protected Tree(s), if applicable; and
6. Such other information as is required by the Planning Board pursuant to applicable regulations.
7. Tree Fund Contribution; In lieu of replanting, if applicable, the owner of the property shall submit any required contribution to the Tree Fund as mitigation for the removal of a Protected Tree.
8. The Planning Board retains the ability to visit subject properties as needed.
9. Re-Submittal: If demolition or construction has not commenced within twelve (12) months of the date that a Tree Protection & Mitigation Plan was submitted for a property, or if removal of a previously unidentified Protected Tree is necessary during the course of construction, an amended Tree Protection & Mitigation Plan shall be submitted identifying any changes from the previous plan and associated mitigation measures.

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**Enforcement**

Any person violating this bylaw is subject to the penalties and legal enforcement action by the Town.

Each instance in which a Public Shade Tree or a Protected Tree is removed without a Tree permit shall constitute an offense under this bylaw. When Public Shade Trees or Protected Trees have been removed, fines as outlined in Section 11 Tree Preservation Bylaw Fine Schedule of this bylaw shall be required.

If mitigation and the payment of fines are completed in due time as determined by the designated reviewing agent, the project will be approved to continue. If not completed, then each day beyond the determined and agreed upon completion date shall constitute a new and separate offense.

# Town of Boxborough Tree Fund

There is hereby established a Town of Boxborough Tree Preservation Fund ("Tree Fund") pursuant to M.G.L. 44 § 53E½. Any contributions collected per Section 5 Protected Trees of this Tree Protection Bylaw shall be deposited in the Tree Fund, and shall be used solely for the purpose of tree assessments and/or surveys, buying, planting and maintaining Trees within the Town.

# SECTION 10. Exemptions

1. The requirements of this Tree Bylaw shall not apply to the following exemptions:
   1. Those areas of property under the jurisdiction of the Conservation Commission;
   2. Those areas of property under the care, custody, management and control of the Agricultural Commission;
   3. Emergency projects necessary for public safety, health and welfare, as determined by the designated Reviewing Agent;
   4. Trees severely damaged as the direct result of a natural disaster;
   5. Trees that are hazardous as determined and confirmed in writing by a Certified Arborist, and;
   6. Trees currently infected by a disease or insect infestation of a permanent nature, as determined and confirmed in writing by a Certified Arborist.
   7. Trees identified by the Commonwealth that pose a risk of disease or insect infestation.
   8. Tree removals required for agricultural uses pursuant under MGL chapter 40A Section 3.

# SECTION 10. Tree Preservation Bylaw Fine Schedule

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| **Fine Schedule** | **Fine Allowed (Per Caliper Inch**  **Removed)** | **Enforcement Agency** |
| 1st Offense | $100 | Building Commissioner |
| 2nd Offense | $200 | Building Commissioner |
| 3rd & Each Subsequent Offense | $300 | Building Commissioner |

**SECTION 11. Boxborough Tree Management Manual**

The Boxborough Tree Management Manual will be used as the standard for Tree planting, maintenance and protection in the Town.

Adopted by Annual Town Meeting: Approved by Attorney General:

May 8, 2023

August 15, 2023