

TREE PRESERVATION AND REPLACEMENT GUIDE

By-law 33-2024



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Introduction

The purpose of this guide is to help individuals navigate the Town's Private Tree By-law and to provide general information about tree protection.

The terms, process or requirements that are identified within this guide do not replace those laid out in By-law 33-2024. This guide will use plain language in an effort to help individuals understand it and its requirements; however, does not replace technical advice that can be provided by a **qualified person** which may be a requirement to support your tree permit application.

Note: text shown in **bold** throughout the document, indicate terms that are defined within the Key Technical Terms at the end of this guide.

Permit Applications

Permit applications under the Town's Tree By-law are to be completed online. Property owners may submit applications. However, it may be helpful in some cases to have a **qualified person** help with the tree assessments as well as some aspects of the permit process.

For More Information

Visit the Town's website <u>forterie.ca/en/build-and-invest/trees</u>. Alternatively, you may call General Inquiries at (905) 871-160 extension 2536 or email Zachary George at zgeorge@forterie.ca with a specific question or concern you may have.

01 | Why do we protect Trees?

Trees within the Town as well as the soils that support them are called the "Urban Forest". Many valuable benefits are provided from the trees that make up the urban forest, and they include:



Figure 1 - Benefits provided from the trees that make up the Urban Forest (photo by VectorMine)

This is why the Town is committed to protecting, maintaining and planting trees on its properties, and why the Town asks the community to do the same.

02 | What rules are set in place to protect trees in Fort Erie?

Trees in Fort Erie are valued, particularly mature trees, for the many services that they provide. Therefore, in order to protect their value; there are policies, regulations and by-laws in place to ensure that tree protections and replacements are considered.

2.1 Federal, Provincial and Regional tree rules to be aware of

The regulations related to trees that property owners typically need to consider include:

- The regional municipality of Niagara, a By-law to prohibit or regulate the harvesting, destruction or injuring of trees in woodlands in the regional municipality of Niagara;
- the Provincial Forestry Act, which discusses boundary trees along property lines;
- the Ontario Heritage Act, which protects trees on designated heritage properties and landscapes;
- the provincial Endangered Species Act which protects trees and tree habitat of species listed as Endangered or Threatened in Ontario; and
- the federal Migratory Birds Convention Act, which protects nests while they are being used by migratory birds to breed and raise their young.

2.2 Tree By-law in Fort Erie

The Town's Tree By-law applies to trees on private lands in the Town's **Urban Boundary**. Please visit <u>forterie.ca/en/build-and-invest/trees.aspx</u> to see whether you fall within the boundary where the by-law is administered.

We have included tips within this guide on what to do when a property owner wants to remove or **injure** trees regulated by the Town's Tree By-law.

03 | What Trees does the Town's Tree By-law Protect?

This By-law applies to tree(s) on private Property in the Town:

- (a) To Trees of any size within the **Natural Heritage System**;
- (b) To Trees greater than or equal to 30cm **DBH** within the **Urban Boundary**;
- (c) To Trees designated as a **Heritage Tree** under Part IV or Part V of the *Ontario Heritage Act*;
- (d) To Trees of any size located on lands upon which there is pending an application for a plan of subdivision, a plan of condominium, a severance or consent, an Official Plan amendment, a Zoning Bylaw amendment, a minor variance, or a site plan approval;
- (e) To Trees of any size located on lands upon which there has been a Pre-Consultation meeting held with the Town for a plan of subdivision, a plan of condominium, a severance or consent, an Official Plan amendment, a Zoning Bylaw amendment, a minor variance, or a site plan approval and the Preconsultation Meeting was held no more than one year prior;
- (f) To Trees of any size identified as a Tree in a Tree Preservation Plan submitted as part of a development application;
- (g) To **Replacement Tree**(s) planted as a requirement of a permit issued under the By-law.

For exemptions and exceptions to the By-law, please view Section 4.1 of the Town's Tree By-law.

04 | Is a Permit Required?

In most cases, you will need a permit under the Town's Tree By-law if you want to **injure** or remove a regulated tree on your property.

A) When is a permit required?

When injuring, destroying or removing any of the following on private lands:

- Any tree within the Natural Heritage System;
- A tree of 30 cm **DBH** or greater within the **Urban Boundary**;
- A tree that is 100% dead;
- A tree that has a terminal condition;
- A hazardous tree.

B) When is a permit not required?

When injuring, destroying or removing any of the following on private lands:

- Any tree outside the **Urban Boundary**;
- In a nursery or orchard;
- Tree maintenance using **good arboricultural practices**.
- The removal of any of the following species:
 - Morus alba (White Mulberry)
 - Rhamnus cathartica (Common Buckthorn)
 - o Rhamnus frangula (Glossy Buckthorn)
 - Black Alder (Almus glutinosa)

4.1 What if my tree is hazardous or dead?

A permit is still required to remove trees that are hazardous, or are **dead**.

These types of tree conditions can be hard for an unqualified person to assess. For this reason, the Town will require the property owner to obtain written confirmation from a **qualified person**; however, typical fees and tree replacement requirements will be waived.

4.2 What about my neighbor's tree(s)?

If a project on your property is expected to **injure** or remove a regulated tree on your neighbor's, you will need to apply for a permit and have their signed consent to do so. This applies whether that tree is shared with your neighbor and grows across the property line or if it is not a shared tree but your project work will occur within the **Tree Protection Zone** of your neighbor's regulated tree and might **injure** their tree.

05 | What do I need when applying for a Tree By-law Permit?

A permit shall be issued when all of the following are satisfied:

- a) the Application is complete;
- b) the Town is satisfied that one or more of the following grounds for permit issuance apply:
 - I. the Tree is a **Dead** Tree or **Hazardous** Tree;
 - II. based upon the opinion of an **Arborist**, it is necessary to remove unsafe Trees;
 - III. based on the opinion of the Director, the Tree or Trees are causing or are likely to cause structural damage to load-bearing structures or roof structures;
 - IV. based upon the opinion of a 'qualified person' (as defined in the Environmental Protection Act), the Tree Injury or **Destruction** is required to remediate contaminated soil; the Tree Injury or **Destruction** is required

- pursuant to a Building Permit where there are no reasonable alternatives to locating those utilities or infrastructure;
- V. based on the opinion of an **Arborist** and/or a Registered Professional Forester, the Tree Injury or **Destruction** represents **Good Arboricultural Practices** and/or Good Forestry Practices; By-law 33-2024 Page 9 of 20; and
- c) The Application Fee has been paid to the Town.

For the purposes of Sections 4.1(k) and (o), 6.1(a) and 8.1 of By-law 33-2024, the owner of a residential lot may submit a permit application or request for an Exception Letter along with proof of the condition of the tree satisfactory to the Director, who shall determine whether an **arborist**'s report is necessary in order to process the application or request and, if so, the Town **arborist** shall be deployed to inspect the tree and report his/her findings to the Director.

5.1 What documents do I need?

The Town's tree permit application process is online. If you require assistance please contact the Planning Department at (905) 871-1600.

Documents Required with each permit application:

- A location map of where the tree(s) are on the property with tree inventory details if those details are not provided elsewhere;
- Photograph(s) of the full tree(s) you are applying for; and
- Owner Authorization Form (if applying on the owner's behalf)

Other documents that may be required:

- An arborist report prepared by a qualified person
- A tree protection plan drawn to scale with tree inventory details if details are not provided elsewhere
- Consent letter (if applying to remove or injure a boundary tree or a tree you do not own)

- Tree replacement plan (if removing regulated trees and you intend to plant new trees)

5.2 When do I need an Arborist Report?

An **Arborist Report** may not be required if a property owner wishes to remove one tree and is not completing any sort of project. For these singular tree applications, photographs are required along with information on the species and location of the tree such as on a sketch. Any additional information such as whether there is any access or safety issues such as a locked gate or loose dog can be provided within the application or with a follow up email to the email address provided in the introduction of this guide.

When you are not completing a project, and you are looking to remove and/or **injure** multiple trees, a report and/or document that provides the following is required:

- a reasonably accurate sketch of the property clearly showing the location of all trees;
- o a table of the tree species, size (DBH) and ownership of all tree(s); and
- o clear supporting photos of the full tree for each tree.

5.3 What is included in an Arborist Report?

An **Arborist Report** must be prepared by a **qualified person**. A complete **Arborist Report** typically includes:

- the location, species, size, Tree Protection Zone and condition of Trees that will be Injured or Destroyed Trees and those Trees located within one Tree length of the Tree to be Injured or Destroyed, included in tabular format and as shown on a map;
- a drawing of the Site showing any proposed development, construction, works, excavation or site alteration that may require the Tree Injury or Destruction, and a schedule for this proposed activity, including start and end dates;
- the Arborist's opinion why a Tree should be Injured or Destroyed, and whether it represents Good Arboricultural Practices or Good Forestry Practices;
- o description of how the Tree is proposed to be Injured or Destroyed;

- an analysis and description of any reasonable alternatives to the Tree Injury or **Destruction** or an analysis and description as to why there are no reasonable alternatives to the Tree Injury or **Destruction**;
- confirmation of any other matters, past or present Planning applications or otherwise affecting the land upon which the Tree or Trees are to be Injured or Destroyed;
- calculation of the number of Replacement Tree(s) that can be planted on the
 Site based on Table 1, and suggest the species and location;
- if Trees are to be Injured but not Destroyed, description of maintenance strategies and protection measures to be implemented;
- o the professional accreditation of the **Arborist**.

5.4 Trees injured or removed for a project

If a property owner wishes to remove one or more trees because of a project (e.g., new house, pool, etc.), or the proposed work is expected to impact a **boundary tree** on an adjacent property, then a permit application with a complete **Arborist Report** is required.

If a project on your property might **injure** or remove a regulated tree that grows across the property line or is located on your neighbors' property, you need to provide a Consent Letter signed by them.

A Consent Letter is needed if your tree permit application contains:

- a boundary tree that is shared with your neighbor
- a project that will be located within the **Tree Protection Zone** of your neighbors' regulated tree.

06 | Tree Measurements

Diameter at Breast Height (DBH)

Tree diameter is usually measured at 1.37 metres (m) above ground level. Measurement at this height is referred to as Diameter at Breast Height or "**DBH**".

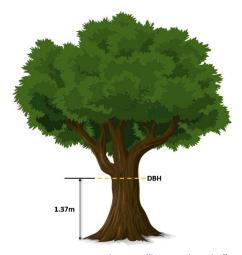


Figure 2 - How to locate "breast height": measure 1.37 m from the base of the trunk of the tree up the tree's trunk.

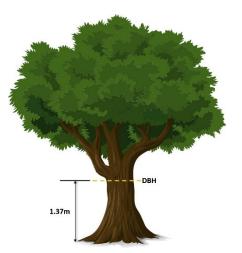


Figure 3 - How to measure trunk diameter: First measure the tree trunk's circumference at breast height. You can use a string, rope, or measuring tape. Once you have the circumference at breast height, divide that number by 3.14 to get the diameter

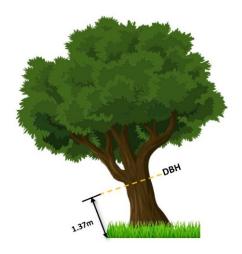


Figure 4 - Where to measure DBH when tree is leaning.

07 | Tree Replacement

Tree Replacement as the Condition of a Tree Removal Permit

As a Condition to a permit that has been issued for a tree located on a residential property where there is an occupied dwelling, the permit holder will be required to replace the tree at a 1:1 ratio. Any other permit holder will be subject to the replacement ratios depicted in the table below.

Diameter at Breast Height (DBH) in centimetres	Number of Replacement Trees
12.5 - 24	2
25 - 34	3
35 - 44	4
45 - 54	5
55 - 64	6
65- 74	7
75 - 84	8
84 - 95	9
95 - 104	10
105 - 114	11
>115	12

Table 1 – Replacement Ratios

Should it be determined by an **Arborist** that a tree is dead, diseased or hazardous, the tree replacement ratios outlined above do not apply.

Should an **Officer** determine a contravention of the By-law has occurred, an Order to Comply may be issued and in such case the planting of Replacement Trees is required at a ratio depicted within the table above.

7.1 Species Recommended for Replacement

American Beech Pawpaw

Balsam Poplar Pin Cherry
Basswood Pin Oak

Bitternut Hickory Red Maple

Black Cherry Red Mulberry

Black Walnut Sassafras

Black Willow Serviceberries

Blue-Beech Shagbark Hickory

Chokecherry Silver Maple
Eastern Hemlock Sycamore
Eastern White Cedar Tamarack

Eastern White Pine Trembling Aspen

Ironwood Tulip Tree
Largetooth Aspen White Birch
Northern Hackberry Yellow Birch

Replacement Tree Size

Deciduous Trees: A caliper of 35 mm shall be considered the standard replacement size for deciduous trees

Coniferous Trees: A height of 125 cm shall be considered as the standard replacement size for coniferous trees

08 | What are the Fees Associated with a Permit?

Permit fees include consultation and administration and are as follows:

SCHEDULE "E" To Tree By-law No. 60-04

Fees

Application Fee for Trees outside of the Natural Heritage System for Owners who are individuals	\$50.00 per tree for the first tree and \$25 per tree for subsequent trees under the same Permit
Application Fee for Trees inside of the Natural Heritage System for Owners who are individuals	\$100.00 per tree for the first tree and \$50 per tree for subsequent trees under the same Permit
Application Fee for Trees outside of the Natural Heritage System for Owners who are corporations	\$250.00 per Tree
Application Fee for Trees inside of the Natural Heritage System for Owners who are corporations	\$400.00 per Tree
Application Fee for Dead and/or Hazardous Trees	No Fee

Table 2 - Fee Schedule

On-Site Compensation

On-site compensation is the Town's preferred option when replacement plantings are required. A security deposit can also be required for each **replacement tree**, as follows:

\$250 - A security deposit per tree (for owners who are individuals) required for each Replacement Tree to be planted and can be found in the Town of Fort Erie Consolidated Fee Schedule. The security deposit will be refunded once a final inspection of the replacement plantings is complete.

\$500 - A security deposit per tree (for owners who are corporations) is required for each **Replacement Tree** to be planted and can be found in the Town of Fort Erie Consolidated User Schedule. The security deposit will be refunded once a final inspection of the replacement plantings is complete.

Off-Site Compensation

\$1000 - Should replacement plantings not be able to be accommodated on the subject property off-site planting will be undertaken in consultation with the Town. Off-site planting locations for compensation vegetation will typically include Town-owned lands, such as parks, or areas identified for restoration.

09 | Tree Protection Zone

Wherever a project is planned near one or more **boundary tree**(s), it is important to ask yourself: Is there something that I can do differently to protect the tree(s)? If trees must be injured or removed, how can I protect the remaining trees and replace the canopy lost?

Injury to a tree tends to happen during **construction** if there are no protective measures in place and work is performed close to the tree or over its roots. Typical **construction**

activities that can injure trees, include:

- the movement and operation of small and large machinery;
- trenching soil and subsoil excavation;
- o storage of fill, soil, building materials, equipment and construction waste; and,
- demolition, grading and building.

Tree injury can generally be avoided with ground protection, and with the use of **good arboricultural practices** when **pruning** branches and roots.

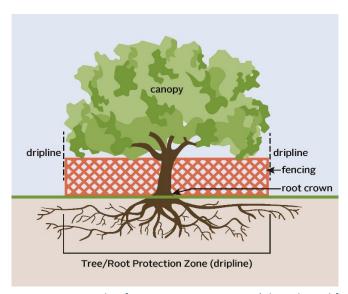


Figure 5 – Example of a Tree Protection Zone (photo by Halifax Regional Municipality)

9.1 Give trees their own zone

The main way to protect a tree from injury during **construction** is to make sure that a proper Tree Protection Zone (TPZ) is identified, and that tree protection fencing is securely installed to protect this zone.

The TPZ is a zone created around a tree to protect the tree trunk, branches, soil and roots from machines and equipment, and other **construction**-related disturbances. A tree permit may be required where work is proposed inside this zone.

9.2 How Do I Identify the Tree Protection Zone (TPZ)?

The TPZ is measured from outside the base of the tree trunk. The distance measured from the trunk varies depending on the tree's diameter, as shown in Table 3 below. Generally, the zone required expands with the **DBH** of the tree, and ranges from 1.8 m from the trunk of a smaller tree to 6.0 m or larger for trees with a **DBH** of 100 cm or greater.

Trunk Diameter (DBH)	Minimum Tree Protection Zone
Less than 10 cm	1.8 m (5'11")
11 to 40 cm	2.4 m (7'10")
41 to 50 cm	3.0 m (9'10")
51 to 60 cm	3.6 m (11'10")
61 to 70 cm	4.2 m (13'9")
71 to 80 cm	4.8 m (15'9")
81 to 90 cm	5.4 m (17'9")
91 to 100 cm	6.0 m (19'8")
Greater than 100 cm	6.0 m (19'8") + 10 cm (4") per 1 cm DBH

Table 3 - How to calculate the minimum Tree Protection Zone

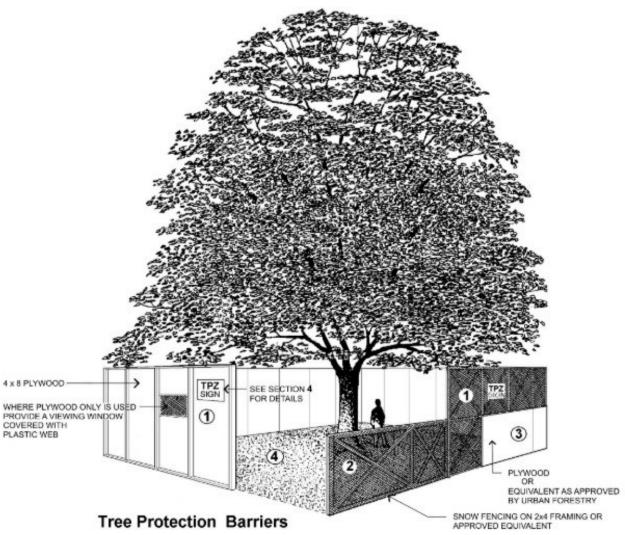
9.3 What about tree protection fencing?

Having machines moving back and forth close to trees greatly increases the risk of injury to the trunk, branches and roots. Having fill or building supplies piled up against a tree trunk can also harm the tree and its rooting area.

The TPZ should be clearly marked with securely installed fencing, such as paige wire fencing.

Ideally, the tree protection fencing can be outside of the identified TPZ on all sides of the tree. You must contact the Planning Department before you take down the tree protection fencing.

The following diagrams provide details for tree protection barriers and sediment protection barriers:



- 1 Tree protection barriers must be constructed with a solid wood frame clad with plywood or approved equivalent. Height of hoarding may be less than 8 ft. to accomodate any branches that may be lower.
- 2 Tree protection barriers for trees situated on the City road allowance where visibility must be maintained can be 1.2m (4ft.) high and consist of orange plastic web snow fencing on a wood frame made of 2 x 4s.
- Where some excavate or fill has to be temporarily located near a tree protection barrier, plywood must be used to ensure no material enters the Tree Protection Zone.
- No construction activity, grade changes, surface treatment or excavations of any kind is permitted within the Tree Protection Zone.

Figure 6 - Tree Protection Plan Details (photo by City of Toronto)

9.4 What if the TPZ cannot be fully protected?

In some cases, it may not be possible to complete your project without working inside the TPZ, at least on a partial and/or temporary basis.

Where you must work inside the TPZ, alternate tree protection measures are needed to prevent impacts to the tree in consultation with Town Forestry Staff.

Ground protection is often recommended. This consists of a landscaping fabric laid over the anticipated disturbance zone and covered with a thick layer of mulch and plywood or steel plates laid on top. This will allow people and machinery to move through this zone while limiting soil compaction.

9.5 What about overhanging branches?

Basic tree maintenance, like **pruning**, can be done without a permit when using **good arboricultural practices**. If you are unsure, consult with a **qualified person** before maintaining private trees.

9.6 What about public trees?

Please note the maintenance of Town trees such as **pruning** can only be done by Town Forestry Staff or their contractors. If your project will be adjacent to Town trees, you must discuss this with Town Forestry Staff to confirm the project can proceed.

10 | What is a Tree Protection Plan?

A Tree Protection Plan is a two-dimensional metric scaled plan typically prepared by a **qualified person** that shows:

- existing conditions including property lines, building footprints and other site elements (such as a driveway, pool, deck, patio and fence) including the front of the property to the street curb;
- proposed conditions including any new structures or additions, a new pool, over-dig for all excavations, a new paved surface such as new or widened driveway or deck and grade changes drawn to scale with dimensions;
- a separate tree inventory table as needed or include the table on the plan.

 The tree inventory should include the unique identifier for the tree, size,

 species, ownership, condition for the trees, recommendations and any notes;
- the location of each TPZ shown as a scaled circle around the tree with dimensions;
- which trees are to be injured, removed or fully protected through the proposed project;
- proposed construction access routes and material storage areas and their dimensions;
- the location and extent of tree protection measures to be installed with dimensions;
- the distance measurement between trunk of tree and site of injury;
- a label for all mitigative work around trees as necessary; and
- a scale bar and legend that provides labels for all information included on the drawing.

It is important that all plans provided are drawn to scale and include all the relevant information. This helps the Town check that what is being proposed can actually be implemented on site.

An example of a Tree Protection Plan is included below:

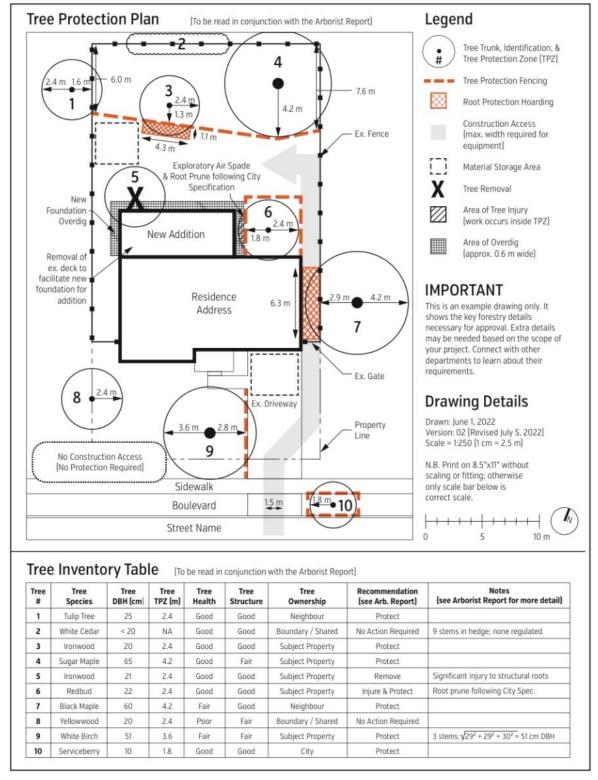


Figure 7 – Example of a Tree Protection Plan for an addition (photo by Scott Mooney)

11 | What is a Tree Replacement Plan (Landscape Plan)?

A Tree Replacement Plan should build on the base information in the Tree Protection Plan. However, instead of showing the trees to be removed, it shows the trees to be planted as replacements for those removed.

The location of the trees to be planted, each with a unique identifier, should be shown with a table showing the species and size of each.

A simplified example is provided below:

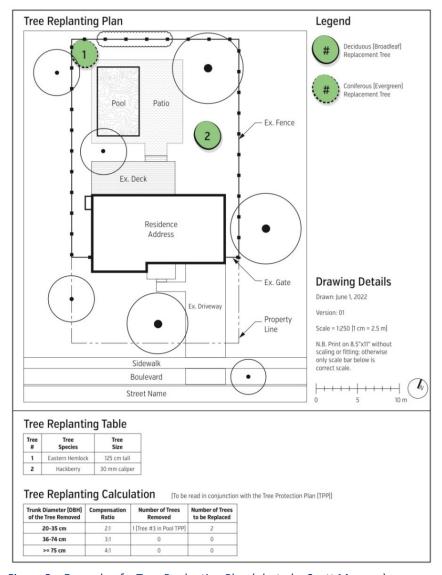


Figure 8 – Example of a Tree Replanting Plan (photo by Scott Mooney)

11.1 Where can replacement tree(s) be planted?

Replacement tree(s) can be planted on the lot where the trees were removed or on an alternate private property within the Town's **Urban Boundary** (with a Letter of Consent from the alternate landowner).

The permit holder is responsible for planting and caring for the required **replacement tree**(s) for the first two years. All **replacement tree**(s) are regulated under the Tree Bylaw.

11.2 New Tree Planting Care Tips

To keep the trees healthy, follow these tips:

- water the tree regularly to keep the soil moist, but not soaking wet. Overwatering can create as many issues for the newly planted tree as drought can.
 Water the tree once every 3 to 5 days with a good soaking. Consider any rainstorms that have happened or are forecasted;
- keep lawn mowers and string trimmers away from the stem of the tree. Injuries make the tree more susceptible to insect and disease infestations and weaken the trunk. Severe bark damage can result in the eventual death of a tree;
- woodchip mulch should be left in place to protect the tree from damage, it reduces water loss and allows water and nutrients to penetrate the soil more easily. An approximately 10 cm (4") layer, placed from just off the trunk to the outer dripline, can improve moisture retention;
- do not volcano mulch or place dirt or grass clippings abutting the trunk of the tree. Any debris touching the trunk of the tree traps dirt and moisture at the trunk promoting rot;
- o do not install plants in the mulched area. Any plants (including grass) compete for resources that are all vital during the tree's establishment period.

12 | Key Technical Terms

"Arborist" means an arborist qualified by the Ontario Ministry of Training, Colleges and Universities; a certified arborist with the International Society of Arboriculture; a consulting arborist registered with the American Society of Consulting Arborists; or a Registered Professional Forester.

"Arborist Report" means a written report by an Arborist.

"Boundary Tree" means a Tree having any part of its trunk located on the property line between adjoining lands, and for the purpose of this definition a 'trunk' means that part of the Tree from its point of growth away from its roots up to where it branches out to limbs and foliage.

"Construction" means erection, alteration, repair, dismantling, demolition, structural maintenance, land clearing, earth moving, grading, excavating, laying of pipe and conduit (whether below or above ground level), street and highway building, application By-law 33-2024 Page 3 of 20 of concrete, equipment installation and alteration, and structural installation of construction components and materials, in any form or for any purpose.

"DBH" or "Diameter at Breast Height" means the diameter of the stem of a Tree measured at a point that is 1.37 metres above the ground.

"Dead Tree" means a Tree that as a result of any cause, is dead or, is in advanced and irreversible decline in health or condition.

"Good Arboricultural Practices" means the proper implementation of maintenance renewal and removal activities known to be appropriate for individual trees to minimize detrimental impacts on urban forest value.

"Harvesting" means the Injury or Destruction of a Tree through cutting or other mechanized means. The term "Harvested" and "Harvest" shall have a corresponding meaning.

"Hazardous" means destabilized or structurally compromised to an extent that an imminent danger of death, injury or structural damage exists.

"Heritage Tree" means a Tree having historical or community significance and designated by Council under Part IV of the Ontario Heritage Act (R.S.O.1990, Chapter O.18).

"Injury" or "Destruction" means to cut down, remove, uproot, unearth, topple, burn, bury, shatter, poison, or in any way cause a Tree to die or be killed, or where the extent of Injury caused to a live Tree or disturbance of any part of its Critical Root Zone is such that it is likely to die or be killed, excepting where a Tree and/or its roots are killed by natural causes. The terms "Injury", "Injured", "Injuring", "Destroy", "Destroying" or "Destroyed" shall have a corresponding meaning.

"Officer" means a Municipal Law Enforcement Officer, a member of the Niagara Regional Police Service, a member of the Ontario Provincial Police and any other Provincial Offences Officer designated under the Provincial Offences Act, R.S.O. 1990, c. P.33 ("Provincial Offences Act") or any person appointed or otherwise delegated the authority of enforcement of this by-law.

"Pruning" means the removal of live or dead branches from a tree.

"Qualified Person" means a person who, in the opinion of the Director, has satisfactory qualification, experience, education or knowledge to be an expert in the matter.

"Replacement Tree" means a Tree of a size and type determined by the Town that is required to be planted to replace a Tree Destroyed or Injured pursuant to a Permit.

"Natural Heritage System" means any geographic area of the Town shown as shown on Schedule D of this By-law.

"Urban Boundary" means the Urban Growth Boundary as shown on Schedule A of the Town's Official Plan.