DRAFT FOR CONSULTATION

Hamilton

Tree Protection Guidelines

November 2025

DRAFT

The Corporation of the City of Hamilton

Tree Protection Guidelines

1. Introduction

The City of Hamilton, recognizes the importance of Trees and the environment. The priority of these guidelines is to preserve, protect and enhance Trees across the City, including the Urban Boundary and rural areas. Enhancement of canopy coverage is an important goal of the City as Trees provide environmental, economic, and social benefits. Benefits of Trees include:

Environmental

Reduction of carbon in the atmosphere by sequestering carbon in new growth every year.

Avoided surface runoff. Trees intercept precipitation, while their root systems promote infiltration and storage in the soil.

Air Pollution Removal. Trees positively affect air quality by intercepting air particulate matter and absorbing gaseous pollutants.

Biodiversity conservation.

A by-product of Tree growth is oxygen production.

Economic

Trees affect energy consumption and cost depending on the location of trees around the building. Coniferous Trees planted in the northwest areas of a site may shade buildings from winter winds, decreasing energy use. Deciduous Tree leaf canopy in summer months can decrease energy use by blocking sunlight provide cooling of buildings.

Reduce pressure on stormwater infrastructure.

Increased residential property values.

Improved climate resiliency.

Social

Relieves stress and increases mental health.

Enhances areas for increased activities.

Noise reduction.

Solace and a sense of place.

Older Trees and certain species are associated with cultural and traditional values.

1.1. Purpose and Objectives

The City of Hamilton's Tree Protection Guidelines (TPG) are intended to provide guidance, advice and direction for landowners and developers subject to *Planning Act* approval on how to inventory Trees on a proposed development site and prepare a Tree

Protection Plan and Arborist Report. The guidelines also lay out the principles for retaining trees, protecting trees during construction, and replanting requirements through the submission of a Landscape Plan.

The objectives of this document include:

- Enhance tree preservation on development sites, to ensure a healthy, sustainable urban forest and a green, liveable city.
- Ensure preservation of existing trees in new development sites.
- Encourage consideration of existing natural features into the site design.

2. General Policy Context

2.1. Application of Policy

Tree protection is divided among trees on Private Property and those on Public Property (i.e. parks, City owned right-of-way). The goal of the Tree Protection Guidelines is the protection of private Trees in the Urban Boundary and rural areas, including Woodlands. Public Trees are protected under the Public Tree by-law and Forestry and Horticulture Design and Preservation Manual for Assets on Public Property and associated policies.

Preservation of Trees is prioritized over replacement and compensation.

2.2. By-law applicability

The Tree Protection Guidelines apply only to applications subject to Planning Act approval. For any other type of development, the following by-laws and policies apply to protect Trees in the Urban Boundary and rural areas:

- Public Tree by-law 15-125 – to regulate trees on or affecting Public Property.
- Private Tree by-law (pending council approval).
- Woodland Conservation by-law R00-054 – to restrict and regulate the destruction of trees in the Regional Municipality of Hamilton-Wentworth.
- Urban Woodland Conservation by-law 14-212 – To promote conservation and sustainable use of Woodlands on Private Property within the Urban Boundary of the City of Hamilton.
- Official Plan policies 2.10.1-RHOP and 2.11.1, 2.11.4, 2.11.5-UHOP.
- Endangered Species Act (2007) – Although not a City policy, adherence to the Species at Risk Act is required to ensure protection of woody endangered species.

These guidelines apply to lands subject to the following Planning Act applications:

- Draft plans of subdivision or condominium

- Official Plan and Zoning By-law Amendments
- Site Alteration permit applications
- Site Plan Control
- Consent applications

Trees subject to by-laws shall not be destroyed or injured unless exempt under the by-law or authorized through an approved permit issued by the City through the applicable by-law.

2.3. Public lands abutting subject lands

These guidelines generally do not apply to public trees however where developments subject to Planning Act approvals abut Public Property and will impact public Trees, it is understood that submission for both private and public Trees shall be coordinated to ensure the applicant does not need to prepare two separate Tree Protection Plans, Arborist Report or Landscape Plan.

2.4. Guideline Applicability

- As detailed in these guidelines, Tree Protection Measures may be required for Trees identified to be protected on the Tree Protection Plan and Arborist Report.
- These guidelines apply to Trees 10cm DBH or greater on Private Property and Trees in Woodlands.
- The guidelines set out the standard for Tree Protection Measures whenever Tree Protection Measures are required by the City and in every instance where construction activities may result in damage to trees.
- Additional Tree Protection Measures may be imposed where warranted in the opinion of City staff depending on the size, variety, location, and health of the Trees affected and any circumstances surrounding the construction which may pose a particular hazard to the Tree.
- Reduced Tree Protection Measures shall only be permitted on the recommendation of the Tree Management Professional (as defined in this policy) and with the written consent of City staff.

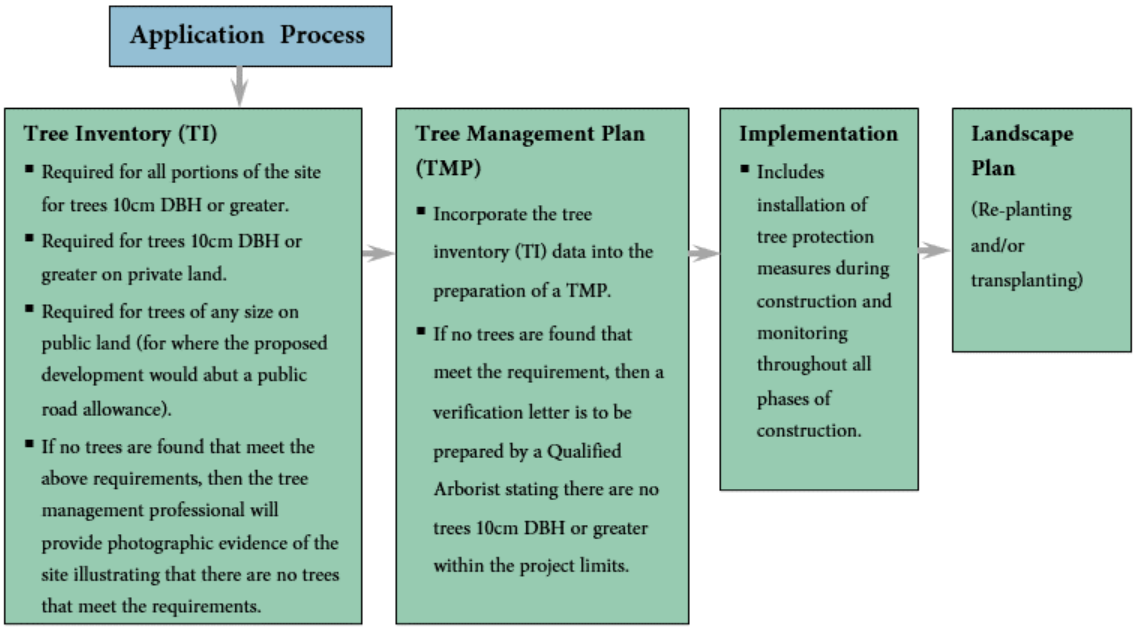
3. Approach

The Tree Protection Guidelines require the applicant to provide information and analysis of Trees to ensure that site development is coordinated and considers opportunities for Tree retention. This evaluation will then be used alongside engineering and grading information to guide the layout of the development proposal. The documentation detailed in Section 3.1 is to be submitted to City staff as part of a complete application so that there are opportunities for all parties involved in the project, from the applicant to the engineer, Arborist and Landscape Architect to coordinate and ensure that

protection of Trees has been prioritized, considered and incorporated into the design, and where required, compensation Tree planting on site.

3.1. Four-Step Process

There is a four-step process to ensure Tree protection for Planning Act applications outlined in Section 2.2.



4. Methodology

4.1. Information to be collected as part of a Tree Inventory:

Inventory and assess all Trees 10cm DBH or greater on Private Property and Trees in Woodlands. The Tree inventory, Tree Protection Plans and Arborist report must be prepared by a Tree Management Professional and capture the following information:

- Condition.
- Dripline of individual Trees, groupings, Woodland edges.
- Tree location (surveyed, aerial photography or located using GPS).
- Species.
- Size (DBH and height).
- Tree Ownership (Private, Public).
- Identify Hazard potential particularly for Trees along the property line or Woodland edges, and likelihood of failure (tree falling over) and hitting a target (person, structure, property etc.).
- Representative photographs.
- Tree ID numbers.
- Dead Trees (noted in tree inventory table, no tag or ID required).

- Visual assessment of Trees where no permission to enter was obtained.
- Invasive Tree Species.
- Tree Species at Risk.
- Environmental / natural features i.e. watercourses, rivers, streams, wetlands, ditches, slopes, hedgerows, Woodland edges.
- Trees or groups of Trees that are significant to the local community and should be preserved for this reason (e.g. local landmarks, visual screens, native species that are in good condition that can tolerate some disturbance, rare or unusual species).
- For Woodlands, generally indicate the range of Tree size using DBH to provide an indication of Tree maturity and Woodland age.
- Woodland assessments may be coordinated with environmental reports i.e. Environmental Impact Statement or Environmental Study Report. Where these reports have been provided an individual Tree assessment of a Woodland may not be required as information from the environmental reports, such as the Ecological Land Classifications (ELC) may be utilized as part of the assessment and illustrated on the Tree Protection Plans, showing buffers etc.

4.2. Information to be included in the Tree Inventory Table

- Tree ID (Tag #, numeric or alphameric).
- Tree status.
    - Planted, natural, unknown.
- Tree species (common and scientific names-including genus and species).
- Quantity.
- Location / Tree Ownership (Private, Public).
- Address.
- Tree Protection Zone.
- DBH.
- Approximate Tree height.
- Tree Condition expressed in three (3) categories: TI, CS, CV:
    - TI = **Trunk Integrity** – Assessment of the trunk for any defects or weaknesses.
    - CS = **Canopy Structure** – Assessment of scaffold branches, unions and canopy structure.
    - CV = **Canopy Vigour** – Assessment of the health of the canopy based on % of deadwood, presence of disease, pests, and live crown.
        - **GOOD** - dead branches less than 15%; signs of good compartmentalization on any wounds, no structural defects.
        - **FAIR** - 10-40% dead branches, size or occurrence of wounds present some concerns, minor structural defects.

        - **POOR** - more than 40% dead branches, weak compartmentalization, early leaf drop, presence of insects or disease, major structural defects.
        - **DEAD** - Tree shows no signs of life.
- Comments related to Tree health:
    - Biotic and abiotic factors, form, disease, pests, vigour, structure.
- Comments related to recommended action and rationale (retain, remove, transplant, injure).
- Hazard Tree Status.
    - Brief description of whether the Tree would be considered a Hazard and expressed as: low, medium, or high potential.
- Proposed Canopy Pruning %.

4.3. Information to be Illustrated on a Tree Protection Plan:

- An inventory and brief description of individual Trees and tree groupings on site (trees and other vegetation).
- Site topography, soils, and drainage.
- Any significant natural and physical features (e.g. streams, ponds, steep slopes, wildlife habitat).
- Tree Drip Line or Woodland boundary locations that define the edge of a Tree grouping.
- Tree location.
- Tree Protection Zones.
- Tree Protection Measures (e.g. horizontal, such as mulching, load distribution mats, trenchless servicing, etc. and / or vertical, such as tree protection fencing, etc.) detailed in text and graphically.
- Tree Inventory Table.
- Symbolized recommendations for each Tree (retain, remove, transplant).
- Lot lines.
- Proposed construction envelope, Lot locations, street layout, driveway locations, and building envelope.
- Location of all existing and proposed services and infrastructure, both overhead and underground.
- Grading information (existing and proposed grades, cut and fill areas, potential disruption of water drainage).
- Location and size of storm water management facilities.
- Location of soil stockpiles.
- Title with north arrow and legend, name of development, Lot and concession, municipal address, scale, date, and a place for the Tree Management Professional information and stamp, if applicable.

- Identification number corresponding to Tree Inventory Table (tree tags or trees identified numerically or alphanumerically).
- Recommended action (retain, relocate or remove) and reason.
- Compensation required (yes or no). Provide text detailing the required compensation. For public Trees, Forestry staff will determine the compensation required.
- Notes and recommendations (e.g. treatments, vine removal, habitat Tree, corrective pruning, etc.).
- Notes on plans regarding recommended timing windows or mitigation measures i.e. migratory bird nesting season and Tree removal restrictions and notes related to Species at Risk found on the subject site.
- Notes on required Maintenance during construction, such as mulching, watering existing trees on a weekly basis and to be performed during specific months, during periods where we haven't received rain for more than 1-week.
- Trees surveyed and accurately located relative to property boundaries.
- Utilize existing features or conditions in determining the recommendation for Trees:
    - Proposed works within the paved road portion of a road or with a curb or sidewalk that encroaches into the TPZ will assume there are no impacts to roots as it is unlikely that any significant roots would be found under the pavement surface.
- Utilize Good Arboricultural Practices for determining whether impacts to trees warrant removal and appropriate mitigation measures for Tree preservation.

5. Tree Protection Measures

Appropriate use of Tree Protection Measures must be considered and recommended to ensure that proposed measures implemented will help to ensure the survival of Trees identified for preservation. At this point, the applicant will have reviewed the details of the proposed development design (e.g. infrastructure, Lot lines, building envelopes, and storm water management facilities) to preserve Trees that can be reasonably expected to survive the construction impacts and will continue to positively contribute to the community.

5.1. Transplanting

In very rare cases, it may be possible to transplant existing Trees on-site to avoid removal. Transplanting and injury mitigation should be considered, and any recommendations to implement these measures shall conform to appropriate Good Arboricultural Practices. Transplanting must consider the tree size, tree species, tree

condition, site conditions, temporary transplant location, if required and time of year. Transplanting is not a preferred option and will be rarely supported.

5.2. Canopy pruning

Activities such as Pruning, in advance of, or during construction or development reduce the potential for physical Tree injury, can promote hardiness, and mitigate possible adverse health effects on Trees. Proper Pruning will also promote worker safety during site development. Prune overhanging branches, which may interfere with the movement of equipment prior to commencement of on-site operations. All Pruning must be conducted by or under the supervision of an Arborist and a Licensed Tree Cutter.

- Extensive Pruning is best completed before plants break dormancy.
- Follow Ministry of Natural Resources guidelines for Pruning Trees species that are at risk due to threat of pests and / or diseases, such as Oak Trees.

5.3. Horizontal root protection / Soil Compaction Prevention

- In situations that require an encroachment into the TPZ of a Tree that will be preserved, measures such as horizontal root protection are to be considered to ensure the protection of the root zone from compaction or damage.
- Construction, development access, temporary access roads and laydown areas should be diverted as far away from TPZ's as possible to keep the movement of equipment and materials across root zones to an absolute minimum.
    - Horizontal root protection must be installed over area of potential impact when temporary encroachment into the TPZ is required to facilitate work. The type and frequency of encroachment will determine which compaction protection is required, as specified below:
        - Limited non-vehicular (e.g. foot traffic):
            - Installation of non-woven permeable geotextile fabric;
            - Minimum of 150 mm of wood chip mulch laid over geotextile fabric; and,
            - Installation of 25 mm plywood.
        - Frequent non-vehicular or occasional light vehicle
            - Non-woven permeable geotextile fabric;
            - Minimum of 300 mm of wood chip mulch laid over geotextile fabric; and,
            - Installation of 25 mm plywood.
        - Regular vehicular access
            - Non-woven permeable geotextile fabric;
            - Installation of 100 mm of 19 mm clear stone laid over geotextile fabric;

        - Non-woven permeable geotextile fabric over stone; or,
        - Minimum of 300 mm of wood chip mulch laid over the landscape fabric; or,
        - Installation of 25 mm plywood or steel plate over mulch.
    - Alternative horizontal protection methods due to advancements in product technologies may be considered and must be reviewed by the City.
    - The City must review all TPZ encroachments. Treatments are temporary and must be removed once access is no longer required and tree protection fencing reinstated to the minimum TPZ.

5.4. Root sensitive excavation

- Where site development works including excavation, boring or digging may be required within a TPZ, root sensitive excavation is to be implemented to reduce damage to roots.
- Efforts should be made to route all underground utilities around the TPZs.
- Where encroachments into the TPZ are unavoidable, trenchless technology must be used for the installation of underground services to minimize potential impacts to trees.
- Prior to commencement of any excavation within the TPZ, an exploratory excavation shall be undertaken by an Arborist using hand tools, an air-jet tool, a hydro-vac system, or an equivalent method of root-sensitive excavation. The operator shall be familiar with using this method to expose roots.
    - Root sensitive excavate to a depth of 300mm along the length of the TPZ distance and at a width of 0.5m to expose roots.
- Exploratory excavation may also be required for excavation outside the minimum TPZ depending on the Tree and surrounding environment.
- Minimize the limit of excavation, grading, or removals to the greatest extent possible and include the use of excavation shoring, smaller excavation equipment or rubber-tired machines.
- Ensure that the pressure used from air-spading / hydro-vacuuming equipment is such that it will not damage roots during excavation. The operator shall be familiar with using this method to expose roots.
- Backfill with excavated material and reinstate to original condition or better. Minimize compaction of soil to a maximum of 85% SPMDD in future soft surface areas.
- Upon completion reinstate Tree Protection Measures to original location.
- Water Trees periodically during construction.

- Restore disturbed areas with a layer of 75mm depth mulch in a 2m radius around the trees, or to the limits of the closest hard surface area.

5.5. Root Pruning

- The pruning of roots can help ease the stress experienced by a tree with root damage, encourage the growth of new fine and feeder roots, and prevent the spread of decay. Proper root pruning should be performed by or under the supervision of an Arborist in advance of anticipated root-damaging excavation, or immediately afterwards if such injury was unforeseen. Root pruning guidelines are as follows:
    - All approved root pruning is to take place by or under the supervision of an Arborist.
    - Pruned root ends shall be neatly and squarely trimmed, and the area shall be backfilled with clean native fill as soon as possible to prevent desiccation and promote root growth.
    - The exposed roots shall not be allowed to dry out and an appropriate watering schedule shall be undertaken (e.g. water bi-weekly to field capacity between June 1st and September 15th) so that the roots maintain optimum soil moisture during construction and backfilling operations.
    - Backfilling shall occur immediately with clean uncontaminated topsoil from an approved source. It is recommended that texture of backfill be coarser than existing soils, and that backfill comes into clean contact with existing soils (remove air pockets, sod, etc.). Backfill should not be over compacted and be limited to a maximum of 85% SPMDD in future soft surface areas.

5.6. Grading within a Tree Protection Zone

Where minor or fine grading is proposed within a portion of, or all a TPZ, the following measures shall be applied for Trees that are to be preserved. These measures are to be evaluated on a Tree-by-Tree basis.

- Any grading required within a TPZ between the sidewalk and limit of grading is recommended to be conducted by hand using a hard rake or equivalent. Addition or removal of soil to be done by hand where possible. If equipment must be used, after completion of grading works, soil to be scarified to a depth of 5cm of depth of grading works to reduce compaction.
- Any topsoil to be added is recommended to be spread manually between the sidewalk and limit of grading.
- Wrap trunk up to 1.4m height with Tree wrap.

- Place 4' length 2"x4"s around the trunk spaced at 2" apart and wrap with rope or tape to prevent movement.
- No grading work within 1m of the trunk of the Trees that are <10cm DBH and 2m of trees that are >10cm DBH.
- Create a soil mound / transition at this limit and proposed grading works.
- At the completion of grading works re-install tree protection fencing.

5.7. Tree Protection Fencing

The applicant is responsible for ensuring that tree protection fencing (hoarding) is installed prior to any site works. Fencing is required to be maintained throughout all phases of construction in the location and condition approved. Hoarding will provide protection to the individual Trees, clumps of Trees, and Woodland edges to be preserved. Placement as detailed and illustrated on the approved Tree Protection Plans and Arborist Report. Fencing types to consist of:

- 1.2m high Paige wire (9 strand, 9-gauge wire) farm fencing attached to 2.44m high T-bar stakes, 2.44m O.C. 2.44m high, 150mm diameter cedar posts, pressure treated wood posts, 19.52m maximum on centre and at all changes in horizontal and vertical alignment.
- Where the above fencing type is not feasible, 1.8m high modular chain link fence, secured to the ground, locked bolted together may be used. Review and approval at the discretion of City staff.

For the best results, developers must ensure their builders and subcontractors are educated about the TMP and its requirements before starting their work. All subcontractors must be supplied with a copy of the approved TMP. This includes the installation of tree protection signage which must be attached to the tree protection fencing.

5.8. Tree Protection Zone Prohibitions

Areas within the Tree Protection Zone (TPZ) are not to be used for any type of storage (e.g., storage of debris, construction material, surplus soils, and construction equipment). No trenching or tunneling for underground services shall be located within the TPZ or Drip Line of Trees designated for preservation within or adjacent to the construction zone.

TPZ's and installation of tree protection fencing is determined by measuring from the outside edge of the trunk at breast height.

Prohibited activities within the TPZ prior to, during and following site disturbance includes:

- Installation or attachment of any items to the Tree.

- Operation of equipment or machinery.
- Storage of equipment, machinery, or materials.
- Access by any personnel.
- Placement of trailers, temporary buildings, or structures.
- Flushing, storage or dumping of fuels, chemicals, or other contaminants.
- Stockpiling of soil.
- Digging, trenching, or excavation.
- Change to existing grade.
- TPZ hoarding shall not be moved, modified, or relocated at any time without the approval of the City.

Hoarding is to be installed prior to the commencement of disturbance, including Tree removals. Works shall not commence until the installation of all TPZ barriers has been completed and has been verified and approved by the Tree Management Professional and City.

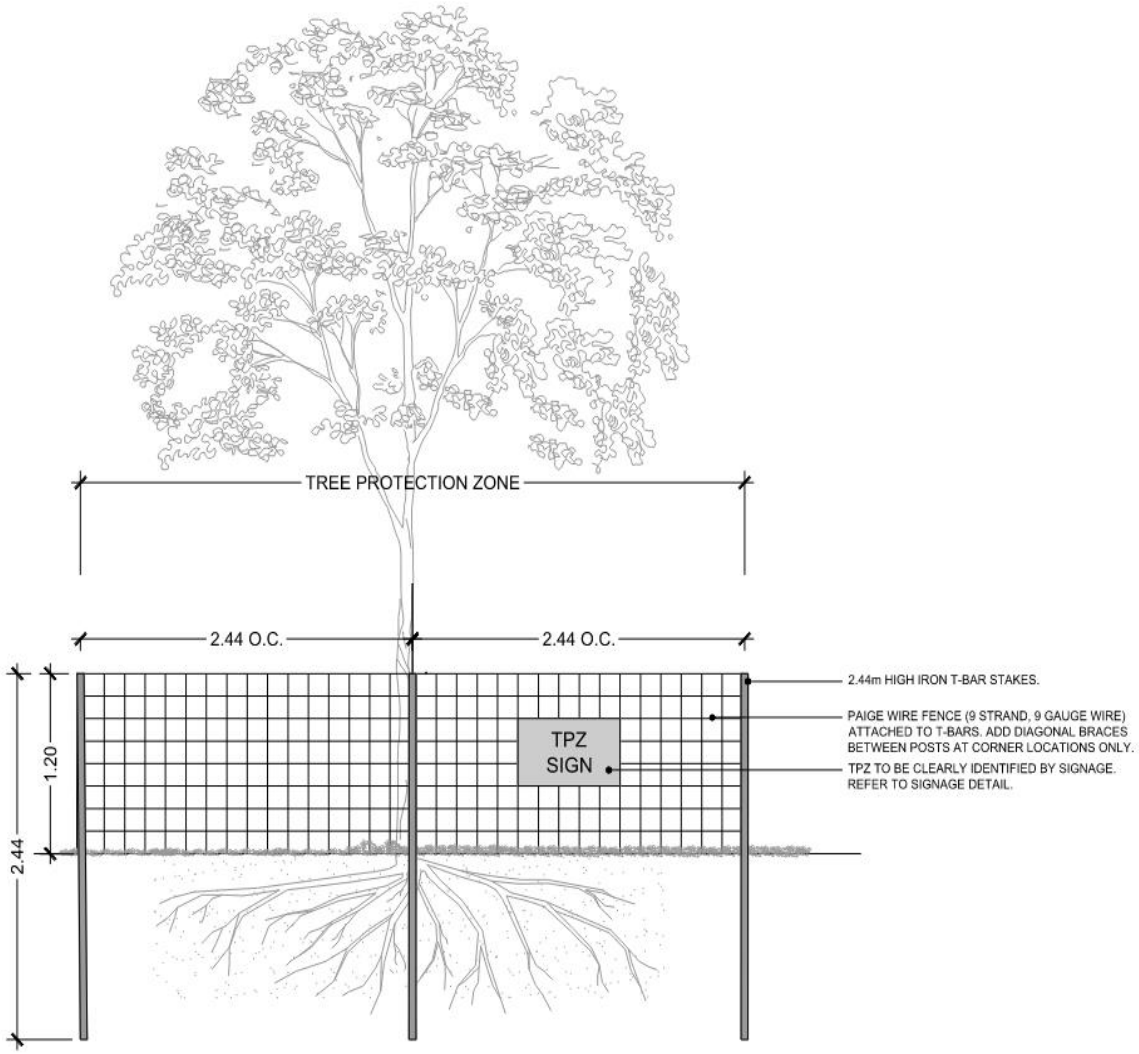
Other requirements include:

- Vertical tree hoarding to be installed at the outer limit of the minimum required TPZ for each Tree to be preserved and shall enclose the entire TPZ.
- TPZ barriers shall be inspected by a Tree Management Professional, or a person designated to do so by the City. Any TPZ barriers found to be in substandard condition shall be repaired, modified, or replaced as necessary within 48 hours of receiving notification to do so.

5.8.1. Tree Protection Zones

Trunk Diameter	**Minimum Tree Protection Zone distance required (Private Trees) - measured from the outside edge of the trunk at breast height**
<10cm	1.2m
10 to 20cm	1.8m
21 to 30cm	2.4m
31 to 40cm	3.0m
41 to 50cm	3.6m
51 to 60cm	4.2m
61 to 70cm	4.8m
71 to 80cm	5.4m
81 to 90cm	6.0m
91 to 100cm	6.6m
>100cm	6.6cm protection for each 1cm of diameter

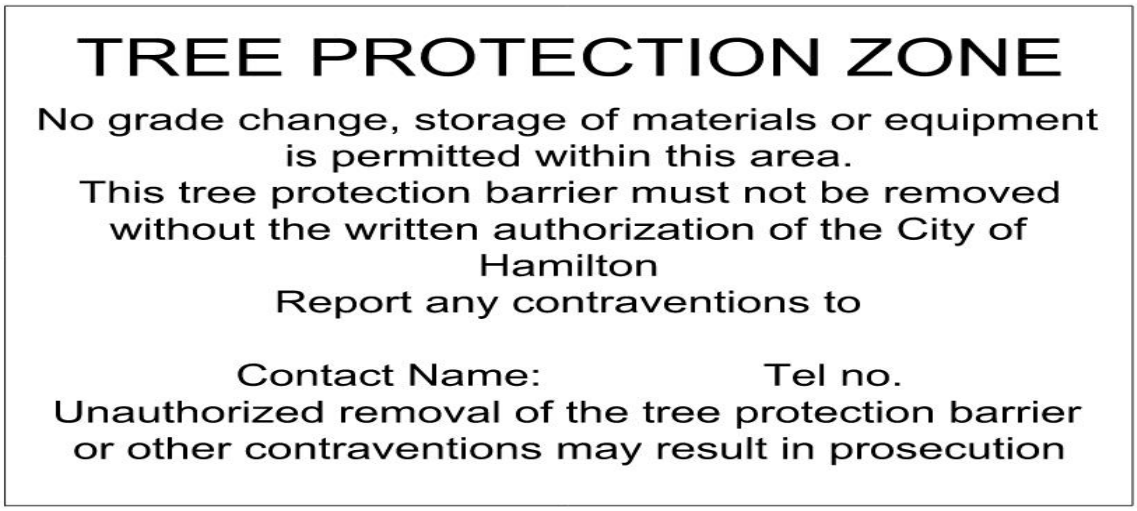
5.9. Tree Protection Detail



NOTES:

- 2m HIGH, 150mm DIAMETER CEDAR POST, PRESSURE TREATED, TO BE INSTALLED AT INTERVALS OF 19.52m AND AT ALL CHANGES IN HORIZONTAL AND VERTICAL ALIGNMENT.
- TREE PROTECTION ZONE SIGN 40cm X 60cm
- FOR TREE PROTECTION ZONE (TPZ) DISTANCES FOR TO TREE PROTECTION ZONE TABLE
- ALL TREE PROTECTION TO BE IN ACCORDANCE WITH APPROVED TREE MANAGEMENT PLAN.
- ALL TREE PROTECTION HOARDING SHALL IN BE PLACE AND MUST BE INSPECTED BY THE QUALIFIED TREE PROFESSIONAL AND APPROVED BY THE THE CITY OF HAMILTON.

5.10. Tree Protection Signage



6. Monitoring and Implementation

6.1. Implementation of TPP and Arborist Report

Once the TPP has been approved by the City, implementation according to the measures outlined in the TPP may begin. This includes having a Tree Management Professional on site at critical times during construction, such as monitoring of protective fencing, temporary access, and approved excavation within a TPZ, etc. Submission of reports at these critical times, i.e. prior to issuance of building permits is required to ensure the work is completed as agreed to. These implementation measures are outlined below.

6.2. Tree Protection Measures - Verification Letter

Tree Protection Measures prevent injuries from construction activity by keeping equipment and materials away from the Tree. The Management Professional must provide a Verification of Tree Protection Letter to City staff to confirm that all Tree Protection Measures have been installed, as shown in the TPP approved by the City of Hamilton.

The Verification of Tree Protection Letter must be provided to the City before any grading on the site can occur, servicing can commence, or building permit can be issued. The grading consultant must confirm that the TMP conforms to the Lot Grading Control Plan before these Plans are approved by City staff.

Where necessary and at their discretion, City staff may inspect the site during the various stages of pre-construction and construction.

6.3. Post Grading Tree Maintenance Report

After grading has been completed, the City requires that a Post-Grading Tree Maintenance Report be prepared and submitted to City staff.

The purpose of this report is to ensure initial and continued compliance with the Tree Protection Measures as detailed in the approved TPP. This report must be prepared by a Tree Management Professional.

The timing of the Tree Maintenance Report is to coincide with the completion of initial site grading. All needs of Trees to be maintained shall be assessed immediately and a Tree Maintenance Report detailing all recommended Tree Maintenance measures shall be submitted to, and approved by, City staff prior to registration.

The Post-Grading Tree Maintenance Report should:

- Assess damage to Trees that were to be retained but have inadvertently been damaged or removed by site grading and clearing.
- Provide remedial recommendations for any damaged Trees that are to be retained using Good Arboricultural Practices such as mulching, crown and root fertilization, watering and Pruning to improve health of the remaining Trees.
- Timing of remedial measures:
    - Before / during / after further construction.
- Identify planned Tree removal not conducted.
- Overall recommendations and site observations related to Trees.

7. Arborist Report

- Summary of proposed development.
- Recommendation for each individual Tree / Woodland and the rationale for injury, removal, or transplanting.
- Which Trees are to be protected, and which are to be removed and why.
- Potential impacts of the proposed development including layout, storm water management ponds, grading, and servicing on the remaining vegetation.
- Summary of anticipated grading and construction impacts. Description of protective measures including, but not limited to:
    - Erosion control.
    - Protective fencing/hoarding and signs.
    - Buffers from natural features (ESA, ANSI, wetlands, ravines and valley lands typically require a 30m buffer).
    - Tree transplanting and planting (timing, locations, moving procedures).
    - Maintenance of Trees to remain on site.
    - Stewardship (Post Grading Maintenance Report).
    - Mulching.

    - Root sensitive excavation.
    - Horizontal root protection.
    - Root pruning and canopy Pruning.
    - Treatment post construction e.g. radial trenching.
    - Possible preservation or management techniques to enhance the condition of remaining Trees.
    - Mitigation options.
- Identification of Heritage Trees protected under *Part IV of the Ontario Heritage Act, 2005, S.O. 2006, c.6*, as amended.
- Rare, unusual and Species at Risk.

8. Landscape Plans

Landscape Plans for Development Applications are to be prepared and submitted to City staff for review. Landscape Plans must be prepared by a Landscape Architect and must conform to the approved Tree Protection Plan and City of Hamilton Development Application Guidelines, 2022 – Landscape Plan (Appendix B17). Submission of Landscape Plans is based on Official Plan requirements and may be specific to certain application types such as Zoning By-law and Official Plan amendments, Site Plans, Consents, and Plan of Subdivision. Criteria may vary depending on the application type.

8.1. Landscape Plan Guidelines

The City of Hamilton is committed to supporting biodiversity, and the City has developed guidelines to support native plantings.

- In natural areas, 100% of the proposed Tree species must be Native.
- In all other areas, 50% of the proposed Tree species must be Native, and there can only be maximum 20% of any one genus. Include a mix of tree species.
- For public Tree plantings, the City will select the species and plant the Trees.
- Minimum Caliper for deciduous planting stock is 60 mm DBH.
- Minimum height for a conifer is 1.5 metres.
- Natural area planting to a combination of saplings and Caliper stock, with a density of 1 to 2m spacing between each Tree.
    - 20% of all plant material, shall be a minimum of 50mm Caliper stock. Shrubs do not count toward compensation ratios.
- On-site replacement or enhancement of canopy cover that is sparse or where there are gaps between vegetation, hedgerow, and forest communities.
- Increase buffers around natural areas and plant in the buffers on site.
- Choose the right Tree for the right site. Emphasis on species selection and providing the best opportunities for Tree survival based on species, characteristics, and site conditions and being aware of soil volumes.

- Siting of Trees along the south and west sides of buildings to provide cooling effect in the summer.
- Siting of coniferous trees along north and west sides of sites or buildings to block prevailing winds in winter to reduce the strain of heating systems of buildings.
- Consider Trees that produce food for wildlife.
- Utilize City of Hamilton Development Application Guidelines 'Landscape Plan, Appendix B-17, Landscape Design Guidelines for Stormwater Facilities and Site Plan Guidelines.

A list of non-desirable species that are not to be planted are provided in Section 14. There should be some consideration to using drought-resistant plant material to conserve water and reduce long term maintenance requirements, where appropriate.

9. Compensation

Compensation shall be provided to the City of Hamilton for every Tree equal to or greater than 10 cm DBH on Private Property . Compensation enables the City to enhance canopy cover within neighbourhoods and communities where Trees have been removed. Benefits of compensation include promoting sustainability of the Tree canopy, and to support the achievement of the City's canopy cover objectives. Compensation may also be required in the event of unanticipated Tree injury or loss.

The intent of compensation planting through the preparation of a Landscape Plan is to support Tree re-establishment (preferably of large-canopy shade trees) and it is preferable that compensation occurs on the same site that Trees are removed.

Though not preferred, if the Landscape Architect demonstrates that it is not reasonably possible to accommodate all compensation Tree plantings on site, cash-in-lieu, in accordance with the City's approved User Fees will be required. Reasonableness will consider factors such as requirements for compliance with the *Accessibility for Ontario's with Disabilities Act*, waste management requirements, in coordination with appropriate City staff. Preference is not considered a reasonable reason to not accommodate compensation Tree plantings on site.

9.1. Compensation Ratios

The requirements for replacement of Tree planting to Tree removals are as follows:

Table 9.1

Criteria	Replacement Trees Required
For each Tree removed that is 10cm to 29cm DBH	1:1
For each Tree removed that is 30cm DBH or greater	3:1
For each tree removed that is 10cm or greater within natural areas (designated through the City's Official Plans).	10:1

10. Requirements for Submission

10.1. Responsibilities of Applicant

A digital (pdf) submission including the Tree Inventory, Tree Protection Plan, Arborist Report and Landscape Plans must be submitted to City staff for the applications outlined in Section 2.2.

Where another environmental study, such as a sub watershed study, Secondary or Master Plan, Source Water Protection Plan or Environmental Impact Statement contains recommendations relating to Tree preservation, these recommendations should be incorporated into the TPP. The City will not begin the internal review of the application until these submission documents have been received. Documents will be circulated to appropriate departments, divisions, and sections.

The TPP and Arborist Report must be completed by a Tree Management Professional. Landscape Plans, including a compensation table must be prepared by a Landscape Architect.

10.2. Responsibilities of Owner

The Owner must employ a recognized Tree Management Professional, who will assess and evaluate the vegetation on the proposed development site, and a Landscape Architect to prepare the Landscape Plan. Depending on the nature of the vegetation and the development proposal, an application may not be required to go through all four steps.

The process will seek to:

- Ensure preservation of existing Trees in new development sites will be optimized.
- Ensure that the Tree Protection Plan is used to guide the layout of a proposed development.
- Ensure a consistent standard and clear process for staff, applicants, and the development industry, eliminating unnecessary delays.
- Maximize protection of Trees by identifying them early in the process and in conjunction with designing road pattern, Lot layout, building locations, and preliminary and final grading.
- Provide clear recommendations for Tree management in relation to servicing, grading, drainage, and storm water management.
- Identify opportunities to restore Tree and Woodland health through Pruning, re-planting, and landscaping.

The City recognizes that not all Trees can be preserved. Trees that are structurally unstable or in poor health may be candidate for removal and or where there is

insufficient space to develop the site and preserve all Trees. It is, however, the applicant's responsibility to utilize all measures and exercise all opportunities to preserve as many Trees as reasonably possible within the site.

Based on submittals provided by and in the opinion of the Tree Management Professional, City staff will assess the submissions and provide feedback. City staff are committed to working with applicants to achieve, both the City's objectives, while recognizing the unique opportunities and constraints that may be present on individual sites proposed for development.

11. Summary of Approval Process

Submit Application	Applications subject to Planning Act approval outlined in Section 2.2 and/or as part of a Niagara Escarpment permit application will be required to submit one digital (pdf) copy of the TPP and Arborist Report. It is recommended that the Tree Management professional contracted by the Owner contact City staff before undertaking the tree inventory to receive clarification from staff regarding what is required and to access any available background information the City may have available.
User Fee	Applicant to pay City approved User Fee.
Site visit	Where necessary and at their discretion, City staff may conduct a site visit.
City Review	City staff will provide comments on the TPP and Arborist Report to the Tree Management Professional and applicant. Staff will advise of any changes to the proposed plans and report that will be recommended and any draft conditions that will be included in the report to the Planning Committee.
Approval	TPP and Arborist Report must be approved by City staff before any grading, servicing or construction can begin.
Co-ordination	Once the TPP and Arborist Report have been approved by the City, the Tree Protection Zones must be identified on all grading plans and servicing drawings to ensure co-ordination between Tree protection and site development.
Verification Letter	Before any grading, servicing, or construction can occur, a Verification of Tree Protection Letter must be prepared by the Tree Management Professional and submitted to City staff. This will ensure the applicant is complying with the requirements of the TPP. If pre-grading is requested, the TPP must be approved before any grading can occur.
Construction Stage	During construction, the applicant is responsible for ensuring that Tree Protection Measures are maintained throughout construction. City staff will also visit the site during this time to verify compliance.

Tree Maintenance Report	A Post-Grading Tree Maintenance Report must be prepared by the Tree Management Professional.
Landscape Plan Approval	If Trees are to be planted on site, a Landscape Plan must be submitted to City staff for review and approval.

12. Glossary of Terms

Arborist	means a professional who has gained recognized certifications, qualifications and expertise in the care and management of Trees. Recognized certifications and qualifications for qualified tree professionals include: (1) An Arborist qualified by the Ontario Ministry of Training, Colleges and Universities; (2) Board Certified Master Arborist or Arborist Municipal Specialist with the International Society of Arboriculture (ISA); (3) Registered Professional Forester (RPF) as defined in the Professional Foresters Act, 2000, S.O. 2000, c.18; or, (4) Certified Arborist with the International Society of Arboriculture.
ANSI A300 (Part 1)-2008 Pruning	means American National Standard Institute Standard (ANSI) A300 (Part 1)-2008 Pruning which provides standard practices and specification writing guidelines regarding pruning.
Boundary Tree	means a tree where any part of its Trunk is located on more than one Lot.
Caliper	means the measurement of the trunk's diameter, taken 6 to 12 inches above the base, used to indicate a tree's size and maturity, usually used for nursery stock.
City	means the municipal boundaries for the City of Hamilton or the Corporation of the City of Hamilton (depending on the context).
Diameter at Breast Height (DBH)	means: (1) the measurement of the diameter of a Trunk measured from outside the bark at a height of 1.4 metres above existing grade of the ground adjoining its base; or, (2) where there are multiple Trunks on a Tree, the total sum of the diameters of the stems measured from outside the bark on each Trunk at a height of 1.4 metres above existing grade of the ground adjoining its base.
Development Application	means an application under the Planning Act, as outlined in Section 2.2, Tree Protection Plans are identified as studies for Official Plan Amendments, Zoning by-law Amendments, Draft Plan of Subdivisions, and Site Plans.
Drip Line	means a point on the ground equivalent to the outer limits of the branches of the tree.

Good Arboriculture Practices	means the proper implementation of removal, renewal and Maintenance activities known to be appropriate for individual trees in and around urban areas and includes pruning of trees to remove dead limbs, maintain structural stability and balance, or to encourage their natural form, provided that such pruning is limited to the appropriate removal of not more than 20% of the live branches or limbs of a tree, but does not include pruning to specifically increase light or space.
Hazard	means a Tree that is a potential safety concern to property or life, but not an immediate threat, including, but not limited, to a destabilized or structurally compromised Tree as determined by an Arborist.
Heritage Tree	means a Tree that has received designation under *Part IV of the Ontario Heritage Act, 2005, S.O. 2006, c.6*, as amended.
Invasive Tree Species	means any Tree that is classified as prohibited or restricted as defined in the *Invasive Species Act, 2015, S.O. 2015, c. 22*, or if the Tree is listed as a noxious weed as defined by the *Weed Control Act, R.S.O. 1990, c. W.5*.
Landscape Architect	means a person who is a full member in good standing of the Ontario Association of Landscape Architects.
Landscape Plan	means a plan prepared by a Landscape Architect that identifies, at minimum proposed Tree species, quantity, size and location, existing and proposed surface treatments, locations of proposed and existing buildings and structures, locations of proposed and existing utilities, number of required compensation plantings, and number of compensation plantings accommodated on site and any other requirements determined by City staff.
Licensed Tree Cutter	means a Person licensed in the City of Hamilton to perform Tree cutting services in accordance with the City's By-law to License and Regulate Various Businesses 07-170, as amended, or its successor(s).
Lot	means all contiguous land under one Ownership which can be legally conveyed pursuant to the provision of the Planning Act.
Maintenance	means all operations of trimming, pruning, spraying, injecting, fertilizing, and treating in accordance with Good Arboricultural Practice.
Native	means a tree growing naturally in Canada, being indigenous to Southern Ontario.
Official Plan	means the City's Urban Hamilton Official Plan and Rural Hamilton Official Plan.
Owner	means the registered Owner of a Lot, and their respective successors and assigns, or their agent.
Pruning or Prune	means the appropriate and selective removal of not more than 20 percent of the live foliage or crown of a Tree within an annual growing season with the intent of maintaining the health and structural integrity of the Tree. Pruning must be performed by a Licensed Tree Cutter in accordance with Good Arboricultural

	Practices and with the American National Standard Institute Standard (ANSI) A300 (Part 1)-2008 Pruning.
Planning Act	means the *Planning Act, R.S.O. 1990, c. P.13* and any amendments thereto.
Private Property	means any Lot not owned by, leased to, controlled by, or vested in the City.
Public Property	means any land that is owned by, leased to, controlled by, or vested in the City including those public unassumed alleys which have been occupied or fenced by a person other than the City.
Tree Management Professional	means a professional who has gained recognized certifications, qualifications and expertise in the care and management of trees, including an Arborist, or Landscape Architect.
Tree	means a woody perennial plant (including its root system) which has reached or could reach a height of at least 4.5m at maturity.
Tree Protection Zone (TPZ)	means the minimum setback from a Tree (including above, below and at ground level) required to protect the biological health and maintain the structural integrity of a Tree.
Tree Protection Plan (TPP)	means a plan prepared in accordance with Good Arboricultural Practices, which, at a minimum, itemizes the existing number, species, location and condition of all trees on the Lot and within 6 metres of the Lot which includes a management schedule related to preservation and removal intents.
Tree Protection Measures	means a fence, barrier or similar structure used to enclose a portion of a property to protect an existing Tree including its Tree Protection Zone or other vegetation. Tree Protection Measures may also include horizontal hoarding, mulching, or watering.
Urban Boundary	means the area where all urban development is allowed within the City of Hamilton as identified in the Urban Hamilton Official Plan.
User Fee	means the City's User Fees and Charges By-law 25-023, as amended, or its successor(s).
Woodland	means treed areas that provide environmental and economic benefits to both the private landowners and the general public, such as erosion prevention, hydrological and nutrient cycling, provision of clean are and the long-term storage of carbon, provision of wildlife habitat, outdoor recreational opportunities, and the sustainable harvest of a wide range of Woodland products. Woodlands include treed areas, woodlots, or forested areas (PPS, 2005). Woodlands do not include a cultivated fruit or nut orchard or a plantation established for the purpose of producing Christmas trees.

13. References

City of Hamilton. October 2010. Tree Protection Guidelines – City Wide. 26 pages

City of Hamilton. 2021. Urban Forest Strategy. 180 pages

City of Hamilton Development Application Guidelines, 2022 – Landscape Plan (Appendix B17). 3 pages.

City of Burlington. September 2020. Tree Protection and Preservation Spec No. SS12A, 8 pages

City of Guelph. December 2019. Tree Technical Manual. 59 pages

City of Kitchener. February 28, 2002. Tree Management Policy. 76 pages.

City of Toronto. July 2016. Tree Protection Policy and Specifications for Construction Near Trees. 18 pages.

14. Non-Desirable Tree Species List

The City of Hamilton is committed to promoting biodiversity, the following is a list of tree species that are not to be planted.

Common Name	**Latin Name**
Norway Maple	*Acer platanoides*
Crimson King Maple	*Acer platanoides 'Crimson King'*
Manitoba Maple	*Acer negundo*
Tree-of-Heaven	*Ailanthus altissima*
Black Alder	*Alnus glutinosa*
Silver Birch	*Betula pendula*
Russian Olive	*Elaeagnus angustifolia*
Autumn Olive	*Elaeagnus umbellata*
White Mulberry	*Morus alba*
Austrian Pine	*Pinus nigra*
Lombardy Poplar	*Populus nigra var. italica*
Common Buckthorn	*Rhamnus cathartica*
Glossy Buckthorn	*Rhamnus frangula*
Black Locust	*Robina pseudoacacia*
European Mountain Ash	*Sorbus aucuparia*
Siberian Elm	*Ulmus pumila*
Callery Pear	*Pyrus calleryana*