



<b>Title:</b> Tree Management and Preservation Policy	
<b>Policy Group:</b> Your Infrastructure and Services	<b>Policy Administrator:</b> Operations
<b>Resolution No.:</b> CW-184-2022	<b>Policy Number:</b> OP-01
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## 1. Policy Statement

- a) The Municipality recognizes the importance that trees hold in enhancing the quality of life of its residents and recognizes the positive natural benefits of trees. Trees beautify the landscape, reduce the impact of extremes in weather, provide habitat for wildlife, add value to property, and contribute to a healthy environment.
- b) The Municipality acknowledges that trees play an important role in both sequestering carbon and in helping mitigate the effects of climate change.
- c) The Municipality recognizes that environmental integration, including tree protection, can be sustainable with future generation needs, jobs and agriculture.

## 2. Purpose

- a) The purpose of this Tree Management and Preservation Policy is to conserve, maintain and increase the tree canopy of Prince Edward County.
- b) The objectives of the policy are to:
  - i. Strive for preservation and protection of trees, where possible, and plan for their replacement in order to achieve the purpose of the policy.
  - ii. Provide a standard approach for protecting trees during maintenance work.
  - iii. Train staff in the proper maintenance practices around trees.

- iv. Assist in maintaining the health of the trees by managing tree diseases and pests through the removal of hazard or infected/infested trees, and damaged trees.
- v. Contribute to a safe urban forest environment by removing trees that pose a threat to persons, property or other trees, or impede on-going access or interfere with the mandate associated with municipal operations, maintenance, rehabilitation, and reconstruction work activities.
- vi. Recognize the value of trees and provide for appropriate compensation when trees are removed to accommodate development.
- vii. Support community efforts regarding replacement of trees and planting programs.

### **3. Scope**

- a) This policy provides guidance on how the preservation and replacement/removal of trees is managed; a) on municipally-owned lands, and b) on private lands within designated Settlement Areas that are subject to an application for approval under the Planning Act.
- b) Tree pruning or removals undertaken by a distributor of electricity are not subject to the requirements of this policy for works related to the distribution line under the Electricity Act, 1998, S.O. 1998, c. 15, Sched. A.

### **4. Legislative Authority**

- a) Section 135 (1) of the Municipal Act, 2001, S.O. 2001, c. 25 (the "Act") provides that a local municipality may prohibit or regulate the destruction or injuring of trees;
- b) Section 135 (2) of the Act provides that a municipality may prohibit or regulate the destruction or injuring of trees in woodlands as defined in the Forestry Act that are one hectare or more in area;
- c) Section 141 of the Act provides that a municipality may provide trees to the owners of land adjacent to any highway and may plant trees on the owner's lands with their consent; and,
- d) Section 51 (26) and Section 53(12) of the Planning Act, 2001, R.S.O. 1990, c. P. 13 provides that a local municipality may enter into a development agreement, for land division planning approvals, which may include the requirement for the preservation or planting of trees.

## 5. Definitions

- a) **Arborist** means an expert in the care and maintenance of trees, and includes:
- i. an arborist qualified by the Ontario Ministry of Training, Colleges and Universities;
  - ii. Forest Technician or Forestry Technologist with an applicable college diploma and a minimum of two (2) years urban forestry experience;
  - iii. a certified arborist qualified by the Certification Board of the International Society of Arboriculture;
  - iv. a consulting arborist registered with the American Society of Consulting Arborists; or
  - v. a Registered Professional Forester designated pursuant to the Professional Foresters Act, 2000, S.O. 2000, c. 18, as amended.
- b) **DBH** means "Diameter at Breast Height", specifically measured at 1.4 meters from the ground.
- c) **Director of Development Services**, unless otherwise specified, means the Director of Development Services Department of the Corporation of the County of Prince Edward, or anyone acting or authorized by the Director to act on his/her behalf.
- d) **Director of Operations**, unless otherwise specified, means the Director of Operations Department of the Corporation of the County of Prince Edward, or anyone acting or authorized by the Director to act on his/her behalf.
- e) **Heritage Tree** means any tree, including but not limited to, pairs of trees, avenues or windrows of tree, grove or arboreal remnants, or one (1) or more tree that forms part of a cultural heritage landscape and is:
- i. located within a heritage conservation district as designated under Part V of the OHA;
  - ii. designated under Part IV of the OHA;
  - iii. designated by the Ontario Urban Forest Council.
- f) **Infected/Infested Tree** means any tree that:
- i. is terminally infected or infested with an insect pest or tree disease;

- ii. the particular tree disease or insect pest has the potential to spread and infect the urban forest; and
  - iii. the problem cannot be corrected by pruning or other treatments and removal of the tree is deemed necessary by the Director of Operations.
- g) **Municipality** means the Corporation of the County of Prince Edward.
- h) **Operations** means the Operations Department of the Corporation of County of Prince Edward.
- i) **Pest** means any animal, insect pest or tree disease so declared under Section 3 of The Pest Control Act to be a pest.
- j) **Pruning** means;
  - i. the removal of any branch, limb or twig from a tree for the purpose of
  - ii. establishing proper tree shape or form; and,
  - iii. removal of undesirable branches and limbs for reasons of public safety, tree health, and to achieve specified clearance distances from buildings, property, vehicles, equipment and the public.
- k) **Proponent** means the applicant listed on a submitted Planning Act application.
- l) **Trained Operations Staff** means a staff member of the Operations Department whom is appointed by the Director of Operations for having sufficient training in relation to tree management, protection and care.
- m) **(Tree) Relocation** means a tree that is sufficiently small enough that it can be dug up by a tree spade or by hand and moved to another site for planting.
- n) **Settlement Area** means urban areas and rural settlement areas within the municipality (such as cities, towns, villages and hamlets) that are:
  - i. built-up areas where development is concentrated and which has a mix of land uses; and,
  - ii. lands which have been designated in an official plan for development over the long-term planning horizon. In cases where land in designated growth areas is not available, the settlement area may be no larger than the area where development is concentrated.

- o) **Tree** means a self-supporting woody plant with one or more stems, and a minimum diameter of 10 centimeters at DBH which will reach a height of at least 4.5m at maturity.
- p) **Tree Assessment** means an assessment completed by an Arborist or Trained Operations Staff, as approved by the Director of Operations based on similar skills and experience to Arborist, to determine tree risk with respect to tree failure.
- q) **Tree Canopy** means the total leaf area of a tree covering the ground as seen from above

## 6. General

- a) Schedule A to this policy is intended to support the implementation of the policy.
- b) This policy applies to all municipal lands; and private lands in Settlement Areas where an applicable Planning Act application has been submitted. This approach focuses effort on tree management in urban, village and hamlet areas where a high degree of public benefit from tree planting and maintenance can be realized. In addition to Section 6, policy specific to municipal lands can be found in Section 7 and policy specific to private lands in Settlement Areas subject to a Planning Act application can be found in Section 8.
- c) Where tree protection, pruning, planting, and removal is completed, works will be informed by the Schedule A - Tree Guidance Document for best practices surrounding tree management.
- d) For trees on municipal lands, the removal and replacement will be determined as per Section 7 of this policy.
- e) For trees related to Planning Act applications of subdivision, site plan or condominiums on private lands in the Settlement Areas, the removal and replacement will be determined by the Tree Preservation, Management and Planting Report.
- f) For trees related to all other Planning Act applications, other than Section 6c), on private lands in the Settlement Areas, the removal and replacement standards will be identified in this policy in Section 8 or a Tree Preservation, Management and Planting Report.
- g) Trees should be considered for relocation prior to removal, in accordance with Schedule A.

- h) Boulevards, grass verges, parks and cemeteries lacking trees will be evaluated by Operations as possible sites for tree planting.
- i) Notwithstanding anything in this document; trees within a designated heritage conservation district, under part V of the Ontario Heritage Act or trees specifically supporting the designation rationale on Part IV designated property under the same Act, or trees specifically supporting the listing rationale on a Property Listed on the Municipal Register, shall require review with the Director of Development Services prior to any tree removals.
- j) The Environmental Advisory Committee and any of its working groups will identify accurate performance indicators of a healthy urban forest environment to be documented.

## **7. Municipally-Owned Lands (Rural & Urban)**

- a) In addition to all policies outlined in Section 6, Section 7 applies specifically to trees on municipally-owned lands.
- b) Notwithstanding the requirements of Section 7e) below, for major capital projects under the purview of the Development Services Department (e.g. street reconstruction), the Director of Development Services will utilize or retain an Arborist for the assessment of affected trees and to develop a management, removal and replacement plan.
- c) The Municipality will preserve trees in urban areas, through adequate tree protection and proper tree pruning.
- d) The management of trees in public road allowances is encouraged where benefit may be realized in maintaining an attractive landscape or in offering protection from drainage, wind or solar impacts onto private or public property, unless clearances from public infrastructure cannot be established and maintained.
- e) Prior to tree removal, a tree assessment is to be completed by Trained Operations Staff in the determination of next steps for management. An additional Arborist report may be required at the discretion of the Director of Operations.
- f) On municipal lands, such as road allowances, parks, and cemeteries, the Municipality will replace, by planting a tree or identifying and protecting existing trees to offset the trees that require removal, with a goal of maintaining no net loss.

- g) For the replacement of trees removed on any municipal land, alternative methods of replacement, such as seedlings, saplings, partnerships with citizens, community and service groups, tree give-away to residents for private property, may be considered and approved by the Director of Operations, while contributing to the net tree count.
- h) On municipal lands, the replacement of a tree is expected to be located in the general location of that which was removed. If the Director of Operations finds that conditions or the situation does not allow the replacement, alternative planting may be deemed acceptable, to the satisfaction of the Director of Operations.
- i) Approval from the Director of Operations must be granted to plant or remove trees on Municipal lands.
- j) The Director of Operations is responsible for conducting preliminary and follow-up site inspections.
- k) The Municipality will consider how to address tree succession planning in municipally owned parks and cemeteries to replace declining or aging trees.
- l) Where practical, municipal parking lots shall have trees planted around them to help reduce run off and provide shade.
- m) The Operations Department shall make reasonable efforts to maintain an inventory and tracking spreadsheet of all newly planted trees on municipally-owned lands. This inventory will be made available to the Environmental Advisory Committee on an ongoing basis.

#### **8. Private Lands - Settlement Area**

- a) In addition to all policies outlined in Section 6, Section 8 applies specifically to trees on private lands within Settlement Areas that are subject to an application under the Planning Act for Minor Variance, Consent, Zoning By-law Amendment, Plans of Subdivision/Condominium and Site Plan Control.
- b) Exemption from the requirements of this policy can be granted at the discretion of the Director of Development Services through the municipality's pre-consultation review process, in consultation with the Director of Operations.
- c) When required under Section 6 d), proponents shall submit a Tree Preservation, Planting and Management Report certified by an Arborist.

- d) As a condition of Draft Plan Approval of a Planning Act Application, the Proponent shall be required to maintain and monitor whatever findings and recommendations of the approved Tree Preservation, Planting and Management Report stipulate, and will carry out these activities in accordance with Schedule A of this policy. The Proponent shall provide written record of such activities to the Director of Development Services of the Department of Development Services in advance of securities being released.
- e) To increase resistance to insect and disease problems, tree species must be mixed to avoid a continuous mono-culture within developments.
- f) Any replacement of trees required, and associated cost, is the responsibility of the Proponent. Further, any costs incurred for protecting, repairing, removing or replacing trees on municipal lands as a result of development activities shall be the responsibility of the Proponent until assumption by the municipality or private owner.
- g) All costs associated with Section 8 c) and 8 d) and subsequent detailed landscaping drawings, tree preservation initiative information, installation inspections, and maintenance, as required, shall be the responsibility of the Proponent.
- h) On private lands in Settlement Areas where a Tree Preservation, Planting and Management Report is not required, the Municipality will require the replacement of trees at the rate of one (1) replacement tree for each removed tree between 10cm and 20cm DBH, and two (2) replacement trees for each removed tree over 20cm DBH, and three (3) replacement trees for each removed tree over 50cm DBH.
- i) Tree removals and tree planting on private lands in Settlement Areas subject to a Planning Act application will be authorized by the individual named in the development agreement.
- j) The Proponent's Arborist shall prepare and submit to the Director of Development Services, a final Planting Report that demonstrates that the required plantings have been planted correctly in accordance with the Tree Preservation, Planting and Management Report and that they have taken root and are expected to survive. All costs associated with the Planting Report are the responsibility of the Proponent. The Planting Report is to be reviewed and approved in advance of the corresponding Security amount being returned to the Proponent. Additionally, securities for trees shall not be released before the end of the maintenance period or the one-year anniversary date of the planting of the tree, whichever is later.



## **9. Responsibility and Implementation**

- a) The Tree Management and Preservation Policy will be reviewed every three (3) years.
- b) Operations is responsible for the approval and oversight of the maintenance, replacement, new plantings, and removal of trees on municipal lands.
- c) The Director of Operations or designate is responsible for ensuring the application of the Tree Management and Preservation Policy.
- d) The Director of Operations and anyone authorized to act on his/her behalf, may authorize the removal of trees on municipal lands subject to the provisions of this policy.
- e) The Municipality is responsible for training all staff involved in Arboriculture work.

## **10. Documentation and Forms**

- a) Schedule A - Tree Guidance Document

## SCHEDULE A - TREE PROTECTION GUIDANCE

- 1.1 Where it has been determined that a *tree* is to be preserved, this Section of the Tree Guidance Document shall apply.
- 1.2 For applications under the Planning Act in Settlement Areas, *tree* protection fencing must be installed around the *tree(s)* prior to the commencement of demolition, grading or construction activities. *Tree* protection fencing for such applications shall be under the purview of the *Director of Development Services*. *Tree* protection fencing requirements shall not apply to minor works as determined by the *Director of Development Services*.
- 1.3 For *trees* on municipal lands in urban areas and parks, *tree* protection fencing must be installed around the *tree(s)* prior to the commencement of demolition, grading or construction activities. *Tree* protection fencing requirements shall not apply to routine maintenance and repair works on municipal lands as determined by the *Director of Operations*.
- 1.4 The *tree* protection zone is defined in Appendix 2 Standard Specification.
- 1.5 Protection fencing shall be comprised of materials making it semi-permanent, continuous and immovable. Protection fencing material shall be rigid (plywood) unless otherwise approved to be flexible (orange construction fence or siltation fabric) by the *Director of Operations* for *trees* on municipal lands or the *Director of Development Services* for *trees* on private lands subject to the Policy. Protection fencing shall be kept in place until the end of construction activities.
- 1.6 In some cases, disturbances within the *tree* protection zone, may be unavoidable, in which case the *tree* protection zone may be adjusted in consultation with, and as approved by, the *Director of Operations* for municipal lands and the *Director of Development Services* for private lands subject to the Policy. In these situations, it may be necessary for the *Director of Operations* or the *Director of Development Services* to request other *tree* protection measures be taken.
- 1.7 On Private Lands subject to the Policy, the *Proponent* is responsible for all costs incurred in erecting, maintaining and removing such protection fencing and for the regular watering and maintenance of *trees* while so enclosed. All boulevard repair or reconstruction and *tree* repair and replacement will be at the Proponent's expense.
- 1.8 On Public Lands, the Municipality will be responsible for all costs incurred in erecting, maintaining and removing such protection fencing and for the regular watering and maintenance of *trees* while so enclosed, including all boulevard repair or reconstruction and *tree* repair and replacement.
- 1.9 Surface soils are often compacted on construction sites as a result of heavy equipment moving over the area. Compacted soils affect *tree* growth by restricting root activity and development. If extensive soil compaction has occurred on private

lands subject to the *Tree Management and Preservation Policy*, as a result of construction, as determined by the *Director of Development Services*, the Proponent will be responsible for aerating the area once construction is completed and increasing the organic content the following year. If extensive soil compaction has occurred on municipal lands subject to the *Tree Management and Preservation Policy*, as a result of construction, as determined by the *Director of Operations*, the Municipality will be responsible for aerating the area once construction is completed and increasing the organic content the following year.

1.10 It is reasonable to expect some damage to public trees as a result of municipal snow removal activities. The following activities should be completed to help minimize damage:

- 1.10.1 *Operations* should prune public trees to allow for the free movement of snow removal equipment.
- 1.10.2 *Operations* should advise their operators and contractors to avoid damaging trees during snow removal.
- 1.10.3 Snow may be plowed onto side or centre boulevards where applicable to provide off-road storage. Where possible, snow blowers should not blow sand, ice or snow into coniferous trees or at the trunks of deciduous trees.
- 1.10.4 Boulevards are not to be cleared to turf level. Where possible, a cover of 10 centimeters shall be left and 30-centimeter clearance shall be maintained from the tree trunk when removing snow.
- 1.10.5 To avoid damage to trees, the snow immediately next to the trees will not be removed where possible.

**2. TREE PROTECTION ZONE:**

DBH (cm)	Recommended Minimum Tree Protection Zone (m) Radius
<10 cm	1.2
10 – 20	1.8
21 – 30	1.8
31 – 40	2.4
41 – 50	3.0
51 – 60	3.6
61 – 70	4.2
71 - 80	4.8
81 – 90	5.4
90 – 100	6.0
>100	6 cm protection for each 1 cm diameter

2.1 Within this protective zone:

- no rigging cables shall be wrapped around or installed in trees;

- no temporary buildings or work trailers placed; and,
- no fuels, chemicals or other contaminants shall be flushed, stored or dumped.

2.2 When no alternative is feasible and activities do not pose a threat to the stability or long-term health of the tree, as approved by the *Director of Operations* for municipal lands or the *Director of Development Services* for private lands, the following activities may take place within the protective zone:

- equipment shall be operated;
- building material stored;
- soil piled; and,
- grading or excavation shall be allowed.

2.3 Tree preservation methodologies, measures and mitigation could include, but not be limited to:

- hydro-vac, air spading or hand digging of root system(s) at limits of excavation, to a depth of 0.5 meters, or as recommended by an *Arborist*, shall be done prior to the commencement of any excavation to assess root system and impact of root *pruning* on tree
- root *pruning* by or under the supervision of an *Arborist*
- canopy *pruning* by a qualified and ISA certified *Arborist*, or *Trained Operations Staff*, as approved by the *Director of Operations* based on similar skills and experience to *Arborist*
- fertilization and or soil aeration
- installation of steel road plates or mulch and plywood surface cover over soils to prevent compaction
- composted wood mulch inside the TPZ and fresh wood mulch outside of TPZ
- implement irrigation during summer months
- alternative construction methods in the vicinity of trees, e.g. piers and grade-beams, cantilever, geogrid on grade, etc.
- directional bore instead of trenching, where possible
- ongoing monitoring by the *Arborist* or *Trained Operations Staff*, as approved by the *Director of Operations* based on similar qualifications to *Arborist*.

2.4 Additional protection measures:

- Any roots that must be exposed for a period of time shall be covered by a

wet tarp to prevent drying and periodically watered to be kept moist.

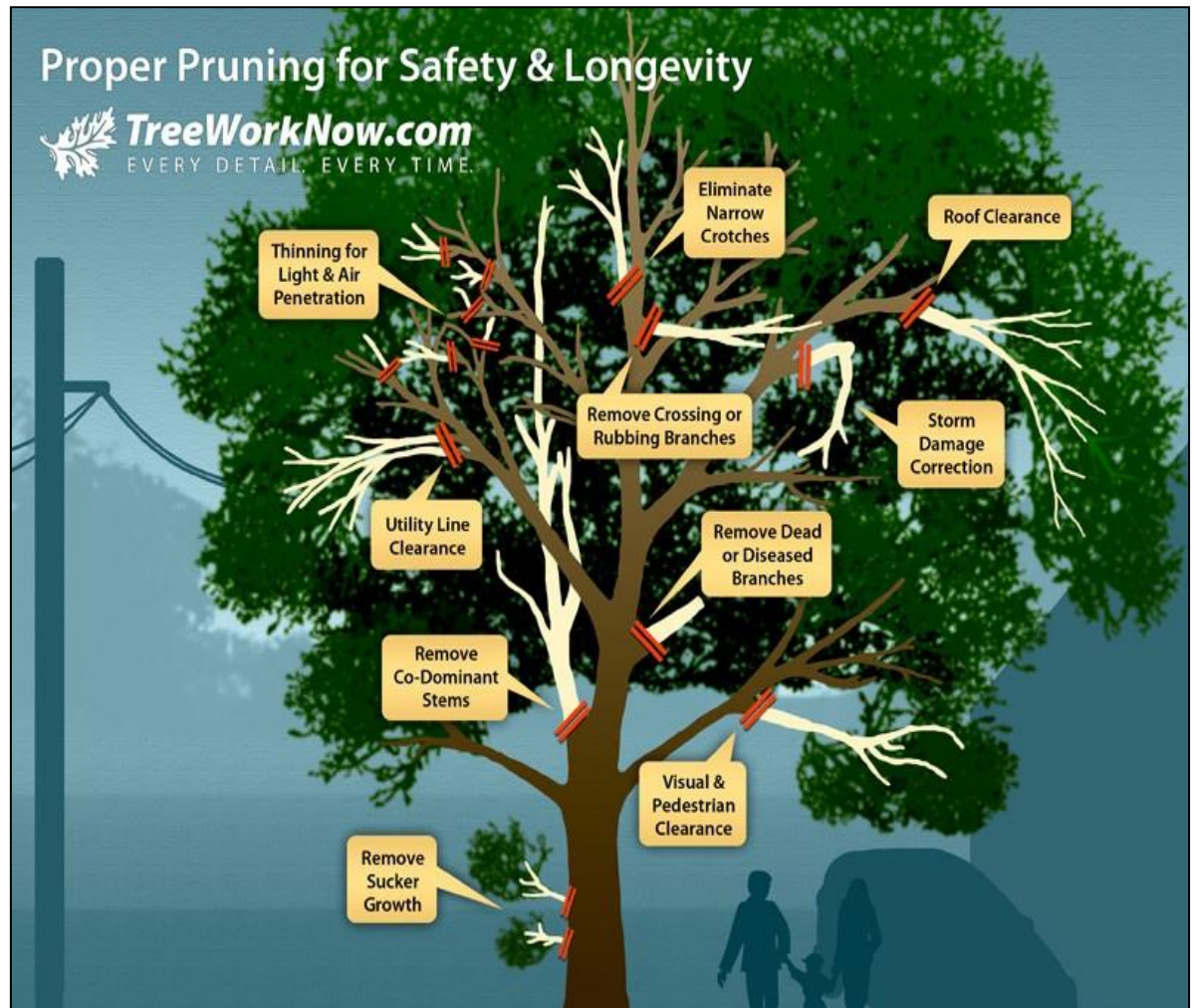
- All open holes shall be backfilled as soon as possible.
- All impacted roots are to be cleanly pruned, preferably prior to construction. Tearing roots hinders wound closure and can increase risk of disease and root rot. Any roots torn during construction must be cleanly pruned prior to backfilling.

### 3. PLANT HEALTH RATING CRITERIA:

Health Rating	Description
<b>Good</b>	Full, symmetrical crown, no sign of active decay, chronic or acute insect attack, large open wounds, tissue necrosis, dieback or chlorotic foliage. Not leaning, falling or about to be uprooted. Growth occurs mostly as extensions from the terminal bud with little epicormic branching. Shoot growth usually exceeds 10 cm.
<b>Fair</b>	May have a partially leaved, suppressed or disfigured crown (>74% crown density), combined with a few dead branches or limbs, or small open wounds and small trunk-tissue necrosis. Tree health will likely not decline further in the next 5 years. Growth occurs mostly as extensions from the terminal bud. Epicormic branching may be heavy.
<b>Poor</b>	Declining in health. Usually describes trees which have large trunk-tissue necrosis, large stem scars. Foliage discolouration is often associated with this condition as is moderate to heavy top-dieback (< 50% crown density) and crown suppression. Chronic fungal infection or insect infestation may be present. May require removal.

### 4. TREE PRUNING GUIDANCE:

- 4.1 The following Figure provides a general overview of *pruning* guidelines in the municipal setting. All specifications are based on International Society of Arboriculture, National Arborist Association and American National Standards Institute criteria.



- 4.2 Wound dressing (paint) is not recommended as it may interfere with natural wound closure or in many cases may actually accelerate decay.
- 4.3 Trees with co-dominant leaders or other tight main crotch angles with included bark between them tend to split easily, especially during wind, or ice storms. The weaker or the more laterally positioned limb should be removed, ideally when the tree is young. Crown cleaning or removing undesirable, weak, dead, insect or disease *infected* limbs, suckers or water sprouts, mechanically damaged limbs, rubbing or crossover branches, and small girdling roots, those that have wrapped themselves around the main stem should also be removed.
- 4.4 Crown restoration is required, for storm damaged trees or trees previously pruned for crown reduction to eliminate profuse shoot production at the previous terminal *pruning* cut. Crown reduction may be required to reduce the spread or height of a tree, especially if there is interference with hydro wires or with buildings, existing or under construction. Crown thinning or the selective limb removal increases air movement and light penetration, for better foliar disease resistance and reduces the wind sail effect of dense tree crowns.

- 4.5 Pollarding or topping mature trees is not considered a good or proper arboriculture practice.
- 4.6 *Pruning* of small young trees, especially during the first 3 to 5 years in their permanent site may be completed to encourage proper form and limb structure. Angled cuts should be made with a sharp pair of *pruning* shears or a sharp *pruning* hand saw in the direction of and just above an outward pointing bud or branch union. Ideally the bud or branch should be pointing in the direction of desired growth. Stubs may potentially become diseased and should be avoided, while cutting too close may damage or weaken the branch. No more than 30% of the tree's crown should be removed in any one year. Dead, damaged and diseased branches, including roots if the tree is a bare root specimen prior to planting, should be removed. Trees that are observed to be poorly formed with tight branch angles and included bark at the trunk union shall be pruned away. Prune away the weaker or potentially *interfering* branch to encourage straight sturdy tapered trunks with well-spaced lateral branches, both vertically and radially.
- 4.7 Timing of *pruning* depends on the type of tree, the tree's condition and the intended results of the *pruning*. Generally, for healthy trees under normal conditions it is just before the period of rapid growth in the spring. Deciduous trees are generally best pruned during the dormant season when the leaves have fallen and the view of the branching structure is unobstructed. *Winter pruning*, when the sap flow is reduced, is preferred for bleeders or trees that ooze sap profusely such as birch, walnut and maple.
- 4.8 *Pruning* blades should be sterilized between cuts when *pruning* diseased trees to prevent the spread of disease and to protect healthy trees against disease. Autumn is usually the time that wood decay pathogens are sporulating and major *pruning* activities should be avoided during this period especially for larger or mature trees. Trees with Black Knot Disease, mainly cherries, plums and other stone fruit trees, should be pruned in the dormant season prior to spring flush when the cankers sporulate.
- 4.9 Flowering trees can maximize their floral displays when pruned immediately after flowering. Next year's flower buds have sufficient time to develop during the rest of the growing season. Coniferous trees are best pruned in late spring after the new growth has started to harden off, which is usually late May or June in southern Ontario. The exceptions are for large limb removal, best done in the dormant season and for pines, best done during the candle stage or immediately after the completion of the new shoots.
- 4.10 All tree *pruning* is to be conducted by an individual who is or has been trained according to tree care standards accepted by the International Society of Arboriculture.
- 4.11 All persons performing tree work on municipally-owned trees in or around primary electrical lines must be trained to do so according to the "Electrical Safety Association" and the Ontario Occupational Health and Safety Act and

Regulations.

- 4.12 All tree *pruning* cuts should be made in such a manner so as to minimize the size of the wound and to promote the earliest possible covering of the wood by natural callus growth. Flush cuts which produce large wounds should not be made and the branch collar shall not be removed.
- 4.13 All major *pest* problems should be promptly reported to the *Director of Operations*.
- 4.14 Any defective or weakened trees should be reported to the *Director of Operations*. Specifically, any structural weakness of a tree, decayed trunk or branches, should be reported in writing, noting the location of the tree by street address and a description of the hazard found in the tree.
- 4.15 All cutting tools and saws used in tree *pruning* should be kept sharpened to result in clean cuts with an un-abrasive and non-ragged wood/ bark surface and branch collar remaining intact.
- 4.16 Whenever *pruning* cuts are to be made, while removing limbs too large to hold in one hand during the cutting operation, the limbs should first be cut off one (1) to two (2) feet in front of the intended final cut, the final cut should be made in a manner to prevent tearing of the bark and live wood.
- 4.17 Any extraneous metal, wire, rubber or other material (i.e. stakes and ties) *interfering* with tree growth should be removed immediately.
- 4.18 The use of climbing spurs or spike shoes in the act of *pruning* trees should be avoided.
- 4.19 Beneficial animal or bird nests or nesting cavities may be preserved and protected whenever feasible, unless doing so would create a hazard.
- 4.20 Prevent branch and foliage interference with requirements of safe public passage. Over-street clearance should be kept to a minimum of four (4) meters above the paved surface of the street, three (3) meters above the curb and three (3) meters above the surface of a public sidewalks or pedestrian ways. Exceptions are allowed for young trees which would be irreparably damaged by such *pruning* action. Tree branches should be kept to a minimum of two (2) meters away from private residences or structures measured horizontally from the edge of roof and porches.
- 4.21 Remove all dead and dying branches and branch stubs that are one-half (1/2) inch diameter or larger.
- 4.22 Remove all broken or loose branches (hangers).
- 4.23 Remove any branches which interfere with the tree's structural integrity and impact on the development of proper form for the applicable species, which will include the following:
  - Branches which rub and abrade a dominant branch;



- Branches of weak structure, co-dominant, poor branch union with the trunk and included bark;
- Branches which, if allowed to grow, would compromise the form and structure of the tree;
- Branches forming multiple leaders in a single-leader type tree;
- Selective removal of undesirable sucker and sprout growth;
- Selective removal of one or more developing leaders where multiple branch growth exists or near the end of broken or stubbed limbs;
- Selective removal of limbs obstructing buildings or other structures or traffic signs; and,
- Obtain a balanced appearance when viewed from the opposite side of the street.

## 5. TREE REMOVAL GUIDANCE

The following criteria are intended to prevent the indiscriminate removal of trees on municipal lands. Trees on municipal land may be removed when one or more of the following criteria apply:

- 5.1 The tree is terminally *infected or infested* with an insect *pest* or tree disease that could cause an epidemic and removal is the recommended action to prevent transmission.
- 5.2 The tree is dead or suffering from major decay which cannot be treated successfully and therefore poses a threat to public safety or property.
- 5.3 The tree poses a threat to persons or property which cannot be corrected by *pruning*, transplanting or other treatments.
- 5.4 Removal of the tree is required to accommodate private development or municipal projects such as drainage, sewers, roadways, utilities, buildings or driveways.
- 5.5 Removal of the tree is required to mitigate conflicts such as the *obstruction* of motorist or pedestrian sight-lines; roof damage to buildings; sidewalks or underground water or utility lines; or interference with overhead utility lines; or public maintenance work.
- 5.6 The tree has been severely damaged in a storm or other natural or man inflicted cause.
- 5.7 The tree interferes with the growth and development of a more desirable tree.
- 5.8 The tree is considered an *invasive* species as defined by the Ministry of Natural Resources and Forests and is present in sufficient quantities to warrant implementation of a control program in the opinion of the *Director of*

*Operations* in consultation with all stakeholders, Council and the agencies having jurisdiction.

## **6. TREE RELOCATION GUIDANCE**

The following criteria are intended to support the relocation of trees on municipal lands.

- 6.1 Relocation should be considered during the appropriate seasons. In southern Ontario, the best times to transplant trees is in early spring (April -May) before trees have leafed out and as spring ephemerals are emerging, and in early autumn (late September - October) after most trees have set seed and are entering dormancy.
- 6.2 Avoid relocating trees when they are in flower or during extended periods of heat and drought.
- 6.3 For relocation during winter months, the frozen soil ball must be protected from root damage with burlap until such time as the tree is transplanted.
- 6.4 Trees are to be relocated with originating soil to help reduce transplant stress, maintaining the belowground environment. Keep as much of the originating soil with the plant as possible.
- 6.5 Younger trees are more favourable candidates for relocation. The longer a plant has lived in a given environment, the more stress it will undergo when it is disturbed and transplanted.
- 6.6 Root balls should be kept moist at all times.

## **7. BRUSHING MAINTENANCE**

- 7.1 Mature, healthy *trees* within the Road Allowance and Millennium Trail shall be protected during routine mechanical brushing activities.
- 7.2 To the greatest extent possible, trees to be avoided during mechanical brushing activities shall be marked or flagged to be visible to the brushing operator.
- 7.3 When possible, mature, healthy trees, or groupings of trees, will be hand-brushed 1 metre from the trunk of the trees to reduce unintended slash or injury by the mechanical brusher.
- 7.4 When a sapling or young tree is flagged and avoided during mechanical brushing activities, this plant shall count as a tree replacement towards the no net less goal of the Municipality.

## 8. TREE SPECIES FOR PLANTING

Native trees should be preferred over other species whenever growing space and soil conditions are deemed suitable. Native trees are interconnected in the natural environment providing habitat and a food source for wildlife. Trees growing in the built environment endure greater challenges to survival, in particular along roadsides where road salt, salt spray, soil compaction, root damage and overall soil quality can compromise the survival of trees. In these situations non-native trees may be required to provide the right tree for the right site. It is recommended when tree planting that 75% of native trees shall be used as a target.

Furthermore to promote the greatest diversity in tree planting, it is recommended to strive to plant trees using the “30-20-10” rule. This means when planting trees, no more than 30% should be from the same family, no more than 20% of trees planted should be from the same genus and no more than 10% of the same species. For example of trees planted, at most 30% are from one family, *Pinaceae* (Spruce, Pine and Fir), 20% from one genus, *Pinus* (Pine) and only 10% of the same species, *Pinus strobus* (Eastern White Pine). This target helps to build a more resilient urban forest by encouraging diversity. This makes the risk of invasive pests such as Dutch Elm Disease or Emerald Ash Borer less of a threat of decimating the tree population.

The following is a list of recommended tree species for different growing requirements in the County. Native trees should be planted where possible, followed by Carolinian species, which, because of the County’s geographic location, are often able to adapt and grow here. Lastly in very difficult growing conditions consideration should be made for non-native, non-invasive tree alternatives.

Site Conditions	Scientific Name	Common Name	Origin	Comments
	<i>Acer rubrum</i>	Red Maple	Native	Good fall colour, common street tree in Picton, Wellington, Bloomfield
	<i>Acer nigra</i>	Black Maple	Native	Almost identical to Sugar Maple, not as common
	<i>Acer saccharum</i>	Sugar Maple	Native	Intolerant of roadside salt, soil compaction
	<i>Picea glauca</i>	White Spruce	Native	Best on natural soils, parks. Does not tolerate urban growing conditions well
	<i>Pinus strobus</i>	Eastern White Pine	Native	Road salt challenges
	<i>Prunus serotina</i>	Black Cherry	Native	Important food source for wildlife
	<i>Quercus alba</i>	White Oak	Native	Important food source for

				wildlife
	<i>Quercus macrocarpa</i>	Bur Oak	Native	Important food source for wildlife, tolerant of drier soil conditions
	<i>Quercus muehlenbergii</i>	Chinquapin Oak	Native	Rare in Ontario, should be promoted as County is in limited range of Ontario.
	<i>Quercus rubra</i>	Red Oak	Native	Important food source for wildlife
	<i>Tilia americana</i>	Basswood	Native	Important bee pollinator species
	<i>Acer x freemanii</i>	Freeman Maple	Native hybrid	Hybrid of Red Maple ( <i>Acer rubrum</i> ) and Silver Maple ( <i>Acer saccharinum</i> )
	<i>Gymnocladus dioicus</i>	Kentucky Coffeetree	Carolinian	Thick twigs, if good form is promoted with pruning, it can be more tolerant of withstanding weight if ice storms, drought-tolerant.
	<i>Liriodendron tulipifera</i>	Tulip tree	Carolinian	Some rare large specimens on private property in the County.
	<i>Platanus occidentalis</i>	American Sycamore	Carolinian	Some rare large specimens on private property in the County.
	<i>Ginkgo biloba</i>	Ginkgo	Asia	Disease free, very tolerant to more difficult growing conditions, drought-tolerant.
	<i>Zelkova serrata</i>	Japanese Zelkova	Asia	Species similar to White Elm ( <i>Ulmus americana</i> ), same family, similar vase-shape form
	<i>Picea abies</i>	Norway Spruce	Europe	Grows faster than White Spruce ( <i>Picea abies</i> )
	<i>Picea omorika</i>	Serbian Spruce	Europe	Good alternative for Blue Spruce ( <i>Picea pungens</i> ) which is overplanted
	<i>Platanus X acerifolia</i>	London Planetree	Europe	Similar to Sycamore, more resistant to poor growing conditions, greater resistance to anthracnose (foliar disease)
	<i>Quercus robur 'fastigiata'</i>	English Oak	Europe	On the list specifically for the columnar cultivar for planting where there is room to grow up but not out.
<b>Mid-Size tree at maturity</b>	<i>Carpinus caroliniana</i>	Blue-Beech	Native	Shade tolerant
	<i>Ostrya virginiana</i>	Ironwood	Native	Shade tolerant

	<i>Salix nigra</i>	Black Willow	Native	For remediation purposes along water only. DO NOT plant on roadsides.
	<i>Celtic occidentalis</i>	Common Hackberry	Carolinian	Very hardy, drought-tolerant.
	<i>Gleditsia triacanthos</i>	Honey-locust	Carolinian	Multiple pest issues due to overplanting, try to avoid unless difficult site allows for no other species to grow, drought-tolerant.
	<i>Magnolia sp.</i>	Magnolia sp.	Carolinian	Ornamental, flowers, sensitive to extreme cold
	<i>Corylus colurna</i>	Turkish Hazel	Europe	More tolerant of drought-like soils
	<i>Fagus sylvatica</i>	European Beech	Europe	Ornamental use.
	<i>Tilia cordata</i>	Little Leaf Linden	Europe	Easier tree to maintain than native Basswood ( <i>Tilia americana</i> ) along roadsides with regard to form
<b>Park or Landscape Specimen Tree - ideal shade tree but not preferred for streets, valuable wildlife specimen</b>	<i>Carya cordifomis</i>	Bitternut Hickory	Native	Nuts
	<i>Carya ovata</i>	Shagbark Hickory	Native	Nuts, not common further north of Bay of Quinte, nursery availability may be limited but should be encouraged to plant where possible
	<i>Pinus resinosa</i>	Red Pine	Native	Drought-tolerant
	<i>Pinus rigida</i>	Pitch Pine	Native	Drought-tolerant
	<i>Pinus strobus</i>	Eastern White Pine	Native	Road salt challenges
	<i>Tilia americanca</i>	Basswood	Native	Important bee pollinator
	<i>Tsuga canadensis</i>	Eastern Hemlock	Native	Better in open space than roadside, shade tolerant
	<i>Aesculus glabra</i>	Ohio Buckeye	Carolinian	Nuts
	<i>Juglans nigra</i>	Black Walnut	Carolinian	Nuts
	<i>Aesculus hippocastanum</i>	Horse-Chestnut	Europe	Nuts, spring flowers
<i>Metasequoia glyptostroboide s</i>	Dawn Redwood	Asia	Sensitive to roadside conditions	

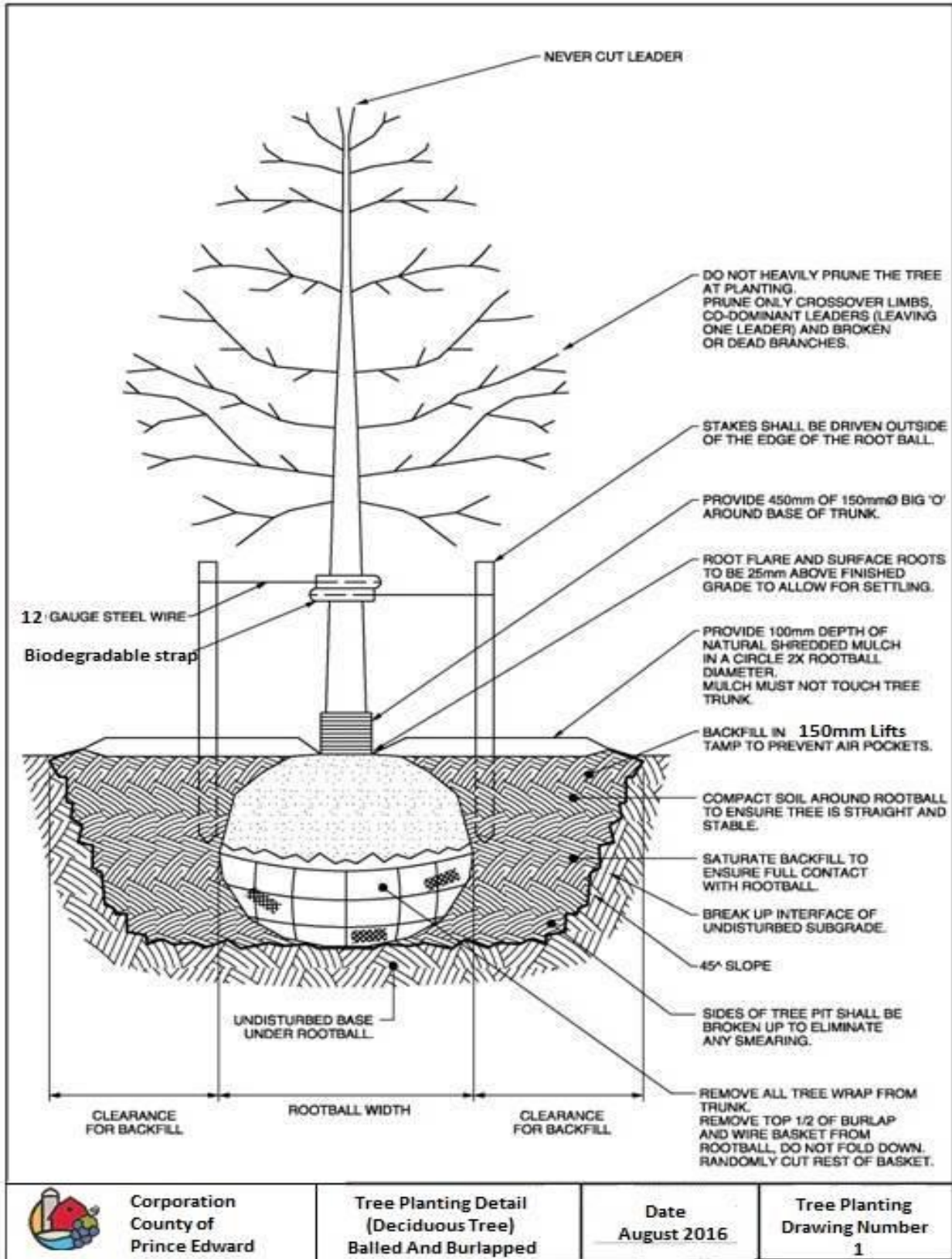
<b>Small trees – power line compatible</b>	<i>Amelanchier canadensis</i>	Serviceberry	Native	Tall shrub, white flowers
	<i>Prunus virginiana</i>	Choke Cherry	Native	Important food for wildlife (berries), prone to Black Knot (disease on limbs)
	<i>Cercis canadensis</i>	Eastern Redbud	Carolinian	Shrub-like, requires some wind protection
	<i>Pinus mugo</i>	Mugho Pine	Europe	Good for slope stabilization/erosion control
	<i>Syringa vulgaris</i>	Common Lilac	Europe	Colonizes as a large shrub
	<i>Syringa reticulata</i>	Japanese Tree Lilac	Asia	Less likely to colonize like Common Lilac, small, compact tree for limited soil volume/growing space
<b>Screens, Wind block, Privacy</b>	<i>Thuja occidentalis</i>	Eastern White Cedar	Native	Mid-size, tolerant of various moisture and soil conditions, can be used as hedging
	<i>Picea glauca</i>	White Spruce	Native	Best on natural soils, parks. Does not tolerate urban growing conditions well
	<i>Picea abies</i>	Norway Spruce	Europe	Grows faster than White Spruce ( <i>Picea abies</i> )
	<i>Picea omorika</i>	Serbian Spruce	Europe	Good alternative for Blue Spruce ( <i>Picea pungens</i> ) which is overplanted
<b>DO NOT PLANT Cautionary species</b>	<i>Acer platanoides</i>	Norway Maple	Europe	<i>Invasive</i> species, overplanted, DO NOT PLANT
	<i>Fraxinus spp.</i>	Ash	Most are native	<i>Emerald Ash Borer</i> , no species of ash to be planted
	<i>Pinus sylvestris</i>	Scots Pine	Europe	<i>Invasive on sandy dry sites</i> , not as serious on most County soils.
	<i>Robinia pseudoacacia</i>	Black Locust	Europe	<i>Invasive</i> , but not high risk. Established in the County on Loyalist farmsteads. Great on dry, depleted sites, and can be encouraged in this situation but plant with caution.

Note: All species noted as drought-tolerant will require watering and an establishment period. No tree can survive with extreme dry and prolonged lack of water. This group of species has shown success in natural environments where water is more limiting and competing species could not survive and these species have.

## 8. REPLACEMENT TREE SIZE AND QUANTITY OF NURSERY STOCK

<b>Subject Tree Diameter at Breast Height (cm)</b>	<b>Replacement Size of Tree Nursery Stock</b>
< 20	5 gal pots (1.0 - 3.0 m tall)
20 - 50	150 cm tall wire basket (conifer), 45 mm caliper (hardwood)
> 50	175-200 cm tall wire basket (conifer), 60 mm caliper (hardwood)

## 9. TREE PLANTING DETAIL: *(CONTINUED ON NEXT PAGE)*



Corporation  
County of  
Prince Edward

Tree Planting Detail  
(Deciduous Tree)  
Balled And Burlapped

Date  
August 2016

Tree Planting  
Drawing Number  
1



## **10. MAINTENANCE GUIDELINES FOR NEWLY PLANTED AND YOUNG TREES:**

### **10.1 Newly Planted**

#### **TIMING:**

The first day of May to the last day of September during first year of planting.

#### **SCOPE OF WORK:**

Water all newly planted trees on a weekly basis as required. All newly planted trees may require supplementary watering from the first day of May to the last day of September if drought conditions exist. Slow deep watering should be the objective.

### **10.2 Young Trees**

#### **TIMING:**

Inspect after two years and provide maintenance if needed.

#### **SCOPE OF WORK:**

1. Removal of broken, damaged, dead or hazardous branches;
2. Proper framing of crown (including but not limited to the *pruning* of double leaders and crossover branches);
3. Removal of root and trunk suckers;
4. Removal of tree support stakes, wires and ties during the second year;
5. Inspect trunk protective guards and wrapping placed on the day of planting;
6. Leveling of water saucers and mulch where they still exist (except where maintained by adjacent landowners) and removed at the end of the second year (in the fall);
7. Removal of weeds and grass;
8. Maintain or replace mulch in a 1 metre circle, 10 cm thick in the form of a water saucer (except where maintained by adjacent landowner), placed 10cm from the base of the tree;
9. Collection and removal from the site of pruned material, sod or other debris

#### **CONDITIONS:**

All *pruning* to be done to a standard normally accepted in the landscape and arboriculture trades or under the direct supervision of an *Arborist* or *Trained Operations Staff*.

## 11. IMPLEMENTATION

For the purposes of implementing the Tree Guidance Document:

11.1 The *Director of Operations* is responsible for determining if a *tree* on public land is a *dangerous* or *obstructing tree*.

11.2 The *Director of Operations* is responsible for determining if a *tree* on public land is a hazard or an *infected/infested tree*.

11.3 The *Director of Operations* is responsible for determining if a *tree* on public land is *structurally damaged*.

## 12. GLOSSARY

Additional terms referenced within Schedule A include:

### 12.1 Infected/Infested Tree

Means any *tree* that:

- i. is terminally infected or infested with an insect *pest* or *tree* disease;
- ii. the particular *tree* disease or insect *pest* has the potential to spread and infect the urban forest; and
- iii. the problem cannot be corrected by *pruning* or other treatments and removal of the *tree* is deemed necessary by the *Director of Operations*.

### 12.2 Hazard Tree/Dangerous Tree

Means any *tree* in part or whole that:

- i. is at risk of falling, breaking, uprooting or collapsing; and
- ii. in the opinion of the *Director of Operations*, the *tree* is likely to cause injury to persons or damage to property.

### 12.3 Heritage Tree

Means any *tree*, including but not limited to, pairs of *trees*, avenues or windrows of *tree*, grove or arboreal remnants, or one (1) or more *tree* that form part of a cultural heritage landscape and is:

- i. located within a heritage conservation district as designated under Part V of the OHA;
- ii. designated under, or located on a property designated under, Part IV of the OHA;
- iii. designated by the Ontario Urban Forest Council; or,

- iv. listed on the County's Register of Properties of Cultural Heritage Value or Interest.

#### 12.4 Interfering Tree

Means any *tree* growing in a location that:

- i. impedes access or interferes with public maintenance work; or
- ii. is causing or has the potential to cause damage to public infrastructure.

#### 12.5 Obstructing Tree

Means any *tree* that:

- i. obstructs a clear line of sight and overhead clearance for motorists, cyclists and pedestrians;
- ii. obstructs sidewalk and roadside maintenance; or
- iii. obstructs sight-lines for all transportation modes when approaching a street intersection or exiting curb-crossing, sidewalk or trail interface onto the street

#### 12.6 Structurally Damaged Tree

Means any *tree* that:

- i. has been severely damaged by a storm, fire or other natural or man-inflicted cause; and
- ii. while the *tree* does not pose an immediate threat to persons or property, it has the potential to become a *dangerous tree*.

#### 12.7 Invasive Tree

Means any *tree* that:

- i. is listed or considered a non-native invasive species in the “Landowners Guide to Managing and Controlling Invasive Plants in Ontario”; and
- ii. which if left unmanaged, poses a threat to the natural environment.