

Arborist Report and Tree Preservation Guidelines

For some applications you may be asked to provide an assessment of the trees by a certified arborist. The following guidelines should be provided to your project arborist.

Arborist Report Guide

For properties that are part of a development application, the following elements should be considered in an Arborist Report:

1. The report should include the following sections:
 - Site Description
 - Tree Resource Description
 - Development Concept and Description
 - Identification and discussion of probable tree impacts, including proposed tree removals
 - Discussion of trees to be retained and tree protection measures required
 - Proposed workplan
 - Certification
 - Limiting Terms and Conditions
 - Appendices:
 - Tree Inventory and Assessment Table
 - Tree Survey Plan Drawing (see guidelines on)
 - Tree Retention, Cutting and Replacement Drawing (see guidelines)
 - Photographs (if necessary)
 - Tree Protection Fencing Detail
2. The report can be submitted either in hard copy or digital PDF format.
3. Copies of drawings included in the report should be large enough to be legible.
4. Full-sized drawings should be submitted along with other permit-application drawings as these develop and advance to the next stage in the permit(s) application process.
5. The report should demonstrate that the consulting arborist has considered all aspects of the project that may impact the tree resource, including site preparation, underground servicing (storm, sewer, electrical, gas, and utilities), road and sidewalk construction, temporary construction requirements, excavation, re-grading and site contouring and landscape design and construction.
6. The developer should ensure that all tree information shown on the arborist's drawing (e.g. trees, labels, canopy extent, protection areas, etc.) are incorporated into the site plans for all other consultants, including architectural, civil, electrical, landscape and off-site utility companies.
7. A tree-by-tree inventory of the resource, including tree number, species, stem diameter and drip line diameter should be attached in tabular form as an appendix to the report. This table should include a condition assessment of each tree, noting any major defects and rating the biological health and structural integrity of the tree separately. Trees that, in the arborist's opinion, are rated dangerous (i.e., have a significant probability of failure and a target within striking distance) should be clearly indicated.
8. When the subject property contains a watercourse and is the subject of a review by the Lake Simcoe Region Conservation Authority (LSRCA), the consulting arborist will work with the LSRCA and integrate any protection or management measures that are developed for trees that are the subject of both jurisdictions.

Detailed Tree Survey Guide

Properties that are part of a development application must include a detailed tree survey as part of the application process.

Tree survey drawings should include the following elements:

Legal description

Civic Address

North Arrow

Scale

Accurate legal property boundaries, existing building elements and any significant natural features (particularly any water courses)

Accurate topographic information

All trees of 5cm or more measured 1.4 m above ground (not including invasive exotics) should have a unique, numbered tag attached to the stem and the number should be plotted on the tree survey drawing for each tree

Location, elevation and drip line extent of **all** trees in the study area

For sites that have many trees — particularly those dominated by high densities of alder, cottonwood or maple — and where locating individual trees is difficult, the survey may show clusters of trees. The edge of the cluster canopy should be drawn with the following information indicated:

- (a) overall number of protected stems,
- (b) dominant species,
- (c) average stem size,
- (d) range of stem sizes.

Tree Preservation Plan Guide

For properties that are part of a development application, a Tree Preservation Plan must be submitted when applicable as part of the application process using the guidelines below.

Detailed Sketch Guidelines:

1. The Tree Preservation Plan should use the Tree Survey drawing as a base.
2. Boundary trees (trees located partially on a property **line**) and off-site trees of protected size located immediately adjacent to the subject property should be surveyed and plotted.
3. The base drawing and tree elements should be overlaid with the proposed site layout, which should include the following elements:
 - Name and contact information for the Developer, Arborist, Architect and Civil Engineer (if applicable)
 - **All** proposed building elements
 - All proposed underground services
 - All proposed grades. Where grade changes (cuts or fills) are proposed adjacent to trees being considered for retention, an elevation detail should be provided
 - Major proposed landscape elements
 - Temporary construction access roads and areas designated for trade parking, truck wash, and placement of construction trailers and storage of materials

4. All trees should be designated as either retained or removed.
5. Trees proposed for removal should be marked with a clear 'X' through the center of the tree.
6. Tree protection fencing should be off-set from the calculated root zones by 1 m. Where a proposed building element enters the root zone, the fencing may be off-set from the building element.
 - The fencing off-set for buildings with basements or crawl-spaces is 2 m.
 - The off-set for slab-on-grade construction, roads, parking pads or pathways is 1 m.
7. All replacement trees should be located and appropriately labeled on the drawing.
8. When a drawing has too much information on it to be easily read, an effort should be made to simplify the drawing. If necessary, the information can be divided and shown on two or more related drawings.
9. Drawings should include a legend and drawing notes, as appropriate.
10. Special tree protection measures should be noted on the drawing.
11. The Town's project file number should be noted on the drawing.
12. Drawings should be submitted in hardcopy and on a paper size that is easily read.

Clearing and Risk Management Guidelines

Trees that develop within dense woodlands or forest stands have predictable characteristics. Competition for light gives them a tall, drawn-up form with the living canopy concentrated in the upper 40% of the tree (where there is most light). Trees within the interior of a stand are protected from wind; as a consequence, they do not develop a mechanically-strong root framework and even their stem-wood lacks the strength of an open grown tree.

When these stands are partially cleared to make way for new development, those that are left standing and exposed (i.e. near the edge of the clearing) are susceptible to failure. Often these trees are extremely tall, capable of reaching a great distance should they fail. Mature forest-grown trees, once exposed, do not have the capability to adapt to their new conditions and can remain at risk of failing for many years.

If this situation applies to your development, the Town of East Gwillimbury requires that you hire a qualified professional to carry out an assessment of these potential impacts and to work with you in planning your site layout and developing a plan for managing the risk posed by building homes adjacent to a newly cleared forest edge. A Certified Arborist or Registered Professional Forester will help you to determine how much can be done to mitigate the potential hazard of a new forest-edge condition by tree pruning or modification and how much must be managed by a more prudent site layout.

Tree management options for new forest edges include the following:

1. Leave an adequate buffer of modified trees to take the brunt of winds.
2. Trees within the modified buffer should be reduced in height, trimming them enough to reduce the bending forces from strong winds. Take care not to cut too much so that a large topping wound is created or that the residual canopy's capacity to photosynthesize adequate levels of sugar is compromised. Once this modification takes place, these trees will need to be inspected and maintained on a regular basis going forward. The normal life span of the trees will be shortened.
3. For the reasons noted above, new forest edges and the managed buffer zone should be immediately repopulated with an abundance of young conifers appropriate to the site conditions.

It cannot be stressed enough, however, that the key to effective risk management of new forest-edges is early intervention in the developing forest and prudent site planning at the time of development.

If the new forest edge abuts a protected stream or watercourse, the owner/developer is responsible for ensuring that the edge "effect" created in clearing lots does not place the protected trees adjacent to the stream at risk. In these cases, the *arborist or forester* managing the tree protection and retention for the project is required to work closely with the LSRCA for compliance within LSRCA regulated areas. Any trees that occupy the interface area between the development and the protected watercourse must be assessed by each professional e.g., Arborist, Forester, etc..., for the specific considerations they are responsible for. The professionals must provide a management plan that reflects the proper management of the trees in question.