

12507 OLD KENNEDY ROAD ARBOR REPORT

TREE INVENTORY, ANALYSIS & PRESERVATION REPORT



12507 OLD KENNEDY ROAD,
CALEDON, ONTARIO

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PREPARED BY:



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Landmark Environmental Group Ltd.

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1.0 Scope/Assignment:

The Landmark Environmental Group Ltd. (LEGroup) was retained by Mr. Navinder Singh Lal to provide Consulting Arboricultural services to lands generally East of Kennedy Road North and West of Etobicoke Creek in the Town of Caledon, Regional Municipality of Peel. The site is municipally known as 12507 Old Kennedy Road. The assignment is to prepare a Tree Inventory, Analysis, Preservation Plan (TIPP) in support of a Consent Development. LEGroup is requested to create a TIPP report to assess the existing trees on the subject site, indicate those trees that can be preserved and the methods for protecting the same. Further, those trees that cannot be preserved either by poor or declining health, structural deficiencies or to facilitate the proposed development on the site, are indicated to be removed.

Specifically, LEGroup was assigned to provide the following services:

- Review site data including survey, site plan drawings and engineering plans, to provide for a site visit and correspond with Town staff and the Toronto and Region Conservation Authority (TRCA);
- Conduct a field review to inventory tree specimens, onsite and conflicting offsite trees visually assessing and identifying the type, location, size and quality of any trees on site within the developable area and indicating the presence of any Butternut (in accordance with the *Endangered Species Act 2007*);
- Provide a Tree Inventory, Analysis, Preservation and Compensation Report that sets out the methodology, observations, criteria, analysis and conclusions of our review and area conditions;
- Indicate on a Tree Inventory and Protection Plan, those trees that are suitable for preservation or removal and providing the methods of protecting the same;
- Provide a Landscape/Compensation Plan that outlines the proposed compensation for trees that are recommended to be removed as a result of the proposed development.

It is the intent in the undertaking of this Report, to comply with the Township of Caledon and the Region of Peel tree preservation policies along with any requirements of the Toronto and Region Conservation Authority.

2.0 Proposed Development:

The subject site is located on the northwest portion of Old Kennedy Road between Larson Peak Road and Waterville Way and municipally addressed as 12507 Old Kennedy Road in the geographic Town of Caledon. The site has a total area of .2 ha and the owner is proposing to sever the lot into three parcels (**Appendix A**).

The development is subject to a proposed zoning amendment to be considered by the Town of Caledon. A site survey for the consent development can be seen in **Appendix A**.

The subject property is bounded by Waterville Way residential properties (1, 3, 5, & 7 Waterville Way) to the north, 12479 Old Kennedy Road residential property to the south, and Stellar Avenue residential properties (8, 10, 12, 14, 16, 18, & 20 Stellar Avenue) to the east with Old Kennedy Road retaining the property to the west. The limits of the Arborist study were confined to the site property lines and the Right of Way/boulevard area immediately in front of the development lands.

In addition, this TIPP Report will account for any trees rooted offsite that canopies/roots cross the property line of the subject lot. The intent is to assess the health and structure of the trees that may be affected as a result of the proposed development.

LEGroup staff also undertook a Level 1 (visual) structural assessment for trees on the subject site and those trees crossing over the site boundaries from outside its boundaries.

This TIPP report is submitted in support of a consent application submitted to the Town of Caledon for their approval for the development of the site.

Below, is an air photo illustrating the location of the subject site (red lines show the site property lines):



Figure 1. Air photo of Subject Site (property lines highlighted) and Surrounding Area (Courtesy of Town of Caledon GIS)

3.0 Method:

A summary of the inventory, observations and assessments that were determined in the field can be found in **Appendix C** at the end of this Report.

The tree assessments were identified in accordance with the detailed typical criteria used in best arboricultural practices to indicate the merits of tree preservation including the species (*Latin* and common names), size diameter at breast height (dbh), maturity, biological health, structural concerns (if any), condition rating and recommendations for preservation or removal of existing specimen trees.

Condition ratings applied to overall tree assessments using the above-noted criteria range from 1 (dead) to 4 (good). Typically, those trees being assessed a condition rating of 1-3 are recommended for removal while those trees being assessed a condition rating of 4 are recommended for preservation unless there are extenuating circumstances regarding the development of the site. The criterion is also applied to assist in assessment of their potential for survival in-situ post construction.

For the purposes of this Report, only those trees over 10cm dbh were captured. No shrubs or low understory perennials were captured in the data.

Each tree was assigned a key number (1-5) and observations relating to each tree were tabulated in the **Tree Inventory and Assessment table in Appendix C**. Each tree was also located on a Tree Inventory and Preservation Map corresponding to the number assigned and can be seen in the **Tree Inventory, and Preservation Plan (L2.0) as shown in Appendix B**.

4.0 Observations

In November, 2020, LEGroup J. Grice (ISA Arborist #2562A) and B. Bell visited the subject site with the intent to review the trees and create an inventory/ assessment of individual tree species present within the subject site.

LEGroup staff observed the site to be relatively flat, with a gravel driveway occupying approximately half of the lot towards the south portion of site (**Photo C, Appendix D**). LEGroup staff noted that there was no existing trees exterior to the subject property that had canopies crossing the property lines.

The following woody plant species were observed on the subject site during fieldwork that gives an indication of the existing tree species profile and occurrence on the site:

Latin Name	Common Name	%of Total Trees
<i>Acer negundo</i>	Manitoba Maple	60%
<i>Acer saccharinum</i>	Silver Maple	20%
<i>Picea pungens glauca</i>	Colorado Spruce	20%
Total Trees (subject to rounding)		100%

Table 1. List of Observed Woody Plant Species on the Subject Site

A total of five (5) trees were observed at a DBH (diameter at breast height) greater than 10cm on the subject site and are recorded in **Appendix C**. The trees observed are located in the in the southeast corner and in the northwest portion of the site.

The most frequently encountered tree species observed on the site is Manitoba Maple at 67% followed by Silver Maple (17%), and Colorado Spruce (10%). All of the trees at the site were observed to be in poor to fair condition with health defect including dual trunks/leaders, root collar damage, exposed roots and soil compaction around root base.

LEGroup staff observed three (2) Manitoba Maples (Trees Nos. 1, & 2) located in the southeast corner of the property all of which were assessed to have an overall poor health assessment (**Photo A, Appendix D**). The health defects included heavy epicormic branching, heavy leans, double stem starting at base, included bark and suspected interior decay. Towards the northwest portion of the subject site there is one (1) Manitoba Maple (Tree No. 5) and it also is in poor health as it resembled similar health characteristics as the other trees towards the south (**Photo D, Appendix D**).

Along the east fence of the property LEGroup observed one (1) Silver Maple (Tree No. 3) which was in fair health (**Photo E, Appendix D**). The health defects this tree showed were dead leaders, soil compaction around root collar, and poor branch structure.

In front of the existing building LEGroup observed one (1) Colorado Blue Spruce (Tree No. 4) which was also in fair health (**Photo B, Appendix D**). The health defects of this tree included minor sap pitching, compacted roots and a minor sweeping trunk. This tree was close in proximity to the existing building and a concrete walkway which appear to be hindering its root growth.

LEG Group staff did not identify any Butternut (*Juglans cinerea*) on the subject parcel during the on-site inventory in accordance with the requirements of the *Endangered Species Act, 2007*.

5.0 Study Criteria

Tree observations were recorded individually, as set out in the Tree Inventory and Assessment Table (**Appendix C**), in accordance with the criteria established by common arboricultural practice including:

- ✓ Latin/Common Name of tree;
- ✓ Size (mm cal);
- ✓ Condition/Comments; and
- ✓ Recommendation for Preservation or Removal

Tree locations on the Tree Inventory and Preservation Plan were recorded and adjusted however, the locations are approximate as shown on **Drawing L2.0 in Appendix B**.

6.0 Analysis and Recommendations

6.1 Analysis

The following analysis criteria were generally applied to measure the merits of tree preservation for this site:

- Species (including native & non-native)
- Size/Maturity
- Structure
- Health
- Location
- Areas of proposed development.

These criteria were applied to the tree assessments to determine the extent of preservation and removal. In addition, the criterion is applied to assess their potential for survival in-situ post construction.

Generally, LEG Group staff note that the five (5) individual trees (Tree Nos. 1-5) inventoried and assessed within the site are in declining health and rated in fair to poor condition as disclosed in **Appendix C: Tree Inventory and Assessment Table**. Structural and health concerns of these trees include but are not limited to included bark, multiple leaders, epicormic branching, one sided branching, suspected interior decay and compacted roots. There is a low likelihood of survival for the existing trees if demolition and construction of possible structures occur due to the trees already declining health assessments. In addition, all of the on-site trees conflict with the proposed lot layout. We therefore recommend that all inventoried trees on the subject site be removed (Tree Nos. 1-5).

6.2 Tree Compensation Calculation

The Town of Caledon has one "Tableland Tree Removal Compensation" policy that sets out the calculation of compensation for trees removed. Compensation can be accomplished through either replacing existing trees with new trees using the Town's criteria or compensating via cash-in-lieu of planting new trees. Cash-in-lieu compensation is a set rate determined by the Town of Caledon and that will have to be delineated first before making calculations. According to the Town of Caledon's "Tableland Tree Removal Compensation" policy, tree removals and compensation will be determined by an Arborist Report.

The policy intends that to the extent possible, there be a retention/protection of existing trees on the site but where vegetation removal cannot be avoided, efforts should be made to provide planting compensation (tree relocation or new planting) on an 'area' basis throughout the site.

As the Town "Tableland Tree Removal Compensation" policy applies to healthy trees being removed, no trees that were assessed as poor or worse were included in the compensation calculations; only those trees assessed as fair and better were included. Additionally, as the Town of Caledon only requires trees over 10cm dbh to be captured and compensated for, in which there were no captured trees under 10cm dbh in this report.

The following table sets out a proposed compensation for 5 trees recommended to be removed as set out above:

Tree #	Tree Identification	dbh (cm)	Comp Ratio	# Compensation Trees
3	<i>Acer saccharinum</i> Silver Maple	54.2	4:1	4
4	<i>Picea pungens glauca</i> Colorado Blue Spruce	46.9	3:1	3
Total Compensation Trees				7

Table 2. Trees to be Removed and Compensation Tree Calculations

6.3 Tree Compensation Calculation Cash-in-lieu

As previously mentioned, cash-in-lieu of compensation is a set rate determined by the Town of Caledon and is considered when development application is unable to meet the Town of Caledon's Tree Compensation numbers within the subject property. In the event tree compensation cannot be accommodated for in the planting design, financial compensation shall be collected at a rate (\$425/tree) as determined by the Town. Based on the compensation ratio, seven (7) replacement trees are required to compensate for the removal of trees on the subject property for a total of \$2,975.00.

6.4 Summary and Recommendations

In summary, as a result of the proposed consent development by Mr. Navinder Singh Lal at 12507 Old Kennedy Road, the Town of Caledon has required the completion of a Tree Inventory and Preservation Plan along with proposed Tree Compensation recommendations to be submitted in support of the planning applications.

As a result of our analysis, we provide the following recommendations:

1. That five (5) existing trees are recommended to be removed that are in conflict with the proposed consent development as shown on **L3.0 and L4.0 in Appendix B**.
2. That seven (7) trees are recommended to be accommodated via cash-in-lieu (\$2,975.00) for the compensation of the removal of the existing trees on the site.
3. No equipment storage or refueling is to take place within the tree preservation zone as established by the preservation fencing;
4. Tree preservation fencing is to be removed only after construction on the site is complete;
5. Existing tree branching that interferes with the development works may be lightly pruned by qualified personnel.

Arborist's Declaration

It is the policy of Landmark Environmental Group Ltd to attach the following clause regarding the limitations:

The Consulting Arborist's visual assessment and recommendations, made in this Report, have been completed based on accepted arboricultural practices and represents a fair and accurate assessment of the number, type, size and condition of trees on the subject property. Such visual assessments of all tree components could include scars, bark damage, external decay, insect infestations, discolored foliage, crown dieback, an excessive degree of lean from the vertical and above-ground root defects. In addition, environmental conditions, which could affect overall health of the trees such as damaging maintenance practices, have also been taken into consideration where appropriate. However, no tree was dissected, cored or rooting systems assessed through excavation.

I hereby certify that I, Jared Grice have:

- Personally, performed a visual inspection of the trees and property referred to in this letter report and have stated my findings accurately in accordance with accepted arboricultural practices without personal interest or bias;
- No current or prospective interest in the property that is the subject of this Report and have no personal interest or bias with respect to the parties involved;
- That my analysis, opinions and conclusions stated are my own and based on commonly accepted arboricultural practices;
- That my compensation is not contingent on the reporting of a predetermined conclusion that favours the client; and
- That I am certified with the International Society of Arboriculture (ISA), and an associate member the Ontario Association of Landscape Architects (OALA).

I trust the above-noted recommendations are of assistance. If there are any questions regarding the 12507 Old Kennedy Road Consent Development Tree Inventory, Analysis and Preservation Report please do not hesitate to contact our Firm at (705) 796-1122.

Prepared by,



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8.0 Glossary of Arboricultural Terms

Arboriculture – practice and study of the care of trees and other woody plants in the landscape.

Blackened Bark – surface area of bark is black in colour, often a sign of interior decay

Branch – stem arising from a larger stem. A subdominant stem.

Branch structure- assessment of branch attachment and form to trunk.

Canopy – collective branches and foliage of a tree or a group of trees' crowns.

Compacted Roots – Roots around the base of the tree are hindered by either impermeable structures in close proximity or aggregate material.

Crown – upper part of the tree, measured from the lowest branch, including all the branches and foliage.

DBH – acronym for tree diameter at breast height. Measured 1.4 meters above ground.

Dieback – condition in which the branches in the tree crown die from the tips toward the centre.

Drip-line – imaginary line defined by the branch spread of a single plant or group of plants.

Epicormic Branching – Shoot arising from a latent or adventitious bud (growth point), often a sign of stress in tree.

Included Bark – bark that becomes embedded in a crotch (union) between branch and trunk or between codominant stems. Causes a weak structure.

Interior Decay – Moisture or fungus that has entered a wound in a tree and has begun to rot away the internal, structural wood.

Leader – primary terminal shoot or trunk of a tree. Large, usually upright stem. A stem that dominates a portion of the crown by suppressing lateral branches.

Pruning – removing branches from a tree or other plants to achieve a specified objective.

Sap Pitching – conductive fluid from tree that extrudes from either bark wounds or fungal infections.

Sweeping Trunk- trunk of tree has concave form from the base to the top.

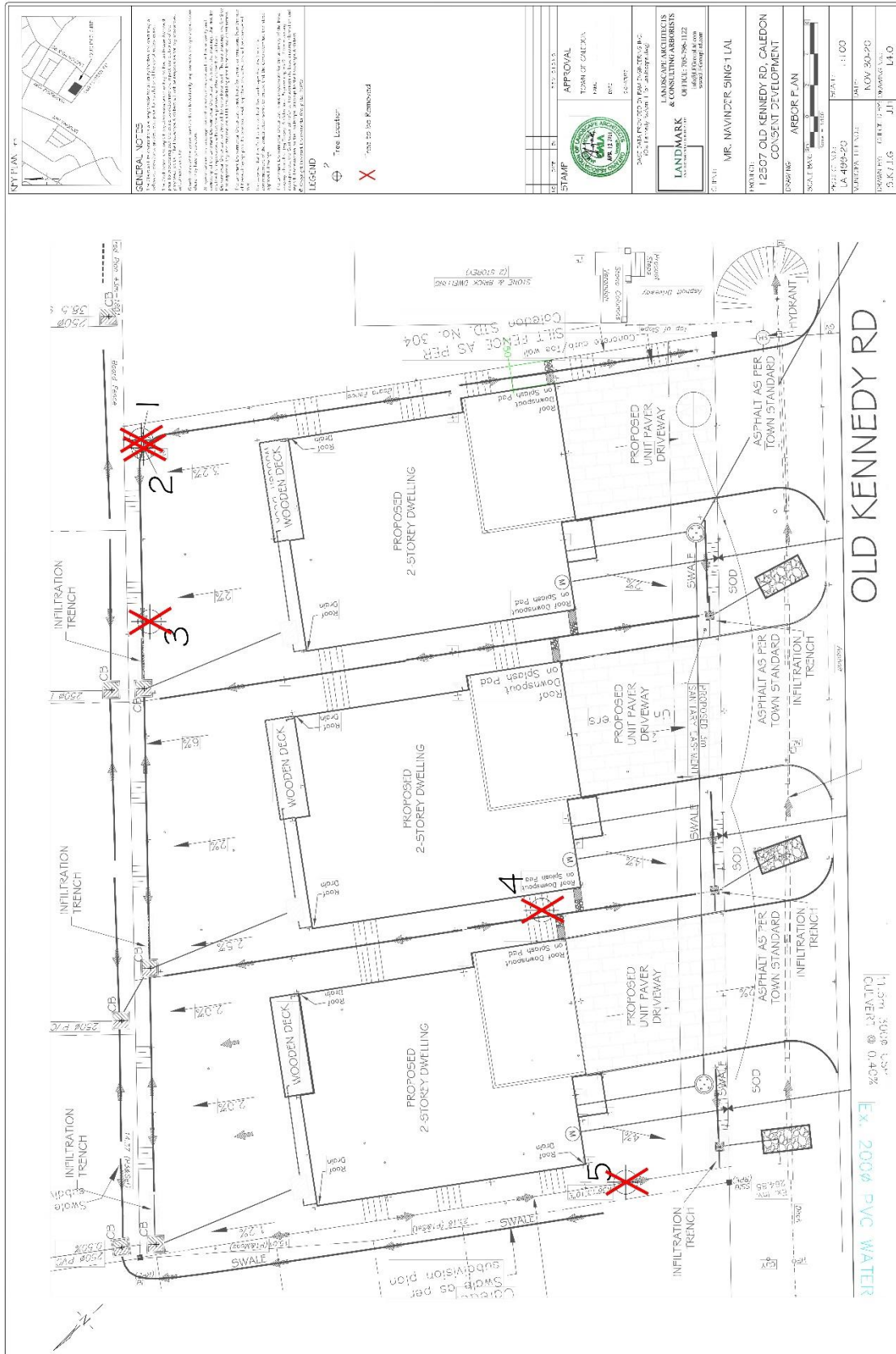
Appendix B: Tree Inventory and Preservation Plan (L2.0)



Tree Inventory Overlay Site Plan (L3.0)



Tree Inventory Overlay Site Plan (L4.0)



Appendix C: Tree Inventory and Assessment Table

Key	Latin Name	Common Name	Tree DIA (cm dbh)	Comments	Assessment	Canopy Radius (m)	Remove/ Preserve
1	<i>Acer negundo</i>	Manitoba Maple	58.5	Epicormic branching, double stem, heavy lean, one sided branching, included bark, suspected interior decay	1 Poor	4.7	Remove
2	<i>Acer negundo</i>	Manitoba Maple	34.1	Epicormic branching, compacted roots, root collar damage, poor pruning, minor lean, suspected interior decay	1 Poor	4.1	Remove
3	<i>Acer saccharinum</i>	Silver Maple	54.2	Compacted roots, dead leaders, poor branch structure	2 Fair	10.1	Remove
4	<i>Picea pungens glauca</i>	Colorado Spruce	46.9	Lower branch pruning, minor sap pitching, compacted roots, minor sweeping trunk	2 Fair	3.7	Remove
5	<i>Acer negundo</i>	Manitoba Maple	75.2	Poor branch structure, removed leaders, epicormic branching, suspected interior decay, included bark corrected leaders	1 Poor	4.4	Remove

Appendix D: Selected Site Photos



Photo A: Photo of Tree Nos. 1-2 *Acer negundo* in south-east corner of property



Photo B: Photo looking north of Tree No. 4 *Picea pungens glauca*



Photo C: Photo of Driveway and gravel area in the front portion of the property.



Photo D: Photo of Tree No. 5 *Acer negundo* in north-west portion of property.



Photo E: Photo of Tree No. 3 *Acer saccharinum* along east fence of property.