



GUIDING SOLUTIONS IN THE
NATURAL ENVIRONMENT

Arborist Report Villalago Residences Town of Caledon

Prepared For:

Treasure Hill Homes

Prepared By:

Beacon Environmental Limited

Date: Project:

Revised February 2017 216177

MARKHAM
144 Main St. North, Suite 206
Markham, ON L3P 5T3
T)905.201.7622 ♦ F)905.201.0639

BRACEBRIDGE
126 Kimberley Avenue
Bracebridge, ON P1L 1Z9
T)705.645.1050 ♦ F)705.645.6639

GUELPH
373 Woolwich Street
Guelph, ON N1H 3W4
T)519.826.0419 ♦ F)519.826.9306

PETERBOROUGH
469 Water Street, 2nd Floor
Peterborough, ON K9H 3M2
T) 705.243.7251

OTTAWA
470 Somerset Street West
Ottawa, ON K1R 5J8
T) 613.238.3232

Table of Contents

	page
1. Introduction	1
2. Methods.....	1
3. Results	1
3.1 Groupings.....	2
4. Recommendations	9
4.1 Mitigation Measures	9

Figures

Figure 1. Tree Inventory and Removal Plan	after page 1
---	--------------

1. Introduction

Beacon Environmental Limited (Beacon) has been retained by Villalago Residences Inc. (Treasure Hill Homes) to undertake an Arborist Report (Tree Inventory and Preservation Plan) in support of a Zoning By-law Amendment for Plan of Subdivision and Condominium and Site Plan applications. The subject property measures 2.69 ha (6.66 acres) and is located on the south side of Sideroad 5 and east of Highway 50, in the Town of Caledon, Regional Municipality of Peel (**Figure 1**). The property is legally described as Part Lot 5, Concession 7, in the former Geographic Township of Albion.

The Town of Caledon's guidelines for the completion of an Arborist Report for these applications were obtained via email (dated May 2, 2016) from Nick Pirzas, Planning & Development department at the Town of Caledon.

The purpose of this report is to provide an inventory and description of the trees on or adjacent to the subject property, identify those trees that are recommended for removal to accommodate the proposed development and to provide recommendations for tree preservation measures and mitigation. The revisions are made in response to review and comments from the Town.

2. Methods

Field data was collected on May 3, 2016. Trees were measured at dbh (diameter at breast height, or 1.4 m above ground surface), canopy cover was estimated and tree condition was assessed based on presence and severity of flaws, damage, evidence of pests or diseases, structural condition, dead or dying branches, or other decline indicators. Individual trees were tagged with numbered metal labels. Areas with numerous trees were inventoried as a group with the trees measured individually or range of sizes. All of the trees in this inventory occur within the subject property or in proximity to the subject property boundaries. The locations of each of these trees, or groups of trees, were recorded on field maps using a previously completed land survey and incorporated into a CAD (Computer-aided Design) platform. This report was prepared using accepted arboricultural guidelines and standards for tree protection and reporting.

3. Results

The majority of the trees are located in the central western area, clustered around the former residence. The remainder of the property consists of weedy old field meadow and two small wet areas dominated by cattails. A total of 87 trees were documented within or adjacent to the subject property and are shown in (**Figure 1**). Twenty five of these trees are larger trees, individually assessed and tagged with numbered tags (Tree numbers 420 to 444) and are summarized in **Table 1** on **Figure 1** and shown in the labeled photographs below. There are six groupings of trees (Groups A to F) totalling approximately 62 trees of various sizes and are described further below. The majority of the trees in this inventory are planted, non-native species, such as Austrian Pine (*Pinus nigra*), Norway Spruce (*Picea abies*), Scotch Pine (*Pinus sylvestris*) and ornamental or fruit trees (*Prunus*, *Malus* and/or *Pyrus spp.*). Some native species were planted, such as White Spruce (*Picea glauca*),

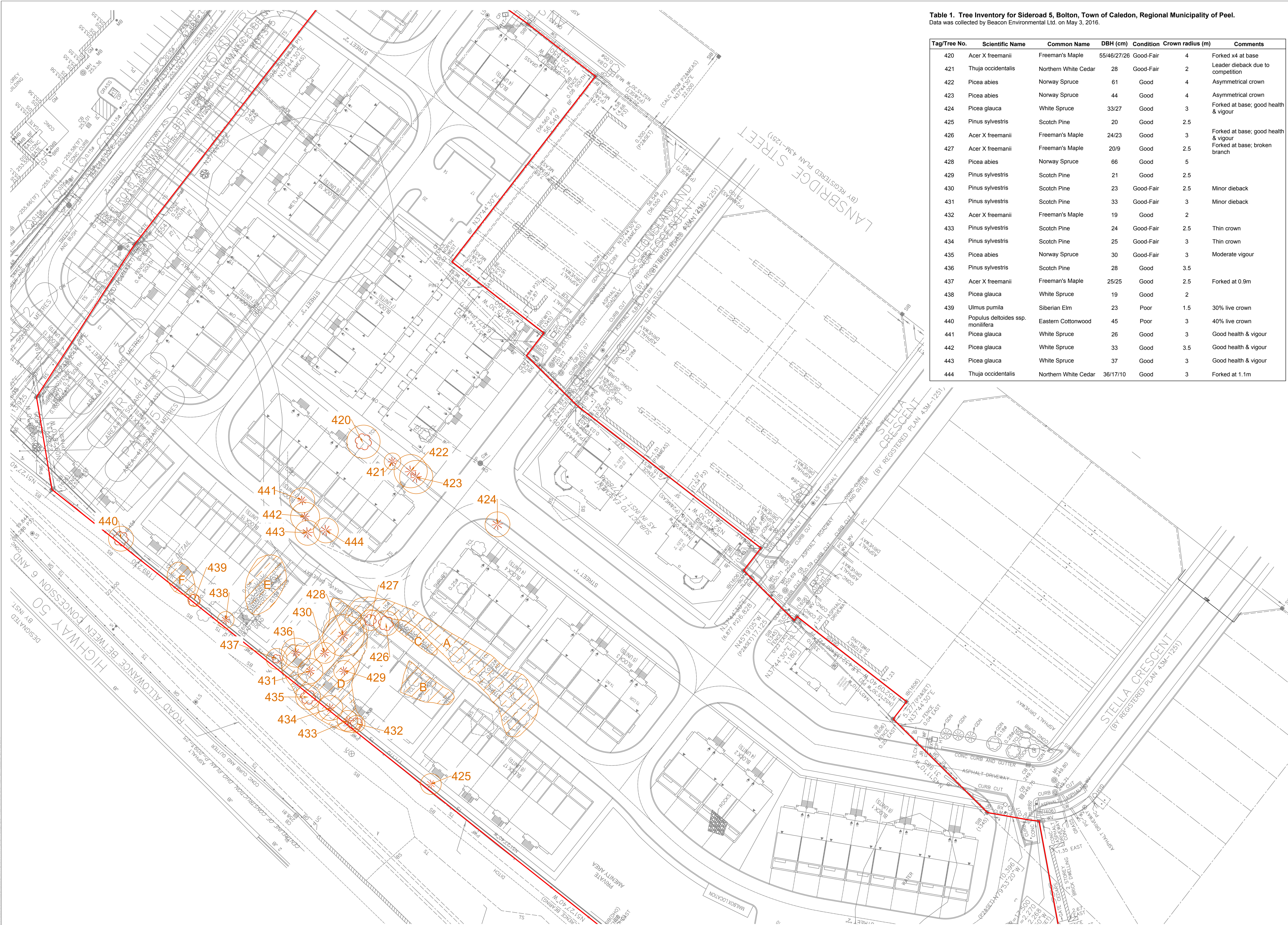


Table 1. Tree Inventory for Sideroad 5, Bolton, Town of Caledon, Regional Municipality of Peel.
Data was collected by Beacon Environmental Ltd. on May 3, 2016.

Tag/Tree No.	Scientific Name	Common Name	DBH (cm)	Condition	Crown radius (m)	Comments
420	Acer X freemanii	Freeman's Maple	55/46/27/26	Good-Fair	4	Forked x4 at base
421	Thuja occidentalis	Northern White Cedar	28	Good-Fair	2	Leader dieback due to competition
422	Picea abies	Norway Spruce	61	Good	4	Asymmetrical crown
423	Picea abies	Norway Spruce	44	Good	4	Asymmetrical crown
424	Picea glauca	White Spruce	33/27	Good	3	Forked at base; good health & vigour
425	Pinus sylvestris	Scotch Pine	20	Good	2.5	
426	Acer X freemanii	Freeman's Maple	24/23	Good	3	Forked at base; good health & vigour
427	Acer X freemanii	Freeman's Maple	20/9	Good	2.5	Forked at base; broken branch
428	Picea abies	Norway Spruce	66	Good	5	
429	Pinus sylvestris	Scotch Pine	21	Good	2.5	
430	Pinus sylvestris	Scotch Pine	23	Good-Fair	2.5	Minor dieback
431	Pinus sylvestris	Scotch Pine	33	Good-Fair	3	Minor dieback
432	Acer X freemanii	Freeman's Maple	19	Good	2	
433	Pinus sylvestris	Scotch Pine	24	Good-Fair	2.5	Thin crown
434	Pinus sylvestris	Scotch Pine	25	Good-Fair	3	Thin crown
435	Picea abies	Norway Spruce	30	Good-Fair	3	Moderate vigour
436	Pinus sylvestris	Scotch Pine	28	Good	3.5	
437	Acer X freemanii	Freeman's Maple	25/25	Good	2.5	Forked at 0.9m
438	Picea glauca	White Spruce	19	Good	2	
439	Ulmus pumila	Siberian Elm	23	Poor	1.5	30% live crown
440	Populus deltoides ssp. monilifera	Eastern Cottonwood	45	Poor	3	40% live crown
441	Picea glauca	White Spruce	26	Good	3	Good health & vigour
442	Picea glauca	White Spruce	33	Good	3.5	Good health & vigour
443	Picea glauca	White Spruce	37	Good	3	Good health & vigour
444	Thuja occidentalis	Northern White Cedar	36/17/10	Good	3	Forked at 1.1m



- LEGEND
- Subject Land
 - Proposed Development
 - Tree Location

- NOTES
- Any areas designated for tree preservation must be flagged in the field.
 - Birds, their nests and young are protected by various Acts and are generally protected at any time that they are found. For example, the federal Migratory Birds Convention Act protects the nests, eggs and young of most bird species from harassment, harm or destruction.
 - Clearing of vegetation should not occur during the breeding bird season (mid-April to late-July)
 - For any proposed clearing of vegetation within these dates, or where birds are suspected of nesting outside of typical dates, an ecologist should undertake detailed nest searches immediately prior (within two days) to site alteration to ensure that no active nests are present.
 - Because many bird nests are difficult or impossible to locate (e.g., cavity nesters, conifer and grassland nesters), the presence of territorial birds during the breeding season would then be taken to indicate that nests are actually present.

NOTES: SCALE SHOWN IS FOR AN 36" X 24" PAGE. FOR ILLUSTRATIVE PURPOSES. DO NOT SCALE

Nº	REVISIONS	DATE:	BY:
6			
5			
4			
3			
2			
1	COMMENT	xxxx/xxxx	xx

NORTH ARROW

SEAL

NOT FOR CONSTRUCTION UNLESS SIGNED & DATED



PROJECT

VILLALAGO RESIDENCES INC.

SHEET TITLE

Tree Removal and Preservation Plan

DESIGN BY:	GP	PROJECT Nº:	216177
DRAWN BY:	RL	FIGURE Nº:	
CHECKED BY:	GP		
DATE:	27 February 2017		
SCALE:	1 : 400		

1

Freeman's Maple (*Acer x freemanii*), White Cedar (*Thuja occidentalis*) and White Spruce (*Picea glauca*). The ages of the trees range from immature saplings to intermediate age.

3.1 Groupings

Group A

This grouping is a row of cherry trees (*Prunus sp.*) that are generally in fair to poor condition with a few dead trees. Their sizes range from approximately 6 cm to 20 cm dbh, with an average of approximately 10 cm dbh (**Photograph 1**).

Group B

This group is a clump of ornamental or fruit trees that consist of approximately 19 stems, most of which are adventitious sprouts from a planted tree. The trees range in size between 3 and 22 cm dbh and are in good to fair condition (**Photograph 2**).

Group C

This group is a row of planted Scotch Pine that are in good to fair condition, with five trees measuring over 15 cm dbh (23, 21, 19, 18 and 18 cm dbh) with another 6 trees measuring less than 15 cm dbh.

Group D

Not including nine individually numbered and tagged trees (#428 to 437), this group consists of approximately 44 stems of an ornamental apple (*Malus sp.*) or pear (*Pyrus sp.*) variety, measuring from 2 to 20 cm dbh with an average size of approximately 7 cm. Many of these are naturalized regeneration (sprouts from spreading rhizomes) of the original planted trees. There is also one 8 cm dbh Freeman's Maple and one 7 cm dbh Trembling Aspen (*Populus tremuloides*) in this grouping (**Photograph 3**).

Group E

This group is made up of 14 planted Austrian Pine, ranging from 9 to 31 cm dbh with an average of approximately 12 cm, two planted White Spruce (18 and 13 cm dbh) and two Manitoba Maple (*Acer negundo*) measuring 8 and 7 cm dbh (**Photograph 4**). All the trees in this group are in good or good to fair condition.

Group F

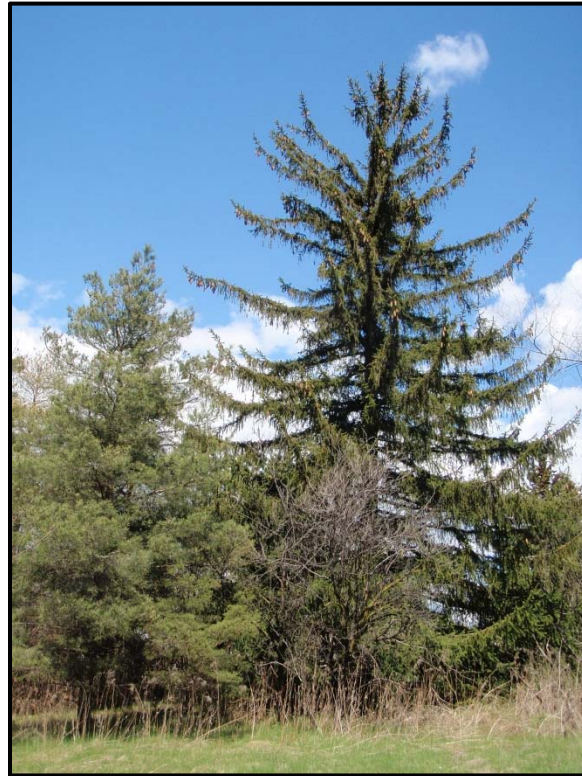
This short row of four planted Austrian Pine are located along the southwest property boundary. They measure between 10 and 13 cm and are in good condition (**Photograph 5**).



Photograph 1. View of Group A, a row of planted cherry trees in poor condition (May 3, 2016).



Photograph 2. View of Group B, naturalized ornamental trees, with Group C, a row of young Scotch Pine in the background (May 3, 2016).



Photograph 3. Partial view of Group D, and trees #428 (right) and #429 (left) (May 3, 2016).



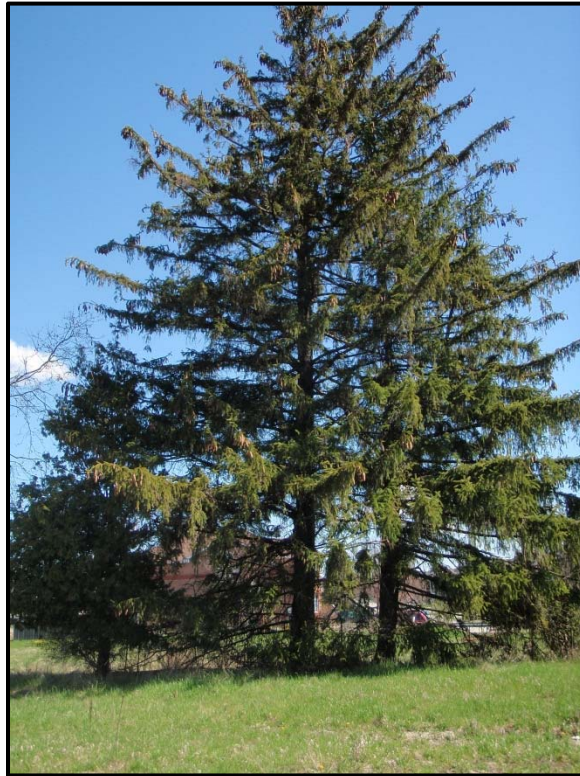
Photograph 4. View of Group E, mostly Austrian Pine (May 3, 2016).



Photograph 5. View of Group F, four Austrian Pine in poor condition (May 3, 2016).



Photograph 6. View of tree #420 (May 3, 2016).



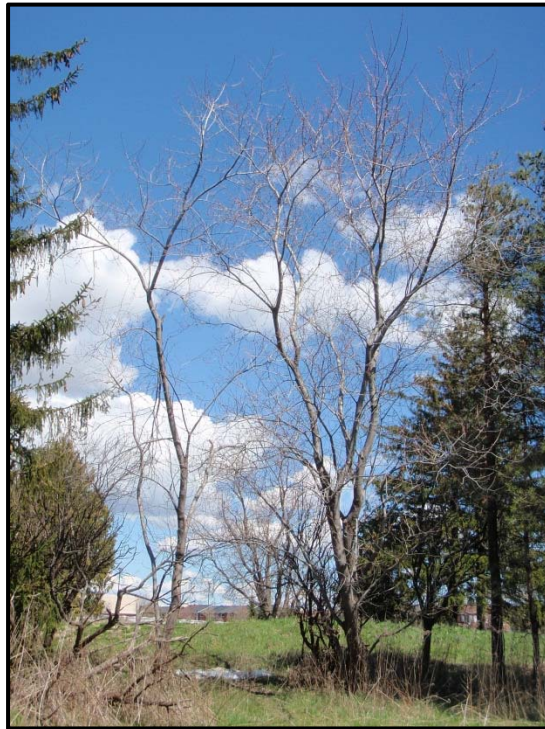
Photograph 7. View of tree #421 to 423 (left to right) (May 3, 2016).



Photograph 8. View of tree #424 (May 3, 2016).



Photograph 9. View of tree #425 (May 3, 2016).



Photograph 10. View of tree #426 & #427 (May 3, 2016).



Photograph 11. View of tree #440 (May 3, 2016).



Photograph 12. View of tree #441 to #444 (left to right) (May 3, 2016).

4. Recommendations

The proposed development plan for the subject property will consist of 110 townhome condominiums, with private streets, and future park block. All of the 87 trees included in this inventory are proposed for removal to accommodate construction as they conflict with the proposed site plan's building footprints, roads or grading and servicing requirements. One tree, #440, is not in conflict with the proposed site plan, however, this is a 45 cm dbh Eastern Cottonwood that is in poor condition with only approximately 30% live crown and in an advanced state of decline (**Photograph 11**). This tree will likely be completely dead within a few years and eventually constitute a hazard.

In general, all trees have some level of ecological value, whether for biodiversity and wildlife, water retention or carbon storage, among other values. However, given the young age of the predominantly non-native species of trees within an urban context and few natural features, the trees in this inventory have low ecological value.

4.1 Mitigation Measures

None of the trees on the subject property are proposed for preservation, therefore no tree protection measures (i.e. tree protection fencing) are required. However, upon receiving the necessary approvals and prior to the commencement of tree removals, any areas designated for tree preservation must be flagged in the field. Birds, their nests and young are protected by various *Acts* and are generally protected at any time that they are found. For example, the federal *Migratory Birds Convention Act* protects the nests, eggs and young of most bird species from harassment, harm or destruction. The breeding bird season in southern Ontario is generally from mid-April to late-July; hence the clearing of vegetation should be outside of these dates. For any proposed clearing of vegetation within these dates, or where birds are suspected of nesting outside of typical dates, an ecologist should undertake detailed nest searches immediately prior (within two days) to site alteration to ensure that no active nests are present. However, it is important to note that as many bird nests are difficult or impossible to locate (e.g., cavity nesters, conifer and grassland nesters) this is often not feasible and the presence of territorial birds during the breeding season would then be taken to indicate that nests are actually present.

Tree Replacement Information

All of the trees within the subject property are planted or naturalized, native and non-native or horticultural variety trees surrounded by a landscape of un-maintained fields in a commercial/residential urban environment. When tree replacement is being considered, the trees identified for removal in **Table 1**, and shown in **Figure 1**, should be replaced in accordance with the Town of Caledon's standards, as follows:

Compensation planting is required at a 2:1 ratio - for each tree removed on site, two trees shall be replanted. Street trees and Town standard planting requirements will not be accepted as compensation planting. In the event that compensation planting cannot be accommodated within the plan, the owner shall

pay the Town at a rate of \$425.00 per tree, based on 2016 tree planting tender pricing.

Based on the Town of Caledon's replacement ratio, 174 replacement trees are required for removal of 87 trees on the subject property.

All replacement trees should be healthy calliper stock (50mm minimum), balled and burlap trees of suggested species as listed below and in consultation with a landscape architect. Planting of ash trees, host species for Emerald Ash Borer, should be avoided.

Scientific Name	Common Name
<i>Acer saccharum</i>	Sugar Maple
<i>Acer saccharinum</i>	Silver Maple
<i>Aesculus glabra</i>	Ohio Buckeye
<i>Gleditsia triacanthos inermis</i>	Honey Locust
<i>Quercus rubra</i>	Red Oak
<i>Quercus bicolor</i>	Swamp White Oak
<i>Tilia americana</i>	American Basswood

Provided the trees are properly installed with follow-up care, the trees proposed to be removed will be sufficiently replaced.

Disclaimer

The assessment of the trees presented within this report has been prepared using accepted arboricultural techniques. These include a visual examination of the above-ground parts of each tree. The trees examined were not dissected, cored, probed, or climbed, and detailed root crown examinations involving excavation were not undertaken.

As trees are living organisms and their health is constantly changing, no guarantees are offered or implied that these trees or any part of them will remain standing. A standing tree will always pose some risk, and a tree's behaviour cannot be predicted in all situations. All trees have the potential for failure, which can be eliminated only if the tree is removed.

It should be noted that the assessment presented in this report, including tree health and condition, was conducted during the dormant season (leaf-off) and is valid at the time of inspection. Tree assessments may change should the trees be reassessed during the summer growing season. It is recommended that any trees being retained and protected be re-assessed following the completion of construction activities.

Should you have any comments regarding the above, or require clarification or modification, please do not hesitate to contact the undersigned at (705) 645-1050 ext. 22.

Yours truly,
Beacon Environmental



Geri Poisson, B.A. Hon.,
ISA Certified Arborist ON-1288A
Terrestrial Ecologist

Report reviewed by,
Beacon Environmental



Jamie Nairn, M.Sc., P.Ag.
Senior Ecologist