Arborist Report
&
Tree Preservation Plan

8186 King Street
Caledon, ON L7E 0T8

Prepared for:
ALEXANDER BUDREVICS + ASSOCIATES LTD.
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INTRODUCTION:

I have been retained by Ms. Leslie Harper of *ALEXANDER BUDREVICS + ASSOCIATES LTD.*, to complete an arborist report concerning the above subject site. The purpose of this report is to provide a tree preservation plan, with recommendations, regarding all regulated trees affected by the proposed development. All field and appraisal work was completed by the author of this report being Cletus Gavin ISA Certified Arborist ON 1576-A on December 8, 2015.

HISTORY AND ASSIGNMENT:

I have been advised by Ms. Harper, that the above subject site is scheduled for development, which includes the expansion of the neighboring stone yard as per the Tree Preservation Plan – TPP-1 in Appendix I. As the consulting arborist retained for this project, *The Tree Specialists Inc.*, can be further retained (if necessary) to act as the Project Consulting Arborist (PCA) to provide on-site monitoring and any necessary remedial actions as required by the municipality.

The assignment is as follows:

1. Survey all regulated trees that will be affected by the proposed project, assess their condition and determine if they are suitable for preservation.
2. Provide recommendations for tree preservation.
3. Determine if proposed construction will adversely affect the health of such trees.

ASSUMPTION AND LIMITING CONDITIONS:

1. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however *The Tree Specialists, Inc*. can neither guarantee nor be responsible for the accuracy of information provided by others.

2. Excerpts or alterations to the report, without the authorization of the author or his company invalidates its intent and/or implied conclusions. This report may not be used for any expressed purpose other than its intended purpose and alteration of any part of this report invalidates the report.

3. Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflect the condition of those items at the time of inspection; and 2) the inspection was made using accepted arboricultural techniques and is limited to visual examination of accessible items without climbing, dissection, probing or coring and detailed root examination involving excavation. While reasonable efforts have been made to assess trees outlined in this report, there is no warranty or guarantee, expressed or implied, that problems or deficiencies with the tree(s) or any part(s) of them may not arise in the future. All trees should be inspected and re-assessed periodically.

4. The determination of ownership of any subject tree(s) is the responsibility of the owner and any civil or common-law issues, which may exist between property owners with respect to trees, must be resolved by the owner. A recommendation to remove or maintain tree(s) does not grant authority to encroach in any manner onto adjacent private properties

TREE SURVEY AND RECOMMENDATIONS:

See TPP-1 plan in Appendix I for tree location, Table #1 for species identification, condition, and recommendations and Appendix II for corresponding Digital Images.

Table #1: 8186 King Street - Caledon

Tree #	Species	DBH (cm)[1]	Condition[2]	Category[3]	Comments	Suitability for Conservation[4]	Recommendation[5]	MTPZ (M)[6]
20	*Robinia pseudoacacia*	11	F	1	- poor union with included bark - in conflict with proposed construction	M	Rv	
21	*Robinia pseudoacacia*	11	F	1	- poor union with included bark, storm break - in conflict with proposed construction	M	Rv	
22	*Picea glauca*	25	P	1	- lead, deadwood, in decline - not a suitable candidate for preservation	P	Rv	
23	*Betula papyrifera*	48	F	1	- deadwood, poor union - in conflict with proposed construction	M	Rv	
24	*Pinus nigra*	49	P	1	-80 percent dead - not a suitable candidate for preservation	P	Rv	
25	*Picea glauca*	42	F	1	- deadwood - encroached upon by 9%	M	PsI	3.0
26	*Picea pungens*	29	F	1	- deadwood - clear of proposed construction - shall retain its prescribed TPZ	M	Ps	2.4
27	*Gleditsia triacanthos*	33	G	1	- clear of proposed construction - shall retain its prescribed TPZ	M	Ps	2.4

[1] **DBH:** Diameter at Breast Height is a measurement in centimeters, using a caliper tape, of the tree stem at 1.37 meters above existing grade.

[2] **Condition:** A rating of **H**azardous/**D**ead/**P**oor/**F**air/**G**ood/**E**xcellent was determined for each tree by visually assessing all the above ground components of the tree, using acceptable arboricultural procedures as recommended in the *"Guide for Plant Appraisal"*, prepared under contract by the *"Council of Tree & Landscape Appraisers (CTLA)*, an official publication of the *International Society of Arboriculture (I.S.A.), 9th Edition, 2000"*.

[3] **Category #:**
1. Tree >10cm located on the subject site
2. Tree >10cm located on adjacent private property
3. Trees of all diameters situated on Town owned parkland within 6 m of the subject site.
4. Trees of all diameters situated within the Town road allowance adjacent to the subject site.

[4] **Suitability for Conservation:**
A rating of **P**oor/**M**oderate/**G**ood is assigned to each tree taking in to account four factors which include, 1) Tree health 2) Structural integrity 3) Species response and 4) Tree Age and longevity, as recommended in the "*For Tree Care Operation – Trees, Shrubs, and Other Woody Plant Maintenance Standard Practice*" prepared as part of the "*ANSI A300 Standards*."

[5] **Recommendation**: Preserve (**Ps**), Preserve with Injury (**PsI**), Remove (**Rv**), Transplant (**Tp**)

[6] **MTPZ**: Minimum tree protection zone distance as per *The Tree Specialists Inc.*

Tree #	Species	DBH (cm)	Condition	Category	Comments	Suitability for Conservation	Recommendation	MTPZ (M)
28	*Picea pungens*	19	P	1	-50 percent dead - not a suitable candidate for preservation	P	Rv	
29	*Acer platanoides*	34	F	1	- deadwood, girdled exposed roots - encroached upon by 8%	M	PsI	2.4
30	*Acer negundo*	41	P	1	- poor form, multiple large deadwood, in decline - not a suitable candidate for preservation	P	Rv	
31	*Pinus nigra*	33	F	1	- deadwood, in decline, diplodia tip blight - clear of proposed construction - shall retain its prescribed TPZ	F	Ps	2.4
32	*Pinus nigra*	31	F	1	- deadwood, poor form, diplodia tip blight - in conflict with proposed grading	M	Rv	
33	*Pinus nigra*	55	F	1	- deadwood, in decline, diplodia tip blight - in conflict with proposed grading	M	Rv	
34	*Acer negundo*	17	P	1	- growing in fence, poor form - not a suitable candidate for preservation	P	Rv	
35	*Thuja occidentalis (75)*	6-18	F	1	- in conflict with proposed construction	M	Rv	
36	*Acer negundo*	14	D	1	-100 percent dead - not a suitable candidate for preservation	P	Rv	
37	*Acer platanoides*	14	F	1	- in conflict with proposed construction	M	Rv	
38	*Acer platanoides*	20	F	1	-cavity in trunk, deadwood, in decline - in conflict with proposed construction	M	Rv	
39	*Ulmus americana*	26	F	1	- deadwood, cavity in trunk - in conflict with proposed construction	M	Rv	
40	*Acer negundo*	20	P	1	- deadwood, poor form and union, in decline - in conflict with proposed construction	P	Rv	
41	*Fraxinus americana*	21	F	1	- deadwood, poor union - in conflict with proposed construction	M	Rv	
42	*Acer negundo*	21	F	1	- deadwood - in conflict with proposed construction	M	Rv	
43	*Acer negundo*	20	F	1	- deadwood, poor form and union - in conflict with proposed construction	M	Rv	
44	*Tilia cordata*	26	F	1	- deadwood, in decline - in conflict with proposed construction	M	Rv	
45	*Tilia cordata*	50	F	1	- deadwood, poor union, in decline - in conflict with proposed construction	M	Rv	
46	*Tilia cordata*	31	P	1	- deadwood, in decline, multiple storm breaks - in conflict with proposed construction	P	Rv	
47	*Tilia cordata*	29	P	1	- deadwood, in decline, multiple storm breaks - in conflict with proposed construction	P	Rv	

Tree #	Species	DBH (cm)	Condition	Category	Comments	Suitability for Conservation	Recommendation	MTPZ (M)
48	*Prunus spp.*	14	F	1	- deadwood - clear of proposed construction - shall retain its prescribed TPZ	M	Ps	2.4
49	*Populus spp.*	22	F	2	- deadwood, storm break - clear of proposed construction - shall retain its prescribed TPZ	M	Ps	2.4
50	*Populus spp.*	11	F	2	- cavity in trunk, in decline - clear of proposed construction - shall retain its prescribed TPZ	M	Ps	2.4
51	*Populus spp.*	21	F	2	- deadwood, storm break - clear of proposed construction - shall retain its prescribed TPZ	M	Ps	2.4
52	*Fraxinus americana*	14	F	1	- deadwood - clear of proposed construction - shall retain its prescribed TPZ	M	Ps	2.4
53	*Fraxinus americana*	16	P	1	- 90% dead - clear of proposed construction - shall retain its prescribed TPZ	P	Ps	2.4
54	*Acer negundo*	13	P	1	- 50% dead - clear of proposed construction - shall retain its prescribed TPZ	P	Ps	2.4
55	*Acer negundo*	17	F	1	- deadwood, in decline, poor form - clear of proposed construction - shall retain its prescribed TPZ	M	Ps	2.4
56	*Ailanthus altissima*	21	F	1	- deadwood, in decline - invasive species to be removed as requested by TRCA	M	Rv	
57	*Acer saccharum*	11	F	1	- deadwood, in decline - clear of proposed construction - shall retain its prescribed TPZ	M	Ps	2.4
58	*Acer saccharum*	19	F	2	- in decline, storm break - clear of proposed construction - shall retain its prescribed TPZ	M	Ps	2.4
59	*Robinia pseudoacacia*	19	F	1	- deadwood, in decline, storm break - invasive species to be removed as requested by TRCA	M	Rv	
60	*Robinia pseudoacacia*	12	P	1	- damaged exposed roots - not a suitable candidate for preservation	P	Rv	
61	*Thuja occidentalis*	11	P	2	- 60 percent dead, vines - clear of proposed construction	P	Ps	2.4

SITE NOTES AND COMMENTS:

Town Owned Trees:

1. As listed above, there are forty-two trees (>10cm) involved with this project, none of which are Town owned.

Privately Owned Tree Located Within 6.0m of the Subject Site:

1. There are five trees located on the adjacent private properties within 6.0m of the subject site, being trees no. 49-51, 58 and 61. All five trees are clear of proposed development, shall retain their prescribed TPZ and as such, will not be disturbed during construction.

Privately Owned Trees Located on the Subject Site:

1. There are thirty-seven trees greater than 10cm located on the subject site, being trees no. 20-48, 52-57, 59 and 60 (tree no. 35 is a cedar hedge containing 75 individual trees). Trees no 26, 27, 31, 48, 52-57, 59 and 60 are clear of proposed development, shall retain their prescribed TPZ and as such, will not be disturbed during construction.

2. Trees no. 20, 21 23, 32, 33, 35, 37-43 are in conflict with the proposed construction or grading and as such are to be removed.

3. Tree no. 22, 24, 28, 30, 34, 36 and 44-47 are dead or in poor declining condition with a limited lifespan and as such is not a suitable candidate for preservation. With the above in mind, these six trees are recommended for removal.

4. Trees no. 56 and 59 have been identified as invasive species by the TRCA and due to the proximity to a Provincially Significant Wetland have been requested for removal.

5. Tree no. 25 and 29 are encroached upon by proposed construction by 9% and 8% respectively. Such encroachment is located outside of the critical root zone along the outer edge of the tree preservation zone. Roots disturbed within this area are likely to be no larger than 2-3cm in diameter and can easily be ameliorated by retaining a qualified arborist to supervise excavation, root prune as required and fertilize to promote root regeneration. This tree is healthy and vigourous and has an excess of stored energy to easily recover from this minor disturbance.

5. All other trees located on or within 6.0m of the subject site had a DBH of less than 10cm and were not included in this report.

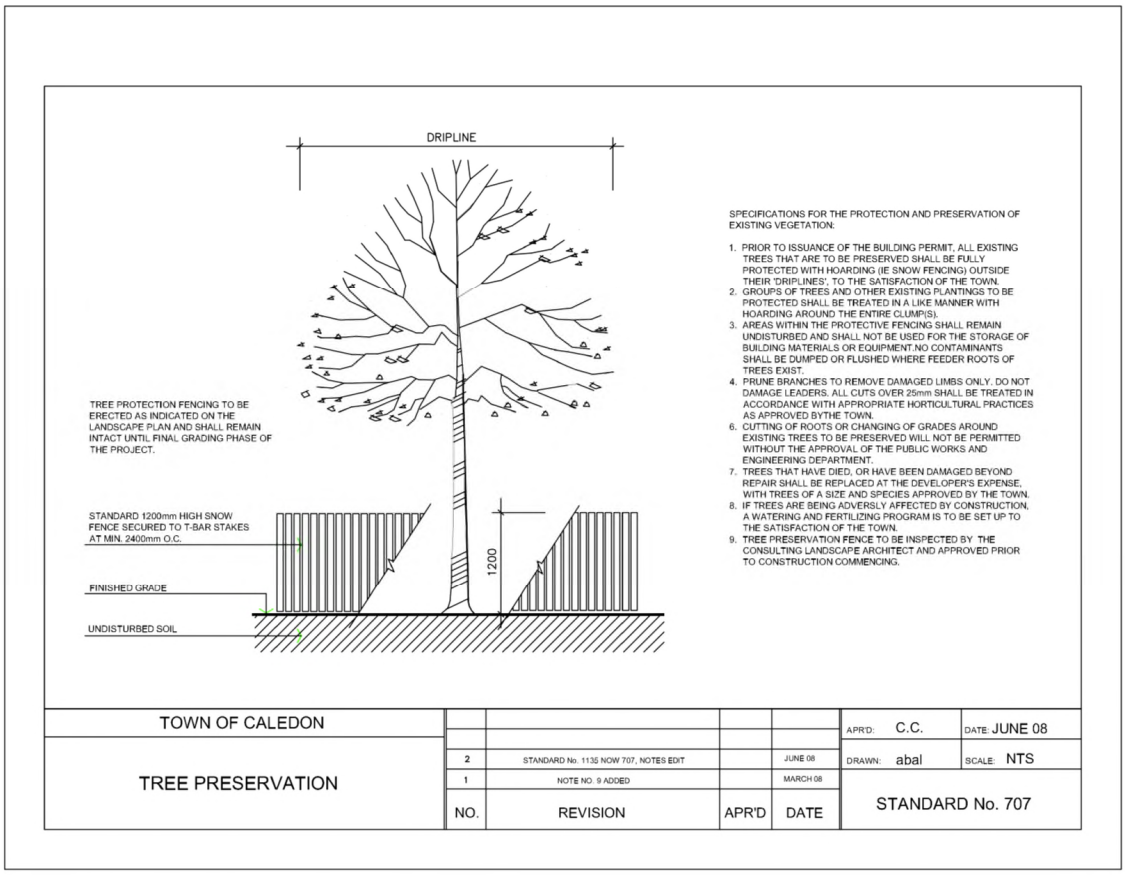
6. To further protect each tree scheduled for preservation from the potential of construction disturbance, it is recommended that the below listed tree preservation recommendations are implemented.

ESTABLISH TREE PROTECTION ZONE

The purpose of the tree protection zone (TPZ) is to prevent root damage, soil compaction and soil contamination. Workers and machinery shall not disturb the tree protection zone in any way. To prevent access, the following is required:

1.1 Install hoarding as per attached Tree Protection Plan in Appendix I.

1.2 Hoarding shall consist of the following:



1.3 When visibility is a consideration and **upon approval from the Town**, 1.2 meter high orange plastic web snow fencing on a 2"X4" frame is recommended.

1.4 **Upon approval from the Town of Caledon, substitute wooden and/or orange plastic web snow fencing hoarding with a page wire fence supported by T-bars.**

1.5 No fill, equipment or supplies are to be stored within the tree protection zone.

1.6 Activities, which are likely to injure or destroy tree(s), are not permitted within the TPZ.

1.7 No objects may be attached to tree(s) within the TPZ.

1.8 Tree protection barriers are to be erected prior to the commencement of any construction or grading activities on the site and are to remain in place in good condition throughout the entire duration of the project.

1.9 Once all tree/site protection measures have been installed you must notify Urban Forestry staff to arrange for an inspection of the site and approval of the site protection requirements.

1.10 All Hoarding shall not be removed until all construction activity is complete.

1.11 A sign that is similar to the illustration below must be mounted on all sides of a tree protection barrier for the duration of the project. The sign should be a minimum of 40cm X 60cm and made of white gator board, laminates or equivalent material.

TREE PROTECTION ZONE (TPZ)

No grade change, storage of materials or equipment is permitted within the TPZ. The tree protection barrier must not be removed without the written authorization of Town Staff.

2.0 ROOT PRUNING

Where possible, hand dig areas closest to each tree to prevent any unnecessary tearing or pulling of roots. Removal of roots that are greater than 2.5 centimetres in diameter or roots that are injured or diseased should be performed as follows:

2.1 Preserve the root bark ridge (similar in structure to the branch bark ridge). Directional Root Pruning (DRP) is the recommended technique and should be used during hand excavation around tree roots. Roots are similar to branches in their response to pruning practices. With DRP, objectionable and severely injured roots are properly cut to a lateral root that is growing downward or in a favorable direction.

2.2 All roots needing to be pruned or removed shall be cut cleanly with sharp hand tools, by a Certified Arborist or by the PCA.

2.3 No wound dressings\pruning paint shall be used to cover the ends of each cut.

2.4 All roots requiring pruning shall be cut using any of the following tools:

- Large or small loppers
- Hand pruners
- Small hand saws

- Wound scribers

2.5 Avoid prolonged exposure of tree roots during construction - keep exposed roots moist and dampened with mulching materials, irrigation or wrap in burlap if exposed for longer than 4 hours.

3.0 ESTABLISH MAINTENANCE PROGRAM

All maintenance work must be completed by the approved Project Consulting Arborist or an equivalent qualified arborist.

Pre-Construction:

3.1 Prune trees to remove deadwood, objectionable limbs while maintaining crown form.

During- Construction:

3.2 Irrigate tree preservation zones during drought conditions, June – September, to reduce drought stress.

3.3 Inspect the site every month to ensure that all hoarding is in place and in good condition. Inspect the trees to monitor condition.

Post-Construction:

3.4 Inspect the trees two times per year – May and September – to monitor condition for a minimum of 2 additional years.

4.0 LANDSCAPING

Any landscaping completed within the tree preservation zones, after construction is completed and hoarding has been removed, cannot cause damage to any of the trees or their roots. The trees must be protected for the same reasons listed above but without using hoarding.

4.1 **No grade changes** are permitted which include adding and/or removing soil.

4.2 **No excavation** is permitted that can cause damage to the roots of the tree.

4.3 **No heavy equipment** can be used to compact the soil within the tree preservation zone.

4.4 Any hard -surface sidewalks, paths, etc. should be constructed using permeable products such as interlocking stone, etc.

SUMMARY TABLE:

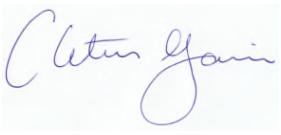
Tree Category	Total	Scheduled for Preservation		Remove
		Preserve	Preserve with Injury	
2 (Regulated tree within 6.0 m of the Subject Site)	5	5	0	0
1 (Regulated tree on subject site)	37	10	2	25
Total	**42**	**15**	**2**	**25**

CONCLUSIONS:

As listed in the Summary Table above, there are forty-two trees involved with this project, none of which are located within the municipal road allowance. Twenty-five trees located on the subject site are in conflict with proposed construction or are not suitable candidates for preservation and as such are to be removed. Additionally, two trees on the subject site cannot maintain 100% of its prescribed TPZ and as such is to be injured. Finally, with the above in mind, it's the consultant's opinion that if the above tree preservation recommendations are implemented, which includes installing tree protection hoarding as mandated by the Town of Caledon as outlined in this report, proposed construction will not adversely affect the long-term health, safety and/or existing condition of all trees scheduled for preservation.

Trusting this report meets your needs. For further information, you may contact me directly at (905)-469-1717 or at cgavin@thetreespecialists.com.

THE TREE SPECIALISTS, INC.



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Appendix I: Tree Preservation Plan – TPP-1