

ARBORIST REPORT

Pertaining to:

GRAHAM PROPERTY ESTATE DEVELOPMENT
Mount Pleasant and Hwy 9
Caledon, Ontario L0J

Prepared for:

Tim Van Stralen
2266 Concession 2
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Prepared by:



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Introduction

Tim Van Stralen retained Bruce Tree Expert Company Ltd. in June 2018 to complete an Arborist Report and Tree Protection Plan for Mount Pleasant and Highway 9, Caledon. The report was requested relative to the redevelopment of the site.

The purpose of this report is to:

- Establish species, size and condition of trees protected by the Town of Caledon.
- Provide a prescription for the protection of trees during the project.
- Provide a Tree Protection Plan showing the location of required tree protection measures, removals or injuries and required tree protection notes based on the site plan.

Method

1. The subject site was assessed on June 19 and July 16, 2018 by the Consulting Arborist.
2. Trunk diameter was measured using a calibrated diameter tape. The measurement was taken at 1.4 meters above ground level, generally referred to as the diameter at breast height (DBH).
3. Trees were assessed by external visual inspection from the ground and assigned a condition rating ranging from good to poor in consideration of biological and structural condition.
4. The tree inventory is attached as Appendix I.
5. A Tree Protection Plan was created by Bruce Tree Expert Company Ltd. by adding tree protection comments to a grading plan prepared by GHD dated May 2019. The Tree Protection Plan is attached as Appendix II.
6. Assumptions and Limiting Conditions applicable to this report are described in Appendix III.

Tree Inventory

See Appendix I.

Tree Protection Prescription

Pre-Construction Phase

TREE PROTECTION ZONES (TPZ) AND TREE PROTECTION FENCING

1. The following tree protection measures must be read in conjunction with the Tree Protection Plan, Appendix II. Both documents must be provided to the site supervisor prior to any work commencing on the site.
2. Prior to issuance of the building permit, all existing trees that are to be preserved shall be fully protected with hoarding outside their 'driplines' to the satisfaction of the Town.
3. No disturbance is allowed within the 'dripline' of protected trees without permission from the Town of Caledon. Disturbance includes soil compaction from foot traffic and construction materials, excavation, grade changes, or storage of materials.
4. There is to be no re-grading within the TPZs of any protected trees.
5. Tree protection barriers are required under the Town of Caledon Standard No. 707, Tree Preservation dated June, 2008 to be installed at the drip line and erected as indicated on the Tree Protection Plan and remain intact until the final grading phase of the project.
6. Protective hoarding is to be installed as shown on the Tree Protection Plan (Appendix II). The barriers are to be 1200mm (4 feet) high plastic snow fencing on T-bar stakes at a minimum of 2400mm O.C.
7. This project involves the construction of 21 estates on the subject site. In order to construction and site regrading, Trees 401-403, 405, 407, 408, 412-416, 448-461, 494 and 495.
8. All or a portion of the spruce plantation will need to be removed to accommodate site regrading and stormwater management. Although, all planting is to be determined, these trees may be transplanted to another location on site.
9. In addition to above, Trees 427 (dead) and 444 and 445 (poor health) should be removed. Additional trees on the subject site, boundary or adjacent may need to be removed due to

poor health. Approval from neighbours is required prior to injury or removal of boundary or adjacent trees.

- I0. If approved by the Town, the trees are to be removed prior to construction.
- I1. No construction activity is permitted prior to approval from the Town of Caledon.

Construction Phase

- I2. It is the responsibility of the site supervisor to inspect the condition of the tree protection measures outlined on the plan and within this report each morning. If disturbance is observed, it is to be repaired prior to work commencing on site that day.
- I3. During construction, if any tree roots are exposed or disturbed outside the tree protection fencing, care is to be taken to minimize their disturbance. If roots must be removed outside the TPZ, they must be cleanly pruned. Tearing roots hinders wound closure and can increase risk of disease and root rot.

Post-Construction Phase

- I4. All protected trees are to be monitored following construction for any indications of stress. Stress as a result of the construction may not be apparent for some years following the disturbance and may make the tree more susceptible to other stresses (water stress, insects, disease). If the condition of the trees declines, the most appropriate method to address the issue is to be carried out.
- I5. It is strongly recommended that all protected trees be thoroughly watered once per week, from spring to fall, for two years after completion of the work on the site. Root disturbance diminishes the stored energy reserves of trees, impacts the tree's ability to absorb water and elements, and can increase chance of disease. Watering will help the trees cope with any stress that the work may have caused.

COMPENSATION

- I6. The Town of Caledon may require compensation for trees that were removed due to construction. The landscaping plan is beyond the scope of this report and will be developed in consultation with the Town of Caledon.

If there are any questions with respect to this report please do not hesitate to contact me directly at 647-966-0353.



Jennifer Gagné, M.F.C., I.S.A. Certified Arborist ON-1993A

Appendix I – Tree Inventory
attached

Inventory date: June 19 and July 16, 2018

Chart Details:

Tree #: Inventoried trees were assigned an identification number.

Species: Includes the botanical name and common name of each tree.

DBH: Diameter in cm measured at 1.4 meters from the ground (diameter at breast height).

Drip-line: Crown diameter measured from branch tip to opposing branch tip.

Health: Biological health rating of good (G), fair (F), poor (P), dead or dying (D).

Structure: Structural condition rating of good (G), fair (F), poor (P), dead or dying (D).

Overall Condition: Condition rating from good (G), fair (F), poor (P), dead or dying (D) based on health and structural condition.

Condition Comments: Specific observations from the visual assessment that have informed the condition rating.

Minimum TPZ: Minimum required tree protection zone in meters.

Action: Protect, preserve, injure or remove actions based on the site plans, and other actions to be taken.

Tree #	Species	DBH (cm)	Drip-line (m)	Overall condition	Condition Comments	Action
401	<i>Acer negundo</i> (Manitoba maple)	30.5, 33.3	6	poor	asymmetric to north; 10cm diameter wound; codominant stems near base; moderate dieback; poor structure; fair to poor health	Remove due to regrading
402	<i>Acer negundo</i> (Manitoba maple)	38.5, 37	7	poor	codominant stem torn; extensive sprouting at base; significant deadwood; large pruning wound; fair to poor health	Remove due to regrading
403	<i>Picea glauca</i> (white spruce)	15	4	good	competing with grapevine; good health	Remove due to regrading
404	<i>Acer negundo</i> (Manitoba maple)	23, 36, 51	7	fair	stem removed; crack at union; poor structure; fair health	Protect
405	<i>Acer negundo</i> (Manitoba maple)	34	4	poor	top dead	Remove due to regrading
406	<i>Acer negundo</i> (Manitoba maple)	32	4	fair to poor	moderate lean; fair health	Protect

Appendix II

Tree #	Species	DBH (cm)	Drip-line (m)	Overall condition	Condition Comments	Action
407	<i>Acer negundo</i> (Manitoba maple)	25	5	poor	sprouting along trunk; top dead; poor health	Remove due to regrading
408	<i>Acer negundo</i> (Manitoba maple)	21.5	5	poor	significant deadwood; moderate lean; poor health	Remove due to regrading
409	<i>Acer negundo</i> (Manitoba maple)	27	5	poor	significant lean; fair health	Protect
410	<i>Acer negundo</i> (Manitoba maple)	24	6	poor	significant lean; epicormic shoots at base; fair health; poor structure	Protect
411	<i>Acer negundo</i> (Manitoba maple)	34	6	fair to poor	codominant stems at 2m; significant lean; fair health	Protect
412	<i>Acer negundo</i> (Manitoba maple)	28	7	fair to poor	stem removed at base; sprouting along trunk; limited deadwood; fair health	Remove due to regrading
413	<i>Acer negundo</i> (Manitoba maple)	49	7	poor	large cavity on north side; sprouting at base; poor structure; fair health	Remove due to regrading
414	<i>Acer negundo</i> (Manitoba maple)	28.5	5	poor	stem removed at base; sprouting; significant lean to north; fair health	Remove due to regrading
415	<i>Acer negundo</i> (Manitoba maple)	33	7	fair	asymmetric crown; moderate dieback; fair health	Remove due to regrading
416	<i>Acer negundo</i> (Manitoba maple)	27.5, 31	8	fair	epicormic sprouting; 11cm x 4cm cavity, good wound wood; codominant stem at ~1m with narrow angled union	Remove due to regrading
417	<i>Acer platanoides</i> (Norway maple)	25-35	6	good	good structure and health; adjacent property	Protect
418	<i>Acer platanoides</i> (Norway maple)	30-40	7	good	good structure and health; adjacent property	Protect
419	<i>Pinus nigra</i> (Austrian pine)	30-40	7	poor	codominant stems at 3m with narrow angled union and included bark; sparse crown; poor health	Protect
420	<i>Pinus sylvestris</i> (Scots pine)	30	5	fair	sparse crown; good structure; fair to poor health	Protect
421	<i>Picea glauca</i> (white spruce)	35-45	6	fair	sparse crown; good structure; fair to poor health	Protect

Appendix II

Tree #	Species	DBH (cm)	Drip-line (m)	Overall condition	Condition Comments	Action
422	<i>Pinus sylvestris</i> (Scots pine)	15-25	6	fair	raised and asymmetric crown ; fair health	Protect
423	Tree removed since tagged					
424	<i>Acer negundo</i> (Manitoba maple)	18	3	poor	epicormic sprouts; 18 cm long cavity, good wound wood; dieback from top; poor health	Protect
425	<i>Acer negundo</i> (Manitoba maple)	27.5	5	poor	significant deadwood; poor health	Protect
426	<i>Acer negundo</i> (Manitoba maple)	30	6	poor	moderate lean; poor health	Protect
427	<i>Acer negundo</i> (Manitoba maple)	15.5, 16.5, 18	n/a	dead	dead	Remove (dead)
428	<i>Acer negundo</i> (Manitoba maple)	22, 19.5	5	poor	codominant stem at 10cm with narrow angled union and included bark; top dead; poor health	Protect
429	<i>Acer negundo</i> (Manitoba maple)	19, 25, 24	6	poor	3 stems at base with narrow angled union and included bark; dieback from top; dead branch at union; poor health	Protect
430	<i>Acer negundo</i> (Manitoba maple)	27, 18.5	5	poor	significant (nearly horizontal) lean; nearly dead	Protect
431	<i>Acer negundo</i> (Manitoba maple)	11	4	poor	significant (nearly horizontal) lean; sparse crown; poor health	Protect
432	<i>Acer negundo</i> (Manitoba maple)	20, 18.5	5	poor	codominant stems at ~10cm from ground; significant deadwood; wound at base; poor health	Protect
433	<i>Acer platanoides</i> (Norway maple)	33.5	9	good	closed seam extending from branch union to base; good health	Protect
434	<i>Acer platanoides</i> (Norway maple)	35.5	10	good	good structure and health	Protect
435	<i>Acer negundo</i> (Manitoba maple)	25.5, 18.5	3	poor	torn stems with sprouting; codominant stems; decay at union	Protect

Appendix II

Tree #	Species	DBH (cm)	Drip-line (m)	Overall condition	Condition Comments	Action
436	<i>Acer negundo</i> (Manitoba maple)	20.5, 22.5, 49	9	poor	two large diameter stems removed; codominant stems at 20cm; sprouting at base; 15-25cm diameter branch tearouts; poor structure; good health	Protect
437	<i>Acer negundo</i> (Manitoba maple)	26, 19, 31	12	poor	codominant stems at base; large diameter pruning wounds; poor structure; good health	Protect
438	<i>Acer negundo</i> (Manitoba maple)	25.5, 42	8	poor	codominant stems at base; moderate lean; 20cm branch tearout; poor structure; good health	Protect
439	<i>Acer negundo</i> (Manitoba maple)	32.5, 20	5	poor	1 dead stem; epicormic sprouting; horizontal seam; poor structure; good health	Protect
440	<i>Acer negundo</i> (Manitoba maple)	41, 55, 43.5	14	poor	6 stems; 2 stems dead; dieback from top; poor structure and health	Protect
441	<i>Acer negundo</i> (Manitoba maple)	28	5	poor	conflict with fallen stem; significant epicormic sprouting; poor structure; good health	Protect
442	<i>Acer negundo</i> (Manitoba maple)	22.5, 15.5, 16	8	fair	codominant stems at ~10cm with narrow angled union and included bark; epicormic sprouting; good health	Protect
443	<i>Acer negundo</i> (Manitoba maple)	11.5, 6	4	fair	codominant stems with narrow angled union and included bark; good health	Protect
444	<i>Acer negundo</i> (Manitoba maple)	28.5, 21, 41.5	8	poor	3 codominant stems; sparse crown; significant deadwood; epicormic sprouting; poor health	Remove due to poor health
445	<i>Acer negundo</i> (Manitoba maple)	23, 33.5	7	poor	codominant stems (1 dead); decay at union; poor health	Remove due to poor health
446	<i>Acer negundo</i> (Manitoba maple)	20-25, 15-20	7	fair	codominant stems; asymmetric crown; fair health	Protect
447	<i>Acer negundo</i> (Manitoba maple)	2x 15- 20	4	fair	2 codominant stems; epicormic sprouting; good to fair health	Protect
448	<i>Acer negundo</i> (Manitoba maple)	24, 13.5, 28	5.5	fair	epicormic sprouting; codominant stems with narrow angled union and included bark; fair health	Remove due to regrading

Appendix II

Tree #	Species	DBH (cm)	Drip-line (m)	Overall condition	Condition Comments	Action
449	<i>Acer negundo</i> (Manitoba maple)	2 x 15-25	7	fair	fair structure and health	Remove due to regrading
450	<i>Acer negundo</i> (Manitoba maple)	16.5	5	fair	shoots at base; good health	Remove due to regrading
451	<i>Acer negundo</i> (Manitoba maple)	22.5, 18.5	8	fair	codominant stems at 70cm with narrow angled union and included bark; minor lean; epicormic sprouting; fair health	Remove due to regrading
452	<i>Acer negundo</i> (Manitoba maple)	13	4	poor	significant lean; conflict with adjacent tree; fair health	Remove due to regrading
453	<i>Acer negundo</i> (Manitoba maple)	27.5	6	poor	sprouting at base; moderate lean; fair health	Remove due to regrading
454	<i>Acer negundo</i> (Manitoba maple)	16, 12	5	poor	significant lean; codominant stems; decay at union; fair health	Remove due to regrading
455	<i>Acer negundo</i> (Manitoba maple)	13	5	poor	sprouting at base; significant lean; conflict with wires; poor health	Remove due to regrading
456	<i>Acer negundo</i> (Manitoba maple)	16	5	poor	sprouting at base; significant lean; conflict with wires; poor health	Remove due to regrading
457	<i>Acer negundo</i> (Manitoba maple)	46.5	12	poor	fallen trees with living branches; poor structure and health	Remove due to regrading
458	<i>Acer negundo</i> (Manitoba maple)	12	5	poor	competing with grapevine; asymmetric crown; poor health	Remove due to regrading
459	<i>Acer negundo</i> (Manitoba maple)	40.5, 32, 26.5	13	poor	7 stems at base, 1 dead; decay at union; fair health	Remove due to regrading
460	<i>Acer negundo</i> (Manitoba maple)	25.5, 19.5, 19	10	poor	stems growing along ground; fair health	Remove due to regrading
461	<i>Acer negundo</i> (Manitoba maple)	27.5, 20.5, 20	6	fair	3 stems with included bark; good health	Remove due to regrading

Appendix II

Tree #	Species	DBH (cm)	Drip-line (m)	Overall condition	Condition Comments	Action
462	<i>Acer negundo</i> (Manitoba maple)	78, 62, 55	10	poor	multi-stem; growing horizontal; 1 stem dead; 1 snapped; good health	Protect
463-471 beyond scope						
472	<i>Acer platanoides</i> (Norway maple)	42	5	good to fair	limited deadwood; good to fair health	Preserve (beyond scope)
473	<i>Acer platanoides</i> (Norway maple)	40	5	good	good structure; good to fair health	Preserve (beyond scope)
474	<i>Acer platanoides</i> (Norway maple)	39	5	good	limited deadwood; good health	Preserve (beyond scope)
475	<i>Acer platanoides</i> (Norway maple)	41	5	good to fair	spiral trunk seam, closed; limited dieback; good health	Preserve (beyond scope)
476	<i>Populus deltoides</i> (cottonwood)	50	5	fair	moderate dieback; fair to poor health	Protect
477	<i>Pinus sylvestris</i> (Scots pine)	16	1.5	fair	moderate deadwood; fair to poor health	Protect
478	<i>Pinus sylvestris</i> (Scots pine)	28	3	fair	moderate deadwood; meandering trunk; 10cm tearout; fair health	Protect
479	<i>Tilia americana</i> (basswood)	35.5	3	fair	extensive insect damage; moderate dieback; fair to poor health	Protect
480 & 481	<i>Tilia americana</i> (basswood)	36, 19	4	fair	asymmetric crown; extensive sprouting; fair health	Protect
482	<i>Tilia americana</i> (basswood)	24, 15	3	poor	asymmetric crown; extensive sprouting; fair to poor health	Protect
483	<i>Tilia americana</i> (basswood)	35	4	poor	extensive sprouting at base; asymmetric crown; fair to poor health	Protect
484	<i>Populus deltoides</i> (cottonwood)	50	6	fair	fair structure; fair to poor health	Protect
485	<i>Tilia americana</i> (basswood)	42.5	4	poor	conflict with wires; asymmetric crown; suckering at base; poor health	Protect

Appendix II

Tree #	Species	DBH (cm)	Drip-line (m)	Overall condition	Condition Comments	Action
486	<i>Pinus nigra</i> (Austrian pine)	10, 7.5	2	fair	conflict with wires; crossing branches; fair health	Protect
487	<i>Acer platanoides</i> (Norway maple)	20, 20	5	fair	conflict with wires; codominant stems with narrow angled union and included bark; limited deadwood; poor flare; good to fair health	Protect
488	<i>Acer platanoides</i> (Norway maple)	34	4	fair	conflict with wires; poor flare; limited deadwood; codominant stems with narrow angled union and included bark; good health	Protect
489	<i>Acer platanoides</i> (Norway maple)	51	6	fair	conflict with wires; minor lean to south; asymmetric crown; moderate deadwood; fair health	Protect
490	<i>Acer platanoides</i> (Norway maple)	35	5	fair	conflict with wires; poor flare; limited deadwood; fair health	Protect
491	<i>Acer platanoides</i> (Norway maple)	40.5	5	fair	conflict with wires; moderate deadwood; fair to poor health	Protect
492	<i>Acer platanoides</i> (Norway maple)	34	5	fair	conflict with wires; trunk seam; moderate deadwood on north side; fair to poor health	Protect
493	<i>Acer platanoides</i> (Norway maple)	34	5	fair	conflict with wires; moderate deadwood on north side; crossing branches; fair health	Protect
494	<i>Acer negundo</i> (Manitoba maple)	58	11	poor	codominant stems; epicormic sprouts; codominant stems with decay at union; moderate dieback; fair to poor health	Remove due to regrading
495	<i>Acer ginnala</i> (amur maple)	15, 12, 9	6	good	3 stems at base; growing on fill (trunk buried); good health	Remove due to regrading

Appendix II - Tree Protection Plan
attached

Appendix III – Assumptions and Limiting Conditions

1. Care has been taken to obtain information pertinent to this file from reliable sources - and to the degree reasonably possible - to verify the information as an accurate representation of the facts. However, Bruce Tree Expert Company Ltd. can neither guarantee nor be responsible for the accuracy of information provided by others.
2. Unless expressed otherwise:
 - a. this report relies on information supplied or available from the client or their agent or other sources and/or information gained by Bruce Tree including but not necessarily limited to internet searches, literature review, site visits, meetings, assessments, testing;
 - b. site/tree inspections and assessments were made using commonly recognized arboricultural techniques reasonable for the scope of work for which Bruce Tree was retained;
 - c. tree inspection and assessment was limited to external visual examination from ground level (unless specified, climbing, dissection, probing, increment boring or resistograph testing, sonic tomography or pull testing, detailed exploratory root excavation or examination was not done);
 - d. access for tree inspection was limited to that authorized by the client (no unauthorized trespass occurred);
 - e. Trees are living organisms subject to genetics and factors related to their immediate environment and despite reasonable efforts to accurately represent the condition of trees as outlined in this report, Bruce Tree will not warranty or guarantee (expressed or implied), that problems or deficiencies with the tree(s) or any parts thereof will not arise in the future;
 - f. Bruce Tree staff are not qualified to make a legal determination of ownership of any tree where the position of the tree relative to the closest property line(s) leaves ownership in question.
3. It is the responsibility of the landowner to ensure that their tree(s) are inspected and assessed periodically to ensure that the tree(s) do not pose any unreasonable risk to visitors or passersby or their property.
4. This report and any information expressed herein represents the opinion of the Bruce Tree author and the payment of fees and expenses by the client are in no way contingent upon any pre-requisite objective implied by the client.
5. Unless otherwise required by law, possession of this report or a copy does not imply right of publication or use for any purpose in whole or in part, by any other than the person who retained Bruce Tree (the client) or their authorized agent or representative, without the prior written consent of the client, their authorized agent or representative.
6. Excerpting from or altering the report - without the written authorization of the Bruce Tree author or senior staff - invalidates its intent and/or implied conclusions. This report may not be used for any expressed purpose other than that originally stated in "Introduction" of this report.

Bf-c-assumptions and limiting conditions-12-17-2017