Arborist Report and Tree Preservation Plan

Agnes Street Development

14 Agnes Street, Town of Caledon

Prepared for:

The Alton Development Inc

Town of Caledon
Draft Plan of Subdivision and
Zoning By-Law Amendment
Applications

Site Visit May 22, 20202

Report Prepared September 1, 2022

Report Updated October 16, 2023



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Prepared by: Peter Williams, Registered Professional Forester, Certified Arborist

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1.0 Scope of the Report

Williams & Associates (WA) was retained by the proponents to prepare an Arborist Report and Tree Inventory/Preservation Plan in support of a development proposal for the subject propert. Jamie Jacques and Sarah Grubb, both Professional Foresters and Certified Arborists, attended the site on May 26, 2022 and identified and assessed the trees on the subject property and those on adjacent properties within 6 metres of the subject property.

Two storage buildings are on the property. Most of the property was open with a sod ground cover with trees mostly around the edge of the property. Trees over 10 cm diameter within 6 metres of the disturbed

area, that Tree coordinates were collected using a sub-meter GIS system. The site visit included a tree inventory and assessment, and tagging the assessed trees (Attachment 1). The site was then surveyed by the surveyor to document the location of the trees identified for retention. This survey is attached (Attachment 2).

1.1 Property Details:

Agnes Street Townhomes - Attn: Jeremy Grant

Address: 14 Agnes St.

Alton, Ontario Work phone: 519 766 3696
L7K 2M1 Email: jeremy@seatongroup.com

Plan Author Information: Peter Williams, R.P.F., Certified Arborist

Williams & Associates, Forestry Consulting Ltd.

5369 Wellington 27, R.R. 1 Telephone: (519) 856-1286 Rockwood, Ont. NOB 2K0 E-mail: forstar@execulink.com

2.0 Development Proposal

The Proposed development is illustrated on the attached Concept Plan prepared by Orchard Design (Attachment 3). The Concept Plan shows the proposed road, building and dispersal bed layout and includes trees recommended for preservation. The Concept Plan and this report constitutes the Tree Preservation Plan.

3.0 Data Collection

Site Assessment

Because the proposed development footprint of the buildings, laneways and tile/dispersal areas include grading of most of the property, the only trees that could be considered for retention were around the perimeter of the property. However, most trees on the subject property were undesirable species (e.g., Manitoba maple) or had poor form or health. The species of trees on adjoining properties included sugar maple, Manitoba maple and white cedar.

Tree Inventory

Eighty four trees over 10 cm dbh (dbh=trunk diameter at 1.38 m) were assessed, including shared trees and trees within 6 meters of the subject property. A summary of inventoried trees by species, and recommendations for the number of each species that should be retained or removed is provided in Table 1. The locations of the assessed trees are shown in Figure 1. Data collected for each tree and specific recommendations are attached (Tree inventory and recommendations - 14 Agnes Street Property)

Fifty five private (i.e., on the subject property) and shared trees (including four separate patches of shrubbery and two patches of staghorn sumac) were recommended for removal because they were within or very close to the proposed development area. Twenty nine trees around the edge of the property on adjoining properties or with shared ownership, were also assessed and recommended for retention with use of appropriate Tree Protection Measures (TPM).

The Tree Inventory is attached.

Table 1. Tree summary including species and number of trees to remove and retain.

Tree Summary Tabl	е	-		
Tree Species	¥	Remove	Retain	Total Trees
Ash		4		4
Black Walnut		2		2
Cherry		3	1	4
Common Apple		12	1	13
Elm		1		1
Manitoba Maple		18	4	22
Scots Pine		2	3	5
Shrub		6		6
Sugar Maple			7	7
White Cedar		1	5	6
White Poplar		5	2	7
White Spruce		1	6	7
Total Trees	nnn	55	29	84

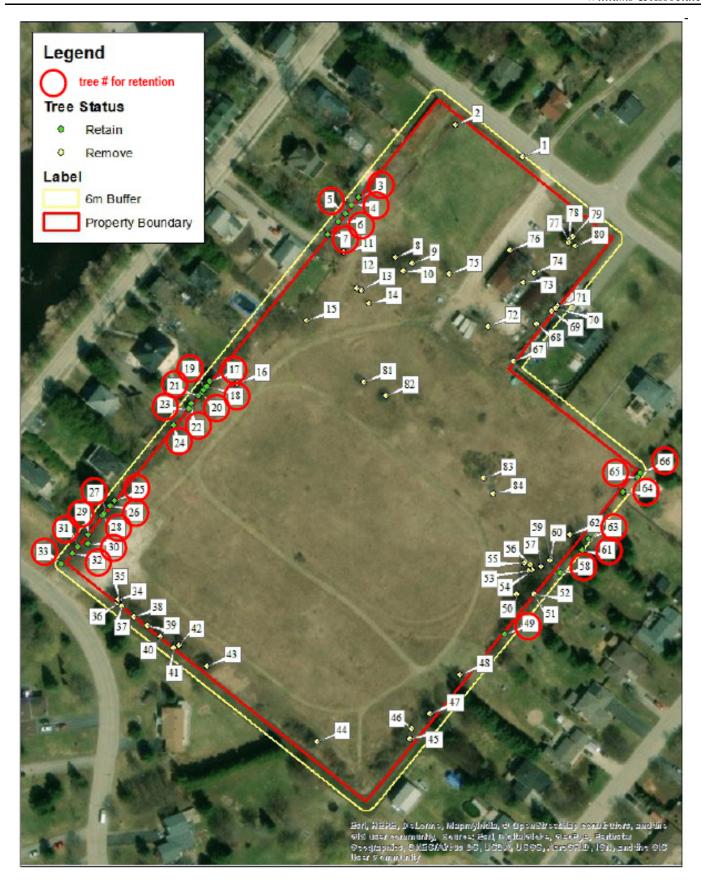


Figure 1. Property line, 6m buffer and trees inventoried for the proposed Agnes Street propery.

4.0 Mitigation and Preservation Procedures

The location of the dispersal beds should be as far away from the trees to be retained as possible. Tree Protection Zones (TPZs) are recommended for trees to be retained, and the TPZ should be established by installing fencing/hoarding, with a minimum height of 1.2m (4ft), along the limit of construction. The hoarding should not be taken down at any time during construction and no materials, equipment movement or storage should be allowed within the zones. If some activity requires access to the TPZ, the fencing should replaced after the activity is completed. Where there is a slope, silt fencing should be placed to prevent soil movement away from the construction area. Fencing/hoarding and silt fencing details will be included inthe detailed design drawings to be prepared by the civil engineer.

The TPZ is the minimum recommended area to protect against damage to trees and their structural roots. The Root Protection Zone ((RPZ) is the at, or slightly larger than the crown diameter, which includes the most important rooting area for the tree. Usually the Tree Protection fencing is somewhere between the TPZ and RPZ. A greater area is better than a smaller one, but required design specs affected by construction requirements often encroach on those areas. In this situation, the trees to be retained are boundary trees and won't be disturbed on the adjoining property; and there shouldn't be a health problem with the retained trees, as long as the TPZ on the construction side is respected.

A TPZ for individual trees that are isolated from denser treed areas should be established using distances between the minimum tree protection zone and critical root zone specified in Table 2. Tree Protection Measures (TPMs) for the individual trees would be similar to those. The appropriate TPM would be protecting the TPZ with similar hoarding/fencing as discussed above.

Table 2. Minimum distances from trees for Tree Protection Zone or Critical Root Zones by DBH

Trunk Diameter (DBH)	Minimum Tree Protection Zone (MTPZ) Distances Required	Root Protection Zone (RPZ) Distances Required
< 10 cm	1.8 m	1.8 m
11 - 40 cm	2.4 m	4.0 m
41 - 50 cm	3.0 m	5.0 m
51 - 60 cm	3.6 m	6.0 m
61 - 70 cm	4.2 m	7.0 m
71 - 80 cm	4.8 m	8.0 m
81 - 90 cm	5.4 m	9.0 m
91 - 100+ cm	6.0 m	10.0 m

5.0 Tree Planting/Replacement

The subject property lot is mostly open except for occasional trees around the existing buildings, trees along the property line and various shrub patches throughout. Where appropriate, re-vegetation of the site will largely be cultivated native and/or ornamental trees throughout development.

The majority of trees recommended for removal are undesirable species or have poor health or form and not particularly desirable for residential areas (e.g., white poplar, Scotts pine, black walnut) and it is recommended that they be replaced using more desirable species. It will be required that some black walnut will be removed for the development.

Two of the trees recommended for removal (trees 59, 60) (Table 1) were dead ash and two Manitoba maple (tree 73, 74) suffered storm damage and were recommended for immediate removal. These 4 trees were not considered for compensation. Compensation/replacement plantings for the 47 trees that need to be removed in accordance with the Town's compensation rates are provided in Table 3.

Table 3. Compensation rated for trees to be removed based on dbh.

	Number of trees	Compensation	Replacement
dbh class (cm)	To be removed	Ratio	Trees (#)
<10	12	n/a	0
10 - 20	25	1:1	25
21 - 35	11	2:1	22
36 - 50	5	3:1	15
51 - 65	0	4:1	0
Total	47		62

Table 2. Shows the number of trees recommended for removal in the specified size classes and that 64 replacement trees should be planted. It is suggested that large stature trees, conifers or hardwoods could be planted along the rear property lines and in boulevards. Medium-stature trees could be planted in front yards or boulevards.

Planting Prescription

Caliper-sized trees, 2 meters+ tall should be planted along the rear lot lines, in boulevards and front yard areas where there is sufficient room. Trees should be planted at least 3 metre from other planted or desirable natural trees. Once planted, the plants should be mulched with wood chips and protected with tree wraps protect from deer browsing. All trees should be watered at planting if not planted in early spring. The trees should be monitored several times during the growing season and watered if showing signs of stress. Dead trees should be replaced in the spring of years 3 and 5. Monitor for and control invasive exotic shrubs in planting area if found.

The planted stock should be monitored for survival. Planting, competition control, re-planting and other tending will be conducted by a qualified contractor.

Please contact the author iif you have any questions about this report or require additional support.

Peter A Williams.

M.Sc., RPF, Certified Arborist

Peter Aprilliam

Attachment 1: Tree inventory and recommendations - 14 Agnes Street, Alton

Attachment 2: 14 Agnes St. Topo Base with Tagged Trees - Van Harten Surveyors September 16, 2022

Attachment 3: Concept Plan, Orchard Design & Tree Preservation Plan

16-Oct-23

	•	,								Minimum	Critical		
Tree #	Common Name	Ownership	[cm]	Crown radius [m]	Structure	Health	Condition	Impact Assmt	Proposed Action	Tree Prot. Zone [m]	Root Zone (m)	Tree Comments	Tree Protection Recommendations
1	Black	Municipal	5	1	Fair	Good	Good	High	Remove	1.8	1.8	Cluster of 5 willow stems, dbh	
	Walnut											range: 3 to 5 cm	
2	Black	14 Agnes St	5	0.5	Fair	Good	Good	High	Remove	1.8	1.8	Second stem: 3 dbh	
_	Walnut			_							_		
3	Sugar Maple	Neighbour	50	5	Fair	Good	Good	Low	Retain	3	5		Hoarding around TPZ
4	Sugar	Neighbour	26	1	Poor	Fair	Fair	Low	Retain	2.4	4		Hoarding around TPZ
	Maple	· ·											· ·
5	Sugar	Neighbour	32	3	Fair	Good	Good	Low	Retain	2.4	4		Hoarding around TPZ
	Maple												
6	Sugar	Neighbour	42	4	Fair	Good	Good	Low	Retain	3	5		Hoarding around TPZ
	Maple												
7	Sugar	Neighbour	60	6	Fair	Good	Good	Low	Retain	3.6	6		Hoarding around TPZ
	Maple												
8	Shrub	14 Agnes St	2	0.5	Good	Good	Good	High	Remove	1.8	1.8	Patch of staghorn sumac, +50	
												stems. Dbh range: <1 - 2	
9	Manitoba	14 Agnes St	32	3	Fair	Good	Good	High	Remove	2.4	4		
	Maple								_		_		
10	Manitoba	14 Agnes St	20	1	Fair	Good	Fair	High	Remove	2.4	4		
11	Maple	14 Agnos Ct	2	0.5	Cood	Cood	Cood	High	Damaua	1.0	1.0	Datab of chrubbons	
11	Shrub	14 Agnes St		0.5	Good	Good	Good	High	Remove	1.8	1.8	Patch of shrubbery Second and third stem 2 and	
12	Manitoba Maple	14 Agnes St	Z	0.5	Fair	Good	Good	High	Remove	1.8	1.8	under	
13	Ash	14 Agnes St	4	0.5	Good	Good	Good	High	Remove	1.8	1.8		
14	Common	14 Agnes St		1	Fair	Good	Good	High		1.8	1.8		
	Apple	_						-					
15	Shrub	14 Agnes St	3	0.5	Good	Good	Good	High	Remove	1.8	1.8	Patch of staghorn sumac. Dbh	
												range: 1 - 3 cm	
16	Shrub	14 Agnes St	5	0.5	Good	Fair	Fair	High	Remove	1.8	1.8	Patch of shrubbery	
17	White	Neighbour	18	1	Fair	Good	Good	Low	Retain	2.4	4		Hoarding around TPZ
	Cedar												
18	White	Neighbour	18	1	Fair	Good	Good	Low	Retain	2.4	4		Hoarding around TPZ
	Cedar												
19	White	Neighbour	18	1	Fair	Good	Good	Low	Retain	2.4	4		Hoarding around TPZ
	Cedar									l			

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		, , , , , , , , , , , , , , , , , , , ,								Minimum	Critical		
	Common			Crown radius				•	Proposed	Tree Prot.	Root Zone		Tree Protection
Tree #		Ownership	[cm]	[m]	Structure		Condition	Assmt	Action	Zone [m]	(m)	Tree Comments	Recommendations
20	White Cedar	Neighbour	14	1	Fair	Good	Good	Low	Retain	2.4	4		Hoarding around TPZ
21	White Cedar	Neighbour	14	1	Fair	Good	Good	Low	Retain	2.4	4		Hoarding around TPZ
22	White Spruce	Neighbour	15	1	Good	Good	Good	Low	Retain	2.4	4		Hoarding around TPZ
23	White Spruce	Neighbour	15	1	Good	Good	Good	Low	Retain	2.4	4		Hoarding around TPZ
24	Sugar Maple	Neighbour	40	4	Fair	Good	Fair	Low	Retain	2.4	4	Multiple interweaving stems at dbh	Hoarding around TPZ
25	White Spruce	Neighbour	24	2	Fair	Good	Good	Low	Retain	2.4	4	Max crown spread 2 m, min crown spread 0.5 m	Hoarding around TPZ
26	White	Neighbour	20	0.5	Fair	Good	Good	Low	Retain	2.4	4	crown spread 0.5 m	Hoarding around TPZ
27	Spruce Sugar	Shared	22	4	Poor	Good	Fair	Low	Retain	2.4	4	Other stem Dbh: 18, 20 cm	Hoarding around TPZ
28	Maple White	Neighbour	18	0.5	Fair	Good	Fair	Low	Retain	2.4	4		Hoarding around TPZ
29	Spruce Manitoba Maple	Shared	30	4	Fair	Good	Good	Low	Retain	2.4	4		Hoarding around TPZ
30	Manitoba Maple	Shared	22	2	Fair	Good	Good	Low	Retain	2.4	4		Hoarding around TPZ
31	Cherry	Neighbour	18	0.5	Fair	Good	Good	Low	Retain	2.4	4		Hoarding around TPZ
32	Manitoba Maple	Shared	32	2	Fair	Good	Good	Low	Retain	2.4	4	Other Dbhs: 20, 14 cm	Hoarding around TPZ
33	Manitoba Maple	Shared	50	4	Fair	Good	Good	Low	Retain	3	5		Hoarding around TPZ
34	•	14 Agnes St	28	2	Good	Good	Good	Low	Remove	2.4	4		
35	Manitoba Maple	14 Agnes St	12	0.5	Good	Good	Good	Low	Remove	2.4	4		
36	Common Apple	Shared	30	0.5	Fair	Good	Good	Low	Remove	2.4	4	Butt flare overlaps with nearby survey pin	
37	Manitoba Maple	Shared	10	0.5	Fair	Good	Good	Low	Remove	1.8	1.8	survey pill	

16-Oct-23

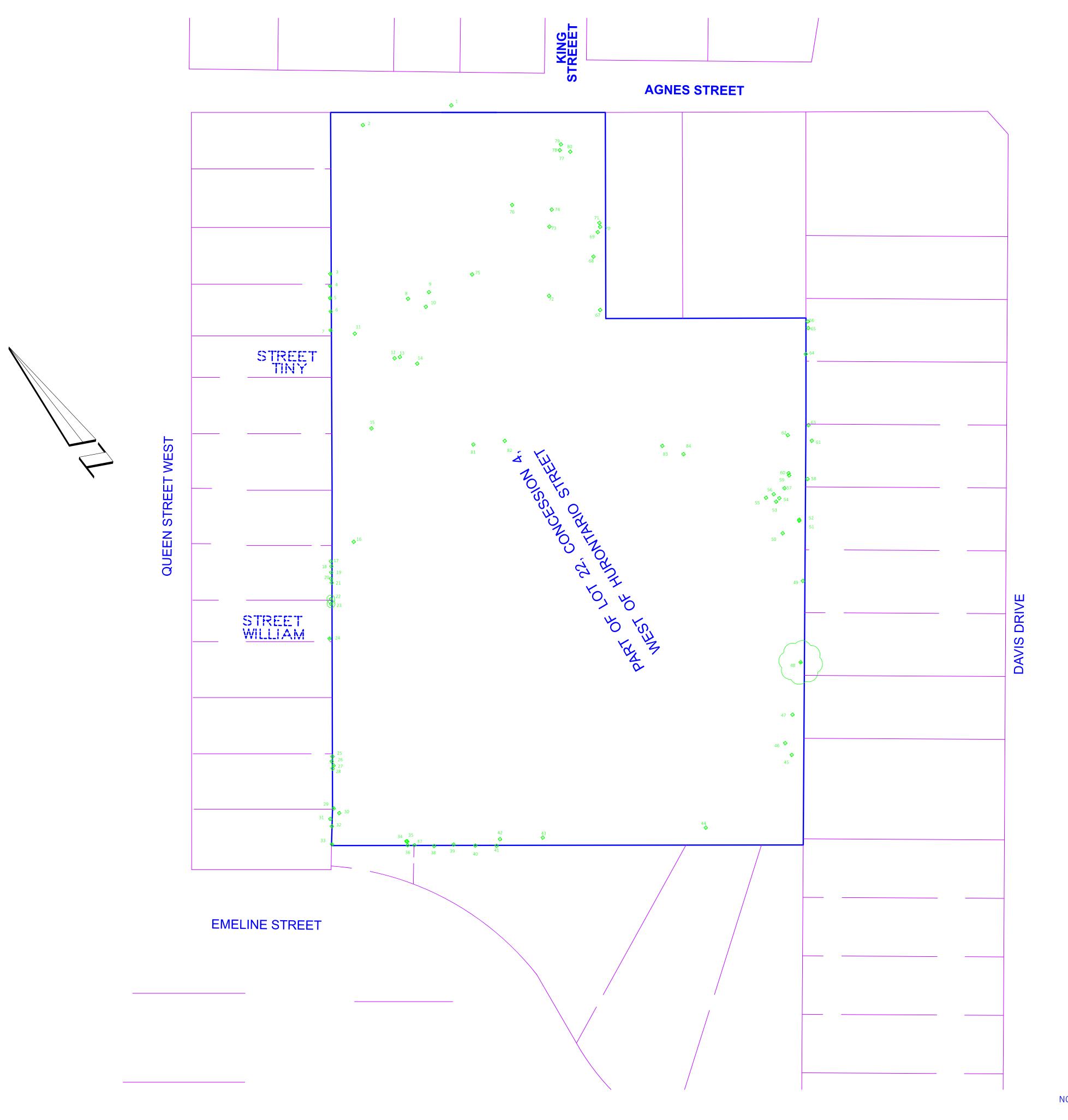
		.,								Minimum	Critical		
	Common		DBH	Crown radius				Impact	Proposed	Tree Prot.	Root Zone		Tree Protection
Tree #	Name	Ownership	[cm]	[m]	Structure	Health	Condition	Assmt	Action	Zone [m]	(m)	Tree Comments	Recommendations
38	Common	Shared	20	2	Fair	Good	Fair	Low	Remove	2.4	4	Both dbh 20 cm	
	Apple												
39	Common	Shared	20	2	Fair	Good	Fair	Low	Remove	2.4	4		
	Apple									_			
40	Manitoba	Shared	44	4	Fair	Fair	Fair	Low	Remove	3	5		
41	Maple Common	Shared	32	1	Poor	Fair	Poor	Low	Remove	2.4	4		
41	Apple	Silareu	32	1	POOI	Ган	POOI	Low	Kelliove	2.4	4		
42	Common	14 Agnes St	38	3	Poor	Fair	Poor	Low	Remove	2.4	4		
	Apple										•		
43	Common	14 Agnes St	38	2	Poor	Fair	Fair	Low	Remove	2.4	4		
	Apple												
44	Common	14 Agnes St	28	2	Fair	Fair	Fair	Low	Remove	2.4	4		
	Apple												
45	Common	14 Agnes St	34	2	Poor	Fair	Poor	Low	Remove	2.4	4		
4.0	Apple	Clara and	10	2	Fain	Cl	CI	1	D	1.0	1.0		
46	Manitoba Maple	Shared	10	2	Fair	Good	Good	Low	Remove	1.8	1.8		
47	Manitoba	Shared	10	2	Fair	Good	Good	Low	Remove	1.8	1.8		
77	Maple	Sharea	10	2	ran	Good	dood	LOW	Kemove	1.0	1.0		
48	Common	Shared	34	3	Fair	Fair	Fair	Low	Remove	2.4	4	Other dbh: 20, 24 cm	
	Apple											·	
49	Common	Neighbour	40	3	Fair	Fair	Fair	Low	Retain	2.4	4		Hoarding around TPZ
	Apple												
50	Shrub	14 Agnes St	2	0.5	Good	Fair	Fair	High	Remove	1.8	1.8	Patch of shrubbery, similar to	
												tree 11. Multiple stems of	
												various dbh, ranging from <1 - 2	
51	Cherry	14 Agnes St	20	2	Poor	Good	Fair	High	Remove	2.4	4		
51 52	Cherry	14 Agnes St		4	Good	Good	Good	High		30	4		
53	White	14 Agnes St		0.5	Fair	Fair	Fair	High	Remove		1.8		
	Poplar							6			0		
54	White	14 Agnes St	10	0.5	Fair	Fair	Fair	High	Remove	1.8	1.8		
	Poplar	-						-					
55	White	14 Agnes St	10	0.5	Fair	Fair	Fair	High	Remove	1.8	1.8		
	Poplar												

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Tree #	Common Name	Ownership	DBH [cm]	Crown radius	Structure	Health	Condition	-	Proposed Action	Minimum Tree Prot. Zone [m]	Critical Root Zone (m)	Tree Comments	Tree Protection Recommendations
56	White Poplar	14 Agnes St	10	0.5	Fair	Fair	Fair	High	Remove	1.8	1.8	Second stem dbh: 8 cm	
57	White Poplar	14 Agnes St	12	1	Poor	Fair	Fair	High	Remove	2.4	4		
58	White Poplar	Neighbour	50	6	Fair	Fair	Fair	Medium	Retain	3	5	Second stem dbh: 26 cm, second stem hangs 8 meters over fence	Hoarding around TPZ, Tre
59	Ash	14 Agnes St	12	1	Poor	Dead	Dead	High		2.4	4	Dead, no compensation	
60	Ash	14 Agnes St		1	Poor	Dead	Dead	High		2.4	4	Dead, no compensation	
61	White Spruce	Neighbour	40	2	Good	Good	Good	Low	Retain	2.4	4		Hoarding around TPZ
62	Common Apple	14 Agnes St	20	2	Fair	Fair	Fair	High	Remove	2.4	4	Other stems dbh: 18, 12, 10 cm	
63	White Poplar	Neighbour	32	3	Fair	Fair	Fair	Low	Retain	2.4	4	Other stem dbh: 30 cm	Hoarding around TPZ
64	Scots Pine	Neighbour	18	1	Good	Good	Good	Low	Retain	2.4	4		Hoarding around TPZ
65	Scots Pine	Neighbour	10	1	Good	Good	Good	Low	Retain	1.8	1.8		Hoarding around TPZ
66	Scots Pine	Neighbour	10	1	Good	Good	Good	Low	Retain	1.8	1.8		Hoarding around TPZ
67	Ash	Shared	10	1	Fair	Fair	Fair	High	Remove	1.8	1.8		-
68	Manitoba Maple	14 Agnes St	28	2	Fair	Good	Fair	High	Remove	2.4	4	Previous trimming work conducted, other stem dbh: 26 cm	
69	Manitoba Maple	Shared	28	2	Fair	Good	Fair	High	Remove	2.4	4	Previous trimming work conducted	
70	Manitoba Maple	Shared	22	2	Fair	Good	Fair	High	Remove	2.4	4	Previous trimming work conducted	
71	Manitoba Maple	Shared	20	2	Fair	Good	Fair	High	Remove	2.4	4	Previous arbour work conductucted	
72	Manitoba Maple	14 Agnes St	40	4	Poor	Fair	Fair	High	Remove	3	5	Second stem dbh: 40 cm, open white faced scar present on trunk	
73	Manitoba Maple	14 Agnes St	60	4	Poor	Fair	Poor	High		4.2	7	Second stem dbh :40 cm. Open white faced scar from previously included stem, previous trimming. Hazardous, Remove ASAP	

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Tree #	Common Name	Ownership		Crown radius [m]	Structure	Health	Condition	Impact Assmt	Proposed Action	Minimum Tree Prot. Zone [m]	Critical Root Zone (m)	Tree Comments	Tree Protection Recommendations
74	Manitoba Maple	14 Agnes St	32	3	Fair	Fair	Poor	High		2.4	4	Previous trimming white faced scar, included bark, hanging limb over old garage (~20 cm diam).hazardous, remove ASAP	
75	Manitoba Maple	14 Agnes St	30	2	Fair	Fair	Fair	High	Remove	2.4	4		
76	Cherry	14 Agnes St	10	1	Fair	Good	Good	High	Remove	1.8	1.8		
77	Scots Pine	14 Agnes St	18	0.5	Good	Good	Good	High	Remove	2.4	4		
78	Scots Pine	14 Agnes St	18	0.5	Good	Good	Good	High	Remove	2.4	4		
79	White Spruce	14 Agnes St	14	0.5	Good	Good	Good	High	Remove	2.4	4		
80	White Cedar	14 Agnes St	10	0.5	Good	Good	Good	High	Remove	1.8	1.8		
81	Shrub	14 Agnes St	2	0.5	Good	Good	Good	High	Remove	1.8	1.8	Patch of shrubbery, dbhs all under 2cm	
82	Common Apple	14 Agnes St	18	0.5	Poor	Fair	Fair	High	Remove	2.4	4	Other stem dbh: 18,12, 10 cm	
83	Manitoba Maple	14 Agnes St	12	0.5	Poor	Fair	Fair	High	Remove	2.4	4	Other stems dbh: 12, 10 cm	
84	Elm	14 Agnes St	8	1	Fair	Good	Fair	High	Remove	1.8	1.8	Patch of elm trees. All stems in patch are 8 cm dbh or below	



TAGGED TREE SKETCH OF PART OF EAST HALF OF LOT 22, CONCESSION 4, WEST OF HURONTARIO STREET GEOGRAPHIC TOWNSHIP OF CALEDON, COUNTY OF PEEL **TOWN OF CALEDON** REGIONAL MUNICIPALITY OF PEEL

SCALE 1:750

5 10 20 30 40 50 metres

VAN HARTEN SURVEYING INC.

BEARING AND COORDINATE NOTE:

- BEARINGS ARE GRID BEARINGS AND ARE DERIVED FROM GPS OBSERVATIONS AND ARE REFERRED TO THE UTM PROJECTION, ZONE 17, NAD 83 (CSRS-2010) ADJUSTMENT.
- 2. DISTANCES SHOWN ON THIS PLAN ARE ADJUSTED GROUND DISTANCES AND CAN BE CONVERTED TO GRID DISTANCES BY MULTIPLYING BY AN AVERAGED COMBINED SCALE FACTOR OF
- COORDINATES ON THIS PLAN ARE UTM, ZONE 17, NAD83 (CSRS-2010)
 ADJUSTMENT AND ARE BASED ON GPS OBSERVATIONS FROM A NETWORK OF
 PERMANENT GPS REFERENCE STATIONS.

TAGGED TREE REPORT PREPRED BY WILLIAMS & ASSOCIATES, MAY 27, 2022

DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.



Guelph Orangeville Ph: 519-821-2763 Ph: 519-940-4110 Kitchener/Waterloo Ph: 519-742-8371 www.vanharten.com info@vanharten.com

Sep 16,2022-12:06pm G:\CALEDON\CON4WHS\AGNES ST DEVELPOMENT\ACAD\TOPO-ROBB TREE INVENTORY UTM 2010 NR R1.dwg

CHECKED BY: JML PROJECT No. 25228-17

