Arborist Report
&
Tree Protection Plan

12668 & 12862 Dixie Road
Caledon, ON

Prepared for:
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Table of Contents

INTRODUCTION:

I have been commissioned by Ms. Monica Clarke of Alexander Budrevics & Associates, to complete an arborist report and tree protection plan for the proposed development located at 12668 & 12862 Dixie Road - Caledon. The report will identify all trees on and within 6.0m of the work area, provide a preservation strategy with recommendations (if possible) and a tree protection plan depicting the trees locations, the existing conditions, and any proposed work. All field work and data collection were completed by Cletus Gavin, RCA #613 on January 29, 2021.

HISTORY AND ASSIGNMENT:

Ms. Clarke has provided a site plan illustrating the existing conditions and the proposed development as per the Tree Protection Plan – TPP-1 in Appendix I. Upon the request of the client or municipality, *Canopy Consulting*, can be further retained beyond the current scope of work to provide on-site monitoring services and to provide any remedial actions deemed necessary.

Scope of work:

1. Inventory all trees >10cm located on and within 6m of the work area. The inventory will include a tag #, species, DBH, condition, comments, and recommendations.
2. Determine if any regulated trees are to be negatively impacted by the proposed development.
3. Provide a preservation strategy for all trees recommended for preservation.

ASSUMPTION AND LIMITING CONDITIONS:

1. Care has been taken to obtain all information from reliable sources. *Canopy Consulting* can neither guarantee nor be responsible for the accuracy of information provided by others.

2. 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. Excerpts or alterations to the report, without the authorization of the author or his company invalidates its intent and/or implied conclusions.

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 practices 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: 12668 & 12862 Dixie Road - Caledon

Tree #	Species Common Name (*Biological Name*)	DBH[1] (cm)	Condition[2]	Category[3]	Comments	Recommendation[4]	MTPZ[5] (M)
105	Norway Maple *Acer platanoides*	15	F	1	- poor form, epicormic shoots - clear of proposed development - shall retain its prescribed TPZ	P	1.8
106	Little Leaf Linden *Tilia cordata*	22	F	1	- multi stem, poor union - clear of proposed development - shall retain its prescribed TPZ	P	1.8
107	Little Leaf Linden *Tilia cordata*	11	F	1	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
108	Apple *Malus spp.*	22	F	1	- poor form, in decline, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
109	Silver Maple *Acer saccharinum*	41	F	1	- deadwood, poor union - clear of proposed development - shall retain its prescribed TPZ	P	3.0
110	Silver Maple *Acer saccharinum*	17	F	1	- deadwood, poor union with included bark - clear of proposed development - shall retain its prescribed TPZ	P	1.8
111	Trembling Aspen *Populous tremuloides*	42	F	1	- deadwood, storm break - clear of proposed development - shall retain its prescribed TPZ	P	3.0
112	Trembling Aspen *Populous tremuloides*	22	F	1	- deadwood, in decline, unbalanced - clear of proposed development - shall retain its prescribed TPZ	P	1.8
113	Trembling Aspen *Populous tremuloides*	63	F	1	- deadwood, storm break, girdled roots - clear of proposed development - shall retain its prescribed TPZ	P	4.2
114	Trembling Aspen *Populous tremuloides*	37	F	1	- deadwood, multiple storm break, in decline - clear of proposed development - shall retain its prescribed TPZ	P	2.4
115	Trembling Aspen *Populous tremuloides*	51	F	1	- deadwood, in decline, epicormic shoots - clear of proposed development - shall retain its prescribed TPZ	P	3.6

[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. Trees with diameters of 10 cm or more, situated on private property on the subject site.
2. Trees with diameters of 10 cm or more, situated on private property, within 6 m of the subject site.
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 Municipal road allowance adjacent to the subject site.

[4] **Recommendation**: Preserve (**P**), Preserve with Injury (**PI**), Remove (**R**), Transplant (**T**)

[5] **MTPZ**: Minimum tree protection zone distance as mandated by Canopy Consulting.

Tree #	Species Common Name (*Biological Name*)	DBH (cm)	Condition	Category	Comments	Recommendation	MTPZ (M)
116	Cherry *Prunus spp.*	18	F	1	- deadwood, poor union - clear of proposed development - shall retain its prescribed TPZ	P	1.8
117	Cherry *Prunus spp.*	10	G	1	- clear of proposed development - shall retain its prescribed TPZ	P	1.8
118	Sugar Maple *Acer saccharum*	22	F	1	- deadwood, in decline - in conflict with proposed development	R	
119	Norway Spruce *Picea abies*	50	F	1	- deadwood - in conflict with proposed development	R	
120	Norway Spruce *Picea abies*	49	F	1	- deadwood - in conflict with proposed development	R	
121	Norway Spruce *Picea abies*	44	F	1	- deadwood - in conflict with proposed development	R	
122	Norway Spruce *Picea abies*	46	F	1	- deadwood - in conflict with proposed development	R	
123	Sugar Maple *Acer saccharum*	10	G	1	- in conflict with proposed development	R	
124	Norway Spruce *Picea abies*	53	F	1	- deadwood - in conflict with proposed development	R	
125	White Ash *Fraxinus americana*	17	P	1	- emerald ash borer infestation - in conflict with proposed development	R	
126	White Ash *Fraxinus americana*	16	P	1	- emerald ash borer infestation - in conflict with proposed development	R	
127	White Ash *Fraxinus americana*	21	P	1	- emerald ash borer infestation - in conflict with proposed development	R	
128	Norway Spruce *Picea abies*	51	F	1	- deadwood - in conflict with proposed development	R	
129	Norway Spruce *Picea abies*	54	F	1	- deadwood - in conflict with proposed development	R	
130	Norway Spruce *Picea abies*	52	F	1	- deadwood - in conflict with proposed development	R	
131	Norway Spruce *Picea abies*	45	F	1	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	3.0
132	Norway Spruce *Picea abies*	38	F	1	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	2.4
133	Sugar Maple *Acer saccharum*	49	F	1	- deadwood, in decline - in conflict with proposed development	R	
134	Horsechestnut *Aesculus hippocastanum*	68	P	1	- 90% dead, trunk fail - in conflict with proposed development	R	
135	Norway Maple *Acer platanoides*	22	P	1	- large cavity in trunk, poor form, in decline - in conflict with proposed development	R	
136	White Ash *Fraxinus americana*	39	P	1	- emerald ash borer infestation - in conflict with proposed development	R	

Tree #	Species Common Name (*Biological Name*)	DBH (cm)	Condition	Category	Comments	Recommendation	MTPZ (M)
137	Silver Maple *Acer saccharinum*	41	F	1	- deadwood, unbalanced - in conflict with proposed development	R	
138	Silver Maple *Acer saccharinum*	88	F	1	- multiple large storm breaks, deadwood, in decline - in conflict with proposed development	R	
139	Silver Maple *Acer saccharinum*	72	F	1	- poor union with included bark, deadwood, storm break - in conflict with proposed development	R	
140	Trembling Aspen *Populous tremuloides*	36	F	1	- unbalanced, half removed, deadwood - in conflict with proposed development	R	
141	White Ash *Fraxinus americana*	16	D	1	- emerald ash borer infestation - in conflict with proposed development	R	
142	Juniper *Juniperus spp.*	28	F	1	- deadwood - in conflict with proposed development	R	
143	Juniper *Juniperus spp.*	31	F	1	- deadwood - in conflict with proposed development	R	
144	Sugar Maple *Acer saccharum*	48	F	1	- deadwood, poor union - clear of proposed development - shall retain its prescribed TPZ	P	3.0
145	Norway Spruce *Picea abies*	59	F	1	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	3.6
146	Norway Spruce *Picea abies*	33	P	1	- 60% dead - clear of proposed development - shall retain its prescribed TPZ	P	2.4
147	Norway Spruce *Picea abies*	49	F	1	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	3.0
148	Apple *Malus spp.*	32	F	1	- poor form, epicormic shoots, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	2.4
149	Sugar Maple *Acer saccharum*	51	F	1	- large deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	3.6
150	Willow *Salix spp.*	126	P	1	- multiple large storm break, cavity in leader, in decline, poor form - in conflict with proposed development	R	
151	Horsechestnut *Aesculus hippocastanum*	71	P	1	- 70% dead, multiple large storm break - in conflict with proposed development	R	
152	Willow *Salix spp.*	14	F	1	- deadwood, in decline, poor form - in conflict with proposed development	R	
153	White Ash *Fraxinus americana*	23	P	1	- emerald ash borer infestation - in conflict with proposed development	R	
154	Willow *Salix spp.*	12	F	1	- deadwood, in decline, poor form - in conflict with proposed development	R	
155	Willow *Salix spp.*	26	F	1	- lean, in decline, poor form - in conflict with proposed development	R	
156	White Elm *Ulmus americana*	12	F	1	- deadwood, unbalanced - in conflict with proposed development	R	

Tree #	Species Common Name (*Biological Name)*	DBH (cm)	Condition	Category	Comments	Recommendation	MTPZ (M)
157	Sugar Maple *Acer saccharum*	13	G	1	- in conflict with proposed development	R	
158	Willow *Salix spp.*	28	F	1	- poor form and union - in conflict with proposed development	R	
159	Willow *Salix spp.*	16	F	1	- deadwood, unbalanced - in conflict with proposed development	R	
160	Manitoba Maple *Acer negundo*	31	P	1	- 35% dead, in decline - in conflict with proposed development	R	
161	White Elm *Ulmus americana*	12	F	1	- deadwood, vines - in conflict with proposed development	R	
162	Willow *Salix spp.*	27	F	1	- poor form, deadwood - in conflict with proposed development	R	
163	White Elm *Ulmus americana*	12	F	1	- deadwood - in conflict with proposed development	R	
164	White Elm *Ulmus americana*	11	F	1	- deadwood - in conflict with proposed development	R	
165	White Elm *Ulmus americana*	12	F	1	- deadwood - in conflict with proposed development	R	
166	White Elm *Ulmus americana*	12	F	1	- deadwood - in conflict with proposed development	R	
167	White Elm *Ulmus americana*	20	P	1	- large cavity in trunk, deadwood, in decline - in conflict with proposed development	R	
168	Willow *Salix spp.*	48	F	1	- poor form, deadwood, in decline, epicormic shoots - in conflict with proposed development	R	
169	White Elm *Ulmus americana*	18	F	1	- deadwood - in conflict with proposed development	R	
170	Willow *Salix spp.*	19	F	1	- poor form, deadwood - in conflict with proposed development	R	
171	Willow *Salix spp.*	26	P	1	- large storm break - in conflict with proposed development	R	
172	White Elm *Ulmus americana*	15	G	1	- deadwood - in conflict with proposed development	R	
173	Horsechestnut *Aesculus hippocastanum*	64	P	1	- 80% dead, large cavity in trunk, hollow - in conflict with proposed development	R	
174	Norway Spruce *Picea abies*	53	F	1	- deadwood, lean - in conflict with proposed development	R	
175	Apple *Malus spp.*	38	F	1	- poor form, in decline, deadwood - in conflict with proposed development	R	
176	Sugar Maple *Acer saccharum*	87	P	1	- multiple large deadwood, deadwood, cavity in trunk - in conflict with proposed development	R	

Tree #	Species Common Name (*Biological Name)*	DBH (cm)	Condition	Category	Comments	Recommendation	MTPZ (M)
177	Sugar Maple *Acer saccharum*	77	P	1	- large deadwood, multiple large storm breaks, in decline - in conflict with proposed development	R	
178	Willow *Salix spp.*	45	F	1	- deadwood, lean, poor form - clear of proposed development - shall retain its prescribed TPZ	P	3.0
179	Willow *Salix spp.*	37	P	1	- failure - clear of proposed development - shall retain its prescribed TPZ	P	2.4
180	Sugar Maple *Acer saccharum*	92	P	1	- 95%, fruiting bodies - clear of proposed development - shall retain its prescribed TPZ	P	6.0
181	Sugar Maple *Acer saccharum*	102	P	1	- leader dead, in decline, large deadwood - clear of proposed development - shall retain its prescribed TPZ	P	6.2
182	Sugar Maple *Acer saccharum*	85	F	1	- large deadwood, in decline, poor union - clear of proposed development - shall retain its prescribed TPZ	P	5.4
183	Sugar Maple *Acer saccharum*	96	P	1	- multiple storm breaks, large deadwood, poor union with included bark - clear of proposed development - shall retain its prescribed TPZ	P	6.0
184	Sugar Maple *Acer saccharum*	80	F	1	- large deadwood, multiple storm breaks - clear of proposed development - shall retain its prescribed TPZ	P	5.4
185	Willow *Salix spp.*	65	F	1	- poor form and union, multiple storm break, in decline - clear of proposed development - shall retain its prescribed TPZ	P	4.2
186	Willow *Salix spp.*	64	F	1	- poor form and union, storm break - clear of proposed development - shall retain its prescribed TPZ	P	4.2
187	Willow *Salix spp.*	66	F	1	- deadwood, poor form - clear of proposed development - shall retain its prescribed TPZ	P	4.2
188	Willow *Salix spp.*	68	F	1	- deadwood, storm break, poor form - clear of proposed development - shall retain its prescribed TPZ	P	4.2
189	Willow *Salix spp.*	116	F	1	- poor form, storm breaks, large deadwood - clear of proposed development - shall retain its prescribed TPZ	P	7.0
190	Willow *Salix spp.*	57	F	1	- deadwood, poor form - clear of proposed development - shall retain its prescribed TPZ	P	3.6
191	Willow *Salix spp.*	63	F	1	- deadwood, multiple storm break - clear of proposed development - shall retain its prescribed TPZ	P	4.2
192	Willow *Salix spp.*	48	F	1	- deadwood, lean, poor form - clear of proposed development - shall retain its prescribed TPZ	P	3.0
193	Willow *Salix spp.*	45	F	1	- deadwood, in decline, storm break - clear of proposed development - shall retain its prescribed TPZ	P	3.0
194	Willow *Salix spp.*	72	F	1	- deadwood, lean, poor form - clear of proposed development - shall retain its prescribed TPZ	P	4.8
195	Willow *Salix spp.*	52	F	1	- deadwood, lean, poor form, in decline - clear of proposed development - shall retain its prescribed TPZ	P	3.6
196	Willow *Salix spp.*	22	P	1	- trunk fail - clear of proposed development - shall retain its prescribed TPZ	P	1.8

Tree #	Species Common Name (*Biological Name)*	DBH (cm)	Condition	Category	Comments	Recommendation	MTPZ (M)
197	Willow *Salix spp.*	84	F	1	- in decline, poor union, storm breaks - clear of proposed development - shall retain its prescribed TPZ	P	5.4
198	Willow *Salix spp.*	32	P	1	- failure, lean - clear of proposed development - shall retain its prescribed TPZ	P	2.4
199	Willow *Salix spp.*	89	F	1	- root failure - clear of proposed development - shall retain its prescribed TPZ	P	5.4
200	Willow *Salix spp.*	118	F	1	- large storm breaks, large deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	7.2
201	Willow *Salix spp.*	129	P	1	- large deadwood, multiple storm breaks - clear of proposed development - shall retain its prescribed TPZ	P	7.7
202	Willow *Salix spp.*	100	P	1	- fail at union - clear of proposed development - shall retain its prescribed TPZ	P	6.0
203	Willow *Salix spp.*	49	F	1	- deadwood, storm break - clear of proposed development - shall retain its prescribed TPZ	P	3.0
204	Willow *Salix spp.*	45	F	1	- multiple storm break, deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	3.0
205	Apple *Malus spp.*	25	F	1	- lean, seam in trunk, poor form, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
206	White Ash *Fraxinus americana*	59	P	1	- emerald ash borer infestation - in conflict with proposed development	R	
207	White Ash *Fraxinus americana*	32	D	1	- emerald ash borer infestation - in conflict with proposed development	R	
208	White Ash *Fraxinus americana*	26	P	1	- emerald ash borer infestation - in conflict with proposed development	R	
209	White Oak *Quercus alba*	39	F	1	- poor union, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	2.4
210	White Ash *Fraxinus americana*	47	P	1	- emerald ash borer infestation - in conflict with proposed development	R	
211	White Oak *Quercus alba*	81	F	1	- multiple storm break, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	5.4
212	White Ash *Fraxinus americana*	49	D	1	- emerald ash borer infestation - in conflict with proposed development	R	
213	White Oak *Quercus alba*	42	P	1	- 90% dead - in conflict with proposed development	R	
214	White Ash *Fraxinus americana*	22	D	1	- emerald ash borer infestation - in conflict with proposed development	R	
C1	Hackberry *Celtis occidentalis*	25	F	4	- poor union, deadwood, epicormic shoots - clear of proposed development - shall retain its prescribed TPZ	P	1.8
C2	Hackberry *Celtis occidentalis*	19	F	4	- poor union, guy wire, deadwood - in conflict with proposed driveway	R	

Tree #	Species Common Name (*Biological Name)*	DBH (cm)	Condition	Category	Comments	Recommendation	MTPZ (M)
C3	Hackberry *Celtis occidentalis*	20	F	4	- poor union, guy wire, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
C4	Hackberry *Celtis occidentalis*	21	F	4	- poor union, guy wire, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
C5	Hackberry *Celtis occidentalis*	19	F	4	- poor union, guy wire, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
C6	Hackberry *Celtis occidentalis*	20	F	4	- poor shoot growth, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
C7	Hackberry *Celtis occidentalis*	18	F	4	- poor union, guy wire, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
C8	Hackberry *Celtis occidentalis*	21	F	4	- poor union, guy wire, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
C9	Hackberry *Celtis occidentalis*	21	F	4	- poor union, guy wire, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
C10	Amur Maple *Acer ginnala*	<10	F	4	- in conflict with proposed driveway	R	
C11	Crab Apple *Malus baccata*	7	F	4	- clear of proposed development - shall retain its prescribed TPZ	P	1.2
C12	Black Walnut *Juglans nigra*	3	F	4	- clear of proposed development - shall retain its prescribed TPZ	P	1.2
C13	Serviceberry *Amelanchier spp. (7)*	<3	F	4	- clear of proposed development - shall retain its prescribed TPZ	P	1.2
C14	Red Oak *Quercus rubra*	17	F	4	- poor form, guy wire, epicormic shoot - clear of proposed development - shall retain its prescribed TPZ	P	1.8
C15	Red Oak *Quercus rubra*	18	F	4	- poor form, guy wire, epicormic shoot - clear of proposed development - shall retain its prescribed TPZ	P	1.8
C16	Red Oak *Quercus rubra*	16	F	4	- poor form, guy wire, epicormic shoot - clear of proposed development - shall retain its prescribed TPZ	P	1.8
C17	Red Oak *Quercus rubra*	14	G	4	- poor form, guy wire, epicormic shoot - clear of proposed development - shall retain its prescribed TPZ	P	1.8
C18	Black Locust *Robinia pseudoacacia (13)*	<15	F	4	- clear of proposed development - shall retain its prescribed TPZ	P	1.8
C19	White Ash *Fraxinus americana*	74	P	4	- emerald ash borer infestation - clear of proposed development - shall retain its prescribed TPZ	P	4.8
N1	Apple *Malus spp.*	31	F	2	- clear of proposed development - shall retain its prescribed TPZ	P	2.4
N2	White Ash *Fraxinus americana*	12	F	2	- clear of proposed development - shall retain its prescribed TPZ	P	1.8
N3	Norway Maple *Acer platanoides*	38	F	2	- clear of proposed development - shall retain its prescribed TPZ	P	2.4

Tree #	Species Common Name (*Biological Name)*	DBH (cm)	Condition	Category	Comments	Recommendation	MTPZ (M)
N4	Manitoba Maple *Acer negundo*	47	F	2	- limb fail - clear of proposed development - shall retain its prescribed TPZ	P	3.0
N5	Norway Maple *Acer platanoides*	31	F	2	- clear of proposed development - shall retain its prescribed TPZ	P	2.4
N6	Silver Maple *Acer saccharinum*	31	F	2	- multi-stem, poor union, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N7	Scots Pine *Pinus sylvestris*	32	F	2	- poor form - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N8	Norway Maple *Acer platanoides*	58	F	2	- deadwood, in decline, poor union - clear of proposed development - shall retain its prescribed TPZ	P	3.6
N9	Colorado Spruce *Picea pungens*	26	F	2	- in decline, poor shoot growth - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N10	Colorado Spruce *Picea pungens*	25	D	2	- 100% dead - clear of proposed development - shall retain its prescribed TPZ	P	
N11	Colorado Spruce *Picea pungens*	21	P	2	- in decline, poor shoot growth - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N12	White Pine *Pinus strobus*	35	F	2	- poor form - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N13	White Pine *Pinus strobus*	34	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N14	Scots Pine *Pinus sylvestris*	27	F	2	- poor form - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N15	Scots Pine *Pinus sylvestris*	26	F	2	- poor form, in decline - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N16	White Pine *Pinus strobus*	26	F	2	- deadwood, poor form - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N17	Scots Pine *Pinus sylvestris*	32	F	2	- poor form - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N18	Norway Maple *Acer platanoides*	34	P	2	- lean, in decline, poor form - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N19	Norway Maple *Acer platanoides*	56	F	2	- deadwood, poor union - clear of proposed development - shall retain its prescribed TPZ	P	3.6
N20	Sugar Maple *Acer saccharum*	26	F	2	- deadwood, poor union - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N21	Norway Maple *Acer platanoides*	55	F	2	- deadwood, poor union - clear of proposed development - shall retain its prescribed TPZ	P	3.6
N22	Norway Maple *Acer platanoides*	25	F	2	- deadwood, unbalanced - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N23	White Ash *Fraxinus americana*	12	F	2	- clear of proposed development - shall retain its prescribed TPZ	P	1.8

Tree #	Species Common Name (*Biological Name)*	DBH (cm)	Condition	Category	Comments	Recommendation	MTPZ (M)
N24	Norway Maple *Acer platanoides*	56	F	2	- deadwood, poor union - clear of proposed development - shall retain its prescribed TPZ	P	3.6
N25	Norway Maple *Acer platanoides*	30	F	2	- deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N26	Willow *Salix spp.*	64	F	2	- deadwood, storm break - encroached upon by 15%	PI	4.2
N27	Norway Maple *Acer platanoides*	29	F	2	- deadwood, poor union - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N28	Norway Maple *Acer platanoides*	36	F	2	- deadwood, unbalanced - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N29	White Ash *Fraxinus americana*	27	D	2	- 100% dead	P	
N30	White Ash *Fraxinus americana*	36	D	2	- 100% dead	P	
N31	Silver Maple *Acer saccharinum*	60	F	2	- multiple storm breaks, in decline, epicormic shoots - clear of proposed development - shall retain its prescribed TPZ	P	4.2
N32	Black Walnut *Juglans nigra*	28	F	2	- unbalanced, deadwood, storm break - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N33	Austrian Pine *Pinus nigra*	20	F	2	- deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	1.2
N34	Austrian Pine *Pinus nigra*	17	F	2	- deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	1.2
N35	Austrian Pine *Pinus nigra*	23	F	2	- deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	1.2
N36	Austrian Pine *Pinus nigra*	21	F	2	- deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	1.2
N37	Austrian Pine *Pinus nigra*	21	F	2	- deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	1.2
N38	Austrian Pine *Pinus nigra*	19	F	2	- deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	1.2
N39	Austrian Pine *Pinus nigra*	22	F	2	- deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	1.2
N40	Austrian Pine *Pinus nigra*	22	F	2	- deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	1.2
N41	Austrian Pine *Pinus nigra*	23	F	2	- deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	1.2
N42	Austrian Pine *Pinus nigra*	29	F	2	- deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	1.2
N43	Austrian Pine *Pinus nigra*	19	F	2	- deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	1.2

Tree #	Species Common Name (*Biological Name)*	DBH (cm)	Condition	Category	Comments	Recommendation	MTPZ (M)
N44	Norway Spruce *Picea abies*	30	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N45	Norway Spruce *Picea abies*	29	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N46	Norway Spruce *Picea abies*	30	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N47	Norway Spruce *Picea abies*	28	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N48	Norway Spruce *Picea abies*	16	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N49	Norway Spruce *Picea abies*	29	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N50	Norway Spruce *Picea abies*	27	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N51	Norway Spruce *Picea abies*	24	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N52	Norway Spruce *Picea abies*	25	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N53	Norway Spruce *Picea abies*	31	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N54	Colorado Spruce *Picea pungens*	32	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N55	Colorado Spruce *Picea pungens*	34	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N56	Colorado Spruce *Picea pungens*	33	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N57	Colorado Spruce *Picea pungens*	48	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	3.0
N58	Colorado Spruce *Picea pungens*	35	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N59	Silver Maple *Acer saccharinum*	28	P	2	- 60% dead - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N60	Silver Maple *Acer saccharinum*	34	F	2	- storm break, in decline, poor union - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N61	Honey Locust *Gleditsia triacanthos*	13	F	2	- in decline, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N62	White Pine *Pinus strobus*	30	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N63	White Pine *Pinus strobus*	31	F	2	- deadwood, chlorotic - clear of proposed development - shall retain its prescribed TPZ	P	2.4

Tree #	Species Common Name (*Biological Name)*	DBH (cm)	Condition	Category	Comments	Recommendation	MTPZ (M)
N64	Trembling Aspen *Populous tremuloides*	30	P	2	- trunk fail - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N65	Little Leaf Linden *Tilia cordata*	40	F	2	- poor union, deadwood, storm break - clear of proposed development - shall retain its prescribed TPZ	P	3.0
N66	Apple *Malus spp.*	12	F	2	- poor form, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N67	Little Leaf Linden *Tilia cordata*	63	P	2	- failure, large storm break, in decline - encroached upon by 7%	PI	4.2
N68	Colorado Spruce *Picea pungens (6)*	<21	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	F	1.8
N69	Apple *Malus spp.*	26	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N70	Norway Spruce *Picea abies (8)*	18-30	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N71	Eastern White Cedar *Thuja occidentalis (7)*	<20	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N72	Apple *Malus spp.*	21	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N73	Apple *Malus spp.*	13	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N74	Norway Maple *Acer platanoides*	12	F	2	- deadwood, vines - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N75	Norway Maple *Acer platanoides*	26	F	2	- large deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N76	Norway Maple *Acer platanoides*	33	F	2	- deadwood, unbalanced - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N77	Black Walnut *Juglans nigra*	27	F	2	- clear of proposed development - shall retain its prescribed TPZ	P	1.8
N78	White Spruce *Picea glauca (6)*	10-19	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N79	Scots Pine *Pinus sylvestris*	19	F	2	- deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N80	Willow *Salix spp.*	24	F	2	- storm break, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N81	Scots Pine *Pinus sylvestris*	24	F	2	- deadwood, unbalanced - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N82	Colorado Spruce *Picea pungens*	32	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	2.4

Tree #	Species Common Name (*Biological Name)*	DBH (cm)	Condition	Category	Comments	Recommendation	MTPZ (M)
N83	Norway Maple *Acer platanoides*	23	F	2	- poor union, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N84	Norway Maple *Acer platanoides*	46	F	2	- storm break, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	3.0
N85	White Birch *Betula papyrifera*	14	F	2	- unbalanced, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N86	Scots Pine *Pinus sylvestris*	38	F	2	- deadwood, poor union - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N87	Norway Maple *Acer platanoides*	55	F	2	- poor union with included bark, deadwood, storm break - clear of proposed development - shall retain its prescribed TPZ	P	3.6
N88	Norway Spruce *Picea abies (6)*	18-22	F	2	- poor shoot growth - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N89	White Spruce *Picea glauca (10)*	10-30	F	2	- poor shoot growth - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N90	Sugar Maple *Acer saccharum*	28	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N91	Scots Pine *Pinus sylvestris (13)*	17-39	F	2	- deadwood, poor form - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N92	White Spruce *Picea glauca*	33	F	2	- poor shoot growth, deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N93	Silver Maple *Acer saccharinum*	53	F	2	- storm break, in decline, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N94	Silver Maple *Acer saccharinum*	27	P	2	- canker - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N95	Colorado Spruce *Picea pungens*	23	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N96	Colorado Spruce *Picea pungens*	22	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N97	Norway Maple *Acer platanoides*	35	F	2	- poor form, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	2.4
N98	Sugar Maple *Acer saccharum*	41	F	2	- in decline, poor form - clear of proposed development - shall retain its prescribed TPZ	P	3.0
N99	Silver Maple *Acer saccharinum*	53	F	2	- deadwood - clear of proposed development - shall retain its prescribed TPZ	P	3.6
N100	Norway Maple *Acer platanoides*	38	F	2	- poor union, deadwood - clear of proposed development - shall retain its prescribed TPZ	P	2.4

Tree #	Species Common Name (*Biological Name*)	DBH (cm)	Condition	Category	Comments	Recommendation	MTPZ (M)
N101	Scots Pine *Pinus sylvestris*	24	F	2	- deadwood, in decline - clear of proposed development - shall retain its prescribed TPZ	P	1.8
N102	Sugar Maple *Acer saccharum*	38	F	2	- deadwood, poor union - clear of proposed development - shall retain its prescribed TPZ	P	2.4

Table #2: Zone 1 to be preserved.

Species	DBH (cm) 10-20	21-30	31-40
Apple *Malus spp.*	21	13	4
Little Leaf Linden *Tilia cordata*	3	1	0
Sugar Maple *Acer saccharum*	0	1	1
White Ash *Fraxinus americana*	21	5	0
Cherry *Prunus spp.*	1	0	0
White Elm *Ulmus americana*	4	1	1
Norway Maple *Acer platanoides*	2	0	0
Plum *Prunus spp.*	3	0	0
Hawthorn *Cretaegus spp.*	3	0	0
Subtotal	58	21	6
Total	**85**		

Table #3: Zone 2 to be preserved.

	DBH (cm)			
Species	**10-20**	**21-30**	**31-40**	**41-50**
Apple *Malus spp.*	0	1	0	0
Little Leaf Linden *Tilia cordata*	0	3	4	2
Sugar Maple *Acer saccharum*	24	27	5	1
White Ash *Fraxinus americana*	11	1	0	0
White Elm *Ulmus americana*	0	2	1	0
Siberian Elm *Ulmus pumila*	1	0	0	0
Ironwood *Ostrya virginiana*	1	2	0	0
Subtotal	39	36	10	3
Total	**86**			

Discussion:

Town Owned Trees:

1. As listed above, there are four hundred and ninety-seven (497) trees involved with this project, forty-seven of which are located within the Town road allowance, being trees no. C1-C20 (trees no. C10, C13 and C18 are groups containing 10, 7 and 13 individual trees respectively). Trees no. C1, C3-C9, C11-C20 are clear of proposed work, shall retain their prescribed TPZ and as such, will not be disturbed by proposed construction.

2. Trees no. C2 and C10 are in conflict with proposed driveways and are to be removed. Authorization from the Town is required prior to the removal of these eleven trees.

Privately Owned Trees Located within 6.0m of the Subject Site:

1. There are one hundred and fifty-one (151) trees located on private property within 6.0m of the subject site being Trees no. N1-N102 (Trees no. N68, N70, N71, N78, N88, N89 and N91 are groups containing 6, 8, 7, 6, 6, 6, 10 and 13 individual trees respectively). Trees no. N1- N25, N27-N66 and N68-N102 are clear of the proposed development, shall retain their prescribed TPZs and as such, will not be disturbed during construction.

2. Trees no. N26 and N67 are encroached upon by proposed construction by 15% and 7% respectively. Such an encroachment is located on the outer edge of the TPZ, outside of the critical root zone. Roots in this area are tertiary roots, likely less than 4cm in diameter. To ameliorate this disturbance, it is recommended a qualified arborist supervise excavation, root prune as required and provide any other remedial actions deem necessary. These trees are healthy and have an access of stored energy (carbohydrates) to easily recover from this minor disturbance.

Privately Owned Trees Located on the Subject Site:

1. There are two hundred and eighty-one trees located on the subject site, being trees no. 105-214 and those found in Zone 1 and 2. Trees no. 105-117, 131, 132, 144-149, 178-205, 209 and 211 and Zones 1 & 2 are clear of the proposed development, shall retain their prescribed TPZs and as such, will not be disturbed during construction.

2. Trees no. 118-130, 133-143, 150-177, 206-208, 210 and 212-214 are in conflict with the proposed development and as such are to be removed. Authorization from the Town is required prior to the removal of these fifty-nine trees.

Existing Woodlot to be Preserved:

A species composition analysis was carried out on the existing woodlot scheduled for preservation. Twenty sample sites were chosen at random, for each site all trees greater than 10cm DBH within a 10m radius were identified, measured and counted. Three hundred and fifty-one trees (351) in total were tallied. Sugar Maples (*Acer saccharum*) account for approximately 68% of all trees inventoried, followed by White Ash (*Fraxinus americana*) and American Beech (*Fagus grandifolia*) both at 9%. Other species found within the woodlot included Elms, Linden, Black Walnut, and Ironwood. Nearly 50% of all trees were less than 20cm DBH and only 2% of the total population were greater than 40cm DBH. No endangered species were found while on site. Additionally, the Ash population is severely infested with Emerald Ash Borer.

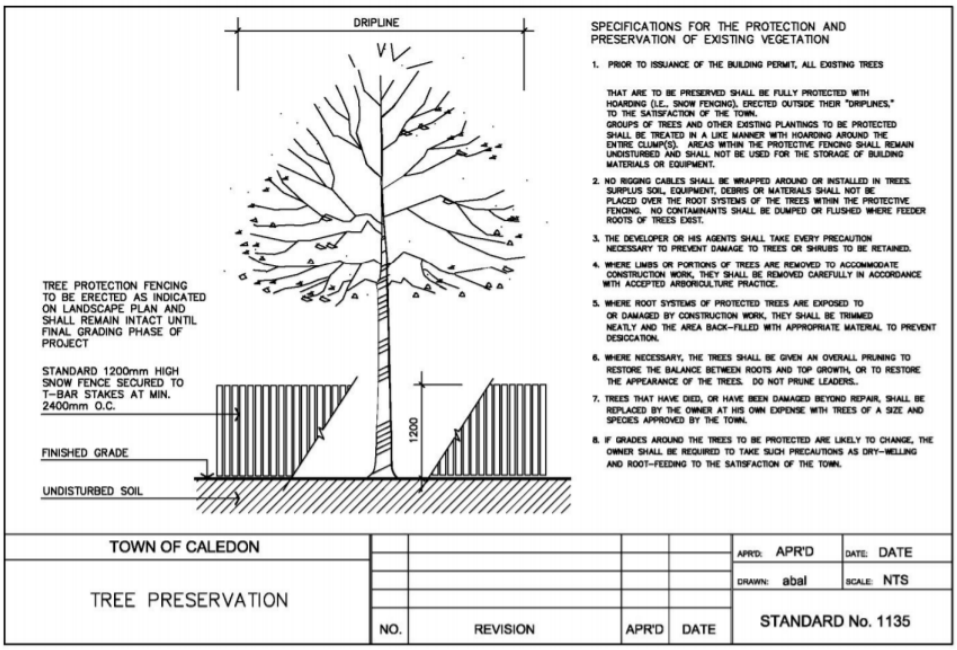
To further protect each tree scheduled for preservation from the potential of construction disturbance, it is recommended that the below listed tree preservation recommendations are implemented.

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 **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.**

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

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

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

1.7 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.

1.8 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.

1.9 No Hoarding shall be removed until all construction activity is complete.

1.10 A sign that is like 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 authorization from the Town.

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 like 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.

a. 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:

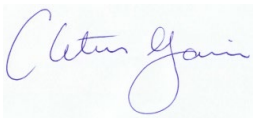
Tree Category	Total	Preserve	Preserve with Injury	Remove	Transplant
1 (Tree located on the subject site)	281	222	0	59	0
2 (Tree located within 6m of the subject site)	151	149	2	0	0
4 (Town owned tree)	47	36	0	11	0
Total	**479**	**407**	**2**	**70**	**0**

CONCLUSIONS:

As listed in the Summary Table above, four hundred and seventy-nine trees have been inventoried as part of this project, forty-seven of which are Town owned. Eleven Town owned trees conflict with proposed construction and are to be removed. Fifty-nine trees located on the subject site conflict with proposed construction and are to be removed. Additionally, two trees located on adjacent properties cannot maintain 100% of their prescribed TPZs and as such, are to be injured. Authorization from the Town of Caledon is required prior to the removal of these seventy trees and the injury of two. Finally, with the above in mind, it is the consultant's opinion that if the above tree preservation recommendations are implemented, proposed construction will not adversely affect the long-term health, safety and/or existing condition of all trees scheduled for preservation.

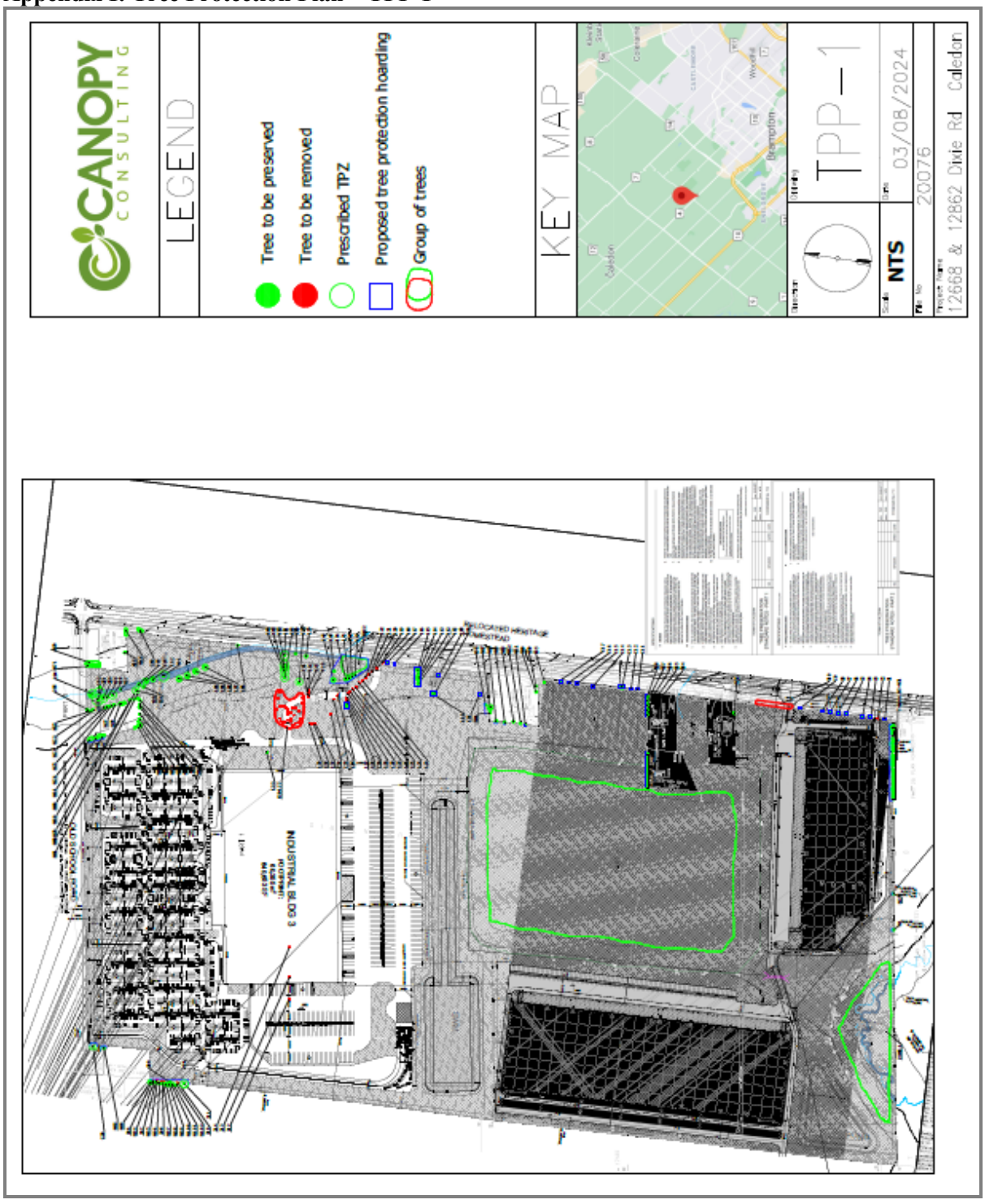
Trusting this report meets your needs. For further information, you may contact me directly at (416) 300-2957 or by email at cgavin@canopyconsulting.ca.

Sincerely,



Cletus Gavin *B.Sc. Earth Science & Biology*
President & Consulting Arborist
ASCA Registered Consulting Arborist #613
ISA Certified Arborist (ON-1576A)
Butternut Health Assessor # 439
TRAQ Certified

Appendix I: Tree Protection Plan – TPP-1



Appendix II: Digital Images

Photo #1: Trees no. 105 and C14-C17 looking north.

Photo #2: Trees no. 108-115 looking south.

Photo #3: Trees no. 116-132 looking north.

Photo #4: Trees no. 137-140 looking northwest.

Photo #5: Trees no. 141-144 and 150-153 looking east.

Photo #6: Trees no. 178-185 looking east.

Photo #7: Trees no. 206-211 and N93-N102 looking northwest.

Photo #8: Trees no. C1-C10 and N3-N31 looking south.

Photo #9: Trees no. N33-N53 and woodlot looking southwest.

Photo #10: Trees no. N54-N58 looking south.

Photo #11: West side of woodlot looking north.