Arborist Report
&
Tree Preservation Plan

Oakville Garden Drive
Oakville, ON

Prepared for:
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INTRODUCTION:

I have been retained by Kiet Ngo, from *Revera Living,* 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 new development. All field and appraisal work was completed by the author of this report being Davide Carnevale ASCA Registered #370 on June 11, 2019.

HISTORY AND ASSIGNMENT:

I have been advised by Kiet Ngo that the above subject site is scheduled for development, which includes the proposed construction of a 4-storey commercial building as per the Tree Preservation Plan – TPP-1 in Appendix I. In addition, I have also been advised that the entire site will be excavated to all property lines to facilitate construction. 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: Oakville Garden Drive - Oakville

Tree #	Species	DBH (cm)[1]	Dripline (m)	Condition[2]	Category[3]	Comments	Suitability for Conservation[4]	Recommendation[5]	MTPZ (M)[6]	ATPZ (M)[7]
C1	*Morus Alba*	26	1	P	4	- large deadwood, 85% dead - in conflict with proposed development - not a suitable candidate for preservation	P	Rv	2.4	0.0
C2	*Ulmus americana*	20	2	D	4	- dead - not a suitable candidate for preservation	D	Rv	2.4	0.0
C3	*Acer platanoides*	12	2	F	4	- minor deadwood - in conflict with proposed construction	M	Rv	2.4	0.0
C4	*Robina pseudoacacia*	19	4	F	4	- medium deadwood - in conflict with proposed construction	M	Rv	2.4	0.0
C5	*Robina pseudoacacia*	20	4	F	4	- medium deadwood - in conflict with proposed construction	M	Rv	2.4	0.0
C6	*Robina pseudoacacia*	12	4	F	4	- medium deadwood - in conflict with proposed construction	M	Rv	2.4	0.0
C7	*Robina pseudoacacia*	14	4	F	4	- medium deadwood - in conflict with proposed construction	M	Rv	2.4	0.0

[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 15 cm or more, situated on private property on the subject site.
2. Trees with diameters of 15 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] **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 mandated by the Town of Oakville as per the Oakville Parks and Open Space Policy – Procedure no. 01-03-08 - "*Tree Protection Specification For Construction Near Trees*" – http://www.oakville.ca/Media_Files/DevelopmentProcess/TreeProtectionPolicy-Appendix3.pdf)

[7] **ATPZ:** Actual tree protection zone.

Tree #	Species	DBH (cm)	Dripline (m)	Condition	Category	Comments	Suitability for Conservation	Recommendation	MTPZ (M)	ATPZ (M)
C8	*Fraxinus pennsylvanica*	27	10	F	4	- minor deadwood - in conflict with proposed construction - treated for EAB	F	Rv	2.4	0.0
C9	*Malus spp.*	14	2	D	4	- dead - not a suitable candidate for preservation	D	Rv	2.4	0.0
C10	*Robina pseudoacacia*	19	2	F	4	- minor deadwood - in conflict with proposed construction	M	Rv	2.4	0.0
B1	*Thuja occidentalis Hedge (8)*	15-30	4	F	2	- minor deadwood -clear of proposed development -shall retain prescribed TPZ	M	Rv	2.4	0.0
1	*Acer platanoides*	29	6	G	1	- minor deadwood - vigourous canopy - in conflict with proposed construction	G	Rv	2.4	0.0
2	*Morus alba*	44	8	F	1	- multiple stems with minor deadwood - in conflict with proposed construction - not a suitable candidate for preservation	M	Rv	3.0	0.0
3	*Picea pungens*	31	6	F	1	- minor deadwood with symptoms of decline - in conflict with proposed construction - not a suitable candidate for preservation	M	Rv	3.0	0.0
4	*Juglans nigra*	56	8	F	1	- medium deadwood - in conflict with proposed construction - not a suitable candidate for preservation	M	Rv	3.6	0.0
5	*Picea pungens*	39	4	F	1	- minor deadwood - in conflict with proposed construction - not a suitable candidate for preservation	M	Rv	3.0	0.0
6	*Acer platanoides*	109	12	F	1	- minor deadwood with multiple leaders - weak union with frost cracks evident and compartmentalization - in conflict with proposed construction	M	Rv	6.9	0.0
7	*Malus spp.*	26	6	F	1	- multiple stems with minor deadwood - in conflict with proposed construction - not a suitable candidate for preservation	M	Rv	2.4	0.0
8	*Juglans nigra*	52	6	F	1	- minor deadwood - in conflict with proposed construction - not a suitable candidate for preservation	M	Rv	3.6	0.0
9	*Juglans nigra*	53	6	F	1	- minor deadwood - in conflict with proposed construction - not a suitable candidate for preservation	M	Rv	3.6	0.0
10	*Morus alba*	46	2	P	1	- large deadwood, 85% dead - in conflict with proposed development - not a suitable candidate for preservation	P	Rv	3.0	0.0
11	*Morus alba*	38	2	P	1	- large deadwood, 80% dead - in conflict with proposed development - not a suitable candidate for preservation	P	Rv	3.0	0.0
12	*Magnolia stellata*	30	4	P	1	- large deadwood, 85% dead with multiple leaders - in conflict with proposed development - not a suitable candidate for preservation	P	Rv	2.4	0.0

13	*Robina pseudoacacia*	66	6	F	1	- minor deadwood with double leader - in conflict with proposed construction - not a suitable candidate for preservation	M	Rv	4.2	0.0
14	*Morus alba*	39	6	F	1	- medium deadwood with multiple leaders - in conflict with proposed development - not a suitable candidate for preservation	M	Rv	3.0	0.0
15	*Robina pseudoacacia*	27	2	F	1	- minor deadwood - in conflict with proposed construction - not a suitable candidate for preservation	M	Rv	2.4	0.0
16	*Robina pseudoacacia*	26	2	F	1	- minor deadwood - in conflict with proposed construction - not a suitable candidate for preservation	M	Rv	2.4	0.0
17	*Robina pseudoacacia*	54	4	F	1	- large deadwood, 80% dead - in conflict with proposed construction - not a suitable candidate for preservation	M	Rv	3.6	0.0
18	*Pinus nigra*	31	2	F	1	- minor deadwood - in conflict with proposed construction - not a suitable candidate for preservation	M	Rv	3.0	0.0
19	*Robina pseudoacacia*	47	4	F	1	- minor deadwood - in conflict with proposed construction - not a suitable candidate for preservation	M	Rv	3.0	0.0
20	*Tilia cordata*	18	6	F	1	- minor deadwood - in conflict with proposed construction - not a suitable candidate for preservation	M	Rv	2.4	0.0
21	*Morus alba*	26	2	F	1	- large deadwood, 60% dead - in conflict with proposed construction - not a suitable candidate for preservation	M	Rv	2.4	0.0
22	*Pinus nigra*	43	1	D	1	-storm damage, topped and dead - not a suitable candidate for preservation	D	Rv	3.0	0.0
23	*Picea pungens*	50	6	F	1	- medium deadwood - in conflict with proposed construction - not a suitable candidate for preservation	M	Rv	3.0	0.0
24	*Robina pseudoacacia*	56	12	F	1	- minor deadwood with multiple stems - in conflict with proposed construction - not a suitable candidate for preservation	M	Rv	3.6	0.0
25	*Robina pseudoacacia*	10	76	F	1	- large deadwood with multiple stems - in conflict with proposed construction - not a suitable candidate for preservation	M	Rv	4.8	0.0

SITE NOTES AND COMMENTS:

Town Owned Trees:

1. As listed above, there are forty-three (43) trees involved with this project of which ten are Town owned, being trees no. C1 – C10. Three (3) trees are recommended for removal regardless of the future proposed development as they display poor structure and form and/or are dead being trees no.C1, C2 and C9.

2. Excavation to facilitate the proposed dwelling directly conflicts with the remaining city trees being trees no. C3-C8 and C10 and as such all require removal.

3. The Town of Oakville's street and park tree inventory and the existing site plan show discrepancies on the exact number of City owned trees, as confirmed by a site visit that took place on June 11, 2019 there are 10 City owned trees.

4. The total appraised value of trees C1-C10 is $5,890.00. The Trunk Formula Method (TFM) was used to appraise the trees as described in the "Guide for Plant Appraisal", prepared under contract by the "Council of Tree and Landscape Appraisers, an official publication of the International Society of Arboriculture (I.S.A.), 9th Edition, 2000". See Appendix III for calculation details.

Privately Owned Trees Located within 6.0m of the Subject Site (Neighbouring or Boundary Tree)

1. There is one (1) regulated boundary line tree involved with this project, being tree no. B1 which consists of eight (8) individual regulated cedars in the form of a hedge. This hedge conflicts with the proposed dwelling and as such is recommended for removal.

Privately Owned Tree Located on the Subject Site:

1. There are twenty-five (25) regulated trees located on the subject of which eight (8) are dead and/or display poor health and structure and are recommended for removal regardless of construction activities being trees no. 3,6,10-12,17,21 and 22.

2. Facilitation to construct the future proposed dwelling is in conflict with the remaining seventeen (17) trees and as such are recommended for removal.

3. All remaining trees located on or within 6.0m of the subject site have a DBH less than 15cm, are non-regulated trees and therefore, were not included in this report.

4. No tree preservation is scheduled for this project.

SUMMARY TABLE:

Tree Category	Total	Scheduled for Preservation		Remove
		Preserve	Preserve with Injury	
1 (Regulated tree located on the subject site)	25	0	0	25
2 (Regulated boundary line/neighbour tree located adjacent to subject property)	8	0	0	8
4 (Tree located on Town property)	10	0	0	10
Total	**43**	**0**	**0**	**43**

CONCLUSIONS:

As listed in the Summary Table above, there are forty-three (43) regulated trees involved with this project of which eleven (11) are recommended for removal regardless of development activities as they are dead and/or display poor health and form. The remaining thirty-two (32) trees are recommended for removal as construction to facilitate the proposed dwelling is in direct conflict with the development. Again, no tree preservation is scheduled for this project.

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

THE TREE SPECIALISTS, INC.

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Appendix I: Tree Preservation Plan – TPP-1

Appendix II:

DIGITAL IMAGES

Photo #1: Tree no. 3 and 4 with non-regulated trees looking north.

Photo #2: Tree no. 1 looking northwest

Photo #3: Tree no. 7 looking south

Photo #4: Tree no. 22-24 and non-regulated trees looking south

Photo #5: Tree no. 10 looking east.

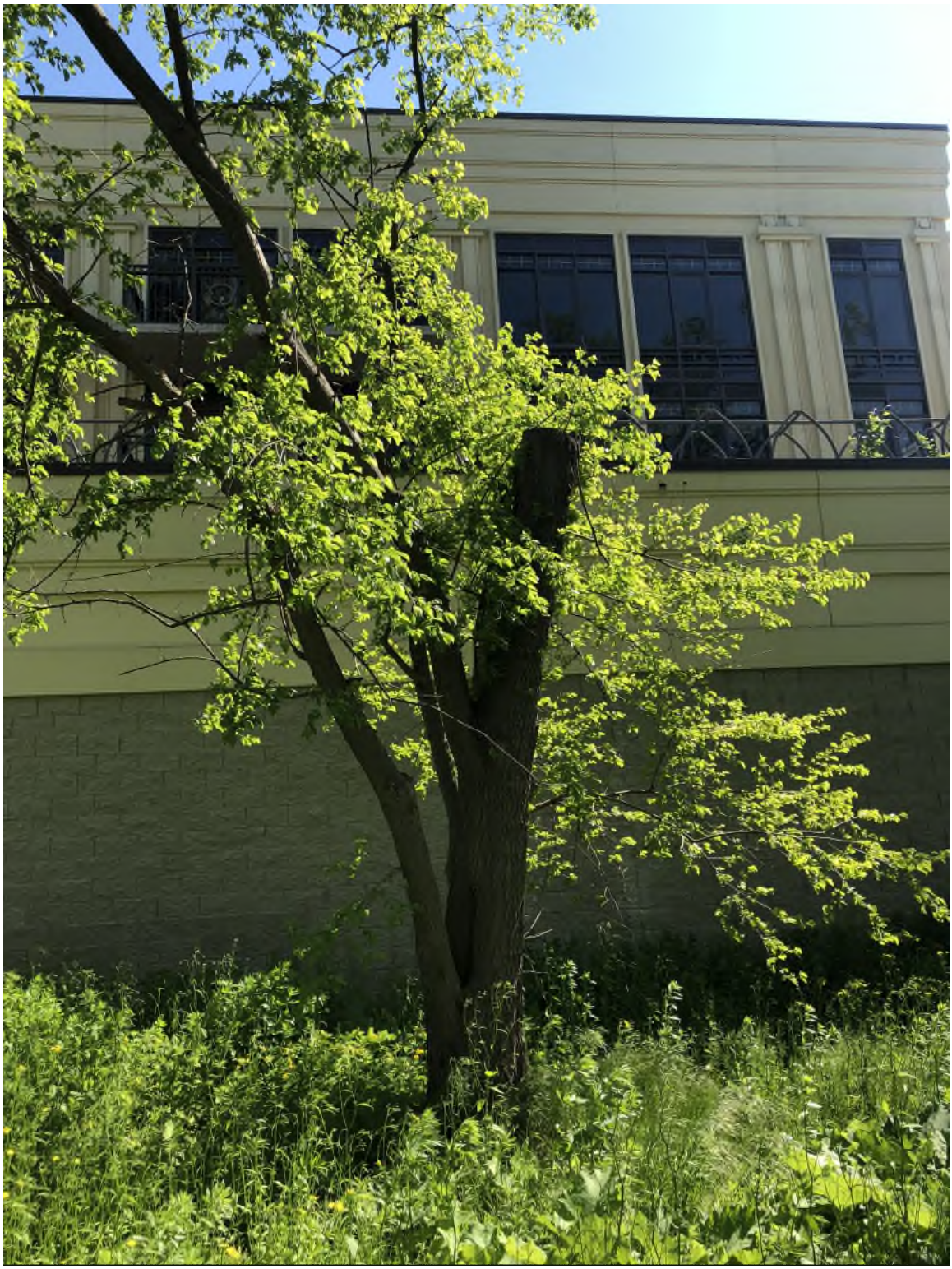

Photo #6: Tree no. 23 and 24 with non-regulated trees looking northwest.

Photo #7: Tree no. C3 – C7 and non-regulated trees looking east

Photo #8: Tree no. 23 and non-regulated trees looking east.

Appendix III:

TRUNK FORMULA METHOD

The method that will be used to appraise the tree is the Trunk Formula Method (TFM) as described in the *"Guide for Plant Appraisal"*, prepared under contract by *the "Council of Tree and Landscape Appraisers*, an official publication of the *International Society of Arboriculture (I.S.A.), 9th Edition, 2000"*. The trunk formula method is used to appraise the monetary value of trees considered too large to be replaced with nursery or field-grown stock. Determination of the value of a tree is based on the cost of the largest commonly available transplantable tree and its cost of installation, plus the increase in value due to the larger size of the tree being appraised. These values are adjusted according to the species, health and location. This method of appraisal is endorsed by several reputable organizations including the *American Society of Consulting Arborist*, the *I.S.A.* and the *Tree Care Industry.*

TABLE 1: KEY INPUTS

Replacement Cost	**$815.00**
Species factor[8] ▪ White mulberry (Morus alba) ▪ American elm (Ulmus americana) ▪ Norway Maple (Acer platanoides) ▪ Black locust (Robina pseudoacacia) ▪ Green ash (Fraxinus pennsylvanica) ▪ Apple (Malus spp.)	 **44%** **52%** **68%** **56%** **65%** **52%**
Basic Price[9]	**$6.51 cm^2**
Location Factor taking into account the following: ▪ Site Rating – (75%) ▪ Contributing Rating – (77%) ▪ Placement Rating – (78%)	**77%**

TABLE 2: TRUNK FORMULA SUMMARY

TREE #	DBH (CM)	Replacement Cost	BASIC PRICE	TRUNK AREA DIFFERENCE	**SPECIES %**	**CONDITION %**	**LOCATION %**	**APPRAISED VALUE $**
C1	26	815	6.51	531	.44	.30	0.77	420
C2	20	815	6.51	314	.52	.10	0.77	110
C3	12	815	6.51	113	.68	.70	0.77	500
C4	19	815	6.51	283	.56	.70	0.77	910
C5	20	815	6.51	314	.56	.75	0.77	870
C6	12	815	6.51	113	.56	.71	0.77	420
C7	14	815	6.51	154	.56	.73	0.77	510
C8	27	815	6.51	572	.65	.60	0.77	1,310
C9	14	815	6.51	154	.52	.10	0.77	70
C10	19	815	6.51	283	.56	.72	0.77	770
							TOTAL	**5,890**

[8] Ontario Supplement to the Guide for Plant Appraisal, 8th Edition
[9] See above.