

**Tree Inventory and Preservation Plan Report
88 Park Street East
Mississauga, Ontario**

prepared for

**Edenshaw Queen Developments Limited
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prepared by



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KUNTZ FORESTRY CONSULTING Inc. Project P2989

Introduction

Kuntz Forestry Consulting Inc. was retained by Edenshaw Queen Developments Limited to complete a Tree Inventory and Preservation Plan for the proposed development for the property located at 88 Park Street East in the City of Mississauga, Ontario. The subject property is located on the northeast corner of Ann Street North and Park Street East, within a mixed-use area.

The work plan for this tree preservation study included the following:

- Prepare inventory of the tree resources greater than 10cm DBH on and within six metres of the subject property;
- Evaluate potential tree saving opportunities based on proposed site plans; and,
- Document the findings in a Tree Inventory and Preservation Plan Report.

Methodology

Trees greater than 10cm DBH on and within six metres of the subject property were identified in the tree inventory. Trees were located using the topographic survey provided for the subject property and measurements taken from known points in-field. The City of Mississauga requires dripline as the limit of protection and as such the dripline of each tree was measured in field. Trees were identified as 1-6.

Tree resources were assessed utilizing the following parameters:

Tree # - number assigned to tree that corresponds to Figure 1.

Species - common and botanical names provided in the inventory table.

DBH - diameter (centimeters) at breast height, measured at 1.4 metres above the ground.

Condition - condition of tree considering trunk integrity, crown structure, crown vigour, and root zone environment. Condition ratings include poor (P), fair (F) and good (G).

Dripline – radius (metres) of the tree crown, measured from the stem to the outer branches of the crown.

Crown Dieback – percentage of crown that has died.

Comments - additional relevant detail.

Refer to Figure 1 for the tree locations and Table 1 for the results of the tree inventory. The results of the evaluation are provided below.

Existing Site Conditions

The subject property is currently Park Credit GO Station parking lot. Tree resources exist in the form of landscape trees and natural generations. Refer to Figure 1 for the existing site conditions.

Tree Resources

The tree inventory was conducted on 22 October 2021. The inventory documented six trees on and within six metres of the subject property. Refer to Table 1 for the detailed tree inventory, Figure 1 for the location of trees reported in the tree inventory, and Appendix A for photographs of the trees.

Tree resources were comprised of Norway Maple (*Acer platanoides*), Blue Spruce (*Picea pungens*), and White Elm (*Ulmus americana*).

Proposed Development

The proposed development includes the construction of a 42-storey and a 40-storey mixed-use buildings and associated underground parking. The sidewalks along Park Street East and Ann Street will be re-landscaped. Refer to Figure 1 for the proposed site plan.

Discussion

The following sections provide a discussion and analysis of tree impacts and tree preservation relative to the proposed work and existing conditions.

Development Impacts / Tree Removal

The removal of all trees is required to accommodate the proposed development. Shoring for the underground parking is proposed at the property boundary and no tree within the road right-of-way can be preserved. Trees 1-6 are located within the road right-of-way; a permit will be required prior to their removal. Refer to Figure 1 for the required tree removal.

Tree Preservation

The preservation of tree is not possible.

Tree Valuation

A valuation was calculated for trees located within the road right-of-way, including Trees 1-6. Refer to Appendix B for the individual tree value computations. See below for the methodology used to calculate the appraised value of the trees. The value was calculated using the Trunk Formula Technique. This method is described in the Guide for Plant Appraisal, 10th Edition (CTLA 2018). The Ontario Supplement (2003) provides regionally relevant data pertaining to basic costs for trees.

Trunk Formula Technique

This method is used for trees that are larger than what is commonly available for transplant from a nursery. The Unit Tree Cost of the replacement tree is derived from a survey of nurseries or supplied by the Regional Plant Appraisal Council and published within the Ontario Supplement (2003). For Ontario, the unit tree cost has been set at \$6.51/cm² within the Supplement and this value has been used for the calculation.

The Basic Tree Cost is calculated by multiplying the unit tree cost by the cross-sectional area of the subject tree. For multi-stemmed trees, the appraised trunk area considers the cross-sectional area of all stems. The Appraised Value is calculated by multiplying the Basic Reproduction Cost by the three depreciation factors (Condition Rating, Functional Limitation Rating, and External Limitation Rating, as described in the Guide).

The appraised value is therefore calculated using the following equation:

$$\text{Basic Tree Cost} = \text{Appraised Tree Trunk Area} \times \text{Unit Tree Cost}$$

$$\text{Appraised Value} = \text{Basic Tree Cost} \times \text{Condition Rating} \times \text{Functional Limitation Rating} \times \text{External Limitation Rating}$$

Functional Limitation Ratings and External Limitation Ratings are calculated according to the methods outlined in the guide. Condition ratings were calculated based on the assessed condition of the trees on the site and in accordance with the guide. The final values were rounded to the nearest \$100 for values greater than \$2000, and to the nearest \$5 for values less than \$2000.

Results

The total appraised value of trees located within the road right-of-way, including Trees 1-6, was calculated at \$2,197.93. The sum of the rounded values was \$2,195.

Summary and Recommendations

Kuntz Forestry Consulting Inc. was retained by Edenshaw Queen Developments Limited to complete a Tree Inventory and Preservation Plan for the proposed development for the property located at 88 Park Street East in the City of Mississauga, Ontario. A tree inventory was conducted and reviewed in the context of the proposed site plan.

The findings of the study indicate a total of six trees on and within six metres of the subject property. The removal of all trees is required to accommodate the proposed development.

Respectfully Submitted,
Kuntz Forestry Consulting Inc.

Kaho Hayashi

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Tree Risk Assessment Qualified

Reference

Council of Tree and Landscape Appraisers, 10th Edition, 2018 Guide for Plant Appraisal, CTLA TFM.
International Society of Arboriculture, Champaign, Illinois. 170 pp.

Ontario Supplement to the Guide for Plant Appraisal- 8th Edition, 2003. ISA Ontario. International
Society of Arboriculture, Champaign, Illinois. 26 pp. Updated 2003.

Limitations of Assessment

Only the tree(s) identified in this report were included in the inventory. The assessment of the trees presented in this report has been made using accepted arboricultural techniques. These may include a visual examination taken from the ground of all the above-ground parts of the tree for structural defects, scars, external indications of decay such as fungal fruiting bodies, evidence of attack by insects, discoloured foliage, the condition of any visible root structures, the degree of lean (if any), the general condition of the trees and the identification of potentially hazardous trees or recommendations for removal (if applicable). Where trees could not be directly accessed (ie. due to obstructions, and/or on neighbouring properties), trees were assessed as accurately as possible from nearby vantage points.

Locations of trees provided in the report are determined as accurately as possible based on the best information available. If official survey information is not provided, tree location in the report may not be exact. In this case, if trees occur on or near property boundaries, an official site survey may be required to determine ownership utilizing specialized survey protocol to gain precise location.

Furthermore, recommendations made in this report are based on the site plans that have been provided at the time of reporting. These recommendations may no longer be applicable should changes be made to the site plan and/or grading, servicing, or landscaping plans following report submission.

Notwithstanding the recommendations and conclusions made in this report, it must be recognized that trees are living organisms, and their health and vigor constantly change over time. They are not immune to changes in site conditions or seasonal variations in the weather conditions. Any tree will fail if the forces applied to the tree exceed the strength of the tree or its parts.

Although every effort has been made to ensure that this assessment is reasonably accurate, the trees should be re-assessed periodically. The assessment presented in this report is valid at the time of inspection.

Table 1. Tree Inventory

Location: 30 Queen Street East, Mississauga

Date: 22 October 2020

Surveyors: KH

Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	DL	Comments	Action
1	Norway Maple	<i>Acer platanoides</i>	17	F	F	PF	20	2	Co-dominance at 1.4m, chlorosis (M), crook (L), stem wounds (L)	Remove
2	Blue Spruce	<i>Picea pungens</i>	1.5m tall	G	G	F		1	Ornamental tree	Remove
3	Norway Maple	<i>Acer platanoides</i>	22	F	P	P	80	2.5	Growth deficit (L), seam (M) - sealed, union at 1.6m, dead leader	Remove
4	Norway Maple	<i>Acer platanoides</i>	40	P	P	P	75	3	Stem wounds (M) at base, lean (L) to southwest, crack, dead leader	Remove
5	Blue Spruce	<i>Picea pungens</i>	~12	G	G	FG		1.5	Ornamental tree	Remove
6	White Elm	<i>Ulmus americana</i>	~46, 42, 24	F	F	PF	20	4.5	Co-dominance at 0.6m and 1.2m with	Remove

Codes		
DBH	Diameter at Breast Height	(cm)
TI	Trunk Integrity	(G, F, P)
CS	Crown Structure	(G, F, P)
CV	Crown Vigor	(G, F, P)
CDB	Crown Die Back	(%)
DL	Dripline in radius	(m)
~ = estimate; (VL) = very light; (L) = light; (M) = moderate; (H) = heavy		

Appendix A. Photographs of the Trees



Image 1. Trees 1-2 (from right)



Image 2. Tree 3



Image 3. Tree 3 – base



Image 4. Tree 4



Image 5. Tree 5



Image 6. Tree 6

Appendix B. Tree Valuation for Trees within the Road Right-of-way

Location: 30 Queen Street East, Mississauga

Tree #	Common Name	DBH	OC	Appraised Trunk Area (cm ²)	Unit Tree Cost (RPAC)	Basic Tree Cost (\$)	Depreciation			Appraised Tree Value	Adjusted Tree Value
							Condition Rating (%)	Functional Limitation Rating (%)	External Limitation Rating (%)		
1	Norway Maple	17	PF	227	6.51	\$ 1,477.64	0.3	0.5	0.5	\$ 110.82	\$ 110.00
2	Blue Spruce	2	F	3	6.51	\$ 20.45	0.6	0.5	0.5	\$ 3.07	\$ 5.00
3	Norway Maple	22	P	380	6.51	\$ 2,474.67	0.1	0.5	0.5	\$ 61.87	\$ 60.00
4	Norway Maple	40	P	1257	6.51	\$ 8,180.73	0.1	0.5	0.5	\$ 204.52	\$ 205.00
5	Blue Spruce	12	FG	113	6.51	\$ 736.27	0.8	0.5	0.5	\$ 147.25	\$ 145.00
6	White Elm	66	PF	3421	6.51	\$ 22,272.03	0.3	0.5	0.5	\$ 1,670.40	\$ 1,670.00
										\$ 2,197.93	\$ 2,195.00