Tree Inventory and Preservation Plan
2451 – 2495 Danforth Avenue
Toronto, Ontario

prepared for

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prepared by

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KUNTZ FORESTRY CONSULTING INC. Project P3422

Introduction

Kuntz Forestry Consulting Inc. was retained by First Capital Realty Inc. to complete a Tree Inventory and Preservation Plan as part of a development application for the subject site located at 2451 – 2495 Danforth Avenue in Toronto, Ontario. The subject site is located on the south side of Danforth Avenue, north of Stephenson Avenue, east of Westlake Avenue, and west of Main Street, within a mixed-use area.

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

- Prepare an inventory of the tree resources measuring 15cm diameter at breast height (DBH) and greater on and within six metres of the subject site and trees of all sizes within the road right-of-way;
- Evaluate potential tree saving opportunities based on proposed development plans; and
- Document the findings in a Tree Inventory and Preservation Plan.

The results of the evaluation are provided below.

Policy Framework

The subject site is subject to the provisions of the City of Toronto's Private Tree-By-law (Chapter 813) which regulates tree injury and destruction of individual trees within the City of Toronto. Preliminary information is acquired on individual trees which are then categorized in compliance with the by-law in support of development applications. Tree categories range from one through five and are as follows:

> ***Categories***
> ***1.*** *Trees with diameters of 30 cm or more situated on private property on the subject site.*
> ***2.*** *Trees with diameters of 30 cm or more, situated on private property, within 6 m of the subject site.*
> ***3.*** *Trees of all diameters situated on City owned parkland within 6 m of the subject site.*
> ***4.*** *On lands designated under City of Toronto Municipal Code, Chapter 658, Ravine and Natural Feature Protection, trees of all diameters within 10 metres of any construction activity.*
> ***5.*** *Trees of all diameters situated within the City road allowance adjacent to the subject site.* (City of Toronto, 2008).

Methodology

Trees measuring 15cm DBH and greater on and within six metres of the subject site and trees of all sizes within the road right-of-way were included in the inventory. Trees were located using the topographic survey provided for the subject site and estimations made from known points in the field. Trees included in the inventory were identified as Trees 55 – 69 and A – N. Where appropriate, trees were tagged with their identification numbers. Trees that were not tagged were identified using the alphabetic sequence.

Tree resources were assessed utilizing the following parameters:

Tree # – Number assigned to trees that corresponds to Figure 1.
Species – Common and botanical names provided in the inventory table.

DBH – Diameter (cm) at breast height, measured at 1.4m above the ground.
Condition – Condition of tree considering trunk integrity (TI), crown structure (CS) and crown vigor (CV). Condition ratings include poor (P), fair (F), and good (G).
Crown Dieback – Percentage of dead branches within the crown.
Comments – Any other relevant tree condition information.

It should be noted that Trees A – N were located on neighbouring properties or within areas only accessible through a neighbouring property. Given the accessibility constraints, the inventory information in Table 1 for Trees A – N was estimated as accurately as possible from the vantage points available.

See Table 1 for the results of the inventory and Figure 1 for the tree locations.

Existing Site Conditions

The subject site is currently occupied by a one-storey concrete block building with two surface parking areas and pedestrian walkways. Vehicular accesses exist from Danforth Avenue and Westlake Avenue. Tree resources exist predominantly in the form of landscape trees. Refer to Figure 1 for the existing conditions.

Individual Tree Resources

The tree inventory was conducted on 24 May 2024. The inventory documented 29 trees on and within six metres of the subject site. Refer to Table 1 for the full tree inventory, Figure 1 for the locations of the trees reported in the tree inventory, and Appendix A for photographs of the trees.

Tree resources were comprised of Elm cultivar (*Ulmus x*), Freeman Maple (*Acer x freemanii*), Manitoba Maple (*Acer negundo*), Norway Maple (*Acer platanoides*), Scotch Elm (*Ulmus glabra*), Shademaster Honey Locust (*Gleditsia triacanthos 'inermis'*), White Elm (*Ulmus americana*), and White Mulberry (*Morus alba*).

Proposed Development

The existing building, surface parking areas, and pedestrian walkways are to be demolished. The construction of a multi-storey mixed-use building with a subsurface parking garage is proposed. Refer to Figure 1 for the existing conditions and proposed site plan.

Discussion

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

Development Impacts / Tree Removals

The removal of 15 trees, including Trees 55 – 60, 62, 63, 65, 68, 69, B, H – J, and M, will be required to accommodate the proposed development. These trees either conflict directly with the proposed development or the level of encroachment into their minimum tree protection zones (mTPZs) resulting from the proposed work would be at an intolerable level such that the trees would not be expected to overcome the injury.

The removal of five additional dead trees is recommended due to their condition, regardless of the proposed development. The trees identified for removal due to their condition include Trees 61, 64, 66, 67, and B.

Trees 55 and 56 are located within the boundaries of the subject site and are greater than or equal to 30cm DBH (Category 1). Tree B is located fully on a neighbouring property and is greater than or equal to 30cm DBH (Category 2). Trees 57 – 69 are located within the road right-of-way (Category 5). A permit will be required prior to the removal of any Category1, 2, or 5 tree. In addition to the permitting requirements, written permission from the respective neighbouring property owner will be required prior to the removal of Tree B.

Refer to Figure 1 for the location of the trees identified for removal.

Tree Preservation

The preservation of the remaining nine trees, including Trees A, C – G, K, L, and N, will be possible with the use of appropriate tree protection measures as indicated on Figure 1. Tree protection measures must be implemented prior to the commencement of the proposed works to ensure tree resources identified for preservation are not impacted. Refer to Figure 1 for the location of required tree preservation fencing, general Tree Protection Plan Notes, and the tree preservation fence detail.

Where the minimum tree protection zone (mTPZ) of a tree cannot be fully respected, including for Trees A, E, and F, special mitigation measures have been prescribed and are outlined below.

<u>Trees E and F</u>

Encroachment into the mTPZs of Trees E and F will be required to accommodate the removal of the existing surface parking area. Tree preservation fencing has been prescribed at the anticipated limits of encroachment within the mTPZs of these trees. It is anticipated that very few roots, if any, extend beneath the existing surface parking area. If the following mitigation measures are employed, long-term adverse effects are not anticipated for these trees.

1. Prior to the commencement of the proposed works, tree preservation fencing should be installed as show on Figure 1.
2. The existing surface parking area within the mTPZs of these trees should be removed carefully using small machinery (i.e. a skidsteer or mini-backhoe) and under the supervision of a Certified Arborist.
3. Any roots encountered within the subsurface material are to be left intact.
4. Once the existing hardscape has been removed, no machinery use will be permitted within the exposed area from which the hardscape was removed.
5. Any softscaping required within the mTPZs of these trees should occur by hand.
6. All works to occur within the mTPZs of these trees should be supervised by a Certified Arborist in accordance with Good Arboricultural Standards.
7. Branches that extend into the proposed development and require pruning must be pruned by a Certified Arborist or other tree professional in accordance with Good Arboricultural Standards.

Tree A

Encroachment into the mTPZ of Tree A will be required to accommodate the installation of proposed retaining wall. Tree preservation fencing has been prescribed at the anticipated limit of encroachment within the mTPZ of this tree. If the following mitigation measures are employed, long-term adverse effects are not anticipated for this tree.

1. Prior to the commencement of the proposed works, tree preservation fencing should be installed as show on Figure 1.
2. Air-spade or low-pressure hydro-vacuum technology should be used to excavate a trench at the anticipated limit of excavation within the mTPZ of this tree, under the supervision of a Certified Arborist.
3. The depth of the trench will depend on the depth of excavation required to install the proposed retaining wall.
4. Any roots exposed within the trench that require pruning should be pruned by a Certified Arborist in accordance with Good Arboricultural Standards.
5. The trench is to be backfilled with clean topsoil.
6. Any softscaping required within the mTPZ of this tree should occur by hand.
7. All works to occur within the mTPZ of this tree should be supervised by a Certified Arborist in accordance with Good Arboricultural Standards.
8. Branches that extend into the proposed development and require pruning must be pruned by a Certified Arborist or other tree professional in accordance with Good Arboricultural Standards.

A permit to injure Trees A, E, and F will be required.

It should be noted that Tree L is located atop an approximately 1.5m high retaining wall. The roots of Tree L are not expected to extend into the subject site, and as such, the preservation of this tree will be possible.

Summary and Recommendations

Kuntz Forestry Consulting Inc. was retained by First Capital Realty Inc. to complete a Tree Inventory and Preservation Plan as part of a development application for the subject site located at 2451 – 2495 Danforth Avenue in Toronto, 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 29 trees on and within six metres of the subject site. The removal of 15 trees will be required to accommodate the proposed development. The removal of an additional five dead trees is recommended due to their condition, regardless of the proposed development. The remaining nine trees can be saved provided appropriate tree protection measures are installed prior to the commencement of the proposed works.

The following recommendations are suggested to minimize impacts to trees identified for preservation. Refer to Figure 1 for the location of required tree preservation fencing, general Tree Protection Plan Notes, and the tree preservation fence detail.

- Tree protection barriers and fencing should be erected at locations as prescribed on Figure 1. All tree protection measures should follow the guidelines as set out in the tree preservation plan notes and the tree preservation fencing detail.

- No construction activity including surface treatments, excavations of any kind, storage of materials or vehicles, unless specifically outlined above, is permitted within the area identified on Figure 1 as a tree protection zone (TPZ) at any time during or after construction.

- Special mitigation measures have been prescribed for select trees, as outlined in the *Tree Preservation* section of this report.

- Branches and roots that extend beyond prescribed tree protection zones that require pruning must be pruned by a qualified Arborist or other tree professional. All pruning of tree roots and branches must be in accordance with Good Arboricultural Standards.
- Site visits pre, during, and post construction are recommended by either a certified consulting arborist (I.S.A.) or registered professional forester (R.P.F.) to ensure proper utilization of tree protection barriers. Trees should also be inspected for damage incurred during construction to ensure appropriate pruning or other measures are implemented.

Respectfully Submitted,

Kuntz Forestry Consulting Inc.

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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: 2451 - 2459 Danforth Avenue, Toronto Date: 24 May 2024 Surveyors: KNH

Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Cat.	mTPZ	Comments	Action
55	Norway Maple	*Acer platanoides*	36	PF	PF	PF		1	2.4	V-union at 2m (codominance) with included bark, stem wounds (M) with decay (L), poor form (L), one leader lost at 5m, decay (L) in trunk	Remove
56	Norway Maple	*Acer platanoides*	59.5	PF	F	F		1	3.6	V-union at 2.5m (codominance) with included bark, growth deficit (M), exposed roots (M) with wounds (M), cavities (M), seam (M) from 1m to 2.5m	Remove
57	Shademaster Honey Locust	*Gleditsia triacanthos 'inermis'*	26	G	G	FG		5	1.8	Epicormic branching (L), in raised planter	Remove
58	Shademaster Honey Locust	*Gleditsia triacanthos 'inermis'*	32	G	G	G		5	2.4	In raised planter	Remove
59	Shademaster Honey Locust	*Gleditsia triacanthos 'inermis'*	27	FG	G	FG		5	1.8	Epicormic branching (L), in raised planter, lean (L)	Remove
60	Freeman Maple	*Acer x freemanii*	11	FG	G	G		5	1.8	Lean (L), in raised planter, stem wounds (L)	Remove
61	Norway Maple	*Acer platanoides*	8.5	D	D	D	100	5	-		Remove (Condition)
62	Shademaster Honey Locust	*Gleditsia triacanthos 'inermis'*	10	F	FG	F	10	5	1.8	Stem wounds (L) with decay (L), deadwood (L), bow (L), epicormic branching (L)	Remove
63	Elm cultivar	*Ulmus x*	13	F	F	FG		5	1.8	Stem wounds (L) with decay (L), girdling roots (L)	Remove
64	Freeman Maple	*Acer x freemanii*	7	D	D	D	100	5	-	In raised planter	Remove (Condition)
65	Freeman Maple	*Acer x freemanii*	8	G	G	G		5	1.2	In raised planter	Remove
66	Freeman Maple	*Acer x freemanii*	10	D	D	D	100	5	-	In raised planter	Remove (Condition)
67	Freeman Maple	*Acer x freemanii*	12.5	D	D	D	100	5	-	In raised planter	Remove (Condition)
68	Shademaster Honey Locust	*Gleditsia triacanthos 'inermis'*	30	FG	F	F	10	5	2.4	Epicormic branching (M), in raised planter, bow (L)	Remove
69	Shademaster Honey Locust	*Gleditsia triacanthos 'inermis'*	36	G	G	G		5	2.4	In raised planter	Remove
A	Manitoba Maple	*Acer negundo*	~36, 36, 34, 30, 15	PF	PF	F	10	2	2.4	V-union at 1m with included bark, epicormic branching (M), union at base, one leader cut at 3m, bow (L-H)	Preserve (Injure)
B	White Elm	*Ulmus americana*	~48	D	D	D	100	2	-		Remove (Condition)
C	Manitoba Maple	*Acer negundo*	~34, 28	PF	PF	PF	20	2	2.4	V-union at 0.5m with included bark, epicormic branching (M), lean (M), cavities (L), deadwood (L), poor form (M)	Preserve
D	White Elm	*Ulmus americana*	~50	F	FG	FG		2	3.0	Bow (L), v-union at 1.5m with included bark	Preserve
E	Manitoba Maple	*Acer negundo*	~52	PF	PF	F	10	1 / 2	3.6	V-union at 2m with included bark, cavities (L), epicormic branching (M), multiple branch attachments, poor branch unions, branches fused to branches of Tree F, appears to be located mostly on neighbouring property but likely shared	Preserve (Injure)
F	Norway Maple	*Acer platanoides*	~42	F	F	F		1 / 2	3.0	Branches fused to branches of Tree E, union at 2.5m, asymmetrical crown (M), multiple branch attachments, appears to be located mostly on neighbouring property but likely shared	Preserve (Injure)
G	Norway Maple	*Acer platanoides*	~80	G	G	G		2	4.8	Union at 1.5m	Preserve
H	Norway Maple	*Acer platanoides*	~20	F	F	F		-	1.8		Remove

I	White Mulberry	*Morus alba*	~16	FG	PF	PF	30	-	1.8	Deadwood (M), bow (L), narrow crown, epicormic branching (M)	Remove
J	Scotch Elm	*Ulmus glabra*	~18	G	G	G		-	1.8		Remove
K	Norway Maple	*Acer platanoides*	~28	FG	G	FG		-	1.8	Sweep (L)	Preserve
L	Manitoba Maple	*Acer negundo*	~44, 42, 15, 10	P	P	PF	20	1/2	3.0	Included fence (H), v-union at 0.2m with included bark, larger stems pruned at 2.5m, epicormic branching (H), pruning wounds (H), poor form (H), lean (L-M), appears to be located mostly on subject site but likely shared, at top of retaining wall	Preserve
M	Norway Maple	*Acer platanoides*	~28	F	G	FG			1.8	Lean (M)	Remove
N	Norway Maple	*Acer platanoides*	~28	F	F	F		5	1.8	Multiple branch attachments, poor branch unions	Preserve

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 Dieback	(%)
mTPZ	Minimum Tree Protection Zone, as measured from edge of tree	(m)
Cat.	City of Toronto By-law Category	1 – 5
P = poor, F = fair, G = good, D = dead, ~ = estimate (L) = light, (M) = moderate, (H) = heavy		

Appendix A: Site Photographs

Image 1. Trees 55 (far) and 56 (near)

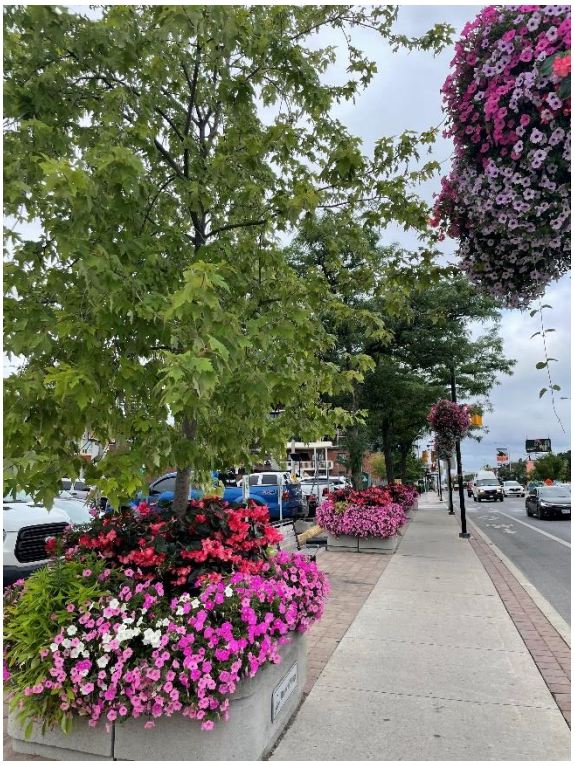

Image 2. From Tree 60 (front, left), facing west

Image 3. Tree 61

Image 4. Trees 62 (near) and 63 (far)

Image 5. From Tree 66 (front, left), facing west


Image 6. From near to far, Trees 67 – 69

Image 7. Trees A (left) and B (right)


Image 8. Trees B (near) and C (far)


Image 9. From left to right, Trees D – F


Image 10. Trees I (front, right), J (back, right), and K (front, left)

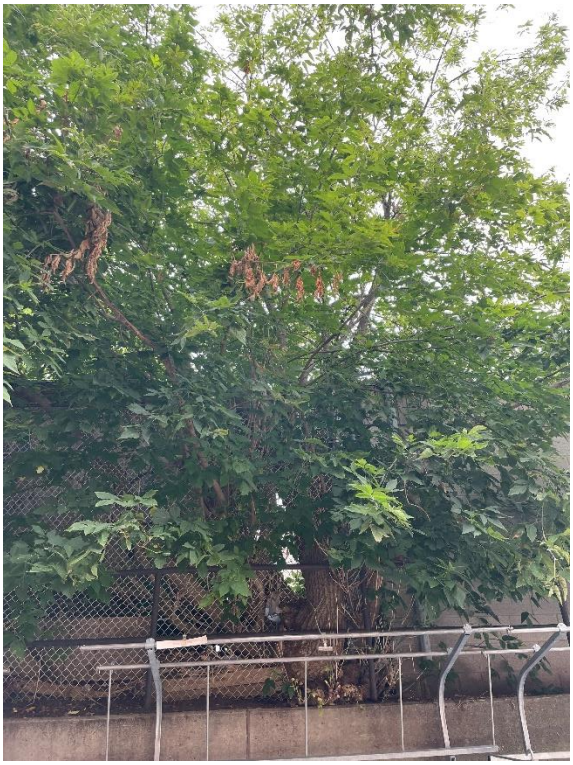
Image 11. Tree L

Image 12. Tree M