

**Tree Inventory and Preservation Plan Report
80 Thomas Street
Mississauga, Ontario**

prepared for

**Dunpar Homes
105 Six Point Road
Etobicoke, ON
M8Z 2X3**

prepared by



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KUNTZ FORESTRY CONSULTING INC Project P1327

Introduction

Kuntz Forestry Consulting Inc. was retained by Dunpar Homes to complete a Tree Inventory and Preservation Plan for the proposed development located at 80 Thomas Street in Mississauga. The property is located on the north side of Thomas Street, east of Erin Mills Parkway, within a mixed commercial/residential area.

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

- Prepare inventory of the tree resources on and within 6m 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

Tree resources were assessed utilizing the following parameters:

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

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

DBH - diameter (centimetres) at breast height, measured at 1.4 m above the ground.

Dripline – distance from the stem of the tree to the outer reaches of the crown,

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

Comments - additional relevant detail.

Trees measuring over 15 cm DBH on and within 6m of the subject property were included in the inventory. Trees were located using the topographic survey and measurements taken from known points in-field. Individual trees were tagged with numbers 426-458. A polygon (group of trees) was identified with as P1. The letters A-N was used to identify a number of small landscape trees that could not be tagged but were located adjacent to the construction. Refer to Table 1 for the results of the inventory.

Existing Site Conditions

The subject property is currently comprised of a two-storey commercial building with associated parking and garage areas. Tree resources exist in the form of landscape and naturally-occurring trees.

Tree Resources

The tree inventory was conducted on 08 August 2016. The inventory documented 47 trees and one tree polygon on and within 6m of the subject property. Refer to Table 1 for the full tree inventory and Figure 1 for the location of trees reported in the tree inventory.

Tree resources included in the inventory are comprised of Sugar Maple (*Acer saccharum*), Norway Maple (*Acer platanoides*), Austrian Pine (*Pinus nigra*), Manitoba Maple (*Acer negundo*), Eastern White Cedar (*Thuja occidentalis*), White Spruce (*Picea glauca*), Siberian Elm (*Ulmus pumila*), White Birch (*Betula papyrifera*), Little-leaf Linden

(*Tilia cordata*), Willow Species (*Salix spp.*), Russian Olive (*Elaeagnus angustifolia*), and Eastern Red Cedar (*Juniperus virginiana*).

Proposed Development

The proposed development includes the demolition of the existing building and the construction of a townhouse complex with associated parking and amenities. Refer to Figure 1 for the existing conditions and proposed site plan.

Discussion

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

Development Impacts/Tree Removal

The removal of 20 trees and one tree polygon, identified as Trees 439, 441-458, E, and polygon P1 will be required to accommodate the proposed works. Trees 439, 441-458, E and P1 are greater than 15cm DBH. A permit from the City of Mississauga is required for their removal.

The removal of an additional 16 trees is recommended due to their condition, regardless of the site plan. These trees are identified as Trees A-D, 427, 429-438, and 440. Trees 427, 429-441, and A-D are located partially or wholly on the neighbouring property to the southwest. Permission from the property owner is required prior to their removal. Refer to Figure 1 for the locations of the proposed tree removals.

Tree Preservation

The preservation of 11 trees may be possible with the use of appropriate tree protection measures as indicated on Figure 1. Trees identified for preservation include Trees 426, 428, and F-N. Tree protection hoarding should be installed at the dripline of select trees prior to the commencement of any works, as shown on Figure 1. This fencing should be maintained throughout the duration of construction. Fencing is only required surrounding trees adjacent the proposed work per Figure 1. Refer to Figure 1 for the location of required tree preservation fencing, further tree protection notes, and the City of Mississauga fence detail.

Summary and Recommendations

Kuntz Forestry Consulting was retained by Dunpar Homes to complete a Tree Inventory and Preservation Plan in support of a development application for the property located at 80 Thomas Street in 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 47 trees and one tree polygon on and within 6m of the subject property. The removal of 20 trees and one tree polygon will be required to accommodate the proposed development. The removal of an additional 16 trees is recommended due to their condition. The remaining tree resources may be saved provided appropriate tree protection measures are maintained during construction.

The following recommendations are suggested to minimize impacts to trees identified for preservation. Refer to Figure 1 for additional tree preservation notes and the preservation fence detail.

- Tree protection barriers and fencing should be erected at distances 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.
- Branches and roots that extend past 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 mitigation measures are implemented.

Respectfully Submitted,

Kuntz Forestry Consulting Inc.

Steven Ardron

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Table 1. Tree Inventory

Location: 80 Thomas Street, Mississauga

Date: 8 Aug 2016

Surveyors: SA, KG

Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	DL	CDB	Comments	Action
A	Manitoba Maple	<i>Acer negundo</i>	77	P	P-F	P-F	4	50	Dead wood (H), stem wounds (H), broken branches (H), epicormic branching (M), possible ant infestation. Removal Recommended.	Remove (Condition)
P1	Eastern White Cedar	<i>Thuja occidentalis</i>	~12 - 16, average 15	F	F	F	1.5		5 trees, lean (M), sweep (M), dead wood (L), asymmetrical crown (M)	Remove
B	Manitoba Maple	<i>Acer negundo</i>	28.5, 29.5	P	P	P	2	90	Previous tag: 06. Dead wood (H), ant infestation (H), codominant at 1.2m with included bark (M), asymmetrical crown (H). Removal recommended.	Remove (Condition)
C	Manitoba Maple	<i>Acer negundo</i>	32	P	P	P	3	95	Cavities (H), dead wood (H), lean (L), crooked stem (L). Removal Recommended.	Remove (Condition)
D	Manitoba Maple	<i>Acer negundo</i>	8, ~45	P	P	P	3		Previous tag: 08. Coppice growth only, lost leader. Removal recommended.	Remove (Condition)
426	White Spruce	<i>Picea glauca</i>	41	F-G	G	G	2.5		Lean (L), pruning wounds (L), dead wood (VL)	Retain
427	Siberian Elm	<i>Ulmus pumila</i>	42	F	P-F	P-F	6		Codominant at 2.3m and 2.5m, dead wood (M), lean (L), asymmetrical crown (M). Removal recommended.	Remove (Condition)
428	White Spruce	<i>Picea glauca</i>	25	F-G	F	F-G	4		Previous tag: 23. Lean (L), asymmetrical crown (M), dead wood (L)	Retain
429	Siberian Elm	<i>Ulmus pumila</i>	32	P	P	P	5	95	Dead wood (H). Removal recommended.	Remove (Condition)
430	Siberian Elm	<i>Ulmus pumila</i>	37.5	F	P	P	6	90	Dead wood (H), epicormic branching (L), broken branches (L). Removal recommended.	Remove (Condition)
431	Siberian Elm	<i>Ulmus pumila</i>	32.5	P	P	P	10	90	Lean (L), bow (H), dead wood (H), broken branches (L). Removal recommended.	Remove (Condition)
432	Siberian Elm	<i>Ulmus pumila</i>	33	P-F	P-F	P-F	5	80	Previous tag: 28. Lean (L), broken branches (L), codominant at 4m. Removal recommended.	Remove (Condition)
433	Manitoba Maple	<i>Acer negundo</i>	35	P-F	P-F	P-F	5	30	Previous tag: 29. Ant infestation, hornet nest, broken branches (L), codominant at 2.2m, dead wood (M), cavities (M), bow (M). Removal recommended.	Remove (Condition)
434	Siberian Elm	<i>Ulmus pumila</i>	29	F	F	P-F	6		Previous tag: 30. Codominant at 4.3m with included bark (L), asymmetrical crown (M), dead wood (M), bow (M). Removal recommended.	Remove (Condition)
435	Manitoba Maple	<i>Acer negundo</i>	30	P	P	P	8		Previous tag: 31. Dead wood (H), broken branches (L), epicormic branching (H), lean (L), stem wounds (M). Removal recommended.	Remove (Condition)
436	Siberian Elm	<i>Ulmus pumila</i>	42.5	F	P-F	P-F	9	50	Dead wood (H), epicormic branching (M), codominant at 3.2m, lean (L). Removal recommended.	Remove (Condition)
437	Manitoba Maple	<i>Acer negundo</i>	22.5	P	P	P	4.5	70	Dead wood (H), epicormic branching (H), lean (L), bow (H). Removal recommended.	Remove (Condition)
438	Siberian Elm	<i>Ulmus pumila</i>	32	F	P-F	P	8	70	Dead wood (H), epicormic branching (M), lean (L), codominant at 4.5m. Removal Recommended.	Remove (Condition)
439	Siberian Elm	<i>Ulmus pumila</i>	30	F	F	F	6	20	Lean (L), bow (M), dead wood (M), codominant at 3.8m, epicormic branching (H).	Remove
440	Siberian Elm	<i>Ulmus pumila</i>	49	P-F	F-G	F	6	30	Dead wood (M), codominant at 3m with included bark (M) and rot (M). Removal recommended.	Remove (Condition)
441	Siberian Elm	<i>Ulmus pumila</i>	29, 50.5	F	F-G	F-G	10		Codominant at 1m and 1.5m, epicormic branching (H), dead wood (L), asymmetrical crown (M)	Remove
E	White Birch	<i>Betula papyrifera</i>	~16	F-G	G	F-G	2		Lean (L), root zone restriction, pruning wounds (L), dead wood (L)	Remove
F	Little-leaf Linden	<i>Tilia cordata</i>	~10	G	G	G	1.5			Retain
G	Norway Maple	<i>Acer platanoides</i>	~10	G	G	G	1.5		Lean (L)	Retain
H	Little-leaf Linden	<i>Tilia cordata</i>	~11	G	G	G	1.5			Retain
I	Little-leaf Linden	<i>Tilia cordata</i>	~11	G	G	G	1.5			Retain
J	Little-leaf Linden	<i>Tilia cordata</i>	~11	G	G	G	1.5			Retain
442	Willow species	<i>Salix sp.</i>	23.5	F-G	G	F-G	2		Dead wood (L), crook at 2.6m	Remove
443	Manitoba Maple	<i>Acer negundo</i>	16	F	P-F	F	2	80	Dead wood (H), asymmetrical crown (M), lean (L), bow (L), grapevine competition (L), stem wounds (L). Removal Recommended.	Remove
K	Sugar Maple	<i>Acer saccharum</i>	~10	G	G	G	1.5			Retain
L	Sugar Maple	<i>Acer saccharum</i>	~9	G	G	F-G	1.5		Lean (L), needs water.	Retain
M	Sugar Maple	<i>Acer saccharum</i>	~13	G	G	G	1.5			Retain
N	Sugar Maple	<i>Acer saccharum</i>	6	G	G	F-G	1		Dead wood (L), needs water.	Retain
444	Russian Olive	<i>Elaeagnus angustifolia</i>	31	P-F	P	P	3		Dead wood (M), Crooked stem (H)	Remove
445	Siberian Elm	<i>Ulmus pumila</i>	19	F-G	G	F-G	3		Lean (L), bow (L), epicormic branching (H), dead wood (VL), broken branches (L)	Remove
446	Siberian Elm	<i>Ulmus pumila</i>	25.5	F-G	F-G	F-G	3		Pruning wounds (L), dead wood (L), epicormic branching (M), exposed roots (M), root wounds (M)	Remove
447	Austrian Pine	<i>Pinus nigra</i>	40	F-G	G	F-G	3		Lean (L), pruning wounds (L), dead wood (L)	Remove
448	Austrian Pine	<i>Pinus nigra</i>	38	F-G	G	F-G	3		Lean (L), pruning wounds (L), dead wood (L)	Remove
449	Little-leaf Linden	<i>Tilia cordata</i>	21	F	G	G	3		Frost crack (H) and sealing, lean (L)	Remove
450	Little-leaf Linden	<i>Tilia cordata</i>	23.5	F-G	G	F-G	3		Lean (L), bow (L), girdling root, dead wood (L)	Remove

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451	Little-leaf Linden	<i>Tilia cordata</i>	19	P-F	G	G	2.5	Suckering at base, lean (L), stem wounds (H) and sealing	Remove
452	Little-leaf Linden	<i>Tilia cordata</i>	21	P	G	G	2.5	Stem wounds (H) with split. Removal recommended.	Remove
453	Little-leaf Linden	<i>Tilia cordata</i>	24	G	G	G	3.5	Lean (L)	Remove
454	Little-leaf Linden	<i>Tilia cordata</i>	28.5	F-G	G	G	3.5	Pruning wounds (L), lean (L), stem wounds (L)	Remove
455	Little-leaf Linden	<i>Tilia cordata</i>	27	F-G	G	G	4	Lean (L), codominant at 2.8m with included bark (L)	Remove
456	Little-leaf Linden	<i>Tilia cordata</i>	23.5	G	G	F-G	3	Dead wood (L), pruning wounds (L)	Remove
457	Little-leaf Linden	<i>Tilia cordata</i>	24.5	F-G	G	G	4	Lean (L), exposed roots (L), pruning wounds (L), codominant at 2.5m with included bark (L)	Remove
458	Eastern Red Cedar (Juniper)	<i>Juniperus virginiana</i>	~12, ~16	P	F	G	1.5	Codominant at 0.4m with split (H), poor form. Removal recommended.	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	Dipline	(m), as measured from centre of stem
~ = estimate; (VL) = very light; (L) = light; (M) = moderate; (H) = heavy		