

# Arborist Report

3033 Dundas Street West  
Mississauga, Ontario

October 5, 2016

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## **Contents**

<b>Introduction .....</b>	<b>1</b>
<b>Methodology .....</b>	<b>1</b>
<b>Results and Discussion .....</b>	<b>2</b>
<b>Recommendations and Specifications .....</b>	<b>5</b>
<b>Conclusion.....</b>	<b>11</b>
<b>Appendix 1 – Tree Inventory .....</b>	<b>12</b>
<b>Appendix 2 – Tree Protection Plan .....</b>	<b>14</b>
<b>Limitations of Assessment .....</b>	<b>16</b>

NB: This Arborist Report has been prepared using the latest drawings and information provided by the client and/or agents and may be intended for inclusion in a site plan approval or similar planning submission. Any subsequent design or site plan changes affecting trees may require revisions to this report. New drawings and information should be provided to UFI prior to report submission to municipal planning authorities.

Links (URLs) provided to web-based resources are current to the date of the report.

## **Introduction**

Urban Forest Innovations Inc. (UFI) has been requested to prepare an arborist report for the proposed development at 3033 Dundas Street West, in Mississauga, Ontario. This report reviews the potential impacts of the proposed site works upon trees within or close to the limits of disturbance, and outlines required and recommended tree protection measures and regulatory requirements associated with the proposed development.

In total, 78 trees are addressed in this report. The tree inventory is provided in Appendix 1. A tree protection plan is provided in Appendix 2.

This report should be read in conjunction with all other servicing, grading and landscaping plans prepared for the project.

## **Methodology**

### **Field Observations**

Field observations were made on July 26, 2016, by Shane Jobber, ISA Certified Arborist ON-1746A. There was no construction activity on the site at the time of the field observations. Subject site trees and off-site trees within 6 meters of the potential limits of disturbance are included in the inventory. Tree diameter was measured at 1.4 metres above grade (DBH) and trees were assessed for health, structure and risk potential. No trees were tagged as part of this inventory.

### **Tree Assessments**

A brief explanation of each tree assessment category included in the inventory is outlined below:

**Species** — The common and botanical names are provided for each tree.

**Diameter at Breast Height (DBH)** — The diameter of each tree, in centimetres, at breast height (1.4 m above grade).

**Trunk Integrity (TI)** — An assessment of the tree's trunk for any externally-visible defects or weaknesses. It is rated on an ascending scale of poor-fair-good.

**Canopy Structure (CS)** — An assessment of the tree's main scaffold branches and the canopy of the tree for defects or weaknesses visible from ground level. It is also rated on an ascending scale of poor-fair-good.

**Canopy Vitality (CV)** — An assessment of the general health and vigour of the tree, derived partly through a comparison of deadwood and live growth relative to a 100% healthy tree. The size and colour of foliage are also considered in this category. During the leaf-off season, the number and

distribution of buds is an important determinant of canopy vitality. This indicator is also rated on an ascending scale of poor-fair-good.

**Canopy Width (CW)** – An estimation of the average diameter of the tree canopy, in metres.

**Tree Protection Zone (TPZ)** – The recommended tree protection zone radius, in metres, as measured from the base of the subject tree's main trunk.

**Location (Loc.)** – The location of the tree relative to the subject site: on the subject site (S), on neighbouring property (N), on municipal property (M), or on a property boundary (B).

**Recommendation (Rec.)** – The recommendation for each tree: Protect (P), Injure (I), or Remove (R). A dash (-) denotes trees to be preserved with no additional protection requirements.

**Comments** – Comments pertaining to the tree may be provided, as needed.

## **Results and Discussion**

This section of the report outlines the key issues related to the proposed works from an arboricultural and tree preservation perspective. Specific recommendations regarding tree protection are outlined. General recommendations are also provided in the 'Recommendations and Specifications' section of this report.

### **General Work Plan**

The proposed works will include the demolition of the existing building and associated hard landscape features on the subject site, and the construction of a new 4-story building and associated parking lot.

### **By-laws and Legislation**

City of Mississauga by-laws and Provincial legislation may regulate injury or destruction of trees depending upon their location, size or other factors. The following tree protection by-laws and legislation apply on the subject site.

#### *Private Tree Protection By-law*

The City of Mississauga's Private Tree Protection By-law (0254-2012) regulates the injury and destruction of certain privately-owned trees. Pursuant to this by-law, removal or injury of more than 2 healthy trees with a diameter at breast height (DBH) of over 15 cm per calendar year requires a permit. Removal or injury of trees less than 15 cm in diameter, or removal or injury of one or two trees greater than 15 cm dbh per year does not require a permit.

Detailed information about the Private Tree Protection by-law can be found online at:

[http://www.mississauga.ca/portal/residents/urbanforestry?paf\\_gear\\_id=9700018&itemId=300012](http://www.mississauga.ca/portal/residents/urbanforestry?paf_gear_id=9700018&itemId=300012)

#### *Boundary Trees – Ontario Forestry Act, R.S.O. 1990*

The Provincial *Forestry Act, R.S.O. 1990* states:

10. (2) Every tree whose trunk is growing on the boundary between adjoining lands is the common property of the owners of the adjoining lands. 1998, c. 18, Sched. I, s. 21.

(3) Every person who injures or destroys a tree growing on the boundary between adjoining lands without the consent of the land owners is guilty of an offence under this Act. 1998, c. 18, Sched. I, s. 21.

9 inventoried trees (#50, 51, 53, 54, 62, 63, 64, 65, and 76) appear to be growing on the boundary between the subject site and adjacent properties.

#### *Endangered, Rare or Protected Species*

No endangered, rare or otherwise protected tree species were observed on the site.

#### **Tree Removal**

Although site works will avoid tree removal to the furthest extent possible, removal will be necessary to facilitate the proposed site design. Recommendations for tree removal are based upon consideration of the anticipated impacts upon trees due to implementation of the proposed works, the immediate and forecasted health and structural condition of the tree, and the ability of the tree to make continued contributions to the newly modified landscape.

#### *Site Works*

The proposed site works and associated landscape modifications will require the removal of 55 trees on the subject site:

- Trees #1, 2, 3, 4, 6, 7, 8, 9, 10, 13, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 55, 66, 68, 70, 71, 72, 73, 74, 75, 77, and 78 are proposed for removal to facilitate construction of the new 4-storey building and parking lot.

#### *Condition*

9 inventoried trees are recommended for removal for reasons unrelated to the proposed works:

- Trees #5, 18, 61-65, 69, and 76 were assessed as standing dead at the time of field observations and should be removed prior to the commencement of site works. As the trees are confirmed standing dead, it is anticipated that an exception to the regular permitting requirements will be granted.

### *Emerald Ash Borer (EAB)*

2 inventoried trees are recommended for removal due to Emerald Ash Borer (EAB) infestation:

- Green ash (*Fraxinus pennsylvanica*) trees #14 and 67, located on the subject site, were noted for positive signs of Emerald Ash Borer infestation at the time of field observations. The trees are considered poor candidates for long-term retention and should be considered for removal prior to the commencement of site works.

### **Tree Preservation and Protection**

All other trees addressed in this report are proposed for retention. This section outlines specific tree protection measures for retained trees. General tree protection recommendations and specifications are found in the 'Recommendations and Specifications' section of this report.

#### *Tree Preservation*

2 inventoried off-site trees will be preserved:

- No specific tree protection measures are recommended for trees #11 and 12, which are located sufficiently far from proposed construction activity and protected by existing landscape features that additional protection measures will not be necessary.

#### *Tree Protection*

Retained trees in proximity to the proposed works shall be protected through the implementation of the following tree protection methods:

- **Tree Protection Hoarding** – Hoarding fencing shall be established at a specific distance from the base of each protected tree, as provided in Appendix 1, and in configurations as shown in Appendix 2 – Tree Protection Plan. Specifications for tree protection fencing and hoarding are found in the 'Recommendations and Specifications' section of this report.
- **Root-Sensitive Excavation** – Any groundbreaking activities within Tree Protection Zones should be accomplished by root-sensitive excavation utilizing hand-digging, hydrovac or pneumatic soil excavation (e.g., Airspade), as outlined in the 'Recommendations and Specifications' section of this report. Excavations should be supervised by a Certified Arborist, who should be enabled to stop works if, during the course of excavation, significant structural or transport roots (greater than approximately 25 mm diameter) are encountered, in order to properly prune the roots.

Topsoil removal and subgrade preparations for the new parking lot are likely to result in groundbreaking within the Tree Protection Zones of trees #50, 51, 53, 54, and 56-59, resulting in tree injury to regulated trees #50, 51, 56, and 58. Root-sensitive excavation methods should be utilized in for each tree.

## Tree Risk and Required Tree Maintenance

At the time of inspection, there were no immediate risks posed by any trees on the subject site.

## By-law and Permit Requirements

In total, 57 trees greater than 15 cm DBH are proposed for removal:

- Trees #2, 3, 6, 7, 8, 9, 10, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 55, 68, 70, 72, 73, 74, 75, 77, 78, due to site works.
- Trees #5, 18, 61, 62, 63, 64, 65, 69, and 76, due to condition.

In total, 4 trees greater than 15 cm DBH will be injured due to TPZ encroachment:

- Trees #50, 51, 56, and 58.

An *Application to Permit the Injury or Destruction of Trees on Private Property* and a *Tree Injury or Destruction Questionnaire and Declaration* may be required to enable the proposed removals and injuries.

The City's *Application to Permit the Injury or Destruction of Trees on Private Property* form can be found online at:

[http://www7.mississauga.ca/documents/FormsOnline/Form\\_2205\\_Permitt\\_Destroy\\_Trees.pdf](http://www7.mississauga.ca/documents/FormsOnline/Form_2205_Permitt_Destroy_Trees.pdf)

The City of Mississauga's *Tree Injury or Destruction Questionnaire and Declaration* form can be found online at: <http://www7.mississauga.ca/Documents/FormsOnline/2206.pdf>

## Boundary Trees

Given the location of trees #50, 51, 62, 63, 64, 65, and 76 on boundaries of adjacent private properties, the property owner should receive confirmation of the adjacent property owners' consent to injure or remove these trees. This will likely ensure compliance with the requirements of the provincial *Forestry Act, 1990*, which regulates the injury and destruction of shared trees.

## **Recommendations and Specifications**

This section outlines general recommendations for tree protection, and **not all recommendations may apply to the subject project**. Refer to the preceding sections for tree-by-tree recommendations. This section should be read in conjunction with the City of Mississauga's various tree protection and site plan application guidelines and policies, including:

Private Tree Protection By-law (0254-2012):

<http://www.mississauga.ca/file/COM/treeprotection.pdf>

Tree Protection and Hoarding Requirements:

[http://www.mississauga.ca/file/COM/tree\\_hoarding\\_req.pdf](http://www.mississauga.ca/file/COM/tree_hoarding_req.pdf)

Site Plan and Development Applications information:

[http://www.mississauga.ca/portal/residents/urbanforestry?paf\\_gear\\_id=9700018&itemId=104803033n](http://www.mississauga.ca/portal/residents/urbanforestry?paf_gear_id=9700018&itemId=104803033n)

Site Plan Application: Process Guidelines:

<http://www6.mississauga.ca/online/planbldg/Manuals/ExternalGuidelines-SitePlan-2013August.pdf>

## **Tree Protection**

Four important tree protection measures should be undertaken on the project site if trees are to be preserved in a manner which will maintain their health over the long term. These include:

1. Establishment of tree protection fencing and/or hoarding around adequately-sized Tree Protection Zones (TPZs) prior to the commencement of any construction activity;
2. Installation of root zone compaction protection where compaction may be caused by construction traffic or materials/equipment storage and staging;
3. Implementation of root-sensitive manner wherever Tree Protection Zones (TPZs) or significant rooting areas may be encroached upon by excavation and/or grading, and;
4. Root pruning in advance of conventional excavation, on an as-needed basis.

### *Tree Protection Zones (TPZs)*

The purpose of a Tree Protection Zone (TPZ) is to prevent root damage, soil compaction and soil contamination, and workers and machinery must not encroach upon Tree Protection Zones in any way.

To prevent access and ensure that the TPZ is effective, the following steps shall be implemented in the establishment of TPZ fencing and/or hoarding.

1. The locations of TPZs should be clearly identified on the project Site Plan. Typically, TPZs are to be shown as circles around tree location points, and are to be drawn to scale in accordance with the minimum required TPZ radius, as outlined in Appendix 1.
2. No groundbreaking activities or demolition should occur until all tree protection requirements have been met and the consulting arborist has confirmed the establishment of Tree Protection Zone fencing and/or hoarding.
3. Hoarding shall consist of 4' x 8' sheets of plywood laid lengthwise and supported using "L" shaped supports to prevent root damage. Hoarding shall be affixed to the frame in such a manner as to prevent removal of individual sections or movement of the entire hoarding structure. Construction fencing can be used where pedestrian or motorist sightlines may be obscured by solid hoarding. Framed construction fencing can also be used to frame large Tree



Protection Zones or tree groups, with expressed prior approval of City of Mississauga. Framed fencing must be supported by a solid 2" × 4" frame. Fencing and/or hoarding shall be maintained intact throughout the duration of the construction project, unless otherwise specified.

4. Upon installation, all tree protection fencing and/or hoarding must be approved by City of Mississauga.
5. All fencing and/or hoarding is to remain in place in good condition throughout the entire duration of the project. No fencing and/or hoarding is to be removed, relocated or otherwise altered without the written permission of the City of Mississauga.
6. No grade change, excavation, or storage of fill, equipment or supplies is permitted within the TPZ at any time. Any encroachment of the TPZ shall not be undertaken without expressed written permission of the City of Mississauga. TPZ encroachment may constitute Tree Injury as defined by various municipal tree protection policies and by-laws, and may subject the responsible parties to prescribed penalties.
7. Signage similar to Figure 1, below, should be mounted on each side of TPZ fencing and/or hoarding immediately upon establishment and should be maintained for the duration of the project. Every sign should have minimum dimensions of 40 cm × 60 cm.
8. All contractors and supervisors should be informed of the tree protection requirements, including potential penalties, at a pre-construction meeting.
9. Trees and TPZs should be regularly monitored by a consulting arborist throughout the duration of the project.
10. If TPZ encroachment should occur at any time during construction, the consulting arborist should evaluate the trees immediately so that appropriate treatment can be performed in a timely manner.

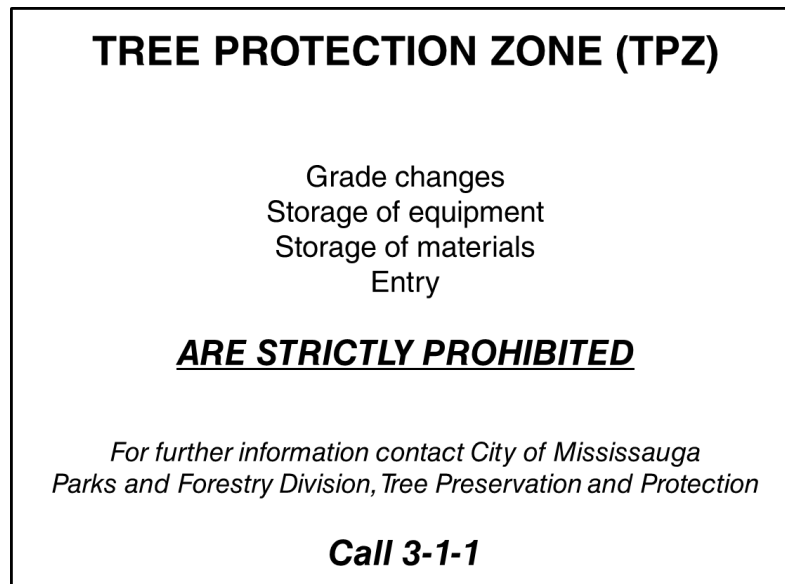


Figure 1: Sample TPZ information sign.

#### *Root Zone Compaction Protection*

Where traffic or access through the root zone is anticipated, a Root Zone Compaction Protection treatment should be installed.

Where limited non-vehicular access across the root zone is anticipated (e.g., occasional foot traffic, wheelbarrow), a Light Root Zone Compaction Protection specification should be implemented, as described below:

- Installation of medium-weight non-woven geotextile fabric or landscape cloth over affected area;
- Installation of 150 mm of wood chips over the fabric area;
- Installation of ½" plywood over wood chip mulch, and;
- Installation of appropriate covering material, if desired.

Where moderate non-vehicular access across the root zone is anticipated (e.g., materials staging) a Moderate Root Zone Compaction Protection specification should be implemented, as described below:

- Installation of medium-weight non-woven geotextile fabric or landscape cloth over affected area;
- 100 mm of granular clear stone laid over fabric area;
- Installation of medium-weight non-woven geotextile fabric or landscape cloth over the stone;
- Installation of 150 mm of wood chips over fabric area, and;

- Installation of ½" plywood over wood chip mulch.

In areas where frequent non-vehicular access or longer-term materials storage in the root zone is anticipated, or in areas where additional measures must be implemented to ensure complete exclusion of excavation activity, a Horizontal Hoarding/Excavation Exclusion specification should be implemented, as described below:

- Installation of medium-weight non-woven geotextile fabric or landscape cloth over affected area;
- Installation of 3 stacked and joined courses of 4" x 4" timbers around the area to be protected (including cross-members or joists, as required to maintain structural integrity);
- Installation of wood chip mulch in entire protected area, and;
- Installation of 2 layers of ¾" plywood or 1 steel plate over the protected area.

In areas where vehicular access or severe potential root zone compaction are anticipated, such as site access roads, temporary parking areas or heavy machine staging areas, a more robust Heavy Root Zone Compaction Protection specification should be developed and implemented on a site-specific basis. Key elements of such a specification may include multiple steel plates over load-dissipating materials, or modular geocellular systems such as Permavoid ArborRaft.

#### *Root-sensitive Excavation*

Efforts should be made to exclude excavation or grade changes, including cutting or filling, from all TPZs. Where this is not possible, and unless otherwise specified, excavation shall utilize a root-sensitive methodology such as hand-digging, hydrovac or pneumatic (e.g., AirSpade) soil excavation, as specified in the arborist report.

Root-sensitive excavation must be conducted in advance of excavation using conventional excavation machinery. The objective of root-sensitive excavation is threefold: 1) to determine whether roots will be present beneath areas to be excavated and therefore determine the likely extent of damage to trees to be retained; 2) to finalize decisions about trees for which removal/preservation decisions are contingent upon the extent of roots encountered, and 3) to enable proper root pruning, as described below.

Unless otherwise specified, root-sensitive excavation typically entails creating a trench approximately 200-300 mm wide between the subject tree (e.g., outside the established TPZ) and the area to be excavated, without damaging existing significant roots. Unless otherwise specified, root-sensitive excavation should be undertaken to a minimum depth of 800 mm, unless excavation is proposed to a shallower final depth. If excavation is for exploratory reasons and root pruning is not anticipated, equipment utilized during root-sensitive excavation should be operated at reduced pressures to prevent damage to root bark.

No excavation, whether undertaken by conventional or root-sensitive means shall take place within established tree protection zones without expressed written permission of the City of Mississauga.

### *Root Pruning*

Root pruning can help reduce the stresses experienced by a tree with root damage, encourage the growth of new fine and feeder roots, and prevent the spread of decay. Root pruning should be undertaken in conjunction with root-sensitive excavation in advance of conventional excavation, or immediately afterwards if unexpected roots are encountered. Root pruning should only be undertaken by an ISA Certified Arborist, and in the manner outlined below:

1. Roots that are severed, exposed, or diseased and are greater than 2.0 cm in diameter should be properly pruned. All roots must be pruned with clean and sharp hand tools only. Shovels, picks or other construction tools shall not be used to prune roots. Wound dressings or pruning paint must not be used to cover the ends of any cut.
2. Roots should be pruned in a similar fashion as branches, taking care to maintain the integrity of the root bark ridge. Root should be pruned back to native soil; root stubs must not be left upon completion of root pruning.
3. Prolonged exposure of tree roots must be avoided – exposed roots should be covered and kept moist with soil, mulch, irrigation, or at least moistened burlap if they are to be exposed for longer than 3 hours. All cut roots should be covered with soil or excavated trenches should be backfilled with native material as soon as possible following root pruning.

### **Post-construction Care**

The following recommendations should be implemented upon completion of construction to ensure that the health and condition of retained and newly-planted trees is maintained and improved.

### *Retained Trees*

1. Trees which have been retained through the construction process should be regularly monitored by an ISA Certified Arborist for signs of construction-induced stress, which may not be apparent until 3-6 years after site disturbance.
2. Wherever possible, root zone amelioration including watering and mulching should be undertaken. However, treatments such as fertilization should be avoided unless directly specified by the project consulting arborist.
3. Any physical damage to retained trees should be assessed by the project consulting arborist and properly mitigated, as required. If necessary, broken limbs or exposed roots should be pruned, damaged bark should be traced, and soil decompaction and/or decontamination should be undertaken by an ISA Certified Arborist. Stability of trees with significant root zone disturbance should be assessed, and advanced stability assessment or mitigation should be implemented if necessary.

### *New Trees*

1. All newly planted trees and shrubs should be provided with a bed of composted woodchip mulch 10-15 cm thick, extending to at least the dripline of the plant. Mulch should be periodically replaced as it decomposes, and weeds should be removed from the mulch bed manually. The mulch must not touch the bark of the tree and under no circumstances should it be mounded up against the stem in a “volcano” style. This is especially damaging for young trees with thin bark.
2. All new plantings should be watered at least once per week during the growing season within the first two years after planting. Watering intensity should be increased during periods of drought. Watering should be deep and slow, ensuring that water penetrates to deep roots. Trees should not be watered directly adjacent to the trunk, but rather in a circular pattern extending from the trunk to at least the dripline. The soil should be allowed to dry in between watering periods to allow air to reach the roots.
3. Minimal pruning should be undertaken in the first two years after planting. Foliage should be retained to allow for the roots to establish. Only dead, crossing and broken branches should be pruned back to an appropriate pruning point at the time of planting.
4. New plantings should be inspected in the second year to assess health and condition. Dead or dying plants should be replaced in the next appropriate planting season.

### **Conclusion**

There are 78 trees that may be affected by the proposed development at 3033 Dundas Street West, in Mississauga, Ontario. The proposed works will require the implementation of specific measures to ensure effective tree protection. To enable the proposed works, 48 by-law regulated trees (greater than 15 cm) will require removal; 9 by-law regulated trees should be removed on the basis of poor/dead condition. 4 additional by-law regulated trees will require injury to enable the proposed works. An *Application to Permit the Injury or Destruction of Trees on Private Property* and a *Tree Injury or Destruction Questionnaire and Declaration* will likely be required to enable the proposed removals and injuries. With the implementation of the recommendations provided in this report, no adverse effects are anticipated as a result of the proposed works upon the long-term health and condition of inventoried trees that have been designated for retention.

It is important that good arboricultural practices be undertaken during the entire course of construction. No material storage or construction access shall take place within tree protection zones (TPZs); sensitive excavation and root pruning shall be undertaken, as required; and any necessary branch and/or root pruning shall be undertaken by an ISA Certified Arborist.

Appendix 1 – Tree Inventory

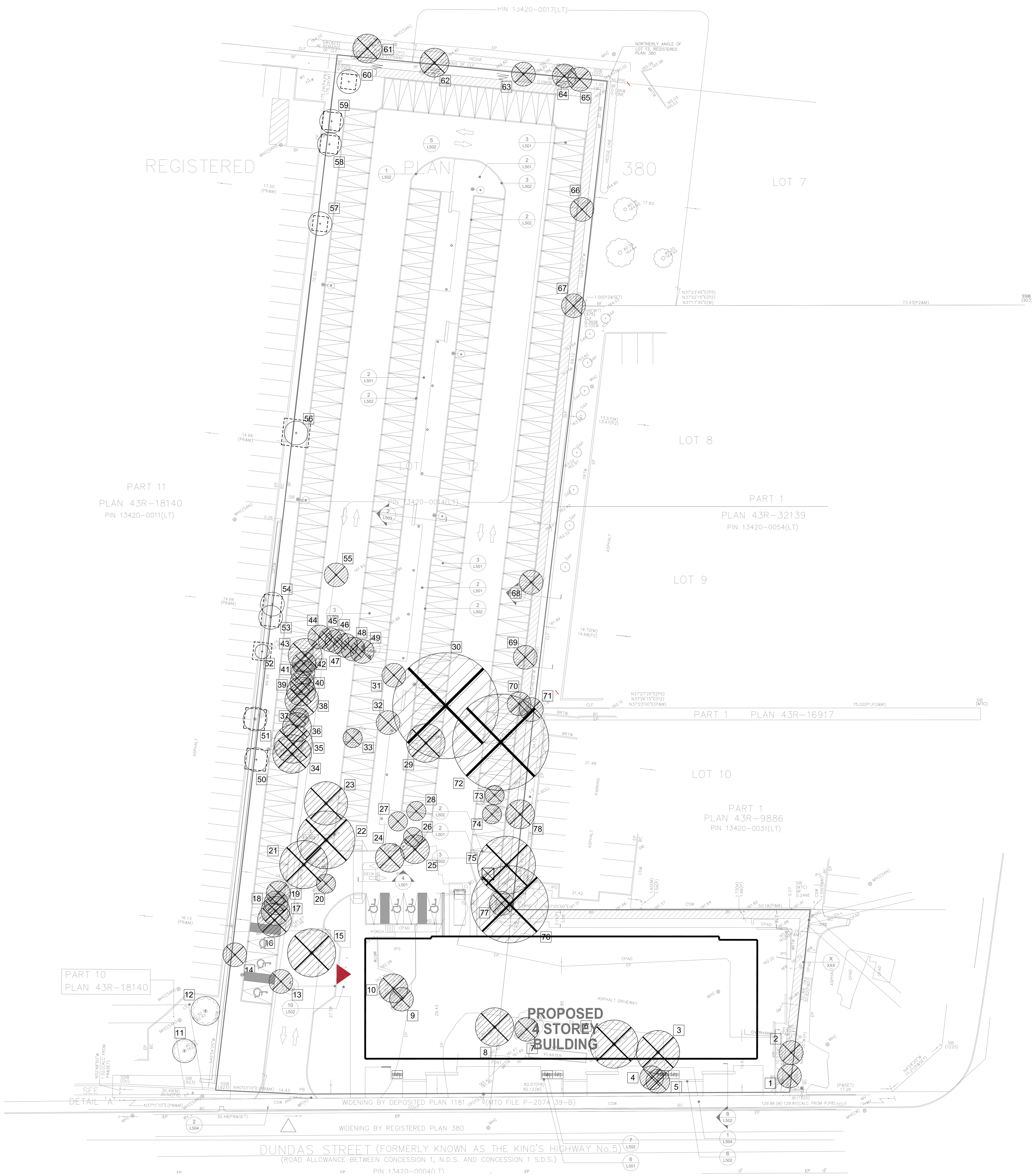
Table 1: Inventory of trees at 3033 Dundas St W, Mississauga, Ontario. (July 26, 2016, field observations by S. Jobber (ISA Certified Arborist ON-1746A)

Tree	Common Name	Scientific Name	DBH	CW	TI	CS	CV	TPZ	Loc.	Rec.	Comments
1	Norway Maple	<i>Acer platanoides</i>	11	4	G	G	G	2.0	S	R	
2	Norway Maple	<i>Acer platanoides</i>	15,11	6	F	F	G	3.0	S	R	
3	Norway Maple	<i>Acer platanoides</i>	41	10	G	F	F	5.0	S	R	
4	Yew Species	<i>Taxus</i> sp.	12,8,6	4	F	F	F	2.0	S	R	
5	Ash Species	<i>Fraxinus</i> sp.	20	6	G	G	-	3.0	S	R-Cond	DEAD.
6	Austrian Pine	<i>Pinus nigra</i>	55	10	G	G	G	5.0	S	R	
7	Paper Birch	<i>Betula papyrifera</i>	32,29	10	G	F	F	5.0	S	R	
8	Colorado Spruce	<i>Picea pungens</i>	46	7	G	G	G	3.5	S	R	
9	White Spruce	<i>Picea glauca</i>	25	6	G	G	G	3.0	S	R	
10	White Mulberry	<i>Morus alba</i>	35	10	G	G	F	5.0	S	R	
11	Austrian Pine	<i>Pinus nigra</i>	31	7	G	G	G	3.5	N	-	
12	Austrian Pine	<i>Pinus nigra</i>	37	7	G	G	G	3.5	N	-	
13	Pussy Willow	<i>Salix discolor</i>	13,13	5	G	F	G	2.5	S	R	
14	Green Ash	<i>Fraxinus pennsylvanica</i>	13	5	G	G	P	2.5	S	R-EAB	EAB infested.
15	Apple Species	<i>Malus</i> sp.	41,38	10	G	F	G	5.0	S	R	
16	Norway Spruce	<i>Picea abies</i>	40	11	G	G	G	5.5	S	R	
17	Norway Spruce	<i>Picea abies</i>	40	10	G	G	G	5.0	S	R	
18	Norway Spruce	<i>Picea abies</i>	35	7	G	G	-	3.5	S	R-Cond	DEAD.
19	White Pine	<i>Pinus strobus</i>	35	7	G	F	G	3.5	S	R	
20	Yew Species	<i>Taxus</i> sp.	25	5	G	F	F	2.5	S	R	
21	Apple Species	<i>Malus</i> sp.	55	10	G	G	G	5.0	S	R	
22	Apple Species	<i>Malus</i> sp.	59	10	G	G	G	5.0	S	R	
23	Apple Species	<i>Malus</i> sp.	52	9	G	F	G	4.5	S	R	
24	Pear Species	<i>Pyrus</i> sp.	22,16,15,14	7	G	F	G	3.5	S	R	
25	Silver Maple	<i>Acer saccharinum</i>	32	10	G	G	G	5.0	S	R	
26	Norway Spruce	<i>Picea abies</i>	12	6	G	G	G	3.0	S	R	
27	Common Lilac	<i>Syringa vulgaris</i>	14,10	5	F	F	F	2.5	S	R	
28	Common Lilac	<i>Syringa vulgaris</i>	15	4	G	G	G	2.0	S	R	
29	Northern Catalpa	<i>Catalpa speciosa</i>	51	9	G	F	G	4.5	S	R	
30	White Willow	<i>Salix alba</i>	115	10	G	F	F	5.0	S	R	
31	Austrian Pine	<i>Pinus nigra</i>	29	9	G	G	G	4.5	S	R	
32	Cherry Species	<i>Prunus</i> sp.	24	5	F	F	P	2.5	S	R	
33	Pear Species	<i>Pyrus</i> sp.	20,19	9	F	F	G	4.5	S	R	
34	Norway Spruce	<i>Picea abies</i>	45	9	G	G	G	4.5	S	R	
35	Norway Spruce	<i>Picea abies</i>	41	11	G	G	G	5.5	S	R	
36	Norway Spruce	<i>Picea abies</i>	29	8	G	G	G	4.0	S	R	
37	Norway Spruce	<i>Picea abies</i>	20	8	G	G	G	4.0	S	R	
38	Norway Spruce	<i>Picea abies</i>	35	7	G	P	F	3.5	S	R	

Tree	Common Name	Scientific Name	DBH	CW	TI	CS	CV	TPZ	Loc.	Rec.	Comments
39	Norway Spruce	<i>Picea abies</i>	39	8	G	G	G	4.0	S	R	
40	Norway Spruce	<i>Picea abies</i>	29	8	G	G	G	4.0	S	R	
41	Norway Spruce	<i>Picea abies</i>	26	7	G	G	G	3.5	S	R	
42	Norway Spruce	<i>Picea abies</i>	26	7	G	G	G	3.5	S	R	
43	Norway Spruce	<i>Picea abies</i>	41	10	G	G	G	5.0	S	R	
44	Norway Spruce	<i>Picea abies</i>	16	4	G	G	G	2.0	S	R	
45	Norway Spruce	<i>Picea abies</i>	26	7	G	G	G	3.5	S	R	
46	Norway Spruce	<i>Picea abies</i>	17	7	G	G	G	3.5	S	R	
47	Norway Spruce	<i>Picea abies</i>	35	7	G	G	G	3.5	S	R	
48	Norway Spruce	<i>Picea abies</i>	35	7	G	G	G	3.5	S	R	
49	Norway Spruce	<i>Picea abies</i>	47	9	G	G	G	4.5	S	R	
50	White Mulberry	<i>Morus alba</i>	21	7	F	F	G	3.5	B	I	
51	White Mulberry	<i>Morus alba</i>	26	7	G	F	G	3.5	B	I	
52	White Mulberry	<i>Morus alba</i>	18	6	G	G	F	3.0	N	P	
53	Manitoba Maple	<i>Acer negundo</i>	13	6	G	G	G	3.0	B	P	
54	Manitoba Maple	<i>Acer negundo</i>	14,10	6	G	F	F	3.0	B	P	
55	Manitoba Maple	<i>Acer negundo</i>	25	8	G	G	F	4.0	S	R	
56	Manitoba Maple	<i>Acer negundo</i>	20,29,14	9	G	F	G	4.5	S	I	
57	Apple Species	<i>Malus</i> sp.	10	5	G	F	G	2.5	S	P	
58	Norway Maple	<i>Acer platanoides</i>	15	6	G	G	G	3.0	S	I	
59	Norway Maple	<i>Acer platanoides</i>	10	6	G	F	G	3.0	S	P	
60	Norway Maple	<i>Acer platanoides</i>	12	5	G	G	G	2.5	S	P	
61	Green Ash	<i>Fraxinus pennsylvanica</i>	20,15,10	9	F	F	-	4.5	N	R-Cond	DEAD.
62	Green Ash	<i>Fraxinus pennsylvanica</i>	25	9	G	G	-	4.5	B	R-Cond	DEAD.
63	Green Ash	<i>Fraxinus pennsylvanica</i>	15	8	G	G	-	4.0	B	R-Cond	DEAD.
64	Green Ash	<i>Fraxinus pennsylvanica</i>	15	8	G	G	-	4.0	B	R-Cond	DEAD.
65	Green Ash	<i>Fraxinus pennsylvanica</i>	25	9	G	G	-	4.5	B	R-Cond	DEAD.
66	Red Maple	<i>Acer rubrum</i>	10	8	G	F	G	4.0	S	R	
67	Green Ash	<i>Fraxinus pennsylvanica</i>	18	7	G	G	P	3.5	S	R-EAB	EAB infested.
68	White Willow	<i>Salix alba</i>	140	13	P	F	G	6.5	S	R	
69	Green Ash	<i>Fraxinus pennsylvanica</i>	42	9	G	G	-	4.5	S	R-Cond	DEAD.
70	Balsam Fir	<i>Abies balsamea</i>	20	6	G	F	G	3.0	S	R	
71	Eastern White Cedar	<i>Thuja occidentalis</i>	10	4	G	G	G	2.0	S	R	
72	White Willow	<i>Salix alba</i>	91	11	G	F	F	5.5	S	R	
73	Cherry Species	<i>Prunus</i> sp.	19	6	G	G	G	3.0	S	R	
74	Cherry Species	<i>Prunus</i> sp.	20	5	G	F	G	2.5	S	R	
75	Silver Maple	<i>Acer saccharinum</i>	40,35,35+	11	G	F	G	5.5	S	R	
76	Green Ash	<i>Fraxinus pennsylvanica</i>	60	15	G	F	-	7.5	B	R-Cond	DEAD.
77	Eastern White Cedar	<i>Thuja occidentalis</i>	25	5	G	F	G	2.5	S	R	
78	White Mulberry	<i>Morus alba</i>	28	8	G	G	G	4.0	S	R	

## **Appendix 2 – Tree Protection Plan**





LEGEND:

- PROPERTY LINE
- BUILDING OUTLINE
- PRIVATE REALM TREES TO BE REMOVED  
TOTAL: 51
- TPZ TREE PROTECTION ZONE

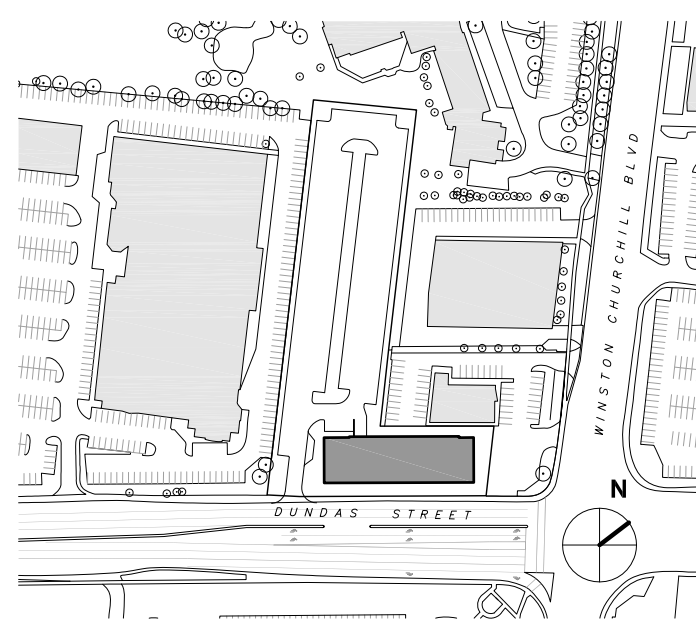
URBAN FOREST INNOVATIONS INC  
TREE INVENTORY LIST

Tree	Common Name	Scientific Name	DBH (cm)	TPZ (m)	
1	Norway Maple	Acer platanoides	11	2.0	REMOVE
2	Norway Maple	Acer platanoides	15.11	3.0	REMOVE
3	Norway Maple	Acer platanoides	41	5.0	REMOVE
4	Yew Species	Taxus sp.	12.8.6	2.0	REMOVE
5	Ash Species	Fraxinus sp.	20	5.0	REMOVE
6	Austrian Pine	Pinus nigra	55	5.0	REMOVE
7	Paper Birch	Betula papyrifera	32.29	5.0	REMOVE
8	Colorado Spruce	Picea pungens	46	3.5	REMOVE
9	White Spruce	Picea glauca	25	3.0	REMOVE
10	White Mulberry	Morus alba	35	5.0	REMOVE
11	Austrian Pine	Pinus nigra	31	3.5	REMAIN
12	Austrian Pine	Pinus nigra	37	3.5	REMAIN
13	Pussy Willow	Salix discolor	13.13	2.5	REMOVE
14	Green Ash	Fraxinus pennsylvanica	13	2.5	REMOVE
15	Apple Species	Malus sp.	41.38	5.0	REMOVE
16	Norway Spruce	Picea abies	40	5.5	REMOVE
17	Norway Spruce	Picea abies	40	5.0	REMOVE
18	Norway Spruce	Picea abies	35	3.5	REMOVE
19	White Pine	Pinus strobus	35	3.5	REMOVE
20	Yew Species	Taxus sp.	25	2.5	REMOVE
21	Apple Species	Malus sp.	55	5.0	REMOVE
22	Apple Species	Malus sp.	59	5.0	REMOVE
23	Apple Species	Malus sp.	52	4.5	REMOVE
24	Pear Species	Pyrus sp.	22.16.15.14	3.5	REMOVE
25	Silver Maple	Acer saccharinum	32	5.0	REMOVE
26	Norway Spruce	Picea abies	12	3.0	REMOVE
27	Common Lilac	Syringa vulgaris	14.10	2.5	REMOVE
28	Common Lilac	Syringa vulgaris	15	2.0	REMOVE
29	Northern Catalpa	Catalpa speciosa	51	4.5	REMOVE
30	White Willow	Salix alba	115	5.0	REMOVE
31	Austrian Pine	Pinus nigra	29	4.5	REMOVE
32	Cherry Species	Prunus sp.	24	2.5	REMOVE
33	Pear Species	Pyrus sp.	20.19	4.5	REMOVE
34	Norway Spruce	Picea abies	45	4.5	REMOVE
35	Norway Spruce	Picea abies	41	5.5	REMOVE
36	Norway Spruce	Picea abies	29	4.0	REMOVE
37	Norway Spruce	Picea abies	20	4.0	REMOVE
38	Norway Spruce	Picea abies	35	3.5	REMOVE
39	Norway Spruce	Picea abies	39	4.0	REMOVE
40	Norway Spruce	Picea abies	29	4.0	REMOVE
41	Norway Spruce	Picea abies	26	3.5	REMOVE
42	Norway Spruce	Picea abies	26	3.5	REMOVE
43	Norway Spruce	Picea abies	41	5.0	REMOVE
44	Norway Spruce	Picea abies	16	2.0	REMOVE
45	Norway Spruce	Picea abies	26	3.5	REMOVE
46	Norway Spruce	Picea abies	17	3.5	REMOVE
47	Norway Spruce	Picea abies	35	3.5	REMOVE
48	Norway Spruce	Picea abies	35	3.5	REMOVE
49	Norway Spruce	Picea abies	47	4.5	REMOVE
50	White Mulberry	Morus alba	21	3.5	REMAIN
51	White Mulberry	Morus alba	26	3.5	REMAIN
52	White Mulberry	Morus alba	18	3.0	REMAIN
53	Manitoba Maple	Acer negundo	13	3.0	REMAIN
54	Manitoba Maple	Acer negundo	14.10	3.0	REMAIN
55	Manitoba Maple	Acer negundo	25	4.0	REMOVE
56	Manitoba Maple	Acer negundo	20.29.14	4.5	REMAIN
57	Apple Species	Malus sp.	10	2.5	REMAIN
58	Norway Maple	Acer platanoides	15	3.0	REMAIN
59	Norway Maple	Acer platanoides	10	3.0	REMAIN
60	Norway Maple	Acer platanoides	12	2.5	REMAIN
61	Green Ash	Fraxinus pennsylvanica	20.15.10	4.5	REMOVE
62	Green Ash	Fraxinus pennsylvanica	25	4.5	REMOVE
63	Green Ash	Fraxinus pennsylvanica	15	4.0	REMOVE
64	Green Ash	Fraxinus pennsylvanica	15	4.0	REMOVE
65	Green Ash	Fraxinus pennsylvanica	25	4.5	REMOVE
66	Red Maple	Acer rubrum	10	4.0	REMOVE
67	Green Ash	Fraxinus pennsylvanica	18	3.5	REMOVE
68	White Willow	Salix alba	140	6.5	REMOVE
69	Green Ash	Fraxinus pennsylvanica	42	4.5	REMOVE
70	Balsam Fir	Abies balsamea	20	3.0	REMOVE
71	Eastern White Cedar	Thuja occidentalis	10	2.0	REMOVE
72	White Willow	Salix alba	91	5.5	REMOVE
73	Cherry Species	Prunus sp.	19	3.0	REMOVE
74	Cherry Species	Prunus sp.	20	2.5	REMOVE
75	Silver Maple	Acer saccharinum	40.35.35+	5.5	REMOVE
76	Green Ash	Fraxinus pennsylvanica	60	7.5	REMOVE
77	Eastern White Cedar	Thuja occidentalis	25	2.5	REMOVE
78	White Mulberry	Morus alba	28	4.0	REMOVE

NOTE:

- THE SITE SURVEY INFORMATION WAS EXTRACTED FROM THE SURVEYOR'S REAL PROPERTY REPORT PREPARED BY DAVID B. SEARLES SURVEYING LTD.

- THE TREE INVENTORY INFORMATION WAS EXTRACTED FROM THE TREE INVENTORY REPORT PREPARED BY URBAN FOREST INNOVATIONS INC.



NO.	DESCRIPTION	DATE
01	ISSUED FOR REVIEW	09.30.2016

PROGRESS SET  
NOT FOR CONSTRUCTION

CONTRACTOR SHALL CHECK ALL DIMENSIONS ON THE WORK AND REPORT ANY DISCREPANCY TO THE CONSULTANT BEFORE PROCEEDING. THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION UNTIL AUTHORIZED IN WRITING BY CONSULTANT.

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Mississauga, Ontario

TREE PRESERVATION PLAN

PROJECT 1611053

SCALE 1:250

L002

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## **Limitations of Assessment**

It is our policy to attach the following clause regarding limitations. We do this to ensure that the client is aware of what is technically and professionally realistic in assessing and retaining trees.

The assessment(s) of the tree(s) presented in this report has been made using accepted arboricultural techniques. These may include, among other factors, a visual examination of: the above-ground parts of the tree(s) for visible structural defects, scars, external indications of decay such as fungal fruiting bodies, evidence of pests or pathogens, discoloured foliage, the condition of any visible root structures, the degree and direction of lean (if any), the general condition of the tree(s) and the surrounding site, and the proximity of property and people. Except where specifically noted, the tree(s) was not cored, probed, climbed or assessed using any advanced methods, and there was no detailed inspection of the root crown(s) involving excavation.

Notwithstanding the recommendations and conclusions made in this report, it must be recognized that trees are living organisms, and their health and vigour constantly change over time. They are not immune to changes in site or weather conditions, or general seasonal variations. Weather events such as wind or ice storms may result in the partial or complete failure of any tree, regardless of assessment results.

While reasonable efforts have been made to accurately assess the overall condition of the subject tree(s), no guarantee or warranty is offered, expressed or implied, that the tree(s) or any of its parts will remain standing or in stable condition. It is both professionally and practically impossible to predict with absolute certainty the behaviour of any single tree or its component parts, regardless of the assessment methodology implemented. Inevitably, a standing tree will always pose some level of risk. Most trees have the potential for failure under adverse weather conditions, and the risk can only be eliminated if the tree is removed.

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

Prepared and submitted by:



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