

611 Tradewind Drive Ancaster Ontario Canada L9G 4V5

# **Arborist Report**

**Pre-Construction Report** 

# Prepared For: **Di Gregorio Group of Companies**

Site Address:

Coleraine Rd.

February 17, 2016

Prepared By:

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#### **Summary**

This report is in regards to 12415 Coleraine Rd., which is currently a residential property in the Town of Caledon. The proposed project is the demolition of the current dwelling and the building of an asphalt plant. The asphalt plant Construction Plan will require several trees to be removed. The tree removals do not fall under the purview of the Town of Caledon Woodlands Bylaw as the amount of trees to be removed nor is the density of trees high enough.

This report must be accompanied by the following additional documents:

- 1. A full printing of the Tree Inventory performed by DRG, otherwise known as the Tree Protection Action Key (TPAK). (Appendix 1)
- 2. The Tree Protection Plan. (Appendix 2)

#### **Assignment**

Davey Resource Group (DRG) was commissioned by Di Gregorio Group of Companies to complete an Arborist Report and Tree Preservation Plan for the proposed construction of a asphalt plant. An inventory and assessment of all the trees affected by the proposed construction on 12415 Coleraine Rd. was conducted. Trees were assessed for their structure, overall health, size and potential impacts that would be caused by the proposed construction.

#### **Limitations of the Assignment**

It must be understood that DRG is the assessor of the trees in relation to tree preservation practices. The construction supervisors should incorporate the information and recommendations provided within this report into their construction methodology to complete their project in a reasonable manner.

This Arborist Report and Tree Preservation Plan are based on the project scope and details for tree preservation as discussed. All proposed construction methods are limited to what was provided in the site plans and in discussions with the Project Leader. Estimates, measurements and comments regarding tree preservation were based on the proposed construction plans.

#### **Observations**

- A field visit was conducted on February 16, 2016.
- There were 43 trees inventoried and two hedges.
- There were 34 private trees, 2 municipally owned trees, 7 neighboring trees and 2 neighboring hedges.
- Both hedges were found along the East side, on the neighboring property. One hedge consisted of spruce and cedar and the second hedge consisted of poplars and maples.
- Many of the trees on the property were found to have large broken branches, hangers and deadwood in the crown.

For further details and observations, refer to the Tree Protection Action Key found in the supporting materials. Trees have been numbered and can be cross-referenced to location, found in the Supporting Materials - Appendix 2.

#### **Recommendations:**

• It is recommended that the trees on the property are removed due to the scope of the project (Please refer to Appendix 1 & 2).

• It is recommended that trees on neighboring properties not be removed. No construction material should be placed in the dripline of these trees.

### **Tree Protection Zone (TPZ)**

This is the area(s) to be protected defined by the Town of Caledon Tree Preservation Specifications and by the arborist and will change from tree to tree due to structural boundaries. Where some fill or excavate must be temporarily located near a TPZ, a plywood barrier must be used to ensure no material enters the TPZ. Rigid Hoarding is needed when construction is within the MTPZ to prevent accidental bumps from machines. These seemingly harmless bumps stay with the tree forever and can cause significant chronic stress to the tree.

## **Hoarding**

Hoarding (Tree Protection Fencing (TPF)) is used on construction sites to ensure that damage to the tree and its root zone is prevented. This distance is typically located by the MTPZ. However it must be understood that sometimes this distance is not achievable due to infrastructure being too close. It must be further understood the hoarding distance sometimes must accommodate a larger tree protection zone (than the typical MTPZ distance) due to a limited root growing area/volume (this area is typically defined by the Project Arborist.)

Hoarding locations should be field marked by the Project Arborist, and hoarding installation will be installed by the contractor. This hoarding must be installed to the lines defined in the Tree Preservation Plan of this report.

Problems will arise for tree preservation efforts when anyone removes the hoarding, even temporarily. It takes one instance of soil compaction from a heavy machine for roots to suffer from air and water deprivation and for the tree to become stressed. It is imperative to install and maintain in good condition the hoarding to prevent this from happening before and throughout the entire construction.

### **Root Pruning Protocol**

The roots provide nutrients and water to the leaves and branches while supporting the tree in wind storms and preventing failure. Trees are remarkable, in that the upper canopy can be completely green and full while the majority of the roots below have been removed; leaving the tree highly prone to failure and imminent death within a few years. Once a tree is injured, that injury is never "healed" but instead the tree allocates a great deal of energy to try and repair itself, often times at the expense of its vitality and sometimes leading it into a **mortality spiral** that may not be noticed until years later.

Root pruning is a practice to minimize injuries to trees. Roots in comparison to upper canopy limbs store a great deal of energy and reserves for trees to survive and must be removed with the utmost care and consideration. Similar to pruning the upper canopy of the tree, roots are best removed (if needed) via target pruning practices and not by being torn off. Roots must be assessed by a qualified and experienced arborist and then pruned properly with a sharp tool.

Root pruning is not a common skill set and should be performed by a qualified arborist familiar with root excavation and root pruning. Tree's roots are underground and are otherwise not detectible without physical exploration – i.e., using a **Supersonic Air Tool** (SSAT) such as an AirSpade® or Daylighting vehicle (Hydro-Vac). Root pruning trenches must be at least the depth of the deepest root (usually 30-60 cm) and about 15 cm wide. Roots are assessed by the arborist with regard to the effects construction may have on the tree, and then either pruned with a sharp tool, possibly recommended for removal, or a design change may be needed on-site to accommodate. **The use of a rotary saw is not acceptable to prune the roots of trees.** 

- 1. Root Pruning within the **MTPZ** of any tree requires root exploration via Supersonic Air Tool or Daylighting Vehicle to first remove the soil and expose the roots. A Certified Arborist (CA) will be required onsite during the initial excavation to make appropriate recommendations to the contractor for appropriate tree preservation as required. When trees are damaged or injured significantly, the CA must notify the project arborist immediately to report the circumstances. Generally:
  - a. Roots fewer than 2 cm in diameter can be pruned using a sharpened tool such as hand pruners or a sharpened spade under the supervision of the Certified Arborist.
  - b. Roots 2 5 cm in diameter can be pruned by the Certified Arborist using a sharp tool, such as a handsaw, hand pruner or loppers and under the supervision of the Construction Inspector and/or the advisement of the Project Arborist.
  - c. All roots over 5 cm in diameter must be assessed before pruning.
- 2. Root Pruning within the **Critical Root Zone** and outside of the MTPZ typically requires the use of a sharpened garden spade, cutting a line to a depth of about 30 cm **by the on-site Certified Arborist and the advisement of the project arborist if needed.** However, the same pruning protocol for the size of roots encountered (in the MTPZ) applies to the roots found within this area.

The trenches (when using SSAT) are typically backfilled with the same excavated soil or new topsoil or compost and hoarding should be installed along this trench to protect the remaining roots.

#### **Tree Protection Signs**

A sign should be displayed on the TPZs. These signs could be made in bulk at a discounted rate and installed on the hoarding in various locations. Signage allows the public and reminds the contractors the significance of the TPZs and the efforts put forward by the Town of Caledon in tree preservation.

#### **Monitoring**

The Town of Caledon may require monitoring of the property by the consulting arborist throughout the remaining portion of the project. The intent of monitoring is to assure that the protected trees are in good health and should there be any issues, that they are noted and dealt with immediately.

#### **Staging Areas and Construction Access**

All staging areas are understood to be outside of the Tree Protection Zone. At no time is material or debris to be stacked, staged, or piled inside the hoarding (Tree Protection Fencing). The existing driveway will be used as a construction access point.

#### **Conclusion**

There were 45 trees inventoried during the field visit. There will be thirty six trees removed for the proposed construction of the asphalt plant. The removal of the trees does not fall under the purview of the Town of Caledon Woodlands Bylaw. Neighboring trees should have low to none construction impacts if no construction material is within the drip line of these trees.

# **Appendix 1 - Tree Protection Action Key**

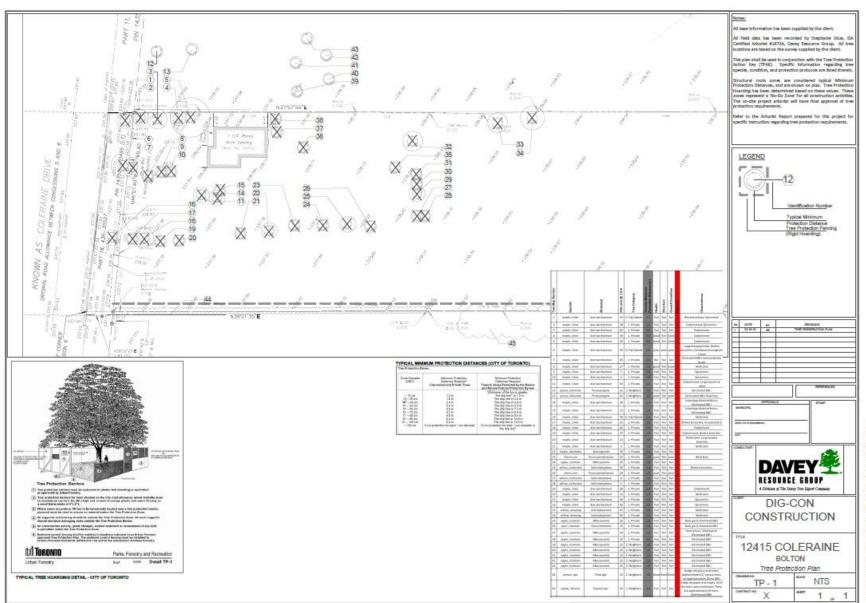
**Table 1:** Tree preservation comments for 12415 Coleraine Road.

Table	e 1: Tree preservation	on comments for 12415 (	olera	ine Road.						
Tree Map Number	Species	Botanical	dbh (cm) @ 1.4 m	Tree Category	Toronto Minimum Protection Distance (m)	Health	Structure	Overall Condition	Removal	Observations
1	maple, silver	Acer saccharinum	34	5. City Owned	2.4	Fair	Fair	Fair	Х	Wound at base; Epicormics
2	maple, silver	Acer saccharinum	36	1. Private	2.4	Fair	Fair	Fair	Х	Codominant; Epicormics
3	maple, silver	Acer saccharinum	42	1. Private	3.0	Fair	Fair	Fair	Х	Codominant
4	maple, silver	Acer saccharinum	36	1. Private	2.4	Good	Fair	Good	Х	Codominant
5	maple, silver	Acer saccharinum	39	1. Private	6.0	Good	Fair	Good	Х	Codominant
6	maple, silver	Acer saccharinum	52	5. City Owned	3.6	poor	poor	poor	х	Large hanging limbs; Broken branches; Deadwood throughout crown
7	maple, silver	Acer saccharinum	45	1. Private	3.0	fair	Fair	Fair	Х	Estimated DBH; Surrounded by brush
8	maple, silver	Acer saccharinum	17	1. Private	1.8	good	Fair	Good	Х	Multistem
9	maple, silver	Acer saccharinum	7	1. Private	1.8	Fair	Fair	Fair	Х	Epicormics
10	maple, silver	Acer saccharinum	5	1. Private	1.8	Fair	Fair	Fair	Х	Epicormics
11	maple, silver	Acer saccharinum	39	1. Private	2.4	Fair	Fair	Fair	Х	Codominant; Large wound on stem
12	spruce, Colorado	Picea pungens	22	2. Neighbors	1.8	Fair	Fair	Fair		Estimated DBH
13	spruce, Colorado	Picea pungens	22	2. Neighbors	1.8	poor	Fair	poor		Estimated DBH; Dead top
14	maple, silver	Acer saccharinum	30	1. Private	2.4	Fair	Fair	Fair	Х	In backyard behind fence; Estimated DBH
15	maple, silver	Acer saccharinum	12	1. Private	1.8	Fair	Fair	Fair	Х	In backyard behind fence; Estimated DBH
16	maple, silver	Acer saccharinum	30	1. Private	2.4	Fair	Fair	Fair	Х	Multistem
17	maple, silver	Acer saccharinum	23	1. Private	1.8	Fair	Fair	Fair	Х	Broken branches; Included bark
18	maple, silver	Acer saccharinum	42	1. Private	3.0	Fair	Fair	Fair	Х	Codominant
19	maple, silver	Acer saccharinum	27	1. Private	1.8	Fair	Fair	Fair	Х	Codominant; Broken branches
20	maple, silver	Acer saccharinum	23	1. Private	1.8	Fair	Fair	Fair	Х	Multistem; Large broken branches
21	maple, silver	Acer saccharinum	5	1. Private	1.8	Fair	Fair	Fair	Х	Multistem
22	maple, manitoba	Acer negundo	35	1. Private	2.4	Fair	Fair	Fair	Х	
23	cherry, pin	Prunus pensylvanica	15	1. Private	1.8	poor	Fair	poor	Х	Black knot
24	apple, common	Malus pumila	29	1. Private	1.8	Fair	Fair	Fair	Х	
25	willow, corkscrew	Salix matsudana	30	1. Private	2.4	Fair	Fair	Fair	Х	Broken branches
26	cherry, pin	Prunus pensylvanica	10	1. Private	1.8	poor	Fair	poor	Х	
27	willow, corkscrew	Salix matsudana	8	1. Private	1.8	Fair	Fair	Fair	Х	
28	willow, corkscrew	Salix matsudana	5	1. Private	1.8	Fair	Fair	Fair	Х	
29	maple, silver	Acer saccharinum	30	1. Private	2.4	Fair	Fair	Fair	Х	Codominant
30	maple, silver	Acer saccharinum	12	1. Private	1.8	Fair	Fair	Fair	Х	Multistem
31	maple, silver	Acer saccharinum	26	1. Private	1.8	Fair	Fair	Fair	Х	Epicormics
32	maple, silver	Acer saccharinum	42	1. Private	3.0	Fair	Fair	Fair	X	Epicormics

Dave	avey Resource Group Pre-Construction Report 12413 Coleraine Rd.									
Tree Map Number	Species	Botanical	dbh (cm) @ 1.4 m	Tree Category	Toronto Minimum Protection Distance (m)	Health	Structure	Overall Condition	Removal	Observations
33	willow, weeping	Salix babylonica	47	1. Private	3.0	Fair	Fair	Fair	Х	Multistem
34	willow, weeping	Salix babylonica	55	1. Private	3.6	Fair	Fair	Fair	Х	Multistem
35	apple, common	Malus pumila	25	1. Private	1.8	Fair	Fair	Fair	Х	Back yard; Estimated DBH
36	pear, common	Pyrus communis	15	1. Private	1.8	Fair	Fair	Fair	Х	Back yard; Estimated DBH
37	apple, common	Malus pumila	20	1. Private	1.8	Fair	Fair	Fair	х	Heavy lean; In backyard; Estimated DBH
38	apple, common	Malus pumila	15	1. Private	1.8	Fair	Fair	Fair	Х	Estimated DBH
39	apple, common	Malus pumila	15	2. Neighbors	1.8	Fair	Fair	Fair		Estimated DBH
40	apple, common	Malus pumila	15	2. Neighbors	1.8	Fair	Fair	Fair		Estimated DBH
41	apple, common	Malus pumila	15	2. Neighbors	1.8	Fair	Fair	Fair		Estimated DBH
42	apple, common	Malus pumila	15	2. Neighbors	1.8	Fair	Fair	Fair		Estimated DBH
43	apple, common	Malus pumila	15	2. Neighbors	1.8	Fair	Fair	Fair		Estimated DBH
44	spruce, spp.	Picea spp.	15	2. Neighbors	1.8	Good	Good	Good		Hedge of spruce and cedar; Approximately 27 spruce trees all approximatley 20 cm DBH
45	poplar, balsam	Populus spp.	35	2. Neighbors	2.4	Fair	Fair	Fair		Hedge of poplar and maple; All of the trees were multistem; There are approxmately 10 trees; Estrimated DBH

### **Appendix 2 - Tree Preservation Plans (Preview)**

**Figure 1:** A map of the tree inventory and hoarding.



12415 COLERAINE DRIVE - TREE PRESERVATION PLAN

# **Appendix 3 - Pictures**



Figure 1: Tree no. 29 – 32.



Figure 2: Tree no. 17 - 20.



Figure 3: Hedges.



Figure 4:Tree no. 18 – 20. .



Figure 5: Tree no. 7 - 10.



Figure 6: Tree no. 4 & 5.



Figure 7: Tree no. 12 & 13.

# **Appendix 4 - Glossary of Common Arboricultural Terms**

Arborist	A professional who possesses the technical competence gained through experience and related training to provide for or supervise the management of trees and other woody plants in residential, commercial, and public landscapes.
ANSI A300	Acronym for American National Standards Institute. In the United States, industry-developed, national consensus standards of practice for tree care.
Bark Tracing	Cutting away torn or injured bark to leave a smooth edge.
Branch Bark Ridge	Raised strip of bark at the top of a branch union, where the growth and expansion of the trunk or parent stem and adjoining branch push the bark into a ridge.
Callus wood	Undifferentiated tissue formed by the cambium, usually as the result of wounding.
Clinometer	A device used to calculate the height of trees.
Consulting Arborist	<ul> <li>An Arboricultural consultant is one of the following:         <ul> <li>American Society of Consulting Arborists, Registered Consulting Arborist (ASCA RCA#)</li> <li>International Society of Arboriculture, Board Certified Master Arborist (ISA BCMA #B)</li> <li>ISA Certified Arborist/Municipal Specialist in good standing for a minimum of 6 years with 6 years of proven experience in a management role related to arboriculture, and has attested and signed to a code of ethics related to arboriculture (ISA#)</li> </ul> </li> </ul>
Compartmentalization	Natural defense process in trees by which chemical and physical boundaries are created that act to limit the spread of disease and decay organisms
Critical Root Zone – (CRZ)	Area of soil around a tree where the minimum amounts of roots considered critical to the structural stability or health of the tree are located. CRZ determination is sometimes based on the drip line or a multiple of dbh (12:1, 12cm of ground distance from the trunk for every cm of dbh) but because root growth is often asymmetric due to site conditions, on-site investigation is preferred.
Daylighting	Also known as Hydro-vac, this is the process by which soil is vacuumed up. In the context of tree care this allows workers to access the soil below the roots without mortal damage to significant roots.
Dbh	Acronym for tree diameter at breast height. Measured at 1.4m above ground.

Decurrent	Rounded or spreading growth habit of the tree crown.
Directional Pruning	Providing clearance by pruning branches that could significantly affect the integrity of utility facilities or other structures, and leaving in place branches that could have little or no effect.
Dripline	Imaginary line defined by the branch spread of a single parent or group of plants
Excurrent	Tree growth habit characterized by a central leader and a pyramidal crown.
Included bark	Bark that becomes embedded in a crotch (union) between branch and trunk or between codominant stems. Causes a weak structure.
Lion's Tailing	Poor pruning practice in which an excessive number of branches are thinned from the inside and lower part of specific limbs or a tree crown, leaving mostly terminal foliage. Results in poor branch taper, poor wind load distribution, and higher risk of branch failure.
MTPZ	Acronym for Minimum Tree Protection Zone, also known as the Structural Root Zone (SRZ), which is the distance from the tree equal to 6 times the dbh, within which the likelihood of encountering roots that are direct structural supports for the tree.
Moment	Rotational force that is created by any line force on a body. The magnitude of a moment is defined as the product of the force magnitude and perpendicular distance from the line of action of the force to the axis that the moment is being calculated about.
Mortality Spiral	A sequence of stressful events or conditions causing the decline and eventual death of a tree.
Mulch	Material that is spread of sometimes sprayed on the soil surface to reduce weed growth, to retain soil moisture and moderate temperature extremes, to reduce compaction from pedestrian traffic or to prevent damage from lawn-maintenance equipment, to reduce erosion or soil spattering onto adjacent surfaces, to improve soil quality through its eventual decomposition, and/or to improve aesthetic appearance of the landscape. Mulch can be composed of chipped, ground, or shredded organic material such as bark, wood, or recycled paper; unmodified organic material such as seed hulls; organic fiber blankets or mats; or inorganic material such as plastic sheeting.

Organic Matter	Material derived from the growth (and death) of living organisms.  The organic components of the soil.					
CRZ	Acronym for Critical Root Zone, also known as the Critical Root Zone (see definition above), within which there is a high likelihood of encountering roots that are necessary for the survival for the tree.					
Project Arborist	The consulting arborist retained to provide all tree preservation recommendations to the project manager or contractors on a given construction project.					
Qualified Arborist	An arborist who has documented related training (i.e. ISA, MTCU, or equivalent) and on-the-job experience (minimum of 5 years)					
Radial trenching	Technique for aerating the soil or alleviating compaction around a tree by removing and replacing soil (which may be amended) in trenches (typically 300mm deep and 150mm wide) made in a spoke like pattern (radially from the trunk) in the root zone to improve conditions for   CROSS-SECTION  OVERHEAD  OVERHEAD					
Reaction Wood	Wood formed in leaning or crooked stems or on lower or upper sides of branches as a means of counteracting the effects of gravity.					
Removal Cut	A cut that removes a branch at its point of origin. Collar cut.					
Reduction Cut	A pruning cut that reduces the length of a branch or stem back to a lateral branch large enough to assume apical dominance.					
Resistograph®	A brand name of a device consisting of a specialized micro-drill bit that drills into trees and graphs density differences that are used to detect decay.					
Soft-Scaped	Landscaping practices that do not involved solid or deeply-dug foundations. Patios consisting of slab rocks laid on-top of the soil with minimal excavation and base (less than 10cm) and causing					

	minimal damage to existing tree roots.
Static Support System	Cabling system that utilizes rigid materials such as rods and steel cables to limit movement and provide constant support of limbs.
Structural cells	Modular system consisting of units of soil and integrated support structures that serve both as a foundation for paved surfaces and a hospitable environment for tree root growth,
Structural pruning	Pruning to establish a strong arrangement or system of scaffold branches.
Structural Soil <sup>TM</sup>	Pavement substrate that can be compacted to meet engineering specifications yet remains penetrable be tree roots in the urban environment. Composed of angular crushed stone, clay loam, and hydrogel mixed in a weight ratio of 100:20:0.03. Developed at the Urban Horticulture Institute, Cornell University, Ithaca, NY.
Supersonic Air Excavation Techniques (SSAT)	A methodology using a device that directs a jet of highly compressed air to excavate soil. Used within the root zone of trees to avoid or minimizing damage to the roots, or near underground structures such as pipes and wires to avoid or minimize damage to them.
Tree Protection Zone – (TPZ)	Defined area within which certain activities are prohibited or restricted to prevent or minimize potential injury to designated trees, especially during construction. TPZ is sometimes based on a minimum multiple of dbh (e.g. 6:1, 6cm of ground distance from the trunk for 1cm of dbh)
Walls	<ul> <li>Trees have 4 walls in a process known as compartmentalization.</li> <li>Wall 1 prevents decay moving up and down in a tree</li> <li>Wall 2 prevents decay moving inward in a tree</li> <li>Wall 3 prevents decay moving laterally in a tree</li> <li>Wall 4 is the new growth formed on the outside of the tree, callus growth.</li> </ul>
Woundwood	Lignified, differentiated tissues produced on woody plants as a response to wounding.

#### **Appendix 5 - References**

- 1. ISA, 2001-2011. <u>Best Management Practices, Books 1-9, Companion publications to</u> ANSI A300 Standards for Tree Care
- 2. Dujesiefken, Dr. Dirk, 2012. Director of the Institute for Tree Care in Germany, <u>The CODIT Principle, research presented on cambial regrowth on trees after injury at the Annual ISA Conference in Kingston Ontario</u>
- 3. Sinclair and Lyon, 2005. <u>Diseases of Trees and Shrubs, Second Edition</u>
- 4. ISA, 2010. Glossary of Arboricultural Terms
- 5. Neely and Watson, ISA, 1994 and 1998. The Landscape Below Ground 1 and 2
- 6. Matheny and Clark, ISA, 1994. <u>A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas, 2<sup>nd</sup> Edition</u>
- 7. Matheny and Clark, ISA 1998. <u>Trees and Development</u>, <u>A Technical Guide to Preservation of Tree During Land Development</u>
- 8. PNW-ISA, 2011. <u>Tree Risk Assessment in Rural Areas and Urban/Rural Interface</u>, Version 1-5

#### **Appendix 6 - Arborist Qualifications**

#### **Stephanie Ulcar, Consulting Arborist**

Stephanie Ulcar is a Consulting Arborist with the Davey Resource Group. Ms. Ulcar is an ISA certified arborist with a Masters in Forest Conservation. Ms. Ulcar has experience in both the public and private sector having worked with the Ministry of Natural Resources, Town of Richmond Hill and Conservation Halton. Most recently, Ms. Ulcar completed an inventory and storm damage assessment for the City of Toronto as well as completed an Asian Longhorn beetle study in Long Island, New York. Previously, Ms. Ulcar worked for the Ministry of Natural Resources collecting data on forest growth dynamics, as well as, completing tree assessments for the Emerald Ash Borer strategy for the Town of Richmond Hill.

#### Education

STATE UNIVERSITY OF NEW YORK Master of Urban Planning

UNIVERSITY OF TORONTO
Master of Forest Conservation

UNIVERSITY OF TORONTO Honours Bachelor of Science

#### **Certifications**

International Society of Arboriculture - Certified Arborist ON - 1873A

Professional Affiliations
International Society of Arboriculture (ISA)
Ontario Professional Forestry Association

#### **Appendix 7 - Conditions of Assessment Agreement**

This Conditions of Assessment Agreement is made pursuant to and as a provision of Davey Resource Group, a division of The Davey Tree Expert Co. of Canada, Limited ("Davey"), providing tree assessment services as agreed to between the parties, the terms and substance of which are incorporated in and made a part of this Agreement (collectively the "Services").

Trees are living organisms that are subject to stress and conditions and which inherently impose some degree or level of risk. Unless a tree is removed, the risk cannot be eliminated entirely. Tree conditions may also change over time even if there is no external evidence or manifestation. In that Davey provides the Services at a point in time utilizing applicable standard industry practices, any conclusions and recommendations provided are relevant only to the facts and conditions at the time the Services are performed. Given that Davey cannot predict or otherwise determine subsequent developments, Davey will not be liable for any such developments, acts, or conditions that occur including, but not limited to, decay, deterioration, or damage from any cause, insect infestation, acts of god or nature or otherwise.

Unless otherwise stated in writing, assessments are performed visually from the ground on the above-ground portions of the tree(s). However, the outward appearance of trees may conceal defects. Therefore, to the extent permitted by law, Davey does not make and expressly disclaims any warranties or representations of any kind, express or implied, with respect to completeness or accuracy of the information contained in the reports or findings resulting from the Services beyond that expressly contracted for by Davey in writing, including, but not limited to, performing diagnosis or identifying hazards or conditions not within the scope of the Services or not readily discoverable using the methods applied pursuant to applicable standard industry practices. Further, Davey's liability for any claim, damage or loss caused by or related to the Services shall be limited to the work expressly contracted for.

In performing the Services, Davey may have reviewed publicly available or other third- party records or conducted interviews, and has assumed the genuineness of such documents and statements. Davey disclaims any liability for errors, omissions, or inaccuracies resulting from or contained in any information obtained from any third- party or publicly available source.

Except as agreed to between the parties prior to the Services being performed, the reports and recommendations resulting from the Services may not be used by any other party or for any other purpose. The undersigned also agrees, to the extent permitted by law, to protect, indemnify, defend and hold Davey harmless from and against any and all claims, demands, actions, rights and causes of action of every kind and nature, including actions for contribution or indemnity, that may hereafter at any time be asserted against Davey or another party, including, but not limited to, bodily injury or death or property damage arising in any manner from or in any way related to any disclaimers or limitations in this Agreement.

By accepting or	using the Services, the	ne customer v	<i>w</i> ill be deeme	d to have agre	eed to the terms	s of this
Agreement, eve	n if it is not signed.					
Acknowledged	by:					
Name of Constant						

Name of Customer:	
Authorized Signature _	_ Date