



GUIDING SOLUTIONS IN THE
NATURAL ENVIRONMENT

Arborist Report

James Snow Parkway North

Part Lot 5, Conc. 2 ESQ. Parts 14, 15, 16

Milton, ON

Prepared For:

E. Manson Investments

Prepared By:

Beacon Environmental Limited

Date: *Project:*

November 2022 **222023**

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1. Introduction

Beacon Environmental Limited (Beacon) was retained by E. Manson Investments to prepare an Arborist Report for an approximately 1.41 ha parcel of land located at the corner of No. 5 Side Road and James Snow Parkway in Town of Milton (Part Lot 5, Concession 2 ESQ. Parts 14, 15, 16). The location of the subject property is illustrated in **Figure 1**.

The purpose of this report is to a) provide an inventory and description of trees within and adjacent to the proposed development, and b) provide recommendations for tree preservation or removal based on tree health and condition and potential for integration within the proposed development based on consideration of the development design and associated grading and servicing requirements.

This Arborist Report has been prepared in accordance with accepted arboricultural guidelines, standards and practices consistent with the Arborists' Certification Study Guide (Lilly 2001).

2. Methodology

Trees occurring within and adjacent to the subject property were inventoried and assessed on September 29, 2022, by a Beacon arborist certified by the International Society of Arboriculture (ISA).

Individual trees with stem diameters of 10 cm or greater measured at breast height approximately 1.4 metres (m) from the ground surface (DBH) were marked with numbered metal forestry tags and assessed. Dead trees were not inventoried.

Information collected from individual trees included: species, trunk diameter (DBH), crown radius and condition. The diameters of multi-stemmed trees were determined by taking the square root of the sum of squares of each stem's DBH ("Aggregate DBH"). The condition of each tree was assessed for overall health and structural integrity based on indicators such as live buds and leaves, dead wood, decay, structural defects, and presence of disease. Each tree was assigned a condition rating of good, fair, poor, or dead, based on the following criteria:

- **Poor** – Severe dieback, significant lean, missing leader, major defects, significant decay and/or disease presence. Including hazardous trees and trees in terminal decline;
- **Fair** – Moderate dieback and/or lean, limb defects, multiple stems, moderate foliage damage from stress; or
- **Good** – Healthy vigorous growth, minor visible defects or damage

The locations of individual trees were determined using a survey-grade Arrow Gold RTK GNSS Receiver and incorporated into Geographical Information Systems (GIS) and AutoCAD platforms for mapping.

Limitations of the tree assessment are detailed in **Appendix A**.

3. Results

A total of 69 trees were inventoried and assessed within and adjacent to the subject property. A detailed summary of the trees is provided the tree inventory tables in **Appendix B**. Tree locations are illustrated in **Figure TP1**. Tree numbers on **Figure TP-1** indicate the tag numbers that were applied to the trees. Of the 69 individually inventoried trees, two (2) are on the boundary of the to the east.

A general summary of tree species and abundance is presented in **Table 2**.

Table 1. Existing Tree Species and Quantity

Scientific Name	Common Name	Quantity
<i>Salix x pendulina</i>	Weeping Willow	18
<i>Crataegus sp.</i>	Hawthorn species	12
<i>Thuja occidentalis</i>	Eastern White Cedar	11
<i>Pyrus communis</i>	Common Pear	10
<i>Fraxinus americana</i>	White Ash	4
<i>Malus pumila</i>	Common Apple	4
<i>Picea glauca</i>	White Spruce	4
<i>Pinus strobus</i>	Eastern White Pine	2
<i>Quercus macrocarpa</i>	Bur Oak	2
<i>Acer platanoides</i>	Norway Maple	1
<i>Betula papyrifera</i>	Paper Birch	1

No rare, special concern, threatened or endangered, including Butternut (*Juglans cinerea*), were encountered on or adjacent to the study area during the tree inventory.

4. Impact Assessment and Recommendations


Two industrial buildings are proposed for the subject property as illustrated in **Figure TP-1**.

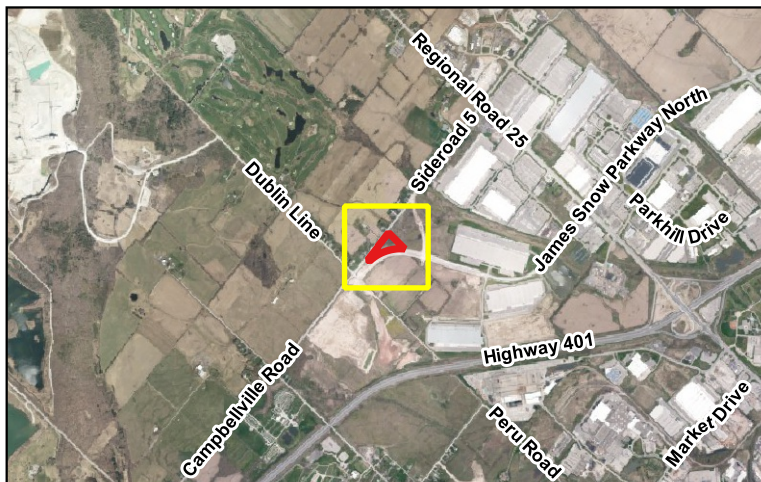
4.1 Trees Recommended for Removal



Based on the concept plan, 60 trees ≥ 10 cm DBH are identified for removal as they are located within or immediately adjacent to the proposed development footprint.

Of the 60 trees proposed for removal, three (3) were in poor condition, eight (8) were in poor-fair condition, and an additional three (3) White Ash (*Fraxinus americana*) were infected with Emerald Ash Borer [*Agrilus planipennis*] at the time of survey. Beacon anticipates these trees will decline within approximately five years.



 Subject Property



Site Location		Figure 1
James Snow Pkwy Emery Property		
		Project: 222023 Last Revised: August 2022
Client: E. Manson Investments		Prepared by: BD Checked by: DW DRAFT
	1:3,000	Inset Map: 1:50,000
Contains information licensed under the Open Government License—Ontario Orthoimagery Baselayer: 2019 (FBS)		

Trees 016 and 027 appear to be located on or in very close proximity to the property line (“Boundary tree”). If any part of the trunk crosses the property line, then the tree is legally the property of both landowners. Removal of boundary trees will require written permission from the adjacent landowners. The determination of ownership is the responsibility of the landowners(s).

4.2 Tree Recommended for Preservation

The nine (9) trees located in the east corner of the lot are proposed for preservation (see **Figure TP-1**).

5. Tree Preservation and Construction Specifications

There is potential for damage to occur to trees during construction if proper precautions and protection measures are not implemented in advance. Trees can be negatively impacted through grade changes, soil compaction, root cutting, and mechanical damage to trunks and branches resulting from the operation of construction equipment.

The following recommendations are provided to mitigate potential construction-related impacts.

Trees to be retained are to be protected through the establishment of a tree protection zone (TPZ) corresponding with the dripline of the tree crowns, as illustrated in **Figure TP-1**.

Within the identified TPZ's there should be:

- No construction;
- No altering of grade by adding fill, excavating, trenching, scraping, or dumping;
- No storage of construction materials, equipment, soil, or waste/debris;
- No disposal of any liquids e.g., gas, oil, paint;
- No movement of vehicles, equipment, or pedestrians; and
- No parking of vehicles or machinery.

It is recommended that these trees be protected by installing tree protection hoarding at the limit of the development as illustrated in **Figure TP-1**. Recommended hoarding consists of 1.2 m high plastic mesh affixed to paige wire fencing supported by metal t-bar posts spaced a minimum of 2.4 m apart, with a top 2x4 wood rail for additional support as illustrated in **Figure TP-1**. Erosion and sediment control fencing (silt fence) fitted with orange mesh fencing may double as tree protection fencing.

6. Other Recommendations

6.1 Timing of Tree Removal

The federal *Migratory Bird Convention Act* (1994) protects the nests, eggs and young of most bird species from harm or destruction. Environment Canada considers the ‘general nesting period’ of

breeding birds in southern Ontario to be between late March and the end of August. This includes times at the beginning and end of the season when only a few species might be nesting. It is recommended that during the peak period of bird nesting, no vegetation clearing or disturbance to nesting bird habitat occur (between mid-May and mid-July). In the 'shoulder' seasons of April 1 to May 15, and July 16 to August 31, vegetation clearing could occur, but only after an ecologist with appropriate avian knowledge has surveyed the area to confirm absence of any nesting birds. If bird nesting is found, then vegetation clearing (in an area around the nest) must be postponed until nest activity has concluded. Likelihood of nesting birds being present in the 'shoulder' seasons also depends on the habitat type. From September 1 through to March 31, of any year, vegetation clearing can occur without nest surveys, but the law for nest protection still holds (i.e., if a nest is known it should be protected).

6.2 Tree Disposal

Trees shall be disposed of in accordance with Canadian Food Inspection Agency (CFIA) regulations, as amended from time to time. As such, disposal of Ash (*Fraxinus*) trees — all of which are assumed to be infested with the pest Emerald Ash Borer — shall be in accordance with Town of Milton and/or CFIA requirements.

Woody material may be chipped and used as mulch for on-site tree plantings.

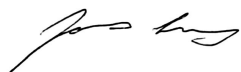
7. Summary

Beacon was retained by E. Manson Investments to complete an Arborist Report in support of a proposed James Snow Parkway North development in Milton.

A total of 69 trees ≥ 10 cm DBH were inventoried within or adjacent to the conceptual design plan. Of the inventoried trees, 60 are identified for removal. Of the 60 trees identified for removal, 14 are anticipated to decline within five years due to their current condition. Nine trees located on the subject property have been identified for preservation and should be protected by implementing standard arboricultural best management practices recommended in this report.

The recommendations of this report are preliminary and should be reviewed and updated as necessary when detailed designs and grading plans are available.

Reviewed by:
Beacon Environmental



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Reviewed by:
Beacon Environmental



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Senior Terrestrial Ecologist,
ISA Certified Arborist (ON-1536A)

8. References

Town of Niagara-on-the-Lake. 2019.

A By-law to Regulate the Destruction of Injuring of Trees on Private Property in the Urban Areas of the Municipality. By-law number 5139-19.

Government of Canada. 1994.

Migratory Birds Convention Act, 1994 (S.C. 1994, c.22).

Lilly, Sharon J. 2001.

Arborists' Certification Study Guide. International Society of Arboriculture, Champaign, Illinois.

Appendix A

Limitations of Tree Assessment

Appendix A

Limitations of Tree Assessment

It is the policy of Beacon Environmental Limited to attach the following clause regarding limitations of the tree assessment. The intent is to ensure that the client is aware of what is technically and professionally realistic in assessing and/or retaining trees.

The assessment of the trees presented in this report has been made using accepted arboricultural techniques. These techniques include a visual examination of the above-ground parts of each tree for structural defects, scars, external indications of decay such as fungal fruiting bodies, evidence of insect attack, crown dieback, 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 in the report, none of the trees examined were dissected, cored, probed, or climbed, and detailed root crown examinations involving excavation were not undertaken.

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 conditions, pests, or variations in the weather conditions including severe storms with high-speed winds. Furthermore, some symptoms may only be visible seasonally; the extent of observations that can be made may be limited by the time of year in which the inspection took place.

While reasonable efforts have been made to ensure that the trees recommended for retention are healthy unless stated otherwise within the report, no warranty or guarantees are offered, or implied, that these trees, or any parts of them, will have continued health or structure as noted in the report. It is both professionally and practically impossible to predict with absolute certainty the behaviour of any single tree or group of trees or their component parts in all circumstances. Inevitably, a standing tree will always pose some risk. Most trees have the potential for failure if provided with the necessary combinations of stresses and elements. This risk can only be eliminated if the tree is removed.

Although every effort has been made to ensure that this assessment is reasonably accurate, it is recommended that trees be re-assessed periodically to identify changes in condition. Design or site plan changes may also necessitate re-assessment and/or revisions to this report. **The assessment presented in this report is valid at the time of the inspection and is intended for sole use of the client.** Any use of this report by a third party, and any decision based on this report, is the singular responsibility of the third party.

Appendix B

Tree Inventory Table

Appendix B

Evaluation of Trees ≥ 10 cm DBH

Tree Tag ID	Species (Common Name)	Species (Scientific Name)	DBH [aggregate] (cm)	Crown Diameter (m)	Condition ¹	Comment(s)	Recommendation
001	Common Pear	<i>Pyrus communis</i>	32 @ 0.5 m	6	Fair-Good	Good form and vigour	Remove
002	Common Pear	<i>Pyrus communis</i>	12	3	Fair-Good	Good form and vigour	Remove
003	Hawthorn species	<i>Crataegus sp.</i>	13 @ 1.2 m	4	Good	Good form and vigour	Remove
004	Common Pear	<i>Pyrus communis</i>	11, 8 @ 1.2 m [13.6]	4	Good		Remove
005	Weeping Willow	<i>Salix x pendulina</i>	71 @ 0.5 m	12	Poor-Fair	Good vigour, callousing wounds. Failure, exposed wood throughout	Remove
006	Weeping Willow	<i>Salix x pendulina</i>	54	14	Poor	Main leader dead with large cavity. Secondary leader with strong lean. Exentive rot in trunk beneath former main leader	Remove
007	Weeping Willow	<i>Salix x pendulina</i>	58 @ 1 m	16	Fair	Some rot in main stem. Otherwise good form and vigour	Remove
008	Weeping Willow	<i>Salix x pendulina</i>	Approx. 65 @ 1 m	10	Poor-Fair	Main leader recently failed. Secondary leader with strong lean but good vigour	Remove
009	Weeping Willow	<i>Salix x pendulina</i>	42, 35 [54.7]	10	Poor-Fair	Primary stem good vigour; however, sapwood is occasionally exposed throughout. Second stem almost completely died back	Remove
010	Weeping Willow	<i>Salix x pendulina</i>	36	6	Poor	Top snapped. Only some remaining leaves	Remove
011	Weeping Willow	<i>Salix x pendulina</i>	40	8	Fair	Primary stem good vigour; however, sapwood is occasionally exposed throughout. Second stem almost completely died back	Remove
012	Weeping Willow	<i>Salix x pendulina</i>	51	8	Poor-Fair	Dieback in both leaders. Lower canopy vigourous	Remove
013	Weeping Willow	<i>Salix x pendulina</i>	40	12	Fair	Fairly good vigour but strong lean	Remove
014	Weeping Willow	<i>Salix x pendulina</i>	31	14	Fair	Fairly good vigour but strong lean	Remove
015	Weeping Willow	<i>Salix x pendulina</i>	44, 24 [50.1]	10	Fair	Good vigour. Some weak unions in upper crown	Remove
016	Weeping Willow	<i>Salix x pendulina</i>	47	6	Poor	Leader failed. Only one live branch. Topsoil has been bulldozed up to trunk. Possible boundary tree	Remove
017	Hawthorn species	<i>Crataegus sp.</i>	16, 12 [20]	5	Fair-Good	Good form and vigour	Remove
018	Hawthorn species	<i>Crataegus sp.</i>	14, 13 [19.1]	6	Poor-Fair	One dead and failed leader. Wounds at base from broken stems, possibly due to clearing at property line	Preserve
019	White Ash	<i>Fraxinus americana</i>	17, 14 [22]	6	Fair	EAB wounds throughout. Canopy not yet exhibiting dieback. Many fruit and all fruit appear to be filled.	Preserve
020	Hawthorn species	<i>Crataegus sp.</i>	42, 20 @ base [46.5]	8	Fair	Branches broken at property line	Preserve
021	Common Apple	<i>Malus pumila</i>	14, 14, 11 [22.6]	6	Fair-Good		Preserve

Tree Tag ID	Species (Common Name)	Species (Scientific Name)	DBH [aggregate] (cm)	Crown Diameter (m)	Condition ¹	Comment(s)	Recommendation
022	Hawthorn species	<i>Crataegus sp.</i>	12, 10, 9 [18]	4	Fair-Good		Preserve
023	Hawthorn species	<i>Crataegus sp.</i>	10, 6 [11.7]	4	Good	Good form and vigour. Grading at base on one side	Preserve
024	Hawthorn species	<i>Crataegus sp.</i>	11, 9 [14.2]	4	Good		Preserve
025	Bur Oak	<i>Quercus macrocarpa</i>	20	6	Good	Good form and vigour. Base is 0.3 m from property corner iron bar	Preserve
026	Hawthorn species	<i>Crataegus sp.</i>	Approx. 40 @ base	6	Fair-Good	Some splitting at base; fair structure	Preserve
027	Bur Oak	<i>Quercus macrocarpa</i>	19	8	Fair-Good	Some Crown imbalance. Likely boundary tree. On other side of fence	Remove
028	Common Apple	<i>Malus pumila</i>	11	4	Fair-Good		Remove
029	Eastern White Cedar	<i>Thuja occidentalis</i>	14	2	Good	Good form and vigour. Approx 0.5 m from fence line	Remove
030	White Ash	<i>Fraxinus americana</i>	10	3	Fair	Some dieback. EAB wounds throughout	Remove
031	White Ash	<i>Fraxinus americana</i>	10	3	Poor-Fair	Some dieback. EAB wounds	Remove
032	Weeping Willow	<i>Salix x pendulina</i>	54 @ 1 m	8	Poor-Fair	Dieback throughout. Structure in fair condition	Remove
033	Norway Maple	<i>Acer platanoides</i>	37	6	Good	Good form and vigour	Remove
034	Weeping Willow	<i>Salix x pendulina</i>	18	10	Poor-Fair	Leader with strong lean. Died back at top	Remove
035	Weeping Willow	<i>Salix x pendulina</i>	38	8	Fair-Good	Some dieback. Trunk with moderate lean	Remove
036	Hawthorn species	<i>Crataegus sp.</i>	18, 18, 17 [30.6]	8	Good		Remove
037	Eastern White Cedar	<i>Thuja occidentalis</i>	11	3	Good	Good form and vigour	Remove
038	White Ash	<i>Fraxinus americana</i>	14	6	Fair	Approx 0.6 m from survey bar. Some dieback at top. EAB wounds	Remove
039	Eastern White Pine	<i>Pinus strobus</i>	36	8	Good	Good form and vigour	Remove
040	Eastern White Cedar	<i>Thuja occidentalis</i>	16	2	Good	Good form and vigour	Remove
041	Eastern White Pine	<i>Pinus strobus</i>	36	6	Good		Remove
042	Eastern White Cedar	<i>Thuja occidentalis</i>	14	2	Good	Good form and vigour	Remove
043	Weeping Willow	<i>Salix x pendulina</i>	66 @ 1 m	8	Poor-Fair	Major dieback in two of three limbs	Remove
044	Weeping Willow	<i>Salix x pendulina</i>	38	10	Fair	Good vigour. Moderate lean in trunk	Remove
045	Weeping Willow	<i>Salix x pendulina</i>	16, 16, 8, 8 [25.3]	6	Fair	Some cavities and one dead leader	Remove
046	Eastern White Cedar	<i>Thuja occidentalis</i>	11	2	Good		Remove
047	Eastern White Cedar	<i>Thuja occidentalis</i>	20	4	Good	Good form and vigour	Remove
048	Hawthorn species	<i>Crataegus sp.</i>	12, 11, 10, 8 [20.7]	4	Fair-Good		Remove
049	Hawthorn species	<i>Crataegus sp.</i>	13, 11, 8, 8, 8 [22]	4	Fair		Remove
050	Hawthorn species	<i>Crataegus sp.</i>	13, 11, 10 [19.7]	4	Fair-Good		Remove
051	Eastern White Cedar	<i>Thuja occidentalis</i>	10	2	Good		Remove
052	White Spruce	<i>Picea glauca</i>	33	6	Good		Remove
053	Common Apple	<i>Malus pumila</i>	46, 25, 23 [57.2]	8	Fair		Remove
054	Eastern White Cedar	<i>Thuja occidentalis</i>	12	2	Good		Remove
055	Eastern White Cedar	<i>Thuja occidentalis</i>	14, 10 [17.2]	4	Good		Remove
056	Eastern White Cedar	<i>Thuja occidentalis</i>	13, 11 [17]	4	Good		Remove
057	Eastern White Cedar	<i>Thuja occidentalis</i>	14, 10, 10 [19.9]	4	Good		Remove
058	Paper Birch	<i>Betula papyrifera</i>	17, 16 [23.3]	4	Fair-Good		Remove
059	Common Pear	<i>Pyrus communis</i>	12	4	Good		Remove

Tree Tag ID	Species (Common Name)	Species (Scientific Name)	DBH [aggregate] (cm)	Crown Diameter (m)	Condition ¹	Comment(s)	Recommendation
060	White Spruce	<i>Picea glauca</i>	36	8	Good		Remove
061	Common Pear	<i>Pyrus communis</i>	14, 10 [17.2]	4	Fair		Remove
062	Common Apple	<i>Malus pumila</i>	14, 13, 11 [22]	8	Fair-Good		Remove
063	White Spruce	<i>Picea glauca</i>	37	6	Good		Remove
064	White Spruce	<i>Picea glauca</i>	26	4	Good		Remove
065	Common Pear	<i>Pyrus communis</i>	18, 18, 16, 14 [33.2]	6	Fair-Good		Remove
066	Common Pear	<i>Pyrus communis</i>	11	2	Good		Remove
067	Common Pear	<i>Pyrus communis</i>	11	2	Fair-Good		Remove
068	Common Pear	<i>Pyrus communis</i>	10	2	Fair-Good		Remove
069	Common Pear	<i>Pyrus communis</i>	11	2	Good		Remove

Appendix C

Tree Inventory and Preservation Plan