



JACKSON ARBORICULTURE INC.

CONSULTING AND GIS ANALYSIS

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Tree Inventory and Preservation Plan Report

Subject Property:

2052 York Road
Niagara-on-the-Lake, ON

Prepared For:

Newcastle Communities
1725 Third Street Louth
St. Catharines, ON L2R 6P9

Prepared By:

Jackson Arboriculture Inc.
118 Pleasant Ridge Road
Brantford, ON N3R 0B8

29 July 2025

Jackson Arboriculture Inc. Project No. 564

1.0 Introduction

Jackson Arboriculture Inc. was retained by Newcastle Communities to complete a Tree Inventory and Preservation Plan report for a property situated at 2052 York Road in the Town of Niagara-on-the-Lake, Ontario, hereby referred to as the subject property. It is understood that an application will be filed with the Town for the construction of a residential development.

This study has been completed in accordance with the Town of Niagara-on-the-Lake private tree by-law No. 5139-19. The private tree by-law regulates the removal of trees 12.5 cm in diameter and larger.

2.0 Methodology

At the onset of the project the scope of work was coordinated with the client and the consulting team. Prior to conducting a site visit, the topographic survey and current aerial photography were overlaid utilizing geographic information software for use on site during the completion of the tree inventory. The tree locations and the site plan were then overlaid and a tree preservation analysis was completed to determine the impacts to the trees included in the inventory.

2.1 Tree Inventory

A site visit was conducted on the 24th of April 2025 to complete the tree inventory. All trees 10 cm in diameter and larger situated on subject property, on neighbouring property within 6 m and within the road allowance were included in the inventory. A visual assessment was completed on each tree included in the inventory and the following information is provided in the tree inventory table (Table 1):

- **Tree #:** A number assigned to each tree corresponding to the tree inventory (Table 1) and the Tree Preservation Plan (Sheet 1).
- **Species:** Common and scientific (Latin) species names.
- **DBH:** The trunk diameter at breast height, measured in centimeters at 1.4 m from the ground.
- **Condition:** The health of the tree considering the trunk integrity, the crown structure and the crown vigour; each rated as good, fair or poor. The condition ratings are based on the signs, symptoms and defects exhibited by each tree, considering the surroundings in which it is growing.
- **Dripline:** The distance from the trunk to the tips of the branches.
- **mTPZ:** Minimum tree preservation zone distance as measured in meters from the base of the tree. This is the distance at which tree protection fence is to be installed (unless noted otherwise below).
- **Location:** The property where the tree is situated, based on the topographic survey and gps locations taken on site.
- **Comments:** Any additional notes relevant to the tree's health or growing conditions.
- **Recommendation:** The recommended removal or preservation of each tree based on the results of the impact assessment.

The trees included in the inventory were identified with numbers 1-39 and were located using the topographic survey provided and a tablet computer with a GPS receiver.

2.2 Impact Assessment

A tree preservation analysis was completed on each tree included in the tree inventory considering the impacts from the proposed development and many other factors including, but not limited to, tree condition, species, DBH and the existing site conditions. The impacts from the proposed development will occur where tree roots conflict with construction machinery during pre-grading, construction, grading and servicing.

During the tree preservation analysis the minimum Tree Preservation Zone (mTPZ) distance was utilized to determine the potential impacts to each tree included in the inventory. Where encroachment is required within the mTPZ, tree removal may be required.

The mTPZ distance is the minimum distance at which development can safely occur without considerably impacting a tree's root system. The mTPZ distance is based on the diameter of the tree and measured in meters from the base of the stem. Refer to Table 2 for the mTPZ distances based on trunk diameter.

Table 2. Minimum tree preservation zone distances.

DBH (cm)	Min. Tree Preservation Zone Distance (m)*
	Radius
< 10	1.8
11 – 40	2.4
41 – 50	3.0
51 – 60	3.6
61 – 70	4.2
71 – 80	4.8
81 – 90	5.4
91 – 100	6.0
101 – 110	6.6

*As measured from the outside of the tree trunk.

3.0 Existing Conditions

The subject property is currently occupied by a single-family residential dwelling and amenity areas. The existing residential dwelling resides on the western half of the property and a gravel driveway occupies the eastern portion of the property. The rear yard slopes downward in a south to north direction with a significant woodland residing towards the bottom of the slope. The

property is bound by significant woodland to the north, residential development to the east and west, and York Road to the south.

4.0 Tree Inventory Results

The results of the tree inventory indicate that a total of 39 trees 10 cm in diameter or larger reside on subject property, on neighbouring property within 6 m and within the road allowance. The trees included in the inventory appear to be comprised of landscape plantings.

No rare, threatened or endangered tree species were documented in the tree inventory. Refer to Table 1 for the complete tree inventory and Sheet 1 for the tree locations.

5.0 Proposed Development

The proposed development includes severing the subject property into two parcels. The existing dwelling will be retained on the severed lot (Part 2), and a new single family residential dwelling is proposed to be constructed on the retained lot (Part 1). The gravel parking space in front of the existing dwelling is proposed to be lengthened to provide access to the existing dwelling and the existing driveway will be modified to provide access to the proposed dwelling.

6.0 Discussion

The following sections discuss the tree removal requirements, tree preservation opportunities and tree preservation recommendations based on the results of the impact assessment.

6.1 Tree Removal

The results of the impact assessment indicate that the removal of Trees 5, 6, 12, 13, 16-21, 28 and 29 will be required to accommodate the proposed development. Of the 12 trees identified for removal, 2 are identified as weed trees and are unregulated by the private tree by-law.

6.2 Tree Preservation

The results of the impact assessment indicate that the preservation of Trees 1-4, 7-11, 14, 15, 22-27 and 30-39 will be possible with the use of appropriate tree protection measures.

Encroachment within the mTPZ of Tree 15 will be required to accommodate the proposed driveway and retaining wall. The limit of encroachment should be excavated using an air spade to gently expose any tree roots that conflict with construction. The air spade excavation must be supervised or completed by a Certified Arborist. If any tree roots are exposed by the air spade they must be pruned by a Certified Arborist in accordance with good arboricultural practice to ensure that the root system is not damaged by construction.

The tree protection fence must be installed prior to the commencement of construction to ensure that the trees identified for preservation are not impacted by the proposed development. Tree protection fence must be installed at the mTPZ distance unless noted otherwise in this report and on Sheet 1.

Refer to Sheet 1 for the prescribed tree protection fence locations, additional tree protection plan notes and the tree protection fence detail.

6.3 Tree Preservation Recommendations

The following recommendations are made in attempts to reduce the impacts to trees identified for preservation:

- Tree protection fence must be installed prior to the commencement of construction to ensure that the trees identified for preservation are not damaged during construction.
- Tree protection fence must be installed at the mTPZ distance unless noted otherwise in this report and on Sheet 1.
- Once tree protection fence has been installed it must not be moved, relocated or altered in any way (unless repairing fallen fence etc.) for the duration of the construction period.
- No intrusion into an area identified on Sheet 1 as a tree preservation zone (TPZ) is allowed at anytime during construction.
- No storage of machinery, construction debris, materials, waste or any other items is allowed within a TPZ.
- Any tree branches and roots that conflict with the proposed development must be pruned by a Certified Arborist in accordance with good arboricultural practice.
- Tree protection fencing should be inspected by a Certified Arborist prior to and during construction to ensure that the fencing remains intact and in good repair throughout the stages of development.

7.0 Summary

Jackson Arboriculture Inc. was retained by Newcastle Communities to complete a Tree Inventory and Preservation Plan report for a property situated at 2052 York Road in the Town of Niagara-on-the-Lake, Ontario. A tree inventory was conducted and an impact assessment was completed in the context of the proposed development plan.

The tree inventory documented a total of 39 trees situated on subject property, in the road allowance and on neighbouring property within 6 m. The results of the impact assessment indicate that the removal of 12 trees will be required to accommodate the proposed development. Of the 12 trees identified for removal, 2 are classified as a weed tree and are unregulated by the private tree by-law.

Respectfully submitted,
Jackson Arboriculture Inc.

Jeremy Jackson

Jeremy Jackson, H.B.Sc.,
ISA Certified Arborist #ON-1089A
GIS Analyst

8.0 Limitations of Assessment

It is our policy to attach the following limitations of assessment to ensure that the client, municipalities and agencies are fully aware of what is technically and professionally realistic when visually assessing and retaining trees.

The assessment of the trees presented in this report has been made using accepted arboricultural techniques. These 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 attack by insects, discoloured foliage, the condition of any visible root structures, the degree and direction of any lean, the general condition of the trees and the surrounding site, and the proximity of property and people.

Notwithstanding the recommendations and conclusions made in this report, it must be realized that trees are living organisms and their health and vigour constantly change. They are not immune to changes in site conditions, or seasonal variations in the weather conditions, including severe storms with high-speed winds.

While reasonable efforts have been made to ensure that the trees recommended for retention are healthy no guarantees are offered, or implied, that these trees, or any parts of them, will remain standing. 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 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, trees should be re-assessed periodically. The assessment presented in this report is valid at the time of the inspection.

Table 1. Tree Inventory

Location: 2052 York Rd, NOTL

Date: 24 April 2025

Surveyors: JJJ

Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	DL	mTPZ	Location	Comments	Action
1	Japanese Flowering Lilac	<i>Syringa reticulata</i> 'Ivory Silk'	~15	G	G	G	2	2.4	Regional Road Allowance		Preserve
2	Blue Spruce	<i>Picea pungens</i>	~41	G	FG	G	3	3.0	Neighbouring	Union in top of crown, asymmetrical crown - shading	Preserve
3	White Spruce	<i>Picea glauca</i>	31	G	F	FG	3	2.4	Boundary	Topped	Preserve
4	White Pine	<i>Pinus strobus</i>	36	G	FG	G	4	2.4	Boundary	Topped	Preserve
5	Norway Maple	<i>Acer platanoides</i>	62	G	G	G	8	4.2	Subject Property	Union at 2 m, weed species	Remove
6	Sycamore Maple	<i>Acer pseudoplatanus</i>	57	F	FG	G	10	3.6	Subject Property	Union at 2 m	Remove
8	Sycamore Maple	<i>Acer pseudoplatanus</i>	71	G	G	G	10	4.8	Subject Property		Preserve
7	Eastern Cottonwood	<i>Populus deltoides</i>	22	FG	G	G	2	2.4	Subject Property	Union at 1.5 m, weed species	Preserve
9	Red Maple	<i>Acer rubrum</i>	23	G	F	F	3	2.4	Regional Road Allowance	Top cut (hydro)	Preserve
10	White Spruce	<i>Picea glauca</i>	10	G	FG	F	2	2.4	Regional Road Allowance	Understorey	Preserve
11	Blue Spruce	<i>Picea pungens</i>	28	G	F	F	3.5	2.4	Regional Road Allowance	Pruning wounds (hydro)	Preserve
12	Norway Spruce	<i>Picea abies</i>	45	FG	FG	G	4	3.0	Subject Property	Vertical scaffold limb	Remove
13	Norway Spruce	<i>Picea abies</i>	48	FG	FG	G	4	3.0	Subject Property	Vertical scaffold limb	Remove
14	Red Oak	<i>Quercus rubra</i>	26	G	PF	F	8	2.4	Regional Road Allowance	Pruning wounds (hydro), epicormic branching	Preserve
15	Copper Beech	<i>Fagus sylvatica</i>	72	G	G	G	11	4.8	Subject Property		Preserve
16	Eastern White Cedar	<i>Thuja occidentalis</i>	15, 6, 5	G	G	G	3	2.4	Subject Property	Union at ground	Remove
17	Eastern Hemlock	<i>Tsuga canadensis</i>	39	G	G	G	4	2.4	Regional Road Allowance		Remove
18	Cypress species	<i>Cupressus spp.</i>	22	G	G	G	2	2.4	Subject Property		Remove
19	Green Ash	<i>Fraxinus pennsylvanica</i>	43	P	P	P	4	3.0	Subject Property	50% crown dieback, peeling bark, epicormic branching, EAB infestation	Remove
20	Norway Maple	<i>Acer platanoides</i>	65	G	G	G	9	4.2	Subject Property	Union at 1.8 m, weed species	Remove
21	Balsam Fir	<i>Abies balsamea</i>	28	G	G	G	4	2.4	Subject Property		Remove
22	Scots Pine	<i>Pinus sylvestris</i>	~25	G	G	G	3	2.4	Neighbouring		Preserve
23	Yew species	<i>Taxus spp.</i>	18	G	G	G	4	2.4	Subject Property		Preserve
24	Scots Pine	<i>Pinus sylvestris</i>	~25	FG	G	G	3	2.4	Neighbouring	Crook	Preserve
25	White Pine	<i>Pinus strobus</i>	12	G	PF	F	3	2.4	Subject Property	Top cut at 2 m	Preserve
26	White Pine	<i>Pinus strobus</i>	41	G	G	G	6	3.0	Subject Property		Preserve
27	White Pine	<i>Pinus strobus</i>	34	G	G	G	6	2.4	Subject Property		Preserve

Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	DL	mTPZ	Location	Comments	Action
28	White Pine	<i>Pinus strobus</i>	45	G	G	G	5	3.0	Subject Property		Remove
29	Balsam Fir	<i>Abies balsamea</i>	33	G	G	G	3	2.4	Subject Property		Remove
30	Eastern White Cedar	<i>Thuja occidentalis</i>	31	G	G	G	3	2.4	Subject Property		Preserve
31	Saucer Magnolia	<i>Magnolia x soulangeana</i>	~12	G	G	G	3	2.4	Subject Property		Preserve
32	Sycamore Maple	<i>Acer pseudoplatanus</i>	56	G	G	G	8	3.6	Subject Property		Preserve
33	Flowering Dogwood	<i>Cornus florida</i>	10, 6	G	G	G	3	2.4	Subject Property		Preserve
34	Norway Maple	<i>Acer platanoides</i>	~41	G	G	G	6	3.0	Neighbouring	Weed species	Preserve
35	Norway Maple	<i>Acer platanoides</i>	~28	G	G	G	4	2.4	Neighbouring	Weed species	Preserve
38	Dawn Redwood	<i>Metasequoia glyptostroboides</i>	51	G	G	G	7	3.6	Neighbouring		Preserve
36	White Pine	<i>Pinus strobus</i>	~45	G	G	G	6	3.0	Neighbouring		Preserve
37	Norway Spruce	<i>Picea abies</i>	~38	G	G	G	5	2.4	Subject Property		Preserve
39	Katsura Tree	<i>Cercidiphyllum japonicum</i>	20, 27	FG	G	G	5	2.4	Subject Property	Union at 0.3 m with included bark	Preserve

Legend		
DBH	Diameter at Breast Height	(cm)
TI	Trunk Integrity	(G, F, P)
CS	Crown Structure	(G, F, P)
CV	Crown Vigor	(G, F, P)
DL	Dripline	(m)
mTPZ	Minimum Tree Preservation Zone	(m)
G	Good	
F	Fair	
P	Poor	
EAB	emerald ash borer	
~	Estimate	