JACKSON
ARBORICULTURE
INC.
CONSULTING AND GIS ANALYSIS
118 Pleasant Ridge Road, Brantford ON, N3R 0B8
905-512-6303, jeremy@jacksonarbor.ca

Tree Inventory and Preservation Plan Report

Subject Property:

2220 Stanley Avenue
Niagara Falls, ON

Prepared For:

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

Prepared By:

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

22 October 2024

Jackson Arboriculture Inc. Project No. 526

1.0 Introduction

Jackson Arboriculture Inc. was retained by New Castle Communities to complete a Tree Inventory and Preservation Plan report for a property situated at 2220 Stanley Avenue in the City of Niagara Falls, Ontario, hereby referred to as the subject property. It is understood that an application will be filed with the City for the construction of a residential development.

The following study has been completed in accordance with the City of Niagara Falls Site Plan Guidelines.

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 7th of October 2024 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 tree 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 live 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 1-13 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 property is bound by a hydro corridor to the north, residential development to the east and south, and Stanley Avenue to the west.

4.0 Tree Inventory Results

The results of the tree inventory indicate that a total of 13 trees 10 cm in diameter or larger reside on subject property and on neighbouring property within 6 m. No trees were identified 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 the construction of a 3-storey residential building and asphalt parking. The existing dwelling on site is proposed to be retained on a severed lot.

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 1-4 will be required to accommodate the proposed development. Tree 1 conflicts directly with the proposed concrete sidewalk, Trees 2 and 3 conflict directly with the proposed asphalt parking and Tree 4 conflicts with excavation for the proposed foundation.

6.2 Tree Preservation

The results of the impact assessment indicate that the preservation of Trees 5-13 will be possible with the use of appropriate tree protection measures.

Encroachment within the mTPZ of Trees 8, 9, 10, 11 and 12 will be required to accommodate the proposed development. The limit of tree protection fence for Tree 8 must be excavated using an air spade to gently expose any roots that conflict with parking lot/curb construction. If any roots from Trees 8-12 are exposed during construction they must be pruned by a Certified Arborist in accordance with good arboricultural practice to ensure that the root systems are not damaged by the proposed encroachment.

Tree protection fence must be installed at the mTPZ distance as outlined this report and on Sheet 1, unless noted otherwise in this report. 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.

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 at the mTPZ distance as outlined 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 unless noted otherwise in this report and on Sheet 1.
- 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 New Castle Communities to complete a Tree Inventory and Preservation Plan report for a property situated at 2220 Stanley Avenue in the City of Niagara Falls, 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 13 trees situated on subject property and on neighbouring property within 6 m. The results of the impact assessment indicate that the removal of 4 trees will be required to accommodate the proposed development.

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 of group of trees or their component parts in al 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: 2220 Stanley Ave, Niagara Falls Date: Surveyors: JJJ

Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	DL	mTPZ	Location	Comments	Action
1	Norway Maple	*Acer platanoides*	36	G	FG	G	5	2.4	Subject Property	Pruning wounds, pruned for hydro	Remove
2	English Walnut	*Juglans regia*	35	G	G	G	5	2.4	Subject Property		Remove
3	English Walnut	*Juglans regia*	54	G	FG	G	8	3.6	Subject Property	Union at 1.6m, diameter measured at 0.8 m due to union, heavy sap sucker wounds	Remove
4	Blue Spruce	*Picea pungens*	44	G	G	G	3	3.0	Subject Property		Remove
5	Eastern Red Cedar	*Juniperus virginiana*	~10	G	G	G	2	2.4	Neighbouring Property		Preserve
6	Austrian Pine	*Pinus nigra*	~20	G	G	G	2.5	2.4	Neighbouring Property		Preserve
7	Peach	*Prunus persica*	~7, 8, 6, 6	F	FG	F	2.5	1.8	Neighbouring Property	Union at 0.4 m	Preserve
8	Austrian Pine	*Pinus nigra*	~25	G	G	G	2.5	2.4	Neighbouring Property		Preserve
9	Austrian Pine	*Pinus nigra*	~20	FG	G	G	2.5	2.4	Neighbouring Property		Preserve
10	Austrian Pine	*Pinus nigra*	~20	G	G	G	3	2.4	Neighbouring Property		Preserve
11	Austrian Pine	*Pinus nigra*	~20	G	G	G	2.5	2.4	Neighbouring Property		Preserve
12	Austrian Pine	*Pinus nigra*	~22	F	G	G	2.5	2.4	Neighbouring Property	Union at 2 m	Preserve
13	Peach	*Prunus persica*	~7, 6, 7, 7	F	FG	FG	2.5	1.8	Neighbouring Property	Union at 0.4 m	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	
~	Estimate	