



Talbot Mackenzie & Associates
Consulting Arborists

Arborist Report

919 and 923 Caledonia Street, Victoria

PREPARED FOR: Mark Whitney
Novus Properties Inc
849 Oliver Street
Victoria, BC
V8S 4W5

PREPARED BY: Talbot, Mackenzie & Associates
Tom Talbot – Consulting Arborist
ISA Certified # PN-0211A
TRAQ - Qualified

Date submitted: January 04, 2018

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Jobsite Property: 919 & 923 Caledonia Street

Date of Site Visit: December 27, 2018 Time: 10:00 AM

Weather conditions: Partly sunny, 12° Celsius, wind South 15 km/h

Site Conditions: Level lots with an existing house on the 919 Caledonia Street property and a bare lot with no buildings on the 923 Caledonia Street lot.

Summary: Our review of the proposal and site visits found that there are no bylaw-protected trees located within the property boundaries on the municipal frontages or on neighbouring properties where they could be impacted.

There are two (2) Sweet Gum *Liquidambar styraciflua*, one (1) Flowering plum *Prunus nigra*, one (1) Incense cedar *Calocedrus decurrens*, and one (1) Norway maple *Acer platanoides* trees, two (2) Large Portuguese shrubs and a hedgerow of ten (10) Leyland cypress trees that are not protected under the municipal tree protection bylaw but are on adjacent properties, where they could be impacted.

The Sweet gum, Flowering plum and Norway maple trees are suitable for and are located where their retention should be successful and mitigation procedures will be implemented to reduce the potential impacts.

The Incense cedar is a small, 7 cm d,b,h, tree that is growing directly adjacent to the retaining wall is a large growing tree species whose growth will conflict with the adjacent more desirable tree species as it matures. It is unlikely that it can be retained if the wall is replaced, therefore we recommend that it be removed.

It is unlikely that either the Leyland cypress hedge or Portuguese laurel shrubs can be protected or successfully retained.

The project arborist should supervise the excavation for the building footprint along the property boundary between the 919/923 Caledonia and 930 North Park Street properties. All roots encountered along the wall must be pruned back to sound tissue at the edge of excavation to reduce wound surface area and to encourage rapid compartmentalization and root regrowth.

The limbs of the two Sweet Gum trees do not extend over the property boundary therefore it is unlikely that any pruning will be required. The canopies of the flowering plum and Norway maple extend over the property boundary and pruning will be required for adequate clearance. This pruning should not have a detrimental impact on the health or structure of the trees. We recommend that any pruning required be completed by an ISA Certified arborist and to ANSI 300 standards.

The project arborist is to be contacted for the purpose of

- Reviewing the report with the project foreman or site supervisor
- Supervising excavation for the building footprint along the 919/923 Caledonia and 930 North Park Street property boundary.
- Reviewing and advising of any pruning requirements for building clearances.

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Scope of Assignment: Provide arborist services to review the proposal for the redevelopment of the properties at 919 and 923 Caledonia Street. The proposal is to relocate the existing house at 919 Caledonia Street to the property at 923 Caledonia Street and construct a multi-family residential building at the rear of the two lots. Prepare a tree impact and retention report to be used during the construction related activity on the site.

Methodology: During our December 27, 2018 site visit we visually examined the property for the purpose of identifying any bylaw-protected trees on the property, trees on the municipal frontage and trees on neighbouring properties that are located where they could potentially be impacted.

The trees that were identified were assigned numbers that were entered on the attached site drawing for ease of identification in the field. The information that was compiled was entered into a tree resource spreadsheet that is attached to this report.

During this site visit we conducted a limited exploratory excavation along the retaining wall at the rear of the properties to locate roots that may be extending over the property boundary.

Summary of Tree Resource: Our review of the tree resource found that there are no trees of bylaw-protected size or species within the boundaries of the subject properties, on the municipal frontage or on the adjacent properties, where they could be impacted.

We did identify and document five(5) young exotic trees, that are not bylaw-protected, on the adjacent property at 930 North Park Street that are located where they could potentially be impacted. These trees were comprised of two (2) Sweet Gum *Liquidambar styraciflua*, one (1) Flowering plum *Prunus nigra*, one (1) Incense cedar *Calocedrus decurrens*, and one (1) Norway maple *Acer platanoides*. The Sweet gum, Flowering plum and Norway maple are suitable for and are located where their retention should be successful and mitigation procedures will be implemented to reduce the potential impacts.

The Incense cedar is a small, 7 cm d,b,h, tree that is growing directly adjacent to the retaining wall. This is a large growing tree species whose growth will conflict with the adjacent more desirable tree species as it matures. It is unlikely that it can be retained if the wall is replaced, therefore we recommend that it be removed.

We also identified and documented a hedgerow comprised of two (2) large Portuguese shrubs and ten (10) Leyland cypress trees that are located along the boundary between the 923 Caledonia and 929 Caledonia Street properties that might be located entirely on the 929 Caledonia Street property. Leyland cypress is a large growing tree species that will be unsuitable to retain in this location, as it matures. It is unlikely that either the Leyland cypress hedge or Portuguese laurel shrubs can be protected or successfully retained.

Findings and Observations:

Potential Impacts: We anticipate that the highest potential for impacts on the tree resource would occur during:

1. Excavation for the underground portion of the proposed buildings
2. Removal of the existing retaining wall from the 919/923 Caledonia and 930 North Park Street property boundary.
3. Canopy pruning for construction clearance.

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The plans that were reviewed show that the underground portion of the buildings will extend up to the 923/929 Caledonia Street property boundary with the aboveground floors 3.38 metres from this same boundary. At the rear of the property the underground portion of the buildings will extend to within one metre from the 930 North Park Street property boundary with the aboveground floors 3.00 metres from this same boundary.

Mitigation of Impacts: Our recommendations for mitigation procedures, outlined in the following to reduce the impacts on the bylaw-protected to be retained, should be implemented prior to construction.

Building Footprint: Excavation for the underground portion of the building will occupy all of the property within the property boundaries. We performed an exploratory excavation along the rear property boundary to a depth of one-half metre below the existing site grade of the subject properties that extended 2 metres on either side of the trunk locations of the trees on the neighbouring property. The trees on the adjacent property grow at a grade that fluctuates between one-half to one metre above the grade of the subject property and are setback 1.5 to 2.5 metres from the property boundary.

During our excavation we:

- Did not locate any footings beneath the retaining walls but did find that the portion of the wall at the rear of the 919 Caledonia property (adjacent to Liquidambar #1 and 2 and Flowering plum #3) extended 15-30 cm below the grade of this property. We did not observe any roots extending beneath the wall from these three trees, indicating that the wall is retaining the root structures from these trees within the 930 North Park Street property.
- Observed that the portion of the wall behind the 923 Caledonia property adjacent to Norway maple #5 appears to have been constructed on the soils surface and existing grade of this property. We did encounter two 8 cm diameter roots extending beneath the wall directly opposite the tree trunk with the size of encountered roots along the wall diminishing in diameter further from the tree trunk. Because the grade where the trees are planted is retained by the wall is one-half to one metre above the grade of the subject property, in our opinion most of the critical supporting root structures will be retained within the 930 North Park Street property.

The project arborist should supervise the excavation for the building footprint along the property boundary between the 919/923 Caledonia and 930 North Park Street properties. All roots encountered along the wall must be pruned back to sound tissue at the edge of excavation to reduce the surface area of the wound and to encourage rapid compartmentalization and root regrowth.

Barrier Fencing There are no trees located on this property that are to be retained and the excavation and construction activity will encompass the entire footprint of this lot. The trees to be retained on the 930 North Park Street property are protected by an existing chain link fence along this boundary therefore barrier fencing will not be required unless the chain link fence is removed.

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Driveway and Hardscape features: The driveway is located along the west property boundary and where there will be no impacts on the neighbouring trees. Any hardscape features will be located above the area excavated for the underground portion of the building.

Servicing: We did not review the servicing details for this project however in all likelihood the services and connections will be from the Caledonia Street property frontage and where they will not impact any trees to be retained.

Canopy Pruning: The aboveground portion of the multi-family building is setback 3 metres from the property boundary, however it is likely that pruning at the property boundary will be required for adequate construction access to the outside of the building. The limbs of the two Sweet Gum trees do not extent over the property boundary therefore it is unlikely that any pruning will be required. The canopies of the flowering plum and Norway maple extend over the property boundary and pruning will be required for adequate clearance. The number and size of limbs that require pruning or removal will not have a detrimental impact on the health or structure of the trees. We recommend that any pruning required be completed by an ISA Certified arborist and to ANSI 300 standards.

Clients Responsibility – It is the responsibility of the client or his/her representative to contact the project arborist for the purpose of:

- Reviewing the report with the project foreman or site supervisor
- Supervising excavation for the building footprint along the 919/923 Caledonia and 930 North Park Street property boundary.
- Reviewing and advising of any pruning requirements for building clearances.

Please do not hesitate to call us at (250) 479-8733 should you have any further questions. Thank You.

Yours truly,
Talbot Mackenzie & Associates



Tom Talbot & Graham Mackenzie
ISA Certified, & Consulting Arborists

Encl. Tree resource spreadsheet. Tree location diagram with numbers, Construction Plans reviewed

Disclosure Statement

Arborists are professionals who examine trees and use their training, knowledge and experience to recommend techniques and procedures that will improve their health and structure or to mitigate associated risks.

Trees are living organisms, whose health and structure change, and are influenced by age, continued growth, climate, weather conditions, and insect and disease pathogens. Indicators of structural weakness and disease are often hidden within the tree structure or beneath the ground. It is not possible for an Arborist to identify every flaw or condition that could result in failure or can he/she guarantee that the tree will remain healthy and free of risk.

Remedial care and mitigation measures recommended are based on the visible and detectable indicators present at the time of the examination and cannot be guaranteed to alleviate all symptoms or to mitigate all risk posed.

Key to Headings in Resource Table

d.b.h. – **diameter at breast height** - diameter of trunk, measured in centimetres at 1.4 metres above ground level

CRZ – **critical root zone** - estimated optimal size of tree protection zone based on tree species, condition and age of specimen and the species tolerance to root disturbance. Indicates the radial distance from the trunk, measured in metres.

Crown spread – indicates the diameter of the crown spread measured in metres to the dripline of the longest limbs.

Condition health/structure –

- Good – no visible or minor health or structural flaw
- Fair – health or structural flaw present that can be corrected through normal arboricultural or horticultural care.
- Poor – significant health or structural defects that compromise the long-term survival or retention of the specimen.

Relative Tolerance – relative tolerance of the selected species to development impacts.

Tree Resource Spreadsheet for 919/923 Caledonia Street

Tree ID	Common Name	Latin Name	DBH (cm) * over ivy approximate	Crown Spread (m)	CRZ (m)	Health	Structure	Relative Tolerance	Remarks and Recommendations	Retention Status
1	Sweet Gum	<i>Liquidambar styraciflua</i>	25.0	4	2.0	Good	Good	Moderate	3.5 metres from property corner. Won't be impacted. No pruning required	Retain
2	Sweet Gum	<i>Liquidambar styraciflua</i>	20.0	4	2.0	Good	Good	Moderate	1.5 metres from wall. No pruning required	Retain
3	Flowering plum	<i>Prunus nigra</i>	25.0	7	2.0	Good	Good	Good	2.0- 2.5 metres from wall. Minor canopy pruning required	Retain
4	Incense cedar	<i>Calocedrus decurrens</i>	7.0	2	1.0	Good	Good	Moderate	Rooted just inside wall	TBD
5	Norway maple	<i>Acer platanoides</i>	40.0	10	3.0	Good	Good	Good	1.5 metres from wall. Extensive canopy pruning may be required for construction access.	Retain
6	Portuguese laurel	<i>Prunus lusitanica</i>	2x20	6	2.0	Good	Fair	Good	Part of hedgerow	Remove
7	Leyland cypress	<i>Cupressocyparis Leylandii</i>	15 to 40	8	3.0	Good	Fair	Good	Hedgerow of 10trees	Remove

