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Certified Arborist PN-6523A
TRA Qualified

Arborist Report for Development Purposes
Re: Proposed Rezoning, Development, and Construction

Site Location: 3106 Washington Ave., Victoria BC
Miche Hachey PN-9613A TRAQ
November 24th, 2023
Revised: July 24th, 2024
Revised: January 30, 2025

January 30, 2025
For: Danielle and Todd Buchanan
3106 Washington Ave. Victoria BC V9A 1P6
Re. Proposed Rezoning, Development, and Construction-3106 Washington Ave.

1.0 Scope of Work

D. Clark Arboriculture has been retained by Danielle and Todd Buchanan to provide comments on trees impacted by a potential rezoning, development, and construction of four homes and amenities, and a Tree Protection Plan for the property at 3106 Washington Ave. as per the requirements of the City of Victoria.

2.0 Executive Summary

3106 Washington Ave. Tree Impact Summary				
TREE STATUS	**# of Trees**	**# of Trees to be Removed**	**# of Replacement Trees**	**# of Existing Replacement Trees**
On-site trees	10	4	0	0
Off-site Trees	0	0	0	0
Municipal Trees	2	2	TBD	N/A
TOTAL	12	6	0	0

**Refer to Section 8.0 Replacement Trees and Tree Minimum*

The construction of (4) new residences will impact the Protected Root Zone (PRZ) of (10) on-site trees. A total of (4) on-site trees and (2) municipal-owned trees will require removal to accommodate the proposed development and construction activities. One dead tree (#212) was removed under permit from the municipality in October 2024. It's required replacement is being shown on submitted landscape plans but has not been included in the replacement table at the end of this report. Tree #201 has undergone additional assessments that are summarised in a separate report by Ryan Senechal, dated January 30, 2025.

Trees identified as to be retained in this report require tree protection measures including tree protection fencing, root zone armoring and supervision of activities in the protected root zone of the trees. The project can proceed following the recommendations in this report.

3.0 Introduction and Methodology

We (Darryl Clark and Miche Hachey) visited the site on December 13, 2022, to perform an assessment of trees on-property and off-property that will be impacted by proposed development. A follow-up impact assessment was conducted by colleague Ryan Senechal on May 3rd, 2024. A design provided by our client indicates (4) new homes to be constructed with site servicing, paved accesses, and landscaping. Site conditions surrounding affected trees were favorable.

This report was completed on November 23rd, 2024. Revisions to this report were completed July 24th, 2024, and January 30, 2025.

Tasks performed include:
• An aerial site map was marked indicating tree locations.

• A visual inspection of (11) on-site trees, and (2) municipal-owned trees were conducted, and notes were collected on health and structural condition.
• On-site trees were tagged using numerically stamped aluminum discs.
• Photos were taken to document the site.
• Tree height was measured to the nearest meter with a Trupulse 200 Laser Rangefinder. Canopy width was estimated to the widest point. Diameters were measured with a fabric tape.
• A Tree Survey, Tree Management Plan, and a supplementary Impact Assessment for Tree #201 dated been completed alongside this report.

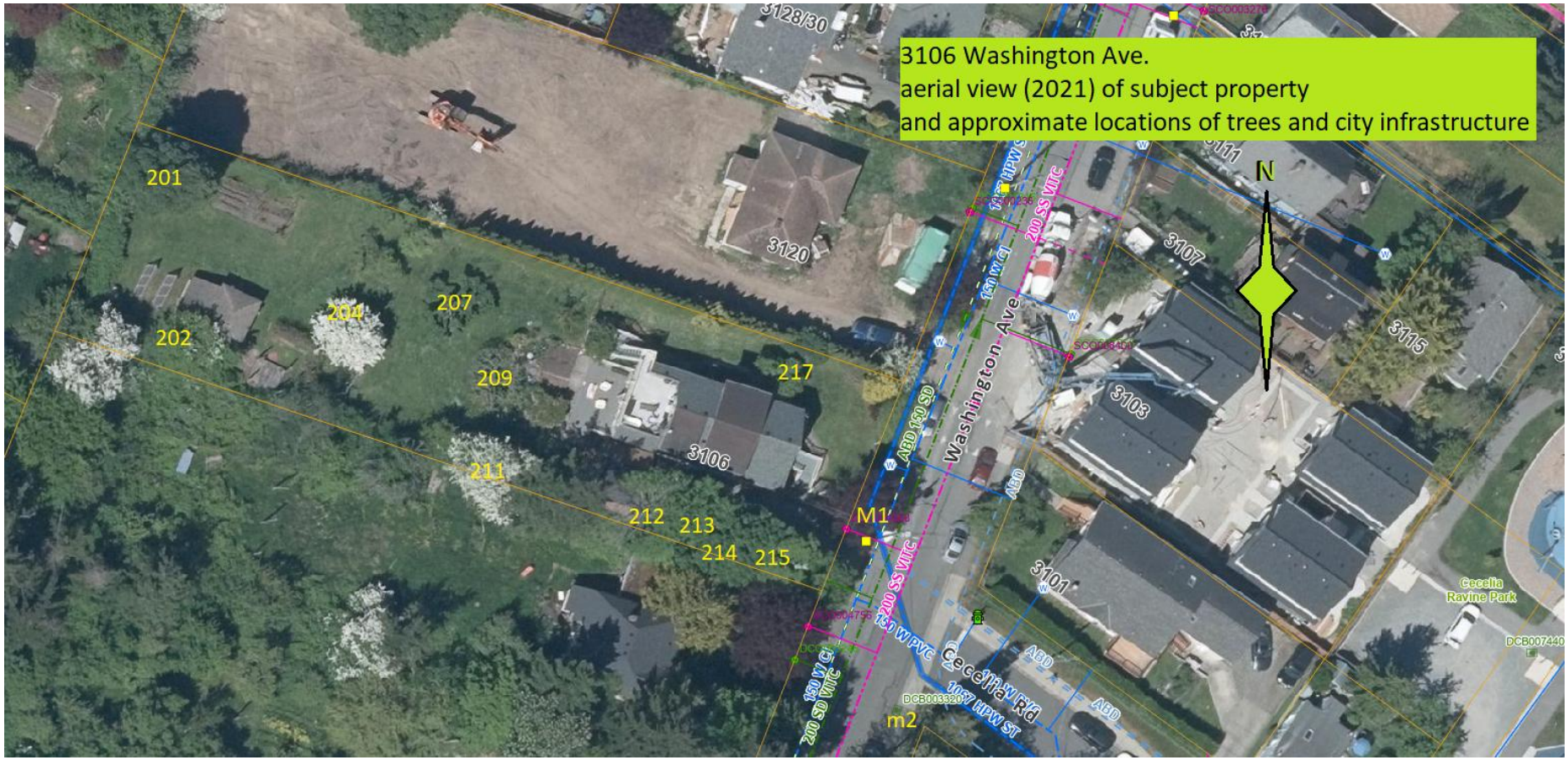


Figure 1- Victoria GIS 2021 Ortho imagery. Approximate tree locations.

4.0 Tree Inventory

3106 Washington Ave. Inventory of Trees											
#	Species	cm/DBH	Height/m	Spread	PRZ/m	Structure	Health	Bylaw protected	Retain/Remove	Reason for Removal	Notes
201	Sequoiadendron giganteum	116	16	12	14	Good	Good	Yes	Retain		
202	Crataegus oxycantha	56	5	6	7	Poor	Good	Yes	Remove	Building footprint for #3	Multi stem, 22, 15, 19
204	Crataegus oxycantha	47	7	6	6	Fair	Fair	Yes	Remove	Building footprint for #2	Multi-Stem 30,17
207	Malus spp.	49	4	8	6	Fair	Fair	Yes	Remove	Building footprint for #1	
209	Malus spp.	72	5	7	9	Fair	Fair	Yes	Retain		Multi-stem 29,21,22
211	Crataegus oxycantha	54	8	5	6	Poor	Fair	Yes	Retain		Multi-Stem 30,24
212	Acer macrophyllum	62	16	9	7	Poor	Poor	Yes	Removed		Dead tops, 15cm in size, included stem. Removed under permit
213	Acer macrophyllum	50	15	6	6	Poor	Fair	Yes	Retain		
214	Acer macrophyllum	35	15	7	4	Fair	Fair	Yes	Retain		
215	Acer macrophyllum	53	15	6	6	Poor	Fair	Yes	Retain		Large Cavity at 2m, 12cm opening
217	Pyrus spp.	58	6	4	7	Fair	Fair	Yes	Remove	easement driveway	Multi-Stem 16,19,23
M1	Prunus cerasifera	31	9	7	4	Fair	Good	Municipal	Remove	SW renewal (engineering)	Growing into service wires. city inventory tree #28555
M2	Prunus avium spp.	26	3	4	3	Fair	Fair	Municipal	Remove	easement driveway	city inventory tree #28556

DBH-Diameter at Breast Height. Measured at 1.4m from the point of germination. Where the tree is multi-stemmed at 1.4m, the DBH shall be considered 100% of the three largest stems, rounded to the nearest cm.
PRZ-Protected Root Zone. The PRZ shall be considered 12x the DBH, rounded to the nearest whole meter

5.0 Site Description

3106 Washington Avenue is a residential lot with a house near the frontage on the southeasterly aspect and a backyard to the northwesterly that is mostly lawn and a handful of trees. The lot slopes gently to the southeast and generally maintained. The impacted trees are mature and in generally fair condition, with average trunk taper and an average vigour and vitality. The lot is large and long. The properties to the north and south has recently been redeveloped with infill housing.

6.0 Tree Removal Requirements

6.1 Municipal-owned trees

• M1 will require removal to accommodate sidewalk improvements required by the municipality.
• M2 will require removal to accommodate site servicing and driveway access.

6.2 On-property trees

• Trees #202, 204, and 207 will require removal due to anticipated development conflicts with house footprints.
•Tree #217 will require removal to accommodate site servicing and driveway access.

7.0 Tree Protection Plan

7.1 Role of the Project Arborist

7.1.1. No aspect of this Tree Protection Plan will be amended in whole or in part without the permission of the Project Arborist.

7.1.2. Any amendments to the plan must be documented in memorandums to the Municipality and the Developer.

7.1.3. A site meeting including the Project Arborist, Developer, project supervisor, and any other related parties to review the tree protection plan will be held at the beginning of the project.

7.1.4. The Project Arborist must approve all tree protection measures before excavation begins in or near areas defined as Protected Root Zone on the Tree Management Plan.

7.1.5. The Project Arborist is responsible for ensuring that all aspects of this plan, including violations, are documented in memorandums to the Municipality and the Developer.

7.2 Tree Protection Measures

7.2.1. Fencing for Protected Root Zones[1] will be installed as per the location indicated on the Tree Management Plan (TMP).

[1] Matheny et al. (2023). Managing Tree During Site Development and Construction: Best Management Practices,
Third Edition

7.2.2. Fencing for the TPZ must be either securely anchored 2x4 posts and framing, paneled with securely affixed orange snow fence or plywood, or continuous temporary job site fencing (metal) secured with baling wire or zip ties. Fencing will incorporate highly visible signs that include “TREE PROTECTION AREA- NO ENTRY” (See appendix for an example).

7.2.3. The area inside fenced TPZs is off-limits to workers, equipment, and storage of materials. Areas outside the tree protection fence but still within the Protected Root Zone (PRZ) may be left open for access, as work areas and for storage of materials. These areas will be protected by root zone armoring consisting of either 3/4” plywood or a minimum of 20 centimeters of coarse wood chips (see Tree Management Plan for locations of each).

7.2.4. Tree protection measures will remain in place for the duration of the project unless they are amended and documented by the Project Arborist.

7.2.5. Tree protection measures will not be amended in any way without approval from the Project Arborist. Any additional tree protection measures will be documented in a memo to the Client and Municipality.

7.2.6. Work inside the established TPZ of any retained tree identified in this plan for any reason will take place under the supervision of the Project Arborist or their designate. Root disturbance and injury mitigation techniques may be specified by the Project Arborist including, but not limited to the use of a hydro-vac or Airspade® or digging using hand tools to expose roots for inspection.

7.2.7. For excavation activities using an excavator, the operator will work radially inward toward the tree. The excavator will remove the soil incrementally with a non-toothed shovel allowing any exposed roots to be pruned to an acceptable standard by the Project Arborist. Exposed roots that are to remain exposed for any duration outside of the day of excavation are to be covered with a layer of burlap and kept damp for the duration of the project. A memo to summarize these activities will be provided to the Municipality and Developer once the activities are completed.

7.2.8. Any excavation of plant vegetation inside a PRZ of a retained tree using machinery must be supervised by the Project Arborist.

7.2.9. Any roots damaged or injured inside TPZs may prompt the requirement for a tree risk assessment to evaluate tree stability.

7.3 General Requirements

7.3.1. Any pruning of protected trees will be performed by an ISA (International Society of Arboriculture) Certified Arborist, by industry-recognized best management practices[2]. On-site tree #201 will require pruning to accommodate the proposed driveway and proposed roofline of house #4.

A provided impact assessment written by colleague Ryan Senechal on May 9th, 2024, section 3.4) Tree Allometry and Structural Condition states “A pruning plan to establish and maintain

[2] Lilly, S.J. et al. (2019) Best Management Practices: Pruning (Third Edition).

building and driveway clearance should establish a lowest permanent branch. This can be targeted at the height where branching growth habit shifts from downward to horizontal growth (laser measured at 5.5m height). Pruning will use a combination of reduction and removal pruning methods targeting the most vigorous and elongated branches and retaining subordinate branches."

The proposed height for house #4 is 1.78m. It is recommended that the lowest permanent branch be establish at 3-4m height depending on branch growth in the proximity, and suitable branches present for pruning.

7.3.2. Equipment traffic in and out of the site is anticipated to utilize the northern portion of the property. Due to limited access, foot traffic is naturally restricted to utilizing primarily the northern side of the residence for access to the backyard (west). In areas of high foot and machinery traffic that occurs in the PRZ of trees, root zone armoring will be employed.

7.3.3. Material staging and storage will be in a location that does not encroach on the PRZ of any retained trees.

7.3.4. Root zone armoring will be used in areas of high traffic that are within PRZ's of retained trees.

7.4 Construction Activities and Tree Protection Measures

7.4.1 Tree Stump and Vegetation Removal
Excavation for the removal of tree stumps #202 and 207 are anticipated to encroach on the PRZ of trees #201 and 209. Supervision will be required for the removal of these tree stumps as they share PRZ's with retained on-site trees.

To minimize root damage and soil compaction from occurring, mitigation recommendations include the use of root zone armoring for foot and machinery access that occurs through PRZ's of trees that do not have TPZ fencing enclosing the entire extent of their PRZ's. The Project Arborist will supervise all noted stump removals and provide root pruning if deemed necessary.

7.4.2. Excavation for Proposed Houses
Excavation for the foundations of houses #1 and #4 will require supervision where it impacts the PRZ's of on-site trees #201, 209, and 211.

To minimize root damage and soil compaction from occurring, mitigation recommendations include the use of root zone armoring for frequent foot access that occurs through PRZ's of trees that do not have TPZ fencing enclosing the entire extent of their PRZ's. The Project Arborist will supervise all excavation activities where they have the potential to disrupt the PRZ's of retained trees, the Project Arborist will conduct root pruning if deemed necessary.

Final depth of foundation and cut-slope requirements will be provided to the project arborist for review before the start of excavation. Amendments or revisions to this plan due to unanticipated changes will be documented in a memo to the developer and the municipality for approval before the start of excavation.

7.4.3. Excavation for the Installation of Civil Services- Water, Storm and Sewer
The installation of services is anticipated to be underneath the footprint of the new driveway and will continue along the northern portion of the property and will veer to each individual residence. The installation of these services is anticipated to encroach on the PRZ of on-site tree #201.

To minimize root damage and soil compaction from occurring, mitigation recommendations include the use of root zone armoring for frequent foot access that occurs through PRZ's of trees that do not have TPZ fencing enclosing the entire extent of their PRZ's. The Project Arborist will supervise all excavation activities where they have the potential to disrupt the PRZ's of retained trees, the Project Arborist will conduct root pruning if deemed necessary.

Based on the proximity to tree #201, to aid in the retention of roots and lessen impacts. The use of an Hydrovac or Airspade will be utilized for the trenching of service lines where it is within the PRZ of tree #201.

Revisions to the report may be required to document any changes to these services.

7.4.4. Landscaping Activities- Installation of Proposed Driveway

A driveway is proposed on the northern section of the property, a provided landscape plan indicates the usage of permeable pavers. Installation of the driveway is anticipated to encroach on the PRZ of tree #201.

Exploratory work may be undertaken prior to installation to determine significant roots (>10 cm ⌀) locations and tree impacts.

Final driveway layouts will be provided to the Project Arborist for review before the start of construction. Specific cut depths will be determined at the time of installation and all installation details and impact summary will be compiled in a memo to the Municipality and the client.

Alternative techniques for paving will be employed including the use of geotextile load bearing fabric, and a detail of the paving expectations can be found noted in *Figure 1*, the Tree Management Plan and the Landscape Plan.

The expectations for landscaping are the same as for construction. All tree protection measures outlined in the report and on the Tree Management Plan are expected to remain in place, and any changes will be approved by the project arborist with amendments to the report and plan documented in correspondence to the city and the developer.

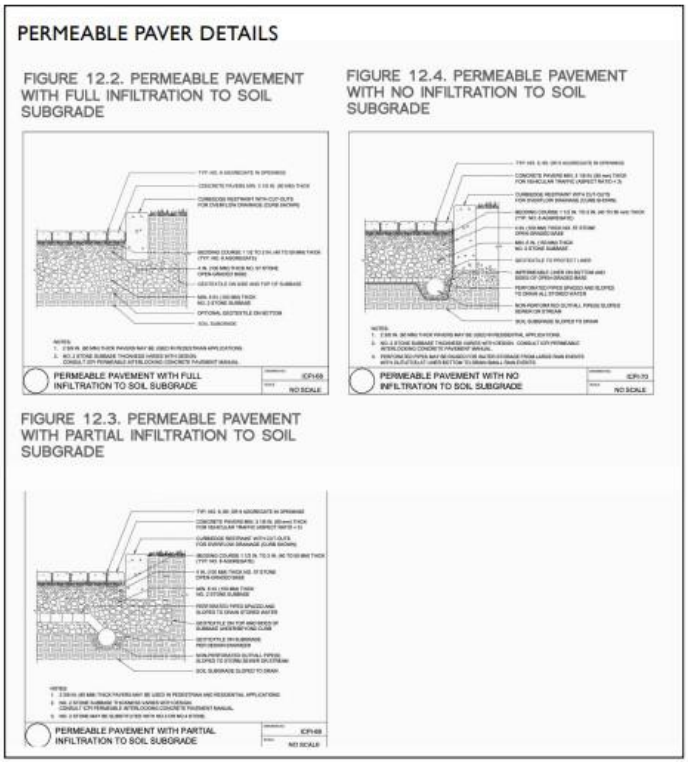


Figure 1) Proposed driveway details provided by Greenspace Design on the Landscape Plan.

8.0 Replacement Trees and Tree Minimum

The City of Victoria's Tree Protection Bylaw No. 21-035 section 21 (1) states that properties in development-related applications must ensure that the lot will achieve the on-site tree minimum. The tree minimum for this lot based on a total area of ~1007m2 is (5) trees. (6) protected trees are to be retained. Tree #201 is considered a "specimen tree" under "Schedule C" of the bylaw and is counted as (3) trees. The Landscape Plan proposes (4) trees that equal 1:1 replacement. The retained trees in combination with the proposed planted trees reaches a greater number of trees than the expected minimum on a site this size.

		count	Multiplier	TOTAL
	onsite min.replacement req.			
A	protected trees removed	4	x1	4
B	replacement trees proposed part 1	4	X1	4
C	replacement trees proposed part 2	0	X0.5	0
D	replacement trees proposed part 3	0	X1	0
E	total replacement trees proposed (B+C+D)			4
F	onsite replacement tree deficit (A-E)			0
	onsite tree min. req.			
G	tree minimum on lot			5
H	protected trees retained	6	X1	6

I	specemin trees retained	1	X3	3
J	trees per lot deficit (G-(B+C+H+I))			0
	offsite min. replacement req.			
K	protected trees removed	0	X1	0
L	replacement trees proposed (part 1 or 3)	0	X1	0
M	replacement trees proposed (part 2)	0	X0.5	0
N	total replacement trees proposed (L+M)			0
O	offsite replacement tree deficit (K-N)			0
	cash-in-lieu req.			
P	onsite trees proposed for cash-in-lieu (greater of F or J)			0
Q	offsite trees proposed for cash-in-lieu (O)			0
R	cash-in-lieu proposed ((P+Q)x $2000.00)			$-

Thank you for the opportunity to comment on these trees.
Should any issues arise from this report, I am available to discuss them by phone or email.
Regards,

Darryl Clark
Certified Arborist PN-6523A
TRAQ

Insured by:
Milmine Insurance 301 Highway #8, Unit #1, Stoney Creek Ont. L8G 1E5
Justin Bizier – jbizier@vergeinsurance.com – 905-664-2911
Expires on: 2025/08/01

Disclosure Statement

An arborist uses their education, training and experience to assess trees and provide prescriptions that promote the health and wellbeing and reduce the risk of trees.

The prescriptions set forth in this report are based on the documented indicators of risk and health noted at the time of the assessment and are not a guarantee against all potential symptoms and risks.

Trees are living organisms and subject to continual change from a variety of factors including but not limited to disease, weather and climate, and age. Disease and structural defects may be concealed in the tree or underground. It is impossible for an arborist to detect every flaw or condition that may result in failure, and an arborist cannot guarantee that a tree will remain healthy and free of risk.

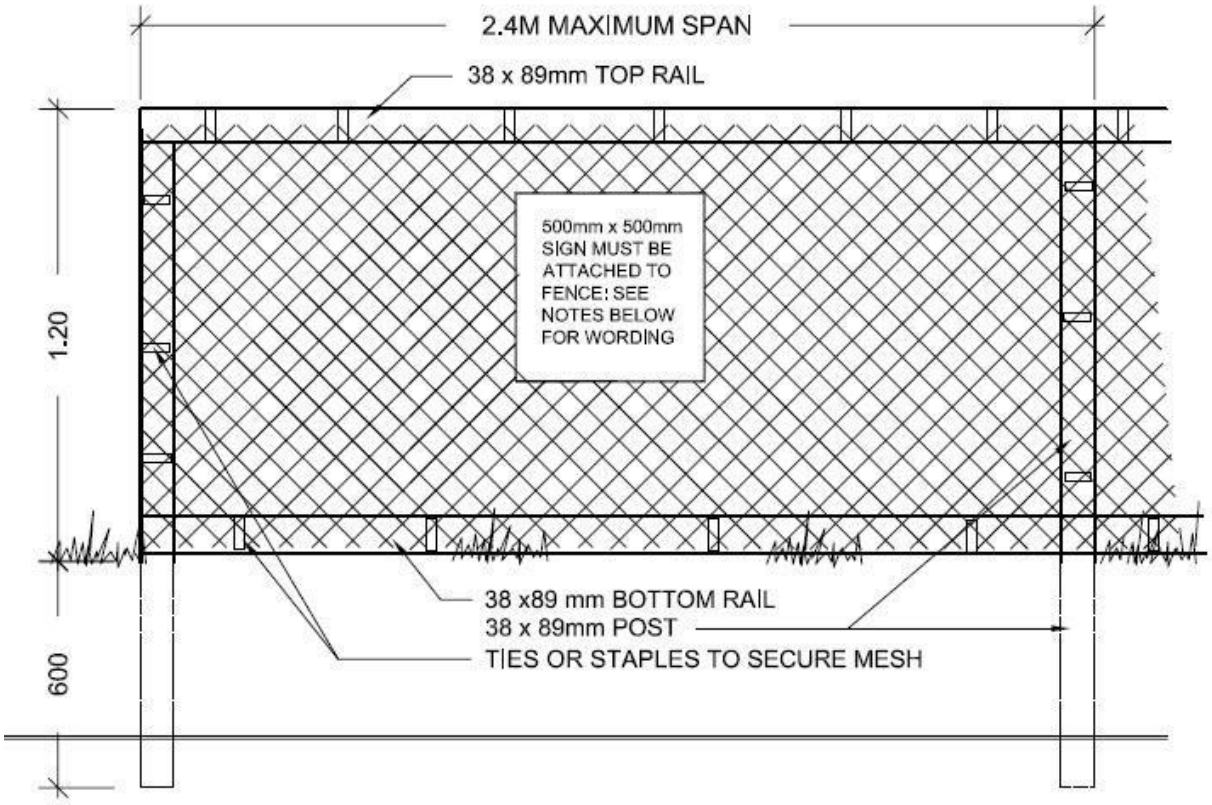
To live near trees is to accept some degree of risk. The only way to eliminate the risks associated with trees is to eliminate all trees.

Assumptions and Limiting Conditions

- Altering this report in any way invalidates the entire report.

- The use of this report is intended solely for the addressed client and may not be used or reproduced for any reason without the consent of the author.
- The information in this report is limited to only the items that were examined and reported on and reflect only the visual conditions at the time of the assessment.
- The inspection is limited to a visual examination of the accessible components without dissection, excavation or probing, unless otherwise reported. There is no guarantee that problems or deficiencies may not arise in the future, or that they may have been present at the time of the assessment.
- Sketches, notes, diagrams, etc. included in this report are intended as visual aids, are not considered to scale except where noted and should not be considered surveys or architectural drawings.
- All information provided by owners and or managers of the property in question, or by agents acting on behalf of the aforementioned is assumed to be correct and submitted in good faith. The consultant cannot be responsible or guarantee the accuracy of information provided by others.
- It is assumed that the property is not in violation of any codes, covenants, ordinances or any other governmental regulations.
- The consultant shall not be required to attend court or give testimony unless subsequent contractual arrangements are made.
- The report and any values within are the opinion of the consultant, and fees collected are in no way contingent on the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, or any finding to be reported.

Appendix A



TREE PROTECTION FENCING

Tree Protection Fencing Specifications:

1. The fence will be constructed using 38 x 89 mm (2” x 4”) wood frame:
   - Top, Bottom and Posts. In rocky areas, metal posts (t-bar or rebar) drilled into rock will be accepted.
   - Use orange snow fencing mesh and secure to the wood frame with “zip” ties or galvanized staples. Painted plywood or galvanized fencing may be used in place of snow fence mesh.
2. Attach a roughly 500 mm x 500 mm sign with the following wording: **TREE PROTECTION AREA-NO ENTRY**. This sign must be affixed on every fence face or at least every 10 linear metres.


3106 Washington Ave.
January 26, 2023
tree #201 from the south side
201

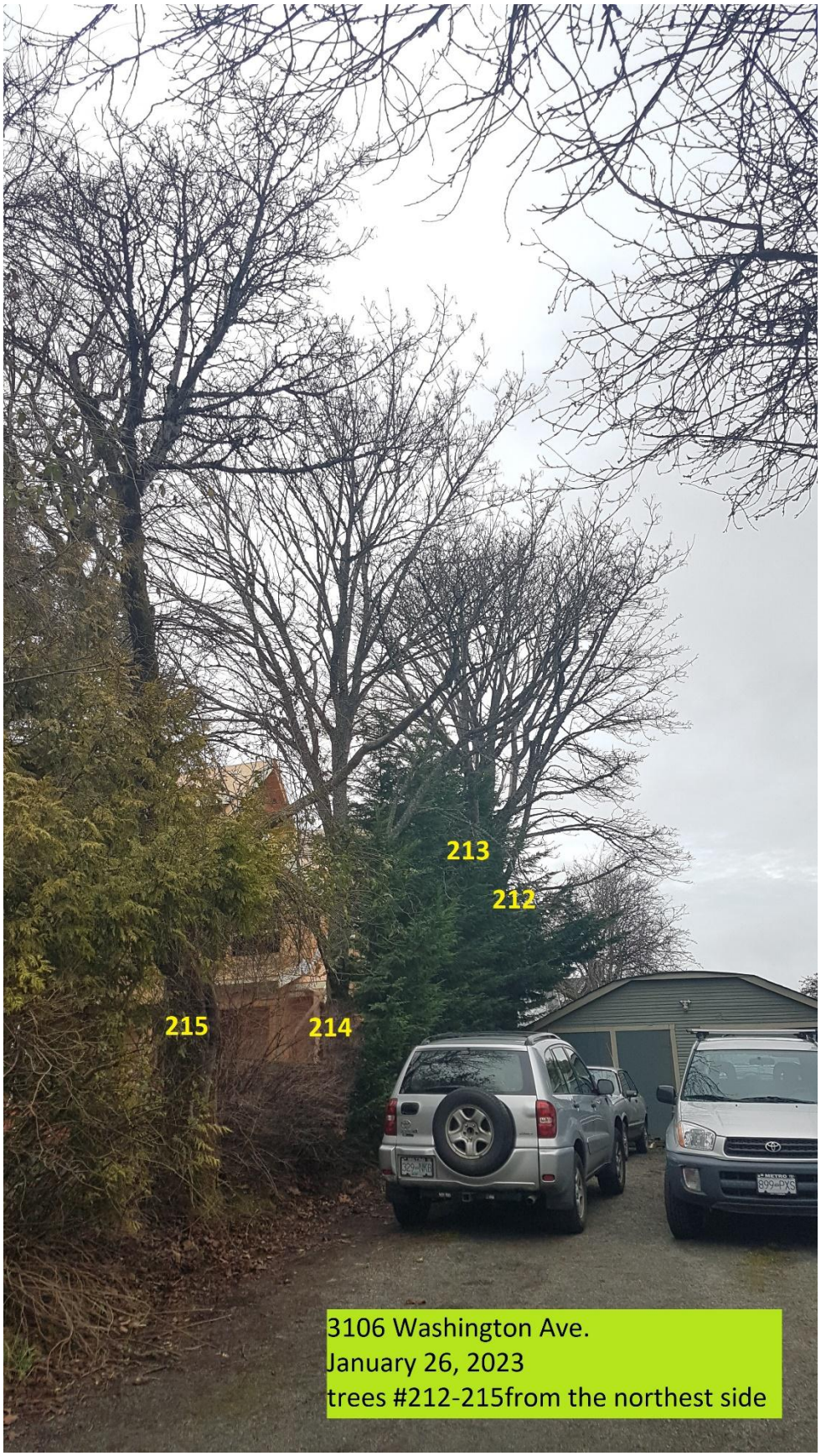
3106 Washington Ave.
January 26, 2023
tree #202 from the north side


3106 Washington Ave.
January 26, 2023
tree #204 from the southeast side
204


3106 Washington Ave.
January 26, 2023
tree #207 from the east side
207


3106 Washington Ave.
January 26, 2023
tree #209 from the northeast side
209

3106 Washington Ave.
January 26, 2023
tree #211 from the north side


213
212
215
214
3106 Washington Ave.
January 26, 2023
trees #212-215from the northest side


3106 Washington Ave.
January 26, 2023
tree M1 from the east side
M1


3106 Washington Ave.
January 26, 2023
tree M2 from the east side
M2