



Arborist Report

Inventory and Assessment of Trees Associated to Construction at
15495 Oxenham Avenue, White Rock

December 9, 2022

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Tree Related Items from “Preliminary Interdepartmental Comments”
dated March 13, 2022

PARKS COMMENTS

1. There 3 trees (ci2448, ci1 and ci2354) on City land all to be preserved with tree barriers and securities.
2. There also appears to be a hedge of sorts that is not picked up on the arborist report. It is on City property and should not be removed without permission from the City. The ‘hedge’ can be removed with the requirement of one city tree cash in lieu.

CITY ARBORIST COMMENTS

1. The rear residence has an existing pool, therefore, the roots have already developed in a linear form and are excellent candidates for retention. Options for tree retention need to be explored for tree 806 through a design solution that incorporates root pruning. Tree 805 can be removed.
2. Additionally, tree 801 and 802 would not be permitted for removal due to a walkway as they are not within the building envelope. The arborist should propose a design solution to retain these trees. A walkway and tree retention are completely obtainable.

Arborist Report update Notes (November 30, 2022)

In Reply to Parks Comments

- 1)- Ci1 is located in conflict with the proposed driveway. Ci2448 and ci2354 are shown as retained with tree barriers.
- 2)- The hedge located on City property sits in conflict with the proposed driveway. Hedge is shown on Image 13, Page 14 in the arborist report.

In Reply to City Arborist Comments

- 1)- The existing pool is 3m from tree 806. The proposed building is 2m from 806. Excavation would be at least 0.8m from os6. Removal is recommended at this distance.
- 2)- The arborist report is updated to show the retention of trees 801 and 802. Landscaping performed in the zone is to be done with use of hand tool and under arborist supervision.

Assignment and Methodology

Woodridge Tree has been retained to undertake an inventory and assessment of trees associated to the demolition and construction of a house at 15495 Oxenham Avenue, White Rock. The objective is to make tree preservation and protection recommendations in the context of municipal permits, rules and regulations for development.

Associated trees were visually assessed to determine species, diameter at breast height (dbh) and characteristic description. Tree diameters were measured at 1.4 meters height with a diameter tape. Protection areas were calculated for all trees within range of the property. Tree hazards were assessed according to International Society of Arboriculture standards using the TRAQ (Tree Risk Assessment Qualification) method. Recommendations for removal or retention are based on assessment outcome and proximity of trees to structure and infrastructure. Soil testing, root exploration and internal probing of tissue have not been incorporated in the findings.

The observations recorded are based on inspections performed on November 27, 2018 and again November 25, 2022.



aerial image of property before redevelopment

Findings

The property at 15495 Oxenham Avenue is located on the North side of Oxenham Avenue near the intersection of Best Street. At the time of observation a two storey house stood on the lot. Associated trees were comprised of native conifers and ornamental deciduous species. Trees located on the subject property, City and neighbours' trees close to the property lines are considered in the findings of this report.



image of property from street at time of field data collection (November 27, 2022)

Tree Inventory and Assessment

- **dbh** - Diameter at 1.4m height measured in centimeters
 - on trees with multiple stems the 3 largest sections measured at 1.4m are combined to make up the total.
- **critical root zone** = dbh x 6 unless otherwise specified
- **ci** - City owned tree
- **LCR** = live crown ratio, percentage of live crown remaining
- **os** - off site tree

ID#	Common Name	Botanical Name	DBH (cm)	Condition & Comments	Action	TPZ (m)
ci1	Japanese maple	<i>Acer palmatum</i>	5 caliper	Observation November 27/2018 An immature specimen in good condition. ~2m tall. Can be relocated if necessary. Observation November 25/2022 No change. A small ornamental tree planted by a resident on the property line shared with City. The tree is immature such that it can easily be replanted in another location or replaced (with no loss in canopy) with a new, more appropriate boulevard tree. The location is in conflict with the proposed driveway.	remove	1.5m
ci 2354	Japanese maple	<i>Acer palmatum</i>	30	Observation November 27/2018 Natural form, good condition, does not enter subject property Observation November 25/2022 No change	Retain Install barrier at the property line.	1.8m
ci 2448	Shore pine	<i>Pinus contorta</i>	56	Observation November 27/2018 Multi stem at base, pruning for hydro clearance has left it with a shrub like form, crown is a bit sparse Observation November 25/2022 Observe there have been a few limbs removed. Not significantly changed.	Retain Install barrier at 3.36m from the tree.	3.36m
801	Norway spruce	<i>Picea abies</i>	32	Observation November 27/2018 Single stem with a phototropic lean and unbalanced crown to the south, previously topped with regenerated leaders. Overall form is natural, crown health is moderate.	Retain Landscaping to performed by hand	1.92

				Observation November 25/2022 Lower dead branches, topped at about 15 feet with regenerated dogleg leaders, growing about .5m away from the existing driveway and within a concrete garden bed. The plan shows unit pavers installed along the PL share with neighbor.	under arborist supervision.	
802	Norway spruce	<i>Picea abies</i>	44	Observation November 27/2018 Single stem with a phototropic lean and unbalanced crown to the west, previously topped with regenerated leaders. Overall form is natural, crown health is good. Observation November 25/2022 Lower dead branches, topped at about 15 feet with regenerated dogleg leaders, growing about .5m away from the driveway and within a concrete garden bed The plan shows unit pavers installed along the PL share with neighbor.	Retain Landscaping to performed by hand under arborist supervision.	2.64
803	Monkey puzzle tree	<i>Araucaria araucana</i>	31	Observation November 27/2018 100% Ivy infested, lower 60% of crown is dead. Ivy has caused tree to decline beyond expectation of recovery. Observation November 25/2022 Tree has died and been removed.	No action	1.86
804	Shore pine	<i>Pinus contorta</i>	59	Observation November 27/2018 Previously topped at 10' with regenerated leaders, Ivy up lower 40% of tree, many dead branches in crown, shaded out on west side but overall form is natural. Lower half of crown is sparse. Observation November 25/2022 Ivy infested on the lower 25 feet.	Retain Install barrier 3.54m from tree. Arborist to supervise the removal of the ivy from the trunk.	3.54
805	Goldenchain tree	<i>Laburnum anagyroides</i>	46	Observation November 27/2018 Phototropic lean to south, ivy infested, crown weeps into the pool. Observation November 25/2022 Tree has failed	No action	2.76

806	Douglas fir	<i>Pseudotsuga menziesii</i>	80	<p>Observation November 27/2018 Dual stem at 8' with included bark, natural form crown.</p> <p>Observation November 25/2022 Ivy infested on the lower 15 feet, long reaching lower (9-10m) branches on the south side. -- The location of the existing pool is 3.1m from the tree. City arborist has communicated that retention of the tree is desired. --A solution whereby the excavation does not encroach to within 3.1m from the tree will optimally enable retention.</p> <p>Based on the existing proposal tree is 2m from the house hence the excavation will be at least 80cm from the tree. Too close to retain.</p>	Remove	4.8
807	Douglas fir	<i>Pseudotsuga menziesii</i>	71	<p>Observation November 27/2018 Dual stem at 10' with included bark, natural form crown, a bit unbalanced to the south, Ivy growing up trunk.</p> <p>Observation November 25/2022 Ivy infested on the lower 15 feet.</p> <p>The location of the tree is 3.6m from the proposed house. Excavation will be about 2.2m from the tree.</p>	<p>Retain</p> <p>Install barrier 4.26m.</p> <p>Arborist to supervise the excavation.</p>	4.26
808	Douglas fir	<i>Pseudotsuga menziesii</i>	90	<p>Observation November 27/2018 Dual stem at 6' with included bark, phototropic lean and unbalanced crown to the north, overall natural form crown.</p> <p>Observation November 25/2022 Ivy infested on the lower 15 feet.</p> <p>The location of the tree is 4.8m from the proposed house. Excavation will be about 3.4m from the tree.</p>	<p>Retain</p> <p>Install barrier 5.4m.</p> <p>Arborist to supervise the excavation.</p>	5.4
os1	Weeping cypress	<i>Chamaecyparis nootkatensis</i> 'Pendula'	22	<p>Observation November 27/2018 Immature, does not enter subject property</p> <p>Observation November 25/2022 Natural form, good condition.</p>	<p>Retain</p> <p>Install barrier 1.5m from tree.</p>	1.5
os2	Douglas fir	<i>Pseudotsuga menziesii</i>	90	<p>Observation November 27/2018 Previously topped at 10' with large regenerated leaders, attachments are poor with branches fused to the compression wood. One large</p>	<p>Retain</p> <p>Arborist to supervise</p>	5.4

				<p>leader has been removed. Crown is large, bushy and dense. May require higher level assessment.</p> <p>Observation November 25/2022</p> <p>No change. NOTE: Dual leaders are topped again at about 25 feet with regenerated leaders.</p> <p>The house (covered entry/porch) is within the edge of the TPZ. Landscape features are shown within the TPZ.</p>	<p>the excavation.</p> <p>Landscaping to performed by hand under arborist supervision.</p>	
os3	English laurel	<i>Prunus laurocerasus</i>	39	<p>Observation November 27/2018</p> <p>Very tall and narrow, squeezed in between two houses.</p> <p>Observation November 25/2022</p> <p>Has been removed.</p>	No action required.	2.34
os4	English laurel	<i>Prunus laurocerasus</i>	14+12 +10= 36	<p>Observation November 27/2018</p> <p>Very tall and narrow, squeezed in between two houses.</p> <p>Observation November 25/2022</p> <p>Many stemmed at base, leaning into subject property almost against the existing house.</p>	<p>Retain</p> <p>Trim the laurel back to the property line.</p>	2.16
os5	Cherry	<i>Prunus avium</i>	32+16 =48	<p>Observation November 27/2018</p> <p>large unkempt crown.</p> <p>Observation November 25/2022</p> <p>Dual-stemmed at base.</p>	<p>Retain</p> <p>Install barrier 2.88m from tree.</p>	2.88
os6	Cherry	<i>Prunus avium</i>	44	<p>Observation November 25/2022</p> <p>Dualed stemmed at about 1.5m, sparse canopy, harshly pruned.</p>	<p>Retain</p> <p>Install barrier 2.64m from tree.</p>	2.64
os7	Cherry	<i>Prunus avium</i>	28+26 +18= 72	<p>Observation November 25/2022</p> <p>Base not visible, structure and cut out roof surround tree at fence level, three stems harshly topped with regenerated branching.</p>	<p>Retain</p> <p>Install barrier 4.32m from the tree.</p>	4.32

Summary Table

	subject property	off-site	City property
# of trees in total	6	6	3
# to be removed	1 (two others failed)	0	1
# to be protected	5	6	2

Images



Image 1: **ci1** (Coral bark maple)



Image 2: **ci2354** and **os1**



Image 3: **ci2448**



Image 4: trees **#801 & #802**



Image 5: tree **os2**

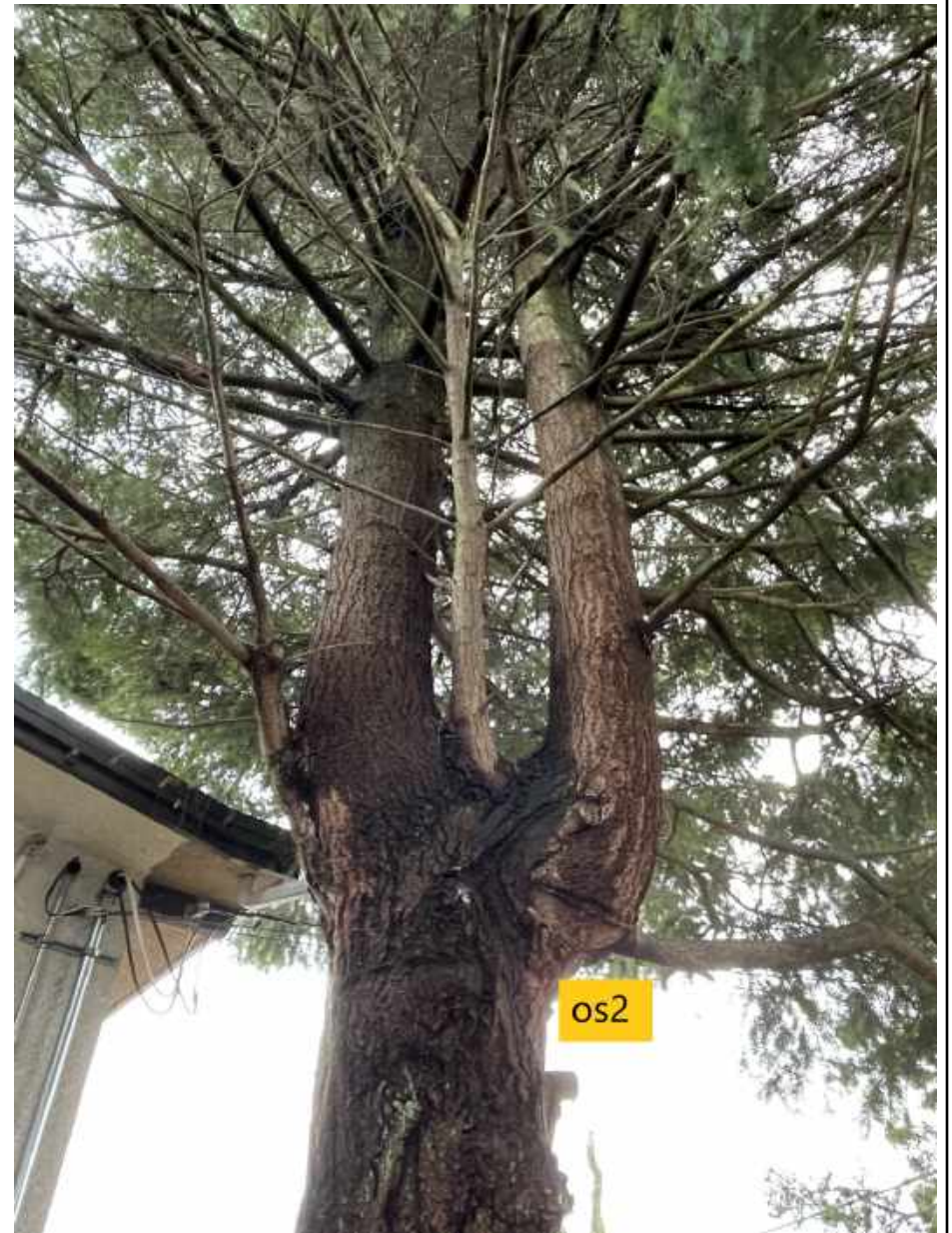


Image 6: **os2** topped with very large regenerated dogleg leaders



Image 7: tree **#806**



Image 8: trees **#806 & #804**



Image 9: tree **#807 & #808**



Image 10: tree **os4**



Image 11: **os5 & os6**



Image 12: **os7**



Image 13: short (3 shrubs) city hedge along driveway.

Conclusion

Property, plans and trees have been assessed by arborist to determine tree management recommendations for construction. Those recommendations follow:

Recommended Tree Removals:

- Plans conflict with tree ci1 and a small hedge on City property.
- Plan shows the building is to be 2m from tree 806- Excavation will critically impact the tree.
- Trees 803 and 805 which were observed in 2018 have died.

Recommended Tree Protection:

- Tree barriers shown on the “Tree Plan for Construction” are to be installed and kept in place during the entire duration of construction.
- Arborist to supervise the excavation of the foundation.
- Arborist to supervise landscaping in the tree protection areas.

Replacement Trees:

- Replacement trees are specified on the “Replacement Tree Plan”
 - Replacement tree selection, planting and maintenance to meet or exceed the BCLNA/BCSLA Landscape Standards
 - Replacement trees to have a minimum caliper of 6cm if deciduous, or a minimum height of 3m if coniferous

Limitations and Assumptions

- This report was prepared for and on behalf of the client and it is intended solely for their use. Woodridge Tree Consulting Arborists Ltd. shall not accept any liability derived from the partial, unintended, unauthorized or improper use of this report.
- This report is restricted to the subject trees as detailed in the report. No other trees were inspected or assessed as part of the work related to the preparation of this report.
- The accuracy and ownership of the locations of trees, property lines and other site features were not verified by Woodridge Tree. Third party information to the consultant may have been relied upon in the formation of the opinion of the consultant in the preparation of this report, and that information is assumed to be true and correct.
- The use of maps, sketches, photographs and diagrams are intended only as a reference for the readers use in understanding the contents and findings of this report, and are not intended as a representation of fact.
- Approvals from a municipal or senior government agency may be required in relation to certain recommendations and treatments provided in this report. The owner is responsible to make application for, pay related fees and meet all requirements and conditions for the issuance of such permits, approvals or authorizations.

I certify to the best of my knowledge or belief that:

- staff from this firm have performed site inspections on the dates as stated herein.
- the findings are based on information known to the consultant at that time.
- the statements of fact determined by the consultant are true and correct.

If there are questions regarding the contents of this report please contact our office.



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**Tree Plan for Construction at
15495 Oxenham Avenue
White Rock, BC**

Date: December 9, 2022

Tree Inventory

Tag	Species	DBH (cm)	TPZ (m)
ci1	Japanese maple	5	1.5
2354	Japanese maple	30	1.8
2448	Shore pine	56	3.36
801	Norway spruce	32	1.92
802	Norway spruce	44	2.64
803	Monkey puzzle tree	31	1.86
804	Shore pine	59	3.54
805	Goldenchain tree	46	2.76
806	Douglas fir	80	4.8
807	Douglas fir	71	4.26
808	Douglas fir	90	5.4
os1	Weeping cypress	22	1.5
os2	Douglas fir	90	5.4
os3	English laurel	39	2.34
os4	English laurel	36	2.16
os5	Cherry	48	2.88
os6	Cherry	44	2.64
os7	Cherry	72	4.32

Legend

— N —>

dripline

x = remove tree

tree barrier

