

**Froggers Creek
Tree Consultants Ltd.**

**7763 McGregor Avenue Burnaby BC, V5J4H4
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October 1, 2025

City of Delta
4500 Clarence Taylor Way
Delta, BC V4K 3E2

Re: 4501 Arthur Drive, Delta BC

Tree Preservation Report

I have been asked to provide a Tree Preservation Report for this property. I have been provided with a new site plan.

TREE PRESERVATION SUMMARY

47	Onsite Protected Trees ¹
5	Onsite trees to be retained
14	Neighbouring Trees

OBSERVATIONS

I last visited the site to assess the trees on November 16, 2023. I have done a level 2 Basic Tree Assessment of the onsite trees and a Level 1 Visual Assessment of all off-site trees. I have assessed the trees for trunk size (DBH), crown radius (CR), height (Ht), health and apparent structural condition. This information is recorded in the inventory in the Appendix.

There are 47 onsite trees and 14 neighbouring trees that could be impacted by the proposed construction. The trees are in mixed condition. 5 of the onsite trees are shared with the neighbour to the north.

DISCUSSION

To help determine the protection zones the trees require I have calculated out their Minimum Protection Zone (MPZ). In an effort to retain more trees during development most municipalities in the Lower Mainland have accepted a Minimum Protection Zone (MPZ) of 6 times the diameter of the trunk. The protection zones are included in the inventory in the Appendix.

Trees Proposed for Removal

In order for a tree to be safely retained all excavation for driveways, sidewalks and buildings need to be outside the minimum protection zones of a tree being retained. Along the north property line there are a lot of very large trees. The removal of these large dominant trees will critically impact a lot of the smaller trees in this area. I am not able to accurately predict the exact impact that the removal of these dominant trees will present to those trees retained. 42 onsite trees are proposed for removal. The removals fall into the following categories: Refer to the inventory for tree numbers the removals refer to.

- 26 trees are too close to the proposed buildings. Excavation for foundation will destabilize these trees.

¹ Protected Trees- All trees 20cm and larger are protected in Delta



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- 8 of the trees are inside the proposed site entrance.
- 3 of the trees are too close to the proposed driveways and will be destabilized by the excavation.
- 4 of the trees in inside the proposed building.
- 1 of the trees #707 is in poor structural condition and is not suitable for retention.

Trees Proposed for Retention

5 onsite trees are proposed for retention. These trees will need to be protected during construction. See protection measures below:

Neighbouring Trees

There are 14 neighbouring trees and another 5 shared trees that will be impacted by the proposed construction. 2 of the neighbouring trees, 3 shared trees are too close to the proposed building and 1 neighbouring tree, 1 shared tree is too close to the driveway, excavation will destabilize these trees. These trees will need to be removed, written permission from the owners of the trees will need to be received. If any of these trees are to be considered for retention the proposed buildings need to be moved to outside the protection zones of the trees by more than 2'. Room is needed to construct footings. The other 11 neighbouring trees will be protected, see protection measures below:

Drawings

A Tree Protection drawing is attached as Appendix-3. The drawing plots all the trees proposed for retention, removal, their protection zones, tree protection fencing and fencing dimensions in relation to the proposed layout.

Replacement Trees

Tree Type	Bylaw Trees	#	For Removal	Replacment Required
Standard 20-59cm DBH	Private On-Site:	38	33	66
	Private Off-Site:	13	2	4
	City:	0	0	0
Large Diameter +60cm DBH	Private On-Site:	9	9	27
	Private Off-Site:	1	1	3
	City:	0	0	0
Hedge per5m	Private On-Site:	0	0	0
	Private Off-Site:	0	0	0
	City:	0	0	0

42 onsite trees and 3 off-site trees are proposed for removal. Delta requires 99 onsite replacement trees and 7 offsite replacement trees. There is a separate Landscape Plan being submitted that will deal with replacement trees. I have not included a Landscape Plan with this report.

TREE PROTECTION MEASURES

Tree Protection Fencing

Robust Tree Protection Fencing is required around all retained trees before construction begins. Delta requires the fencing to be outside the drip lines where possible on all retained protected trees. See table below:



TREE PROTECTION FENCING				
Minimum Radial Distance from trunk				
#	Type	DBH	Metres	Feet
642	Elm	20cm	1.2m	4.0ft
643	Elm	30cm	1.8m	5.9ft
644	Elm	26/19cm	2.2m	7.2ft
648	Elm	30cm	1.8m	5.9ft
649	Elm	20cm	1.2m	4.0ft
650	Cherry	20cm	1.2m	4.0ft
654	Holly	10cm	1.2m	4.0ft
655	Holly	46cm	2.8m	9.1ft
656	Plum	12cm	1.2m	4.0ft
657	Holly	7cm	1.2m	4.0ft
659	Holly	8cm	1.2m	4.0ft
660	Holly	11cm	1.2m	4.0ft
663	Holly	8cm	1.2m	4.0ft
705	Plum	12/10/10cm	1.5m	4.9ft
706	Plum	15/10cm	1.5m	4.9ft
708	Sycamore Maple	19/15/12cm	1.8m	5.9ft

A Tree Protection Fencing Detail drawing is included in the report as Appendix 1.

Protection Measures

The following protection measures are recommended to minimize the impact to the trees:

- I recommend the trees be reinspected once the larger dominant trees are removed as retained trees may become unstable.
- No access by vehicles or personnel is permitted within the fenced-off areas. Storage of materials is also not permitted inside this area.
- In the eventuality that the site supervisor requires access to the tree protection area, the Project Arborist should be consulted beforehand.
- Services (gas, sewer, septic, water, electrical) should be dug outside the protected areas of the retained trees.
- The Project Arborist should be consulted before any grade changes are performed within the protected areas. This includes landscape grade changes that take place after construction.
- The retained trees may need to be pruned for clearance. This work should be performed by a qualified Arborist under the direct supervision of the arborist with the permission of the owner of the tree.
- The arborist should be onsite during excavation within 3' of any protection zone.
- The Project Arborist should be responsible for inspecting and re-assessing the trees following completion of the project.

Landscape Protection Measures

- I recommend the landscape contractor meets with the Project Arborist and the Project Manager before the fencing is removed to discuss the protection requirements during landscaping.
- There should be minimal excavation within the protection zones.
- Underground irrigation lines must be kept outside the protection zones and be only dug into already disturbed areas. Any irrigation required inside of the protection zones must be installed along the existing grade with no excavation.
- No equipment is permitted inside the protection areas, this includes bobcats, mini excavators, trucks, etc. unless soil protection measures are put in place (see above). The arborist should be consulted beforehand.



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- All plant material proposed within the protection areas should be 4" pots or smaller. And plants should be planted in added soil reducing the need to excavate for installation.
- The grade in the protection areas should be limited to the addition of a maximum of 4" of well drained sandy loam topsoil (no clay).
- Any proposed permanent fences within the protection areas will need to be carefully aligned as to minimize the impact to the trees. The holes for the posts will need to be hand dug.
- The hardscape areas within the protection areas; sidewalks, play areas, benches etc. should be installed without any excavation under the supervision of the arborist.
- Retaining walls cannot be built within the protection zones of the trees.

End Report

Certification:

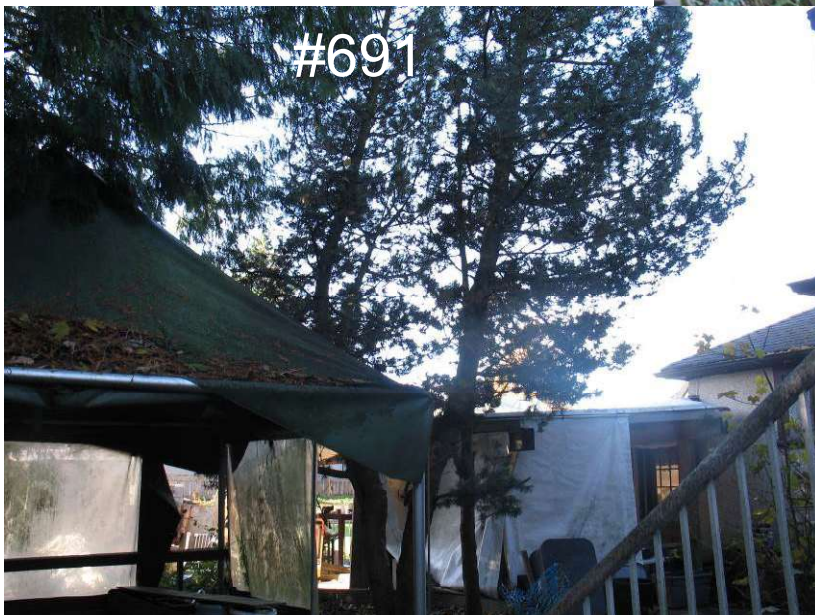
This report and the opinions expressed within it have been prepared in good faith and to accepted arboricultural standards within the scope afforded by its terms of reference and the resources made available to the consultant.

Froggers Creek Tree Consultants Ltd.
Glenn Murray – Board Certified Master Arborist
I.S.A. Certification # PN-0795B
Certified Tree Risk Assessor # 0049

Dated: October 1, 2025







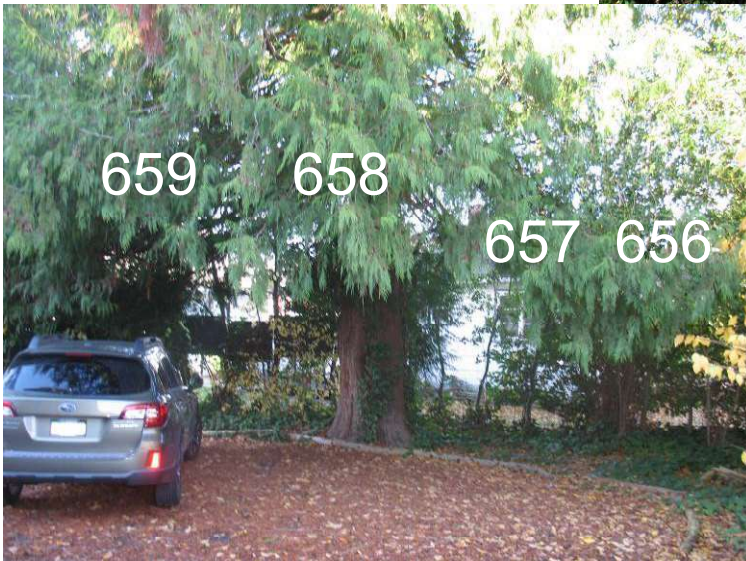


#666

665



Tree 709







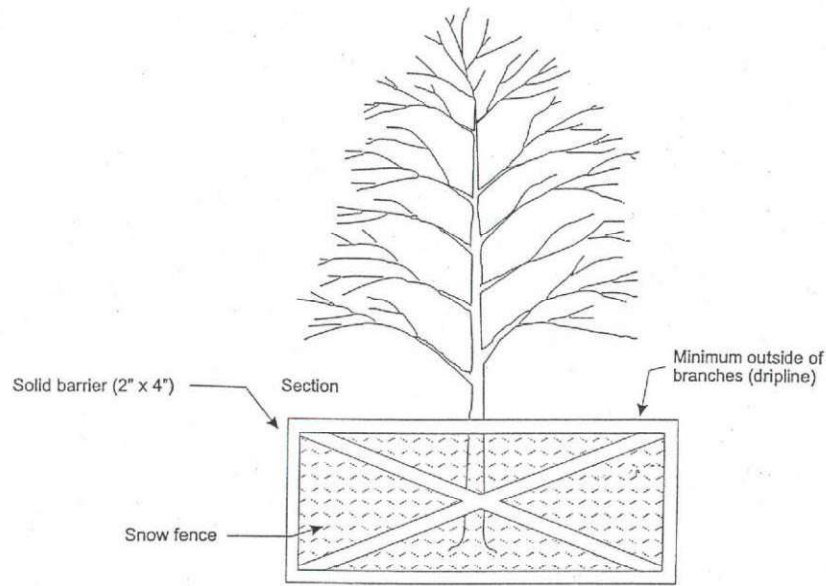
ASSUMPTIONS AND LIMITING CONDITIONS

1. This report and the opinions expressed within it have been prepared in good faith and to accepted arboricultural standards within the scope afforded by its terms of reference and the resources made available to the consultant. The report provides no undertakings regarding the future condition or behavior of the trees reviewed within it. Tree hazard and condition assessments are not an exact science. Both qualities can and do change over time and should be reappraised periodically.
2. This assessment was limited to a level 2 basic visual assessment of all onsite protected trees and a limited (level 1) visual assessment of all others. A level 3 Advanced Assessment has not been completed. No core samples were taken. No tissue samples have been cultured or analyzed by plant pathologists. No root or root crown excavations were undertaken. No aerial reconnaissance was attempted, beyond that made possible by binoculars.
3. Any legal description provided to the consultant/appraiser is assumed to be correct. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
4. It is assumed that any property is not in violation of any applicable codes, ordinances, statutes, or other governmental regulations.
5. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant/appraiser can neither guarantee nor be responsible for the information provided by others.
6. The consultant/appraiser shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
7. Loss or alteration of any part of this report invalidates the entire report.
8. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.
9. Neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales or other media, without the prior expressed written or verbal consent of the consultant/appraiser—particularly as to value conclusions, identity of the consultant/appraiser, or any reference to any professional society or institute or to any initiated designation conferred upon the consultant/appraiser as stated in his qualification.



Appendix 1

The Corporation of Delta Tree Protection Fencing Detail



Notes:

1. A protective barrier must be installed around every tree to be retained prior to the work commencing onsite, and that barrier must remain intact until the Director has authorized its removal.
2. The protective barrier must be constructed of snow fence fastened securely to a sturdy wooden frame or plywood.
3. Any excavation adjacent to the protective barrier must be done by hand.
4. Maintenance of trees that are to remain must include watering but will not include any cutting or pruning of branches or roots unless approved by the Director.
5. The dimensions of the protective barrier must be equal to the extent of the drip line, or 30 cm per every 2.5 cm of tree caliper, whichever is greater.
6. Measurements in relation to tree caliper must be taken at the base of the tree.

GEN002-12/06

APPENDIX 2 TREE INVENTORY ON-SITE TREES

#	Type	LOC	Action	Reason	VAL	DBH	MPZ	Ht	CR	Health	Structural Condition
95	ELM	Onsite	Remove	Inside building		25cm	1.5m	8m	4m	Fair	Tree is a sucker
96	Norway Maple	Onsite	Remove	Too close building		25cm	1.5m	10m	3m	Fair	
97	Portuguese Laurel	Onsite	Remove	Too close building	Mod	15/15/12cm	1.8m	7m	4m	Fair	Multiple trunks
631	Rhododendron	Onsite	Remove	Too close building	Mod	8/8/8cm	1.5m	4m	2m	Fair	
632	Rhododendron	Onsite	Remove	Inside entrance	Mod	17/13cm	2.0m	10m	4m	Fair	
633	Incense Cedar	Onsite	Remove	Inside entrance	Mod	54/48cm	4.4m	14m	4m	Fair	Tree has been topped for powerlines
634	Incense Cedar	Onsite	Remove	Inside entrance	Mod	48/28cm	3.2m	14m	4m	Fair	Tree has been topped for powerlines
635	Incense Cedar	Onsite	Remove	Inside entrance	Mod	60/35	4.5m	14m	4m	Fair	Tree has been topped for powerlines
636	Incense Cedar	Onsite	Remove	Inside entrance	Mod	27/19/12cm	2.2m	14m	4m	Fair	Tree has been topped for powerlines
637	Incense Cedar	Onsite	Remove	Inside entrance	Mod	37/20cm	2.4m	14m	4m	Fair	Tree has been topped for powerlines
638	Incense Cedar	Onsite	Remove	Inside entrance	Mod	28cm	1.7m	14m	4m	Fair	Tree has been topped for powerlines
639	Purple Plum	Onsite	Remove	Inside entrance	Mod	58cm	3.5m	15m	6m	Fair	Decay in the trunk, topped , included bark
640	ELM	Shared	Remove	Too close building	Mod	54/49cm	4.2m	22m	7m	Fair	Multi-stemmed, shared with neighbour to the north; covered in ivy
641	ELM	Offsite	Remove	Too close building	High	40/23/23cm	3.6m	22m	6m	Fair	Multi-stemmed; trunk covered in ivy
642	ELM	Offsite	Retain		High	20cm	1.2m	10m	4m	Fair	Trunk covered in ivy
643	ELM	Offsite	Retain		High	30cm	1.8m	18m	7m	Fair	Trunk covered in ivy
644	ELM	Offsite	Retain		High	26/19cm	2.2m	16m	5m	Fair	Trunk covered in ivy; suppressed; leaning to north
645	ELM	Shared	Remove	Too close building	High	43/25/23cm	3.7m	22m	7m	Fair	Shared with the neighbour to the north, covered in ivy
646	ELM	Shared	Remove	Too close building	High	60/25cm	3.8m	22m	7m	Fair	Multiple trunks at base, shared with neighbour to the north; covered in ivy
647	ELM	Offsite	Remove	Too close building	High	32/28cm	2.5m	20m	7m	Fair	Trunk covered in ivy
648	ELM	Offsite	Retain		High	30cm	1.8m	12m	6m	Fair	Trunk covered in ivy
649	ELM	Offsite	Retain		Mod	20cm	1.2m	10m	3m	Declining	Trunk covered in ivy; top broken; suppressed
650	Cherry	Offsite	Retain		Mod	20cm	1.2m	10m	4m	Fair	Suppressed; trunk covered in ivy
651	ELM	Offsite	Remove	Too close driveway	High	65cm	3.9m	23m	5m	Fair	Trunk covered in ivy
653	ELM	Shared	Remove	Too close driveway	High	63cm	3.8m	22m	7m	Fair	Shared with the neighbour to the north; covered in ivy
654	Holly	Offsite	Retain		Mod	10cm	0.6m	4m	2m	Fair	No apparent defects
655	Holly	Onsite	Retain		Mod	46cm	2.8m	15m	4m	Fair	Multiple tops at 6'; topped
656	Plum	Offsite	Retain		Mod	12cm	0.7m	12m	3m	Fair	Shared with the neighbour to the north
657	Holly	Offsite	Retain		Mod	7cm	0.4m	4m	2m	Fair	Shared with the neighbour to the north

#	Type	LOC	Action	Reason	VAL	DBH	MPZ	Ht	CR	Health	Structural Condition
658	Western Redcedar	Onsite	Remove	Too close building	High	114cm	6.8m	20m	7m	Fair	Root Zone compacted parking, co-doms at 8', included bark
659	Holly	Offsite	Retain		Mod	8cm	0.5m	4m	2m	Fair	Shared with the neighbour to the north
660	Holly	Offsite	Retain		Mod	11cm	0.7m	4m	2m	Fair	Shared with the neighbour to the north
663	Holly	Shared	Retain		Mod	8cm	0.5m	4m	2m	Fair	Shared with the neighbour to the north
664	English Laurel	Onsite	Remove	Inside building	Mod	15@15cm	2.0m	5m	6m	Fair	Topped multiple times
665	Apple	Onsite	Remove	Too close building	Mod	54cm	3.2m	9m	5m	Fair	Topped multiple times; possible decay
666	Apple	Onsite	Remove	Too close building	Low	28cm	1.7m	4m	3m	Poor	Poor, major decay in the trunk
667	Pear	Onsite	Remove	Too close building	Low	26cm	1.6m	7m	3m	Declining	Topped
669	Apple	Onsite	Remove	Too close building	Mod	42cm	2.5m	10m	6m	Fair	Topped, regrown, decay in trunk
680	Western Redcedar	Onsite	Remove	Too close building	Mod	58cm	3.5m	18m	6m	Fair	Odd growth from topping point hazardous
681	Western Redcedar	Onsite	Remove	Too close building	Mod	38/20cm	2.2m	18m	5m	Fair	Tree has been topped multiple times, regrown; acts as a hedge
682	Western Redcedar	Onsite	Remove	Too close building	Mod	42cm	2.5m	18m	5m	Fair	Tree has been topped multiple times, regrown; acts as a hedge
683	Western Redcedar	Onsite	Remove	Too close building	Mod	37cm	2.2m	18m	5m	Fair	Tree has been topped multiple times, regrown; acts as a hedge
684	Western Redcedar	Onsite	Remove	Too close building	Mod	32cm	1.9m	18m	5m	Fair	Tree has been topped multiple times, regrown; acts as a hedge
685	Western Redcedar	Onsite	Remove	Too close building	Mod	80cm	4.8m	18m	5m	Fair	Tree has been topped multiple times, regrown; acts as a hedge
686	Sycamore Maple	Onsite	Remove	Too close building	Mod	60cm	3.6m	18m	5m	Fair	Codomo at 15ft; included bark
687	Hawthorne	Onsite	Remove	Too close building	Low	13/12cm	1.2m	7m	4m	Declining	Possible decay
688	Sycamore Maple	Onsite	Remove	Too close building	Mod	65cm	3.9m	20m	5m	Fair	codomo at 10ft; included bark
691	Shore Pine	Onsite	Remove	Inside building	Mod	24/20cm	1.7m	6m	2m	Fair	In a raised planter
693	Plum	Onsite	Remove	Too close building	Low	30/30cm	2.4m	10m	4m	Declining	Decay in the trunk
695	Holly	Onsite	Remove	Too close building	Low	7/7/7cm	1.2m	3m	1m	Poor	Major Decay in the trunk
697	Portuguese Laurel	Onsite	Remove	Too close driveway	Mod	33cm	2.0m	10m	5m	Fair	Possible decay
698	Portuguese Laurel	Onsite	Remove	Too close driveway	Low	30/25/24cm	2.4m	9m	5m	Declining	Poor; Major Decay in the trunk
700	Portuguese Laurel	Onsite	Remove	Too close building	Mod	30/28cm	2.3m	6m	3m	Fair	Topped hard
701	Portuguese Laurel	Onsite	Remove	Too close building	Low	38/18	2.4m	6m	4m	Declining	major decay in the trunk; sapsucker dmg
702	Hawthorne	Onsite	Remove	Too close building	Low	22cm	1.3m	8m	4m	Declining	Possible decay
703	Purple Plum	Onsite	Remove	Too close building	Mod	16/16/15cm	2.0m	9m	3m	Fair	Multiple trunks, possible decay
705	Plum	Onsite	Retain		Low	12/10/10cm	1.5m	6m	2m	Declining	Multiple trunks, possible decay
706	Plum	Onsite	Retain		Low	15/10cm	1.5m	5m	2m	Declining	Multiple trunks, possible decay
707	Plum	Onsite	Remove	Not suitable	Low	26cm	1.6m	5m	2m	Declining	Major decay in trunk
708	Sycamore Maple	Onsite	Retain		Mod	19/15/12cm	1.8m	7m	3m	Fair	Multiple trunks
709	Linden	Onsite	Remove	Inside building	Mod	30cm	1.8m	10m	4m	Fair	Covered in black berry, can't assess trunk

TREE PROTECTION FENCING				
#	Type	DBH	Metres	Feet
642	ELM	20cm	1.2m	4.0ft
643	ELM	30cm	1.8m	5.9ft
644	ELM	28/19cm	2.2m	7.2ft
648	ELM	30cm	1.8m	5.9ft
649	ELM	20cm	1.2m	4.0ft
650	Cherry	20cm	1.2m	4.0ft
654	Holly	10cm	1.2m	4.0ft
655	Holly	46cm	2.8m	9.1ft
656	Plum	12cm	1.2m	4.0ft
657	Holly	7cm	1.2m	4.0ft
659	Holly	8cm	1.2m	4.0ft
660	Holly	11cm	1.2m	4.0ft
663	Holly	8cm	1.2m	4.0ft
705	Plum	12/10/10cm	1.5m	4.9ft
706	Plum	15/10cm	1.5m	4.9ft
708	Scamora Maple	19/15/12cm	1.8m	5.9ft

TREE INVENTORY				
#	Type	DBH	Action	MPZ
95	ELM	25cm	Remove	1.5m
96	Norway Maple	25cm	Remove	1.5m
97	Portuguese Laurel	15/15/12cm	Remove	1.8m
631	Rhododendron	8/8/8cm	Remove	1.5m
632	Rhododendron	7/13cm	Remove	2.0m
633	Incarosa Cedar	54/48cm	Remove	4.4m
634	Incarosa Cedar	48/28cm	Remove	3.2m
635	Incarosa Cedar	60/35	Remove	4.5m
636	Incarosa Cedar	27/19/12cm	Remove	2.2m
637	Incarosa Cedar	37/20cm	Remove	2.4m
638	Incarosa Cedar	28cm	Remove	1.7m
639	Purple Plum	58cm	Remove	3.5m
640	ELM	54/48cm	Remove	4.2m
641	ELM	40/23/23cm	Remove	3.6m
642	ELM	20cm	Retain	1.2m
643	ELM	20cm	Retain	1.8m
644	ELM	26/19cm	Retain	2.2m
645	ELM	43/25/23cm	Remove	3.7m
646	ELM	60/25cm	Remove	3.8m
647	ELM	32/28cm	Remove	2.5m
648	ELM	30cm	Retain	1.8m
649	ELM	20cm	Retain	1.2m
650	Cherry	65cm	Remove	3.9m
651	ELM	65cm	Remove	3.8m
652	ELM	63cm	Remove	3.8m
653	Holly	100cm	Retain	0.6m
654	Holly	46cm	Retain	2.8m
655	Plum	12cm	Retain	0.7m
656	Holly	7cm	Retain	0.4m
657	Western Redcedar	114cm	Remove	6.8m
658	Holly	8cm	Retain	0.5m
659	Holly	11cm	Retain	0.7m
660	Holly	8cm	Retain	0.5m
661	English Laurel	15/15cm	Remove	2.0m
662	Apple	54cm	Remove	3.2m
663	Apple	28cm	Remove	1.7m
664	Pear	28cm	Remove	1.6m
665	Apple	42cm	Remove	2.5m
666	Western Redcedar	58cm	Remove	3.5m
667	Western Redcedar	38/20cm	Remove	2.2m
668	Western Redcedar	42cm	Remove	2.9m
669	Western Redcedar	37cm	Remove	2.2m
670	Western Redcedar	32cm	Remove	1.9m
671	Western Redcedar	80cm	Remove	4.8m
672	Scamora Maple	60cm	Remove	3.6m
673	Hawthorne	13/12cm	Remove	1.2m
674	Scamora Maple	65cm	Remove	3.9m
675	Shore Pine	24/20cm	Remove	1.7m
676	Plum	30/30cm	Remove	2.4m
677	Holly	7/7/7cm	Remove	1.2m
678	Portuguese Laurel	30cm	Remove	2.0m
679	Portuguese Laurel	30/25/24cm	Remove	2.4m
700	Portuguese Laurel	30/28cm	Remove	2.3m
701	Portuguese Laurel	39/18	Remove	2.4m
702	Hawthorne	22cm	Remove	1.3m
703	Purple Plum	16/16/15cm	Remove	2.0m
704	Plum	12/10/10cm	Retain	1.5m
705	Plum	15/10cm	Retain	1.5m
706	Plum	25cm	Remove	1.6m
707	Plum	19/15/12cm	Retain	1.8m
708	Scamora Maple	Remove	3.0m	1.8m
709	Unlabeled	Remove	3.0m	1.8m



NOTES:

1. SITE LAYOUT INFORMATION AND TREE SURVEY DATA PER SUPPLIED DRAWING
2. REFER TO ATTACHED TREE PROTECTION REPORT FOR INFORMATION CONCERNING TREE SPECIES, STEM DIAMETER, HEIGHT, CANOPY SPREAD AND CONDITION.
3. ALL MEASUREMENTS ARE METRIC

TREE PROTECTION DRAWING

THE DRAWING PLOTS ALL TREES, PROPOSED FOR RETENTION, REMOVAL AND PROTECTION FENCING IN RELATION TO PROPOSED LAYOUT

October 2025

TREE PROPOSED FOR REMOVAL

TREE PROPOSED FOR RETENTION

PROTECTION ZONE (MPZ) FENCING DIMENSIONS IN METRES

PROTECTION FENCING

Froggers Creek Tree Consultants Ltd

7163 McCreary Avenue Burnaby BC V5J 4H4
Telephone: 604-721-6002 Fax: 604-437-0970

Delta House, 4501 Arthur Drive Delta BC

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