

Appendix E
Arborist Report



Arborist Report

Tree-Mendous Arb Care

Certified Arborist: Matthew Huk, RPF, PN-8447A

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203 Pembina St

Date of Assessment: Aug 31, 2020

Date of Report: Sept 13, 2020

Weather: Sunny, Warm

Summary:

- The homeowner is interested in rezoning the existing single family residence at 203 Pembina St to a multi-family site.
- The scope of the proposed work is yet unclear, and this preliminary report is meant to serve as a guideline for acceptable lot density given the required retention of one significant oak tree located in the front yard of the existing residence, and a juvenile dogwood tree in the neighbour's yard in proximity to the property line.
- A tree protection zone has been designed for the retention of all trees, taking into account existing structures and hard surfaces as likely contributors to root zone suppression.
 - As the canopy of the oak tree takes up roughly a third of the site, an encroachment into the CRZ of the oak tree as defined by the bylaw is required to accommodate any meaningful site density. A CRZ work authorization will be required.
- Despite the preliminary nature of this report, arborist supervision is recommended at various required activities for the proposed project including but not limited to:
 - Demolition of the existing residence;
 - Ditch infill;
 - Removal of existing landscape features;
 - Removal of hard surfaces, including the existing driveway outside of the defined tree protection area.
- A site plan, site servicing concept plan, and any required civil upgrades should be incorporated into this report when they become available.

Sept 13, 2020
203 Pembina St. New Westminster

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Re: Arboricultural Assessment, Tree Risk Assessment

1.0 Introduction:

The owner of the property intends to rezone the single family residence at 203 Pembina St. into a multifamily residential site. The scope of the project has not yet been determined, and this report serves as a guideline for acceptable lot density, for the retention of one red oak tree. The tree is significant, and has been indicated by City staff to the property owner that it may have heritage significance, despite not being included on the City of New Westminster's heritage tree registry.

Tree inspection and analysis used the standardized level 2 VTA (Visual Tree Assessment) to identify species, size, condition, outward signs of structural defect(s), health deficiencies, and environmental conditions potentially impacting the health or structural integrity of the tree(s). Trees have been numbered for inventory and reference purposes and photos have been taken for file and report reference purposes. A detailed inspection including aerial inspection, decay mapping, excavation explorations and root mapping was not performed.

2.0 Scope of Work:

Our scope of work is defined by the owner as follows:

- a) Assess the health and structure of one oak tree and any other trees deemed to be in the scope of work area;
- b) Assess the feasibility of retaining this tree on the site, given the site's targets;
- c) Provide mitigation / protection comments.

3.0 Observation:



The image above is taken from the City of New Westminster interactive map, and the subject property is outlined in yellow. The subject trees of this report are located on private property, between the civic addresses 203 Pembina St. and 207 Pembina St.

Attached Photos:

	
Photo 1: Tree 202 in its surroundings	Photo 2: Ditch in CRZ
	
Photo 3: Proximity of tree to existing structure approximately 4.0 m.	Photo 4: Chain embedded in base of tree, does not appear to be girdling



Photo 5: Neighbour's photinia shrub slightly overhanging property line



Photo 6: Neighbour's dogwood? Tree slightly overhanging property line



Photo 7: Neighbour's dogwood, can be pruned away from property line

3.1 Recommendation:

The mandate from the client to the Arborist was to review one oak tree, and any other trees deemed to be inside the scope of work area as it relates to the pending rezoning application on the site. This report is preliminary in nature, to serve as a guideline for acceptable lot density for the retention of the oak tree.

- One English oak in excellent condition and structure is located in the front yard of the existing single family residence. The tree exhibits a healthy green canopy, good basal flare, vigorous new growth, and is an excellent long term retention candidate. There is one offsite dogwood tree located near the property line, at 207 Pembina St. Additionally, there is a small Photinia shrub with branches overhanging the property line, but this shrub is not of consequence to the proposed rezoning.
- Despite the large basal flare of the oak tree, no surface structural roots were observed. A concrete walkway is bulging slightly at a distance of approximately 8 m from the base of the tree. We expect the root zone of this tree to be significant, but manageable given an appropriate root protection zone and arborist involvement. A tree protection area has been designed based on the following factors, where tree protection fencing should be installed and maintained for the duration of the project.
- The existing residence is located approximately 4.0 m from the base of the tree. Root activity is expected to have been suppressed by the foundation of the existing house, which should serve as an acceptable limit of excavation for any new residences. **Arborist supervision is recommended for the demolition of the foundation, to provide root pruning and mitigation if roots are encountered. L-shaped footings are recommended for any structures abutting the tree protection area.**
- An open ditch is located within the critical root zone of the oak tree at an approximate distance of 4.5 m from the base of the tree. The homeowner intends to culvert the ditch as part of the construction works. **Arborist supervision is recommended for ditch infill works within the critical root zone.**
- Existing landscape features and hard surfaces inside of the defined tree protection area for the oak tree include two small Allan block retaining walls, a concrete walkway, and a concrete spiral staircase. **Arborist supervision is recommended to direct the removal of these structures, most notably the removal of the concrete walkway will likely expose some surface roots.**
- The north western and south eastern extents of the defined tree protection area are abutted by a concrete driveway and the public roadway/sidewalk respectively. We expect that these hard surfaces have suppressed root activity, and have designed the limit of the tree protection fence accordingly. **Arborist supervision is recommended for the removal of the driveway abutting the tree protection zone on its north western extent, as root activity and cracking concrete was noted in this area. Depending on the level of roots encountered, horizontal tree protection consisting of bark mulch and plywood may be recommended following the concrete removal.**
- The neighbour's dogwood tree overhangs the property line, and likely has some minimal rooting activity on the subject site. We expect that root activity has been suppressed by the existing driveway, but a small tree protection zone has been specified for the tree.

Due to the preliminary nature of this report, site specific recommendations are minimal. A site plan, site servicing concept plan, and any required offsite civil upgrades should be incorporated into the report when they become available. Assuming a required amenity area of the site, the tree protection area of the oak may an acceptable location as long as ground disturbances are minimal. Recommendations may also evolve as various components of the project proceed. The peat soil condition of Lulu Island can amount to challenging building conditions with significant excavation cuts. The tree will need to be monitored and maintained accordingly.

4.0 Limitations

We attach the following clauses to this document to ensure you are fully aware of what is technically and professionally realistic in the assessment and preservation of trees.

Unless otherwise stated, tree inspection and analysis used the standardized VTA (Visual Tree Assessment) endorsed by the Pacific Northwest Chapter of the International Society of Arboriculture, to identify species, size, condition, outward signs of structural defect(s), health deficiencies, and environmental conditions potentially impacting the structural integrity of the tree(s) and/or the retention suitability of the tree(s) given the proposed scope of work. Trees have been tagged for inventory and reference purposes, and photos have been taken for file and report reference purposes. A detailed inspection including aerial inspection, decay mapping, excavation explorations and root mapping was not performed.

This Arboricultural field review report is based only on site observations on the date noted. Effort has been made to ensure that the opinions expressed are a reasonable and accurate representation of the condition of all trees reviewed. The assessment was completed based on visual review only. None of the trees were dissected, cored, probed or climbed. All trees or groups of trees have the potential to fail. No guarantees are offered or implied by Tree-Mendous Arb Care or their employees that the trees are safe given all conditions. Trees can be managed, but they cannot be controlled. To live, work or play near trees is to accept some degree of risk.

The assessment provided was based on preliminary information only. The opinions expressed in this report are valid for a period of one year only. Any trees retained should be reviewed on a regular basis to ensure reasonable safety.

The information provided in this report is for the exclusive use of our client and may not be reproduced or distributed without permission of Tree-Mendous Arb Care.

Please contact the undersigned if you have any questions or concerns regarding this matter.

Yours Truly,

A handwritten signature in blue ink, appearing to read 'Matthew Huk', with a stylized flourish at the end.

Matthew Huk, RPF
ISA Certified Arborist PN-8447A

203 Pembina St. New Westminster

Tree Number	Common Name	Latin Name	DBH cm	Health/ Structure	Location	Description	Recommended Treatment
202	Red oak	<i>Quercus rubra</i>	126	VG	Onsite	Significant oak in very good condition. Healthy green canopy, vigorous new growth, attachments appear sound, past pruning has been done well with excellent compartmentalization. Only defect of note is a chain embedded in the base of the tree that does not appear to be girdling the tree. The canopy of this tree accounts for roughly one third of the site, therefore a CRZ encroachment as defined by the bylaw will be required to achieve any meaningful site density that will not become financially burdensome to the property owner. A CRZ encroachment is proposed based on site factors, which will require a CRZ work authorization. Root activity is expected to have been suppressed by the foundation of the existing residence, and to a lesser extent the hard surfaces (driveway and road) abutting the north western and south eastern extents of the tree protection zone respectively. No surface roots were observed growing in the ditch, which the owner intends to culvert as part of the construction activities. Existing landscape features in the tree protection area include a concrete walkway, two allan block retaining wall planter beds and a concrete staircase. Preliminary recommendations include arborist supervision for demolition of the existing residence, removal of the landscape features, ditch infill, and driveway removal.	Retain, install tree protection fencing, arborist recommended to supervise demolition of existing residence, landscape features and driveway, as well as ditch infill.
OS1	Dogwood spp.	<i>Cornus spp.</i>	20	M	Offsite	Taxonomy difficult, best guess is a dogwood. Shrub like form, canopy overhangs subject property slightly, can be pruned back from PL, rootzone likely to be suppressed by driveway, install tree protection fence to spec.	Retain, install tree protection fencing

Client Address:
203-Pembina Street
New Westminster, B.C.
SCALE : 1" = 20 feet
P.I.D. 004-495-462



BRITISH COLUMBIA LAND SURVEYOR'S CERTIFICATE SHOWING
EXISTING ELEVATIONS & BUILDINGS ON LOT 1 D.L. 757
GROUP 1 NEW WESTMINSTER DISTRICT PLAN 2586

LEGEND

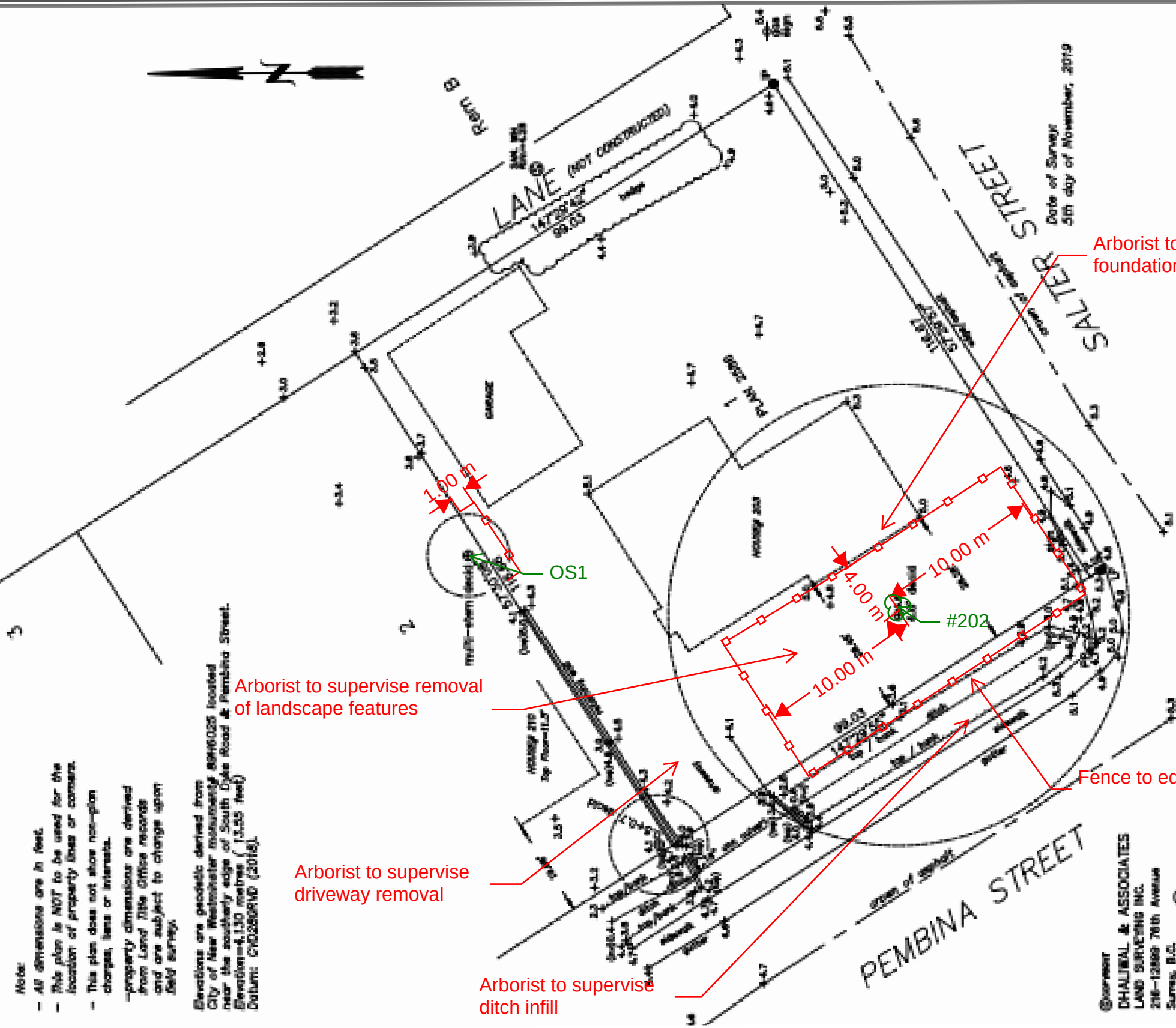
- UP ■ ..denotes lead plug found
- P ● ..denotes standard iron post found
- ⊙ ..denotes sanitary manhole
- PP -○- ..denotes power pole
- ⊕ ..denotes hydrant
- CON 0.0 ○ ..denotes tree/diameter

This plan was prepared for building design purposes and is for the exclusive use of our client.
DHALMAL AND ASSOCIATES LAND SURVEYING INC. and the signatory accept no responsibility for and hereby disclaim all obligations and liabilities for damages caused by the direct or indirect use or reliance upon the Plan beyond its intended use.

Notes:

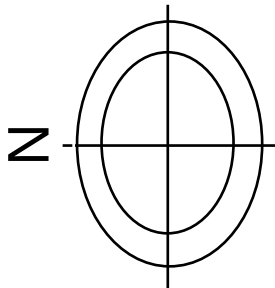
- All dimensions are in feet.
- This plan is NOT to be used for the location of property lines or corners.
- This plan does not show non-plan changes, liens or interests.
- Property dimensions are derived from Land Title Office records and are subject to change upon field surveys.

Elevations are provided derived from City of New Westminster monument 8946035 located near the southerly edge of South Dyle Road & Pembina Street. Elevation=411.30 metres (1355 feet) Datum: CN02808ND (2018).



THIS DOCUMENT IS NOT VALID UNLESS
ORIGINALLY SIGNED AND SEALED

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FILE T07-1260124



Plan Key

-  Retained Tree
-  Tree Fencing

#	Title
01	Tree Management Plan

203 Pembina St.
New Westminster, BC

Date	Aug 31, 2020
Scale	NA
Project	20-025