



Talbot Mackenzie & Associates

Consulting Arborists

January 30, 2017

Andrew Law
1541 Pearl Street
Victoria, BC V8R 2Y8

Re: Arborist review for 1539 Pearl Street

Assignment: Provide arborist services to examine and document the tree resource on the property at 1539 Pearl Street, and review the potential impacts on the bylaw-protected trees related to a proposal to subdivide the property into two single family lots.

Method: During our January 12, 2017 site visit, we reviewed the plans for the subdivision proposal and documented the bylaw-protected trees located within the boundaries of this property, a single tree located on the municipal frontage and several trees that are located on the adjacent properties, where they could potentially be impacted. The information that was compiled was entered into a tree resource spreadsheet that is attached to this report and includes: the tree tag number, size (d.b.h.), species, calculated critical root zone (CRZ), crown spread, health and structural condition, retention status, relative tolerance to construction impacts and general comments and recommendations.

Tree resource: The tree resource on the property, the municipal frontage and neighbouring properties, where they could potentially be impacted, is composed of:

Total trees	Species	Locations
2	Garry oak	Within boundaries of the property
1	Dogwood	Within boundaries of the property – was dead at the time of our site visit
1	Douglas-fir	Along the rear property boundary (below the size to be protected under the Municipal Tree Protection bylaw)
1	Garry oak	On Municipal frontage
1	Garry oak	On shared boundary with 1531 Pearl Street
1	Dogwood	Adjacent to 1531 Pearl Street
3	Garry oak	On Oaklands School property to the south

Demolition: Prior to the demolition of the existing garage and existing house, the trees that are to be retained on the site must be isolated from the construction impacts by erecting the above-mentioned protective barrier fencing at the edges of their critical root zones. These fenced areas must remain off limits to all activity related to the demolition work. We also recommend that the existing driveway be retained and used as the access location for the demolition activity. The raised grade surrounding the municipal oak must remain undisturbed; therefore, if the existing retaining wall that supports this area is to be removed, a new retaining wall, if required, must be constructed further away from this raised area and the tree.

Building footprint: The building footprints are located where the removal of several oak trees will be required, but where there is unlikely to be any significant impacts on the remainder of the trees that are to be retained.

Driveway footprints: The driveway footprints are located where they encroach within the critical root zones of the municipal Garry oak tree. The locations of these driveways are critical to reducing the impacts on this tree, particularly if a retaining wall or similar is required at the driveway edge. The driveway footprints should be located as far from the base of the oak tree as is permitted on this site. The existing driveway on the site should be retained throughout the construction stage and carefully removed prior to landscape construction. It may not be possible to excavate beneath the existing grade, and therefore plans should be made to raise the grade slightly to permit it to float over the roots that will be located beneath this grade. The project arborist must supervise any excavation that is within the critical root zone area of this tree.

Servicing: The location of the underground services is critical to the survival of the municipal oak tree. As with the driveway footprint, the underground services should be located as far from the tree as possible. Running these services outside or along the outer edge of the driveway and connecting on the outside of the building will reduce the impacts on the tree. The project arborist must supervise any excavation that is within the critical root zone area of this tree.

Blasting and rock removal: The intention is to remove as little of the rock outcrops as possible; however, it is likely that some blasting and rock removal may be required. The project arborist must meet with the blasting contractor to review the blasting requirements and monitor the progress throughout the blasting phase. The arborist should monitor the blasting that is within the root zones of trees that are to be retained and supervise the removal of blast rock from these areas.

Precautions to protect trees at the edge of the area of rock removal must be taken throughout this phase. The blasting to level these rock areas should be sensitive to the root zones located at the edge of the rock. Care must be taken to assure that the area of blasting does not extend into the critical root zones beyond the building and road footprints.

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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.

Tree status – Planned status of tree retention within proposed development

- Retain – Retention of tree proposed
- Possible – Retention possible with precautions
- Unlikely – Survival and retention unlikely based on the proposal.
- Remove – Removal required or recommended

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

**TREE RESOURCE
for 1539 Pearl Street**

<i>Tree #</i>	<i>d.b.h. (cm)</i>	<i>CRZ</i>	<i>Species</i>	<i>Crown Spread(m)</i>	<i>Condition Health</i>	<i>Condition Structure</i>	<i>Status</i>	<i>Relative Tolerance</i>	<i>Remarks / Recommendations</i>
not tagged #1	21		Dogwood	5.0	Fair	Poor	Retain	Good	Main trunk topped. Located on adjacent property at 1541 Pearl Street