

**Consulting Arborists** 

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July 16, 2018

Jim Keefe and Bob Croft 931 Redfern St Victoria, BC V8S 4E7

Subject: Exploratory excavation within critical root zone of Garry Oak #200

During our July 16, 2018 site visit at your request, we conducted an exploratory excavation to evaluate the impacts of constructing a new house 4.6m west of the centre of Garry Oak #200 (79cm DBH), located in the front yard of 931 Redfern Street. We had previously evaluated the potential impacts of this construction as part of a tree preservation plan for the proposed subdivision of the property, dated June 7, 2018.

Based on discussions with the homeowners, it is our understanding that the north side of the new building (garage and mechanical room) will no longer be constructed several feet below grade as indicated in the site plans (dated May 14, 2018). A piling will be installed at the northeast corner of the building footprint and a grade beam will be placed at the east edge of the footprint, approximately 12 inches below grade and spanning the width of the garage (3.83m). A second piling will be installed south of the beam at the northeast corner of the water closet (W/C), which is to be expanded northward.

We excavated approximately 1m east of the location of the two pilings and 0.5m east of the grade beam to approximate the extent of excavation required for working room and perimeter drain installation. Therefore, excavation occurred as close as approximately 3.6m from the centre of the tree directly westward. We excavated to a depth of 45-50cm 1m from the location of the pilings (approximately the depth of a clay layer) and 30cm along the length of the grade beam to approximate cut slopes and areas for working room. The entire trench measured approximately 4m.

We encountered a high density of fibrous roots (less than 1cm in diameter) along the length of the trench in addition to two 2cm diameter roots and fifteen 1cm roots. Eleven of the 1cm roots and numerous fibrous roots were damaged during excavation and had to be pruned back to sound tissue at the edge of excavation. The two 2cm roots and remaining four 1cm roots were retained.

We do not anticipate the proposed installation of pilings and a grade beam at the northwest corner of the building footprint will have a significant impact on the health of the Garry Oak given the

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size and number of roots encountered. It is possible that additional roots may be encountered during excavation for the pilings that have grown underneath the 45-50cm we excavated to simulate a cut slope but anticipate the number of additional roots likely to be encountered will be negligible and the impacts to the health of the tree to remain minor. If the revised building plans are approved, we recommend an arborist be on site to supervise and direct excavation within the tree's critical root zone and to prune back any severed roots to sound tissue.

As stated in our June 7, 2018 tree preservation plan, the tree will also require crown pruning for building clearance. We recommend pruning be performed by an ISA Certified Arborist to ANSI A300 pruning standards.

### Images



*Image 1.* We conducted an exploratory excavation at the northwest side of the proposed building to be constructed at 931 Redfern Street. Excavation occurred as close as 3.6m from the centre of the trunk of Garry Oak #200.

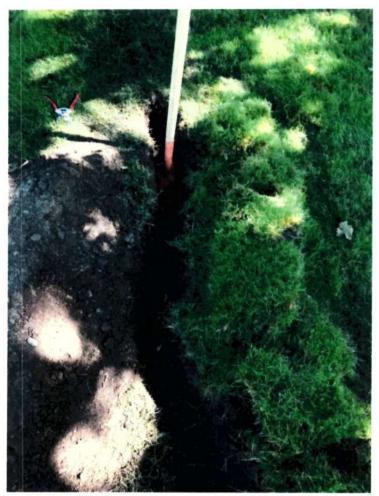


Image 2. Two 2cm diameter roots, fifteen 1cm roots, and a high density of fibrous roots were encountered along the entirety of the trench (approximately 4m).



Image 3.

Please do not hesitate to call us at 250-479-8733 should you have any questions.

Thank you,

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Talbot Mackenzie & Associates ISA Certified & Consulting Arborists

#### **Disclosure Statement**

Arborists are professionals who examine trees and use their training, knowledge and experience to recommend techniques and procedures that will improve the health and structure of individual trees or group of trees, or to mitigate associated risks. Trees are living organisms, whose health and structure change, and are influenced by age, continued growth, climate, weather conditions, and insect and disease pathogens. Indicators of structural weakness and disease are often hidden within the tree structure or beneath the ground. It is not possible for an arborist to identify every flaw or condition that could result in failure nor can he/she guarantee that the tree will remain healthy and free of risk. Remedial care and mitigation measures recommended are based on the visible and detectable indicators present at the time of the examination and cannot be guaranteed to alleviate all symptoms or to mitigate all risk posed.

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