



Lonnonson Arbor Care

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Bothell, WA 98012

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April 4, 2022

Brumbaugh Residence
4124 83rd Ave SE
Mercer Island, WA 98040

Re: **Tree Report** for the address above (Parcel #36265000030).

To Whom It May Concern,

This letter is in addition to the Tree Inventory Report dated October 18, 2021, for the parcel mentioned above. The scope of this letter is to describe the building into the root zone of a Sequoia tree (*Sequoiadendron giganteum*). Building into the root zone of trees is not advised but can be done with proper mitigation and materials to limit impacts to the root zone as described in this letter.

In general, trees can adapt to some impacts to their root system. The Total Protection Zone (TPZ) of a tree is different than the Critical Root Zone (CRZ). The radius of the CRZ depends on the dripline (branch length) and species of the tree. The CRZ is the area around the tree where the minimum biological capacity of roots are located that are essential for structural stability and health - a distance from the trunk where root growth can recover and still maintain stability. Generally, the CRZ ranges from 1/2 - 3/4 of the TPZ radius. The threshold for TPZ disturbance is no more than 30% of the area, not including the CRZ area.

In the case for the Sequoia tree, the only soil disturbance in the CRZ will be the planned placement of deck footings, each footing disturbing about 4 ft² of soil. Footings can be placed in the CRZ if there is no cutting of the structural roots. I recommend a Certified Arborist on-site when disturbing the soil in the CRZ.

The CRZ shall be covered with about 3 inches of mulch, preferably wood chips or bark, to limit soil compaction with foot traffic and materials during construction. Tree protection fencing shall be placed as shown on the map on the next page to protect remaining root zone. Footings shall be placed after mulch has been applied and fencing erected. Materials used for deck building are not to be stained or painted. Deck materials shall allow for a pervious surface so rainwater may infiltrate the soil beneath the deck area.

In conclusion, the disturbed area of the TPZ (excluding CRZ) is less than 30%. The deck footings shall not disturb roots over 2 inches in diameter within the CRZ. Deck materials shall be pervious without staining or painting within the CRZ.

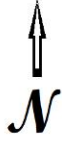
Please reply if you have questions.

Thank you,

Lonnie Olson, Owner

ISA Certified Arborist (PN-5427A) exp. 12/31/2023

Qualified Tree Risk Assessor (#697) exp. 7/23/2024



Tree Protection Fencing

