



1.19.2023, 2.28.2023, 5.10.2023

To: City of Mercer Island,
John Kenney, City Arborist,
Planning Dept.

Re: Wellmon Residence,
6333 77th Ave S.E.
Mercer Is. WA.

I was asked to assess for hazard and recommend criteria for the preservation of trees on and off this site.

Subject tree#4 is *Sequoia sempervirens*, 56" DBH, onsite. This tree is close to the street and has been utility pruned. This tree has good form and no evidence of overt disease or decay. The roots are well buttressed. This tree has not been topped and has maintained a single leader to the best of my ability to see the top.

I use the trunk diameter method of determining CRZ and thus TPZ for trees.

Trunk diameter is 1" DBH = 1' diameter CRZ. It is allowable in this instance to shorten the diameter of the CRZ by 25%. This can also be calculated by area for a net deduction of 25%. In this case, 56" DBH=56' diameter CRZ. Radius of 28' on the house side of the tree can be cut in 1/2 for the 25% reduction. So a radius of 14' from the trunk, towards the house will be sufficient to protect this tree.

This will be the only deductions in this case.

CRZ=TPZ.

I was asked to examine an exploratory root excavation to assess any special circumstances that would apply to the standard deduction to the TPZ explained above.

The excavation occurred on 2.20.2023. Photos of the excavated site are in the dropbox attachment here:

<https://www.dropbox.com/scl/fo/v7i39tcwr12q3k7pah50l/h?dl=0&rlkey=askq29wxy17mszcx905t0iqwl>

Synopsis of photos: The photos show only 5 roots 2" or more in the 20' excavation. This is surprisingly few. I suspect other excavations in the area within the last decade, for irrigation, paver sidewalks or waterlines may have served to root prune this tree.

Because of these findings, I feel confident in the determination of the TPZ measures at 14' from the tree. This will give crews 4' to work around the edge of the new slab on grade. TPZ measures should be parallel to the street and extend from the P.L. on the south, to 28' on the north, then to the street.

TPZ of additional trees: This exception will need to be applied to 3 additional trees that will also need to be reduced in the same way.

Tree #7 will need to be reduced because of required grading for the installation of the retaining walls in the back yard. Net % of TPZ reduction, 24.5%

Trees #A and B and D are on the neighbor's property but overhang the subject property.

Please see civil plans for exact locations of TPZ measures.

An existing paver driveway will need to be removed within the TPZ of these trees.

This will be performed with minimal disturbance to grade. Pavers will be removed by light equipment reaching into TPZ or by hand. Bedding material for pavers will be left in place. No grading is to occur here. Only the installation of 2" of mulch or soil is to occur at the landscape phase of the project.

Pruning of overhanging limbs is allowed if following industry standards and with the neighbor's consent.

Net reduction of TPZ for A and B is 19.8% each.

Net reduction of TPZ for #D is 11.2%.

General TPZ Requirements.

TPZ will not extend under the driveway.

Please see civil plans for exact location of trees and TPZ measures.

Generally, within the TPZ,

-No storing of materials or equipment.

-Weight displacement techniques are to be employed if heavy equipment needs to traverse the TPZ, such as laying down of 4" of gravel and plywood before the traverse. Then these materials need to be picked up ASAP.

-No spoils are to be piled back onto the TPZ.

-TPZ fencing is considered L.O.D.

-TPZ measures are to remain in place until the landscape phaser of the project.

-Only hand implements are to be used within the TPZ.

- Original grade is to be maintained, $\pm 2"$.

More criteria may be required by the city.

I am available for consultation on this project.

Highest Regards,

A handwritten signature in blue ink, appearing to read "D. J. ...", written in a cursive style.

ISA, TRAQ