ARBORIST REPORT

Date:

January 8, 2021

Prepared for:

Chung Chan

Site Address:

7036 81st Ave SE Mercer Island, WA

Prepared by:

Tom Quigley
ISA Certified Arborist, PN0655A
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NARRATIVE

Scope of Work

You have asked me to assess the trees located on the above referenced property as well as trees located off-site but with limbs overhanging the subject property. This scope of work includes preparation of documents for submittal to the City of Mercer Island. You have provided a site plan sheet labeled 'Tree Retention & Replanting Plan' A002.

Methodology

The methods and techniques used for this assessment are as outlined in *Tree Risk Assessment* by Julian Dunster and as adopted by the International Society of Arboriculture (ISA). Additional standards, practices and specifications are as detailed in *ANSI Standard A300 (Part 9)-2017 Tree Risk Assessment a. Tree Failure*. The end goal of most assessments is to provide the owner or manager of the tree(s) with factual information, enabling them to make decisions about the management of the tree(s). For this particular assessment, I used a Level II Assessment that includes inspection of the root collar, lower trunk, and canopy of the tree as can be seen from the ground. Basic assessment does not include climbing the tree or excavation of soils to inspect root structure or condition. While this specific assessment is not intended to rate risk of individual trees, the assessment principles and practices are based on the same data.

I measured each tree for its Diameter at Breast Height (DBH), an industry standard of measuring trees at 4.5' above grade. I took photos of two trees, as discussed below.

I completed a Tree Inventory of all on-site trees or trees located off-site but with overhanging limbs. I completed the City of Mercer Island "Tree Inventory & Replacement Submittal Information" form, which will be included with this report.

Findings and Observations

I visited the site December 22, 2020.

I assessed twelve (12) trees: five (5) trees on-site, seven (7) trees off-site, no trees in the Right-of-Way (ROW). The seven off-site trees are all located on private property, on neighboring parcels. Of the five on-site trees, one (1) is smaller than 10" DBH, and one other tree that was located on the site plan is in fact a very old Azalea that has grown up under Tree #5 and #6. Therefore, four (4) trees are of consideration. There are no 'Exceptional' trees located on-site. You plan to retain three (3) of the four trees for a retention rate of 75%.

The following trees are noteworthy:

Tree #1 is a 24.8" DBH Big Leaf Maple located in the front yard area. This area will be used to install an underground, storm-water capture tank, which will require the removal of the tree. The subject tree has been mal-pruned which significantly increases its likelihood of future limb

failure due to poor limb attachments at the previous pruning cuts. Phot0 #2 below was taken December of 2020.

Tree #2 is an off-site Smoke bush, often confused or listed as a small tree. This 'tree' overhangs the subject property driveway and is heavily out-of-balance to the north. It would not surprise me to see this tree partially fail with heavy snow or other storm conditions.

Tree #3 is a Cherry tree located off-site with overhanging limbs. Tree Protection Measures (TPM) for this tree should provide for very little root impact, but should be monitored as detailed below.

Tree #5 is a 14.5" DBH ornamental or fruiting cherry that has significant failure as detailed in Photo #1 below.

Specific Comments of less importance are detailed in the Tree Inventory spreadsheet attached hereto.

Considerations

Of primary concern is protection of the trees that could have root system impacts from the proposed excavation associated with the new residential construction on the subject property.

The following mitigation measures should be implemented prior to any clearing or grading activities. The following bulleted items should be included on the Tree Retention & Replanting plan sheet and/or other plan set pages that detail clearing and grading standards.

- Tree Protection Measures (TPM) should be 4' tall orange poly fencing, or equivalent, staked into place at the Limits of Disturbance (LOD), and as detailed in the referenced site plan.
- Signage shall be provided every 20' along the sections of TPM stating the fence provides
 a "Tree Protection Zone" "No Soils, Building Materials or Equipment Allowed in
 Protection Zone". These signs should be 8.5" by 11.0" and made to be weather
 resistant.
- Any roots encountered during site clearing, grading, or excavation should be cleanly cut as-if it were a root from a tree scheduled for retention.
- Root pruning, as needed, should be undertaken with care. Additional pruning standards are detailed in ANSI Standard A300 (Part8)-2013 Root Management.
- All exposed roots should be covered with moist native soil or a commercial compost or mulch product, sufficient to cover the freshly cut roots as soon as is reasonable following exposure.
- All bare soils around the retained trees should be covered with 3" of arborist wood chips or a commercial mulch material.
- If limb removal is needed in order to provide building clearance, such pruning should be undertaken by a tree professional and should be done with proper pruning equipment.

 The on-site retained trees would benefit from additional summer-time hydration, as may be possible.

City of Mercer Island code provides for re-planting trees to mitigate for trees removed. I have completed a City of Mercer Island 'Tree Inventory & Replacement Submittal Information' worksheet. You will be required to re-plant three (3) trees as mitigation for the single tree removed. At least 50% of the replacement trees need to be a species native to the Puget Sound region. Evergreen trees must be a minimum of 6' tall and deciduous trees must be a minimum of 2" caliper. Caliper is an industry standard of measuring nursery grown trees, 6" above grade. A typical 2" caliper deciduous tree will stand 10'-14' tall, planted.

Conclusions

Sufficient trees will be retained to meet the City Code with 75% retainage. The Tree Protection Measures as detailed on the referenced Tre Retention & Replanting Plan will provide adequate protection for the trees scheduled for retention.

This report was prepared by Thomas Quigley, ISA certified arborist PN-655A. Tree Risk Assessment Qualified (TRAQ) by the International Society of Arboriculture (ISA).

Two (2) photos below.



Photo 1. Large broken and hanging tree Top of Tree #5.



Photo 2. Big leaf maple, Tree #1. December 2020.