TREE RISK ASSESSMENT

Prepared for:

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Mercer Island, WA

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SCOPE OF WORK

On Wednesday, November 27, 2019 I evaluated four trees at 2723 72nd Ave SE Mercer Island, WA. The purpose of the inspection was to perform a basic assessment of the subject trees and to make appropriate recommendations to reduce hazard risk where warranted.

SUMMARY

The chart below details basic information and the overall risk rating for the trees assessed. The observation section of this report give a detailed picture of the status of this tree as of the site visit made on November 27, 2019.

Tree #	DBH*	Species	Overall Risk Rating
1	23	Douglas-fir	High
2	15	Western Hemlock	Moderate
3	3	Pine	Low
4	13	Cherry	Low

**Diameter at breast height. (4.5')*

METHODOLOGY

The tree assessment procedure involves the examination of many factors:

- The crown of the tree is examined for current vigor. This is comprised of inspecting the crown (foliage, buds, and branches) for color, density, form, and annual shoot growth, limb dieback and disease.
- The main stem of the tree is inspected for decay, which includes cavities, wounds, fruiting bodies of decay (conks or mushrooms), seams, insects, bleeding, callus development, broken or dead tops, structural defects and unnatural leans. Structural defects include crooks, forks with V-shaped crotches, multiple attachments, and excessive sweep.

- The root collar and roots are inspected for the presence of decay, insects, and damage, as well as if they have been injured, undermined or exposed, or if the original grade has been altered.
- Inspection method included examining the tree by sounding the trunk with a mallet. No invasive methods were utilized unless described in the sections below.

OBSERVATIONS

Subject Tree - #1 Douglas-fir

Location

This tree is adjacent to the road and near the walkway/steps. See the parcel view for placement.

Target assessment

The potential targets are the roadway, walkway/driveway as well as the residence. The roadway and the walkway/driveway are within the drip line of the tree, and the house is within striking distance of the home. Occupancy rates for these areas are constant and cannot be moved or mitigated.

Crown and Branches

The crown of this tree is in direct contact with the utility lines and has bee repeatedly topped and headed back, resulting in several poorly attached branches. Some decay has begun to develop in one of the main stems. The main top of this tree is regrowth from a topping event and is poorly attached. There are twenty feet of growth above this poor connection. The overall risk rating for the crown and branches is high.

Trunk

The trunk splits at eight feet into a co-dominant situation. The stem closest to the road and utility line has been reduced and has given rise to multiple poorly attached branches.

Roots

The root system of this tree has been severely compromised by recent utility work, the water line for the residence was replaced and trenching occurred within two feet of the trunk and extending out from there, I estimate 30% of the root zone was affected by the waterline replacement. The trenching was on the windward side of the tree.

Overall Risk Rating & Mitigation Options

Overall Risk rating for this tree is high; given the potential failure points in the canopy and root zone, my recommendation is removal. There are no mitigation efforts that would reduce the risk of this tree.

Subject Tree - #2 Western Hemlock

Location

This tree is adjacent to the road and tree #1. See the parcel view for placement.

Target assessment

The potential targets are the roadway & walkway. The roadway is within the drip line of the tree, and the walkway is within striking distance of the tree. Occupancy rates for these areas are constant and cannot be moved or mitigated.

Crown and Branches

Similar to the Douglas-fir, the crown of this tree is in direct contact with the utility lines. It has bee repeatedly topped and headed back, resulting in several poorly attached branches. Due to the repeated topping, there is no central leader, and several stems are weakly connected at the same height.

Trunk

The trunk is a single stem from the ground to about six feet where several co-dominant stems arise and are crowded together. Included bark is present, and cracks are forming as a result of this poor structure.

Roots

The root system was affected to a lesser degree from the recent utility trenching. The trenching occurred approximately eight feet from the trunk.

Overall Risk Rating & Mitigation Options

The overall risk rating for this tree is moderate. The multiple stems will continue to increase in size, and the cracks will become more of an issue, leading to branch failure at some point in the future. While there is no immediate threat, I do not believe any course of action would reduce the risk rating of this tree. The continual conflict with the utility lines will result in a further decline in the stability and health of this tree. I would recommend the removal and replanting of a more suitable species for the space somewhere else on the property.

Subject Tree - #3 Pine

Location

Tree #3 is located on the SE corner of the property adjacent to the road and a power pole. See the parcel view for placement.

Target assessment

The potential targets are the roadway & neighboring driveway. The roadway is within the drip line of the tree, and the adjacent driveway is within striking distance of the tree. Occupancy rates for these areas are constant and cannot be moved or mitigated.

Crown and Branches

As with the two adjacent trees, this canopy is also in contact with the utility. Line and has been pruned for clearance. The effect has not been as significant here because of the species. One large stem is overextended towards the neighboring driveway. There are a few dead branches.

Trunk

A low branched tree, with significant secondary stems, suitable attachments.

Roots

No noticeable issues.

Overall Risk Rating & Mitigation Options

No significant concerns with this tree, it will continue to conflict with the utility lines, but I don't believe the pruning is contributing to structural stability. The overall risk rating is low. I would recommend pruning out the few dead branches.

Subject Tree - #4 Cherry

Location

This cherry tree is located in the backyard along the south fence line. See the parcel view for placement.

Target assessment

No significant targets in this scenario.

Crown and Branches
This tree was topped at some point; the regrowth has relatively weak attachments. There are a few branches that have some early decay at pruning points. The overall load on these defects are minor as the canopy is relatively small.

Trunk

The trunk emerges from the base with a rather large swooping lean to the north and then has corrected.

Roots

There are a significant number of surface roots exposed, and there is some mechanical damage in places. The neighbor has removed a couple of roots that were above ground at the fence line.

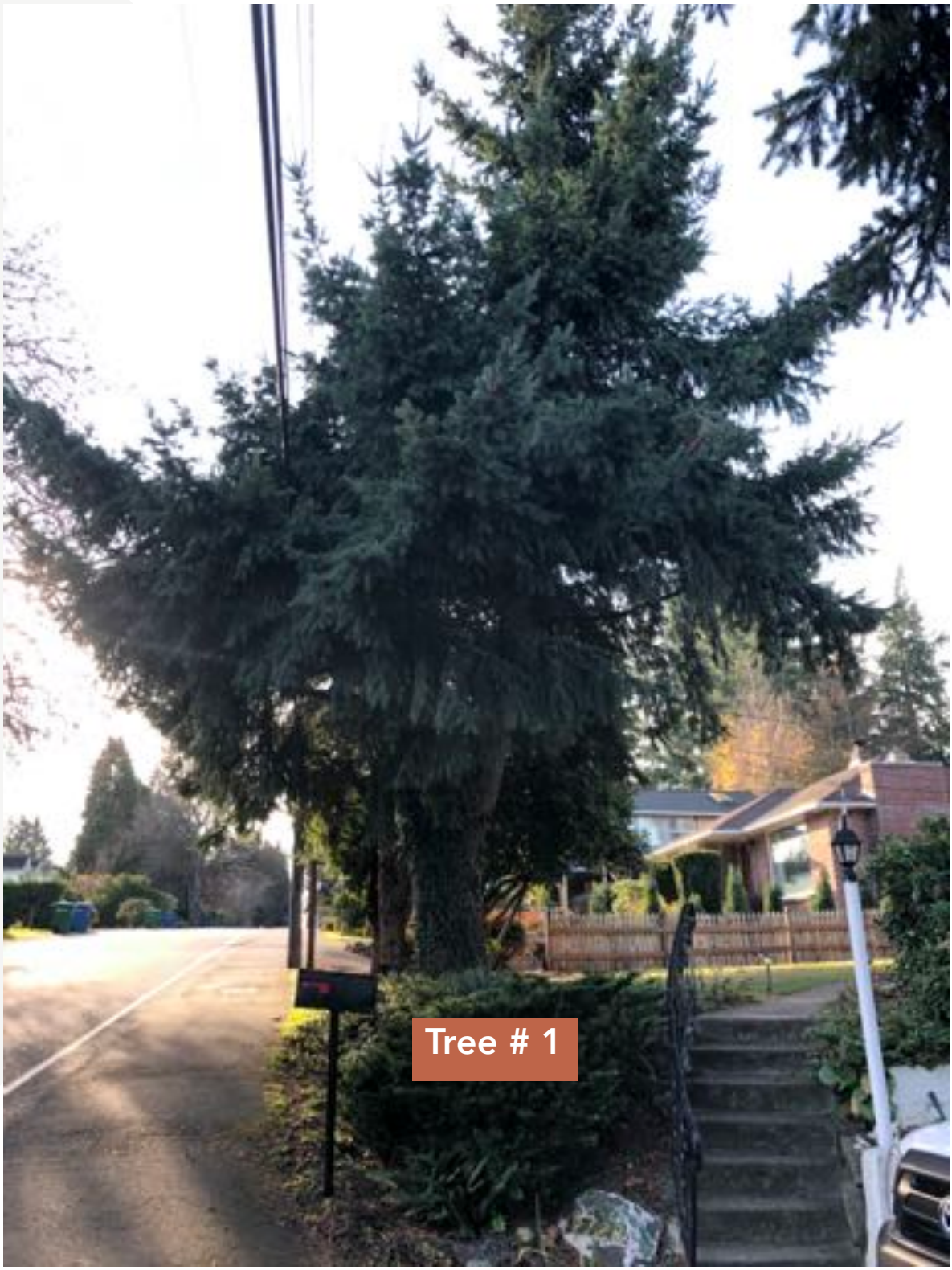
Overall Risk Rating & Mitigation Options

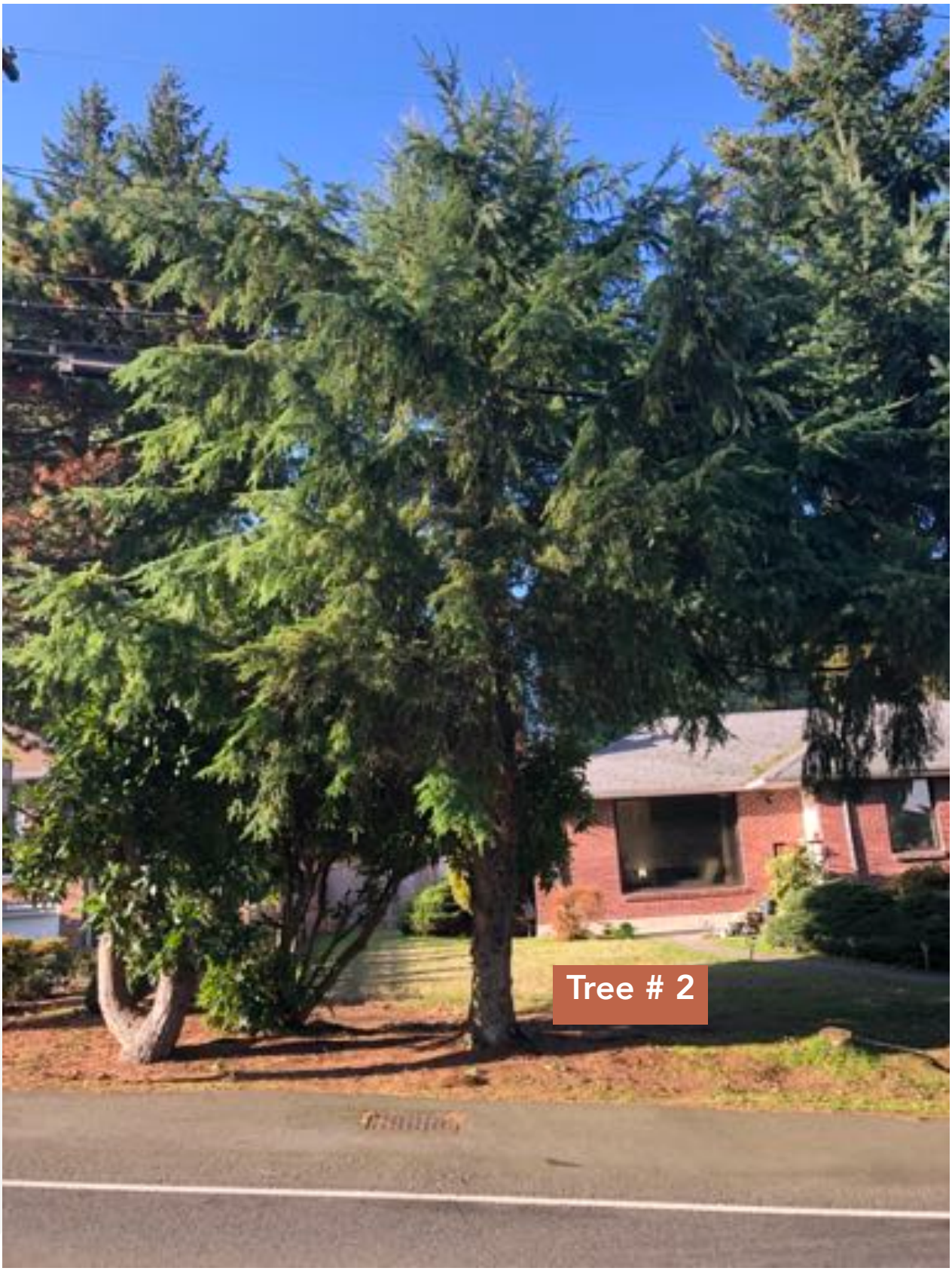
The overall risk rating for this tree is low. I would recommend regular pruning of the regrowth from the topping events to encourage suitable attachments.

PARCEL VIEW

Address: 2723 72nd Ave SE, Mercer Island, WA
Parcel Number: 2174501990

PHOTOS




Tree # 2


Tree # 2


Tree # 2


Tree # 3


Tree # 4

ASSUMPTIONS & LIMITING CONDITIONS

1. Unless stated otherwise: Information contained in this report covers only those trees that were examined and reflected the condition of those trees at the time of inspection; the inspection is limited to a visual examination of the subject trees without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied that problems or deficiencies of the subject tree might not arise in the future.
2. All trees possess the risk of failure. Trees can fail at any time, with or without visible defects, and with or without applied stress.
3. Construction activities can significantly affect the condition of retained trees. All retained trees should be inspected after construction is completed, and then checked regularly as part of routine maintenance.
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