

Arborist Report

Subject:

- Inventory of trees throughout parcel and who's crowns overhang the subject parcel for proposed DADU construction.
- Assessment of trees adjacent to proposed area of disturbance for the effects of disturbance.
- Tree retention and protection plan.

Prepared for:

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Site:

7901 SE 65th St.
Mercer Island, WA 98040
Parcel #5452800600

Site visit time/date:

9am/1-6-2025

Attachments:

- Table of Trees
- Replacement Tree Schedule
- Survey markup/Site map
- Tree protection fencing map
- Tree protection fencing detail
- Planting Map
- Tree photos

Summary:

- 3 regulated trees are proposed for removal.
- 3 non-regulated trees are proposed for removal.
- An additional regulated tree is recommended for removal due to root zone intrusion.
- Minor intrusions into outer critical root zones of neighbors trees who's crowns overhang the area of disturbance, are not expected to adversely effect any subject trees.
- Tree protection fencing recommended for retained regulated trees adjacent to area of disturbance and point of access is recommended.
- Arborist monitoring of excavation is recommended. Cleanly cut any exposed roots, backfill in a timely manner.
- 9 native replacement trees required.

Methodology:

- DSH of multi stem trees calculated using aggregate formula.
- All subject trees were assessed for potential disturbance to critical root zones.
- Tree crown drip line (shown on survey) was used to determine critical root zones.
- 1/2 CRZ was used to determine inner critical root zones.
- A factor of 35% of outer CRZ was used to determine allowable area of disturbance of trees adjacent to area of disturbance.

Table of Trees

#	Common Name	Latin Name	DSH	Proposed Status	Exceptional	Condition	Comments
1	Atlas Cedar	<i>Cedrus atlantica</i>	17"	Retain	No	Good	Pavement over roots
2	W. Red Cedar	<i>Thuja plicata</i>	10"	Retain	No	Good	Pavement over roots
3	Hinoki Cypress	<i>Chamaecyparis obtusa</i>	15"	Retain	No	Good	Extreme proximity to home
4	Fl. Cherry	<i>Cerasus serrulata</i>	6"	Remove	No	Dead	100% necrotic
5	Sweetgum	<i>Liquidambar styraciflua</i>	18"	Retain	No	Fair	Shallow soil/exposed roots
6	Sweetgum	<i>Liquidambar styraciflua</i>	12"	Retain	No	Fair	Shallow soil/exposed roots
7	Sweetgum	<i>Liquidambar styraciflua</i>	14"	Remove	No	Fair	Shallow soil/exposed roots
8	Sweetgum	<i>Liquidambar styraciflua</i>	18"	Remove	No	Fair	Shallow soil/exposed roots
9	Sweetgum	<i>Liquidambar styraciflua</i>	18"	Remove	No	Fair	Shallow soil/exposed roots
10	D. Fir	<i>Pseudotsuga menziesii</i>	12"	Retain	No	Fair	Shallow soil/exposed roots/Suppressed/Neighbors tree
11	D. Fir	<i>Pseudotsuga menziesii</i>	12"	Retain	No	Fair	Shallow soil/exposed roots/Suppressed/Neighbors tree
12	D. Fir	<i>Pseudotsuga menziesii</i>	14"	Retain	No	Fair	Shallow soil/exposed roots/Suppressed/Neighbors tree
13	D. Fir	<i>Pseudotsuga menziesii</i>	14"	Retain	No	Fair	Shallow soil/exposed roots/Suppressed/Neighbors tree
14	D. Fir	<i>Pseudotsuga menziesii</i>	17"	Retain	No	Fair	Shallow soil/exposed roots/Suppressed/Neighbors tree
15	Deodar Cedar	<i>Cedars deodara</i>	19"	Retain	No	Good	Neighbors tree
16	D. Fir	<i>Pseudotsuga menziesii</i>	6"	Remove	No	Good	Volunteer
17	Apple	<i>Malus sp.</i>	6"	Remove	No	Poor	Fruit pruned
18	Apple	<i>Malus sp.</i>	8"	Remove	No	Poor	Fruit pruned
19	W. Red Cedar	<i>Thuja plicata</i>	28"	Retain	Yes	Good	Co-dominate
20	V. Maple	<i>Acer circinatum</i>	7"	Retain	No	Good	Deadwood >2"
21	D.Fir	<i>Pseudotsuga menziesii</i>	20"	Retain	No	Good	Roots lifting shed

#	Common Name	Latin Name	DSH	Proposed Status	Exceptional	Condition	Comments
22	D.Fir	<i>Pseudotsuga menziesii</i>	19"	Retain	No	Good	Roots lifting shed
23	D.Fir	<i>Pseudotsuga menziesii</i>	12"	Retain	No	Good	Healthy/vigorous
24	D.Fir	<i>Pseudotsuga menziesii</i>	24"	Retain	Yes	Good	Healthy/vigorous
25	D.Fir	<i>Pseudotsuga menziesii</i>	30"	Retain	Yes	Good	Healthy/vigorous
26	Cottonwood	<i>Populus trichocarpa</i>	12"	Retain	No	Fair	Outside of fence
27	N. Maple	<i>Acer platanoides</i>	12"	Retain	No	Good	Outside of fence
28	Pine	<i>Pinus nigra</i>	15"	Retain	No	Fair	Topped
29	Pine	<i>Pinus nigra</i>	19"	Retain	No	Good	Healthy/vigorous
30	Pine	<i>Pinus nigra</i>	16"	Retain	No	Good	Healthy/vigorous
31	W. Red Cedar	<i>Thuja plicata</i>	8"	Retain	No	Good	In hedge
32	W. Red Cedar	<i>Thuja plicata</i>	11"	Retain	No	Good	In hedge
33	W. Red Cedar	<i>Thuja plicata</i>	10"	Retain	No	Good	In hedge
34	W. Red Cedar	<i>Thuja plicata</i>	8"	Retain	No	Good	In hedge
35	W. Red Cedar	<i>Thuja plicata</i>	12"	Retain	No	Good	In hedge
36	W. Red Cedar	<i>Thuja plicata</i>	9"	Retain	No	Good	In hedge
37	W. Red Cedar	<i>Thuja plicata</i>	11"	Retain	No	Good	In hedge
38	Fl. Cherry	<i>Cerasus serrulata</i>	8"	Remove	No	Dead	100% necrotic

Replacement Tree Schedule

Quantity	Common Name	Latin Name	Size
4	Vine Maple	<i>Acer circinatum</i>	1.5" caliper
2	Beaked Hazelnut	<i>Corylus cornuta</i>	1.5" caliper
1	Pacific Crabapple	<i>Malus fusca</i>	1.5" caliper
2	Cascara	<i>Frangula purshiana</i>	1.5" caliper

Observations:

(See captioned photos for additional observations)

- Plans propose the removal of 3 regulated trees >10" DSH due to interference with proposed DADU construction.
- The roots of the aforementioned tree are noted as particularly shallow and exposed.
- It is noted that 2 non-regulated trees shown on the survey are dead (#4 and #38).
- It is noted that the proposed area of disturbance overlaps the outer critical root zone of neighbors trees who's crowns overhang the area of disturbance (#12-#15). Proposed disturbance noted as <35% of overall outer critical root zone.
- Access to the proposed area of disturbance noted as limited to across the lawn from the roadway to the east.
- Adjacent retained trees noted as overhanging access point (trees #1-#3, #5 and #6).
- No other trees within the subject parcel are proposed for removal or have critical root zones overlapping or adjacent to proposed development site.
- No exceptional trees are proposed for removal.

Conclusions/Recommendations:

- It is my professional opinion that the trees proposed for removal would suffer effects which would severely decrease the vitality or increase the risk of failure due to disturbance of roots from proposed development.
- Tree protection measures including tree protection fencing are recommended for retained trees adjacent to and who's crowns overhang the development site and its access point. Fencing shall be maintained for the duration of the project.
- Arborist monitoring of excavation within outer critical root zone of neighbors trees who's crowns overhang the area of disturbance is recommended. Any roots encountered should be cleanly cut. Foundation should be backfilled in a timely manner once forms are removed.
- It is my professional opinion that, following aforementioned best management practices, no retained trees are expected to suffer a decrease in vitality nor increase in risk due to the proposed construction activities.
- 2:1 replacement ratio for trees #7-#9.
- 1:1 replacement ratio for trees #16-#18.



Survey markup/Site map



Tree Protection Zone fencing map



Trees #1 and #2 noted as healthy and vigorous. Roots limited by drive on S side. Adjacent to work area and access point. Tree protection fencing recommended.



Tree #3 noted as healthy and vigorous. Adjacent to work area. Tree protection fencing recommended.



Tree #3 in extreme proximity with home.



Tree #4 found to be 100% necrotic.



Trees #7, #8 and #9 to be removed due to root disturbance for development. Tree protection fencing recommended for trees #5 and #6.



Shallow roots of tree #7, adjacent to disturbance indicate significant root cutting for proposed development. Removal is recommended.



Tree #16 to be removed due to significant disruption to critical root zone.



Tree #19 noted as exceptional with co-dominate trunks. Co-dominate attachment point noted as sound at time of inventory.



Significant deadwood in tree #20 indicates possible decline.



Trees #21-#25 noted as healthy and vigorous. Shed foundation damage noted caused by soil displacement from root growth.



Tree #28 noted as previously topped or storm damaged. Trees #28 and #30 noted as healthy and vigorous with somewhat matted crowns.



Trees #31-#37 grown in formal hedgerow.



Tree #38 noted as 100% necrotic

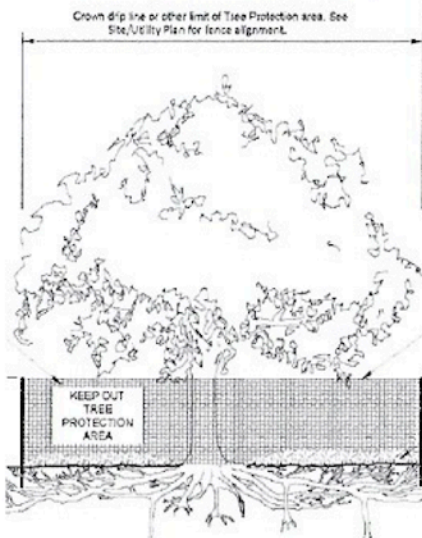
TREE PROTECTION AREA (TPZ)

KEEP OUT!

DO NOT REMOVE OR ADJUST THE APPROVED LOCATION OF THIS TREE PROTECTION AREA

Trees enclosed by this fence are protected and are subject to the conditions of the tree permit. Violation of tree conditions may lead to:

1. Correction Notices or Stop Work Orders until compliance is achieved
2. RE Inspection Fees/financial penalties
3. Arborist reports recommending mitigation



- Notes**
1. No pruning shall be performed unless under the direction of the Project Arborist, including limbing trees up.
 2. No grading, excavation, storage (materials, equipment, vehicles, etc.), or other unpermitted activity shall occur inside the protective fencing.
 3. Penalties for damaging by root damage/compaction or removing a saved tree may be a fine up to three times the value of the tree plus restoration (MICC 19.10.160).
 4. Any work in approved TPZ must be with the permission of the City Arborist (206) 275-7713, john.kenney@mercergov.org.
 5. 5" course woodchips within the tree protection zone, but not against the tree trunk.

Tree protection fence: 4-6" chain link fence, solidly anchored into the ground, or if authorized High-density polyethylene fencing with 3.5" x 1.5" openings; color orange. Steel posts installed at 8' o.c.

2" x 6" steel posts or approved equal

Maintain existing grade with the tree protection fence unless otherwise indication on the plans

Any Work in the protected area must be with the permission of the City Arborist john.kenney@mercergov.org

Tree protection detail.