



## **ARBORIST REPORT**

**DATE:**

March 1, 2023

**PREPARED FOR:**

Traci Granbois

**SITE ADDRESS:**

8440 SE 82nd St Mercer Island, WA 98040 / Lot # 3625600120

**PREPARED BY:**

Kim Ettari - ISA Certified Arborist PN1301A / TRAQ

Laughing Trees Landscapes

5607 40th Ave NE Seattle, WA 98105

828-318-6088 / [laughingtreeslandscapes@gmail.com](mailto:laughingtreeslandscapes@gmail.com)

# NARRATIVE

## SCOPE OF WORK

You have asked me to complete an inventory and tree retention plan for the trees on your property in preparation for the remodel project on your residence.

All documentation below should comply with requirements set forth in Mercer Island Municipal Code (19.10.010).

## METHODOLOGY

The methods 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, upper limbs 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.

I measured fifteen (15) trees for their diameter at breast height (DBH), an industry standard of measuring trees at 4.5' above grade. Trees that were multi-stemmed or branched below the standard 4.5' point of measurement were measured in some other way and noted as such in the findings notes of the appropriate tree.

A tree inventory and assessment spreadsheet was created that details each tree by reference number, species/common name, size (DBH), drip line/canopy extension and condition with remarks as needed. (*See attached inventory.*)

A tree map was created indicating the locations, drip lines, and locations of any required tree protection fences. (*See attached tree map.*)

## FINDINGS AND OBSERVATIONS

The subject site is a 13,400 sq ft residential lot in an established neighborhood on the southern end of Mercer Island. Large, established trees grow around the perimeter of the property and the following trees were located on site:

Tree #1 - Thuja plicata / Western Red Cedar - 21" DBH - GOOD CONDITION

Tree #2 - Thuja plicata / Western Red Cedar - 12" DBH - GOOD CONDITION

- Tree #3 - Pseudotsuga menziesii / Douglas Fir - 22' DBH - GOOD CONDITION
- Tree #4 - Pseudotsuga menziesii / Douglas Fir - 26" DBH - GOOD CONDITION
- Tree #5 - Pseudotsuga menziesii / Douglas Fir - 40" DBH - GOOD CONDITION
- Tree #6 - Pseudotsuga menziesii / Douglas Fir - 33" DBH - GOOD CONDITION
- Tree #7 - Pseudotsuga menziesii / Douglas Fir - 31" DBH - GOOD CONDITION
- Tree #8 - Cornus nuttallii / Pacific Dogwood - 12" DBH - DEAD - REMOVE
- Tree #9 - Cornus nuttallii / Pacific Dogwood - 15" DBH - FAIR CONDITION - REMOVE
- Tree #10 - Pseudotsuga menziesii / Douglas Fir - 31" DBH - GOOD CONDITION
- Tree #11 - Malus species / Apple - 8" DBH - FAIR CONDITION - REMOVE (unregulated)
- Tree #12 - Pinus species / Pine - 12" DBH - POOR CONDITION - REMOVE
- Tree #13 - Pseudotsuga menziesii - 9" DBH - GOOD CONDITION - REMOVE (unregulated)
- Tree #14 - Thuja plicata / Western Red Cedar - 20" DBH - GOOD CONDITION
- Tree #15 - Thuja plicata / Western Red Cedar - 25" DBH - GOOD CONDITION

**RECOMMENDATIONS & CONSIDERATIONS**

Mercer Island Municipal Code requires that 30% of the regulated trees on site be retained during development.

The tree retention breakdown for this site would be as follows:

Number of regulated trees on site:	13 trees
Number of unregulated trees on site:	2 trees
<u>Proposed regulated trees for removal:</u>	<u>3 trees</u>

**Regulated trees to remain: 10 trees (76% > 30% meets requirement)**

Tree protection fencing and attached signage should be installed prior to commencement of any construction activities on site.

## **LIMITATIONS**

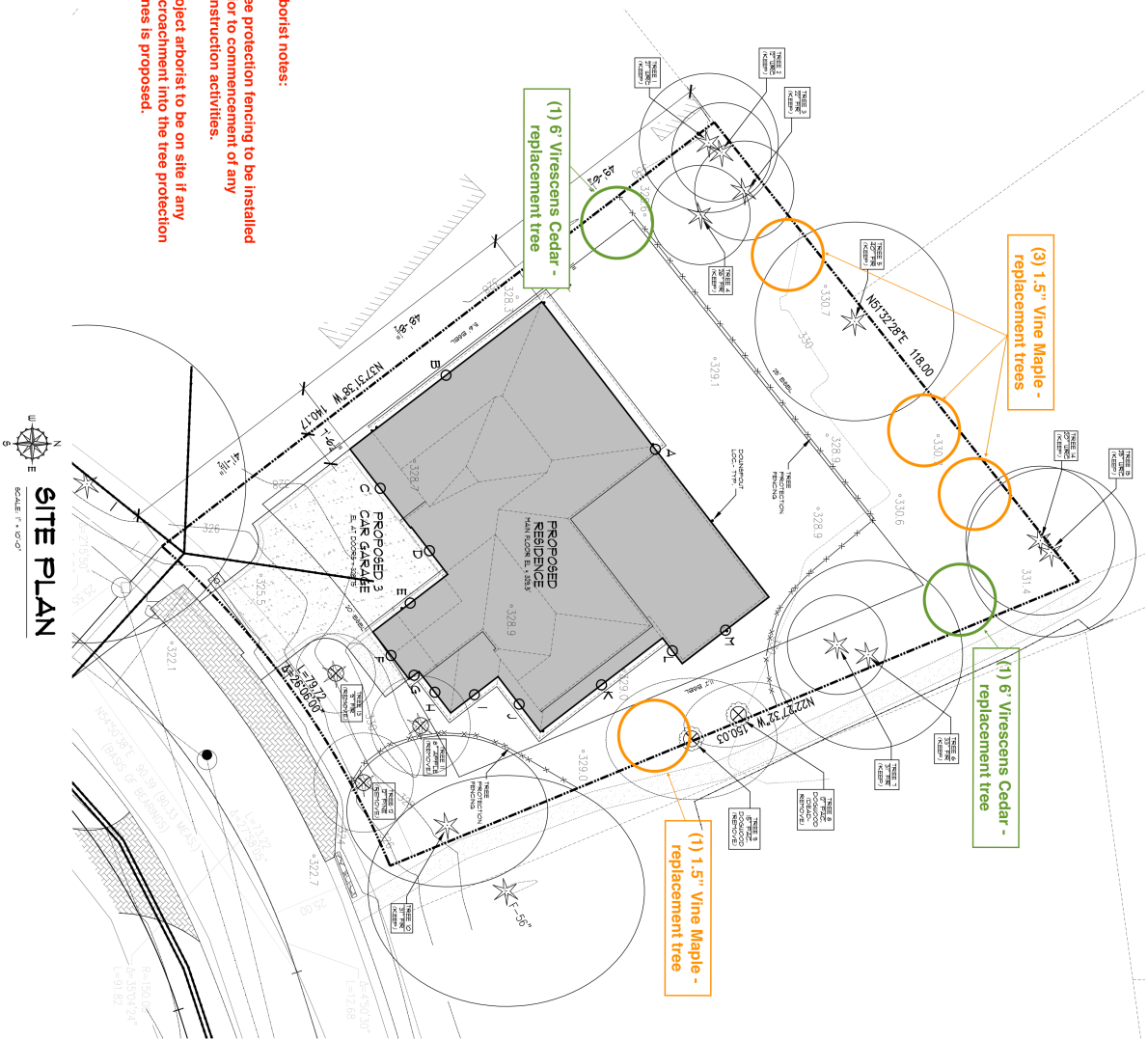
This report was based on the conditions of the trees and site at the time the report was written. Weather and site changes can alter the conditions at any time. Trees inherently pose a certain degree of hazard and risk from breakage, failure or other causes and conditions. Recommendations that are made by Laughing Trees Landscapes are intended to minimize or reduce hazardous conditions that may be associated with trees. However, there is and there can be no guarantee or certainty that efforts to correct unsafe conditions will prevent breakage or failure of the tree. Any recommendations made should reduce the risk of tree failure but they cannot eliminate such risk, especially in the event of a storm or any act of God. There can be no guarantee or certainty that all hazardous conditions will be detected.

## Traci Granbois Tree Inventory - 8440 SE 82nd St Mercer Island, WA 98040

Tree #	Botanical Name	Common Name	DBH	Dripline	Condition	Notes	Action
1	Thuja plicata	Western Red Cedar	21"	10°N/10°E/ 15°S/15°W	GOOD	70' tall, co-dominant stems at 7', growing in cluster with Trees 2-4	
2	Thuja plicata	Western Red Cedar	12"	10°N/10°E/ 10°S/10°W	GOOD	50' tall, growing in cluster with Trees 1, 3, 4	
3	Pseudotsuga menziesii	Douglas Fir	22"	10°N/12°E/ 12°S/10°W	GOOD	100' tall, lower limb dieback, small branch failures	
4	Pseudotsuga menziesii	Douglas Fir	26"	10°N/15°E/ 20°S/20°W	GOOD	100' tall, branched up to 50'	
5	Pseudotsuga menziesii	Douglas Fir	40"	20°N/20°E/ 20°S/20°W	FAIR	100' tall, lower limb dieback, basal swelling indicating possible root decay, holes in bark on trunk from rodents/birds, large buttress roots above ground, roots coming up into lawn on south	
6	Pseudotsuga menziesii	Douglas Fir	33"	20°N/15°E/ 20°S/10°W	GOOD	100' tall, small limb breakage	
7	Pseudotsuga menziesii	Douglas Fir	31"	10°N/10°E/ 10°S/10°W	GOOD	100' tall, small limb failures, slight basal swelling	
8	Cornus nuttallii	Pacific Dogwood	12"		DEAD		REMOVE
9	Cornus nuttallii	Pacific Dogwood	15"	10°N/15°E/ 15°S/20°W	POOR	50' tall, low vigor, sparse crown, co-dominant stems at 12', limb dieback	REMOVE
10	Pseudotsuga menziesii	Douglas Fir	31"	20°N/20°S/ 20°W	GOOD	80' tall, on property line, limb dieback in lower branches, canopy weighted to west,	
11	Malus species	Apple	8"	10°N/10°E/ 10°S/10°W	FAIR	25' tall, sparse crown, limb dieback	REMOVE
12	Pinus spcies	Pine	12"	10°N/10°E/ 10°S/10°W	POOR	40' tall, bark splitting/peeling on branches, significant dieback, co-dominant stems at 20'	REMOVE
13	Pseudotsuga menziesii	Douglas Fir	9"	8°N/8°E/8°S/ 8°W	GOOD	35' tall, good vigor	REMOVE
14	Thuja plicata	Western Red Cedar	20"	10°N/10°E/ 10°S/10°W	GOOD	50' tall, good vigor	
15	Thuja plicata	Western Red Cedar	25"***	10°N/10°E/ 10°S/10°W	GOOD	50' tall, multi-stem	

- Tree Protection Plan 2/27/2023**  
**Kim Eitari - ISA Arborist PN1301ATRAQ**
- Tree calculations:**
- 1 - 12" WRC - regulated
  - 2 - 12" WRC - regulated
  - 3 - 22" Douglas Fir - regulated
  - 4 - 26" Douglas Fir - regulated
  - 5 - 40" Douglas Fir - regulated
  - 6 - 33" Douglas Fir - regulated
  - 7 - 31" Douglas Fir - regulated
  - 8 - 12" Pac Dogwood - to remove - regulated
  - 9 - 15" Pac Dogwood - to remove - regulated
  - 10 - 31" Douglas Fir - regulated
  - 11 - 8" Apple - to remove
  - 12 - 12" Pine - to remove - regulated
  - 13 - 9" Douglas Fir - to remove
  - 14 - 20" WRC - regulated
  - 15 - 25" WRC - regulated
  - 13 Total regulated trees
  - 2 Total unregulated trees
  - 30% x 13 = 3.9 Trees
  - Regulated trees to remain = 10
  - 10 trees meets requirement: 10 > 3.9

- Arborist notes:**
- Tree protection fencing to be installed prior to commencement of any construction activities.
  - Project arborist to be on site if any encroachment into the tree protection zones is proposed.



**TAX PARCEL #:**  
**PARCEL ID:**  
**ADDRESS/ LEGAL:**  
 8440 SE 82nd St, Mercer Island, WA, 98040  
 MERCER ISLAND POINT ZONING AND MAPS INT. N. COMMUNITY PLAN

**LOT COVERAGE:**  
 LOT AREA: 9504 S.F.  
 ALLOWABLE LOT COVERAGE: 40%  
 MAX STRUCTURE FOOT AREA: 418 S.F.  
 UNCOVERED PATIO DECKS: 139 S.F.  
 TOTAL PROJECT IMPERVIOUS AREA: 558 S.F.  
 PROPOSED LOT COVERAGE AREA: 384.0 %

**GROSS FLOOR AREA:**  
 MAX ALLOWABLE GFA: 40%  
 GFA: 3840 S.F.  
 OFFICE FLOOR: 2216 S.F.  
 GARAGE: 748 S.F.  
 PROPOSED GFA: 1392 S.F.  
 35.8%

**TREE RETENTION CALCULATION:**  
 SEE ARBORIST REPORT  
 X TREES TO BE REMOVED  
 SEE TO SITE SURVEY AND ARBORIST REPORT FOR TREE AND SIZE

**CITY OF MERCER ISLAND HEIGHT RESTRICTION**

HEIGHT RESTRICTION	HEIGHT RESTRICTION	HEIGHT RESTRICTION
1 - 25.0'	25.0'	25.0'
2 - 30.0'	30.0'	30.0'
3 - 35.0'	35.0'	35.0'
4 - 40.0'	40.0'	40.0'
5 - 45.0'	45.0'	45.0'
6 - 50.0'	50.0'	50.0'
7 - 55.0'	55.0'	55.0'
8 - 60.0'	60.0'	60.0'
9 - 65.0'	65.0'	65.0'
10 - 70.0'	70.0'	70.0'
11 - 75.0'	75.0'	75.0'
12 - 80.0'	80.0'	80.0'
13 - 85.0'	85.0'	85.0'
14 - 90.0'	90.0'	90.0'
15 - 95.0'	95.0'	95.0'
16 - 100.0'	100.0'	100.0'
17 - 105.0'	105.0'	105.0'
18 - 110.0'	110.0'	110.0'
19 - 115.0'	115.0'	115.0'
20 - 120.0'	120.0'	120.0'
21 - 125.0'	125.0'	125.0'
22 - 130.0'	130.0'	130.0'
23 - 135.0'	135.0'	135.0'
24 - 140.0'	140.0'	140.0'
25 - 145.0'	145.0'	145.0'
26 - 150.0'	150.0'	150.0'
27 - 155.0'	155.0'	155.0'
28 - 160.0'	160.0'	160.0'
29 - 165.0'	165.0'	165.0'
30 - 170.0'	170.0'	170.0'
31 - 175.0'	175.0'	175.0'
32 - 180.0'	180.0'	180.0'
33 - 185.0'	185.0'	185.0'
34 - 190.0'	190.0'	190.0'
35 - 195.0'	195.0'	195.0'
36 - 200.0'	200.0'	200.0'
37 - 205.0'	205.0'	205.0'
38 - 210.0'	210.0'	210.0'
39 - 215.0'	215.0'	215.0'
40 - 220.0'	220.0'	220.0'
41 - 225.0'	225.0'	225.0'
42 - 230.0'	230.0'	230.0'
43 - 235.0'	235.0'	235.0'
44 - 240.0'	240.0'	240.0'
45 - 245.0'	245.0'	245.0'
46 - 250.0'	250.0'	250.0'
47 - 255.0'	255.0'	255.0'
48 - 260.0'	260.0'	260.0'
49 - 265.0'	265.0'	265.0'
50 - 270.0'	270.0'	270.0'
51 - 275.0'	275.0'	275.0'
52 - 280.0'	280.0'	280.0'
53 - 285.0'	285.0'	285.0'
54 - 290.0'	290.0'	290.0'
55 - 295.0'	295.0'	295.0'
56 - 300.0'	300.0'	300.0'
57 - 305.0'	305.0'	305.0'
58 - 310.0'	310.0'	310.0'
59 - 315.0'	315.0'	315.0'
60 - 320.0'	320.0'	320.0'
61 - 325.0'	325.0'	325.0'
62 - 330.0'	330.0'	330.0'
63 - 335.0'	335.0'	335.0'
64 - 340.0'	340.0'	340.0'
65 - 345.0'	345.0'	345.0'
66 - 350.0'	350.0'	350.0'
67 - 355.0'	355.0'	355.0'
68 - 360.0'	360.0'	360.0'
69 - 365.0'	365.0'	365.0'
70 - 370.0'	370.0'	370.0'
71 - 375.0'	375.0'	375.0'
72 - 380.0'	380.0'	380.0'
73 - 385.0'	385.0'	385.0'
74 - 390.0'	390.0'	390.0'
75 - 395.0'	395.0'	395.0'
76 - 400.0'	400.0'	400.0'
77 - 405.0'	405.0'	405.0'
78 - 410.0'	410.0'	410.0'
79 - 415.0'	415.0'	415.0'
80 - 420.0'	420.0'	420.0'
81 - 425.0'	425.0'	425.0'
82 - 430.0'	430.0'	430.0'
83 - 435.0'	435.0'	435.0'
84 - 440.0'	440.0'	440.0'
85 - 445.0'	445.0'	445.0'
86 - 450.0'	450.0'	450.0'
87 - 455.0'	455.0'	455.0'
88 - 460.0'	460.0'	460.0'
89 - 465.0'	465.0'	465.0'
90 - 470.0'	470.0'	470.0'
91 - 475.0'	475.0'	475.0'
92 - 480.0'	480.0'	480.0'
93 - 485.0'	485.0'	485.0'
94 - 490.0'	490.0'	490.0'
95 - 495.0'	495.0'	495.0'
96 - 500.0'	500.0'	500.0'
97 - 505.0'	505.0'	505.0'
98 - 510.0'	510.0'	510.0'
99 - 515.0'	515.0'	515.0'
100 - 520.0'	520.0'	520.0'

**FOUNDATION STAKING NOTE**  
 FOUNDATION STAKING SHALL BE DONE BY THE CONTRACTOR AND SHALL BE VERIFIED BY THE ARCHITECT PRIOR TO CONSTRUCTION. FOUNDATION STAKING SHALL BE DONE BY THE CONTRACTOR AND SHALL BE VERIFIED BY THE ARCHITECT PRIOR TO CONSTRUCTION. FOUNDATION STAKING SHALL BE DONE BY THE CONTRACTOR AND SHALL BE VERIFIED BY THE ARCHITECT PRIOR TO CONSTRUCTION.

BDR Granbois Custom 8440 SE 82nd St.	TCHC, LLC. (DBA: BDR Custom) P.O. Box 50208 Bellevue, WA 98015 (206) 835-8888	REVISIONS	
		No.	DESCRIPTION
SHEET AO.1	SITE PLAN/ AVG BLDG ELEV/ LOT COVERAGE	DATE	DESCRIPTION

# TREE PROTECTION AREA (TPZ)

## KEEP OUT!

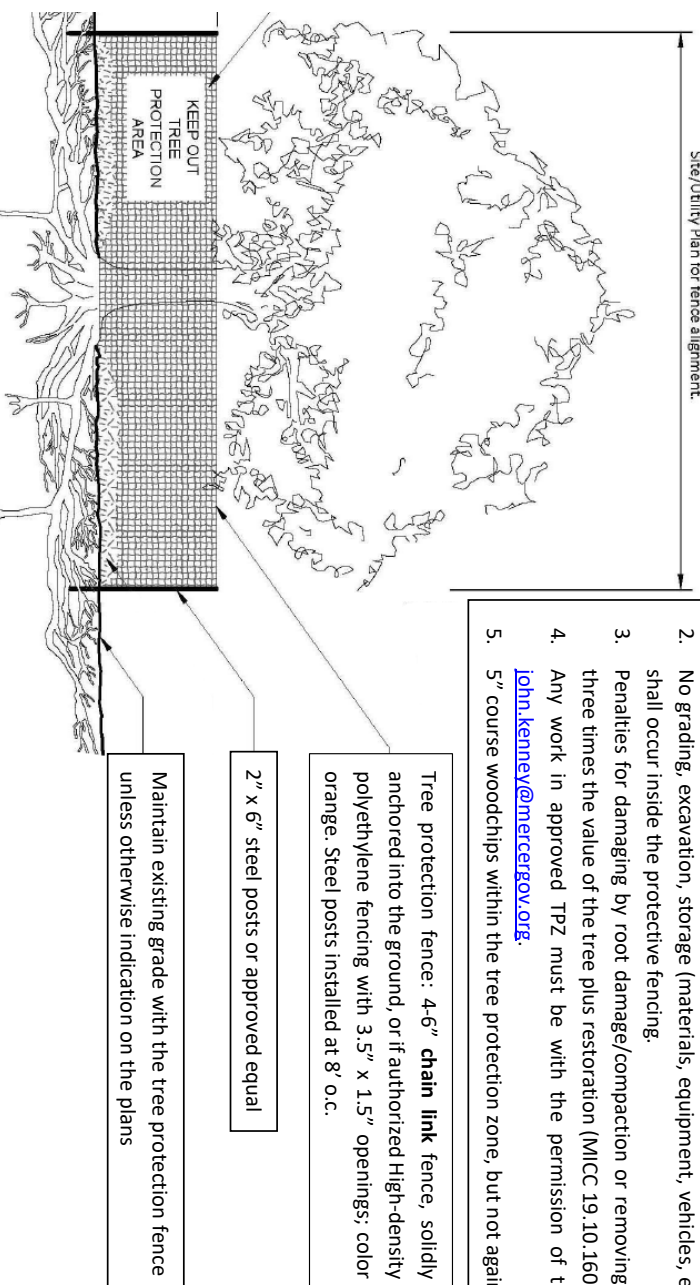
### DO NOT REMOVE OR ADJUST THE APPROVED LOCATION OF THIS TREE PROTECTION AREA

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

Crown drip line or other limit of Tree Protection area. See Site/Utility Plan for fence alignment.

- | 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, <a href="mailto:john.kenney@mercergov.org">john.kenney@mercergov.org</a> . |
| 5. 5" course woodchips within the tree protection zone, but not against the tree trunk.   |



Any Work in the protected area must be with the permission of the City Arborist [john.kenney@mercergov.org](mailto:john.kenney@mercergov.org)