



ARBOR INFO LLC

2406 N Castle Way Brier, WA, 98036

**Tree Assessment  
For  
Plummer Residence  
At  
9212 SE – 33rd Ave SE  
Mercer Island, Washington**

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**Date  
4/3/2021**

Table of Contents

1. Introduction ..... 3  
2. Competence..... 3  
3. Client..... 3  
4. Assignment, Purpose and Use of Report..... 3  
5. Limits of Assignment..... 3  
6. Site Description..... 4  
7. Methodology ..... 4  
8. Tree Description..... 4  
9. Root Zone Impacts ..... 4  
10. Discussion ..... 5  
11. Summary ..... 5  
12. Assumptions and Limiting Conditions..... 6

Addenda

- I. Tree Location Map
- II. Tree Assessment Summary Table
- III. Site Plan Snip
- IV. Mercer Island Check list
- V. Mercer Island Tree Inventory Form

## **1. Introduction**

I was contacted by Brad Sturman, Sturman Architects to describe and assess the condition, viability and protection of trees at the Plummer residence, 9212 – SE 33<sup>rd</sup> PL Mercer Island, WA. This report summarizes my observations and conclusions.

## **2. Competence**

- Certified Arborist (International Society of Arboriculture, ISA #23136, PN 0426 A)
- Registered Consulting Arborist (American Society of Consulting Arborists #499).
- Tree Risk Assessment Qualified (ISA- 2/22/2026).
- Certified forester (Society of American Foresters #951)
- Bachelor of Science degree in Forest Management from the University of Washington
- Licensed Washington State Real Estate Managing Broker #11534

## **3. Client**

The client to whom this report is addressed is:

Brad Sturman  
Sturman Architects  
9-103<sup>rd</sup> Ave NE  
Bellevue, WA 98004  
BradS@Sturmanarchitects.com

## **4. Assignment, Purpose and Use of Report**

The assignment is to describe and assess the condition and viability of onsite and potentially affected off-site trees and to provide protection recommendations in conformance with the City of Mercer Island “Tree Submittal Check List”, Attached.

## **5. Limits of Assignment**

The assignment is limited to the information gathered during the site visit March 12, 2020 (date of assessment) and references noted in this report. No excavation or sampling was undertaken to determine unseen defects. No inspection of trees not reported herein was made.

It is assumed herein that the subject trees 1,3,4 and 9, referenced on the attached site map and tree assessment form stand on the subject property. Trees 2,5,6,7, and 8 are assumed to be offsite. A site plan indicating a proposed development plan was provided and is included in the Addenda with tree locations noted.

## **6. Site Description**

9212 SE 33<sup>rd</sup> Pl, Mercer Island, WA, King County Parcel No. 413900316. The subject property consists of a single-family residence on 12,240 square feet.

A new residence is planned to be built after removal of the existing house.

## **7. Methodology**

I visited the site on March 12, 2020 and assessed the condition of the subject trees. Each tree was measured for diameter at 4.5-feet above ground, (or equivalent) total height, percentage of live green crown, and dripline (extent of live limbs).

Each tree was assessed as to its condition, or vigor:

The ratings used are:

- Good: Tree has no significant defects and is expected to survive without disturbance to its normal life expectancy.
- Fair: Tree has a defect either fungal decay or mechanical or over maturity that renders it unstable or not likely to survive to normal life expectancy
- Poor Tree has significant defects or mechanical issues or is senescent that render it not likely to survive ten years.

Viability is a term indicating whether the tree can be expected to survive to its normal life span or at least another 10-years.

## **8. Tree Description**

Refer to the attached Tree Assessment Summary Form. A total of four on-site trees and five off-site over 6-inches in diameter were found and located on the attached Tree Location Map. On-site trees 3,4, 7 and 9 are defined as “large trees” by the City of Mercer Island while tree No. 1 is defined as “exceptional”. All of the off-site trees are defined as “exceptional”. All of the trees are viable and should live another 10 years. A laurel hedge along the west side of the property is not included in this report.

## **9. Root Zone Impacts**

The limits of disturbance are determined on a case-by-case basis for each tree in consideration of the tree size, estimate of the extent of the root zone and consideration of the planned root zone disturbance. Distances from the face of each tree to the excavation limit were provided by the client. There appears to be little or no impact to the retained trees.

Table 1 – Root Zone Impacts

Plummer Residence-- Root Zone Impacts 4/3 /2021								
			Diameter	Facing Dripline	Critical Root Zone	Measured Distance to Excavation Limit	Excavation Type	Root Zone impact
<u>On-Site</u>								
1	W. White pine	<i>Pinus monticola</i>	30.3	24'	11	18.1	Footing	Negligible
3	Dogwood	<i>Cornus kousa</i>	10.9	NA	8	To be Removed		
4	Deciduous?	<i>Unidentified</i>	15.4	NA	5	To be Removed		
7	Deodora cedar	<i>Cedrus deodara</i>	26.2	27'	12	17.25	Remove Driveway	Negligible
9	Flowering pear	<i>Pyrus sp.</i>	10.3	14'	7	22'	Footing	None
<u>Off-Site</u>								
2	W. red cedar	<i>Thuja plicata</i>	30.0	18'	11	30'	Footing	None
5	W. red cedar	<i>Thuja plicata</i>	38.7	18'	7	7.5	Retaining wall	Minor
6	W. red cedar	<i>Thuja plicata</i>	35.0	19'	8	7.1	Retaining wall	Minor
8	Hawthorne	<i>Crataegus sp.</i>	11.0	13'	6	30'	Footing	None

Trees No. 5 and 6, both offsite will be impacted by a 5-foot high retaining wall and earthen fill very near the critical root zones. The plan set snip attached depicts this construction proposal. However, these vigorous trees should be able to withstand this incursion and maintain normal viability.

## 10. Discussion

Refer to the attached City of Mercer Island “Trees and Construction” document. This document describes tree removal permit requirements and protection measures and is included herein. A permit will be required to remove Trees No. 3 and 4. Replacement trees are required to be planted on the property, preferably of the same species. I suggest that the replacement trees be selected from lists of trees suitable for residential sites, such as the City of Mercer Island, attached.

Root zone impacts to the retained trees will be minimal if at all, as indicated in Table 1 above.

Requirements for different symbols for 24-inch trees and the location of the trees to be replanted are indicated on the attached Site Plan.

## 11. Summary

All of the on-site and off-site trees are healthy and structurally sound indicating full-term viability.

Tree protections in addition to city regulations should include:

- Certified Arborist on site during excavation activities within the defined root zone of all trees.

- All trees to be retained are to be fenced at the edge of the recommended tree protection zone with 6-foot high cyclone type fencing.
- Utility lines should be bored. Bore access pits to be developed with 18" buckets or hand dug.
- Retaining wall footings to be minimally deep, no more than 12-inches.
- Tree roots over 1-1/2 inches in diameter encountered in all excavations are to be cut cleanly to the trench wall with clean sharp tools. Roots to be covered with soil or wetted burlap if they must remain exposed.
- Supplemental irrigation is to be provided during summer months (generally June-September) for all trees in the construction zones.
- Recommended protected tree root zones are to be covered with 4-inches of hog fuel at all times. Where machinery access is needed, the root zones should be covered with 12-inches of hog fuel, plywood or steel sheets.
- Stumps for trees to be removed are to be ground out (not excavated).

## **12. Assumptions and Limiting Conditions**

1. Any legal description provided to the consultant is assumed to be correct. Ownership of the subject trees as provided by the client is assumed to be correct. No responsibility is assumed for legal matters. No opinion as to the property line location is made.
2. Care has been taken to obtain all information from reliable sources. The consultant can neither guarantee nor be responsible for the accuracy of information provided by others.
3. The consultant shall not be required to give testimony or attend court by reason of this report unless subsequent contractual arrangements are made, including additional fees.
4. This report and any values expressed herein represent the opinion of the consultant, and the consultant's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
5. The exhibits in this report are included to assist the reader and are not necessarily to scale.
6. Unless expressed otherwise, information in this report covers only items that were examined, and reflects the condition of those items at the time of inspection. The subject site was cleared of all vegetation at the time of inspection therefore the extent of removals is inferred from adjacent undisturbed areas. The inspection is limited to visual examination of accessible portions of the trees and plants.
7. Loss or alteration of any part of the report invalidates the entire report. Ownership of any documents related to this report passes to the client only.
8. The liability of ArborInfo LLC its contractors and employees is limited to the client only and only up to the amount of the fee actually received for the assignment.

9. *There is no warranty suggested for any of the trees subject to this report. Weather, latent tree conditions, and future man-caused activities could cause physiologic changes and deteriorating tree condition. Over time, deteriorating tree conditions may appear and there may be conditions, which are not now visible which, could cause tree failure. This report or the verbal comments made at the site in no way warrant the structural stability or long-term condition of any tree, but represent my opinion based on the observations made.*

10. *NEARLY ALL TREES IN ANY CONDITION STANDING WITHIN REACH OF IMPROVEMENTS OR HUMAN USE AREAS REPRESENT HAZARDS THAT COULD LEAD TO DAMAGE OR INJURY. THE ASSESSMENT IS VALID FOR TWO YEARS FROM THE DATE OF INSPECTION, ONLY.*

11. PERTINENT JURISDICTION RULES AND REGULATIONS SHOULD BE CONSULTED PRIOR TO THE REMOVAL OF ANY TREE.

Respectfully Submitted,

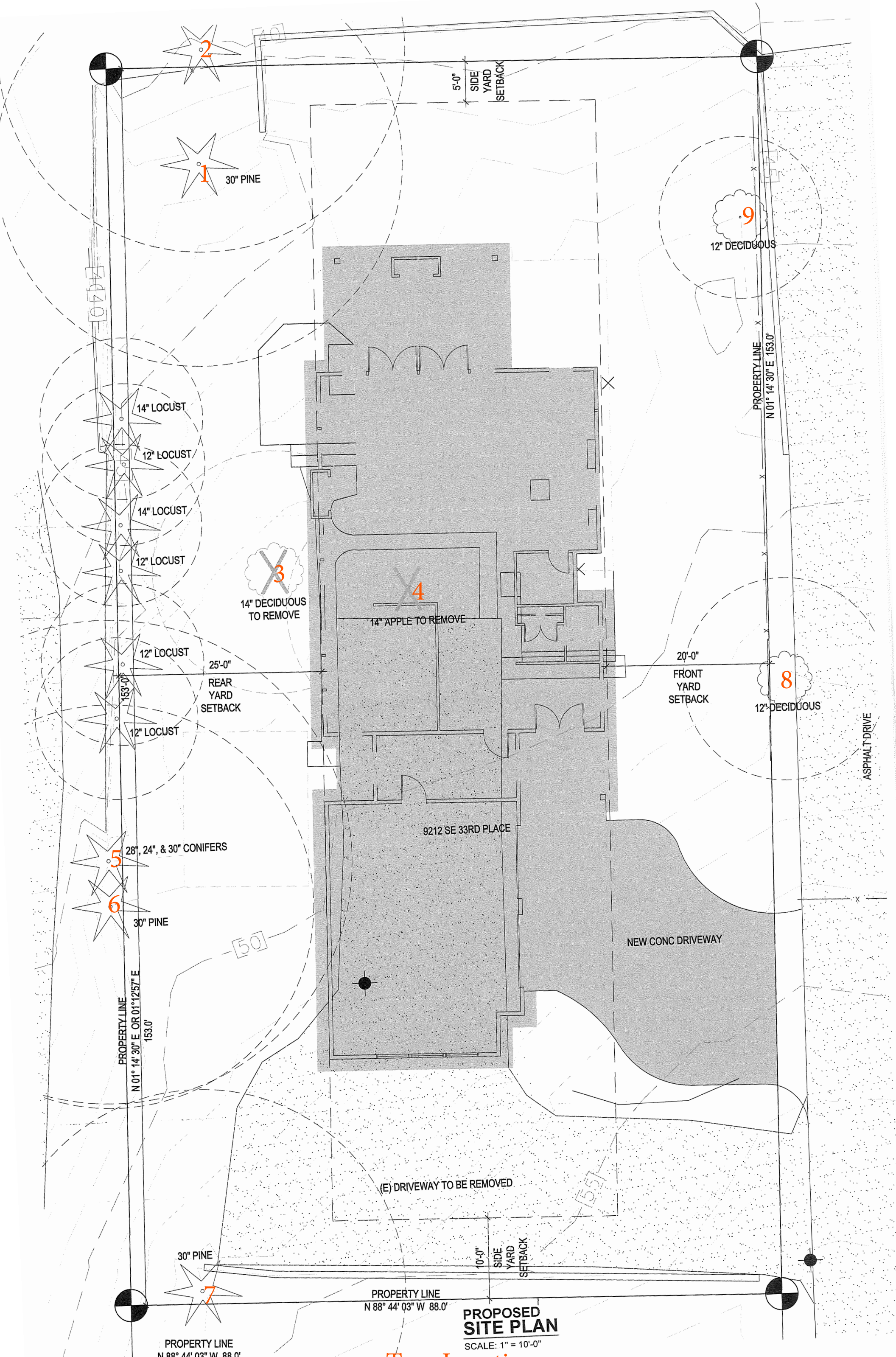


Thomas M. Hanson, CF, RCA

Plummer Tree Assessment and Protection Plan

- I. Tree Location Map
- II. Tree Assessment Summary Table
- III. Site Plan Snip
- IV. Mercer Island Check list
- V. Mercer Island Tree Inventory Form





1 30" PINE

14" LOCUST

12" LOCUST

14" LOCUST

12" LOCUST

12" LOCUST

12" LOCUST

5 28", 24", & 30" CONIFERS

6 30" PINE

7 30" PINE

3  
14" DECIDUOUS TO REMOVE

4  
14" APPLE TO REMOVE

9  
12" DECIDUOUS

8  
12" DECIDUOUS

5'-0" SIDE YARD SETBACK

25'-0" REAR YARD SETBACK

20'-0" FRONT YARD SETBACK

10'-0" SIDE YARD SETBACK

PROPERTY LINE  
N 01° 14' 30" E OR 01° 12' 57" E  
153.0'

PROPERTY LINE  
N 01° 14' 30" E 153.0'

PROPERTY LINE  
N 88° 44' 03" W 88.0'

PROPERTY LINE  
N 88° 44' 03" W 88.0'

9212 SE 33RD PLACE

NEW CONC DRIVEWAY

(E) DRIVEWAY TO BE REMOVED

**PROPOSED SITE PLAN**  
SCALE: 1" = 10'-0"

**Tree Locations**

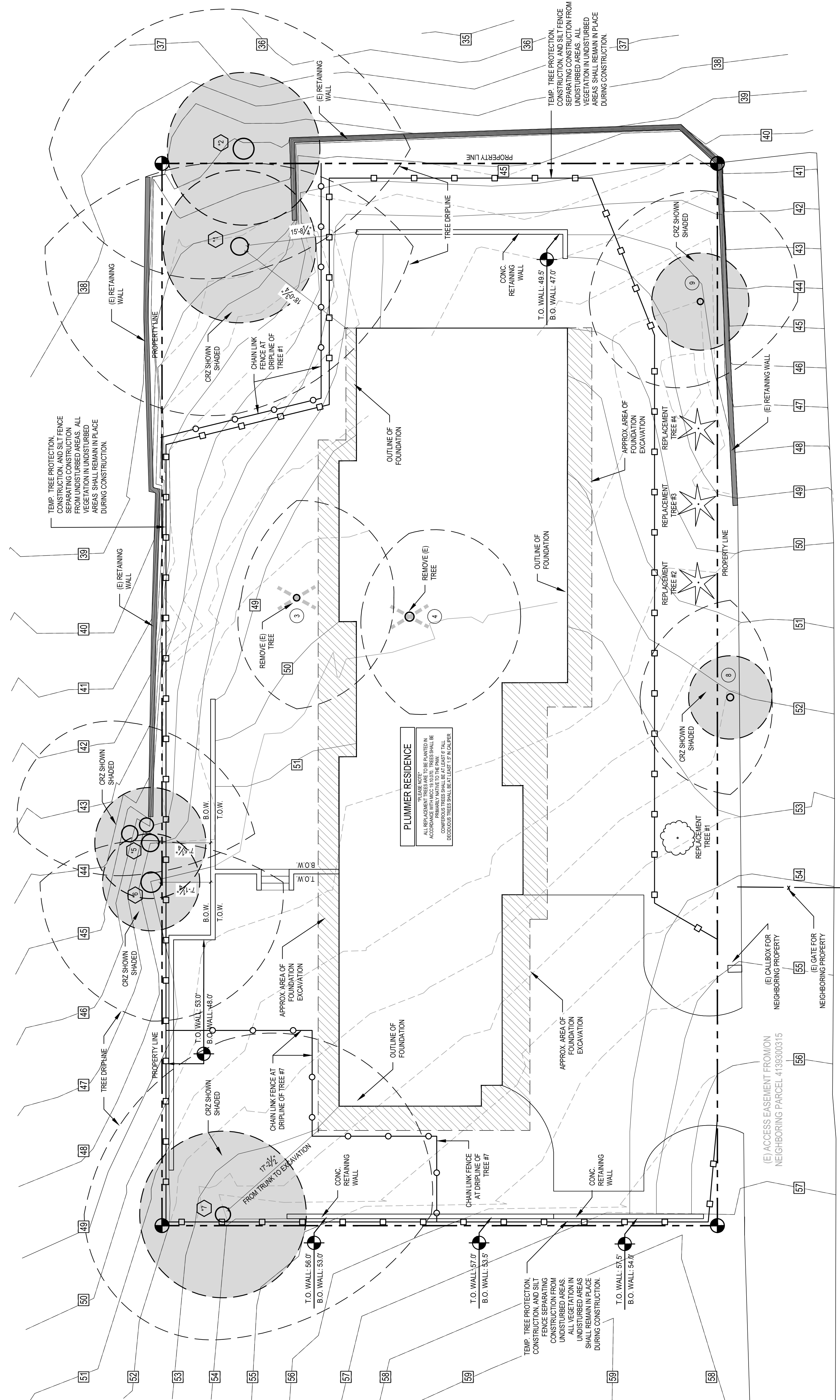
### Tree Protection Assessment Form

Date: 3/12/2020

Site: Plummer - 9212 SE 33rd Pl, Mercer Island, WA															Inspector: Tom Hanson	
Tree #	Species		DBH (inches)	Height (feet)	Crown Ratio (%)	Drip Line(ft)			Critical Root Root (ft)	Vigor		Class	Defects	Recommendations/Comments		
	Common	Scientific				N	S	E		W	Health				Structure	Viable
<b>On Site</b>																
1	W. White pine	<i>Pinus monticola</i>	30.3	110	80	12	24	25	28	11	Good	Fair	Yes	Exceptional	Large scaffold limbs	Retain
3	Dogwood	<i>Cornus kousa</i>	10.9	24	70	14	26	14	8	8	Good	Good	Yes	Large		Planned Removal
4	Deciduous?	<i>Unidentified</i>	15.4	14	80	2	14	16	7	5	Good	Fair	Yes	Large	Minor scaffold decay	Planned Removal
7	Deodora cedar	<i>Cedrus deodara</i>	26.2	118	80	25	18	30	20	12	Good	Good	Yes	Large		Retain
9	Flowering pear	<i>Pyrus sp.</i>	10.3*	20	80	16	12	14	16	7	Good	Fair	Yes	Large		Retain
<b>Off Site</b>																
2	W. red cedar	<i>Thuja plicata</i>	30.0**	110	90	20	18	24	28	11	Fair	good	Yes	Exceptional	Thinning crown	Retain
5	W. red cedar	<i>Thuja plicata</i>	38.7*	95	80	16	6	18	16	7	Good	Fair	yes	Exceptional	Three Codominant Stems	Retain
6	W. red cedar	<i>Thuja plicata</i>	35.0	95	80	6	20	19	16	8	Good	Fair	Yes	Exceptional	Two Codominant stems	Retain
8	Hawthorne	<i>Crataegus sp.</i>	11.0**	24	80	14	14	6	13	6	Good	Fair	Yes	Exceptional		Retain

\* Multiple trunks adjusted

\*\* Estimated



**PLUMMER RESIDENCE**  
 TREE PLAN  
 ALL REPLACEMENT TREES ARE TO BE PLANTED IN ACCORDANCE WITH THE TREE REPLACEMENT PLAN. TREE REPLACEMENT SHALL BE THE PRIMARY INTENT TO THE TREE REPLACEMENT PLAN. TREE REPLACEMENT SHALL BE AT LEAST EQUAL TO THE ORIGINAL TREE'S CALIBER.

2 TREE PLAN N  
 SCALE: 1/8" = 1'-0"

# CITY OF MERCER ISLAND

## COMMUNITY PLANNING & DEVELOPMENT

9611 SE 36TH STREET | MERCER ISLAND, WA 98040

PHONE: 206.275.7605 | [www.mercergov.org](http://www.mercergov.org)

Inspection Requests: Online: [www.mybuildingpermit.com](http://www.mybuildingpermit.com) VM: 206.275.7730



## TREE SUBMITTAL CHECKLIST

If a box is checked, please provide the information in your next submittal

### SUBMITTAL ITEMS

#### 1. The Mercer Island Tree Inventory Form

- Provide the City's Mercer Island Tree Inventory Form

#### 2. Arborist report/tree inventory

- Provide an Arborist report, prepared by a qualified Arborist. Include the following information in the arborist report.
  - 1. Description of how the arborist meets the threshold requirements for Qualified Arborist.
  - 2. A complete description of each tree's diameter, species, critical root zone, limits of allowable disturbance, health, condition, and viability.
  - 3. A description of the method(s) used to determine the limits of allowable disturbance (i.e., critical root zone, root plate diameter, or a case-by-case basis description for individual trees).
  - 4. Any special instructions specifically outlining any work proposed within the limits of disturbance protection areas (i.e. hand-digging, air space, tunneling, root pruning, any grade changes, clearing, monitoring, and aftercare).
  - 5. For trees not viable for retention, a description of the reason(s) for removal based on poor health, high risk of failure due to structure, defects, unavoidable isolation, windfirmness, unsuitability species, etc. If there is no reasonable alternative action (pruning, cabling, etc.) possible, replacement recommendations must be given.
  - 6. Describe the impact of necessary tree removal on the remaining trees, including those in a grove or on adjacent properties.
  - 7. Describe timing and installation of tree protection measures. Such measures must include fencing and be in accordance with the tree protection standards as outlined in MICC 19.10.
  - 8. The suggested location and species of replacement trees to be used when required. The report shall include planting and maintenance specifications to ensure long term survival.
  - 9. **A Tree Inventory** containing the following:
    - a. A numbering system of all existing large trees on the property (with corresponding tags on trees). The inventory shall also include large trees on adjacent property with driplines or critical root zones extending into the property.
    - b. Tree size (diameter). Where a tree splits into several trunks close to ground level, the dbh (Diameter at Breast Height) for the tree is the square root of the sum of the dbh for each individual stem squared (example with 3 stems:  $dbh = \sqrt{(stem1)^2 + (stem2)^2 + (stem3)^2}$  ).
    - c. Proposed tree status (retained or proposed for removal).
    - d. Tree type or species.
    - e. Identify all Exceptional trees and differentiate between those less than 24 inches and those greater than or equal to 24 inches in diameter.
    - f. Brief general health or condition rating of each tree (i.e. poor, fair, good, etc.).

#### 3. Site/tree retention plan

Indicate the following on all civil/utility and grading sheets. If there are no civil sheets indicate on the architectural site plan

- 1. Location of all proposed improvements (building footprint, access, utilities, buffers, required landscape areas).
- 2. Surveyed location of all large trees and Exceptional trees on the property
- 3. Show the critical root zone of Large trees on adjacent properties if driplines extend over the subject property line.
- 4. Trees labeled corresponding to the tree inventory numbering system on the Mercer Island Tree Inventory Form.
- 5. Identify Exceptional trees using different symbols for trees less than 24 inches and trees greater than or equal to 24 inches.
- 6. Location of tree protection measures.
- 7. Limits of excavation near potential saved trees (e.g. excavation limits for building foundation).
- 8. Indicate clearing limits/limits of disturbance (LOD) around all trees potentially impacted by site disturbances - grading, demolition, construction activities (including approximate LOD of off-site trees with overhanging driplines), etc.
- 9. Proposed tree status (trees to be removed or retained) noted by an 'X' for removal.

#### 4. Replanting plan

- Provide the Replanting plan showing proposed locations of any required replacement trees.

#### PEER REVIEW AND CONFLICT OF INTEREST

A peer review of the tree permit application by a qualified arborist may be required to verify the adequacy of the information and analysis. **The applicant shall bear the cost of the peer review.**

The City Arborist may require the applicant retain a replacement qualified arborist or may require a peer review where the City Arborist believes a conflict of interest may exist.

For example, if an otherwise qualified arborist is employed by a tree removal company and prepares the arborist report for a development proposal, a replacement qualified arborist or peer review may be required.

#### ARBORIST QUALIFICATION

For tree reviews associated with a development proposal, a qualified arborist must have

- A minimum of three (3) years' experience working directly with the protection of trees during construction
- Have experience with the likelihood of tree survival after construction
- Be able to prescribe appropriate measures for the preservation of trees during land development
- ISA Tree Risk Assessment Qualification
- Your qualified arborists must have at least one (1) of the following credentials:
  - ISA Certified Arborist;
  - ISA Certified Arborist Municipal Specialist;
  - ISA Board Certified Master Arborist;
  - American Society of Consulting Arborists (ASCA) registered Consulting Arborist;
  - Society of American Foresters (SAF) Certified Forester for Forest Management Plans;

#### ADDITIONAL INFORMATION

Additional Information. The City Arborist or Code Official may require additional documentation, plans, or information as needed to ensure compliance with applicable City regulations.


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# CITY OF MERCER ISLAND

## COMMUNITY PLANNING & DEVELOPMENT

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PHONE: 206.275.7605 | [www.mercergov.org](http://www.mercergov.org)

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## TREE INVENTORY & REPLACEMENT SUBMITTAL INFORMATION

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### EXCEPTIONAL TREES

*Exceptional Trees*- means a tree or group of trees that because of its unique historical, ecological or aesthetic value constitutes an important community resource. A tree that is rare or exceptional by virtue of its size, species, condition, cultural/historical importance, age, and/or contribution as part of a tree grove. Trees with a diameter of more than 36 inches, or with a diameter that is equal to or greater than the diameter listed in the Exceptional Tree Table shown in MICC 19.16 under Tree, Exceptional.

List the total number of trees for each category and the tree identification numbers from the arborist report.

Number of trees 36" or greater \_\_\_\_\_

List tree numbers: \_\_\_\_\_

Number of trees 24" or greater (including 36" or greater) \_\_\_\_\_

List tree numbers: \_\_\_\_\_

Number of trees from Exceptional Tree Table (MICC 19.16) \_\_\_\_\_

List tree numbers: \_\_\_\_\_

### LARGE REGULATED TREES

*Large Regulated Trees*- means any tree with a diameter of 10 inches or more, and any tree that meets the definition of an Exceptional Tree.

Number of Large Regulated Trees on site \_\_\_\_\_ (A)

List tree numbers: \_\_\_\_\_

Number of Large Regulated Trees on site proposed for removal \_\_\_\_\_ (B)

List tree numbers: \_\_\_\_\_

Percentage of trees to be retained ((A-B)/Ax100) note: must be at least 30% \_\_\_\_\_ %

### RIGHT OF WAY TREES

*Right of Way Trees*- means a tree that is located in the street right of way adjacent to the project property.

Number of Large Regulated Trees in right of way \_\_\_\_\_

List tree numbers: \_\_\_\_\_

Number of Large Regulated Trees in right of way proposed for removal \_\_\_\_\_

List tree numbers: \_\_\_\_\_

Reason for removal: \_\_\_\_\_

**TREE REPLACEMENT**

Tree replacement- removed trees must be replaced based on the ratio in the table below. Replacement trees shall be conifers at least six feet tall and or deciduous at least one and one-half inches in diameter at base.

Diameter of Removed Tree (measured 4.5' above ground)	Tree replacement Ratio	Number of Trees Proposed for Removal	Number of Tree Required for Replacement Based on Size/Type
Less than 10"	1		
10" up to 24"	2		
Greater than 24" up to 36"	3		
Greater than 36" and any Exceptional Tree	6		
<b>TOTAL TREE REPLACEMENTS</b>			