



# LAYTON TREE CONSULTING, LLC

## ARBORIST REPORT

2247 66<sup>th</sup> Avenue SE  
Mercer Island, WA



**Report Prepared by:**

**Bob Layton**  
**Registered Consulting Arborist #670**  
**Certified Arborist #PN-2714A**

**May 3, 2024**  
**Updated December 2, 2024**

*It's all about trees.....*

## Table of Contents

Assignment.....	3
Description.....	3
Methodology.....	3
Judging Condition.....	4
Judging Retention Suitability .....	4
Observations.....	4
Tree Protection Guidelines .....	5
Tree Protection Measures .....	6
Tree Retention/Tree Replacement .....	7
Arborist Disclosure Statement.....	8

## Attachments

Photos, pages 9 - 14

Tree Summary Table

Tree Locator/Dripline Map

Tree Plan Map

Tree Inventory and Replacement Worksheet

## Assignment

Layton Tree Consulting, LLC was asked to compile an Arborist Report for a property on Mercer Island. The subject property is located at 2247 66<sup>th</sup> Avenue SE. My assignment is to prepare a written report on present tree conditions, and to provide appropriate recommendations for the protection of retained and/or protected trees during re-development (demolition of existing house and construction of new single-family residence) of the property.

This report encompasses all of the criteria set forth under the City of Mercer Island's tree regulations, particularly Chapter 19.10 Trees, of the Unified Development Code Title 19. A 'Regulated' tree is any tree with a diameter of more than 10-inches or any tree that meets the definition of an 'Exceptional' tree.

Date of Field Examination: April 24, 2024

## Description

The property contains little tree cover. Eight trees were identified and assessed on the property. Of these, four are 'regulated' trees. Regulated trees are found at the back or west side of the property.

Subject trees have been identified with a numbered aluminum tag attached to the lower trunk. Tree tag numbers correspond with the numbers on the attached Tree Summary Table and map.

An additional four off-site trees were also assessed. Three are located within a proximity of the south property line. The other is a row of four small non-regulated Japanese snowbell trees within the 66<sup>th</sup> Avenue right-of-way. There are no trees within a proximity of the north property line.

## Methodology

Each tree in this report was visited. Tree diameters were measured by tape. The tree heights were measured using a Spiegel Relaskop. Each tree was visually examined for defects and vigor. The tree assessment procedure involves the examination of many factors:

- The crown or canopy of the tree is examined for current vigor/health by examining the foliage for appropriate color and density, the vegetative buds for color and size, and the branches for structural form and annual shoot growth; and the overall presence of limb dieback and/or any disease issues.
- The trunk or main stem of the tree is inspected for decay, which includes cavities, wounds, fruiting bodies of decay (conks or mushrooms), seams, insect pests, bleeding or exudation of sap, callus development, broken or dead tops, structural defects and unnatural leans. Structural defects can include but are not limited to excessive or unnatural leans, crooks, forks with V-shaped crotches, multiple attachments.
- The root collar and exposed surface roots are inspected for the presence of decay, insect damage, as well as if they have been injured or wounded, undermined or exposed, or the original grade has been altered.

Based on these factors a determination of condition is made.

## Judging Condition

The three condition categories are described as follows:

Good – free of significant structural defects, no disease concerns, minor pest issues, no significant root issues, good structure/form with uniform crown or canopy, foliage of normal color and density, average or normal vigor, will be wind firm if isolated or left as part of a grouping or grove of trees, suitable for its location

Fair – minor to moderate structural defects not expected to contribute to a failure in near future, no disease concerns, moderate pest issues, no significant root issues, asymmetric or unbalanced crown or canopy, average or normal vigor, foliage of normal color, moderate foliage density, will be wind firm if left as part of a grouping or grove of trees, cannot be isolated, suitable for its location

Poor – major structural defects expected to cause fail in near future, disease or significant pest concerns, decline due to old age, significant root issues, asymmetric or unbalanced crown or canopy, sparse or abnormally small foliage, poor vigor, not suitable for its location

## Judging Retention Suitability

Not all trees necessarily warrant retention. The three retention suitability categories as described in ANSI A300 Part 5 (Standard Practices for the Management of Trees During Site Planning, Site Development and Construction) are as follows:

Good – trees are in good health condition and structural stability and have the potential for longevity at the site

Fair – trees are in fair health condition and/or have structural defects that can be mitigated with treatment. These trees may require more intense management and monitoring, and may have shorter life-spans than those in the “good” category.

Poor – trees are in poor health condition and have significant defects in structure that cannot be mitigated with treatment. These trees can be expected to decline regardless of management. The species or individual tree may possess characteristics that are incompatible or undesirable in landscape settings or be unsuited for the intended use of the site.

## Observations

The property is mostly open with very little tree cover. The four regulated trees are found at the far west end of the property. Three of these (Trees #3, #4 and #5) are part of a fruit orchard, along with three other small non-regulated fruit trees (Trees #1, #2 and #7). These are comprised of four plum and two pear varieties. Trees are in fair condition. The pears have some type of foliar disease. The plums are of fairly good vigor. All could use some pruning to thin out canopies improving air-flow to decrease the risk of fungal infection, and to more uniformly shape the canopies, increasing their aesthetic appearance.

Tree #6 is a young to semi-mature Douglas fir in the middle of the fruit tree orchard. It has been routinely topped and side sheared, likely to maintain desirable views. Vigor appears to be good. Overall condition is rated as fair.

Tree #8 is a young, non-regulated Southern magnolia in the front yard. It is in good condition with no concerning issues. It is small enough to be transplanted if desired.

#### Neighboring/Off-site Trees

Tree #101 is a semi-mature apple variety located roughly 10-feet off of the south property line. No concerning issues were observed from the subject property side. It is in good condition.

Tree #102 is a semi-mature Campbell's magnolia. It is comprised of three stems or trunks that contribute to one uniform canopy. No concerning issues were observed from the subject property side. It is in good condition. It has been pruned back on the north side in the past.

Tree #103 is a young Japanese maple. It is small and non-regulated. No concerning issues were observed from the subject property side. It is in good condition.

#104 is a row of four small, non-regulated Japanese snowbell trees near the 66<sup>th</sup> Avenue roadway. All are of fairly good vigor with no concerning issues.

### **Discussion/Recommendations**

The attached map shows the extent of driplines for trees at the site. None of the subject property regulated trees will be impacted by re-development. All are located far from the proposed work. The trees are situated so far from the proposed work that no protection fencing is needed. The owner desires to remove Tree #6 and some of the diseased fruit trees (Trees #2, #3, #7) and replace them with a species more appropriate for the location/property. Tree #8 is small enough to successfully transplant to another location on the property if desired, provided work is carried out correctly.

The new house will be constructed in roughly the same location as the existing structure. Impacts to neighboring trees are not expected to be noteworthy. Position the tree protection barrier as shown on the attached map to adequately protect them. The existing grades within the tree protection zones shall be maintained and not altered. Position the tree protection barrier at the edge of the concrete walkway to protect the neighbors' mature shrubs.

Two of the four small non-regulated Japanese snowbell trees in the right-of-way will be removed to construct the new driveway. The others are in a location where they can be retained.

### **Tree Protection Guidelines**

Tree protection fencing shall be positioned around any retained trees or off-site protected trees prior to the start of work or bringing any heavy equipment onto the site. This will help to define clearing limits and protect soils and surface roots. Existing grades within the tree protection fenced area shall not be altered.

Any excavation within the driplines of retained trees and/or the neighboring trees shall be monitored by the project arborist so necessary precautions can be taken to minimize overall impacts. Any roots damaged during site work outside of the tree protection area shall be pruned clean at sound tissue prior to backfilling or finishing areas. Sound tissue is where the root is undamaged and the bark is completely intact with the root. This will help roots to seal off potential decay and allow them to sprout new growth. Any disturbed areas near protected trees shall be watered weekly during the dry season of June through September. This will help to create a favorable environment for new root growth and reduce the overall stress associated with root loss and disturbance.

Care shall be taken to continue to protect trees during finish landscape work. Any landscape work within the protection areas shall be accomplished using hand-labor only. Simply finish the landscape within the tree protection areas by cutting/hand-pulling any unwanted vegetation and applying a 2 to 4-inch covering of organic mulch/beauty bark. Avoid large plantings, irrigation trenches and the construction of hardscapes within the driplines of retained trees.

### Tree Protection Measures

The following guidelines are recommended to ensure that the designated space set aside for the preserved trees are protected and construction impacts are kept to a minimum.

- Tree protection fencing shall be erected per attached tree plan prior to moving any heavy equipment on site. Doing this will set clearing limits and avoid compaction of soils within root zones of retained trees.
- Excavation limits shall be laid out in paint on the ground to avoid over excavating.
- Excavations within the driplines shall be monitored by a qualified tree professional so necessary precautions can be taken to decrease impacts to tree parts. A qualified tree professional shall monitor excavations when work has been authorized or approved within the dripline or critical root zone.
- To establish sub grade for foundations, curbs and pavement sections near the trees, soil shall be removed parallel to the roots and not at 90-degree angles to avoid breaking and tearing roots that lead back to the trunk within the dripline. Any roots damaged during these excavations shall be hand-excavated and exposed to sound tissue and cut cleanly with a saw prior to backfilling or finishing areas.
- Areas excavated within the dripline of retained trees shall be thoroughly irrigated weekly during dry periods.
- Preparations for final landscaping shall be accomplished by hand within the driplines of retained trees. Large equipment shall be kept outside of the tree protection zones at all times.

## Tree Retention/Tree Replacement

MICC 19.10.060 - Tree removal—Associated with a development proposal.2.Retention requirement. Development proposals specified under subsection (a)(1) of this section shall retain trees as follows' minimum of 30 percent of trees with a diameter of ten inches or greater, or that otherwise meet the definition of large tree, shall be retained over a rolling five-year period.

The proposal is to retain two of the four regulated trees on the property, which is equivalent to 50% retention.

Any trees removed pursuant to the city's tree code will require replacement per 19.10.070 - Tree replacement. Based on the city's Tree Inventory & Replacement Worksheet (attached), seven replacement trees would be required for the removal of Trees #3 and #6; and Trees #4, #7 and #8 (small trees <10").

B.Replacement trees.1.Location. Replacement trees shall be located in the following order of priority from most important to least important:

- a.On-site replacement adjacent to or within critical tree areas as defined in chapter 19.16 MICC;
- b.On-site replacement outside of critical tree areas adjacent to other retained trees making up a grove or stand of trees;
- c.On-site replacement outside of critical tree areas; and
- d.Off-site in adjacent public right-of-way where explicitly authorized by the city.

2.Species. Replacement trees shall primarily be those species native to the Pacific Northwest. In making a determination regarding the species of replacement trees, the city arborist shall defer to the species selected by the property owner unless the city arborist determines that the species selected is unlikely to survive for a period of at least ten years, represents a danger or nuisance, would threaten overhead or underground utilities or would fail to provide adequate protection to any critical tree area.

3.Size.

- a.Coniferous trees shall be at least six feet tall; and
- b.Deciduous trees shall be at least one and one-half inches in caliper.

The city arborist may authorize the planting of smaller-sized replacement trees if the applicant can demonstrate that smaller trees are more suited to the species, the site conditions, neighborhood character, and the purposes of this section, and that such replacement trees will be planted in sufficient quantities to meet the intent of this section. The city arborist shall not authorize the planting of shrubs or bushes in lieu of required replacement trees.

## Arborist Disclosure Statement

Arborists are tree specialists who use their education, knowledge, training and experience to examine and assess trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risks associated with living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that grow, respond to their environment, mature, decline and sometimes fail in ways we do not fully understand. Conditions are often hidden within trees and below ground.

Arborists cannot guarantee that a tree will be healthy and/or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed. Treatment, pruning and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

Photo Documentation

Subject trees at back or west side of property



Trees #1, #2 and #3



Tree #3



Trees #4 and #5



Trees #6 and #7



Upper crowns of #3, #6 and #7



Trees #3, #6 and #7



Tree #101



Trees #102 and #103



Looking south across back of existing house to #102 and #103



#104 – row of four small, non-regulated Japanese snowbells



#104, tree on north end of row





**Layton Tree Consulting LLC**

For: David Sheldon  
 Site: 2247 66th Ave SE - Mercer Island

**Tree Summary Table**

Date: 4/24/2024

Tree/ Tag #	Species Common Name	Species Scientific Name	DBH (inches)	Height (feet)	Drip-Line (feet)				Condition	Regulated Yes/No	Exceptional Yes/No	Comments	Proposal
					N	S	E	W					
1	pear cv.	<i>Pyrus domestica</i>	6	14	8	8	6	6	Fair	No	No	moderate disease, decent vigor	Retain
2	plum cv.	<i>Prunus domestica</i>	8	18	12	8	12	6	Fair	No	No	moderate disease, decent vigor	Remove
3	plum cv.	<i>Prunus domestica</i>	12	16	14	12	8	8	Fair	Yes	No	moderate disease, decent vigor	Remove
4	plum cv.	<i>Prunus domestica</i>	9,5 (10)	18	10	10	8	6	Fair	Yes	No	trunk covered with ivy vines	Retain
5	plum cv.	<i>Prunus domestica</i>	13,6 (14)	16	14	14	12	8	Fair	Yes	No	boundary tree	Retain
6	Douglas fir	<i>Pseudotsuga menziesii</i>	10	30	6	8	6	6	Fair	Yes	No	routinely topped and sheared/hedged	Remove
7	pear cv.	<i>Pyrus domestica</i>	7,5 (8)	14	8	8	5	10	Fair	No	No	moderate disease, decent vigor	Remove
8	Southern magnolia	<i>Magnolia grandiflora</i>	3	10	4	4	4	4	Good	No	No	small, young specimen	Remove
Neighboring/Off-site Trees													
101	apple	<i>Malus domestica</i>	10,7 (12)	30	14	NA	12	12	Good	Yes	No	approx. 10-feet off property line	Protect
102	Campbell's magnolia	<i>Magnolia campbellii</i>	12,12,11 (20)	22	12	NA	16	14	Good	Yes	No	pruned back on north side	Protect
103	Japanes maple cv.	<i>Acer palmatum</i>	4,4,3,3 (7)	14	8	NA	6	8	Good	No	No	approx. 5-feet off property line	Protect
104	Japanese snowbell (4)	<i>Styrax japonicus</i>	5	14	8	8	8	8	Good	No	No	Planted row in ROW beneath power lines	
												2 of the 4 to be removed for new driveway	

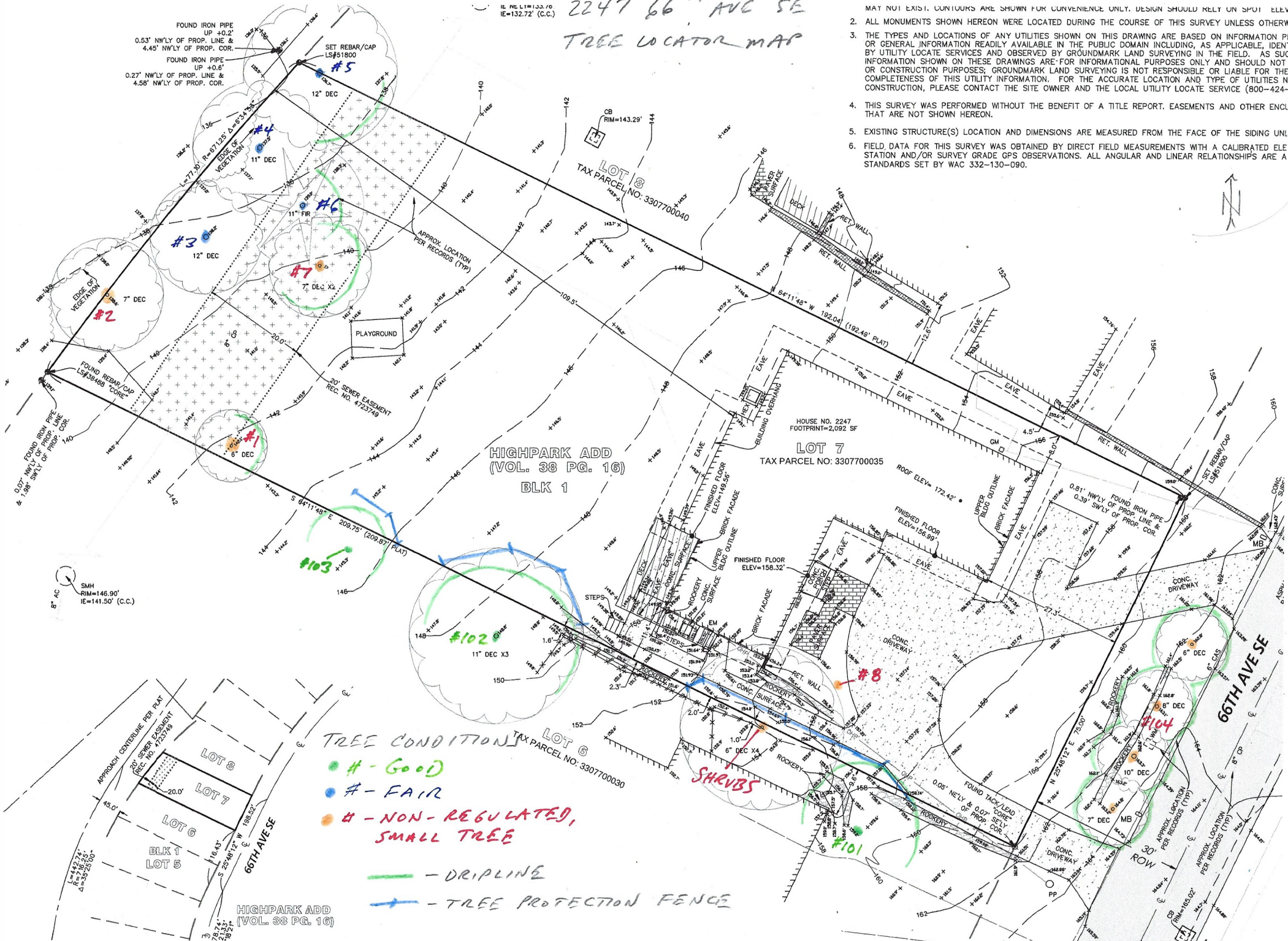
cv. - cultivated variety

Drip-Line measurements from face of trunk

Calculated DBH: the DBH in parenthesis is the square root of the sum of the dbh for each individual stem squared (example with 3 stems: dbh = square root [(stem1)2 +(stem2)2 +(stem3)2 ]).

2247 66<sup>TH</sup> AVE SE  
 TREE LOCATOR MAP

1. MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEV.
2. ALL MONUMENTS SHOWN HEREON WERE LOCATED DURING THE COURSE OF THIS SURVEY UNLESS OTHERWISE NOTED.
3. THE TYPES AND LOCATIONS OF ANY UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY UTILITY LOCATE SERVICES AND OBSERVED BY GROUNDMARK LAND SURVEYING IN THE FIELD. AS SUCH INFORMATION SHOWN ON THESE DRAWINGS ARE FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES; GROUNDMARK LAND SURVEYING IS NOT RESPONSIBLE OR LIABLE FOR THE COMPLETENESS OF THIS UTILITY INFORMATION. FOR THE ACCURATE LOCATION AND TYPE OF UTILITIES IN CONSTRUCTION, PLEASE CONTACT THE SITE OWNER AND THE LOCAL UTILITY LOCATE SERVICE (800-424-9999).
4. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES THAT ARE NOT SHOWN HEREON.
5. EXISTING STRUCTURE(S) LOCATION AND DIMENSIONS ARE MEASURED FROM THE FACE OF THE SIDING UNLESS OTHERWISE NOTED.
6. FIELD DATA FOR THIS SURVEY WAS OBTAINED BY DIRECT FIELD MEASUREMENTS WITH A CALIBRATED ELEVATION AND/OR SURVEY GRADE GPS OBSERVATIONS. ALL ANGULAR AND LINEAR RELATIONSHIPS ARE A STANDARD SET BY WAC 332-130-090.



TREE CONDITIONS

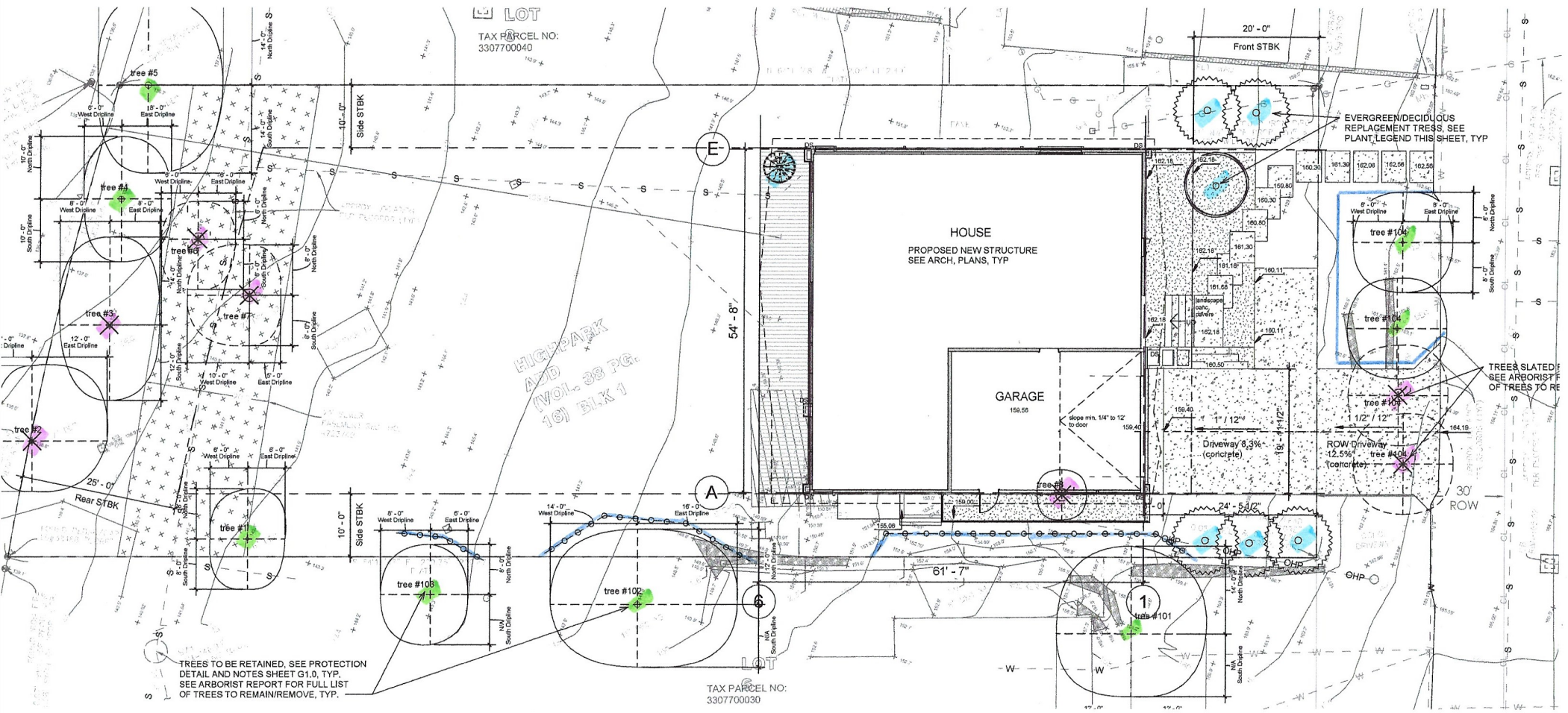
- # - Good
- # - Fair
- # - Non-Regulated, Small Tree

— DRIPLINE

— TREE PROTECTION FENCE

APPROX. SCALE 1" = 23'

2247 66TH AVE SE  
 TREE PLAN MAP



TREES TO BE RETAINED, SEE PROTECTION  
 DETAIL AND NOTES SHEET G1.0, TYP.  
 SEE ARBORIST REPORT FOR FULL LIST  
 OF TREES TO REMAIN/REMOVE, TYP.

TAX PARCEL NO:  
 3307700030

- - TREE TO BE RETAINED / PROTECTED
- - TREE TO BE REMOVED
- - TREE PROTECTION FENCE
- - PROPOSED REPLACEMENT TREE

# 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)



## TREE INVENTORY & REPLACEMENT SUBMITTAL INFORMATION

### 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>			