Vacant Lot (Mercer Island) REVISED 1/28/19 Page **1** of **5**

Washington Tree Experts 9792 Edmonds Way #123 Edmonds, WA 98020 206-362-3380 wtetree@yahoo.com

Client name: Mei Young

Street: 8251 W. Mercer Way
City, Zip: Mercer Island, WA 98040

RE: Tree inventory and report as required by the City of Mercer Island

INVENTORY:

MAP#	SPECIES	TREE	DIAMETER	EXCEPTIONAL	GENERAL	REMOVE/
		TAG#			HEALTH	RETAIN
1	Western Red	THUJA1	15"	NO	GOOD	RETAIN
	Cedar (<i>Thuja</i>					
	plicata)					
2	Cedar	THUJA2	18"	NO	GOOD	RETAIN
3	Cedar	THUJA3	30"	YES*	GOOD	RETAIN
4	Cedar	THUJA4	8"	NO	GOOD	REMOVE
5	Cedar	THUJA5	6"	NO	GOOD	REMOVE
6	Cedar	THUJA6	15"	NO	GOOD	RETAIN
7	Doug Fir	DF1	34"	YES*	GOOD	REMOVE
	(Pseudotsuga					
	menziesii)					
8	Doug Fir	DF2	9"	NO	GOOD	
9	Doug Fir	D3	23"	NO	GOOD	RETAIN
10	Doug Fir	DF4	10"	NO	GOOD	RETAIN
11	Bigleaf Maple	BLM1	20"	NO	POOR/	REMOVE
	(Acer				HAZARD	
	macrophyllum)					
12	Maple	BLM2	14"	NO	FAIR	REMOVE
13	Maple	BLM3	9"	NO	FAIR	RETAIN
14	Maple	BLM4	31"	YES*	POOR/	REMOVE
					HAZARD	
15	Maple	BLM5	6"	NO	FAIR	REMOVE
16	Maple	BLM6	25"	NO	FAIR	REMOVE
17	Maple	BLM7	20"	NO	FAIR	REMOVE
18	Maple	BLM8	7"	NO	FAIR	RETAIN

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19	Maple	BLM9	10"	NO	FAIR	RETAIN
20	Oregon Ash (<i>Fraxinus latifolia</i>)	ASH1	11"	NO	FAIR	REMOVE
21	Ash	ASH2	8"	NO	FAIR	RETAIN
22	Ash	ASH3	6"	NO	FAIR	RETAIN
23	Ash	ASH4	10"	NO	FAIR	RETAIN
24	Ash	ASH5	14"	NO	FAIR	REMOVE
25	Ash	ASH6	8"	NO	FAIR	REMOVE
26	Ash	ASH7	9"	NO	FAIR	REMOVE
27	Ash	ASH8	14"	NO	FAIR	REMOVE
28	Ash	ASH9	6"	NO	FAIR	REMOVE
29	Ash	ASH11	8"	NO	FAIR	RETAIN
30	Ash	ASH12	9"	NO	FAIR	RETAIN
31	Willow (Salix scouleriana)	SALIX1	22"	YES^	FAIR	REMOVE
32	Indian Plum (<i>Oemleria</i> cersiformis)	PLUM1	6"	NO	FAIR	REMOVE
33	Hawthorn (<i>Crataegus</i> sp.)	HAW1	9"	NO	GOOD	RETAIN
34	Madrone (Arbutus menziesii)	MAD1	9"	YES^	GOOD	RETAIN
35	Holly (Ilex aquifolium)	HOLLY1	7"	NO	GOOD	RETAIN
36	Cherry (Prunus serrulata)	CH1	12"	NO	FAIR	RETAIN
37	Purple Plum (Prunus cerasifera)	PLUM1	12	NO	FAIR	RETAIN
38	Purple Plum	PLUM2	18"	NO	FAIR	RETAIN
39	Port Orford Cedar (Chamaecyparis lawsoniana)	CHAM1	14"	NO	GOOD	RETAIN
40	Doug Fir	DF5	15"	NO	GOOD	RETAIN
41	Cedar	THUJA7	24"	NO	GOOD	RETAIN
42	Cedar	THUJA8	13"	NO	GOOD	RETAIN
43	Maple	BLM10	52"	YES*	POOR/ HAZARD	REMOVE
44	Doug Fir	DF6	12"	NO	GOOD	RETAIN
45	Juniper	JP1	6"	NO	GOOD	RETAIN

^{*}exceptional greater than 24" ^=exceptional less than 24"

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Protection recommendations:

The best way to protect trees during construction is to limit the amount of disturbance in the critical root zone (CRZ). A common rule to establish the CRZ is protect all tree roots within the dripline.

To protect the trees for retention during construction restrict the following within the critical root zone (CRZ) which is equal to the drip line:

- erect barriers or sturdy fencing around to tree to define the tree protection area to be installed prior to and remain in place for the life of the development project to ensure protection
- -no grade changes.
- -no heavy equipment driven in the protection zone.
- -no piling of soil or debris in protection zone.
- -no digging or excavating in the CRZ.
- -if roots are found outside the CRZ no cutting of roots more than 4" diameter and clean straight cuts on 1-3.9" roots with a handsaw to promote wound closure and prevent the spread of decay in the root crown.
- -for all digging operations, insist that exposed roots be cut cleanly to promote quick wound closure and regeneration. Minimize damage by keeping the plants well-watered before and after digging; and covering exposed roots with soil, mulch, or damp burlap as soon as possible.

Retention trees:

SPECIES	TREE	DIAMETER	GENERAL	VIABLE	CRZ
	TAG#		HEALTH		
Western Red Cedar (<i>Thuja</i>	THUJA1	15"	GOOD	Υ	Dripline
plicata)					
Cedar	THUJA2	18"	GOOD	Υ	Dripline
Cedar	THUJA3	30"	GOOD	Υ	Dripline
Cedar	THUJA6	15"	GOOD	Υ	Dripline
Doug Fir	DF2	9"	GOOD	Υ	6' radius
Doug Fir	D3	23"	GOOD	Υ	10'radius
Doug Fir	DF4	10"	GOOD	Υ	Dripline
Maple	BLM3	9"	FAIR	Υ	Dripline
Maple	BLM8	7"	FAIR	Υ	Dripline
Maple	BLM9	10"	FAIR	Υ	Dripline
Ash	ASH2	8"	FAIR	Υ	Dripline
Ash	ASH3	6"	FAIR	Υ	Dripline
Ash	ASH4	10"	FAIR	Υ	Dripline
Ash	ASH11	8"	FAIR	Υ	Dripline
Ash	ASH12	9"	FAIR	Υ	Dripline
Hawthorn (Crataegus sp.)	HAW1	9"	GOOD	Υ	Dripline
Madrone	MAD1	9"	GOOD	Υ	Dripline
(Arbutus menziesii)					

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Holly (<i>Ilex aquifolium</i>)	HOLLY1	7"	GOOD	Υ	Dripline
Cherry (Prunus serrulata)	CH1	12"	FAIR	Υ	Dripline
Purple Plum (Prunus	PLUM1	12	FAIR	Υ	Dripline
cerasifera)					
Purple Plum	PLUM2	18"	FAIR	Υ	Dripline
Port Orford Cedar	CHAM1	14"	GOOD	Υ	Dripline
(Chamaecyparis lawsoniana)					
Doug Fir	DF5	15"	GOOD	Υ	Dripline
Cedar	THUJA7	24"	GOOD	Υ	Dripline
Cedar	THUJA8	13"	GOOD	Υ	Dripline
Doug Fir	DF6	12"	GOOD	Υ	Dripline
Juniper	JP1	6"	GOOD	Υ	Dripline

The CRZ is equal to the dripline. All disturbance should be outside of the CRZ except for the following:

Tree Doug Fir (DF2) can be retained and preserved despite the driveway construction in the dripline. It is healthy and young Doug Fir that can tolerate the minimum disturbance intrusion into the CRZ. **NO** disturbance to the structural root plate which is approximately 6' radius. No more than 10% of the CRZ should be interrupted which is equal to approximately 12' radius. After care should include an organic layer of mulch at a depth of 2-3" in the dripline and adequate water during the dry season. Upon completion of the project tree should be monitored for the two following growing seasons to inspect for health and vigor.

Tree Doug Fir (DF3) can be retained and preserved despite the building construction in the dripline. The amount of disturbance represents a very small percentage of the CRZ, and the tree can tolerate some intrusion as it is of normal vigor and health. Fencing should be constructed to protect as much of the dripline as possible. There should only be an allowance on the southwest side of the dripline. **NO** disturbance to the structural root plate which is approximately 10' radius and no more than 10% of the CRZ should be interrupted which is equal to approximately 30' radius. After care should include an organic layer of mulch at a depth of 2-3" in the dripline and adequate water during the dry season. Upon completion of the project tree should be monitored for the two following growing seasons to inspect for health and vigor.

If the protection measures are taken, the necessary removals will not negatively impact the trees for retention. Most of the trees for retention are young and viable and have a higher tolerance for disturbance than their more mature counterparts. Neighboring trees will not be adversely affected.

Significant trees on adjacent properties will not be affected by the proposed removals.

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Replacement trees:

As per the City of Mercer Island replacement trees should be mostly native. I would recommend a variety as to avoid a monoculture. The following is a list of species that would be suitable:

- -Vine Maple (*Acer circinatum*)
- -Serviceberry (*Amelenchier* sp.)
- -Shore Pine (Pinus contorta v. contorta)
- -Limber Pine (*Pinus flexis*)
- -Pacific Yew (Taxus brevifolia)
- -Pacific Dogwood (Cornus nutallii)
- -Cascara (Rhamnus purshiana)

Prepared by



Jennifer Wells
ISA Certified Consulting Arborist #PN6209A
ISA Qualified Tree Risk Assessor

My firm has been hired on a consult only basis.

To evaluate and to prepare this report I have drawn upon my 20 plus years of experience in the field and my formal education in Forestry and Horticulture. I also followed the protocol of the International Society of Arboriculture (ISA) for tree risk assessment while looking at the overall health of the trees and site conditions. I have been providing consultation regarding the protection of trees during construction and after care for 10 years for residential and commercial clients.

Waiver of Liability

This information represents the tree health assessment at this point in time. My findings do not guarantee future safety nor are they predictions of future event. Information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection. The inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. All data has been verified to the best of my knowledge. The report represents the opinion of the arborist and the fees are in no way contingent upon reporting. Amy alterations made to this report automatically invalidates this report.

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