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## 8. Tree Report

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# Camas Heights Subdivision Preliminary Tree Report

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**Date:** October 2021

**Prepared For:** Ryan Selby  
Lennar Northwest, Inc.  
11807 NE 99<sup>th</sup> Street  
Vancouver, WA 98682

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**Site Information:** 22630 NE 28<sup>th</sup> Street  
Camas, WA 98607  
Parcel #173157-000



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**Tree Report**  
**CAMAS HEIGHTS SUBDIVISION**  
**CAMAS, WASHINGTON**

**Location**

The project site is located at 22630 NE 28<sup>th</sup> Street, (Parcel Serial No. 173157-000) in the City of Camas, Clark County, Washington.

**General Site Notes**

This Tree Plan consists of a written report with tree density calculations, Site Plan, Tree Protection Plan, and Landscape Plan.

This report is for the net developable area (34.5 net acres) of the proposed residential subdivision. The existing site consists of a parcel containing several wetland areas and numerous trees. The proposed development will result in 121 single-family residential lots with tracts set aside for wetland preservation, a stormwater facility and open space. Tree protection will be established at the beginning of development and be maintained through the entire length of the development. See Appendix A for additional information regarding the described trees in the detailed tree inventory table. The site consists of 236 trees over 6 inches in diameter. Due to the planned site development and high potential for extensive root impacts from site grading, 235 on-site trees are proposed for removal. Two on-site trees are planned for retention.

**On-Site Tree Condition**

Site trees are primarily Douglas-fir, growing as a stand in the northern section of the site. Other site trees are present around the existing home and scattered throughout the site. Other species exist on-site and include Bigleaf Maple, Red Alder, Cherry, and Oregon White Oak. The health and structure of on-site trees range from poor to good based on conditions observed during a site visit on September 1, 2021. Tree removal was recommended based on location, root impact from development activities and higher likelihood of failure due to windthrow. The stand of trees in the northern section of the site will experience deep grade cuts due to site roadways needing to be at the maximum grade allowed by the City to reach the northern portion of the site. The deep cuts directly adjacent to structural roots will greatly impact the stability of trees within this area. Review of on-site trees was based on the site being fully developed and impacts to future site improvements.

**Off-Site Trees**

There are several off-site trees that are directly adjacent to the eastern boundary of the site. Most off-site trees should be minimally impacted based on the location of where development will happen. Several trees along the city right-of-way are recommended for removal due to impacts created for a new sidewalk and curb. All remaining off-site trees will be protected with tree protection measures as further described in this report and on the Preliminary Tree Preservation Plans (Appendix B).

**Tree Density Calculations**

The total site area is 37.27 acres, however the net area required to meet minimum tree density is 34.5 acres, which excludes the site critical area within Tract A. Per Chapter 18.13.051 of the City of Camas municipal code, the City requires 20 tree units per acre, or a total of 690 tree units (20\*34.5 acres) for this site. Table 1 summarizes the tree units required, removed, retained, and proposed for the entire site. All trees, both retained and removed, are detailed on the Preliminary Tree Preservation and Removal Plans found in Appendix B and in the Detailed Tree Inventory found in Appendix A. The proposed trees are detailed within the Tree Planting Plan in Appendix C.



	Net Site Area (Acres)	Tree Units Required	Tree Units Existing	Tree Units Removed	Tree Units Retained	Proposed Tree Units	Total Tree Units
Overall	34.5	690	2049.5	2022.5	27	663	690

Table 1: Summary of Tree Units

**Designing for Tree Preservation**

Designing for tree preservation means that trees are considered an important project feature. The goal of tree preservation is to have trees remain safe assets to the site for years to come. Trees that are preserved must be carefully selected to make sure that they will survive the construction impacts, adapt to the new environment, and perform well in the new landscape. An assessment of suitability for preservation evaluates tree health, structure, age, and species factors. The consultant gathers information on the individual trees and makes recommendations as to which trees are suitable for preservation, and how much undisturbed space they will require. The consultant also provides specific guidelines regarding grading, drainage, trenching, protected areas, root pruning, etc.

**Tree Characteristics and Their Suitability for Preservation:**

Trees vary in their suitability for preservation both based on their inherent characteristics and their future response to construction impacts. Trees that are structurally unstable, in poor health, or are unlikely to survive construction impacts could be a dangerous liability to future neighborhoods. A good tree preservation plan will call for the pre-construction removal of trees likely to die or to become a tree with a higher than acceptable risk of failure after construction. The factors to be evaluated are:

**Tree Health**-Healthy, vigorous trees are more adaptable than non-vigorous trees to tolerate construction related stresses such as root removal, changes in grade, changes in soil moisture, and soil compaction. These healthy trees are also better able to adapt to the changed site conditions that occur after development.

**Tree Structure**-Trees with defects such as decayed wood, poor crown structure from past manual “topping” or natural broken tops, and co-dominant trunks with poor attachments are not suitable for preservation in areas where people or property could be injured or damaged. Such defects cannot be treated and may lead to failure.

**Species**-Although trees require protection to avoid injury, species vary widely in their ability to withstand damage and changes in their environment.

**Tree Age**-As a tree ages, its capacity to overcome injury, adapt to changes in its site environment, and to resist pests declines. For these reasons, mature and over-mature trees are less adaptable to tolerate construction impacts and remain assets than are young and semi-mature trees. Young vigorous trees are able to generate new tissue and adapt to a new environment better than old trees.

**Tree Size/Height**-Larger, taller trees are capable of hitting targets a greater distance away from the tree and cause greater damage. Taller trees also provide a larger wind “sail”, catching more wind and being more prone to blowing down in a large storm. Coupling this “sail” effect with the structural weakening of root removal/disturbance can lead to a higher than acceptable windthrow risk.

**Tree Location**-The best candidates for preservation are single trees that developed as individual specimens, as they typically have uniform canopies and well tapered trunks. Trees that grow in groups do not function well as individuals. They often have tall, poorly shaped trunks, irregularly shaped crowns, and are prone to failure and decline when their neighbors are removed.

The arboricultural consultant weighs each of the above factors and makes recommendations as to which trees are likely to thrive and be a long-term asset to the new development, as well as recommendations to remove those trees that will likely have an unacceptable risk of failure and become a liability in the new development.

#### **Guidelines for the Area Required to Preserve a Tree:**

In order to preserve a tree, an area around that tree must be protected to ensure that the tree is not physically damaged and that the roots are protected. A method to calculate this area, utilizes the diameter at breast height (DBH), species, and age. The DBH is multiplied by a factor (the factor is based on the tree age and the species tolerance for disturbance) from 0.5 feet radius to 1.5 feet radius (from the trunk-often 1 foot radius per inch DBH is used for an average), and this area is called the "Optimal Tree Protection Zone". The general guidelines for preservation are that you do not want to disturb more than 1/3 of this area, but that with healthy vigorous trees, up to 50% of the area could be disturbed. In addition to these percentages, excavation should not take place within 10 feet of the base of a tree to avoid the loss of structural roots.

#### **How to Preserve Trees During Construction:**

The portion of the "Optimal Tree Protection Zone" that is being protected must be fenced off (with a "substantial" fence). Within this area, no soil disturbance, including stripping is permitted. The natural grade is to be maintained, and no storage or dumping of materials, parking, etc. will be allowed within this zone without the approval of the arboricultural consultant. This tree protection fence should remain in place through the construction of the dwellings.

#### **Excavation Within the "Optimal Tree Protection Zone":**

Where there is excavation proposed within an "Optimal Tree Protection Zone" (outside of the protected zone fenced off above), it will be important for the contractor to prune the roots along the excavation lines. These roots should be pruned in the following manner:

- Excavation in the top 24" of the soil in the critical root zone area should begin at the excavation line that is closest to the tree.
- The excavation should be done by hand/shovel or with a backhoe and a man with a shovel, pruning shears and a pruning saw.
- If done by hand all roots 1" or larger should be pruned at the excavation line.
- If done with a backhoe (most likely scenario) then the operator needs to start the cut at the excavation line and carefully "feel" for roots/resistance. When there is resistance, the man with the shovel hand digs around the roots and prunes the roots larger than 1" diameter.
- The backhoe is to remain off of the tree roots to be saved at all times.
- The work will be done under the supervision of the Project Consulting Arborist.

The above system works well and can be done quickly. The key is to avoid pulling on the roots larger than 1" diameter, potentially resulting in damage to roots between the excavation line and the tree.

#### **How Trees Die:**

Natural tree death is frequently a slow and complex process generally with a gradual decline involving a number of factors. Most trees die from one of three causes: (1) structural failure, (2) environmental degradation, or (3) pest infestation. Generally, trees die from a combination of factors. Trees weakened by changes in their

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environment (such as construction impacts) become more susceptible to infestation by disease and insects. Most individual trees survive for only a fraction of the potential lifespan of the species. Soil compaction, changes in grade, mechanical injury, changes in the environment around the tree, and changes in drainage may not kill the tree themselves, but they may weaken the tree to a point that death occurs by another cause. Prevention of stress and the maintenance of health are the key elements of tree longevity.

### **What is “Tree Topping” and How Does It Damage a Tree?**

Tree Topping is a pruning technique to reduce the height by cutting the central leader. This method of pruning is very detrimental to trees and not considered a good practice. Trees are generally topped by unknowledgeable pruners in order to lower the height of the tree and minimize the chance of windthrow by reducing the tree’s wind profile. The large stub of a topped tree has a difficult time forming callus over the wound. The terminal location of these cuts, as well as their large diameter, prevents the tree’s chemically based natural defense system from doing its job. The stubs are highly vulnerable to both insect invasion and the spores of decay fungi. If decay is already present, topping will speed the spread of the disease. The tree reacts to the topping cut by producing multiple shoots below the cut. These shoots develop from buds near the surface of the topping cut. Unlike normal branches that develop in a socket of overlapping wood tissues, these new shoots are anchored only in the outermost layers of the bole. These new shoots grow quickly, and are prone to breaking, especially during windy conditions. For all of these reasons, trees that have been topped pose a danger to life and safety and are recommended for removal.

### **Development Impacts Affecting Preserved Trees:**

Construction of the site improvements generally consists of cut and fills (grading), construction of retaining walls, trenching for the wet and dry utilities, coring of roads and placement of aggregate and pavement. During this work, adjacent soil areas outside of the grading can be compacted by heavy equipment driving over it. The grading and placement of utility trenches (and subsequent pipe bedding), and retaining walls can also affect the local water table.

Construction of the buildings and landscaping requires foundation placement, pruning of trees near the buildings under construction, and the installation of lawn irrigation systems. During this work, adjacent soil areas outside of the work area can be compacted by equipment driving over it.

Impacts during development may require the removal of additional trees shown to be preserved on the Tree Protection Plan (Appendix B).

### **Future Condition of Trees on the Site:**

The characteristics of the individual tree are a guide to how well that tree will respond to site disturbance. Larger trees have correspondingly larger root zones. Older trees are less resilient to disturbance. Unhealthy trees are less resilient to disturbance than healthy trees.

Development of this site will result in a large area of disturbance. The disturbance to the on-site trees will occur during the site grading. The trees planned for retention are relatively healthy, but proper protection methods should be followed per this document to provide the greatest opportunity for survival following development.

### **Windthrow Potential**

The trees on-site have been evaluated for windthrow based on factors including, but not limited to soil conditions, tree health, tree structure, prevailing wind direction, and past evidence of wind damage.

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Windthrow is defined as full tree failure in the form of trunk breakage or root ball overturning. It should be understood that proposed retained trees are still susceptible to partial tree failure from wind exposure. Refer to the tree inventory table in Appendix A for specific tree conditions at risk of single part failure and recommendations for risk reduction as well as a windthrow rating. A windthrow rating of A, B or C was assigned to each tree that was evaluated; with A being the least windthrow resistant, B being more windthrow resistant than A, and C being the most windthrow resistant. The trees planned for retention have been selected because of their good taper, overall structure, health, and location to site impacts. Existing wind conditions of the site are relatively high with prevailing winds coming from the south and southwest. The windthrow potential of the site, post construction, should remain similar to the existing site conditions.

### **Soils**

Soils on-site are comprised of Hesson Clay Loam with slopes ranging from 0 to 30 percent and Dollar Loam with slopes ranging from 0 to 5 percent. These soils are described as very deep, well-drained soils per the USDA Natural Resources Conservation Service's Web Soil Survey.

### **Tree Protection Plan**

See the plans found in Appendix B.

### **Planting Plan**

280 street trees and 141 site trees are proposed to be planted to meet landscape requirements. Additionally, two trees per lot are proposed to be planted at the time of home construction. The total number of trees to be planted will be 663, which, when combined with the 27 retained tree units, meets the tree density requirement of 690 tree units. If later determined necessary, Per Section 18.13.050 of Chapter 18 of the City of Camas Municipal Code, replacement trees shall optimize tree diversity by including a minimum of 60% native species and at least 50% evergreen. For this site, the required deciduous tree needs to be 2" or greater while a conifer tree needs to be a minimum of 5' tall. See Appendix C for the Tree Planting Plan.

### **Hazard Assessment**

Hazard assessment of on-site trees was not performed for each tree during the initial arborist site assessment. However, general hazards may have been identified and reported in the Tree Inventory Table (Appendix A) as they were encountered during the site visit. Once development activities are complete, a hazard assessment is recommended on retained trees to review previously unseen defects or damages done to retained trees during land clearing and development activities. At that time, additional tree removal may be necessary for hazard abatement. If additional tree removal is necessary, an analysis will be submitted to the city to show that code will be met with any additional tree removal.

### **Conclusion**

The development of the 34.5-acre site proposes to remove 235 on-site trees. Of the existing trees, two will be retained. 280 street trees, 141 site trees, and 242 home trees will be planted to meet landscape requirements. This tree report is only for the overall site development activities and tree protection measures outlined on the Tree Preservation Plan and for the protection of the existing trees from the overall proposed development. This does not include the construction of building foundations for each lot. This project reserves the right to remove additional trees, as deemed necessary/recommended by the Project Certified Arborist, for hazard abatement purposes. This cannot be evaluated until after construction as previously discussed and noted in the plans. The city will be notified of such removals and will be consulted with if a significant number of trees are recommended for removal post-construction.

**Arborist Disclosure Statement**

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the health of trees, and attempt to reduce the risk of living near trees. The Client and Jurisdiction may choose to accept or disregard the recommendations of the arborist, or seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that 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 or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like medicine, cannot be guaranteed.

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.



**BRYCE D. HANSON**

CERTIFICATE NUMBER: PN 7554A  
EXPIRATION DATE: 06/30/22



**Appendix A: Detailed Tree Inventory Table**

Detailed Tree Inventory for Camas Heights Subdivision								
AKS Job No. 8468 - Evaluation Date: 9/1/2021 - Evaluated By: BRK								
Tree #	DBH (in.)	Tree Species		Tree Units	Condition/Comments	Windthrow Rating	Reason for Removal	Tree Units Retained
		Common Name	(Scientific name)					
10549	22	Bigleaf Maple	(Acer macrophyllum)	0	OFFSITE	C	Impacts from sidewalk and curb construction	0
10559	6,6,6,3,3,3	English Hawthorn	(Crataegus monogyna)	0	OFFSITE	C		0
10577	7,9	Bigleaf Maple	(Acer macrophyllum)	0	OFFSITE	C	Impacts from sidewalk and curb construction	0
10589	6	Plum	(Prunus sp.)	0	OFFSITE; Dead and pruned branches	B		0
10600	7,7,6	Bigleaf Maple	(Acer macrophyllum)	0	OFFSITE	C		0
10602	11,10	Bigleaf Maple	(Acer macrophyllum)	0	OFFSITE	C	Impacts from sidewalk and curb construction	0
10678	8,8,7	Apple	(Prunus sp.)	0	OFFSITE	C		0
10679	10,10,4	Apple	(Prunus sp.)	0	OFFSITE	C		0
10765	12	Sweet Cherry	(Prunus avium)	0	OFFSITE; Dead branches; Sluffing bark; In decline	A	Impacts from public road construction	0
11132	2	Maple	(Acer sp.)	0	OFFSITE	C		0
11133	2	Maple	(Acer sp.)	0	OFFSITE	C		0
11134	2	Maple	(Acer sp.)	0	OFFSITE	C		0
11135	2	Maple	(Acer sp.)	0	OFFSITE	C		0
11315	20,15	Black Locust	(Robinia pseudoacacia)	9	Dead	A	Impacts from lot grading	0
11316	29,23	Black Locust	(Robinia pseudoacacia)	15		C	Impacts from lot grading	0
11317	30	Yellow Poplar	(Liriodendron tulipifera)	11	Large cavity with decay up entire bole	A	Impacts from lot grading	0
11318	19	European White Birch	(Betula pendula)	6	Dead top; In decline	A	Impacts from lot grading	0
11319	9,7,7,6	Apple	(Prunus sp.)	4		A	Impacts from public road construction	0
11329	28	Black Locust	(Robinia pseudoacacia)	10	Lean (W)	B	Impacts from public road construction	0
11330	19	Black Locust	(Robinia pseudoacacia)	6		C	Impacts from public road construction	0
11341	14	Apple	(Prunus sp.)	3		C	Impacts from lot grading	0
11406	11,9,9,8,6	Leyland Cypress	(Cupressus x leylandii)	6		C	Impacts from lot grading	0
11482	58	Douglas-fir	(Pseudotsuga menziesii)	25		A	Impacts from lot grading	0
11483	14	Bigleaf Maple	(Acer macrophyllum)	3	Top lean (S); Sluffing bark at base	B	Impacts from lot grading	0
11484	8	Bigleaf Maple	(Acer macrophyllum)	2	Lean (E)	B	Impacts from lot grading	0
11485	12	Bigleaf Maple	(Acer macrophyllum)	2	Top lean (W)	B	Impacts from lot grading	0
11486	9	Bigleaf Maple	(Acer macrophyllum)	2	Top lean (W)	B	Impacts from lot grading	0
11487	9	Bigleaf Maple	(Acer macrophyllum)	2	Dead Codominant stem; Top lean (W)	B	Impacts from lot grading	0
11488	31	Douglas-fir	(Pseudotsuga menziesii)	12	Codominant top with multiple leaders	B	Impacts from lot grading	0
11489	27	Bigleaf Maple	(Acer macrophyllum)	10	Dead top; In decline	A	Impacts from lot grading	0
11490	14	Bigleaf Maple	(Acer macrophyllum)	3	Lean (E); Dead foliage	B	Impacts from site grading	0
11543	20	Douglas-fir	(Pseudotsuga menziesii)	0	OFFSITE	C		0
11544	33	Douglas-fir	(Pseudotsuga menziesii)	0	OFFSITE	C		0
11683	28	Common Walnut	(Juglans regia)	10	Dead branches	C	Impacts from lot grading	0
11684	27	Common Walnut	(Juglans regia)	10		C	Impacts from lot grading	0
11685	24	Common Walnut	(Juglans regia)	8		C	Impacts from public road construction	0
11686	14,15	Common Walnut	(Juglans regia)	6	Dead branches	C	Impacts from lot grading	0
11980	25	Douglas-fir	(Pseudotsuga menziesii)	9		C	Impacts from public road construction	0
12004	40	Douglas-fir	(Pseudotsuga menziesii)	16		C	Impacts from site grading	0
12005	34	Douglas-fir	(Pseudotsuga menziesii)	0	OFFSITE; Codominant top	B		0
12007	32	Douglas-fir	(Pseudotsuga menziesii)	12		C	Impacts from site grading	0
12008	46	Douglas-fir	(Pseudotsuga menziesii)	19		C	Impacts from site grading	0
12009	35	Douglas-fir	(Pseudotsuga menziesii)	14		C	Impacts from site grading	0
12010	29	Douglas-fir	(Pseudotsuga menziesii)	11		C	Impacts from site grading	0
12011	27	Douglas-fir	(Pseudotsuga menziesii)	10		C	Impacts from site grading	0
12012	8	Douglas-fir	(Pseudotsuga menziesii)	2	Suppressed	B	Impacts from site grading	0
12013	36	Douglas-fir	(Pseudotsuga menziesii)	14	Codominant with included bark; 1-sided canopy (S)	B	Impacts from site grading	0
12014	42	Douglas-fir	(Pseudotsuga menziesii)	17	Codominant with included bark	B	Impacts from site grading	0
12015	17	Bigleaf Maple	(Acer macrophyllum)	5		C	Impacts from site grading	0
12016	14	Bigleaf Maple	(Acer macrophyllum)	3	Broken limbs	C	Impacts from site grading	0
12017	26	Douglas-fir	(Pseudotsuga menziesii)	9		C	Impacts from site grading	0
12018	24	Douglas-fir	(Pseudotsuga menziesii)	8		C	Impacts from lot grading	0
12019	16	Douglas-fir	(Pseudotsuga menziesii)	4	Sparse canopy	B	Impacts from lot grading	0
12020	31	Douglas-fir	(Pseudotsuga menziesii)	12		C	Impacts from lot grading	0
12021	24	Douglas-fir	(Pseudotsuga menziesii)	8	1-sided canopy (W)	B	Impacts from lot grading	0
12022	13	Douglas-fir	(Pseudotsuga menziesii)	3		C	Impacts from lot grading	0
12023	20	Douglas-fir	(Pseudotsuga menziesii)	6		C	Impacts from lot grading	0
12024	10	Douglas-fir	(Pseudotsuga menziesii)	2		C	Impacts from site grading	0
12025	7	Douglas-fir	(Pseudotsuga menziesii)	2		C	Impacts from site grading	0
12026	24	Giant Sequoia	(Sequoiadendron giganteum)	8		C	Impacts from lot grading	0
12027	8	Sweet Cherry	(Prunus avium)	2		C	Impacts from lot grading	0
12028	4	Apple	(Prunus sp.)	0	OFFSITE	C		0
12030	8	Sweet Cherry	(Prunus avium)	0	OFFSITE; Dead branches	C		0
12038	6	Eastern Redbud	(Cercis canadensis)	0	OFFSITE	C		0
12048	10	Blue Spruce	(Picea pungens)	0	OFFSITE	C		0
12049	31	Douglas-fir	(Pseudotsuga menziesii)	12		C		12
12050	38	Douglas-fir	(Pseudotsuga menziesii)	15		C		15
12051	9	Blue Spruce	(Picea pungens)	0	OFFSITE	C		0
12052	11	Douglas-fir	(Pseudotsuga menziesii)	0	OFFSITE	C		0
12053	14	Douglas-fir	(Pseudotsuga menziesii)	0	OFFSITE	C		0
12054	14	Douglas-fir	(Pseudotsuga menziesii)	0	OFFSITE	C		0
12055	14,10	Western Redcedar	(Thuja plicata)	0	OFFSITE	C		0
12056	8,7	Leyland Cypress	(Cupressus x leylandii)	0	OFFSITE	C		0
12057	15	Leyland Cypress	(Cupressus x leylandii)	0	OFFSITE	C		0
12058	7	Western Redcedar	(Thuja plicata)	0	OFFSITE	C		0
12059	7	Western Redcedar	(Thuja plicata)	0	OFFSITE	C		0
12060	5	Western Redcedar	(Thuja plicata)	0	OFFSITE	C		0
12061	3	Western Redcedar	(Thuja plicata)	0	OFFSITE	C		0
12062	9	Hemlock	(Tsuga sp.)	0	OFFSITE	C		0
12063	9	Hemlock	(Tsuga sp.)	0	OFFSITE	C		0
12064	36,36	Douglas-fir	(Pseudotsuga menziesii)	21.5	Codominant base	B	Impacts from lot grading	0
12066	15	Leyland Cypress	(Cupressus x leylandii)	0	OFFSITE; Sweep; 1-sided canopy (S)	B		0
12078	20	Douglas-fir	(Pseudotsuga menziesii)	6	Codominant with included bark	B	Impacts from lot grading	0
12079	37	Douglas-fir	(Pseudotsuga menziesii)	15		C	Impacts from lot grading	0
12080	37	Grand Fir	(Abies grandis)	15	Broken top	A	Impacts from lot grading	0
12081	8	Sweet Cherry	(Prunus avium)	2		C	Impacts from lot grading	0
12082	3,3,3	Beaked Hazelnut	(Corylus cornuta)	0	OFFSITE	C		0
12083	7 x 4	Beaked Hazelnut	(Corylus cornuta)	0	OFFSITE	C		0
12084	12	Paper Birch	(Betula papyrifera)	0	OFFSITE; Dead limbs	B		0
12085	10	Cherry	(Prunus sp.)	0	OFFSITE	C		0
12086	10	Cherry	(Prunus sp.)	0	OFFSITE	C		0
12087	10	Cherry	(Prunus sp.)	0	OFFSITE	C		0
12097	6	Douglas-fir	(Pseudotsuga menziesii)	2	Dead	A	Impacts from lot grading	0
12098	11	Douglas-fir	(Pseudotsuga menziesii)	2		C	Impacts from lot grading	0
12099	4	Douglas-fir	(Pseudotsuga menziesii)	1		C	Impacts from lot grading	0
12100	45	Douglas-fir	(Pseudotsuga menziesii)	19		C	Impacts from lot grading	0
12103	11,11	Leyland Cypress	(Cupressus x leylandii)	0	OFFSITE; Cavity with decay in base	B		0
12108	9	Leyland Cypress	(Cupressus x leylandii)	0	OFFSITE	C		0
12110	10,10	Blue Pine	(Pinus walllichiana)	0	OFFSITE	C		0
12111	6	Pear	(Pyrus sp.)	0	OFFSITE	C		0
12112	8	Plum	(Prunus sp.)	0	OFFSITE	C		0
12115	12	Grand Fir	(Abies grandis)	0	OFFSITE	C		0
12116	12	Grand Fir	(Abies grandis)	0	OFFSITE	C		0
12117	11	Western Redcedar	(Thuja plicata)	0	OFFSITE	C		0

## Detailed Tree Inventory for Camas Heights Subdivision

AKS Job No. 8468 - Evaluation Date: 9/1/2021 - Evaluated By: BRK

Tree #	DBH (in.)	Tree Species Common Name (Scientific name)	Tree Units Initial	Condition/Comments	Windthrow Rating	Reason for Removal	Tree Units Retained
12119	10	Grand Fir ( <i>Abies grandis</i> )	0	OFFSITE	C		0
12120	8	Grand Fir ( <i>Abies grandis</i> )	0	OFFSITE	C		0
12121	8	Western Redcedar ( <i>Thuja plicata</i> )	0	OFFSITE	C		0
12122	10	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	0	OFFSITE	C		0
12123	7	Ponderosa Pine ( <i>Pinus ponderosa</i> )	0	OFFSITE; Codominant top	B		0
12125	11,7,9,6,6,4	Western Redcedar ( <i>Thuja plicata</i> )	0	OFFSITE	C		0
12143	7	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2		C	Impacts from site grading	0
12144	27	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	10	1-sided canopy (N)	B	Impacts from site grading	0
12145	32	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	12		C	Impacts from site grading	0
12146	15	Oregon White Oak ( <i>Quercus garryana</i> )	4	Cavity with decay in base; Dead branches; 1-sided canopy (S)	B	Impacts from site grading	0
12147	20	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	6	Codominant top	B	Impacts from lot grading	0
12148	20	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	6		C	Impacts from lot grading	0
12149	30	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	11		C	Impacts from lot grading	0
12150	51	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	21.5	1-sided canopy (E)	B	Impacts from lot grading	0
12151	32	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	12	Codominant with included bark	B	Impacts from lot grading	0
12152	51	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	21.5		C	Impacts from lot grading	0
12153	13	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	3		C	Impacts from lot grading	0
12154	25	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	9		C	Impacts from lot grading	0
12155	18	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	5	1-sided canopy (S)	B	Impacts from lot grading	0
12156	27	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	10	1-sided canopy (S)	B	Impacts from lot grading	0
12157	23	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	8		C	Impacts from lot grading	0
12158	16	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	4		C	Impacts from lot grading	0
12159	20	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	6	Sparse canopy	B	Impacts from lot grading	0
12160	31	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	12	1-sided canopy (S)	B	Impacts from lot grading	0
12161	7	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2		C	Impacts from lot grading	0
12162	29	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	11		C	Impacts from lot grading	0
12163	16	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	4	Epicormic sprouts; Dead branches	B	Impacts from lot grading	0
12164	20	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	6	Epicormic sprouts; Sparse canopy	B	Impacts from lot grading	0
12166	40	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	16	Codominant top	B	Impacts from lot grading	0
12167	28	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	10		C	Impacts from lot grading	0
12168	18	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	5	Epicormic sprouts; Sparse canopy	B	Impacts from public road construction	0
12169	29	Grand Fir ( <i>Abies grandis</i> )	11	Epicormic sprouts; Sparse canopy; Dead top; In decline	A	Impacts from lot grading	0
12170	25	Grand Fir ( <i>Abies grandis</i> )	9	Epicormic sprouts; Sparse canopy	B	Impacts from lot grading	0
12171	22	Oregon White Oak ( <i>Quercus garryana</i> )	7		C	Impacts from public road construction	0
12172	58	Grand Fir ( <i>Abies grandis</i> )	25		C	Impacts from lot grading	0
12174	39	Grand Fir ( <i>Abies grandis</i> )	16	Codominant top	B	Impacts from public road construction	0
12175	8	Bigleaf Maple ( <i>Acer macrophyllum</i> )	2	Dead limbs; Damage at base; Scars	B	Impacts from site grading	0
12176	9	Sweet Cherry ( <i>Prunus avium</i> )	0	OFFSITE	C		0
12177	7	Sweet Cherry ( <i>Prunus avium</i> )	0	OFFSITE	C		0
12178	20	Bigleaf Maple ( <i>Acer macrophyllum</i> )	6		C	Impacts from site grading	0
12179	16	Bigleaf Maple ( <i>Acer macrophyllum</i> )	4	Cavity with decay in base; Dead limbs	B	Impacts from site grading	0
12180	25	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	9		C	Impacts from site grading	0
12181	27	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	10	1-sided canopy (S)	B	Impacts from site grading	0
12182	10	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2		C	Impacts from site grading	0
12183	18	Bigleaf Maple ( <i>Acer macrophyllum</i> )	5	Lean (W); 1-sided canopy (W)	B	Impacts from site grading	0
12184	24,21,27	Bigleaf Maple ( <i>Acer macrophyllum</i> )	17	Broken codominant stem; Broken limbs; Bulges	B	Impacts from lot grading	0
12185	26	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	9		C	Impacts from lot grading	0
12186	27	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	10		C	Impacts from lot grading	0
12187	24	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	8		C	Impacts from lot grading	0
12188	33	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	13		C	Impacts from lot grading	0
12189	20	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	6	1-sided canopy (S)	B	Impacts from lot grading	0
12190	25	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	9		C	Impacts from lot grading	0
12191	16	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	4	Codominant top; 1-sided canopy (S)	B	Impacts from lot grading	0
12192	41	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	17		C	Impacts from lot grading	0
12193	29	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	11		C	Impacts from lot grading	0
12194	11	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2	Suppressed; Sparse canopy	B	Impacts from lot grading	0
12195	25	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	9		C	Impacts from lot grading	0
12196	7	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2	Suppressed; Sparse canopy	B	Impacts from site grading	0
12197	24	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	8		C	Impacts from site grading	0
12198	26	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	9		C	Impacts from site grading	0
12199	17	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	5	Sparse canopy	B	Impacts from site grading	0
12200	21	Oregon White Oak ( <i>Quercus garryana</i> )	7	Top lean (S)	C	Impacts from site grading	0
12201	9	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2		C	Impacts from site grading	0
12202	27	Bigleaf Maple ( <i>Acer macrophyllum</i> )	10		C	Impacts from site grading	0
12203	22	Bigleaf Maple ( <i>Acer macrophyllum</i> )	7		C	Impacts from site grading	0
12204	9	Bigleaf Maple ( <i>Acer macrophyllum</i> )	0	OFFSITE; Crooked bole	C		0
12205	32	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	12		C	Impacts from site grading	0
12206	43	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	18	Poor live crown ratio	B	Impacts from site grading	0
12207	10	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2		C	Impacts from site grading	0
12208	21	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	7		C	Impacts from site grading	0
12209	48	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	20		C	Impacts from site grading	0
12210	31	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	12	1-sided canopy (W)	B	Impacts from site grading	0
12211	12	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2		C	Impacts from site grading	0
12212	8	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2		C	Impacts from site grading	0
12213	17	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	5		C	Impacts from site grading	0
12214	20	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	6		C	Impacts from lot grading	0
12215	40	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	16	1-sided canopy (W)	B	Impacts from lot grading	0
12216	7,10	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2	Codominant base; 1 stem dead; Other sparse canopy	B	Impacts from lot grading	0
12217	9	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2	Suppressed; Sparse canopy	B	Impacts from lot grading	0
12218	30	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	11	1-sided canopy (W)	B	Impacts from lot grading	0
12219	8	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2	Suppressed; Sparse canopy	B	Impacts from lot grading	0
12220	26	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	9	1-sided canopy (W)	B	Impacts from lot grading	0
12221	8	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2	Suppressed; Sparse canopy	B	Impacts from lot grading	0
12222	6	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2		C	Impacts from lot grading	0
12223	7	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2		C	Impacts from lot grading	0
12224	10	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2		C	Impacts from lot grading	0
12225	16	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	4		C	Impacts from lot grading	0
12226	25	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	9	1-sided canopy (S)	B	Impacts from lot grading	0
12227	38	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	15	1-sided canopy (S)	B	Impacts from lot grading	0
12228	45	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	19	1-sided canopy (S)	B	Impacts from lot grading	0
12229	24	Western Redcedar ( <i>Thuja plicata</i> )	8	Codominant; Dead foliage	B	Impacts from lot grading	0
12230	16	Red Alder ( <i>Alnus rubra</i> )	4	Lean (W)	B	Impacts from lot grading	0
12231	41	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	17	1-sided canopy (S)	B	Impacts from lot grading	0
12232	29	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	11		C	Impacts from lot grading	0
12233	22	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	7		C	Impacts from lot grading	0
12234	10	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2		C	Impacts from lot grading	0
12235	21	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	7		C	Impacts from lot grading	0
12236	19	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	6		C	Impacts from lot grading	0
12237	32	Western Redcedar ( <i>Thuja plicata</i> )	12	Codominant top	B	Impacts from lot grading	0
12238	16	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	4	Lean (E); Crooked bole	B	Impacts from lot grading	0
12239	32	Grand Fir ( <i>Abies grandis</i> )	12	Dead	A	Impacts from lot grading	0
12240	27	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	10	1-sided canopy (S)	B	Impacts from lot grading	0
12241	10	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2		C	Impacts from lot grading	0
12242	21	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	7	Sparse canopy	B	Impacts from lot grading	0
12243	32	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	12		C	Impacts from lot grading	0
12244	16	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	4		C	Impacts from lot grading	0
12245	35	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	14		C	Impacts from lot grading	0
12246	29	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	11	Sparse canopy	B	Impacts from lot grading	0
12247	27	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	10		C	Impacts from lot grading	0

**Detailed Tree Inventory for Camas Heights Subdivision**

AKS Job No. 8468 - Evaluation Date: 9/1/2021 - Evaluated By: BRK

Tree #	DBH (in.)	Tree Species Common Name (Scientific name)	Tree Units		Condition/Comments	Windthrow Rating	Reason for Removal	Tree Units Retained
			Initial					
12248	9.9	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	3		Codominant base with included bark; Sparse canopy	B	Impacts from lot grading	0
12249	22	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	7			C	Impacts from lot grading	0
12250	15	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	4			C	Impacts from lot grading	0
12251	43	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	18		1-sided canopy (S)	B	Impacts from lot grading	0
12252	32	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	12		1-sided canopy (S)	B	Impacts from lot grading	0
12253	32	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	12			C	Impacts from lot grading	0
12254	19	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	6		Epicormic sprouts; Sparse canopy	B	Impacts from lot grading	0
12255	32	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	12			C	Impacts from lot grading	0
12256	36	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	14		Some bore holes	C	Impacts from site grading	0
12257	14	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	3			C	Impacts from lot grading	0
12258	29	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	11			C	Impacts from site grading	0
12259	33	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	13			C	Impacts from site grading	0
12260	24	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	8		Some epicormic sprouts	C	Impacts from lot grading	0
12261	7	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2			C	Impacts from lot grading	0
12262	27	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	10			C	Impacts from lot grading	0
12263	19	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	6			C	Impacts from lot grading	0
12264	21	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	7			C	Impacts from lot grading	0
12265	32	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	12			C	Impacts from lot grading	0
12266	26	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	9		Sparse canopy	B	Impacts from lot grading	0
12267	34	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	13			C	Impacts from lot grading	0
12268	17	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	5		Sparse canopy; Poor live crown ratio	B	Impacts from lot grading	0
12269	27	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	10			C	Impacts from site grading	0
12270	31	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	12			C	Impacts from site grading	0
12271	32	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	12			C	Impacts from site grading	0
12272	26	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	9		Sparse canopy; Dead branches	B	Impacts from site grading	0
12273	14	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	3			C	Impacts from lot grading	0
12274	12	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2			C	Impacts from lot grading	0
12276	66	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	29		Codominant with included bark	B	Impacts from site grading	0
12277	38	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	15		Codominant with included bark	B	Impacts from site grading	0
12278	13	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	3			C	Impacts from site grading	0
12279	13	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	3			C	Impacts from site grading	0
12280	14	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	3		Codominant top with 3 leaders; Weak stems	B	Impacts from site grading	0
12281	18	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	5			C	Impacts from site grading	0
12282	39	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	16		Codominant top with included bark	B	Impacts from site grading	0
12283	17	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	5			C	Impacts from site grading	0
12284	14	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	3			C	Impacts from site grading	0
12290	40	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	16			C	Impacts from site grading	0
12291	45	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	19		Codominant with included bark	B	Impacts from site grading	0
12292	13	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	3			C	Impacts from site grading	0
12293	36	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	14			C	Impacts from site grading	0
12294	19	Bigleaf Maple ( <i>Acer macrophyllum</i> )	6			C	Impacts from site grading	0
12295	11	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2			C	Impacts from site grading	0
12296	26	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	9			C	Impacts from site grading	0
12299	5 x 7, 11	Black Hawthorn ( <i>Crataegus douglasii</i> )	6			C	Impacts from public road construction	0
12300	43,18	Oregon White Oak ( <i>Quercus garryana</i> )	19			C	Impacts from lot grading	0
12301	34	Oregon White Oak ( <i>Quercus garryana</i> )	13			C	Impacts from public road construction	0
12302	38	Oregon White Oak ( <i>Quercus garryana</i> )	15			C	Impacts from lot grading	0
12303	33	Oregon White Oak ( <i>Quercus garryana</i> )	13		1-sided canopy (S)	B	Impacts from lot grading	0
12304	37	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	15			C	Impacts from lot grading	0
12305	34	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	13			C	Impacts from lot grading	0
12306	34	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	13			C	Impacts from public road construction	0
12307	32	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	12		Dead branches; Sparse canopy	B	Impacts from public road construction	0
12308	20	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	6			C	Impacts from public road construction	0
12309	13	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	3			C	Impacts from public road construction	0
12310	24	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	8			C	Impacts from public road construction	0
12311	24	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	8			C	Impacts from public road construction	0
12312	14	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	3			C	Impacts from public road construction	0
12313	14	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	3			C	Impacts from public road construction	0
12314	37	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	15		Dead limbs; Sparse canopy	B	Impacts from public road construction	0
12315	46	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	19			C	Impacts from public road construction	0
12316	24	Bigleaf Maple ( <i>Acer macrophyllum</i> )	8		Dead primary stem with epicormic stems	A	Impacts from lot grading	0
12317	30	Oregon White Oak ( <i>Quercus garryana</i> )	11			C	Impacts from lot grading	0
12318	34	Oregon White Oak ( <i>Quercus garryana</i> )	13			C	Impacts from lot grading	0
12347	27	Oregon White Oak ( <i>Quercus garryana</i> )	10			C	Impacts from lot grading	0
12350	30	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	11		Codominant top	B	Impacts from lot grading	0
12380	32	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	12		Codominant top	B	Impacts from lot grading	0
12381	35	Grand Fir ( <i>Abies grandis</i> )	14		In decline	A	Impacts from lot grading	0
12382	33	Grand Fir ( <i>Abies grandis</i> )	13		Dead	A	Impacts from lot grading	0
12383	33	Grand Fir ( <i>Abies grandis</i> )	13		In decline	A	Impacts from lot grading	0
50000	6.6	Apple ( <i>Prunus sp.</i> )	2		Dead top; In decline	A	Impacts from site grading	0
50001	10	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2			C	Impacts from site grading	0
50002	6	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2			C	Impacts from site grading	0
50003	14	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	3			C	Impacts from lot grading	0
50004	19	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	6			C	Impacts from lot grading	0
50005	22	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	7			C	Impacts from lot grading	0
50006	21	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	7			C	Impacts from lot grading	0
50007	31	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	12		1-sided canopy (S)	B	Impacts from lot grading	0
50008	7	Douglas-fir ( <i>Pseudotsuga menziesii</i> )	2			C	Impacts from lot grading	0
50009	10	Grand Fir ( <i>Abies grandis</i> )	2			C	Impacts from lot grading	0
50011	30	Grand Fir ( <i>Abies grandis</i> )	11		Dead	A	Impacts from lot grading	0
50012	40	Grand Fir ( <i>Abies grandis</i> )	16			C	Impacts from lot grading	0

Total # of Existing Trees Inventoried = 294

Total # of Existing Onsite Trees = 237

Total Onsite Existing Tree Units = 2049.5

Total # of Onsite Trees Retained = 2

Total # of Tree Units Retained = 27

Minimum Tree Units Required per City Code = 690

(37.27 acres \* 20 trees/acre)

Minimum # Trees to Replant = 663

Total # of Existing Trees Removed = 235

Total Existing Tree Units Removed = 2022.5

Site Area (Excluding Tract A) = 34.5

**Windthrow Rating**

A=Least windthrow resistant

B=Moderate windthrow resistant

C=Most windthrow resistant

**Arborist Disclosure Statement:**

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the health of trees, and attempt to reduce the risk of living near trees. The Client and Jurisdiction may choose to accept or disregard the recommendations of the arborist, or seek additional advice. Arborists cannot detect every condition that could possibly lead to the structural failure of a tree.

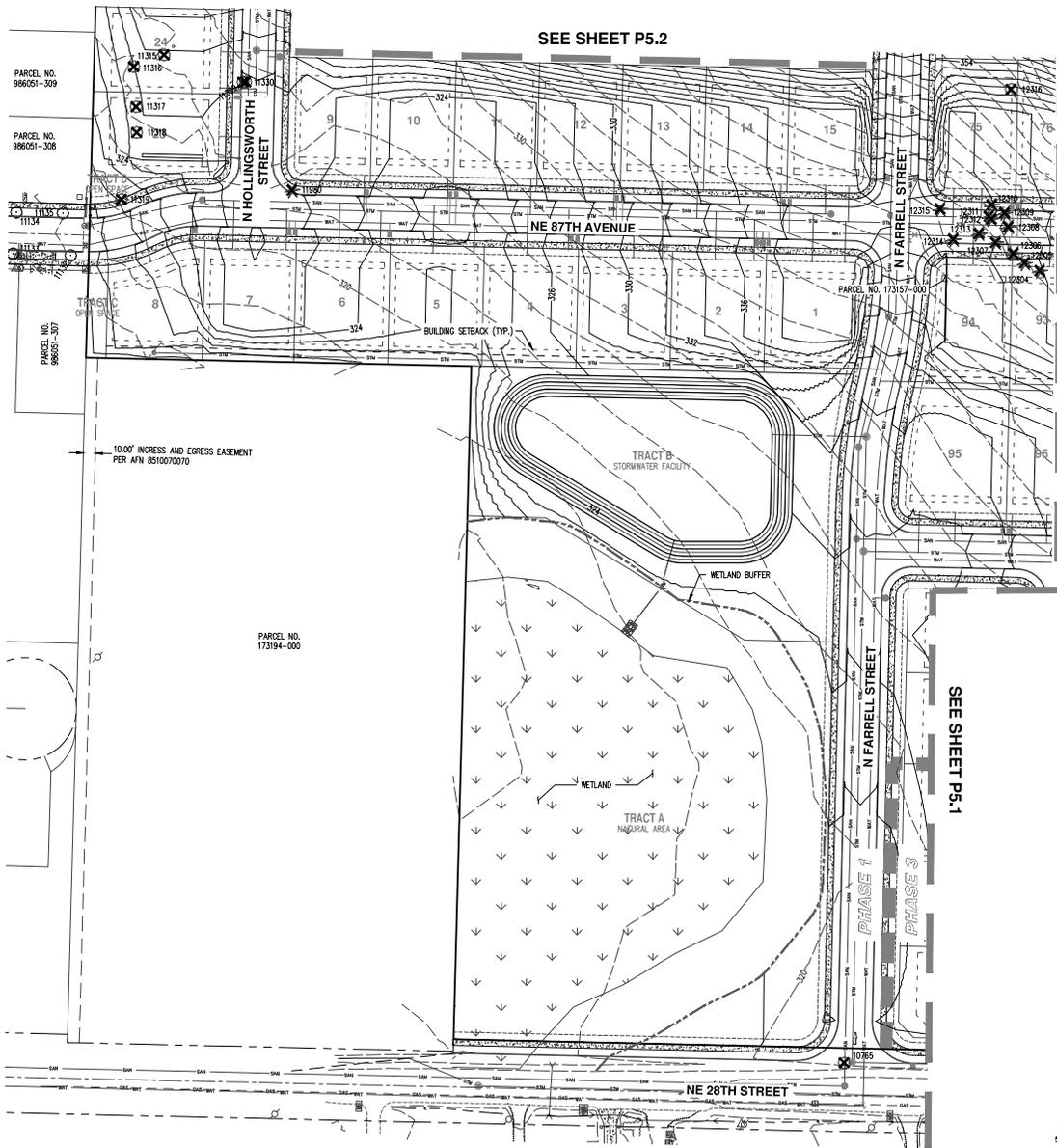
Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like medicine, cannot be guaranteed. 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. Neither this author nor AKS Engineering & Forestry, LLC have assumed any responsibility for liability associated with the trees on or adjacent to this site.

At the completion of construction, all trees should once again be reviewed. Land clearing and removal of adjacent trees can expose previously unseen defects and otherwise healthy trees can be damaged during construction.



# **Appendix B: Tree Preservation and Removal Plan**

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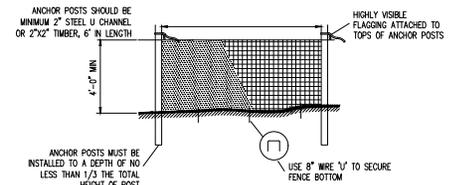
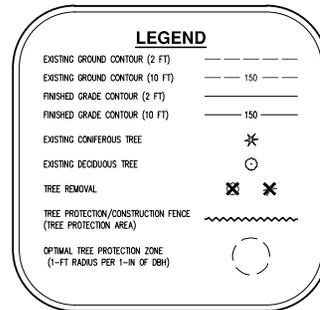
**GENERAL NOTES**

1. A CERTIFIED ARBORIST SHALL BE PRESENT DURING EXCAVATION ACTIVITIES WITHIN TREE PROTECTION ZONE OF PRESERVED TREES. SEE TREE PROTECTION NOTES ON SHEET P5.1 FOR MORE INFORMATION.
2. A CERTIFIED ARBORIST SHALL BE PRESENT DURING ALL TREE REMOVAL ACTIVITIES BEHIND THE TREE PROTECTION FENCE.
3. SEE SHEET P5.1 FOR TREE PROTECTION NOTES.
4. SEE SHEET P5.3-P5.4 FOR DETAILED INVENTORY TABLE.
5. TREE PROTECTION MEASURES SHALL BE INSTITUTED PRIOR TO ANY DEVELOPMENT ACTIVITIES, INCLUDING, BUT NOT LIMITED TO, CLEARING, GRADING, EXCAVATION OR DEMOLITION WORK, AND SHALL BE REMOVED ONLY AFTER COMPLETION OF ALL CONSTRUCTION ACTIVITIES, INCLUDING LANDSCAPING AND IRRIGATION INSTALLATION. SEE TREE PROTECTION DETAIL ON THIS SHEET.
6. TREE PROTECTION FENCING SHALL BE FLUSH WITH THE INITIAL UNDISTURBED GRADE.
7. NO CONSTRUCTION ACTIVITY SHALL OCCUR WITHIN THE TREE PROTECTION ZONE, INCLUDING, BUT NOT LIMITED TO, DUMPING OR STORAGE OF MATERIALS SUCH AS BUILDING SUPPLIES, SOIL, WASTE ITEMS OR PARKED VEHICLES OR EQUIPMENT.
8. NO EXCAVATION, TRENCHING, GRADING, ROOT PRUNING OR OTHER ACTIVITIES SHALL OCCUR WITHIN THE TREE PROTECTION ZONE UNLESS DIRECTED BY AN ARBORIST PRESENT ON-SITE AND APPROVED BY THE CITY.
9. FOLLOWING CLEARING AND GRADING ACTIVITIES, A CERTIFIED ARBORIST SHALL INSPECT RETAINED TREES FOR POTENTIALLY HAZARDOUS TREE CONDITIONS. COORDINATION WITH THE CITY SHALL OCCUR PRIOR TO ANY ADDITIONAL TREE REMOVALS FOR HAZARD ABATEMENT.

**TREE PLAN**

GROSS AREA: 37.27 AC  
 SITE AREA EXCLUDING TRACT A: 34.5 AC  
 TOTAL TREE UNITS REQUIRED (34.5 X 20): 690  
 EXISTING TREES RETAINED/(TREE UNITS): 2/(27)  
 PROPOSED SITE TREES/(TREE UNITS): 663/(663)

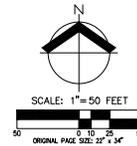
NOTE: SEE LANDSCAPING PLAN (P9.0) FOR PROPOSED TREE PLANTING PLAN



**TREE PROTECTION NOTES:**

1. BLAZE ORANGE OR BLUE PLASTIC MESH FENCE FOR TREE PROTECTION DEVICE, ONLY.
2. BOUNDARIES OF PROTECTION AREA WILL BE ESTABLISHED IN THE FIELD BY THE ARBORIST PRIOR TO CONSTRUCTION.
3. BOUNDARIES OF PROTECTION AREA SHOULD BE STAKED AND FLAGGED BY THE ARBORIST, OR UNDER THE SUPERVISION OF THE ARBORIST, PRIOR TO INSTALLING DEVICES.
4. AVOID DAMAGE TO CRITICAL ROOT ZONE; DO NOT DAMAGE OR SEVER LARGE ROOTS WHEN INSTALLING POSTS.
5. TREE PROTECTION TO BE INSTALLED PRIOR TO CONSTRUCTION AND REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED.

**PLASTIC MESH TREE PROTECTION FENCE**  
 NOT TO SCALE



**PRELIMINARY TREE PRESERVATION AND REMOVAL PLAN**  
**CAMAS HEIGHTS SUBDIVISION**  
**LENNAR NORTHWEST, INC.**  
**CAMAS, WA**

**PRELIMINARY NOT FOR CONSTRUCTION**



**BRUCE D. HANSON**  
 ENGINEER  
 LICENSE NO. 100000000  
 STATE OF WASHINGTON

JOB NUMBER: 8468  
 DATE: 10/29/2021  
 DESIGNED BY: RPM  
 DRAWN BY: BRK  
 CHECKED BY: BDH

**P5.0**



**TREE PROTECTION NOTES**

- A. PLACING MATERIALS NEAR TREES – NO PERSON MAY CONDUCT ANY ACTIVITY WITHIN THE PROTECTED AREA OF ANY TREE DESIGNATED TO REMAIN, INCLUDING, BUT NOT LIMITED TO, PARKING EQUIPMENT, PLACING SOLVENTS, STORING BUILDING MATERIALS AND SOIL DEPOSITS, DUMPING CONCRETE WASHOUT, ETC.
- B. ATTACHMENTS TO TREES – BURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY OBJECT TO ANY TREE DESIGNATED FOR PROTECTION.
- C. PROTECTIVE BARRIER – BEFORE DEVELOPMENT, LAND CLEARING, FILLING OR ANY LAND ALTERATION FOR WHICH A TREE REMOVAL PERMIT IS REQUIRED, THE CONTRACTOR:
  - C.A. SHALL ERECT AND MAINTAIN READILY VISIBLE PROTECTIVE TREE FENCING ALONG THE OUTER EDGE AND COMPLETELY SURROUNDING THE PROTECTED AREA OF ALL PROTECTED TREES OR GROUP OF TREES. FENCES SHALL BE CONSTRUCTED PER THE DETAIL ON THIS SHEET.
  - C.B. MAY BE REQUIRED TO COVER WITH MULCH TO A DEPTH OF AT LEAST SIX (6) INCHES OR WITH PLYWOOD OR SIMILAR MATERIAL IN THE AREAS ADJOINING THE CRITICAL ROOT ZONE OF A TREE IN ORDER TO PROTECT ROOTS FROM DAMAGE CAUSED BY HEAVY EQUIPMENT.
  - C.C. SHALL PROHIBIT EXCAVATION OR COMPACTING OF EARTH OR OTHER POTENTIALLY DAMAGING ACTIVITIES WITHIN THE BARRIERS.
  - C.D. MAY BE REQUIRED TO MINIMIZE ROOT DAMAGE BY EXCAVATING A TWO (2) FOOT DEEP TRENCH, AT EDGE OF CRITICAL ROOT ZONE, TO CLEANLY SEVER THE ROOTS OF TREES TO BE RETAINED. ROOTS ONE (1) INCH DIAMETER OR GREATER SHALL BE CLEANLY CUT WITH A SAW OR PRUNERS.
  - C.E. MAY BE REQUIRED TO HAVE CORRECTIVE PRUNING PERFORMED ON PROTECTED TREES IN ORDER TO AVOID DAMAGE FROM MACHINERY OR BUILDING ACTIVITY. MAY BE REQUIRED TO MAINTAIN TREES THROUGHOUT THE CONSTRUCTION PERIOD BY WATERING AND FERTILIZING.
  - C.F. SHALL MAINTAIN THE PROTECTIVE BARRIERS IN PLACE UNTIL THE PROJECT ARBORIST AUTHORIZES THEIR REMOVAL OR A FINAL CERTIFICATE OF OCCUPANCY IS ISSUED, WHICHEVER OCCURS FIRST.
  - C.G. SHALL ENSURE THAT ANY LANDSCAPING DONE IN THE PROTECTED ZONE SUBSEQUENT TO THE REMOVAL OF THE BARRIERS SHALL BE ACCOMPLISHED WITH LIGHT MACHINERY OR HAND LABOR.
- D. GRADE:
  - D.A. THE GRADE SHALL NOT BE ELEVATED OR REDUCED WITHIN THE CRITICAL ROOT ZONE OF TREES TO BE PRESERVED WITHOUT THE PROJECT ARBORIST'S AUTHORIZATION. THE PROJECT ARBORIST MAY ALLOW COVERAGE OF UP TO ONE HALF OF THE AREA OF THE TREE'S CRITICAL ROOT ZONE WITH LIGHT SOILS AND CLAY TO THE MINIMUM DEPTH NECESSARY TO CARRY OUT GRADING OR LANDSCAPING PLANS, IF IT WILL NOT IMPERIL THE SURVIVAL OF THE TREE. AERATION DEVICES MAY BE REQUIRED TO ENSURE THE TREE'S SURVIVAL.
  - D.B. IF THE GRADE ADJACENT TO A PRESERVED TREE IS RAISED SUCH THAT IT COULD SLOUGH OR ERODE INTO THE TREE'S CRITICAL ROOT ZONE, IT SHALL BE PERMANENTLY STABILIZED TO PREVENT SUFFOCATION OF THE ROOTS.
  - D.C. THE APPLICANT SHALL NOT INSTALL AN INTERFEROUS SURFACE WITHIN THE CRITICAL ROOT ZONE OF ANY TREE TO BE RETAINED WITHOUT THE AUTHORIZATION OF THE PROJECT ARBORIST. THE PROJECT ARBORIST MAY REQUIRE SPECIFIC CONSTRUCTION METHODS AND/OR USE OF AERATION DEVICES TO DISRUPT THE TREE'S SURVIVAL AND TO MINIMIZE THE POTENTIAL FOR ROOT INDUCED DAMAGE TO THE APPLICANT'S SURFACE.
  - D.D. TO THE GREATEST PRACTICAL, UTILITY TRENCHES SHALL BE LOCATED OUTSIDE OF THE CRITICAL ROOT ZONE OF TREES TO BE RETAINED. THE PROJECT ARBORIST MAY REQUIRE THAT UTILITIES BE BUNDLED UNDER THE ROOTS OF TREES TO BE RETAINED IF THE PROJECT ARBORIST DETERMINES THAT TRENCHING WOULD SIGNIFICANTLY REDUCE THE CHANCES OF THE TREE'S SURVIVAL.
  - D.E. TREE AND OTHER VEGETATION TO BE RETAINED SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. CLEARING OPERATIONS SHALL BE CONDUCTED SO AS TO EXPOSE THE SMALLEST PRACTICAL AREA OF SOIL TO EROSION FOR THE LEAST POSSIBLE TIME. TO PROTECT EROSION, SHRUBS, GROUND COVER, AND STUMPS SHALL BE MAINTAINED ON THE INDIVIDUAL LOTS, WHERE FEASIBLE. WHERE NOT FEASIBLE, APPROPRIATE EROSION CONTROL PRACTICES SHALL BE IMPLEMENTED PURSUANT TO CAMAS MUNICIPAL CODE CHAPTER 14.06.
- E. DIRECTIONAL FELLING OF TREES SHALL BE USED TO AVOID DAMAGE TO TREES DESIGNATED FOR RETENTION.
- F. ADDITIONAL REQUIREMENTS – THE PROJECT ARBORIST MAY REQUIRE ADDITIONAL TREE PROTECTION MEASURES WHICH ARE CONSISTENT WITH ACCEPTED URBAN FORESTRY PRACTICES.
- G. ENCRoACHMENT INTO THE ROOT PROTECTION ZONE IS ALLOWED WITH PROJECT ARBORIST APPROVAL AS DESCRIBED IN THE FOLLOWING NOTES:
  - G.A. EXCAVATION IN THE TOP 24 INCHES OF THE SOIL IN THE CRITICAL ROOT ZONE AREA SHOULD BEGIN AT THE EXCAVATION LINE THAT IS CLOSEST TO THE TREE.
  - G.B. THE EXCAVATION SHOULD BE DONE BY HAND/SHOVEL OR WITH A BACKHOE AND A MAN WITH A SHOVEL, PRUNING SHEARS, AND A PRUNING SAW.
  - G.C. IF DONE BY HAND, ALL ROOTS 1 INCH OR LARGER SHOULD BE PRUNED AT THE EXCAVATION LINE.
  - G.D. IF DONE WITH BACKHOE (MOST LIKELY SCENARIO), THEN THE OPERATOR SHALL START THE CUT AT THE EXCAVATION LINE AND CAREFULLY "FEEL" FOR ROOT/RESISTANCE. WHEN THERE IS RESISTANCE, THE MAN WITH THE SHOVEL HAND DIGS AROUND THE ROOTS AND PRUNES THE ROOTS LARGER THAN 1 INCH DIAMETER.
  - G.E. THE BACKHOE IS TO REMAIN OFF OF THE TREE ROOTS TO BE PRESERVED AT ALL TIMES.
  - G.F. ALL ROOTS SHALL BE CUT CLEANLY WITH PRUNING SHEARS OR A PRUNING SAW.
  - G.G. PROJECT ARBORIST MUST BE ON-SITE DURING ANY WORK WITHIN THE TREE ROOT PROTECTION ZONE.
  - G.H. THE CITY PLANNER MUST BE CONTACTED 24 HOURS PRIOR TO WORKING WITHIN THE TREE ROOT PROTECTION ZONE.

**GENERAL NOTES**

1. A CERTIFIED ARBORIST SHALL BE PRESENT DURING EXCAVATION ACTIVITIES WITHIN TREE PROTECTION ZONE OF PRESERVED TREES. SEE TREE PROTECTION NOTES, THIS SHEET, FOR MORE INFORMATION.
2. A CERTIFIED ARBORIST SHALL BE PRESENT DURING ALL TREE REMOVAL ACTIVITIES BEHIND THE TREE PROTECTION FENCE.
3. SEE THIS SHEET FOR TREE PROTECTION NOTES.
4. SEE SHEET PS.3-PS.4 FOR DETAILED INVENTORY TABLE.
5. TREE PROTECTION MEASURES SHALL BE INSTITUTED PRIOR TO ANY DEVELOPMENT ACTIVITIES, INCLUDING, BUT NOT LIMITED TO, CLEARING, GRADING, EXCAVATION OR DEMOLITION WORK, AND SHALL BE REMOVED ONLY AFTER COMPLETION OF ALL CONSTRUCTION ACTIVITY, INCLUDING LANDSCAPING AND IRRIGATION RESTORATION. SEE TREE PROTECTION DETAIL, SHEET P5.C.
6. TREE PROTECTION FENCING SHALL BE FLUSH WITH THE INITIAL UNDISTURBED GRADE.
7. NO CONSTRUCTION ACTIVITY SHALL OCCUR WITHIN THE TREE PROTECTION ZONE, INCLUDING, BUT NOT LIMITED TO, DUMPING OR STORAGE OF MATERIALS SUCH AS BUILDING SUPPLIES, SOIL, WASTE ITEMS OR PARKED VEHICLES OR EQUIPMENT.
8. NO EXCAVATION, TRENCHING, GRADING, ROOT PRUNING OR OTHER ACTIVITIES SHALL OCCUR WITHIN THE TREE PROTECTION ZONE UNLESS DIRECTED BY AN ARBORIST PRESENT ON-SITE AND APPROVED BY THE CITY.
9. FOLLOWING CLEARING AND GRADING ACTIVITIES, A CERTIFIED ARBORIST SHALL INSPECT RETAINED TREES FOR POTENTIALLY HAZARDOUS TREE CONDITIONS. COORDINATION WITH THE CITY SHALL OCCUR PRIOR TO ANY ADDITIONAL TREE REMOVALS FOR HAZARD ABATEMENT.

**ARBORIST DISCLOSURE STATEMENT**

ARBORISTS ARE TREE SPECIALISTS WHO USE THEIR EDUCATION, KNOWLEDGE, TRAINING, AND EXPERIENCE TO EXAMINE TREES, RECOMMEND MEASURES TO ENHANCE THE HEALTH OF TREES, AND ATTEMPT TO REDUCE THE RISK OF LIVING NEAR TREES. THE CLIENT AND JURISDICTION MAY CHOOSE TO ACCEPT OR DISREGARD THE RECOMMENDATIONS OF THE ARBORIST, OR SEEK ADDITIONAL ADVICE.

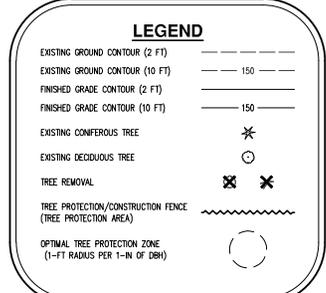
ARBORISTS CANNOT DETECT EVERY CONDITION THAT COULD POSSIBLY LEAD TO THE STRUCTURAL FAILURE OF A TREE. TREES ARE LIVING ORGANISMS THAT FALL IN VARIOUS WAYS WE DO NOT FULLY UNDERSTAND. CONDITIONS ARE OTHER HAZARDS WITHIN TREES AND BELOW GROUND. ARBORISTS CANNOT GUARANTEE THAT A TREE WILL BE HEALTHY OR SAFE UNDER ALL CIRCUMSTANCES, OR FOR A SPECIFIED PERIOD OF TIME. LIKEWISE, REMEDIAL TREATMENTS, LIKE MEDICINE, CANNOT BE GUARANTEED.

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.

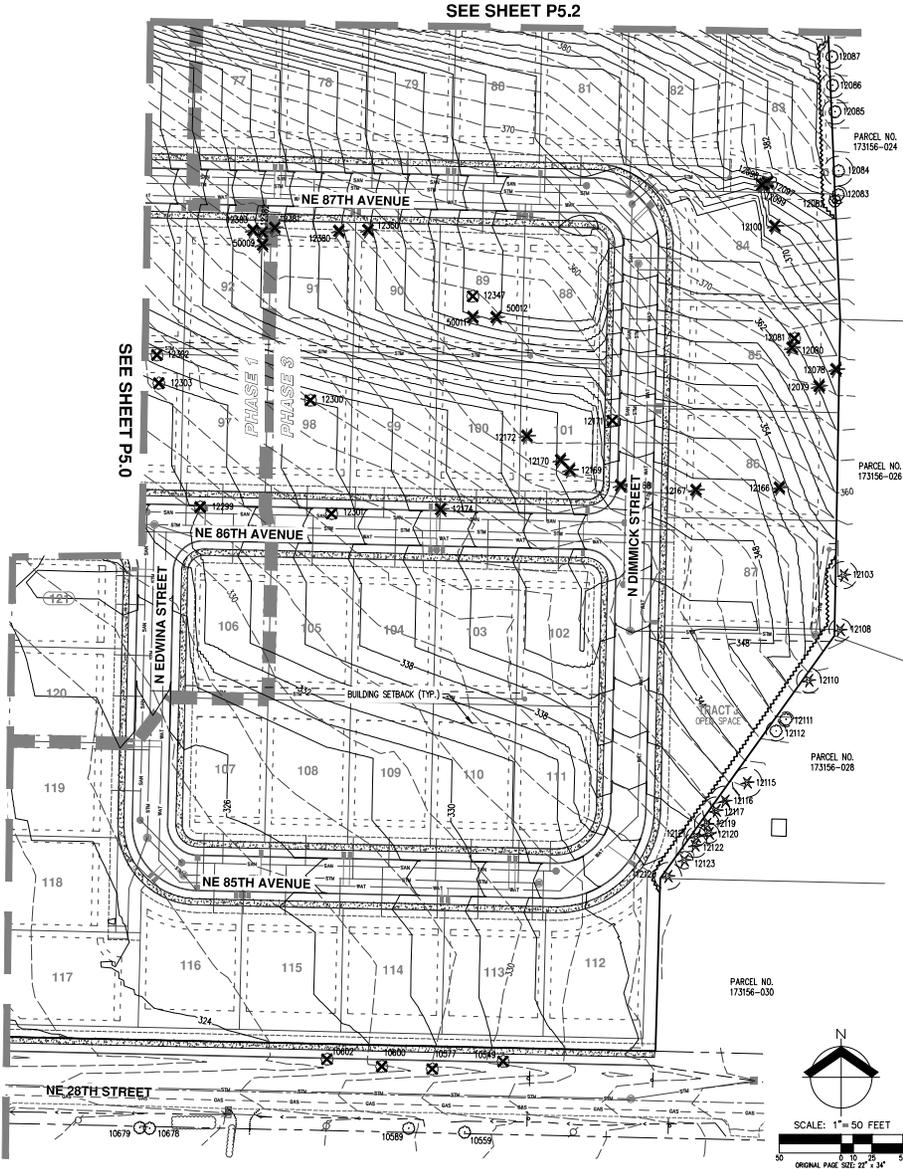
AT THE COMPLETION OF CONSTRUCTION, ALL TREES MUST BE RE-EVALUATED TO EVALUATE THEIR HAZARD RATING. LAND CLEARING AND REMOVAL OF ADJACENT TREES CAN EXPOSE PREVIOUSLY UNSEEN DEFECTS AND OTHERWISE HEALTHY TREES CAN BE DAMAGED DURING CONSTRUCTION.

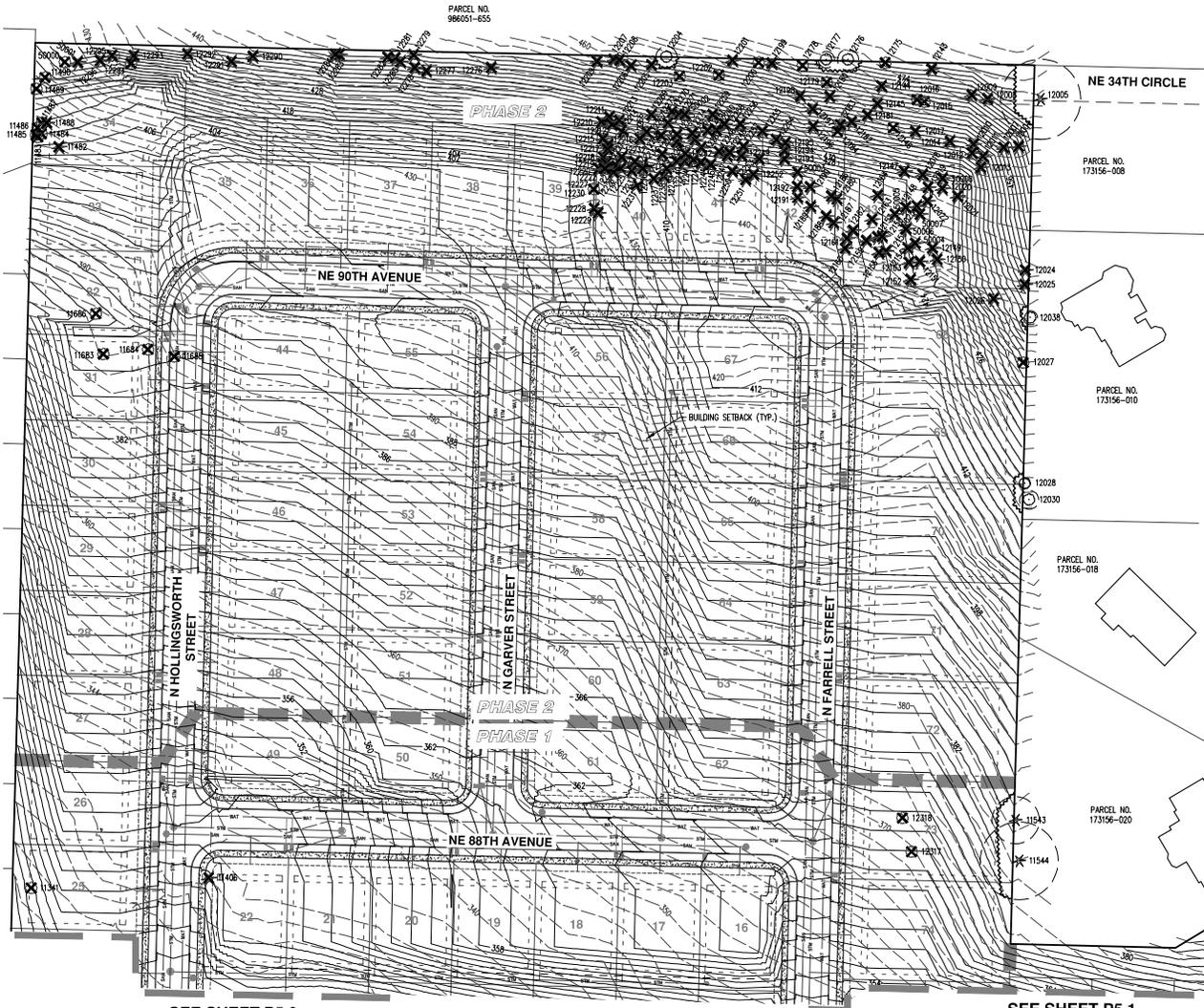
TREE INFORMATION GATHERED UNDER THE SUPERVISION OF BRYCE HANSON, CERTIFIED ARBORIST, WITH AKS ENGINEERING AND FORESTRY, LLC.

TREES SHOWN TO BE SAVED WILL BE EVALUATED BY THE PROJECT ARBORIST PRIOR TO, DURING, AND AFTER CONSTRUCTION. TREES ADVERSELY AFFECTED BY CONSTRUCTION AND/OR DETERMINED TO BE A SAFETY HAZARD WILL BE REMOVED.



BRYCE D. HANSON  
CERTIFICATE NUMBER: PA 047022  
EXPIRATION DATE: 06/30/22





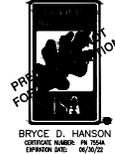
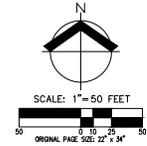
**LEGEND**

EXISTING GROUND CONTOUR (2 FT)	---
EXISTING GRADE CONTOUR (10 FT)	---
FINISHED GRADE CONTOUR (2 FT)	---
FINISHED GRADE CONTOUR (10 FT)	---
EXISTING CONIFEROUS TREE	⊗
EXISTING DECIDUOUS TREE	⊙
TREE REMOVAL	⊗ ⊙
TREE PROTECTION/CONSTRUCTION FENCE (TREE PROTECTION AREA)	~~~~~
OPTIMAL TREE PROTECTION ZONE (1-FT RADIUS PER 1-IN OF DBH)	○

- GENERAL NOTES**
1. A CERTIFIED ARBORIST SHALL BE PRESENT DURING EXCAVATION ACTIVITIES WITHIN TREE PROTECTION ZONE OF PRESERVED TREES. SEE TREE PROTECTION NOTES, SHEET P5.1, FOR MORE INFORMATION.
  2. A CERTIFIED ARBORIST SHALL BE PRESENT DURING ALL TREE REMOVAL ACTIVITIES BEHIND THE TREE PROTECTION FENCE.
  3. SEE SHEET P5.1 FOR TREE PROTECTION NOTES.
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  5. TREE PROTECTION MEASURES SHALL BE INSTITUTED PRIOR TO ANY DEVELOPMENT ACTIVITIES, INCLUDING, BUT NOT LIMITED TO, CLEARING, GRADING, EXCAVATION OR DEMOLITION WORK, AND SHALL BE REMOVED ONLY AFTER COMPLETION OF ALL CONSTRUCTION ACTIVITY, INCLUDING LANDSCAPING AND IRRIGATION INSTALLATION. SEE TREE PROTECTION DETAIL, SHEET P5.0.
  6. TREE PROTECTION FENCING SHALL BE FLUSH WITH THE INITIAL UNDISTURBED GRADE.
  7. NO CONSTRUCTION ACTIVITY SHALL OCCUR WITHIN THE TREE PROTECTION ZONE, INCLUDING, BUT NOT LIMITED TO, DUMPING OR STORAGE OF MATERIALS SUCH AS BUILDING SUPPLIES, SOIL, WASTE ITEMS OR PARKED VEHICLES OR EQUIPMENT.
  8. NO EXCAVATION, TRENCHING, GRADING, ROOT PRUNING OR OTHER ACTIVITIES SHALL OCCUR WITHIN THE TREE PROTECTION ZONE UNLESS DIRECTED BY AN ARBORIST PRESENT ON-SITE AND APPROVED BY THE CITY.
  9. FOLLOWING CLEARING AND GRADING ACTIVITIES, A CERTIFIED ARBORIST SHALL INSPECT REMAINING TREES FOR POTENTIALLY HAZARDOUS TREE CONDITIONS. COORDINATION WITH THE CITY SHALL OCCUR PRIOR TO ANY ADDITIONAL TREE REMOVALS FOR HAZARD ABATEMENT.

SEE SHEET P5.0

SEE SHEET P5.1



**PRELIMINARY TREE PRESERVATION AND REMOVAL PLAN**  
**CAMAS HEIGHTS SUBDIVISION**  
**LENNAR NORTHWEST, INC.**  
**CAMAS, WA**

**PRELIMINARY NOT FOR CONSTRUCTION**

JOB NUMBER:	8468
DATE:	10/29/2021
DESIGNED BY:	RPM
DRAWN BY:	BRK
CHECKED BY:	BDH

**P5.2**



# **Appendix C: Tree Planting Plan**

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