Urban Forestry Services
BARTLETT CONSULTING
Divisions of The F.A. Bartlett Tree Expert Company

Arborist Report

Title: **1233 Central Avenue N Tree Retention Plan**

Prepared for: Longbay Enterprises
C/o Cynthia Berne
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Contents:

Date: September 27, 2024

Summary

I inventoried twelve (12) significant[1] trees in preparation for the development at 1233 Central Avenue North, in Kent, Washington. My preliminary recommendations include:

- Retention with protection - Nine (9) trees.
- Remove - Three (3) trees.

Retaining the nine (9) trees will result in thirty-four (34) tree density credits for the site, which exceeds the City required minimum of thirty-two (32) credits.

Introduction

Cynthia Berne of Longbay Enterprises, on behalf of the property owner King County, contacted our office in August 2024. Cynthia Berne requested an inventory of trees within the project area and a tree retention plan to comply with City requirements.

Kent's City Code (KCC) specifying tree preservation requirements (Preservation of Trees - Chapter 15.08.240) requires a tree retention plan when new development is planned for a site. The tree retention plan is to include:

- An inventory of significant trees proposed for retention on the project site.
- A site plan indicating the location of trees proposed for retention, limits of disturbance (LOD) around retained trees and the location of tree protection measures.
- Details on tree protection measures for trees proposed for retention.

Development of the 1233 Central Avenue North site is in the planning stage and there are no site plans available to determine impacts on inventoried trees. My recommendations regarding removal or retention with protection are preliminary in nature and could change once site plans are finalized. UFS | BC can provide specific tree protection recommendations upon request from the client once plans are finalized.

Methods

Tree Inventory and Evaluation

I was on site on September 4th, 2024, to inventory and evaluate significant trees on the project site. I marked twelve (12) trees with numbered aluminum tags starting with number 966 and ending with number 977. The tags are nailed to the trunk.

I measured trunk diameter at 4.5 feet above grade (diameter at breast height (DBH)).

Condition ratings were based on tree health, structure, and form as defined in the *Plant Appraisal Guide, 10th Edition*.

Limits of disturbance were determined on a tree-by-tree basis and included the following factors: tree age, tree health, critical root zone[2] (CRZ) and species tolerance to construction impacts.

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[1] Any tree equal to or greater than six (6) inches in diameter as measured at 4.5 feet above grade (KCC 15.08.240).

[2] Critical root zone (CRZ) – The minimum volume of roots necessary to have for tree health and stability. Equal to 6-inches in diameter for every 1 inch of DBH. For example, a tree with a 14-inch DBH would have a critical root zone of 7 feet.

A tree's suitability for preservation is based on species, size, condition, and species tolerance to construction impacts.

Limitations

The tree evaluation was performed from the ground for visual conditions. Landscape features such as dense understory vegetation obscured the view of the trunks of some trees, which may have hidden conditions of concern.

Observations

Site

The project site is a 67,865 square foot commercial lot in Kent, Washington. The majority of the site is occupied by a commercial building and associated hardscape for parking. A stream, South Fork Mill Creek[3], runs through the southwest corner of the site. An existing chain-link fence separates the developed portion of the property from the stream (Photo 1).

Photo 1. The South Fork of Mill Creek runs through the southwest corner of the project property. The trees in the photo are on the west side of the creek which is outside the project property. The viewer is looking west.

[3] Per King County iMap (accessed September 2024).

Trees

The twelve (12) inventoried trees range in condition from *poor* to *fair*. Their trunk diameters range from 7.2 to 22.9 inches. The inventory population consists of three species - arborvitae (*Thuja occidentalis*), bitter cherry (*Prunus emarginata*), and cherry laurel (*Prunus laurocerasus*).

Trees 966 and 968 to 977 are arborvitae that form a hedge along the southern property line (Photo 2). These trees are in *good* health except for Tree 977, which is dead. The form of several of the arborvitae was *poor*, they appeared to be managed by topping the trees.

Trees 966 and 967 are bitter cherry. Tree 966 has a damaged surface root and leaf spotting. Tree 967 is declining, only a quarter of the crown is alive (Photo 3).

Tree 967 is a cherry laurel in *good* health and is growing within the hedge row of arborvitae.

Photo 2. Trees 966 to 977 form a hedge on the southern property line. Tree 977 can be seen on the far right.

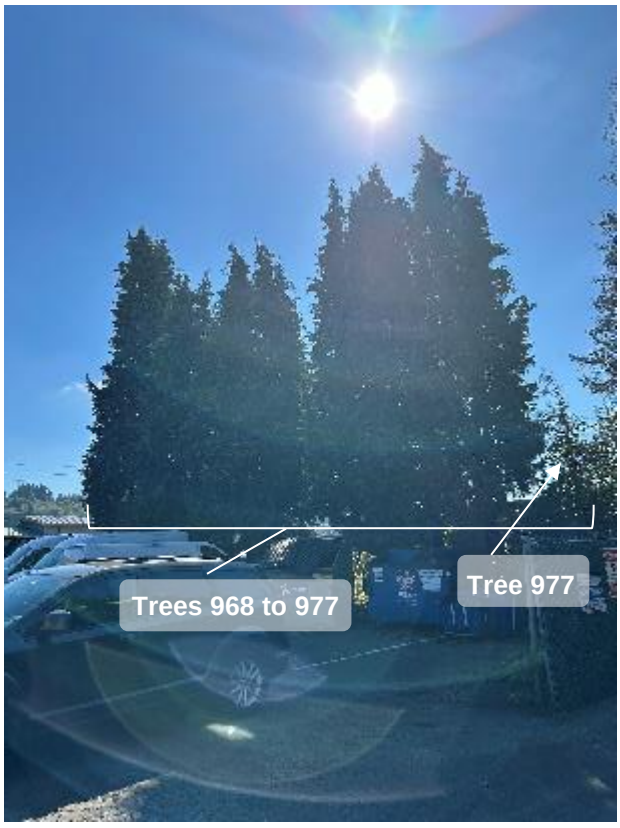
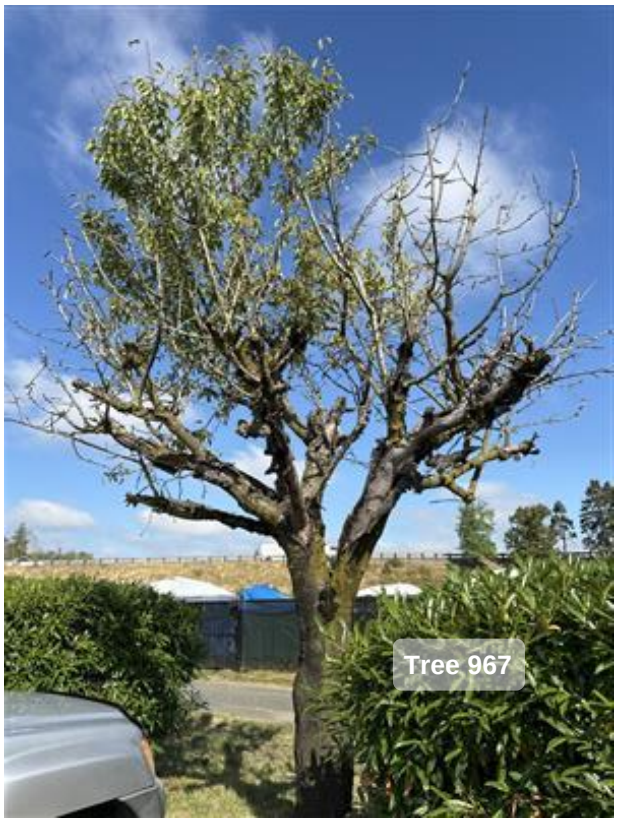


Photo 3. Tree 967 is in *very poor* health and is recommended for removal.



Discussion

As this project moves from the planning phase to the design phase considerations can be made regarding:

- Appropriate trees to retain and protect during development.
- Planning development to lessen potential impacts on trees recommended for retention.

The following sections provide information on trees appropriate for retention and the limits of impact from development on these trees.

Suitability for Preservation

Suitability for preservation is a categorization of a tree's potential to be an asset to the project following development and is based on the species of the individual tree, size, condition and species tolerance to construction. Considering these factors, I assigned a rating of *low, medium,* or *high* for each tree.

Trees with a *high* rating would be in good condition, tolerate construction impacts and have long remaining lifespans.

Trees 968 and 970 to 976 were rated as *high* suitability for preservation. These trees are in *good* health and their species have a relatively high tolerance to construction impacts. These trees can be retained with protection during development and are expected to remain assets to the site in the future.

Trees with a low rating were either in poor condition, had poor tolerance to construction impacts, or had short remaining lifespans.

Trees 966, 967, and 977 were rated as *low* suitability for preservation. These trees are either dead (Tree 977) or are in *very poor* health.

Trees with a medium rating would include a combination of the ratings described above.

Tree 969 was rated as *medium* suitability for preservation. This tree is in *good* health though the species may not be desirable. The species is classified as a weed of concern[4] in King County.

[4] King County Noxious Weed List (accessed September 2024).

Limits of Disturbance

Limits of disturbance (LOD) were determined on a tree-by-tree basis and included the following factors: tree age, tree health, CRZ, and species tolerance to construction impacts. The LOD is the closest extent to which development can occur near a tree and is measured in feet. Table 1 details the LOD for each tree recommended for retention and is illustrated on the attached *Tree Inventory Site Plan*.

Design considerations should limit impacts to trees up to this point. Impacting trees beyond the LOD will likely result in a decline in health and/or structural stability of the tree.

Table 1. *Limits of Disturbance*

Tree ID	LOD (feet)
968	11
969	9
970	9
971	7
972	6
973	8
974	9
975	4
976	8

Tree Credit Requirement

KCC 15.08.240.D requires a minimum of twenty (20) tree density credits per net acre. The project site is 67,865 square feet[5] which equates to approximately 1.6 acres. The property must retain enough trees to earn thirty-two (32) tree density credits. Retaining the nine (9) inventoried trees will provide the project with thirty-four (34) tree density credits. Table 2. Below details the tree credits for this project[6].

Table 2. *Tree Density Credit Calculation*

Tree ID	DBH	Tree Density Credit
968	22.9	7
969	14.2	3
970	18.2	5
971	14.8	3
972	12.4	2
973	16.1	4
974	18.7	5
975	7.2	1
976	16.3	4
	Total	***34***

[5] Per King County Assessor dashboard (accessed September 2024).
[6] Tree credits calculated using *KCC 15.08.240 Table-A.*

Recommendations

The following recommendations assume that trees recommended for retention will not have impacts within their limits of disturbance. We recommend continuing to engage UFS | BC during the design phase to assist with evaluating potential impacts as plans are finalized.

Recommendations have been placed in three phases: *preconstruction, construction, and postconstruction*.

Preconstruction Phase

The following recommendations should occur in the order outlined below.

1. Remove Three (3) Trees

   Three (3) trees are recommended for removal. These trees are rated as *low* suitability for preservation.
   - Remove Trees 966, 967, and 977.

2. Tree Protection Measures

   Install tree protection fencing for trees recommended to be retained.

   - Install four (4) feet high orange construction fencing. The approximate location of tree protection fencing is illustrated on the attached *Tree Inventory Site Plan*.
   - Keep all materials, equipment, and contractors out of the tree protection area.

Construction Phase

- Continue to keep all materials, equipment, and contractors out of the tree protection area.
- Tree protection should remain in place through the end of planned construction.

Post-construction Phase

- Remove tree protection fencing once all activities have concluded and materials and equipment are removed from the site.
- The project arborist should inspect the condition of retained trees. If any changes have been observed, recommend mitigation measures.

Let me know if you have any questions regarding this Arborist Report and Tree Retention Plan.

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Tree Retention Plan
1233 Central Avenue N, Kent WA

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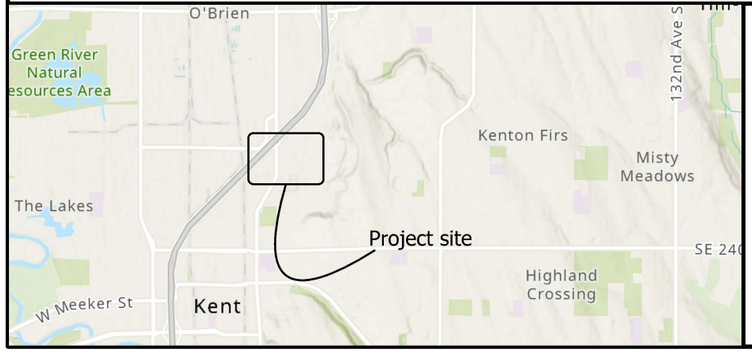
Tree (type of service) Table

Tree No.	Species	DBH (inches)	Status
966	Bitter cherry (*Prunus emarginata*)	14.2	Remove
967	Bitter cherry (*Prunus emarginata*)	12.4	Remove
968	Arborvitae (*Thuja occidentalis*)	22.9	Retain
969	English laurel (*Prunus laurocerasus*)	14.2	Retain
970	Arborvitae (*Thuja occidentalis*)	18.2	Retain
971	Arborvitae (*Thuja occidentalis*)	14.8	Retain
972	Arborvitae (*Thuja occidentalis*)	12.4	Retain
973	Arborvitae (*Thuja occidentalis*)	16.1	Retain
974	Arborvitae (*Thuja occidentalis*)	18.7	Retain
975	Arborvitae (*Thuja occidentalis*)	7.2	Retain
976	Arborvitae (*Thuja occidentalis*)	16.3	Retain
977	Arborvitae (*Thuja occidentalis*)	18.5	Remove



Symbols: (Approximate location)

- Inventoried tree recommended for retention
- Inventoried tree recommended for removal
- Limits of disturbance
- Tree protection fencing

2021 Aerial imagery and parcel data retrieved from King County GIS Portal.

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Tree Inventory Site Plan
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