



DRAFT

Inventory and Assessment Summary Report

Project: **City of Shoreline 175th Street Corridor Improvement Project
Stone Avenue North to Interstate-5
Shoreline, WA.**

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Contents: **Summary**
Introduction
Inventory and Assessment Limitations
Findings
Recommendations
References
Tree Assessment Site Plan
Tree Assessment Matrix
City of Shoreline Tree Protection Guidelines
UFS|BC General Tree Protection Guidelines
Critical Root Zone Explanation
Terms and Conditions

Date: December 9, 2022

This draft / in-progress report addresses trees impacted by all phases of work on N 175th Street between Midvale Avenue N And Interstate 5 (I-5).

Summary

Four hundred sixty-five (465) trees are included in this Inventory and assessment report for the 175th Street Corridor Improvement Project, of these trees:

- Four hundred forty-two (442) trees were directly inventoried and assessed in the field by UFS|BC.
- Twenty-three (23) trees not directly inventoried or assessed in the field by UFS|BC are included from a topographical survey dataset at the request of HBB. Metrics on these additional trees were estimated by UFS|BC using Google street view and available aerial imagery.

The tree size distribution of the inventory population is broken out by size designations¹ defined in the 2022 Shoreline Municipal Code (ShMC) 20.50.350-370 and detailed in Table 1 below.

Table 1. Total tree population by size and location designations

Tree size designation and location	Quantity by location	Total
Landmark	-	0
Significant	-	364
Private property	150	-
ROW Property	171	-
Parks Property	43	-
<6" DBH²	-	101
Private property	12	-
ROW Property	89	-
Parks Property	0	-
Total	465	465

Of this total population, the trees recommended for removal are outlined in Table 2 below. These trees are identified for removal due to direct and major construction impacts/conflicts or because I found a tree to be an unacceptable risk to surrounding persons, property, or use.

¹ **Significant Tree:** Any healthy tree six inches or greater in diameter at breast height (DBH), excluding those trees that qualify for complete exemptions from Chapter 20.50 SMC, Subchapter 5, Tree Conservation, Land Clearing, and Site Grading Standards, under SMC 20.50.310(A).

Landmark Tree: landmark trees must be registered/recognized through the City's "designation program." For a tree to be considered for Landmark designation, it must be a healthy tree over 24 inches in diameter at breast height (DBH) that is worthy of long-term protection due to a unique combination of size, shape, age, location, aesthetic quality for its species or any other trait that epitomizes the character of the species, and/or has cultural, historic or ecological importance or is a regional erratic. Long-term protection and recognition of any landmark tree may be obtained through the landmark tree designation program as detailed in SMC 20.50.350(F). (Ord. 955 § 1 (Exh. A), 2022).

² All other trees outside of the ROW measuring less than 6-inched DBH/under the 'significant' size threshold are excluded from this inventory except for twelve (12) trees on the property at 1615 N 175th, which were not included in our assessment but were included in the topographical survey data. Sizes for the trees at 1615 N 175th are estimates only.

Ninety-five (95) trees that will likely experience construction impacts within their critical root zones (CRZ) and/or driplines have the potential to be retained and protected due to a lesser degree of potential impacts to a trees CRZ. See Table 3 below.

Ninety-six (96) trees are far enough away from the planned improvements that impacts are not expected within their CRZ and/or dripline or impacts to/within the CRZ and/or dripline are negligible. See Table 4 below.

Table 2. Trees recommended and planned for removal

Removed tree size designation and location	Quantity by location	Total
Landmark	-	0
Significant	-	213
<i>Private property</i>	48	-
<i>ROW Property</i>	153	-
<i>Parks Property</i>	12	-
<6" DBH	-	61
<i>Private property</i>	0	-
<i>ROW Property</i>	61	-
<i>Parks Property</i>	0	-
Total	274	274

Table 3. Impacted trees with retention and protection potential

Impacted tree size designation and location	Quantity by location	Total
Landmark	-	0
Significant	-	73
<i>Private property</i>	55	-
<i>ROW Property</i>	5	-
<i>Parks Property</i>	13	-
<6" DBH	-	22
<i>Private property</i>	0	-
<i>ROW Property</i>	22	-
<i>Parks Property</i>	0	-
Total	95	95

Table 4. Non-impacted trees recommended for protection

Non impacted tree size designation and location	Quantity by location	Total
Landmark	-	0
Significant	-	78
<i>Private property</i>	47	-
<i>ROW Property</i>	13	-
<i>Parks Property</i>	18	-
<6" DBH	-	18
<i>Private property</i>	12	-
<i>ROW Property</i>	6	-
<i>Parks Property</i>	0	-
Total	96	96

This report provides draft tree protection guidelines for a total of one hundred ninety-one (191) trees potentially impacted by construction, which I believe could be effectively retained and protected given the information provided to us at the time of our assessment and reporting.

At the time of this report, the determinations for removal, impacted, and non-impacted trees are based on the "60% Draft, In-progress Plans developed for arborist site work exhibit" depicting the extent of proposed roadway improvements, wall extents, and related grade changes (cut and fill). Additional details and a review of the required work limits may be required in the lead-up to the final submittal to provide more specific and accurate tree protection and preservation specifications.

Introduction

As requested by HBB Landscape Architecture, we, Urban Forestry Services | Bartlett Consulting (UFS|BC), were initially asked to inventory up to two hundred ninety (290) trees throughout the 175th Street Corridor Improvement Project³ area from Stone Ave N. to Interstate-5 in Shoreline, Washington and assist in the tree protection and preservation plan for trees within and surrounding the planned improvements.

In total, the inventory dataset provided in this report includes four hundred sixty-five (465) trees. This increase in tree quantities is due to March 21, 2022, changes to Shoreline's Municipal Tree Code redefining size thresholds for significant trees, as well as changes to planned improvements throughout the corridor.

Ultimately, my colleague, Anna Heckman, and I directly inventoried and assessed four hundred forty-two (442) trees in the field throughout the 175th Street Corridor Improvement Project area. After our field inventory and assessment was completed, twenty-three (23) trees were added to the dataset at HBB and the City of Shoreline's request from a topographical survey layer provided by HBB. UFS|BC estimated the data surrounding these additional trees to the best of our ability using Google Street View and available aerial imagery with the understanding that a direct field inventory and assessment of these trees may be completed later, as needed.

The "60% Draft, In-progress Plans developed for arborist site work exhibit," used to inform potential impacts in this assessment, was provided by HBB on April 19, 2022. Fieldwork began on April 19, 2022, and was complete as of May 4, 2022.

³ Project background retrieved from City of Shoreline Website: <https://www.shorelinewa.gov/government/projects-initiatives/175th-street-corridor-improvements-project#:~:text=The%20175th%20Street%20corridor%20is,safer%20for%20all%20corridor%20users>

Inventory and Assessment Limitations

Determinations for classifying trees for removal or as impacted or non-impacted are based on April 2022 "60% Draft, In-progress Plans developed for arborist site work exhibit" provided by HBB. This exhibit depicts the extent of proposed grade cut and fill wall construction and other construction plans that may impact trees.

UFS|BC compared the "60% Draft, In-progress Plans developed for arborist site work exhibit" with the Critical Root Zone (CRZ) for each tree to estimate expected impacts to each tree and possible actions to minimize impacts. A review of the expected work limits, construction methods, and precise tree locations will be required in the lead-up to the final submittal. This additional information will allow for more specific and accurate tree removal, protection, and preservation recommendations. Adjustments to these determinations for removal and protection may be required after the project arborist reviews the final placement of the work and grading limits marked in the field. The client plans to protect the identified impacted trees, which, in our (UFS|BC) opinion, is possible if the attached General Tree Protection Guidelines are followed and implemented.

Not all tree point-locations⁴ shown on the attached *Tree Assessment Site Plan* are 'survey-quality'⁵. Thus, analysis surrounding the degree of impacts we expect the trees to face can only be considered approximate at this time. More than half (~65%) of the tree points shown in the *Tree Assessment Site Plan* were identified on the "60% Draft, In-progress Plans developed for arborist site work exhibit" provided by HBB. The margin for error in the survey dataset is unknown to UFS|BC, but it is expected to be relatively precise and accurate⁶.

Twenty-three (23) tree points are included in this report and dataset that were not included in our initial field assessment but were included in the topographical survey conducted after our fieldwork was completed. These tree points include:

- six (6) points on the property at 1610 N 175th St,
- three (3) points on the property at 1616 N 175th St, and
- fourteen (14) points on the property at 1615 N 175th St

At the request of HBB and the City of Shoreline, these topographical surveyed tree points have been included in the inventory and assessment dataset as assumed trees (significant or otherwise). We used Google Street View and available aerial imagery (Google and King County 2021 aerial imagery) to estimate trunk diameter (DBH) for these survey points. Because of imagery resolution and view limitations in Google

⁴ Point-location/Tree-location: a discrete geographic location, in this case, an individual tree. Each tree point on the map is created by latitude and longitude coordinates and is stored as an individual record in our Geographic Information Systems (GIS) inventory software.

⁵ Survey-quality/Survey-grade: Spatial data collected by a qualified and licensed surveyor using high accuracy and precision equipment such as a Total Station or survey-grade GPS/GNSS receiver with sub-centimeter error-in-location potential

⁶ Typical survey-grade methods using Total Stations and high accuracy GPS/GNSS can consistently provide a sub-centimeter or less error-in-location potential.

Street View, UFS|BC cannot confirm whether these twenty-three (23) points are or are not trees or what the quantitative or qualitative metrics of the points may be. Many of the tree points are located in back gardens and landscapes and are not visible from Google Street View. It is not uncommon for surveyors to pick up shrubs or woody plants that do not technically classify as trees. As an example, it appears one or two smaller Rhododendrons in the front yard of the property at 1615 N 175th Street (visible from Google Street View) were captured in the survey as tree points when in fact they are not classified as trees. HBB instructions are that in this assessment we assume these points are trees and to estimate the trunk diameters of the trees as significant in size (>6 inches) or less than 6 inches DBH, to the best of our abilities. This data is provided below in our findings and in the *Tree Assessment Matrix*.

Approximately 35% of the inventoried and assessed trees were not included in the “60% Draft, In-progress Plans developed for arborist site work exhibit.” Our team utilized the built-in GPS receivers in our tablet devices (iOS and Android) to collect the additional tree locations using our inventory software to account for these discrepancies. We also utilized manual 'touch-locate' point collection and adjustment methods using aerial imagery base maps and a georeferenced “60% Draft, In-progress Plans developed for arborist site work exhibit” incorporated into our inventory software. The tablet devices we use have an error-in-location potential of ±15-feet. This difference can considerably affect the degree of potential impacts and whether trees can be effectively protected. In other words, if a tree's location in relation to future construction is not fully accurate, proposed impacts could be closer to a tree's critical root zone than anticipated; this location inaccuracy could potentially change a tree's retention status. To accurately determine trees that can be protected and those that will require removal, all trees in this inventory should be located through a high precision and accuracy survey.

Findings

Information on each tree's vigor, structure, defects, and preservation value can be found in the *Tree Assessment Matrix*. Designations of removal, impacted, and non-impacted trees are also outlined in the *Tree Assessment Matrix* and *Tree Assessment Site Plan*.

Tree ID/Numbering Schema

Where property access Rights-of-Entry (ROE) and site conditions permitted, trees in this inventory received an ISA Level 2 Basic Assessment and an aluminum numerical identification tag. Where property access was limited or site condition constraints occurred, trees received an ISA Level 1 Limited Visual Risk Assessment and did not receive a numerical tag in the field; data for these trees was obtained by limited visual inspection, estimates, and assumptions.

Sixty-five (65) trees did not receive an identification number for two reasons:

1. The trunk of a tree measured less than 6-inches DBH, not meeting the 'significant' size threshold outlined by the City of Shoreline. This includes a total of forty-two (42) trees. Trees within this group are identified with a 'UN<6in' identifier, standing for 'unnumbered less than 6-inches DBH' in the *Tree Assessment Matrix* and *Tree Inventory and Assessment Site Plan*.
 - a. *Note: the statistics above pertain to trees in the ROW that are not 'street trees' – trees intentionally planted in ROW planting spaces between the road and the sidewalk, which have a unique protection status in the City of Shoreline. Street trees measuring less than 6-inches DBH still received identification numbers due to their value and intended use as 'green infrastructure.' In total, there are forty-seven (47) ROW street trees that measure less than 6-inches DBH. This note is important to keep in mind when viewing the statistics for trees less than 6 inches DBH in the Tree Size Thresholds section below.*
2. A tree was included in the topographical survey that followed our fieldwork that was not identified during our assessment and has been included at the request of HBB and the City of Shoreline. This pertains to twenty-three (23) trees throughout private properties at 1610, 1616, and 1615 N 175th St. Trees within this group are identified with an 'UN-TSO' identifier, standing for 'unnumbered - topographical survey only' in the *Tree Assessment Matrix* and *Tree Inventory and Assessment Site Plan*.
 - a. *Note: of these twenty-three (23) trees, eleven (11) are estimated to be significant in size, and twelve (12) are estimated to be less than 6-inches DBH. This note is important to keep in mind when viewing the statistics for trees less than 6 inches DBH in the Tree Size Thresholds section below.*

Tree Size Thresholds

Four hundred sixty-five (465) trees are included in this tree inventory. Of these trees, three hundred sixty-four (364) are of significant size as defined by March 21, 2022, published/issued changes to Shoreline's municipal tree regulations.

There are zero (0) City of Shoreline records for any 'Landmark' designated trees within the project limits.

One hundred-one (101) trees are included in the population total that do not meet the minimum size threshold for a significant tree. These trees were included either because of their location in the ROW and inclusion on the plans we were provided and used in the field for reference or because a tree was specifically requested for inclusion by HBB and the City of Shoreline due to it being included in topographical survey data provided after our fieldwork was completed.

Of the one hundred-one (101) trees less than 6 inches DBH, eighty-nine (89) are located in the ROW - Forty-seven (47) are ROW street trees, and forty-two (42) are located within the ROW but are not street trees. The remaining twelve (12) trees under 6 inches DBH are located throughout properties at 1610, 1616, and 1615 N 175th St.

Tree Population

Over sixty (60) tree species comprise the total inventory population (see Table 5). Over 20% of the trees are native Douglas fir and Western red cedars, and over thirty-seven (37) individual species represent less than 1% of the population each. The trunk diameters for this population, measured at 4.5-feet from grade (DBH), range from 0.5 to 43.2-inches DBH.

Table 5. Tree Species Summary

Species	Quantity
Douglas fir (<i>Pseudotsuga menziesii</i>)	93
Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	32
purple-leaf Plum (<i>Prunus x blireana</i>)	32
Western red cedar (<i>Thuja plicata</i>)	31
Norway spruce (<i>Picea abies</i>)	23
red maple (<i>Acer rubrum</i>)	17
Austrian pine (<i>Pinus nigra</i>)	14
Ginkgo (<i>Ginkgo biloba</i>)	14
European beech (<i>Fagus sylvatica</i>)	13
London plane (<i>Platanus x acerifolia</i>)	11
red alder (<i>Alnus rubra</i>)	11
red oak (<i>Quercus rubra</i>)	11
Western white pine (<i>Pinus monticola</i>)	10
bitter cherry (<i>Prunus emarginata</i>)	10
Alaska cedar (<i>Cupressus nootkatensis</i>)	9
shore pine (<i>Pinus contorta</i>)	7
Deodar cedar (<i>Cedrus deodara</i>)	6
incense cedar (<i>Calocedrus decurrens</i>)	6
vine maple (<i>Acer circinatum</i>)	6

Species	Quantity
English laurel (<i>Prunus laurocerasus</i>)	5
Hinoki cypress (<i>Chamaecyparis obtusa</i>)	5
Japanese flowering cherry (<i>Prunus serrulata</i>)	4
Leyland cypress (<i>Cupressocyparis leylandii</i>)	4
Pacific madrone (<i>Arbutus menziesii</i>)	4
Western hemlock (<i>Tsuga heterophylla</i>)	4
scotch pine (<i>Pinus sylvestris</i>)	4
silver birch (<i>Betula pendula</i>)	4
Freeman maple (<i>Acer x freemanii</i>)	3
one-seed hawthorn (<i>Crataegus monogyna</i>)	3
paperbark birch (<i>Betula papyrifera</i>)	3
Callery pear (<i>Pyrus calleryana</i>)	2
Colorado spruce (<i>Picea pungens</i>)	2
Eastern red cedar (<i>Juniperus virginiana</i>)	2
Norway maple (<i>Acer platanoides</i>)	2
apple (<i>Malus domestica</i>)	2
black cottonwood (<i>Populus trichocarpa</i>)	2
giant sequoia (<i>Sequoiadendron giganteum</i>)	2
mountain hemlock (<i>Tsuga mertensiana</i>)	2
Atlas cedar (<i>Cedrus atlantica</i>)	1
Babylon weeping willow (<i>Salix babylonica</i>)	1
European mountain ash (<i>Sorbus aucuparia</i>)	1
European yew (<i>Taxus baccata</i>)	1
Japanese maple (<i>Acer palmatum</i>)	1
Kobus magnolia (<i>Magnolia kobus</i>)	1
Kwanzan flowering cherry (<i>Prunus serrulata</i> 'Kwanzan')	1
Lawson cypress (<i>Chamaecyparis lawsoniana</i>)	1
Pacific crab apple (<i>Malus fusca</i>)	1
Pacific dogwood (<i>Cornus nuttallii</i>)	1
Siberian elm (<i>Ulmus pumila</i>)	1
Sitka spruce (<i>Picea sitchensis</i>)	1
black locust (<i>Robinia pseudoacacia</i>)	1
box elder (<i>Acer negundo</i>)	1
common juniper (<i>Juniperus communis</i>)	1
goldenchain tree (<i>Laburnum anagyroides</i>)	1
grand fir (<i>Abies grandis</i>)	1
quaking aspen (<i>Populus tremuloides</i>)	1
smoke tree (<i>Cotinus coggygria</i>)	1
umbrella pine (<i>Sciadopitys verticillata</i>)	1
Other/unknown/not identified	30
Total	465

Tree Condition

The trees in this inventory and assessment display a full range of vigor and structure, from dead or dying to good, though most trees exhibit fair to good vigor (324 trees) and structure (258 trees). Seventeen (17) trees are dying/dead or in poor overall condition; these include trees 120, 121, 123, 153, 187, 211, 214, 217, 219, 221, 223b, 228, 232, 395, 423, and 498, and one (1) tree without an ID number that measures under the significant size threshold.

Tree Preservation Value

The median preservation value for the assessed trees is *medium*. Preservation value is defined here as the quality and viability of a tree considering potential impacts from planned improvements:

- **Dead and/or hazardous** – no longer functioning as a living tree. A dead tree may present opportunities for retention as habitat as long as it does not present a hazard.
- **Low** – a poor specimen; the condition and/or species has a low potential for post-construction survival or landscape contribution.
- **Medium** – a common species with average qualities for post-construction survival and landscape contribution.
- **High** – a specimen and species with above-average characteristics and good potential for post-construction landscape contribution.

Impacted Trees

Trees classified as impacted in this assessment are those that will experience impacts, direct or indirect, to their Critical Root Zones (CRZ) based on the “60% Draft, In-progress Plans developed for arborist site work exhibit”. Impacts are classified in the following ways:

- **Direct** – a tree resides directly within the planned work limits. Greater than 50% of a tree's Critical Root Zone is expected to incur loss.
- **Major** – a tree resides outside the planned work limits, but a large portion (20%<50%) of the tree's CRZ is expected to incur loss.
- **Minor** – a tree resides outside of the planned work limits, and a small portion (5%<20%) of the tree's CRZ is expected to incur loss.
- **Negligible to none** - a tree resides outside of the planned work limits to the degree that less than 5% loss is expected within the tree's CRZ.

Through GIS analysis, the planned improvements were evaluated against each tree's CRZ. Through this analysis, we were able to classify specific trees as potential candidates for removal or retention and protection. Table 6 below outlines possible protected trees within each impact classification.

Many (59%) of the trees within and closely surrounding planned improvements will incur major and direct impacts requiring removal. Approximately 41% of the remaining trees have the potential to be retained using the tree general protection measures provided in this report as guidance.

It is essential to understand that removal and protection determinations are estimates only at this time and may change over time as the project develops. The final quantity of trees removed or protected in this project will be influenced by each tree's exact

location in proximity to the planned improvements. Adjustments to our removal and protection recommendations may be required after the project arborist reviews the final placement of the work and grading limits marked in the field.

Preserved trees

Ninety-six (96) trees included in this assessment are not expected to be impacted by construction. However, they are still near enough to the potential work limits and improvements to warrant protection considerations. These *negligible to non-impacted* trees are referred to as "preserved" trees and must be protected according to the attached *UFS/BC General Tree Protection Guidelines* and Shoreline Tree Protection Guidelines to ensure that they remain non-impacted.

Of the Ninety-six (96) negligible to non-impacted trees included in this inventory, seventy-eight (78) are significant with a DBH range of 6 to 29.4-inches and are slated for preservation. Six (6) non-impacted trees in the ROW measuring less than 6-inches DBH are also identified for preservation.

Table 6. Impact Group Summary

Impact Group	Protected	Removed	Totals
<u>Direct</u>	24	252	276
Landmark Significant	-	-	-
Private property	<u>2</u>	<u>191</u>	<u>193</u>
ROW property	-	31	31
Parks property	2	153	155
<6" DBH	-	7	7
Private property	<u>22</u>	<u>61</u>	<u>83</u>
ROW property	-	-	-
Parks property	22	61	83
	-	-	-
<u>Major</u>	46	22	68
Landmark Significant	-	-	-
Private property	<u>46</u>	<u>22</u>	<u>68</u>
ROW property	37	17	54
Parks property	3	-	3
<6" DBH	6	5	11
Private property	-	-	-
ROW property	-	-	-
Parks property	-	-	-
<u>Minor</u>	25	0	25
Landmark Significant	-	-	-
Private property	<u>25</u>	-	<u>25</u>
ROW property	18	-	18
Parks property	-	-	-
<6" DBH	7	-	7
Private property	-	-	-
ROW property	-	-	-
Parks property	-	-	-
<u>Impacted Totals</u>	95	274	369
Landmark Significant	-	-	-
Private property	<u>73</u>	<u>213</u>	<u>286</u>
ROW property	55	48	103
Parks property	5	153	158
<6" DBH	13	12	25
Private property	<u>22</u>	<u>61</u>	<u>83</u>
ROW property	-	-	-
Parks property	22	61	83
	-	-	-
<u>Negligible to No Impact Totals</u>	96	0	96
Landmark Significant	-	-	-
Private property	<u>78</u>	-	<u>78</u>
ROW property	47	-	47
Parks property	13	-	13
<6" DBH	18	-	18
Private property	<u>18</u>	-	<u>18</u>
ROW property	12	-	12
Parks property	6	-	6
	-	-	-

Risk Assessment Summary

Of the four hundred forty-two (442) trees directly inventoried and assessed⁷ in the field, the distribution of risk ratings assigned to the trees throughout the area of the 175th Street Corridor Project is relatively uniform. Except for one (1) dead tree, tree 136, which we found was *likely* to fail and impact surrounding targets (potentially a *high-risk* tree), I found the remaining four hundred forty-one (441) trees were unlikely to fail and impact surrounding targets (low risk).

The risk assessment and risk rating timeframe for trees included in this inventory is two (2) years from the date of this report or until clearing for construction begins, whichever comes first. A re-assessment is highly recommended for all remaining trees after clearing occurs.

Risk Assessment Limitations

Assignment

Our ground-based limited visual assessment of the trees throughout the 175th Street Corridor Project area is based on a series of site visits between April 19, 2022, and May 4, 2022. As an ISA Level 1 Limited Visual Assessment, all risk-related observations were made from a single walking path of travel throughout the project areas and residential properties we had permission and the ability to access. All photographs, samples, and readings, if applicable, were taken at the time the assessment was performed. The assessment is limited to visible and accessible portions of the root collar and canopy; vegetation covering the ground and tree parts may be obstructing defects from view.

Tree Risk Assessments

It is important for the tree owner(s) or manager(s) to know and understand that all trees pose some degree of risk from failure or other conditions. The information and recommendations within this report have been derived from the level of tree risk assessment identified in this report, using the information and practices outlined in the *International Society of Arboriculture's Best Management Practices for Tree Risk Assessment* and *American National Standards Institute A300 Tree Risk Assessment Standard*, as well as the information available at the time of the inspection. However, the overall tree risk rating, the mitigation recommendations, or any other conclusions do not preclude the possibility of failure from undetected conditions, weather events, or other acts of man or nature. Trees can unpredictably fail even if no defects or other conditions are present. Tree failure can cause adjacent trees to fail, resulting in a "domino effect" that impacts targets outside the foreseeable target zone of

⁷ This does not include the twenty-three (23) trees added from the topographical survey data after our assessment. The additional 23 trees have not been assessed for risk.

this tree. It is the responsibility of the tree owner or manager to schedule repeat or advanced assessments, determine actions, and implement follow-up recommendations, monitoring, and/or mitigation.

Bartlett Tree Experts can make no warranty or guarantee whatsoever regarding the safety of any tree, trees, or parts of trees, regardless of the level of tree risk assessment provided, the risk rating, or the residual risk rating after mitigation. The information in this report should not be considered as making safety, legal, architectural, engineering, landscape architectural, land surveying advice, or other professional advice. This information is solely for the use of the tree owner(s) and manager(s) to assist in the decision-making process regarding the management of their tree or trees. Tree risk assessments are simply tools that should be used in conjunction with the owner or tree manager's knowledge, other information and observations related to the specific tree or trees discussed, and sound decision-making.

Recommendations

Tree Removal

- **274 trees**

Of four hundred sixty-five (465) trees included in this assessment, two hundred seventy-four (274) trees are identified for removal at this time. Removal is recommended either because of major or direct construction conflicts or because we found a tree to be an unacceptable risk to surrounding persons, property, or use.

Table 7. Trees to be removed

Removed tree size designation and location	Quantity by location	Total
Landmark	-	0
Significant	-	213
<i>Private property</i>	48	-
<i>ROW Property</i>	153	-
<i>Parks Property</i>	12	-
<6" DBH	-	61
<i>Private property</i>	0	-
<i>ROW Property</i>	61	-
<i>Parks Property</i>	0	-
Total	274	274

Tree replacement details and a landscape plan indicating tree replacement are to be provided separately by HBB during later phases of the project.

Tree Protection

- **191 trees**

One hundred ninety-one (191) trees in the City of Shoreline have been identified for retention and protection during and after construction; this includes:

Table 8. Trees to be protected

Protected tree size designation and location	Quantity by location	Total
Landmark	-	0
Significant	-	151
<i>Private property</i>	102	-
<i>ROW Property</i>	18	-
<i>Parks Property</i>	31	-
<6" DBH	-	40
<i>Private property</i>	12	-
<i>ROW Property</i>	28	-
<i>Parks Property</i>	0	-
Total	274	191

Forty (40) of the trees recommended for protection are under 6-inches DBH and are not protected under Shoreline's code due to not meeting the significant size threshold. We still recommend that these trees receive protection to prevent long-term structural and/or health issues in the future when the trees potentially reach a significant size.

Twenty-four (24) trees assessed as having 'direct' construction impacts are still slated for protection; these include trees 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 144, 145, 146, 147, 148, 149, 150, 151, 152, 370. This phenomenon mostly arises due to the presence of twenty-three (23) of the trees are young street trees at the west end of the corridor that can effectively be protected during construction. The remaining tree (370) is within the identified work limits but can still be effectively protected during construction, given its size and proximity to planned improvements.

All trees identified for retention will need to be protected per the attached UFS|BC General Tree Protection Guidelines and the City of Shoreline Tree Protection Guidelines if they are to be effectively retained. A CRZ explanation is included in the attachments for reference.

Please let me know if you have questions regarding this Inventory and Assessment Summary Report.

DRAFT

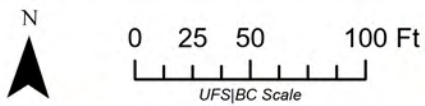


Tyler Holladay, Consultant

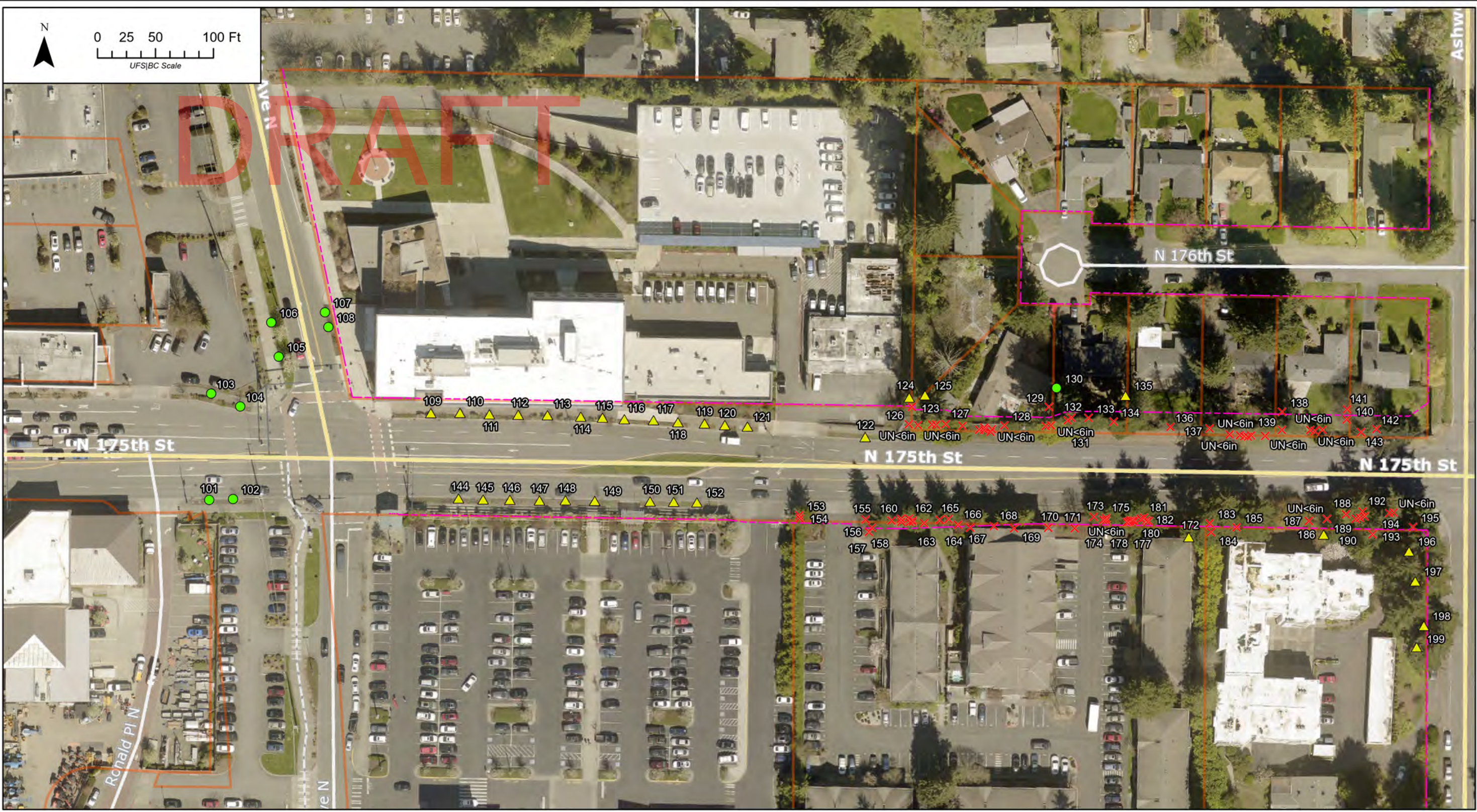
Email: tholladay@Bartlett.com

References

- ISA Tree Risk Assessment Manual**, Dunster, L., Smiley, T., Matheny, N., and Lilly, S. 2017 International Society of Arboriculture.
- ISA Best Management Practice, Tree Risk Assessment**, Smiley, T., Matheny, N., and Lilly, S. 2011 International Society of Arboriculture.
- Tree Risk Assessment in Urban Areas and Urban/Rural Interface**, Dunster, J. 2009 Pacific Northwest Chapter, International Society of Arboriculture.



DRAFT



Notes:

1) The determinations for classifying trees for removal, or as impacted or non-impacted, is based on the April 2022, "60% Draft, In-progress Plans developed for arborist site work" exhibit provided by HBB. This exhibit depicts the extent of proposed grade cut and fill, wall construction, and other works that may impact trees. The 60% Draft design has been compared in relation to each tree's Critical Root Zone (CRZ) to determine expected impacts and possible actions. Additional details and a review of the required work limits, construction methods, and tree locations will be required in the lead-up to final 90% phased submittals. This additional service shall provide more specific and accurate tree removal, protection, and preservation recommendations. Further adjustments to determinations for removal and protection may be required after the project arborist reviews the final placement of the work and grading limits marked in the field.

2) Alternative Tree ID symbols are used to identify trees that did not receive a numerical ID number. The alternatives used include 'UN<6in' and 'UN-TSO.' See the Arborist report for details. UN<6in = an unnumbered tree less than 6-inches DBH. (street trees <6 inches DBH received numbers. UN-TSO = an unnumbered tree included from the topographical survey only. Trees with this designation were included in the topographical survey that followed our fieldwork which were not identified during our assessment but have been included at the request of HBB and the City of Shoreline.

Symbols: (Approximate locations)

- 123 Tree identification number*
- X Remove tree
- ▲ Impacted tree
- Preserved tree
- } Protect
- Right of Way Boundary
- Parcel Boundaries

* Map labels have been simplified for reference legibility; some labels may be missing. See the Tree Assessment Matrix for individual tree details

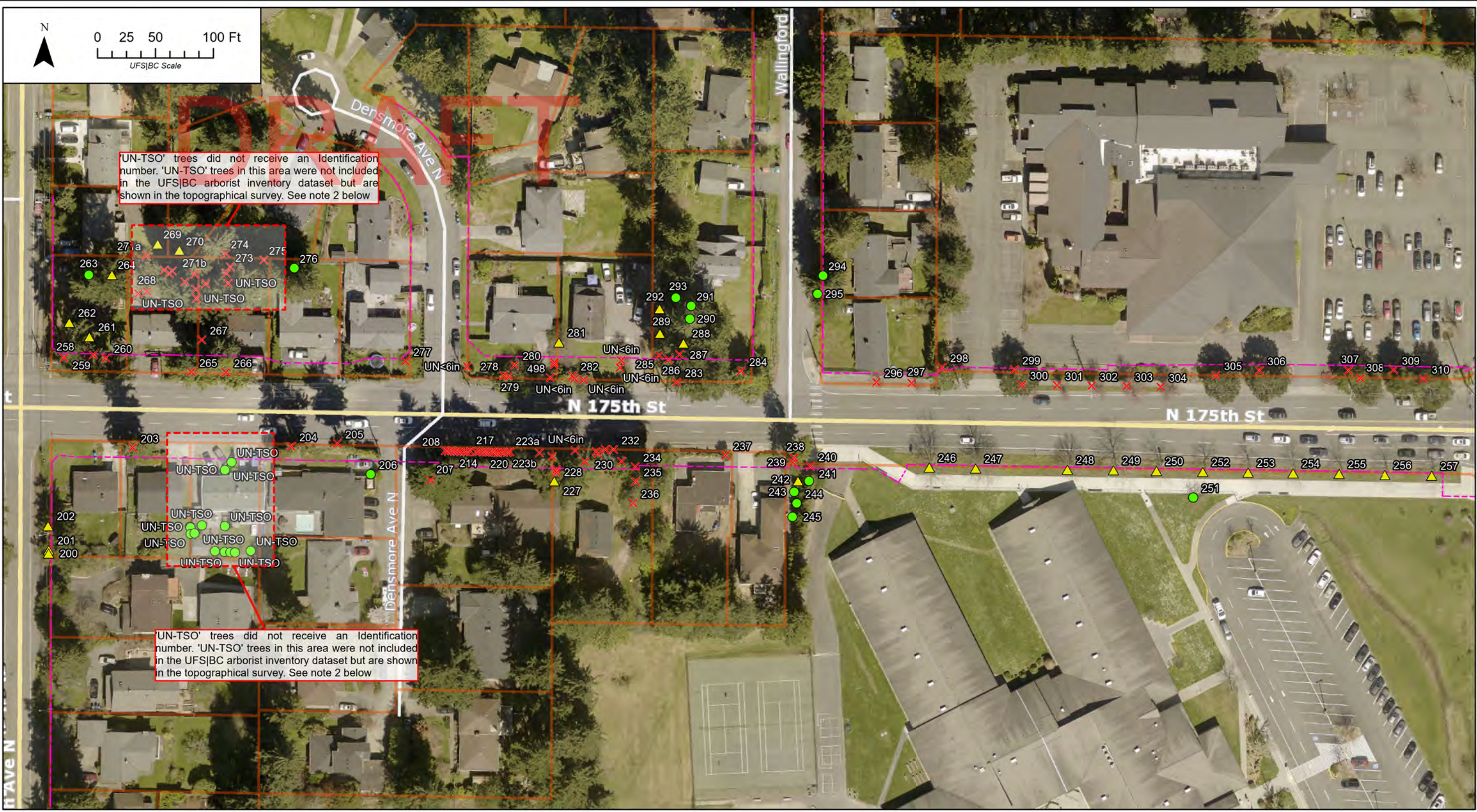
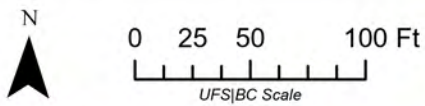
ROW boundary lines provided by HBB, 10/2021. 2021 aerial imagery and parcel layers retrieved from the King County GIS Portal, 2022.

**Tree Inventory and Assessment Site Plan
175th Street Corridor Improvement Project**

Stone Way to Interstate-5
Shoreline, Washington

Urban Forestry Services
BARTLETT CONSULTING
 Division of The F.A. Bartlett Tree Expert Company
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FERTILIZED ARBORIST ISA
 Pacific Northwest ISA
 asca AMERICAN SOCIETY OF CONSULTING ARBORISTS



'UN-TSO' trees did not receive an Identification number. 'UN-TSO' trees in this area were not included in the UFS|BC arborist inventory dataset but are shown in the topographical survey. See note 2 below

'UN-TSO' trees did not receive an Identification number. 'UN-TSO' trees in this area were not included in the UFS|BC arborist inventory dataset but are shown in the topographical survey. See note 2 below



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Symbols: (Approximate locations)

- Tree identification number*
- Remove tree
- Impacted tree
- Preserved tree
- Right of Way Boundary
- Parcel Boundaries
- Protect

* Map labels have been simplified for reference legibility; some labels may be missing. See the Tree Assessment Matrix for individual tree details

ROW boundary lines provided by HBB, 10/2021. 2021 aerial imagery and parcel layers retrieved from the King County GIS Portal, 2022.

Tree Inventory and Assessment Site Plan
 175th Street Corridor Improvement Project

Stone Way to Interstate-5
 Shoreline, Washington

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Symbols: (Approximate locations)

- Tree identification number*
- Remove tree
- Impacted tree
- Preserved tree
- Right of Way Boundary
- Parcel Boundaries

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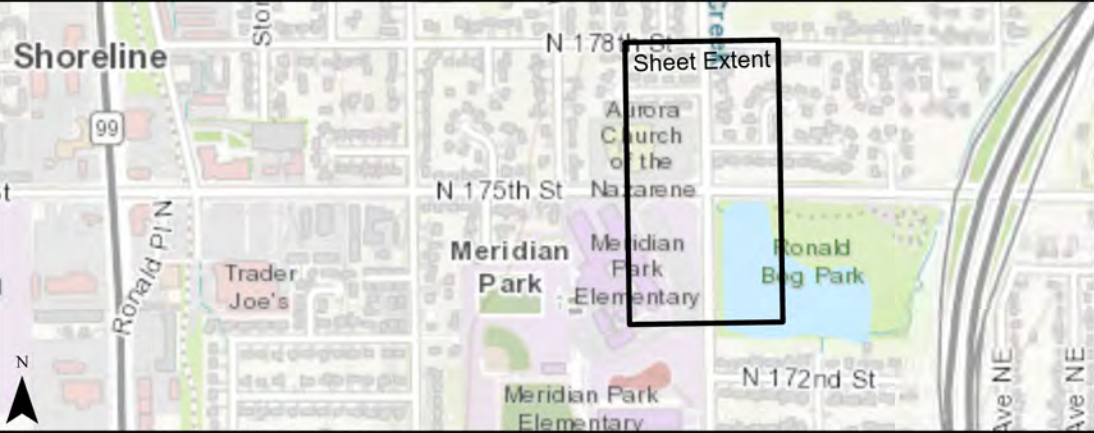
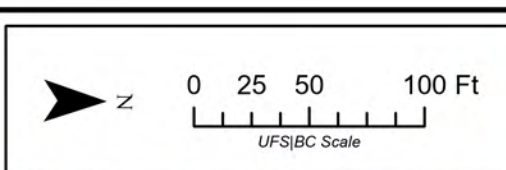
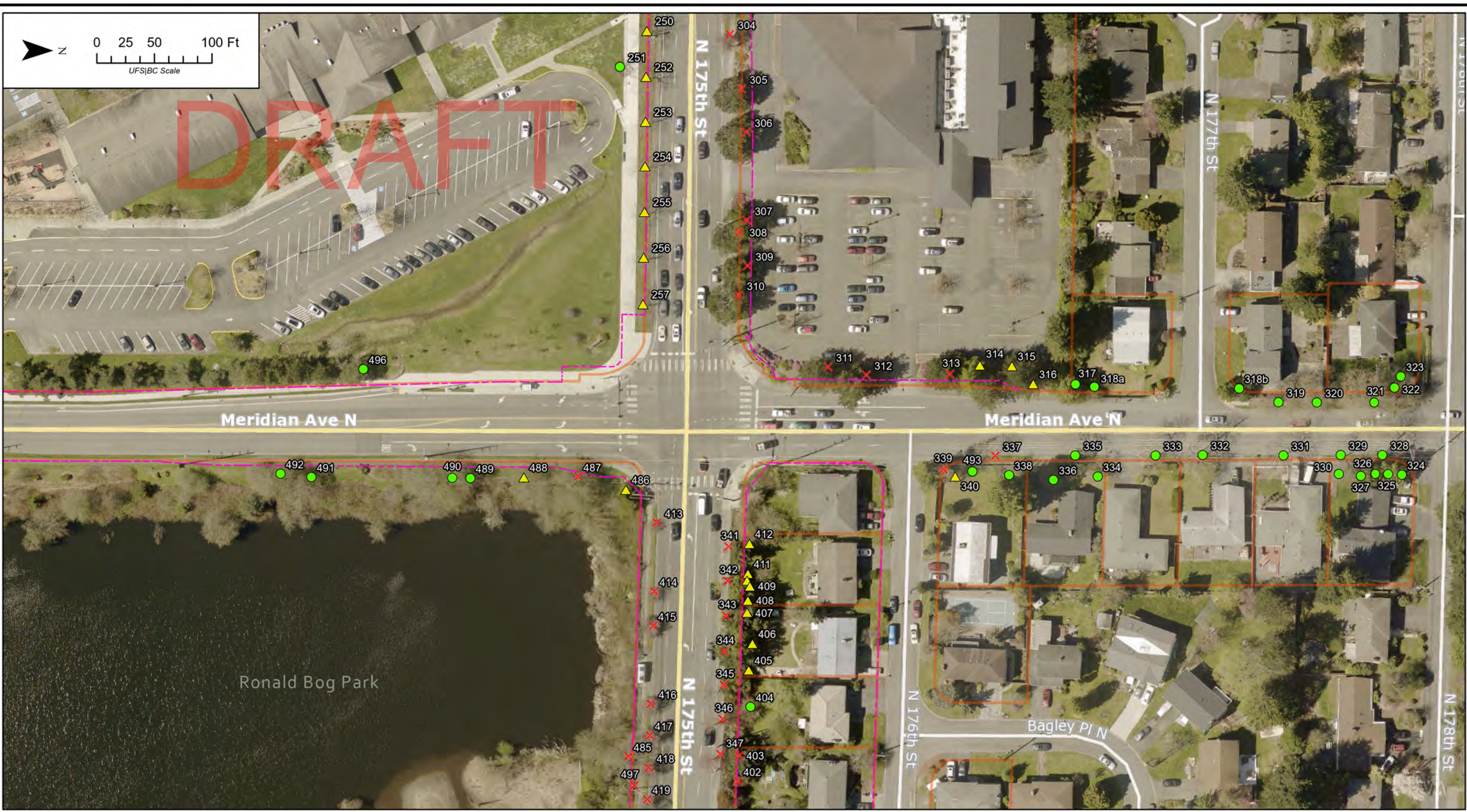
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Tree Inventory and Assessment Site Plan
 175th Street Corridor Improvement Project

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 Shoreline, Washington

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Symbols: (Approximate locations)

- Tree identification number*
- Remove tree
- Impacted tree
- Preserved tree
- Right of Way Boundary
- Parcel Boundaries
- Protect

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ROW boundary lines provided by HBB, 10/2021. 2021 aerial imagery and parcel layers retrieved from the King County GIS Portal, 2022.

Tree Inventory and Assessment Site Plan
175th Street Corridor Improvement Project

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 Shoreline, Washington

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175th Street Multimodal Corridor Project
Shoreline, Washington
Tree Assessment Matrix

Assessor: Holladay T.P.
ISA Certified Arborist
ISA Tree Risk Assessment Qualified

Table 1 - Significant Trees [364 trees]

Tree No. Alternatives: (see report for details and definitions)
UN<6in = unnumbered tree less than 6 inches DBH
UN-TSO = unnumbered tree - topographical survey only

Tree No.	11/16/2022 Action Determination	Common Name (Scientific Name)	DBH / QMD (in)	Significant	Landmark	Vigor	Structure	Preservation Value	Risk Rating	Potential Impacts	Location	Notes
e.g., "1"	"Preserved - Protect"	"Pear (Pyrus)"	"22"	"Y" (Yes)	"N" (No)	"Good"	"Fair"	"Medium"	"Low"	"Direct"	"ROW"	"Narrative"
105	Protect	Callery pear (<i>Pyrus calleryana</i>)	7.4	Y	N	Fair to Good	Fair	Low	Low	Negligible to None	ROW - Street Tree	Level 2 Assessment
106	Protect	Callery pear (<i>Pyrus calleryana</i>)	6.5	Y	N	Fair to Good	Fair to Good	Low	Low	Negligible to None	ROW - Street Tree	Level 2 Assessment
112	Protect	European beech (<i>Fagus sylvatica</i>)	6.6	Y	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW - Street Tree	Level 2 Assessment
123	Remove	scotch pine (<i>Pinus sylvestris</i>)	9.0	Y	N	Poor to Fair	Poor	Low	Low	Direct	ROW	Level 1 assessment. This tree was topped
124	Protect	scotch pine (<i>Pinus sylvestris</i>)	14.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Major	Private Property	Level 1 assessment.
125	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	20.0	Y	N	Fair to Good	Fair	High	Low	Major	Private Property	Level 1 assessment.
126	Remove	Siberian elm (<i>Ulmus pumila</i>)	14.0	Y	N	Fair	Poor	Low	Low	Direct	ROW	Level 1 assessment. This tree was topped
127	Remove	Western red cedar (<i>Thuja plicata</i>)	17.0	Y	N	Fair	Poor	Low	Low	Direct	ROW	Level 1 assessment. This tree was topped
128	Remove	grand fir (<i>Abies grandis</i>)	10.0	Y	N	Good	Poor to Fair	Low	Low	Direct	ROW	Level 1 assessment. This tree was topped
129	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	32.0	Y	N	Fair to Good	Good	High	Low	Major	Private Property	Level 1 assessment.
130	Protect	Western red cedar (<i>Thuja plicata</i>)	12.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Negligible to None	Private Property	Small tree under tree #129. Survey locations appear to be off
131	Remove	Western white pine (<i>Pinus monticola</i>)	6.0	Y	N	Fair	Poor	Low	Low	Direct	ROW	Level 1 assessment. This tree was topped
132	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	6.0	Y	N	Fair to Good	Fair to Good	Low	Low	Direct	ROW	Level 1 assessment.
133	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	28.0	Y	N	Fair	Fair	Medium	Low	Direct	ROW	Level 1 assessment.
134	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	32.0	Y	N	Fair to Good	Good	High	Low	Direct	ROW	Level 1 assessment.
135	Protect	Western hemlock (<i>Tsuga heterophylla</i>)	16.0	Y	N	Poor to Fair	Fair to Good		Low	Minor	Private Property	Level 1 assessment.
136	Remove	unidentifiable/dead	21.0	Y	N	Dying/Dead	Poor to Fair	Hazard	High	Direct	ROW	Level 2 Assessment
137	Remove	Deodar cedar (<i>Cedrus deodara</i>)	24.0	Y	N	Fair	Fair	High	Low	Direct	ROW	This tree was topped. Level 2 Assessment
138	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	15.0	Y	N	Good	Good	High	Low	Direct	Private Property	Level 1 assessment. Survey needs to be evaluated
139	Remove	box elder (<i>Acer negundo</i>)	18.0	Y	N	Fair	Fair	Medium	Low	Direct	ROW	Level 2 Assessment
140	Remove	Western hemlock (<i>Tsuga heterophylla</i>)	10.0	Y	N	Fair	Fair to Good	Low	Low	Direct	ROW	Level 2 Assessment
141	Remove	Pacific dogwood (<i>Cornus nuttallii</i>)	12.0	Y	N	Fair to Good		High	Low	Major	Private Property	English Ivy is growing on this tree. Level 2 Assessment
142	Remove	Western hemlock (<i>Tsuga heterophylla</i>)	26.0	Y	N	Fair to Good	Poor to Fair	Medium	Low	Direct	ROW	Level 1 assessment. English Ivy is growing on this tree. The tree has been topped
143	Remove	Japanese flowering cherry (<i>Prunus serrulata</i>)	6.0	Y	N	Fair	Fair	Low	Low	Direct	ROW	Level 2 Assessment
153	Remove	shore pine (<i>Pinus contorta</i>)	9.5	Y	N	Dying/Dead	Fair to Good	Dead	Low	Direct	ROW	Level 2 Assessment
154	Remove	shore pine (<i>Pinus contorta</i>)	14.3	Y	N	Poor to Fair	Fair		Low	Direct	ROW	Level 2 Assessment
155	Remove	mountain hemlock (<i>Tsuga mertensiana</i>)	7.1	Y	N	Fair	Fair	Medium	Low	Direct	ROW	Level 2 Assessment
156	Remove	London plane (<i>Platanus x acerifolia</i>)	14.4	Y	N	Fair	Fair to Good	Medium	Low	Direct	Private Property	Level 2 Assessment
157	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	19.5	Y	N	Fair	Poor to Fair	Medium	Low	Direct	ROW	Level 2 Assessment
158	Remove	Alaska cedar (<i>Cupressus nootkatensis</i>)	12.2	Y	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW	Level 2 Assessment
160	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	8.3	Y	N	Fair	Fair	Low	Low	Direct	ROW	Level 2 Assessment
161	Remove	Alaska cedar (<i>Cupressus nootkatensis</i>)	10.9	Y	N	Fair	Fair	Low	Low	Direct	ROW	Level 2 Assessment
162	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	6.7	Y	N	Poor to Fair	Fair	Low	Low	Direct	ROW	Level 2 Assessment
163	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	10.0	Y	N	Fair	Fair	Low	Low	Direct	ROW	Level 2 Assessment
164	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	13.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW	Level 2 Assessment
165	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	8.7	Y	N	Fair	Fair to Good	Medium	Low	Direct	ROW	Level 2 Assessment
166	Remove	red maple (<i>Acer rubrum</i>)	7.3	Y	N	Fair to Good	Fair	Medium	Low	Direct	ROW	Level 2 Assessment
167	Remove	Leyland cypress (<i>Cupressocyparis leylandii</i>)	13.9	Y	N	Fair to Good	Fair	Medium	Low	Direct	Private Property	Level 2 Assessment
168	Remove	Leyland cypress (<i>Cupressocyparis leylandii</i>)	9.6	Y	N	Fair to Good	Fair		Low	Direct	Private Property	Level 2 Assessment
169	Remove	Leyland cypress (<i>Cupressocyparis leylandii</i>)	14.5	Y	N	Fair to Good	Fair	Medium	Low	Direct	Private Property	Level 2 Assessment
170	Remove	red maple (<i>Acer rubrum</i>)	7.6	Y	N	Fair to Good	Fair to Good	Medium	Low	Major	Private Property	Level 2 Assessment
171	Remove	red maple (<i>Acer rubrum</i>)	10.4	Y	N	Fair to Good	Fair to Good	Medium	Low	Major	Private Property	Level 2 Assessment
172	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	15.2	Y	N	Fair to Good	Fair to Good	High	Low	Major	Private Property	Level 2 Assessment

Table 1 - Significant Trees [364 trees]

Tree No. Alternatives: (see report for details and definitions)
UN<6in = unnumbered tree less than 6 inches DBH
UN-TSO = unnumbered tree - topographical survey only

Tree No.	11/16/2022 Action Determination	Common Name (Scientific Name)	DBH / QMD (in)	Significant	Landmark	Vigor	Structure	Preservation Value	Risk Rating	Potential Impacts	Location	Notes
173	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	11.2	Y	N	Fair to Good	Fair	Medium	Low	Direct	ROW	Level 2 Assessment
174	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	11.3	Y	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW	Level 2 Assessment
175	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	10.1	Y	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW	Level 2 Assessment
176	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	6.2	Y	N	Fair	Poor to Fair	Low	Low	Direct	ROW	Level 2 Assessment
177	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	11.5	Y	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW	Level 2 Assessment
178	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	6.0	Y	N	Poor to Fair	Poor to Fair	Low	Low	Direct	ROW	Level 2 Assessment
179	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	15.5	Y	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW	Level 2 Assessment
180	Remove	Western red cedar (<i>Thuja plicata</i>)	10.2	Y	N	Fair to Good	Fair	Medium	Low	Direct	ROW	Level 2 Assessment
181	Remove	Western red cedar (<i>Thuja plicata</i>)	6.7	Y	N	Fair	Fair	Low	Low	Direct	ROW	Level 2 Assessment
182	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	14.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW	Level 2 Assessment
183	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	36.8	Y	N	Good	Fair to Good	High	Low	Direct	ROW	Level 2 Assessment
184	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	24.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Major	Private Property	Level 2 Assessment
185	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	30.0	Y	N	Fair	Fair	Medium	Low	Direct	Private Property	Level 2 Assessment
186	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	10.0	Y	N	Fair	Poor to Fair	Low	Low	Major	Private Property	Level 1 assessment.
187	Remove	silver birch (<i>Betula pendula</i>)	6.0	Y	N	Poor	Poor	Low	Low	Direct	ROW	Level 2 Assessment
188	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	13.0	Y	N	Fair	Fair	Medium	Low	Direct	ROW	Level 1 assessment.
189	Remove	Western red cedar (<i>Thuja plicata</i>)	10.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW	Level 1 assessment.
190	Remove	Western red cedar (<i>Thuja plicata</i>)	10.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW	Level 1 assessment.
191	Remove	Western red cedar (<i>Thuja plicata</i>)	10.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW	Level 1 assessment.
192	Remove	Pacific madrone (<i>Arbutus menziesii</i>)	10.8	Y	N	Poor to Fair	Fair to Good	Low	Low	Direct	ROW	Level 1 assessment. Cankers are present on this tree
193	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	28.0	Y	N	Poor to Fair	Poor to Fair	Low	Low	Major	Private Property	Level 1 assessment.
194	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	22.9	Y	N	Fair	Fair	High	Low	Direct	ROW	This tree contains a nest. English ivy is growing on the tree. Level 2 Assessment
195	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	25.5	Y	N	Fair	Fair	Low	Low	Direct	ROW	Level 2 Assessment
196	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	28.0	Y	N	Poor to Fair	Fair	Low	Low	Major	Private Property	Level 2 Assessment
197	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	37.0	Y	N	Fair	Fair	Low	Low	Major	Private Property	Level 1 assessment. There is decay present at the lower
198	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	28.8	Y	N	Fair	Fair	Medium	Low	Minor	Private Property	Level 2 Assessment
199	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	31.2	Y	N	Fair	Fair	Medium	Low	Minor	Private Property	Level 2 Assessment
200	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	26.5	Y	N	Fair to Good	Fair	Low	Low	Major	ROW	This tree has a double stem at 6-feet in height. Level 2 Assessment
201	Protect	bitter cherry (<i>Prunus emarginata</i>)	6.5	Y	N	Fair to Good	Fair	Low	Low	Major	ROW	Level 2 Assessment
202	Protect	Western red cedar (<i>Thuja plicata</i>)	24.5	Y	N	Fair to Good	Poor	Low	Low	Major	ROW	This tree was topped in the past. Half of the stem is functioning as a snag. Level 2 Assessment
203	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	28.0	Y	N	Fair	Fair to Good	Medium	Low	Direct	ROW	Level 1 assessment. No proerty access permission
204	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	36.0	Y	N	Fair to Good	Fair	Medium	Low	Direct	ROW	This tree was previously topped at around 60ft. Level 2 Assessment
205	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	27.2	Y	N	Fair to Good	Fair	Medium	Low	Direct	ROW	Level 2 Assessment
206	Protect	umbrella pine (<i>Sciadopitys verticillata</i>)	7.3	Y	N	Good	Poor to Fair	Medium	Low	Negligible to None	Private Property	Level 1 assessment. Wire tree ties are girdling this tree.
207	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	30.0	Y	N	Fair	Fair	Medium	Low	Major	Private Property	Level 1 assessment. This tree has multiple tops.
208	Remove	Norway spruce (<i>Picea abies</i>)	9.0	Y	N	Poor to Fair	Poor to Fair	Low	Low	Direct	ROW	Level 2 Assessment
209	Remove	Norway spruce (<i>Picea abies</i>)	6.9	Y	N	Poor to Fair	Poor	Low	Low	Direct	ROW	Level 2 Assessment
210	Remove	Norway spruce (<i>Picea abies</i>)	10.2	Y	N	Fair	Poor	Low	Low	Direct	ROW	Level 2 Assessment
211	Remove	Norway spruce (<i>Picea abies</i>)	6.5	Y	N	Poor	Poor	Dead	Low	Direct	ROW	Level 2 Assessment
212	Remove	Norway spruce (<i>Picea abies</i>)	7.9	Y	N	Poor to Fair	Fair	Low	Low	Direct	ROW	Level 2 Assessment
213	Remove	Norway spruce (<i>Picea abies</i>)	8.4	Y	N	Poor to Fair	Poor to Fair	Low	Low	Direct	ROW	Level 2 Assessment

Table 1 - Significant Trees [364 trees]

Tree No. Alternatives: (see report for details and definitions)
UN<6in = unnumbered tree less than 6 inches DBH
UN-TSO = unnumbered tree - topographical survey only

Tree No.	11/16/2022 Action Determination	Common Name (Scientific Name)	DBH / QMD (in)	Significant	Landmark	Vigor	Structure	Preservation Value	Risk Rating	Potential Impacts	Location	Notes
214	Remove	Norway spruce (<i>Picea abies</i>)	6.9	Y	N	Poor	Poor	Low	Low	Direct	ROW	Level 2 Assessment
215	Remove	Norway spruce (<i>Picea abies</i>)	14.2	Y	N	Fair	Poor to Fair	Low	Low	Direct	ROW	This tree has a double leader. Level 2 Assessment
216	Remove	Norway spruce (<i>Picea abies</i>)	10.1	Y	N	Poor to Fair	Poor to Fair	Low	Low	Direct	ROW	Level 2 Assessment
217	Remove	Norway spruce (<i>Picea abies</i>)	6.0	Y	N	Poor to Fair	Poor	Low	Low	Direct	ROW	Level 2 Assessment
218	Remove	Norway spruce (<i>Picea abies</i>)	8.5	Y	N	Poor to Fair	Poor to Fair	Low	Low	Direct	ROW	Level 2 Assessment
219	Remove	Norway spruce (<i>Picea abies</i>)	7.7	Y	N	Poor	Poor to Fair	Low	Low	Direct	ROW	Level 2 Assessment
220	Remove	Norway spruce (<i>Picea abies</i>)	7.3	Y	N	Poor to Fair	Poor to Fair	Low	Low	Direct	ROW	Level 2 Assessment
221	Remove	Norway spruce (<i>Picea abies</i>)	9.2	Y	N	Poor to Fair	Poor	Low	Low	Direct	ROW	Level 2 Assessment
222	Remove	Norway spruce (<i>Picea abies</i>)	7.5	Y	N	Fair	Fair	Low	Low	Direct	ROW	Level 2 Assessment
223a	Remove	one-seed hawthorn (<i>Crataegus monogyna</i>)	9.9	Y	N	Fair to Good	Fair	Low	Low	Direct	ROW	Level 2 Assessment
223b	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	30.0	Y	N	Poor	Fair to Good	Low	Low	Direct	ROW	Level 1 assessment.
224	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	34.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW	Level 1 assessment.
225	Remove	Western red cedar (<i>Thuja plicata</i>)	6.0	Y	N	Fair	Fair	Medium	Low	Direct	Private Property	Level 1 assessment.
226	Remove	Western red cedar (<i>Thuja plicata</i>)	6.0	Y	N	Poor to Fair	Fair to Good	Medium	Low	Major	Private Property	Level 1 assessment.
227	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	26.0	Y	N	Fair to Good	Fair	Medium	Low	Major	Private Property	Level 1 assessment.
228	Remove	Atlas cedar (<i>Cedrus atlantica</i>)	8.0	Y	N	Poor	Fair		Low	Direct	ROW	Level 1 assessment.
229	Remove	Western red cedar (<i>Thuja plicata</i>)	6.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW	Level 1 assessment.
230	Remove	quaking aspen (<i>Populus tremuloides</i>)	8.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW	Level 1 assessment. This tree is some kind of populus species. Species confirmation needed
231	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	10.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW	Level 1 assessment.
232	Remove	Pacific madrone (<i>Arbutus menziesii</i>)	10.0	Y	N	Poor	Fair to Good	Low	Low	Direct	ROW	Level 1 assessment.
233	Remove	Western red cedar (<i>Thuja plicata</i>)	26.0	Y	N	Fair	Fair to Good	Medium	Low	Direct	ROW	Level 2 Assessment
234	Remove	Western white pine (<i>Pinus monticola</i>)	26.0	Y	N	Poor to Fair	Fair to Good	Medium	Low	Direct	ROW	Level 1 assessment.
235	Remove	Western white pine (<i>Pinus monticola</i>)	24.0	Y	N	Fair	Fair	Medium	Low	Direct	Private Property	Level 1 assessment.
236	Remove	Western white pine (<i>Pinus monticola</i>)	24.0	Y	N	Poor to Fair	Fair	Medium	Low	Major	Private Property	Level 1 assessment.
237	Remove	common juniper (<i>Juniperus communis</i>)	6.2	Y	N	Fair to Good	Fair	Low	Low	Direct	ROW	Level 2 Assessment
238	Remove	Norway spruce (<i>Picea abies</i>)	24.0	Y	N	Good	Fair to Good	High	Low	Direct	ROW	Level 1 assessment.
239	Remove	Norway spruce (<i>Picea abies</i>)	10.0	Y	N	Fair	Poor	Low	Low	Direct	ROW	Level 1 assessment.
240	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	7.7	Y	N	Good	Good	Medium	Low	Direct	ROW	Level 2 Assessment
241	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	7.2	Y	N	Fair to Good	Fair	Low	Low	Negligible to None	Private Property	Level 2 Assessment
242	Protect	Alaska cedar (<i>Cupressus nootkatensis</i>)	12.3	Y	N	Good	Good	High	Low	Minor	Private Property	Level 2 Assessment
243	Protect	Alaska cedar (<i>Cupressus nootkatensis</i>)	12.8	Y	N	Good	Good	High	Low	Negligible to None	Private Property	Level 2 Assessment
244	Protect	Alaska cedar (<i>Cupressus nootkatensis</i>)	9.5	Y	N	Fair to Good	Fair to Good	High	Low	Negligible to None	Private Property	Level 2 Assessment
245	Protect	Alaska cedar (<i>Cupressus nootkatensis</i>)	12.5	Y	N	Fair to Good	Fair to Good	High	Low	Negligible to None	Private Property	Level 2 Assessment
246	Protect	red oak (<i>Quercus rubra</i>)	20.3	Y	N	Good	Fair to Good	High	Low	Major	Private Property	Level 2 Assessment
247	Protect	red oak (<i>Quercus rubra</i>)	19.9	Y	N	Fair to Good	Fair	Medium	Low	Major	Private Property	This tree has a bulge at trunk base indicating possible decay. Level 2 Assessment
248	Protect	red oak (<i>Quercus rubra</i>)	14.8	Y	N	Fair to Good	Fair	Medium	Low	Major	Private Property	Level 2 Assessment
249	Protect	red oak (<i>Quercus rubra</i>)	17.6	Y	N	Fair to Good	Fair	High	Low	Major	Private Property	Level 2 Assessment
250	Protect	red oak (<i>Quercus rubra</i>)	12.3	Y	N	Fair to Good	Good	High	Low	Minor	Private Property	Level 2 Assessment
251	Protect	Japanese flowering cherry (<i>Prunus serrulata</i>)	8.6	Y	N	Fair to Good	Fair to Good	Medium	Low	Negligible to None	Private Property	Level 2 Assessment
252	Protect	red oak (<i>Quercus rubra</i>)	13.5	Y	N	Fair to Good	Fair to Good	High	Low	Minor	Private Property	Level 2 Assessment
253	Protect	red oak (<i>Quercus rubra</i>)	9.5	Y	N	Fair to Good	Fair to Good	High	Low	Minor	Private Property	Level 2 Assessment
254	Protect	red oak (<i>Quercus rubra</i>)	13.5	Y	N	Fair to Good	Fair to Good	High	Low	Major	Private Property	Level 2 Assessment

175th Street Multimodal Corridor Project
Shoreline, Washington
Tree Assessment Matrix

Assessor: Holladay T.P.
ISA Certified Arborist
ISA Tree Risk Assessment Qualified

Table 1 - Significant Trees [364 trees]

Tree No. Alternatives: (see report for details and definitions)
UN<6in = unnumbered tree less than 6 inches DBH
UN-TSO = unnumbered tree - topographical survey only

Tree No.	11/16/2022 Action Determination	Common Name (Scientific Name)	DBH / QMD (in)	Significant	Landmark	Vigor	Structure	Preservation Value	Risk Rating	Potential Impacts	Location	Notes
255	Protect	red oak (<i>Quercus rubra</i>)	12.1	Y	N	Fair to Good	Fair	High	Low	Minor	Private Property	This tree is a different variety than the neighboring similar trees. Level 2 Assessment
256	Protect	red oak (<i>Quercus rubra</i>)	13.1	Y	N	Fair to Good	Fair to Good	High	Low	Minor	Private Property	Level 2 Assessment
257	Protect	red oak (<i>Quercus rubra</i>)	15.0	Y	N	Fair to Good	Fair to Good	High	Low	Major	Private Property	Level 2 Assessment
258	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	28.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW	Level 1 assessment. This tree is par of a grove of 5 trees that all have a crook at approximately 50 feet.
259	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	28.0	Y	N	Fair to Good	Fair	Medium	Low	Direct	ROW	Level 1 assessment. This tree is par of a grove of 5 trees that all have a crook at approximately 50 feet.
260	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	28.0	Y	N	Fair to Good	Fair	Medium	Low	Direct	ROW	Level 1 assessment. This tree is par of a grove of 5 trees that all have a crook at approximately 50 feet.
261	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	18.0	Y	N	Fair	Fair	Medium	Low	Major	Private Property	Level 1 assessment. This tree is par of a grove of 5 trees that all have a crook at approximately 50 feet. Removal of trees to the south could impact structure of the remaining trees to the north due to increased wind loading
262	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	28.0	Y	N	Fair to Good	Fair	Medium	Low	Major	Private Property	Level 1 assessment. This tree is par of a grove of 5 trees that all have a crook at approximately 50 feet. Removal of trees to the south could impact structure of the remaining trees to the north due to increased wind loading
263	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	26.0	Y	N	Fair	Poor to Fair	Medium	Low	Negligible to None	Private Property	Level 1 assessment. This tree has a lean to the west and a bend at 80 ft.
264	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	24.0	Y	N	Fair to Good	Poor to Fair	Medium	Low	Major	Private Property	This tree leans toward the property planned for stormwater retention. Need to confirm property ownership. Level 2 Assessment
265	Remove	Western red cedar (<i>Thuja plicata</i>)	14.0	Y	N	Fair to Good	Poor	Low	Low	Direct	ROW	This tree was topped for power line clearance. Level 2 Assessment
266	Remove	Western red cedar (<i>Thuja plicata</i>)	14.0	Y	N	Fair to Good	Poor to Fair	Low	Low	Direct	ROW	This tree was topped for power line clearance. Level 2 Assessment
267	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	30.0	Y	N	Fair to Good	Fair to Good	High	Low	Direct	Private Property	Level 1 assessment. This is an open grown tree
268	Remove	Pacific madrone (<i>Arbutus menziesii</i>)	6.0	Y	N	Fair	Fair	Medium	Low	Direct	Private Property	Level 1 assessment.
269	Protect	Western hemlock (<i>Tsuga heterophylla</i>)	14.0	Y	N	Fair	Fair	Low	Low	Minor	Private Property	Level 1 assessment.
270	Protect	Western red cedar (<i>Thuja plicata</i>)	18.0	Y	N	Fair	Fair	Medium	Low	Major	Private Property	Level 1 assessment. This tree has double tops
271a	Remove	Western red cedar (<i>Thuja plicata</i>)	12.0	Y	N	Good	Good	High	Low	Direct	Private Property	Level 1 assessment.
271b	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	24.0	Y	N	Fair	Poor to Fair	Low	Low	Direct	Private Property	Level 1 assessment. This tree leans to the south and has Ivy on the trunk
272	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	20.0	Y	N	Fair	Fair	Low	Low	Direct	Private Property	Level 1 assessment. This tree has a large crown
273	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	16.0	Y	N	Fair	Fair	Medium	Low	Direct	Private Property	Level 1 assessment.
274	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	16.0	Y	N	Fair	Poor to Fair	Medium	Low	Major	Private Property	Level 1 assessment. This tree was topped
275	Remove	Western red cedar (<i>Thuja plicata</i>)	14.0	Y	N	Fair to Good	Fair to Good	High	Low	Direct	Private Property	Level 1 assessment.
276	Protect	Western red cedar (<i>Thuja plicata</i>)	20.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Negligible to None	Private Property	Level 1 assessment.
277	Remove	Pacific crab apple (<i>Malus fusca</i>)	7.0	Y	N	Good	Good	High	Low	Direct	ROW	Level 1 assessment. This tree has pink flowers
278	Remove	Western red cedar (<i>Thuja plicata</i>)	10.0	Y	N	Fair to Good	Poor to Fair	Low	Low	Direct	ROW	This tree was topped for power line clearance. Level 2 Assessment
279	Remove	Western red cedar (<i>Thuja plicata</i>)	12.8	Y	N	Good	Poor to Fair	Low	Low	Direct	ROW	This tree was topped for power line clearance. Level 2 Assessment
280	Remove	European mountain ash (<i>Sorbus aucuparia</i>)	8.0	Y	N	Fair	Fair to Good	Low	Low	Direct	ROW	Level 1 assessment.
281	Protect	bitter cherry (<i>Prunus emarginata</i>)	10.0	Y	N	Fair	Fair	Medium	Low	Major	Private Property	Level 1 assessment.

175th Street Multimodal Corridor Project
Shoreline, Washington
Tree Assessment Matrix

Assessor: Holladay T.P.
ISA Certified Arborist
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Table 1 - Significant Trees [364 trees]

Tree No. Alternatives: (see report for details and definitions)
UN<6in = unnumbered tree less than 6 inches DBH
UN-TSO = unnumbered tree - topographical survey only

Tree No.	11/16/2022 Action Determination	Common Name (Scientific Name)	DBH / QMD (in)	Significant	Landmark	Vigor	Structure	Preservation Value	Risk Rating	Potential Impacts	Location	Notes
282	Remove	Pacific madrone (<i>Arbutus menziesii</i>)	8.0	Y	N	Poor to Fair	Fair to Good	Medium	Low	Direct	ROW	Level 1 assessment.
283	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	6.8	Y	N	Fair to Good	Fair	Low	Low	Direct	ROW	This tree is growing under power lines. Level 2 Assessment
284	Remove	Western red cedar (<i>Thuja plicata</i>)	26.7	Y	N	Fair to Good	Poor to Fair	Low	Low	Direct	ROW	This tree was topped for power line clearance. Level 2 Assessment
285	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	24.0	Y	N	Fair	Poor to Fair	Medium	Low	Direct	Private Property	Level 1 assessment. This tree has an old topping cut at 60 ft. Part of a grove
286	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	26.0	Y	N	Fair to Good	Poor to Fair	Medium	Low	Direct	ROW	Level 1 assessment. This tree has a double top. Part of a grove
287	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	26.0	Y	N	Fair to Good	Fair	Medium	Low	Direct	Private Property	Level 1 assessment. Part of a grove
288	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	28.0	Y	N	Fair to Good	Fair	Medium	Low	Major	Private Property	Level 1 assessment. This tree has a double top. Part of a grove
289	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	28.0	Y	N	Fair to Good	Fair	Medium	Low	Major	Private Property	Level 1 assessment. This tree has an old topping cut at 60 ft. Part of a grove
290	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	26.0	Y	N	Fair	Fair	Medium	Low	Negligible to None	Private Property	Level 1 assessment. Sap is oozing from this tree indicating a potential crack. Part of a grove
291	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	24.0	Y	N	Fair to Good	Fair	Medium	Low	Negligible to None	Private Property	Level 1 assessment. Part of a grove
292	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	24.0	Y	N	Fair to Good	Fair	Medium	Low	Minor	Private Property	Level 1 assessment. This tree leans to the south west. part of grove.
293	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	24.0	Y	N	Fair to Good	Fair	Medium	Low	Negligible to None	Private Property	Level 1 assessment. Part of grove
294	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	28.0	Y	N	Fair to Good	Poor to Fair	High	Low	Negligible to None	Private Property	Level 1 assessment. This tree has multiple tops
295	Protect	Western white pine (<i>Pinus monticola</i>)	26.0	Y	N	Fair to Good	Poor to Fair	Medium	Low	Negligible to None	ROW	Level 1 assessment. This tree was topped and now has multiple leaders
296	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	6.7	Y	N	Poor to Fair	Poor to Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
298	Remove	Austrian pine (<i>Pinus nigra</i>)	21.5	Y	N	Poor to Fair	Poor to Fair	Low	Low	Direct	Private Property	This tree was topped. The tree is an active nest site. Level 2 Assessment
299	Remove	Austrian pine (<i>Pinus nigra</i>)	23.0	Y	N	Fair	Poor	Low	Low	Direct	ROW	This tree was topped for power line clearance and now has multiple leaders. Level 2 Assessment
301	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	6.9	Y	N	Poor to Fair	Poor to Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
302	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	9.0	Y	N				Low	Direct	ROW - Street Tree	Level 2 Assessment
303	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	11.8	Y	N				Low	Direct	ROW - Street Tree	Level 2 Assessment
304	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	10.0	Y	N				Low	Direct	ROW - Street Tree	Level 2 Assessment
305	Remove	Austrian pine (<i>Pinus nigra</i>)	25.0	Y	N	Fair	Fair	Medium	Low	Direct	ROW	This tree has multiple leaders. Level 2 Assessment
306	Remove	Austrian pine (<i>Pinus nigra</i>)	27.5	Y	N	Fair	Fair	Medium	Low	Direct	ROW	This tree has multiple leaders and a girdling root. Level 2 Assessment
307	Remove	Austrian pine (<i>Pinus nigra</i>)	27.0	Y	N	Fair to Good	Fair	Medium	Low	Direct	ROW	multi top under power lines. Level 2 Assessment
308	Remove	Austrian pine (<i>Pinus nigra</i>)	22.5	Y	N	Fair	Fair	Medium	Low	Direct	ROW	This tree was topped for power line clearance and now has multiple leaders. Level 2 Assessment
309	Remove	Austrian pine (<i>Pinus nigra</i>)	21.5	Y	N	Fair to Good	Poor to Fair	Medium	Low	Direct	ROW	This tree has multiple leaders. Level 2 Assessment
310	Remove	Austrian pine (<i>Pinus nigra</i>)	21.0	Y	N	Fair	Fair	Medium	Low	Direct	ROW	This tree has multiple leaders. Level 2 Assessment
311	Remove	Austrian pine (<i>Pinus nigra</i>)	22.5	Y	N	Fair	Fair	Medium	Low	Direct	Private Property	This tree has multiple leaders. Level 2 Assessment
312	Remove	Austrian pine (<i>Pinus nigra</i>)	25.0	Y	N	Fair to Good	Fair	Medium	Low	Direct	Private Property	This tree has multiple leaders. Level 2 Assessment
313	Remove	Austrian pine (<i>Pinus nigra</i>)	23.8	Y	N	Fair	Fair	Medium	Low	Direct	Private Property	This tree has multiple leaders. Level 2 Assessment
314	Protect	Deodar cedar (<i>Cedrus deodara</i>)	20.6	Y	N	Fair to Good	Fair to Good	High	Low	Major	Private Property	Level 2 Assessment
315	Protect	Austrian pine (<i>Pinus nigra</i>)	19.6	Y	N	Poor to Fair	Fair	Medium	Low	Minor	Private Property	Level 2 Assessment
316	Protect	Austrian pine (<i>Pinus nigra</i>)	26.5	Y	N	Poor to Fair	Fair	Medium	Low	Major	Private Property	This tree has multiple leaders. Level 2 Assessment

175th Street Multimodal Corridor Project
Shoreline, Washington
Tree Assessment Matrix

Assessor: Holladay T.P.
ISA Certified Arborist
ISA Tree Risk Assessment Qualified

Table 1 - Significant Trees [364 trees]

Tree No. Alternatives: (see report for details and definitions)
UN<6in = unnumbered tree less than 6 inches DBH
UN-TSO = unnumbered tree - topographical survey only

Tree No.	11/16/2022 Action Determination	Common Name (Scientific Name)	DBH / QMD (in)	Significant	Landmark	Vigor	Structure	Preservation Value	Risk Rating	Potential Impacts	Location	Notes
317	Protect	Eastern red cedar (<i>Juniperus virginiana</i>)	10.0	Y	N	Poor to Fair	Fair	Low	Low	Negligible to None	Private Property	Level 1 assessment. This tree is non-significant in size, but is a high value magnolia.
318a	Protect	Laurel	9.9	Y	N	Fair	Poor to Fair	Low	Low	Negligible to None	Private Property	Level 2 Assessment
318b	Protect	Eastern red cedar (<i>Juniperus virginiana</i>)	8.0	Y	N	Poor to Fair	Poor to Fair	Low	Low	Negligible to None	ROW	Level 2 Assessment
319	Protect	London plane (<i>Platanus x acerifolia</i>)	15.8	Y	N	Fair	Poor to Fair	Medium	Low	Negligible to None	ROW	This tree has multiple leaders with included bark. Level 2 Assessment
320	Protect	London plane (<i>Platanus x acerifolia</i>)	22.5	Y	N	Fair to Good	Fair	High	Low	Negligible to None	ROW	Level 2 Assessment
321	Protect	London plane (<i>Platanus x acerifolia</i>)	27.5	Y	N	Fair to Good	Fair	High	Low	Negligible to None	ROW	The sidewalk is lifting near this tree. Level 2 Assessment
322	Protect	silver birch (<i>Betula pendula</i>)	12.0	Y	N	Fair	Poor	Low	Low	Negligible to None	Private Property	Level 2 Assessment
323	Protect	silver birch (<i>Betula pendula</i>)	11.3	Y	N	Fair	Poor	Low	Low	Negligible to None	Private Property	Level 2 Assessment
324	Protect	Western red cedar (<i>Thuja plicata</i>)	12.8	Y	N	Fair	Poor to Fair	Medium	Low	Negligible to None	Private Property	Level 1 assessment. This tree has multiple leaders.
325	Protect	Western red cedar (<i>Thuja plicata</i>)	10.0	Y	N	Fair	Poor to Fair	Medium	Low	Negligible to None	Private Property	Level 1 assessment. This tree has multiple leaders.
326	Protect	Western red cedar (<i>Thuja plicata</i>)	10.0	Y	N	Fair	Poor to Fair	Medium	Low	Negligible to None	Private Property	Level 1 assessment. This tree has multiple leaders.
327	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	10.0	Y	N	Fair to Good	Fair	Medium	Low	Negligible to None	Private Property	Level 1 assessment. This tree has a crook in the top.
328	Protect	London plane (<i>Platanus x acerifolia</i>)	23.8	Y	N	Fair to Good	Poor to Fair	Medium	Low	Negligible to None	ROW	There are transmission lines above that impact structure and pruning. Level 2 Assessment
329	Protect	London plane (<i>Platanus x acerifolia</i>)	12.9	Y	N	Fair	Fair	Medium	Low	Negligible to None	ROW	There are transmission lines above that impact structure and pruning. Level 2 Assessment
330	Protect	Freeman maple (<i>Acer x freemanii</i>)	12.0	Y	N	Fair to Good	Fair	Medium	Low	Negligible to None	Private Property	Level 1 assessment. This tree is growing under transmission lines.
331	Protect	London plane (<i>Platanus x acerifolia</i>)	17.5	Y	N	Fair to Good	Poor to Fair	Medium	Low	Negligible to None	ROW	There are transmission lines above that impact structure and pruning. Level 2 Assessment
332	Protect	London plane (<i>Platanus x acerifolia</i>)	27.5	Y	N	Fair to Good	Fair	Medium	Low	Negligible to None	ROW	There are transmission lines above that impact structure and pruning. Level 2 Assessment
333	Protect	London plane (<i>Platanus x acerifolia</i>)	19.5	Y	N	Fair	Fair	Medium	Low	Negligible to None	ROW	There are transmission lines above that impact structure and pruning. Level 2 Assessment
334	Protect	Kobus magnolia (<i>Magnolia kobus</i>)	8.8	Y	N	Fair to Good	Fair	High	Low	Negligible to None	Private Property	Level 1 assessment
335	Protect	London plane (<i>Platanus x acerifolia</i>)	15.7	Y	N	Fair to Good	Fair	Medium	Low	Negligible to None	ROW	There are transmission lines above that impact structure and pruning. Level 2 Assessment
336	Protect	Japanese maple (<i>Acer palmatum</i>)	10.3	Y	N	Fair to Good	Fair to Good	High	Low	Negligible to None	Private Property	Level 2 Assessment
337	Remove	London plane (<i>Platanus x acerifolia</i>)	10.0	Y	N	Fair	Fair	Low	Low	Direct	ROW	There are transmission lines above that impact structure and pruning. Level 2 Assessment
338	Protect	golden chain tree (<i>Laburnum anagyroides</i>)	12.2	Y	N	Fair to Good	Fair	Low	Low	Negligible to None	Private Property	Level 1 assessment
339	Remove	Deodar cedar (<i>Cedrus deodara</i>)	14.0	Y	N	Fair to Good	Fair	High	Low	Direct	ROW	Level 1 assessment. This tree was pruned around transmission lines. The tree has a lean to the SW
340	Protect	paperbark birch (<i>Betula papyrifera</i>)	12.0	Y	N	Fair	Poor to Fair	Medium	Low	Minor	Private Property	Level 1 assessment. Dieback and possibly bronze birch border have decreased the height of this tree.
342	Remove	Norway maple (<i>Acer platanoides</i>)	7.4	Y	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
345	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	11.5	Y	N	Fair	Poor to Fair	Low	Low	Direct	ROW - Street Tree	This tree is leaning and growing in a damaged tree pit. Level 2 Assessment
346	Remove	red maple (<i>Acer rubrum</i>)	14.8	Y	N	Fair to Good	Fair	Low	Low	Direct	ROW - Street Tree	This tree is growing from a broken tree pit. Level 2 Assessment
347	Remove	red maple (<i>Acer rubrum</i>)	8.0	Y	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
348	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	14.1	Y	N	Fair	Poor to Fair	Low	Low	Direct	ROW - Street Tree	This tree is growing from a broken tree pit. Level 2 Assessment
349	Remove	red maple (<i>Acer rubrum</i>)	16.7	Y	N	Fair	Fair	Medium	Low	Direct	ROW - Street Tree	Level 2 Assessment

Table 1 - Significant Trees [364 trees]

Tree No. Alternatives: (see report for details and definitions)
UN<6in = unnumbered tree less than 6 inches DBH
UN-TSO = unnumbered tree - topographical survey only

Tree No.	11/16/2022 Action Determination	Common Name (Scientific Name)	DBH / QMD (in)	Significant	Landmark	Vigor	Structure	Preservation Value	Risk Rating	Potential Impacts	Location	Notes
350	Remove	red maple (<i>Acer rubrum</i>)	16.7	Y	N	Fair	Fair	Medium	Low	Direct	ROW - Street Tree	Level 2 Assessment
352	Remove	red maple (<i>Acer rubrum</i>)	9.5	Y	N	Fair	Poor to Fair	Low	Low	Direct	ROW - Street Tree	This tree has a double leader with included bark. The tree has grown into the tree grate. Level 2 Assessment
353	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	11.0	Y	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	This tree has outgrown the tree grate. Level 2 Assessment
354	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	10.3	Y	N	Fair	Poor to Fair	Low	Low	Direct	ROW - Street Tree	This tree has outgrown the tree grate. Level 2 Assessment
355	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	8.0	Y	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	This tree has outgrown the tree grate. Level 2 Assessment
356	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	10.0	Y	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	This tree has outgrown the tree grate. Level 2 Assessment
357	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	8.0	Y	N	Fair	Poor	Low	Low	Direct	ROW - Street Tree	This tree has outgrown the tree grate. Level 2 Assessment
358	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	6.3	Y	N	Fair	Poor	Low	Low	Direct	ROW - Street Tree	This tree has outgrown the tree grate. Level 2 Assessment
359	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	7.8	Y	N	Fair	Poor	Low	Low	Direct	ROW - Street Tree	This tree leans. Level 2 Assessment
360	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	8.8	Y	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	This tree has outgrown the tree grate. Level 2 Assessment
361	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	8.0	Y	N	Fair	Poor to Fair	Low	Low	Direct	ROW - Street Tree	This tree has a double leader. Level 2 Assessment
362	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	8.8	Y	N	Fair	Poor to Fair	Low	Low	Direct	ROW - Street Tree	This tree has outgrown the tree grate. Level 2 Assessment
364	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	7.4	Y	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
365	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	6.6	Y	N	Fair	Poor to Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
367	Protect	Babylon weeping willow (<i>Salix babylonica</i>)	14.9	Y	N	Fair to Good	Poor to Fair	Low	Low	Major	Private Property	This tree has some lower trunk decay. Level 2 Assessment
368	Protect	Lawson cypress (<i>Chamaecyparis lawsoniana</i>)	17.3	Y	N	Fair	Poor	Low	Low	Minor	Private Property	Level 1 assessment. This tree is near a homeless encampment
369	Protect	Western white pine (<i>Pinus monticola</i>)	24.0	Y	N	Fair	Poor	Low	Low	Major	Private Property	Level 1 assessment. This tree is near a homeless encampment. The tree leans to the east
370	Protect	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	13.1	Y	N	Fair	Poor	Low	Low	Direct	ROW	Level 2 Assessment
371	Protect	purple-leaf Plum (<i>Prunus x blireana</i>)	10.0	Y	N	Poor to Fair	Poor to Fair	Low	Low	Minor	Private Property	This tree leans. Level 2 Assessment
372	Protect	red maple (<i>Acer rubrum</i>)	10.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Negligible to None	Private Property	Level 1 assessment. Blackberry is prolific in this area
373	Protect	red maple (<i>Acer rubrum</i>)	8.0	Y	N	Poor to Fair	Poor to Fair	Low	Low	Negligible to None	Private Property	Level 2 Assessment
374	Protect	black cottonwood (<i>Populus trichocarpa</i>)	8.0	Y	N	Fair to Good	Fair to Good	Low	Low	Negligible to None	Private Property	Level 2 Assessment
375	Protect	shore pine (<i>Pinus contorta</i>)	10.5	Y	N				Low	Negligible to None	Private Property	This tree is the first of a tree group to the north. Level 2 Assessment
376	Protect	Western white pine (<i>Pinus monticola</i>)	20.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Negligible to None	Private Property	Level 1 assessment. This tree is near a homeless encampment. Symptoms of blister rust canker observed
377a	Protect	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	8.9	Y	N	Fair	Poor to Fair	Low	Low	Negligible to None	Private Property	Level 2 Assessment
378	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	8.0	Y	N	Fair	Poor	Low	Low	Negligible to None	Private Property	Level 1 assessment
379	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	20.0	Y	N	Fair to Good	Fair to Good	High	Low	Negligible to None	Private Property	Level 2 Assessment
380	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	20.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Negligible to None	Private Property	Level 1 assessment
381	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	14.0	Y	N	Poor to Fair	Poor to Fair	Low	Low	Negligible to None	Private Property	Level 2 Assessment
382	Protect	Western white pine (<i>Pinus monticola</i>)	10.0	Y	N	Fair	Poor to Fair	Medium	Low	Negligible to None	Private Property	Level 2 Assessment
383	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	18.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Negligible to None	Private Property	Level 2 Assessment
384	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	10.0	Y	N	Fair	Fair	Medium	Low	Negligible to None	Private Property	Level 2 Assessment
385	Protect	Western white pine (<i>Pinus monticola</i>)	14.1	Y	N	Fair	Fair	Medium	Low	Negligible to None	Private Property	Level 2 Assessment
386	Remove	apple (<i>Malus domestica</i>)	6.0	Y	N	Fair	Poor to Fair	Low	Low	Direct	Private Property	Level 1 assessment. This tree is growing at the base of an existing wall. Possible retention if wall is not moved.
387	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	24.0	Y	N	Fair to Good	Fair	Medium	Low	Major	Private Property	Level 1 assessment. This tree exhibits a corrected lean to the east. The tree has a low live crown ratio
388	Remove	scotch pine (<i>Pinus sylvestris</i>)	24.0	Y	N	Fair	Poor	Low	Low	Major	Private Property	Level 1 assessment. This tree leans toward the road and was topped for power line clearance.
389	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	24.0	Y	N	Poor to Fair	Fair to Good	Low	Low	Major	Private Property	Level 1 assessment
390	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	24.0	Y	N	Fair to Good	Fair	Medium	Low	Major	Private Property	Level 1 assessment

175th Street Multimodal Corridor Project
Shoreline, Washington
Tree Assessment Matrix

Table 1 - Significant Trees [364 trees]

Tree No. Alternatives: (see report for details and definitions)
UN<6in = unnumbered tree less than 6 inches DBH
UN-TSO = unnumbered tree - topographical survey only

Tree No.	11/16/2022 Action Determination	Common Name (Scientific Name)	DBH / QMD (in)	Significant	Landmark	Vigor	Structure	Preservation Value	Risk Rating	Potential Impacts	Location	Notes
391	Remove	Deodar cedar (<i>Cedrus deodara</i>)	16.0	Y	N	Poor to Fair	Fair	Medium	Low	Major	Private Property	Level 1 assessment
392	Protect	Deodar cedar (<i>Cedrus deodara</i>)	10.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Negligible to None	Private Property	Level 1 assessment
393	Remove	Deodar cedar (<i>Cedrus deodara</i>)	20.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Major	Private Property	Level 1 assessment
394	Protect	Western red cedar (<i>Thuja plicata</i>)	8.0	Y	N	Fair to Good	Fair to Good	High	Low	Negligible to None	Private Property	Level 1 assessment
395	Protect	scotch pine (<i>Pinus sylvestris</i>)	20.0	Y	N	Poor	Poor to Fair	Low	Low	Major	Private Property	Level 1 assessment. Japanese knotweed is present on site. The tree leans to the west.
396	Protect	European yew (<i>Taxus baccata</i>)	6.0	Y	N	Good	Fair to Good	Medium	Low	Major	Private Property	Level 1 assessment
397	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	20.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Major	Private Property	Level 1 assessment
398	Protect	Western red cedar (<i>Thuja plicata</i>)	10.0	Y	N	Fair to Good	Poor to Fair	Medium	Low	Minor	Private Property	Level 1 assessment. This tree was topped
399	Protect	bitter cherry (<i>Prunus emarginata</i>)	8.9	Y	N	Fair	Fair	Low	Low	Major	Private Property	Level 1 assessment
400	Protect	Norway spruce (<i>Picea abies</i>)	10.0	Y	N	Fair to Good	Fair to Good	High	Low	Major	Private Property	Level 1 assessment
401	Protect	Leyland cypress (<i>Cupressocyparis leylandii</i>)	6.0	Y	N	Fair to Good	Poor to Fair	Medium	Low	Major	Private Property	Level 1 assessment. This tree was topped
402	Remove	paperbark birch (<i>Betula papyrifera</i>)	12.0	Y	N	Fair	Poor to Fair	Low	Low	Major	Private Property	Level 1 assessment. Possible bronze birch borer presence due to signs observed.
403	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	16.0	Y	N	Fair	Fair	Medium	Low	Major	Private Property	Level 1 assessment
404	Protect	Not known to assessor	6.0	Y	N	Fair	Poor to Fair	Low	Low	Negligible to None	Private Property	Level 1 assessment
405	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	12.0	Y	N	Fair to Good	Fair	High	Low	Minor	Private Property	Level 1 assessment
406	Protect	Western red cedar (<i>Thuja plicata</i>)	26.0	Y	N	Good	Fair to Good	High	Low	Major	Private Property	Level 1 assessment
407	Protect	Sitka spruce (<i>Picea sitchensis</i>)	12.0	Y	N	Fair to Good	Fair	Medium	Low	Major	Private Property	Level 1 assessment
408	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	15.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Major	Private Property	Level 1 assessment
409	Protect	Western red cedar (<i>Thuja plicata</i>)	10.0	Y	N	Fair to Good	Fair to Good		Low	Minor	Private Property	Level 1 assessment
410	Protect	Western red cedar (<i>Thuja plicata</i>)	10.0	Y	N	Fair to Good	Fair to Good		Low	Major	Private Property	Level 1 assessment
411	Protect	Western red cedar (<i>Thuja plicata</i>)	8.0	Y	N	Fair to Good	Fair to Good	High	Low	Major	Private Property	Level 1 assessment
412	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	12.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Major	Private Property	Level 1 assessment. This tree is growing at the base of an existing wall. Possible retention if wall is not moved.
415	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	8.2	Y	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
416	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	8.1	Y	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
417	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	7.7	Y	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
418	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	7.0	Y	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
419	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	8.0	Y	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
420	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	6.3	Y	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
422	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	8.6	Y	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
424	Remove	red maple (<i>Acer rubrum</i>)	7.2	Y	N	Fair	Fair	Medium	Low	Direct	ROW - Street Tree	Level 2 Assessment
429	Remove	red maple (<i>Acer rubrum</i>)	9.2	Y	N	Fair	Fair to Good	Medium	Low	Direct	ROW - Street Tree	Level 2 Assessment
430	Remove	red maple (<i>Acer rubrum</i>)	7.8	Y	N	Fair	Fair to Good	Medium	Low	Direct	ROW - Street Tree	Level 2 Assessment
431	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	6.2	Y	N	Fair	Poor to Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
435	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	6.8	Y	N	Poor to Fair	Poor to Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
436	Remove	red maple (<i>Acer rubrum</i>)	6.5	Y	N	Fair	Fair	Medium	Low	Direct	ROW - Street Tree	Level 2 Assessment
437	Remove	red maple (<i>Acer rubrum</i>)	8.1	Y	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
438	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	20.7	Y	N				Low	Direct	ROW	Level 2 Assessment
439	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	12.0	Y	N	Fair to Good	Fair to Good	High	Low	Negligible to None	Private Property	Level 2 Assessment
440	Protect	Douglas fir (<i>Pseudotsuga menziesii</i>)	16.0	Y	N				Low	Negligible to None	Park - Ronald Bog	Level 2 Assessment
441	Protect	Western white pine (<i>Pinus monticola</i>)	43.2	Y	N	Poor to Fair	Fair	Medium	Low	Minor	Park - Ronald Bog	This tree has a double leader at 10 ft. There is some interior needle die back and cankers are evident on some dead branches. Level 2 Assessment

Table 1 - Significant Trees [364 trees]

Tree No. Alternatives: (see report for details and definitions)
UN<6in = unnumbered tree less than 6 inches DBH
UN-TSO = unnumbered tree - topographical survey only

Tree No.	11/16/2022 Action Determination	Common Name (Scientific Name)	DBH / QMD (in)	Significant	Landmark	Vigor	Structure	Preservation Value	Risk Rating	Potential Impacts	Location	Notes
442	Protect	bitter cherry (<i>Prunus emarginata</i>)	7.5	Y	N	Fair	Fair to Good	Medium	Low	Negligible to None	Park - Ronald Bog	Level 2 Assessment
443	Protect	bitter cherry (<i>Prunus emarginata</i>)	11.3	Y	N	Fair	Poor	Low	Low	Minor	Park - Ronald Bog	Level 2 Assessment
444	Protect	giant sequoia (<i>Sequoiadendron giganteum</i>)	23.0	Y	N	Fair to Good	Good	High	Low	Minor	Park - Ronald Bog	Level 1 assessment
445	Protect	incense cedar (<i>Calocedrus decurrens</i>)	18.7	Y	N	Fair to Good	Fair	Medium	Low	Major	Park - Ronald Bog	Level 2 Assessment
446	Protect	incense cedar (<i>Calocedrus decurrens</i>)	12.9	Y	N	Fair	Poor to Fair	Medium	Low	Negligible to None	Park - Ronald Bog	Old tag #12427. Level 2 Assessment
447	Protect	incense cedar (<i>Calocedrus decurrens</i>)	12.0	Y	N	Fair to Good	Fair to Good	High	Low	Negligible to None	Park - Ronald Bog	Old tag #2432. Level 2 Assessment
448	Protect	incense cedar (<i>Calocedrus decurrens</i>)	19.2	Y	N	Fair	Fair to Good	High	Low	Major	Park - Ronald Bog	Old tag #12428. This tree has shallow roots. Level 2 Assessment
449	Protect	incense cedar (<i>Calocedrus decurrens</i>)	7.1	Y	N	Good	Good	High	Low	Negligible to None	Park - Ronald Bog	Level 2 Assessment
450	Remove	incense cedar (<i>Calocedrus decurrens</i>)	22.6	Y	N	Fair to Good	Fair	Medium	Low	Direct	Park - Ronald Bog	Old tag #12422. Level 2 Assessment
451	Protect	Alaska cedar (<i>Cupressus nootkatensis</i>)	6.9	Y	N	Good	Fair to Good	High	Low	Negligible to None	Park - Ronald Bog	Old tag #12423. Level 2 Assessment
452	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	12.7	Y	N	Fair	Fair to Good	High	Low	Major	Park - Ronald Bog	Old tag #1244. Level 2 Assessment
453	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	9.9	Y	N	Fair	Poor to Fair	Medium	Low	Direct	Park - Ronald Bog	Old tag #12415. Level 2 Assessment
454	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	10.5	Y	N	Fair	Fair	Medium	Low	Direct	Park - Ronald Bog	Old tag #12416. This tree has a double leader. Level 2 Assessment
455	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	11.7	Y	N	Fair	Fair	Low	Low	Direct	ROW	Level 2 Assessment
456	Protect	one-seed hawthorn (<i>Crataegus monogyna</i>)	11.0	Y	N	Fair to Good	Fair	Medium	Low	Major	Park - Ronald Bog	Old tag #12421. Level 2 Assessment
457	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	11.0	Y	N	Poor to Fair	Fair	Low	Low	Direct	ROW	Old tag #12743. This tree has damage at the trunk base and double leaders. Level 2 Assessment
458	Protect	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	13.6	Y	N	Poor to Fair	Fair	Medium	Low	Major	Park - Ronald Bog	Old tag #12420. This tree has a large branch that hangs over a parking stall. Level 2 Assessment
459	Protect	black locust (<i>Robinia pseudoacacia</i>)	21.0	Y	N	Fair to Good	Poor	Low	Low	Minor	Park - Ronald Bog	Level 2 Assessment
460	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	14.5	Y	N	Fair to Good	Good	High	Low	Direct	ROW	Old tag #12742. Level 2 Assessment
461	Protect	one-seed hawthorn (<i>Crataegus monogyna</i>)	13.5	Y	N	Fair to Good	Fair	Medium	Low	Major	Park - Ronald Bog	Old tag #12419. Level 2 Assessment
462	Remove	Japanese flowering cherry (<i>Prunus serrulata</i>)	13.3	Y	N	Fair	Fair	Medium	Low	Direct	ROW	Old tag #2741. Level 2 Assessment
463	Remove	Japanese flowering cherry (<i>Prunus serrulata</i>)	13.6	Y	N	Fair	Fair	Medium	Low	Direct	Park - Ronald Bog	Level 2 Assessment
464	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	10.0	Y	N	Fair	Fair to Good	Medium	Low	Direct	Park - Ronald Bog	Level 2 Assessment
465	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	10.3	Y	N	Fair	Poor to Fair	Medium	Low	Direct	ROW	Level 2 Assessment
466	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	12.4	Y	N	Fair	Poor to Fair	Medium	Low	Major	Park - Ronald Bog	Level 2 Assessment
467	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	10.5	Y	N	Fair	Poor	Low	Low	Direct	ROW	Level 2 Assessment
468	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	11.5	Y	N	Fair	Poor to Fair	Medium	Low	Major	Park - Ronald Bog	Level 2 Assessment
469	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	10.5	Y	N	Fair	Poor to Fair	Medium	Low	Direct	ROW	Level 2 Assessment
470	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	10.4	Y	N	Fair	Poor to Fair	Medium	Low	Direct	Park - Ronald Bog	Level 2 Assessment
471	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	13.3	Y	N	Fair	Poor to Fair	Medium	Low	Direct	ROW	Level 2 Assessment
472	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	20.7	Y	N	Fair to Good	Fair to Good	High	Low	Major	Park - Ronald Bog	Level 2 Assessment
473	Protect	Kwanzan flowering cherry (<i>Prunus serrulata</i> 'Kwanzan')	16.1	Y	N	Fair to Good	Fair	High	Low	Minor	Park - Ronald Bog	Level 2 Assessment
474	Protect	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	13.5	Y	N	Fair	Fair	Medium	Low	Negligible to None	Park - Ronald Bog	Old tag #12428. Level 2 Assessment
475	Protect	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	9.7	Y	N	Fair	Poor	Low	Low	Negligible to None	Park - Ronald Bog	Old tag #12409. This tree leans toward the road. Level 2 Assessment
476	Protect	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	10.5	Y	N	Fair to Good	Fair to Good	Medium	Low	Negligible to None	Park - Ronald Bog	Level 1 assessment. Old tag #12417
477	Protect	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	8.8	Y	N	Poor to Fair	Poor	Low	Low	Negligible to None	Park - Ronald Bog	Level 1 assessment. Old tag #12412. This tree has damage at the base
478	Protect	shore pine (<i>Pinus contorta</i>)	9.0	Y	N	Fair to Good	Fair	Medium	Low	Negligible to None	Park - Ronald Bog	Old tag #12683. Level 2 Assessment
479	Protect	shore pine (<i>Pinus contorta</i>)	13.8	Y	N	Fair	Poor	Low	Low	Negligible to None	Park - Ronald Bog	This tree partially failed in the past and is now growing sideways. Level 2 Assessment

Table 1 - Significant Trees [364 trees]

Tree No. Alternatives: (see report for details and definitions)
UN-6in = unnumbered tree less than 6 inches DBH
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Tree No.	11/16/2022 Action Determination	Common Name (Scientific Name)	DBH / QMD (in)	Significant	Landmark	Vigor	Structure	Preservation Value	Risk Rating	Potential Impacts	Location	Notes
480	Protect	shore pine (<i>Pinus contorta</i>)	10.0	Y	N	Fair	Fair	Low	Low	Negligible to None	Park - Ronald Bog	Level 1 assessment. Blackberry is prolific on site
481	Remove	red alder (<i>Alnus rubra</i>)	13.3	Y	N	Fair	Poor to Fair	Low	Low	Direct	ROW	Level 2 Assessment
482	Remove	red alder (<i>Alnus rubra</i>)	12.0	Y	N	Fair	Poor to Fair	Medium	Low	Direct	ROW	Level 2 Assessment
483	Remove	red alder (<i>Alnus rubra</i>)	14.1	Y	N	Fair	Poor to Fair	Medium	Low	Direct	ROW	Level 1 assessment.
484	Remove	red alder (<i>Alnus rubra</i>)	15.2	Y	N	Fair	Poor to Fair	Low	Low	Direct	ROW	Level 1 assessment.
485	Remove	red alder (<i>Alnus rubra</i>)	20.0	Y	N	Fair	Fair	Medium	Low	Direct	Park - Ronald Bog	Level 1 assessment. Blackberry is prolific on site
486	Protect	Austrian pine (<i>Pinus nigra</i>)	10.0	Y	N	Fair to Good	Fair to Good	High	Low	Minor	Park - Ronald Bog	Level 1 assessment. Blackberry is prolific on site
487	Remove	red alder (<i>Alnus rubra</i>)	16.2	Y	N	Fair	Poor to Fair	Low	Low	Major	Park - Ronald Bog	Level 2 Assessment
488	Protect	red alder (<i>Alnus rubra</i>)	16.2	Y	N	Fair	Fair	Low	Low	Major	Park - Ronald Bog	Level 2 Assessment
489	Protect	red alder (<i>Alnus rubra</i>)	21.9	Y	N	Fair	Fair	Medium	Low	Negligible to None	Park - Ronald Bog	Level 2 Assessment
490	Protect	red alder (<i>Alnus rubra</i>)	25.5	Y	N	Fair to Good	Fair	Medium	Low	Negligible to None	Park - Ronald Bog	Level 2 Assessment
491	Protect	red alder (<i>Alnus rubra</i>)	18.0	Y	N	Fair to Good	Fair to Good	Medium	Low	Negligible to None	Park - Ronald Bog	Level 2 Assessment
492	Protect	red alder (<i>Alnus rubra</i>)	16.0	Y	N	Fair to Good	Fair	Medium	Low	Negligible to None	Park - Ronald Bog	Level 2 Assessment
493	Protect	apple (<i>Malus domestica</i>)	8.5	Y	N	Poor to Fair	Poor to Fair	Low	Low	Negligible to None	Private Property	Level 1 assessment. This is an old tree
494	Protect	giant sequoia (<i>Sequoiadendron giganteum</i>)	33.2	Y	N	Good	Good	High	Low	Minor	Park - Ronald Bog	Level 2 Assessment
495	Protect	black cottonwood (<i>Populus trichocarpa</i>)	29.4	Y	N	Fair to Good	Fair	Medium	Low	Negligible to None	Park - Ronald Bog	Level 2 Assessment
496	Protect	Not known to assessor	8.0	Y	N				Low	Negligible to None	Private Property	This is the first tree in a row of 28 other pines to the south, some are tall black pine some smaller red pine. If impacts are expected further south the remaining tree should be inventoried and assessed. Level 2 Assessment
497	Remove	silver birch (<i>Betula pendula</i>)	8.0	Y	N				Low	Direct	ROW	Level 1 assessment. Snag
498	Remove	shore pine (<i>Pinus contorta</i>)	8.0	Y	N	Dying/Dead			Low	Direct	ROW	Level 2 Assessment
UN-TSO	Protect	N/A	≥6"	Y - 6-9" est.	N	N/A	N/A	N/A	N/A	Negligible to None	Private Property	Located on property at 1615 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. No impacts are expected. Trunk diameter and other metrics are estimates only.
UN-TSO	Protect	N/A	≥6"	Y - 6-9" est.	N	N/A	N/A	N/A	N/A	Negligible to None	Private Property	Located on property at 1615 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. No impacts are expected. Trunk diameter and other metrics are estimates only.
UN-TSO	Remove	N/A	≥6"	Y - 9-12" est.	N	N/A	N/A	N/A	N/A	Direct	Private Property	Located on property at 1616 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. Direct impacts are expected and the tree is planned for removal. Trunk diameter and other metrics are estimates only.
UN-TSO	Remove	N/A	≥6"	Y - 9-12" est.	N	N/A	N/A	N/A	N/A	Direct	Private Property	Located on property at 1616 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. Direct impacts are expected and the tree is planned for removal. Trunk diameter and other metrics are estimates only.

Table 1 - Significant Trees [364 trees]

Tree No. Alternatives: (see report for details and definitions)
UN<6in = unnumbered tree less than 6 inches DBH
UN-TSO = unnumbered tree - topographical survey only

Tree No.	11/16/2022 Action Determination	Common Name (Scientific Name)	DBH / QMD (in)	Significant	Landmark	Vigor	Structure	Preservation Value	Risk Rating	Potential Impacts	Location	Notes
UN-TSO	Remove	N/A	≥6"	Y - 9-12" est.	N	N/A	N/A	N/A	N/A	Direct	Private Property	Located on property at 1616 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. Direct impacts are expected and the tree is planned for removal. Trunk diameter and other metrics are estimates only.
UN-TSO	Remove	N/A	≥6"	Y - 9-12" est.	N	N/A	N/A	N/A	N/A	Direct	Private Property	Located on property at 1610 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. Direct impacts are expected and the tree is planned for removal. Trunk diameter and other metrics are estimates only.
UN-TSO	Remove	N/A	≥6"	Y - 9-12" est.	N	N/A	N/A	N/A	N/A	Direct	Private Property	Located on property at 1610 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. Direct impacts are expected and the tree is planned for removal. Trunk diameter and other metrics are estimates only.
UN-TSO	Remove	N/A	≥6"	Y - 9-12" est.	N	N/A	N/A	N/A	N/A	Direct	Private Property	Located on property at 1610 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. Direct impacts are expected and the tree is planned for removal. Trunk diameter and other metrics are estimates only.
UN-TSO	Remove	N/A	≥6"	Y - 9-12" est.	N	N/A	N/A	N/A	N/A	Direct	Private Property	Located on property at 1610 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. Direct impacts are expected and the tree is planned for removal. Trunk diameter and other metrics are estimates only.
UN-TSO	Remove	N/A	≥6"	Y - 9-12" est.	N	N/A	N/A	N/A	N/A	Direct	Private Property	Located on property at 1610 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. Direct impacts are expected and the tree is planned for removal. Trunk diameter and other metrics are estimates only.
UN-TSO	Remove	N/A	≥6"	Y - 6-9" est.	N	N/A	N/A	N/A	N/A	Direct	Private Property	Located on property at 1610 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. Direct impacts are expected and the tree is planned for removal. Trunk diameter and other metrics are estimates only.

175th Street Multimodal Corridor Project
Shoreline, Washington
Tree Assessment Matrix

Assessor: Holladay T.P.
ISA Certified Arborist
ISA Tree Risk Assessment Qualified

Table 2 - Trees Less than 6-inches DBH [101 trees]

Tree No. Alternatives: (see report for details and definitions)
UN<6in = unnumbered tree less than 6 inches DBH
UN-TSO = unnumbered tree - topographical survey only

Tree No.	11/16/2022 Action Determination	Common Name (Scientific Name)	DBH / QMD (in)	Significant	Landmark	Vigor	Structure	Preservation Value	Risk Rating	Potential Impacts	Location	Notes
e.g., "1"	"Preserved - Protect"	"Pear (Pyrus)"	"22"	"Y" (Yes)	"N" (No)	"Good"	"Fair"	"Medium"	"Low"	"Direct"		"Narrative"
101	Protect	Ginkgo (<i>Ginkgo biloba</i>)	5.5	N	N	Fair to Good	Fair to Good	Medium	Low	Negligible to None	ROW - Street Tree	Level 2 Assessment
102	Protect	Ginkgo (<i>Ginkgo biloba</i>)	5.3	N	N	Fair to Good	Good		Low	Negligible to None	ROW - Street Tree	Level 2 Assessment
103	Protect	Ginkgo (<i>Ginkgo biloba</i>)	5.1	N	N	Fair	Poor to Fair	Low	Low	Negligible to None	ROW - Street Tree	Level 2 Assessment
104	Protect	Ginkgo (<i>Ginkgo biloba</i>)	5.1	N	N	Fair	Poor	Low	Low	Negligible to None	ROW - Street Tree	Level 2 Assessment
107	Protect	Freeman maple (<i>Acer x freemanii</i>)	4.4	N	N	Good	Good	Medium	Low	Negligible to None	ROW - Street Tree	Level 2 Assessment
108	Protect	Freeman maple (<i>Acer x freemanii</i>)	4.8	N	N	Good	Good	Medium	Low	Negligible to None	ROW - Street Tree	Level 2 Assessment
109	Protect	European beech (<i>Fagus sylvatica</i>)	4.0	N	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW - Street Tree	Level 2 Assessment
110	Protect	European beech (<i>Fagus sylvatica</i>)	5.0	N	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW - Street Tree	Level 2 Assessment
111	Protect	European beech (<i>Fagus sylvatica</i>)	5.5	N	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW - Street Tree	Level 2 Assessment
113	Protect	European beech (<i>Fagus sylvatica</i>)	5.5	N	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW - Street Tree	Level 2 Assessment
114	Protect	European beech (<i>Fagus sylvatica</i>)	5.1	N	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW - Street Tree	Level 2 Assessment
115	Protect	European beech (<i>Fagus sylvatica</i>)	5.5	N	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW - Street Tree	Level 2 Assessment
116	Protect	Ginkgo (<i>Ginkgo biloba</i>)	1.0	N	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
117	Protect	Ginkgo (<i>Ginkgo biloba</i>)	1.0	N	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
118	Protect	Ginkgo (<i>Ginkgo biloba</i>)	3.5	N	N	Fair	Poor to Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
119	Protect	Ginkgo (<i>Ginkgo biloba</i>)	4.5	N	N	Fair	Poor to Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
120	Protect	Ginkgo (<i>Ginkgo biloba</i>)	4.0	N	N	Poor to Fair	Poor	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
121	Protect	Ginkgo (<i>Ginkgo biloba</i>)	4.0	N	N	Poor to Fair	Poor	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
122	Protect	Ginkgo (<i>Ginkgo biloba</i>)	3.0	N	N	Poor to Fair	Poor to Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
144	Protect	European beech (<i>Fagus sylvatica</i>)	0.5	N	N	Good	Good	Medium	Low	Direct	ROW - Street Tree	Level 2 Assessment
145	Protect	European beech (<i>Fagus sylvatica</i>)	5.5	N	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW - Street Tree	This tree could potentially be transplanted if removal is required. Level 2 Assessment
146	Protect	European beech (<i>Fagus sylvatica</i>)	5.5	N	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW - Street Tree	This tree could potentially be transplanted if removal is required. Level 2 Assessment
147	Protect	European beech (<i>Fagus sylvatica</i>)	5.5	N	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW - Street Tree	Level 2 Assessment
148	Protect	European beech (<i>Fagus sylvatica</i>)	5.5	N	N	Good	Good	Medium	Low	Direct	ROW - Street Tree	This tree could potentially be transplanted if removal is required. Level 2 Assessment
149	Protect	European beech (<i>Fagus sylvatica</i>)	5.5	N	N	Fair to Good	Fair to Good	Medium	Low	Direct	ROW - Street Tree	This tree could potentially be transplanted if removal is required. Level 2 Assessment
150	Protect	Ginkgo (<i>Ginkgo biloba</i>)	3.0	N	N	Fair to Good	Poor to Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
151	Protect	Ginkgo (<i>Ginkgo biloba</i>)	3.7	N	N	Fair to Good	Fair	Medium	Low	Direct	ROW - Street Tree	Level 2 Assessment
152	Protect	Ginkgo (<i>Ginkgo biloba</i>)	2.5	N	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
297	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	5.7	N	N				Low	Direct	ROW - Street Tree	Level 2 Assessment
300	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	5.6	N	N	Poor to Fair	Poor to Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
341	Remove	red maple (<i>Acer rubrum</i>)	2.0	N	N				Low	Direct	ROW - Street Tree	Level 2 Assessment
343	Remove	Norway maple (<i>Acer platanoides</i>)	4.0	N	N			Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
344	Remove	Raywood ash (<i>Fraxinus oxycarpa 'Raywood'</i>)	2.0	N	N			Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
351	Remove	red maple (<i>Acer rubrum</i>)	2.0	N	N	Fair	Poor to Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
363	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	1.0	N	N				Low	Direct	ROW - Street Tree	Level 2 Assessment
366	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	1.0	N	N			Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
413	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	3.6	N	N			Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
414	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	5.3	N	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
421	Remove	purple-leaf Plum (<i>Prunus x blireana</i>)	2.0	N	N	Fair	Fair	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
423	Remove	Raywood ash (<i>Fraxinus oxycarpa 'Raywood'</i>)	4.0	N	N	Dying/Dead		Dead	Low	Direct	ROW - Street Tree	Level 2 Assessment

Table 2 - Trees Less than 6-inches DBH [101 trees]

Tree No. Alternatives: (see report for details and definitions)
UN<6in = unnumbered tree less than 6 inches DBH
UN-TSO = unnumbered tree - topographical survey only

Tree No.	11/16/2022 Action Determination	Common Name (Scientific Name)	DBH / QMD (in)	Significant	Landmark	Vigor	Structure	Preservation Value	Risk Rating	Potential Impacts	Location	Notes
425	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	5.0	N	N			Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
426	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	4.0	N	N			Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
427	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	4.0	N	N			Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
428	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	2.0	N	N		Low	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
432	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	5.5	N	N		Low	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
433	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	5.7	N	N		Low	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
434	Remove	Raywood ash (<i>Fraxinus oxycarpa</i> 'Raywood')	5.3	N	N		Low	Low	Low	Direct	ROW - Street Tree	Level 2 Assessment
UN-TSO	Protect	N/A	<6"	N - est.	N	N/A	N/A	N/A	N/A	Negligible to None	Private Property	Located on property at 1615 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. No impacts are expected. Trunk diameter and other metrics are estimates only.
UN-TSO	Protect	N/A	<6"	N - est.	N	N/A	N/A	N/A	N/A	Negligible to None	Private Property	Located on property at 1615 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. No impacts are expected. Trunk diameter and other metrics are estimates only.
UN-TSO	Protect	N/A	<6"	N - est.	N	N/A	N/A	N/A	N/A	Negligible to None	Private Property	Located on property at 1615 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. No impacts are expected. Trunk diameter and other metrics are estimates only.
UN-TSO	Protect	N/A	<6"	N - est.	N	N/A	N/A	N/A	N/A	Negligible to None	Private Property	Located on property at 1615 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. No impacts are expected. Trunk diameter and other metrics are estimates only.
UN-TSO	Protect	N/A	<6"	N - est.	N	N/A	N/A	N/A	N/A	Negligible to None	Private Property	Located on property at 1615 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. No impacts are expected. Trunk diameter and other metrics are estimates only.
UN-TSO	Protect	N/A	<6"	N - est.	N	N/A	N/A	N/A	N/A	Negligible to None	Private Property	Located on property at 1615 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. No impacts are expected. Trunk diameter and other metrics are estimates only.
UN-TSO	Protect	N/A	<6"	N - est.	N	N/A	N/A	N/A	N/A	Negligible to None	Private Property	Located on property at 1615 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. No impacts are expected. Trunk diameter and other metrics are estimates only.
UN-TSO	Protect	N/A	<6"	N - est.	N	N/A	N/A	N/A	N/A	Negligible to None	Private Property	Located on property at 1615 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. No impacts are expected. Trunk diameter and other metrics are estimates only.

175th Street Multimodal Corridor Project
Shoreline, Washington
Tree Assessment Matrix

Assessor: Holladay T.P.
ISA Certified Arborist
ISA Tree Risk Assessment Qualified

Table 2 - Trees Less than 6-inches DBH [101 trees]

Tree No. Alternatives: (see report for details and definitions)
UN<6in = unnumbered tree less than 6 inches DBH
UN-TSO = unnumbered tree - topographical survey only

Tree No.	11/16/2022 Action Determination	Common Name (Scientific Name)	DBH / QMD (in)	Significant	Landmark	Vigor	Structure	Preservation Value	Risk Rating	Potential Impacts	Location	Notes
UN-TSO	Protect	N/A	<6"	N - est.	N	N/A	N/A	N/A	N/A	Negligible to None	Private Property	Located on property at 1615 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. No impacts are expected. Trunk diameter and other metrics are estimates only.
UN-TSO	Protect	N/A	<6"	N - est.	N	N/A	N/A	N/A	N/A	Negligible to None	Private Property	Located on property at 1615 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. No impacts are expected. Trunk diameter and other metrics are estimates only.
UN-TSO	Protect	N/A	<6"	N - est.	N	N/A	N/A	N/A	N/A	Negligible to None	Private Property	Located on property at 1615 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. No impacts are expected. Trunk diameter and other metrics are estimates only.
UN-TSO	Protect	N/A	<6"	N - est.	N	N/A	N/A	N/A	N/A	Negligible to None	Private Property	Located on property at 1615 N 175TH ST. This tree was not included in UFS BC field inventory and assessment but was included in the topo survey provided after our fieldwork. No ID was assigned. No impacts are expected. Trunk diameter and other metrics are estimates only.
UN<6in	Remove	Alaska cedar (<i>Cupressus nootkatensis</i>)	5.5	N	N	Fair	Poor	Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Not known to assessor	2.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Wax myrtle	5.0	N	N			Low	Low	Direct	ROW	Level 1 assessment
UN<6in	Remove	paperbark birch (<i>Betula papyrifera</i>)	4.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	English laurel (<i>Prunus laurocerasus</i>)	5.0	N	N			Low	Low	Direct	ROW	stump. Level 2 Assessment
UN<6in	Remove	English laurel (<i>Prunus laurocerasus</i>)	2.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	English laurel (<i>Prunus laurocerasus</i>)	4.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	vine maple (<i>Acer circinatum</i>)	5.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	vine maple (<i>Acer circinatum</i>)	5.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	vine maple (<i>Acer circinatum</i>)	5.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	vine maple (<i>Acer circinatum</i>)	5.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	vine maple (<i>Acer circinatum</i>)	4.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	vine maple (<i>Acer circinatum</i>)	4.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	English laurel (<i>Prunus laurocerasus</i>)	5.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	English laurel (<i>Prunus laurocerasus</i>)	5.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	bitter cherry (<i>Prunus emarginata</i>)	5.0	N	N			Low	Low	Direct	ROW	This tree was topped for power line clearance. Level 2 Assessment
UN<6in	Remove	bitter cherry (<i>Prunus emarginata</i>)	5.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	bitter cherry (<i>Prunus emarginata</i>)	5.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	bitter cherry (<i>Prunus emarginata</i>)	4.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	bitter cherry (<i>Prunus emarginata</i>)	5.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Not known to assessor	2.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Norway spruce (<i>Picea abies</i>)	5.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	5.0	N	N	Dying/Dead		Dead	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Norway spruce (<i>Picea abies</i>)	5.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Norway spruce (<i>Picea abies</i>)	5.0	N	N			Low	Low	Direct	ROW	Level 2 Assessment

175th Street Multimodal Corridor Project
Shoreline, Washington
Tree Assessment Matrix

Assessor: Holladay T.P.
ISA Certified Arborist
ISA Tree Risk Assessment Qualified

Table 2 - Trees Less than 6-inches DBH [101 trees]

Tree No. Alternatives: (see report for details and definitions)
UN<6in = unnumbered tree less than 6 inches DBH
UN-TSO = unnumbered tree - topographical survey only

Tree No.	11/16/2022 Action Determination	Common Name (Scientific Name)	DBH / QMD (in)	Significant	Landmark	Vigor	Structure	Preservation Value	Risk Rating	Potential Impacts	Location	Notes
UN<6in	Remove	Norway spruce (<i>Picea abies</i>)	5.0	N	N				Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Norway spruce (<i>Picea abies</i>)	5.0	N	N				Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Hinoki cypress (<i>Chamaecyparis obtusa</i>)	4.0	N	N	Poor to Fair	Poor to Fair	Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Hinoki cypress (<i>Chamaecyparis obtusa</i>)	4.0	N	N	Poor to Fair	Poor to Fair	Low	Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Colorado spruce (<i>Picea pungens</i>)	5.0	N	N				Low	Direct	ROW	This tree was topped. Level 2 Assessment
UN<6in	Remove	Colorado spruce (<i>Picea pungens</i>)	3.0	N	N				Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Hinoki cypress (<i>Chamaecyparis obtusa</i>)	4.0	N	N				Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	smoke tree (<i>Cotinus coggygria</i>)	3.0	N	N				Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	2.0	N	N				Low	Direct	ROW	Level 1 assessment
UN<6in	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	5.0	N	N				Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	4.0	N	N				Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Alaska cedar (<i>Cupressus nootkatensis</i>)	4.0	N	N				Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Douglas fir (<i>Pseudotsuga menziesii</i>)	4.0	N	N				Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	mountain hemlock (<i>Tsuga mertensiana</i>)	3.0	N	N				Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Hinoki cypress (<i>Chamaecyparis obtusa</i>)	4.0	N	N				Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Hinoki cypress (<i>Chamaecyparis obtusa</i>)	4.0	N	N				Low	Direct	ROW	Level 2 Assessment
UN<6in	Remove	Western red cedar (<i>Thuja plicata</i>)	2.0	N	N				Low	Direct	ROW	Level 2 Assessment

Shoreline Municipal Code:

20.50.370 Tree Protection Standards.

The following protection guidelines shall be imposed for all trees to be retained on site or on adjoining property, to the extent off-site trees are subject to the tree protection provisions of this chapter, during the construction process:

- A. All required tree protection measures shall be shown on the tree protection and replacement plan, clearing and grading plan, or other plan submitted to meet the requirements of this subchapter. Tree protection shall remain in place for the duration of the permit unless earlier removal is addressed through construction sequencing on approved plans.
- B. Critical root zones (tree protection zone) as defined by the International Society of Arboriculture shall be protected. No development, fill, excavation, construction materials, equipment staging, or traffic shall be allowed in the critical root zone of trees that are to be retained.
- C. Prior to any land disturbance, temporary construction fences must be placed around the tree protection zone to be preserved. If a cluster of trees is proposed for retention, the barrier shall be placed around the edge formed by the drip lines of the trees to be retained. Tree protection shall remain in place for the duration of the permit unless earlier removal is addressed through construction sequencing on approved plans.
- D. Tree protection barriers shall be a minimum of six feet high, constructed of chain link or similar material, subject to approval by the Director. "Tree Protection Area" signs shall be posted visibly on all sides of the fenced areas. On large or multiple-project sites, the Director may also require that signs requesting subcontractor cooperation and compliance with tree protection standards be posted at site entrances.
- E. If any construction work needs to be performed inside either the tree drip line, critical root zone, and/or the inner critical root zone, the project arborist will be on site to supervise the work. When excavation must occur within or near the critical root zone, any found roots of three inches or greater in diameter will be cleanly cut to the edge of the trench to avoid ripping of the root.
- F. Where tree protection zones are remote from areas of land disturbance, and where approved by the Director, alternative forms of tree protection may be used in lieu of tree protection barriers; provided, that protected trees are completely surrounded with continuous rope or flagging and are accompanied by "Tree Leave Area - Keep Out" signs.
- G. Rock walls shall be constructed around the tree, equal to the dripline, when existing grade levels are lowered or raised by the proposed grading.

H. Retain small trees, bushes, and understory plants within the tree protection zone, unless the plant is identified as a regulated noxious weed, a nonregulated noxious weed, or a weed of concern by the King County Noxious Weed Control Board.

I. **Preventative Mitigation.** In addition to the above minimum tree protection measures, the applicant shall support tree protection efforts by employing, as appropriate, the following preventative measures, consistent with best management practices for maintaining the health of the tree:

1. Pruning of visible deadwood on trees to be protected or relocated;
2. Mulching with a layer of four inches to five inches of wood chips in the critical root zones of retained trees; and
3. Ensuring one inch of irrigation or rainfall per week during and immediately after construction and from early May through September until reliable rainfall occurs in the fall.

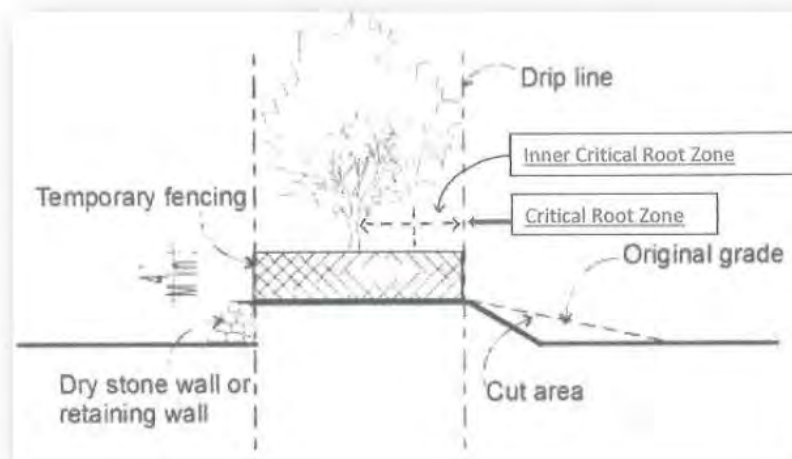


Figure 20.50.370: Illustration of standard techniques used to protect trees during construction.

Exception 20.50.370:

The Director may waive certain protection requirements, allow alternative methods, or require additional protection measures based on concurrence with the recommendation of a certified arborist deemed acceptable to the City. (Ord. 955 § 1 (Exh. A), 2022; Ord. 907 § 1 (Exh. B), 2020; Ord. 741 § 1 (Exh. A), 2016; Ord. 398 § 1, 2006; Ord. 238 Ch. V § 5(I), 2000).



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GENERAL TREE PROTECTION GUIDELINES

With Critical Root Zone Explanation Attachment

1. **Responsibilities:** These guidelines apply to work provided by all contractors and subcontractors on the project. These Guidelines pertain to any disturbance, use, or activity within the Critical Root Zone of any retained tree on this project. See the attached **Critical Root Zone Explanation** for reference.

The owner's arborist, general contractor, and municipal representative shall meet on site before any site work begins to review and designate the most appropriate methods to be used to protect the retained trees during construction.

The project consulting arborist shall be contacted prior to any work that may need to enter the tree protection fencing. Three (3) working days' notice shall be provided to the project consulting arborist. A proposed method for work near any retained trees shall be provided to the arborist. This method shall be reviewed by the project consulting arborist and either approval and/or comments provided by the project consulting arborist prior to commencing works within the tree protection area. The project consulting arborist should be notified within 8 hours should any injury occur to any protected tree or its larger roots (greater than 2-inch diameter) so that appropriate assessment and/or treatment may be made.

2. **Soil Disturbance:** No soil disturbance shall take place before required soil treatments, mulch, and tree protection barriers are installed. All assessed trees to be retained within these areas shall be clearly illustrated in the final Site Plan(s).
3. **Designated Tree Removals:** The owner's arborist and contractor shall confirm on-site which trees are to be removed and those to be retained. Directional felling and removal of trees must be completed with great care to avoid any damage to the trunks, branches, and critical root zones of the retained trees.
4. **The Tree Assessment and Protection Site Plans and Clearing and Grading Plans** show the recommended location of the Tree Protection Fence (TPF). Immediately after the clearing limits and grading stakes are set in the field, the owner's arborist, during review and discussion with the contractor, will make a final determination on the tree protection requirements depending on construction limits and impact on major roots and soil condition. The arborist may adjust clearing limits in the field so that, in their opinion, tree roots and soils are protected while necessary work can proceed.
5. **The Tree Protection Fence** (TPF) shall be installed in the locations shown on the Tree Assessment and Protection Site Plan, with special consideration of the Critical Root Zone (CRZ) of trees to be preserved. The CRZ of a tree is generally described as an area equal to a 1-foot radius for every 1-inch diameter of tree trunk (measured at 4.5-feet from grade

(DBH)). For example, a 10-inch diameter tree has a CRZ of a 10-foot radius. Work within the CRZ may be limited to hand work or alternate methods of construction.

The Tree Protection Fence (TPF) shall be constructed with steel posts driven into the ground with 6-ft. chain link cyclone fence attached. Upon consultation with the contractor, the project consulting arborist shall determine the final placement of the fence and the extent and method of clearing that may be done near preserved trees. Additional follow-up determinations may be required as work progresses on the project. See attached **Critical Root Zone Explanation**.

No parking, storage, dumping, or burning of materials is allowed beyond the clearing limits or within the Tree Protection Fence.

The TPF shall not be moved without authorization by the owner's consulting arborist or municipal representative/arborist. The TPF shall remain in place for the duration of the project.

Tree protection signs shall be posted on all outer-facing sides of the fencing at 15-foot intervals. (See guideline 10 below for signage guidance)

Work within the tree protection fence area shall be reviewed with and approved by the owner's arborist. Call Urban Forestry Services | Bartlett Consulting at 360-399-1377 with questions.

- 6. Trunk Protection:** In some restricted or tight areas of the site, standard TPF may not be feasible or effective. Construct plywood trunk protection around the retained trees where construction is near the Interior Critical Root Zone (ICRZ). Construct the trunk protection out of four (4), 4-foot x 8-foot sheets of plywood, on end, fastened at the corners, forming a box around the trunk.

Tree protection signs shall be posted on all sides of the plywood box structure. (See guideline 10 below for signage guidance)

- 7. Branch Protection:** Install branch protection where the likelihood of heavy equipment damaging lateral branches of retained trees is high. Branch protection shall consist of a closed-cell foam padding material wrapped around the exposed lateral branches above or within the vicinity of construction activity.

Pruning may be allowed if approved by an ISA Certified Arborist® in advance. Alternatively, branches may be tied back out of the way of construction work.

- 8. Silt Fence:** If a silt fence is required to be installed within the Critical Root Zone of a retained tree, the bottom of the silt fence shall not be buried in a trench but instead folded over and placed flat on the ground. The flat portion of the silt fence shall be covered with gravel or soil for anchorage.
- 9. CRZ over Hardscape:** Where the Critical Root Zone (CRZ) includes an area covered by hardscape, the TPF can be placed along the edge of the hardscape if and until it is removed. After hardscape removal, the available CRZ should be backfilled with topsoil up to 6 inches deep and incorporated into the soil (if no roots will be damaged in the process) and protected with the TPF. Incorporation of topsoil into the existing sub-grade shall be

determined by the consulting arborist. Where applicable, a specification for topsoil can be provided or approved by UFS|BC.

- 10. Tree Protection Signs** shall be attached to the outside of tree protection fencing and plywood trunk protection at 15-foot intervals and on all sides/aspects. Signage shall be shown as required on the Site Plan. The signage should read “**TREE PROTECTION FENCE. DO NOT ENTER THIS AREA. DO NOT PARK OR STORE MATERIAL WITHIN THE PROTECTION AREA.**” Monetary Fines based on the appraised dollar value of the retained trees may also be included on these signs. Telephone contact details for the project consulting arborist should also be included on the signs.

A bilingual UFS|BC branded sign is attached for ease of availability and production. This sign can be readily printed on weather-resistant sign material and fastened to the tree protection fencing or plywood trunk protection panels. Custom versions of this sign can be provided upon request to include alternative messaging, QR codes linking to specific project information/plans, etc.

- 11. Soil Protection within the Critical Root Zone (CRZ):** four (4) inches of wood chip mulch shall be placed over all exposed and protected soil within the CRZ of a retained and protected tree (not including hardscape surfaces). A biodegradable coir mat netting is recommended to be placed on the existing grade before woodchip placement to protect the condition and confirm the location of the existing grade. The netting is a valuable benchmark that defines the original grade upon removal of the material within the CRZ. If left it will degrade over time.

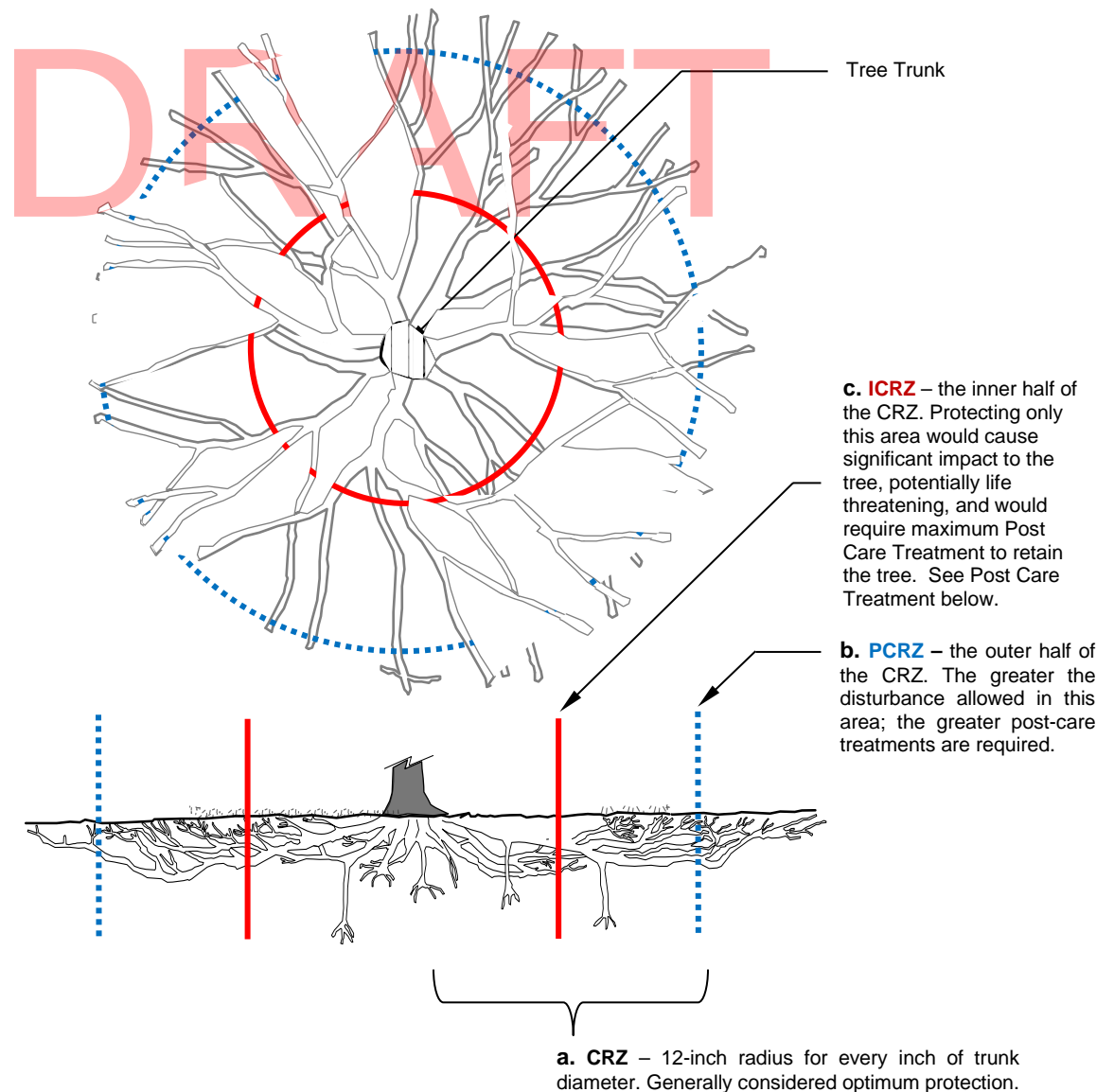
Where vehicular access is required, a temporary work pad or storage pad is required within the CRZ of any preserved tree that is not protected with hardscape; the soil shall be protected with 12 inches of woodchips and ¾-inch plywood or 1-inch metal sheets to protect from soil compaction and damage to roots of retained trees.

- 12. Landscape Plans, Irrigation Design, and Installation Details:** Great care shall be exercised when landscaping within the CRZ of any tree. Roots of preserved trees and other vegetation shall not be damaged by planting or installation of irrigation lines. The owner’s consulting arborist shall review the Landscape Plan for any potential design and tree preservation conflicts and approve related irrigation and landscape installation activities within the CRZ of retained trees. A proposed method for work shall be provided to and approved by the consulting arborist.
- 13. Backfill and Grade Changes:** The owner’s arborist will determine to what extent backfilling may be allowed within the Critical Root Zone of a preserved tree and, if needed, the specific material which may be used. Grade cuts are usually more detrimental than grade filling within the CRZ and should be reviewed by the arborist well in advance of construction.
- 14. Tree Maintenance and Pruning:** Trees recommended for maintenance and approved by the owner shall be pruned for deadwood, low hanging branches, and proper balance, as recommended for safety, clearance, or aesthetics. An International Society of Arboriculture Certified Arborist® shall complete all pruning. *ANSI A300 American Standards for Pruning* shall be used.

Branches of retained trees within 10 feet or less of any power line, depending on power line voltage, may only be pruned by a Utility Certified Arborist. This pruning must be coordinated with the local power company, as they may prefer to provide this pruning.

Of specific concern are branches over any construction access points. Obstructing branches shall be properly pruned or tied back before damage can occur.


- 15. Underground Utilities:** Utility installation within the Critical Root Zone (CRZ) of any retained tree shall be reviewed by the project consulting arborist. A less root disturbing route or minimal impact installation method of utility installation may be discussed and recommended (i.e., tunneling or trenchless excavation). Trenching through the Interior CRZ of a retained tree is not usually allowed. **See CRZ Explanation to differentiate between the Perimeter and Interior CRZ.** An Air Spade or Air Knife and Vacuum Truck may be required when utility installation is mandatory near a retained tree or other methodology such as trenchless excavation. The method of utility installation shall be determined on a case-by-case basis after a review of the depth, width, and location of the proposed impact.
- 16. Root Pruning:** Required work may result in the cutting of roots of retained trees. Cutting roots 2 inches or greater must be avoided. Potential root pruning needs should be reviewed in advance with the project consulting arborist to minimize potential root fracturing and other damage. Severed roots of retained trees shall be cut off cleanly with a sharp saw or pruning shears. Applying pruning paint on trunk or root wounds is not recommended. Severed roots shall be covered immediately after final pruning with moist soil or covered with mulch until covered with soil. Excavation equipment operators shall take extreme care not to hook roots and pull them back towards retained trees. In all cases, the excavator shall sit outside of the CRZ. Soil excavation within the CRZ shall be under the direct supervision of the owner's consulting arborist.
- 17. Supplemental Tree Irrigation:** If clearing is performed during the summer, supplemental watering and/or mulch over the root systems within the Tree Protection Fencing of preserved trees may be required by the owner's consulting arborist. The consulting arborist should be notified of the proposed schedule for clearing and grading work. Supplemental watering and mulching over the root systems of roots impacted or stressed trees are strongly recommended to compensate for root loss and initiate new root growth.
- Long periods of slow drip irrigation will be most effective, though watering bags may be an effective method for some street trees. A large coil of soaker hose starting at least 18 inches from the trunk and covering the Interior Critical Root Zone area is recommended. Water once per week and check soils for at least 12 inches of infiltration. This work shall be under the direct supervision of the owner's consulting arborist.
- 18. Additional Measures:** Additional tree protection recommendations may be required and may be specified in UFS|BC report(s) or follow-up memos. In addition, the pertinent regulatory city/municipal/county may require additional tree, plant, and soil protection measures not specified here that will need to be implemented.
- 19. Final Inspection:** The owner's consulting arborist shall make a final site visit to report on retained tree condition following completed work and shall report to the city.



a. CRITICAL ROOT ZONE (CRZ) – The CRZ of a tree is established based on trunk diameter measured at 4.5-feet from grade (DBH). The CRZ is a generalized circular area which has a radius of 12-inches to every inch trunk diameter. Root systems will vary both in depth and spread depending on size of tree, soils, water table, species and other factors. However, this CRZ description is generally accepted in the tree industry. Protecting this entire area is optimum and should, in theory, result in no adverse impact to a tree.

The CRZ can be further differentiated into the 'Perimeter' and 'Interior' CRZs to help evaluate potential impacts and required post-care.

- b. PERIMETER CRITICAL ROOT ZONE (PCRZ)** – the full PCRZ is generally considered the optimum amount of root protection for a tree. The further one encroaches into the PCRZ (but not into the ICRZ) the greater post-care treatments the tree will require to remain alive and stable.
- c. INTERIOR CRITICAL ROOT ZONE (ICRZ)** – The absolute maximum disturbance allowed for a tree should leave the 'Interior' CRZ undisturbed if the tree is to have any chance of long-term survival. The ICRZ is half the radius of the full CRZ/PCRZ. Disturbance into the ICRZ could destabilize or cause the tree to decline. The ICRZ approximately equals the size of a root-ball needed to transplant this tree, which in turn would require extensive post-care treatments and possibly guying or propping to stabilize the tree. Post Care Treatment includes but may not be limited to; regular irrigation, misting, root treatment with special root hormones, mulching, guying and monitoring during construction and for several years following impacts.

 <p>Urban Forestry Services BARTLETT CONSULTING Divisions of The F.A. Bartlett Tree Expert Company 15119 McLean Road Mount Vernon, WA 98273 1 (360) 399-1377</p>	CRITICAL ROOT ZONE (CRZ) EXPLANATION	
	<p>© Urban Forestry Services Bartlett Consulting – A Division of The F. A. Bartlett Tree Expert Company, January 2022. This document has been prepared specifically for UFS BC related projects and may not be suitable for use on other projects, or in other applications, and/or without the approval and participation of The F.A. Bartlett Tree Expert Company.</p>	<p>Not to scale</p> <p>CRZ - 01</p>



TREE PROTECTION FENCE.

DO NOT ENTER THIS AREA.



**DO NOT PARK OR STORE MATERIALS WITHIN
THE PROTECTION AREA.**

CERCA DE PROTECCIÓN DE ÁRBOLES.

NO ENTRAR A ESTA AREA.

**NO ESTACIONAR O GUARDAR MATERIALES
ENTRE EL ÁREA PROTEGIDA.**



UFS|BC Company Info

Any concerns or questions call:

Preguntas o Preocupaciones llamar a:

**Urban Forestry Services | Bartlett Consulting
@ 360-399-1377**



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



General Terms for Commercial Consulting Services

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The F.A. Bartlett Tree Expert Company (“**Bartlett Tree Experts**”) provides tree-care and related consulting services to commercial and government clients. The agreed upon “Work” has been expressed in a separate Client Agreement between Bartlett Tree Experts and the Client, and is identified within the portion of the Client Agreement communicating the Scope of the Work, the Goals, the Specifications, the Schedule of the Work, and the Payment Terms. These general terms combine with the approved Client Agreement and form the complete agreement between the parties.

**Article 1
TREE RISK**

1.1 Tree Risk

- (a) The Client acknowledges that having trees on one’s property involves risk, including the risk that a tree or tree limb might fall. As part of the Work, Bartlett Tree Experts may recognize the risk posed by failure of trees within the Scope of Work and recommend to the Client ways to reduce that risk, but the Client acknowledges that Bartlett Tree Experts cannot detect all defects and other conditions that present the risk of tree failure and cannot predict how all trees will respond to future events and circumstances. Trees can fail unpredictably, even if no defects or other conditions are apparent. Bartlett Tree Experts will not be responsible for damages caused by subsequent failure of a tree, or tree part, within or around the Scope of Work due to defects or other preexisting structural or health conditions.
- (b) Unless the Work includes having Bartlett Tree Experts perform a tree risk assessment for designated trees, the Client acknowledges that in performing the Work Bartlett Tree Experts is not required to inspect and report to the Client on risks to, and risks posed by, trees on or near the Client’s property.
- (c) The Client also acknowledges that because trees are living organisms that change over time, the best protection against the risk associated with having trees on the Client’s property is for the Client to arrange to have them inspected by a qualified arborist annually and after each major weather event to identify any defects or other conditions that present the risk of tree failure. Then, once inspected, the Client should review any possible defects or conditions that present the risk of failure and request recommendations for, and implement, remedial actions to mitigate the risks.

- (b) The scope of ongoing operations of the Work shall be defined as beginning when the performance on the site begins and ending when the performance on the site concludes.

2.4 Compliance

Bartlett Tree Experts shall perform the Work competently and in compliance with the law and industry standards, including the American National Standards Institute’s A-300 Standards for tree care.

2.5 Access Over Roads, Driveways, and Walkways

The Client shall arrange for Bartlett Tree Experts’ representatives, vehicles, and equipment to have access during working hours to areas where the Work is to be performed. The Client shall keep roads, driveways, and walkways in those areas clear during working hours for the passage and parking of vehicles and equipment. Unless the Client Agreement states otherwise, Bartlett Tree Experts is not required to keep gates closed for animals or children.

2.6 Personnel

Bartlett Tree Experts will determine and provide the correct Bartlett personnel for completing the Work based scope of the project, the expertise needed, and the geographic location of the work, in order to meet the goals of the Client.

2.7 Accuracy of Information Provided By the Client or By Third Parties Acting on Behalf of the Client

- (a) The Client acknowledges that Bartlett Tree Experts cannot be held responsible for the accuracy of or content of information provided by the Client or third parties acting on behalf of the Client, including but not limited to: the legal description of the property, issues of title and/or ownership of the property, software programs, property and property line locations and/or boundaries, or other pieces of information provided which are integral to the final outcome of the consulting Work.

- (b) The Client agrees to correct any errors in any such inaccurate information that it or any third party acting on its behalf, provides Bartlett Tree Experts, once the inaccuracy is known, if such information will be necessary for Bartlett Tree Experts to base its final analysis, management plans, written reports, information or recommendations on for the finalization of the Work.

2.8 Information Provided By Reliable Sources

In certain circumstances, Bartlett Tree Experts may need to engage outside reliable sources to provide specialized information, cost estimates, or opinions. Bartlett Tree Experts will make every effort to engage reputable and reliable sources, and will communicate the use of these sources to the Client if such sources are used to help determine an integral part of the Work.

2.9 Tree Locations, Maps, Sketches, and Diagrams

The Client acknowledges that Bartlett Tree Experts may use several means and methods to provide tree locations on maps,

**Article 2
THE WORK**

2.1 Ownership

The Client states that all trees and other vegetation within the Scope of Work are owned by the Client or that the Owner has authorized the Client to include them within the Scope of Work.

2.2 Specified Trees or Work

The specific trees, shrubs, plant materials or work described in the Scope of Work or in the Agreement will be the only trees, shrubs, plant materials, or work included in the scope of the consultative services or Work performed by Bartlett for the Client.

2.3 Insurance

- (a) Bartlett Tree Experts states that it is insured for liability resulting from injury to persons or damage to property while performing the Work and that its employees are covered under workers’ compensation laws.

General Terms for Commercial Consulting Services

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sketches, or drawings, and that the use of tree locations on maps, sketches, diagrams, and/or in pictures are intended to aid the Client in understanding the deliverables provided, and may not be to scale and should not be considered precise locations, engineering surveys, or architectural drawings.

2.10 Global Positioning Systems

The Client acknowledges that all global positioning system (GPS) devices used to locate trees, shrubs, and plant material, have some accuracy limitations, and regardless of the methodologies or software programs used to enhance the accuracy of the locations, there will always be some level of meter or sub meter locational discrepancies within any deliverable product.

2.11 Advice, Opinions, Conclusions, and Recommendations

- (a) The Client Acknowledges that all advice, opinions, conclusions, and recommendations provided represent the professional objective opinion(s) of Bartlett Tree Experts; which are in no way predetermined, or biased toward any particular outcome.
- (b) The Client acknowledges that all advice, opinions, conclusions, and recommendations provided verbally or in written format such as email, management plans, or reports will be based on the present status of the tree(s), property(s), environmental conditions, and industry standards. Any advice, opinions, conclusions, and recommendations provided do not take into account any future changes in environmental conditions or changes to current industry standards which are unknown and unforeseen at the time the Work is performed.

2.12 Tree Risk Assessments and Inventories

- (a) If the Client Agreement is specifically for Bartlett Tree Experts to provide a *Level 1 Limited Visual*, *Level 2 Basic*, or *Level 3 Advanced assessment* of tree risk for any tree or group of trees for the Client in accordance with industry standards, the Client understands that any *risk ratings* and recommendations for mitigating such risks will be based on the observed defects, conditions, and factors at the time of the tree risk assessment or inventory.
- (b) The Client acknowledges that any recommendations made to mitigate risk factors will be made in accordance with industry best practices and standards, but that the decision to implement the recommended mitigation or remove the risk factors rests solely with the Client.
- (c) The Client understands that all *risk ratings* used are intended to assist the Client with understanding the potential for tree or tree part failure, and are not meant to be used to declare any tree or tree part to be safe or free from any defect. As such, the Client should not infer that any tree not identified as having an *imminent or probable likelihood of failure*, or not identified with a *moderate, high, or extreme risk rating*, or not having a condition rating of *poor* or *dead* is "safe" or will not fail in any manner.
- (d) The Client understands that it is the Client's responsibility to ensure that the assessed tree or trees are continually inspected and reassessed periodically, or after any major weather event, in order to ensure that risk rating information is kept current, and to enter any changes to risk ratings or mitigation measures to the inventory or tracking system used by the Client.

2.13 Tree or Plant Value Appraisals

- (a) The Client acknowledges that tree appraisal is not an exact science. If the Client Agreement is for Bartlett Tree Experts to provide the Client with an appraisal estimate of cost or value, or estimated tree asset value, for specified trees or plant materials, the Client understands that those estimates will be based on a combination of visible conditions at the time of appraisal, information or pictures provided by the Client, local knowledge, information and/or cost estimates provided by local nurseries or plant wholesalers, information and/or costs provided by tree care or landscape installation and maintenance companies, industry best practices, and/or asset value software.
- (b) The Client understands that while any such appraisal will be based on one or several accepted industry methods of appraising plant material values, the appraised values provided may or may not be accepted as the final value by third parties, or decision makers in disputes over plant values, such as courts, arbitrators, insurers, or mediation efforts.

2.14 Local and Tree-Related Permits

Unless the Client Agreement states differently, the Client is responsible for obtaining and paying for all required local or tree related permits required. If the Work stated in the Client Agreement involves Bartlett Tree Experts submitting for, or assisting the Client in submitting for, any kind of local or tree-related permit, the Client understands that Bartlett Tree Experts cannot guarantee the successful outcome. If Bartlett Tree Experts submits a local or tree permit application on behalf of the Client, the Client must provide all necessary information for Bartlett to make such a submittal, and the Client will be responsible for paying for, or reimbursing Bartlett Tree Experts for, all fees and expenses related to the application process, regardless of the outcome.

2.15 Expert Witness and Testimony

The Client acknowledges that unless the Scope of Work in Client Agreement is specifically to perform Expert Witness services and testimony for the Client, then nothing in the Client Agreement will obligate Bartlett Tree Experts to perform Expert Witness services or provide expert testimony for or on behalf of the Client.

2.16 Environmental Benefits Assessments

- (a) The Client understands that Bartlett Tree Experts may use one or more software, or other programs, developed by other companies or government agencies, which are designed to help provide estimates on the environmental benefits of trees, shrubs, or other plant materials if the Work involves providing an environmental benefit assessment for the Client.
- (b) The Client acknowledges that while Bartlett Tree Experts will be responsible for the correct collection and input of data into any such software or other program used to help estimate environmental benefits of trees, shrubs, and other plant materials, the determinations of the data made by any such program may vary based on the method, software, type, year, or version used at any given time. The Client understands that any such method, software, type, year, or version used is meant to provide a sound, scientific method to help the Client understand the environmental benefits of the collected data.

2.17 Tree and Property Hazards and Safety Issues

The Client understands that in no way does Bartlett Tree Experts imply, nor should the Client infer that Bartlett Tree

General Terms for Commercial Consulting Services

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Experts assumes the responsibility for inspecting, identifying, and correcting tree or property hazards or safety issues on or near the Client's property, or conducting tree risk assessments, for which the Client Agreement does not specify, during the course of any of its ongoing consultative or other activities related to this Agreement.

cases government quarantines may prohibit samples from being sent to a diagnostic clinic, and in some cases, determinations on samples may be inconclusive.

2.18 Remote Sensing and Tree Canopy Assessments

- (a) If the Work requires Bartlett Tree Experts to evaluate aerial imagery to classify land cover classes, classify random points, or create or manipulate shapefile boundaries, the Client understands that certain factors can prohibit the accuracy of the final Work product, such as: the availability of imagery, files, and shapefiles for the property or site from reliable sources, the accuracy and quality of imagery, files, or shapefiles obtained from reliable sources or provided by the Client, the date of when the imagery, files, or shapefiles were taken or created, and the ability for a person to visually discern the difference between the pixels of aerial imagery.
- (b) If such factors inhibit the accuracy of the Work, Bartlett Tree Experts may choose to conduct visual assessments, or use other means, to verify or classify points or imagery into the required specifications. If such alternate methods are used, Bartlett Tree Experts will communicate the use of such methods to the Client in the final work product. If it is not possible or feasible to use alternative methods, then the Client acknowledges that the final work product may have some gaps in accuracy.

2.19 Use of Drones and Drone-Related Equipment

- (a) If the Work specifies the use of Drones or Drone-related equipment to help collect information, the Client acknowledges that in some cases the use of Drones and Drone-related equipment can provide detailed information, imagery, views, and pictures of a tree(s) or property(s); however, in some cases, not all aspects of a tree(s) or property(s) can be seen or accessed by a Drone. The Client understands that this technology can be limited and should not be used by the Client as the sole decision-making criteria, but rather one of many factors used by the Client in the decision-making process.
- (b) The Client agrees that other methods of obtaining the required information must be included in the Client Agreement, and may be required to be utilized, in addition to or separate from the use of Drones or Drone related equipment in the event that the limitations are too severe to perform the required Work.

2.20 Decay Detection Devices

- (a) The Client acknowledges that all decay detecting devices have limitations, and the use of any such device should be used to supplement information regarding the decay within a tree or trees, and not as the sole source of information.
- (b) If the Work requires the use of a decay detection device, unless the Client Agreement specifies the type of device, Bartlett Tree Experts will decide the most appropriate type of decay detecting device to use based on the conditions present and the information needed to supplement and complete the Work.

2.21 Diagnostic Services

Bartlett Tree Experts may offer diagnostic services as a means of attempting to isolate certain plant pest or soil problems for the Client, and determining the most logical possibility as to the cause of the condition of the trees, shrubs, or plants in question. The Client understands that in some

2.22 Tree Preservation, Tree Protection, and Construction and Site Monitoring

- (a) If the Work includes Bartlett Tree Experts conducting or providing tree preservation or tree protection evaluations, tree impact evaluations, recommendations, specifications, and/or documents required by the governing agency, the Client understands that Bartlett Tree Experts will review the project, materials or plans that are provided by the Client, combined with industry best practices and current tree conditions, to arrive at the recommendations and specifications. The Client also understands that trees are living organisms and that even following all industry best practices and specifications cannot guarantee that a tree will survive construction impacts, which may include but are not limited to soil compaction, root damage, inadequate soil moisture, and decrease in tree stability.
- (b) If the Work includes Bartlett Tree Experts conducting or providing tree monitoring during project construction, the Client understands that Bartlett Tree Experts will review the project, materials, or plans that are provided by the Client and/or described by the Client representative at the site, and provide recommendations to the Client to assist with tree preservation or protection, but that the Client will be responsible for ensuring the implementation of such recommendations by the Client or any third parties.

2.23 Irrigation and Recycled Water Assessments

- (a) If the Work requires Bartlett Tree Experts to provide irrigation or recycled water assessments as a means of aiding the Client with their tree care needs, the assessments will be provided using the best known site conditions, the best available water quality information, or the best available water quality test results provided to Bartlett Tree Experts; however, the Client acknowledges that Bartlett Tree Experts cannot provide information on water source, delivery systems, water chemistry, water quality testing methodology, or distribution systems.

2.24 Bird, Water Fowl, and Wildlife Habitat Assessments

If the Work requires Bartlett Tree Experts to provide bird, water fowl, and wildlife habitat assessments or identifications as a means of aiding the Client with their tree care needs and wildlife considerations, the assessments will be based on known site conditions and available industry bird, waterfowl, and wildlife management information.

2.25 Endangered or Protected Species and Habitats

- (a) If the Work is for Bartlett Tree Experts to identify trees or plant materials that may be endangered or protected species, or to identify trees or plant materials that may be primary or secondary habitat for endangered or protected species, or to provide any analysis for a project that may affect any endangered species or protected species or its habitat, then Bartlett Tree Experts will base all reports and information on the existence of any known endangered or protected species and known habitats using government approved endangered or protected species or habitat information.
- (b) The Client acknowledges that Bartlett Tree Experts cannot be responsible for identifying unknown endangered species or habitats.

General Terms for Commercial Consulting Services

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2.26 Wetland and Riparian Habitat Mapping

The Client understands that if the Work involves wetland or riparian habitat mapping, such maps will require the Client to provide the tree or plant species considered to be the primary or secondary habitat for the specific species of animal in question, and such maps will be limited to the species information provided as it overlays within the known designated wetland areas.

2.27 Representation Services

If the Work involves a member of Bartlett Tree Experts acting as a representative for, or decision-maker for, the Client, including but not limited to activities such as reviewing, approving or declining tree-related permits, plans, designs, or selections submitted by third parties, then the Client agrees to be the final decision-maker in the event of a third party appeal of an adverse decision or recommendation made by Bartlett Tree Experts with respect to granting or denying a tree related permit, plan, design, or selection submitted by a third party. The Client also agrees to defend Bartlett Tree Experts against any claims made by third parties regarding such decisions or recommendations, and represent the decisions and recommendations of Bartlett Tree Experts, as if such decisions or recommendations were made by the Client.

2.28 Integrated Pest Management

- (a) If the Work includes consultation for integrated pest management services, the Client understands that the final product may involve recommendations for plant health care treatments that will be tailored to meet the Client's needs for specific trees, shrubs, turf areas, or plants. In creating these recommendations, Bartlett Tree Experts will consider the Client's objectives, priorities, budgetary concerns, plant materials, site conditions, pest and disease infestation levels and the expectations of those levels, and timing issues.
- (b) The Client acknowledges that such recommendations may involve one or more inspections of specific plants to help determine insect and disease concerns, the sampling of specific plant materials or soil areas, an understanding of the cultural needs of certain plants, consideration of biological control concepts and limitations (natural and/or introduced predators), recommended improvements to physical site conditions, or the use of pesticide treatments. The integrated pest management service does not combine all possible controls and concepts for every tree, shrub, turf area, or plant, but rather it considers the most reasonable option or options for control of and mitigation of insect and disease damages to the specific trees, shrubs, turf areas or plants as designated by the Client to meet the Client's goals.
- (c) The Client understands and acknowledges that during the course of an integrated pest management program, as inspections are taking place, and treatments or other services are being performed to certain trees or shrubs, not every tree or shrub inspected will require a specific treatment or other service, and in fact, some trees or shrubs may not require any specific treatment or other service throughout the course of a season to maintain health and vigor if the inspections show insignificant pest thresholds, and sound environmental and cultural conditions.
- (d) The Client also understands that tree, shrub, plant and turf inspections conducted during the integrated pest management program are for the purpose of determining plant health issues and, insect and disease thresholds; and are not conducted for the purposes of determining tree, shrub, plant, or turf safety.

2.29 Plant Species Selection

If the Work involves Bartlett Tree Experts providing advice and guidance on plant species selection to aid the Client with their landscape site needs, Bartlett Tree Experts will provide the advice and guidance based on the known site conditions, the available plant species locally at the time, and the plant species characteristics. The Client will be responsible for the planting and maintenance, and ensuring the survival of such plant selections in the landscape.

2.30 Trees and Subsidence Assessments

- (a) If the Work involves Bartlett Tree Experts providing an assessment of relationship between certain trees or tree parts and the subsidence or movement of a building or structure, the Client understands that certain inferences and assumptions will be made given the location, visibility, soil and drainage conditions, size, species, and condition of the tree or trees, and other factors, in order to perform the Work in the least intrusive manner possible.
- (b) Bartlett Tree Experts recommends that the Client reviews any tree related report recommendations, prior to having the work completed, with their structural engineer or other qualified building contractor to help the client determine any potential adverse impact to the buildings or structures.

2.31 Investigation of Covenants, Easements, Constraints, or Restrictions

The Client is responsible for investigating and identifying to Bartlett Tree Experts any covenants, easements, constraints, or other restrictions to the title or deed on the property that may adversely impact Bartlett Tree Experts' ability to perform the Work.

2.32 Cancellation

If the Client cancels or reduces the Work after the Work has started, the Client shall pay Bartlett Tree Experts for all the items of the Work that have been completed and all reasonable costs Bartlett Tree Experts has incurred in preparing to perform the remainder of the Work.

2.33 Payment

The Client shall pay for the Work when the Client receives Bartlett Tree Experts' invoice for the Work, unless specific payment terms have been agreed upon by the parties. If any amount remains unpaid 30 days after the date of the invoice or any period stated in the Client Agreement, whichever is longer, as a service charge the unpaid amount will accrue interest at the rate of 1.5% per month (or 18% per year) or the maximum rate permitted by law, whichever is lower. The Client shall reimburse Bartlett Tree Experts for any expenses (including attorneys' fees and court costs) it incurs in collecting amounts that the Client owes under the Client Agreement.

**Article 3
TREE CONDITIONS**

3.1 Cables, Braces and Tree-Support Systems

The Client acknowledges that cables, braces or tree-support systems are intended to reduce the risk associated with tree part breakage by providing supplemental support to certain areas within trees and in some cases by limiting the

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movement of leaders, limbs, or entire trees, and are intended to mitigate the potential damage associated with tree part breakage; but that such supplemental support systems cannot eliminate the risk of breakage or failure to trees or tree parts entirely, and future breakage and damage is still possible

- (a) The Client acknowledges that for cables, braces or tree-support systems to function optimally, the Client must arrange for them to be inspected and maintained by a qualified arborist periodically and after each major weather event.

3.2 Lightning Protection Systems

- (a) The Client acknowledges that lightning protection systems are intended to direct a portion of the electricity from a lightning strike down through the system into the ground, and mitigate the potential damage to the tree from a lightning strike, but that such systems cannot prevent damage to structures, nor can such systems prevent damage to trees caused by lightning entirely.
- (b) The Client acknowledges that for lightning protection systems to function optimally, the Client must arrange for them to be inspected and maintained by a qualified arborist periodically and after each major weather event.

3.3 Recreational Features

- (a) The Client acknowledges that Bartlett Tree Experts recommends stopping the use of, and removing, any tree house, ropes course, swing, or other recreational feature attached to a tree. Regardless of the health or condition of the tree, such features might be unsuited for the intended use or might place unpredictable forces on the feature or the tree, resulting in failure of the feature or the tree and injury to persons or damage to property. Bartlett Tree Experts is not responsible for the consequences of use of any such feature.
- (b) The Client acknowledges that if a recommendation is made to mitigate an observed and immediate safety issue on a tree with any such device or feature attached, such as the removal of a dead, dying, or broken limb that could fall and injure a person or damage property, the Client should not infer that following the recommendation and mitigating the immediate safety issue makes the tree in question safe for the use of the attached device or feature.

3.4 Root Pruning

In the right circumstances, root pruning is a valuable and necessary service, but it might pose a risk to the health and structural integrity of trees. To limit that risk, Bartlett Tree Experts performs root pruning to industry standards, but the Client acknowledges that the health and structural integrity of trees within the Scope of Work might nevertheless be adversely affected by any root pruning performed as part of the Work. Bartlett Tree Experts shall assist the Client in understanding the risks involved before opting for root pruning, but the Client will be responsible for deciding to proceed with root pruning.

3.5 Stumps, Stump Grinding, Tree Grates

The Client acknowledges that if any recommendations call for the removal of certain trees, that the remaining stumps may present tripping hazards, and that it is the Client's responsibility to remove any such tripping hazard, whether such hazard is created by the stump, the grindings if the stump is ground down, or any tree grates that exist.

3.6 Client Trees in Hazardous Condition

If the Client Agreement specifies that one or more trees within the Scope of Work are in hazardous condition, have an *extreme, high or moderate risk rating*, or should be removed for safety reasons, the Client acknowledges that removing those trees would prevent future damage from trees or tree limbs falling. If the Client requests that one or more of those trees be pruned instead of removed, the Client acknowledges that although pruning might reduce the immediate risk of limbs falling, it does not preclude the possibility of future limb, stem, or root failure. Bartlett Tree Experts is not responsible for any such future failure.

3.7 Trees in Poor Health or a Severe State of Decline

The Client acknowledges that if a tree is in poor health or in a severe state of decline, Bartlett Tree Experts cannot predict how that tree will respond to any recommended plant health care or soil care and fertilization treatment and might not be able to prevent that tree from getting worse or dying.

3.8 Trees Planted and Maintained by Other Contractors

The Client acknowledges that if trees within the Scope of Work were recently planted or are being maintained by one or more other contractors or if one or more other contractors will be watering and providing services with respect to trees within the Scope of Work, how those trees respond to treatment in the course of the Work might be unpredictable, and Bartlett Tree Experts cannot be responsible for the health of such trees or plants.

3.9 Trees with Cones and Large Seed Pods

The Client acknowledges that large tree cones or seedpods on some trees can become dislodged and fall without notice, creating a hazard to persons or property. If the Client has the type of tree on their property that produces large, heavy cones or seedpods, and the Client does not wish to remove the tree, Bartlett Tree Experts recommends that the Client marks off and restricts the area under and near the tree from pedestrian and vehicle traffic whenever possible, places a warning sign near the tree, remains aware of the hazardous conditions the falling cones can create, and inspects the tree annually and removes any observable cones if possible in order to mitigate the potential for damage from falling cones.

3.10 Fire Damage

- (a) Regardless of the species, trees exposed to fire can suffer structural damage that goes beyond whatever external damage might be visible. Fire can cause cracking and brittleness in tree structure and integrity; it can make pre-existing defects worse; it can make roots less stable; and it can weaken the overall health of the tree, making it susceptible to disease and pest infestations. The effects of fire damage are unpredictable and difficult to determine. Bartlett Tree Experts is not responsible for any injury to persons or damage to property resulting from services performed on fire-damaged trees as part of the Work.
- (b) The Client acknowledges that if trees and shrubs on the Client's property have been exposed to fire, the Client should have qualified arborist periodically inspect trees and shrubs on the property for fire damage.

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**Article 4
DISPUTE RESOLUTION**

4.1 Arbitration

- (a) As the exclusive means of initiating adversarial proceedings to resolve any dispute arising out of or related to the Client Agreement or Bartlett Tree Experts' performance of the Work, a party may demand that the dispute be resolved by arbitration administered by the American Arbitration Association in accordance with its commercial arbitration rules, and each party hereby consents to any such dispute being so resolved. Any arbitration commenced in accordance with this section must be conducted by one arbitrator. Judgment on any award rendered in any such arbitration may be entered in any court having jurisdiction. The parties also agree that the issue of whether any such dispute is arbitrable will be decided by an arbitrator, not a court.
- (b) The arbitrator must not award punitive damages in excess of compensatory damages. Each party hereby waives any right to recover any such damages in any arbitration.

4.2 Third Party Liability

The Client acknowledges that the use of any management plans created, reports written, recommendations, maps, sketches, and conclusions made are for the Client's use and are not intended to benefit or cause damage to any third party. Bartlett Tree Experts accepts no responsibility for any damages or losses suffered by any third party or by the Client as a result of decisions made or actions based upon the use of reliance of the management plans created, reports written, recommendations, maps, sketches, and conclusions made by any third party.

4.3 Limitation of Liability

The maximum liability of Bartlett Tree Experts for any losses incurred by the Client arising out of the Client Agreement or Bartlett Tree Experts' performance of the Work will be the amount paid by the Client for the Work, except in the case of negligence or intentional misconduct by Bartlett Tree Experts.

**Article 5
MISCELLANEOUS**

5.1 Client Responsibilities

- (a) The Client is responsible for the maintenance of the Client's trees, shrubs, and turf and for all decisions as to whether or not to prune, remove, or conduct other types of tree work on each respective tree, or when to prune, remove, or conduct other tree work on any respective tree, and all decisions related to the safety of each respective tree, shrub, and turf area.
- (b) Nothing in this Agreement creates an ongoing duty of care for Bartlett Tree Experts to provide safety maintenance or safety inspections in and around the Client's property. It is the responsibility of the Client to ensure the safety of its trees and landscape, and to take appropriate actions to prevent any future tree or tree part breakage or failures, or otherwise remove any hazardous conditions which may be present or may develop in the future.

5.2 Severability

If any portion of this Client Agreement is found to be unenforceable, then only that portion will be stricken from the Client Agreement, and the remainder of the Client Agreement will remain enforceable.

5.3 Unrelated Court Proceedings

The Client acknowledges that Bartlett Tree Experts has prepared the Client Agreement solely to help the Client understand the Scope of Work and the related costs. If a court subpoenas Bartlett Tree Experts' records regarding, or requires that a Bartlett representative testify about, the Client Agreement or the Work in connection with any Proceeding to which Bartlett Tree Experts is not a party or in connection with which Bartlett Tree Experts has not agreed to provide expert testimony, the Client shall pay Bartlett Tree Experts Two Hundred Dollars (\$200.00) per hour for time spent by Bartlett representatives in collecting and submitting documents for those Proceedings and attending depositions or testifying as part of those Proceedings.

5.4 Use of Information

The Client acknowledges that the information provided within the Client Agreement and any deliverables provided is solely for the use of the Client for the intended purpose of helping the Client understand and manage their tree care needs. All deliverables must be used as a whole, and not separated or used separately for other purposes.

5.5 Notices

For a notice or other communication under the Client Agreement to be valid, it must be in writing and delivered (1) by hand, (2) by a national transportation company (with all fees prepaid), or (3) by email. If a notice or other communication addressed to a party is received after 5:00 p.m. on a business day at the location specified for that party, or on a day that is not a business day, then the notice will be deemed received at 9:00 a.m. on the next business day.

4.4 Amendment; Waiver

No amendment of the Client Agreement will be effective unless it is in writing and signed by the parties. No waiver under the Client Agreement will be effective unless it is in writing and signed by the party granting the waiver. A waiver granted on one occasion will not operate as a waiver on other occasions.

5.5 Conflicting Terms

If these terms conflict with the rest of the Client Agreement, the rest of the Client Agreement will prevail. If these terms conflict with any other Client documentation, terms, or purchase order agreement, then the Client Agreement and these terms will prevail.

5.6 Entire Agreement

The Client Agreement with these terms constitutes the entire understanding between the parties regarding Bartlett Tree Experts' performance of the Work and supersedes all other agreements, whether written or oral, between the parties.

