



Formerly DCG/Watershed

June 10, 2024

Charles Smith, P.E.
Reid Middleton Inc.
728 134th St SW, Suite 200
Everett, WA 98204
425-741-3800
csmithreidmiddleton.com

Arborist Report – 160th & Greenwood/Innis Arden Roundabout

Facet Number: 2208.0226.00

Dear Charles:

We are pleased to present you with the findings of our tree inventory and assessment for trees located at the intersection of N 160th St, Greenwood Ave N, and NW Innis Arden Way in Shoreline, WA. The enclosed report has been prepared to describe our inventory methods, summarize the tree inventory and assessment results, and outline local regulatory requirements for tree retention, protection, and replacement, based on the Scope of Work dated January 3, 2023.

Please reach out if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads 'Lars Freeman-Wood'.

Lars Freeman-Wood
ISA Certified Arborist® WE-8769AU
Tree Risk Assessment Qualified (TRAQ)
ISA Certified Utility Specialist®

Enclosure

Arborist Report

Arborist Report

160th & Greenwood/Innis Arden Roundabout

Facet Number: 2208.0226.00

June 3, 2024

Introduction

This report outlines the methods, findings, and regulatory implications of a tree inventory study completed at the intersection of N 160th St, Greenwood Ave N and NW Innis Arden Way in Shoreline, WA. Lars Freeman-Wood, an ISA Certified Arborist[®] and Qualified Tree Risk Assessor with Facet visited the subject property on May 14th, 2024, to inventory and assess trees six inches or greater within the project area.

BACKGROUND

The project, proposed by the City of Shoreline is a single-lane roundabout at the intersection of N 160th Street, Greenwood Ave N, and NW Innis Arden Way.

STUDY AREA

The study area consists of city right-of-way at N 160th St, Greenwood Ave N and NW Innis Arden Way in Shoreline, as well as trees on parcels #1326039052, #1326039001, #1826049010, #3296700005, #3296700006, #3296700015 and #3293700545. The intersection is bordered on the west by Highland Terrace Elementary School and Shoreline Community College and is bordered on all other sides by residential properties.

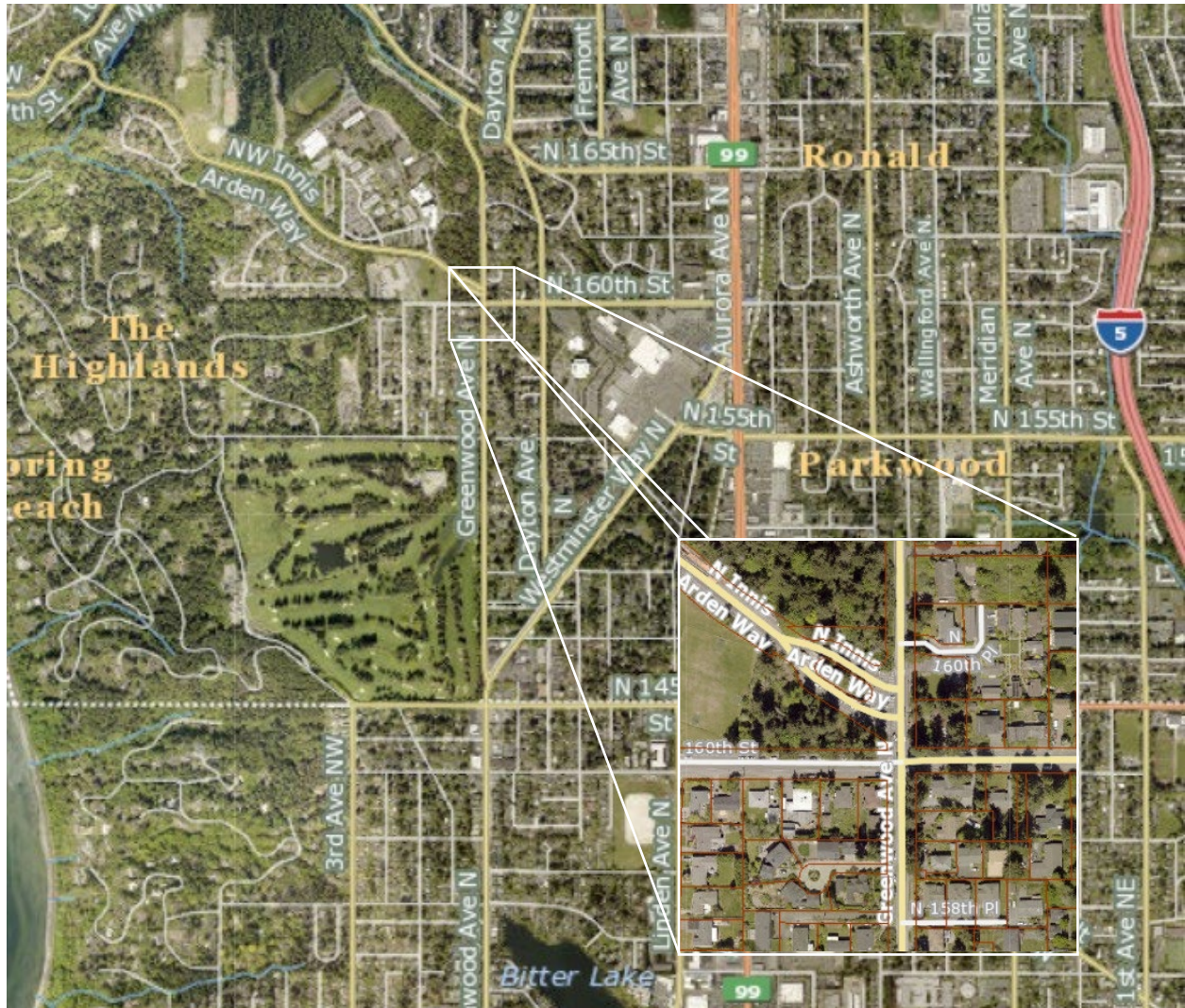


Figure 1. Vicinity map showing study area. Imagery: King County iMap.

Methods and Definitions

A Level I Visual Assessment was performed according to International Society of Arboriculture (ISA) standards to collect species names (scientific and common), number of stems, diameter, height, average crown radius, overall condition rating, and general assessment notes. Attributes were recorded for additional off-site trees with overhanging driplines extending into the project site.

According to the Shoreline Municipal Code (SMC), regulated trees are defined as follows:

SMC 20.20.048 Significant trees:

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).

SMC 20.20.048 Landmark trees:

Any 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.

In addition to the ID number, the following attributes were recorded for all inventoried trees:

- **Species Name** (scientific and common).
- **Number of Stems.**
- **Diameter.** The diameter-at-breast-height (DBH) of all regulated trees in the study area, was measured at 4.5 feet above the average surface of the ground. Methodology for measuring and calculating the diameter of trees with multiple trunks, major leans, or on steep slopes followed those outlined in the *Guide for Plant Appraisal, 10th Edition*, written by the Council of Tree and Landscape Appraisers (CTLA) and published by ISA (CTLA 2020). To measure trees with multiple trunks, the total diameter of multi-stemmed trees was calculated by taking the square root of the sum of each diameter squared; this allows for comparison to other single-stemmed trees and for more accurate permitting and tree retention calculations.
- **Estimated Height.** Baseline measurements for tree heights were established using a Forestry Pro Laser Rangefinder from Nikon. The height of adjacent trees was visually estimated based on these measurements.
- **Canopy Radius.** Canopy radius, also known as crown radius or dripline, was measured horizontally from the center of the trunk to the outermost branch tips. For trees with uneven crowns, the average of two perpendicular radii was recorded.
- **Condition.** A basic visual assessment was used to evaluate the health and condition of trees within the study area in accordance with ISA and CTLA standards. The condition determination was based on current conditions and considered the health, structural integrity, and form of the tree, in addition to the characteristics of each species. Each tree was given an overall condition rating from Excellent to Very Poor as summarized in Table 1. For the purposes of this report, any tree found in Very Poor or Dead condition is not considered to be "healthy", and therefore does not meet the criteria for a significant tree.

All inventoried trees were assigned a unique digital identification number, but not physically tagged. Reid Middleton provided survey data to Facet prior to the tree inventory. Survey data was provided to Facet in PDF and CAD format.

Table 1. Tree Condition Ratings (adapted from CTLA 2020).

Rating Category	Condition Components			Percent Rating
	Health	Structure	Form	
Excellent - 1	High vigor and nearly perfect health with little or no twig dieback, discoloration, or defoliation.	Nearly ideal and free of defects.	Nearly ideal for the species. Generally symmetric. Consistent with the intended use.	81% to 100%
Good - 2	Vigor is normal for species. No significant damage due to diseases or pests. Any twig dieback, defoliation, or discoloration is minor.	Well-developed structure. Defects are minor and can be corrected.	Minor asymmetries/ deviations from species norm. Mostly consistent with the intended use. Function and aesthetics are not compromised.	61% to 80%
Fair - 3	Reduced vigor. Damage due to insects or diseases may be significant and associated with defoliation but is not likely to be fatal. Twig dieback, defoliation, discoloration, and/or dead branches may compromise up to 50% of the crown.	A single defect of a significant nature or multiple moderate defects. Defects are not practical to correct or would require multiple treatments over several years.	Major asymmetries/deviations from species norm and/or intended use. Function and/or aesthetics are compromised.	41% to 60%
Poor - 4	Unhealthy and declining in appearance. Poor vigor. Low foliage density and poor foliage color are present. Potentially fatal pest infestation. Extensive twig and/or branch dieback.	A single serious defect or multiple significant defects. Recent change in tree orientation. Observed structural problems cannot be corrected. Failure may occur at any time.	Largely asymmetric/abnormal. Detracts from intended use and/or aesthetics to a significant degree.	21% to 40%
Very Poor - 5	Poor vigor. Appears dying and in the last stages of life. Little live foliage.	Single or multiple severe defects. Failure is probable or imminent.	Visually unappealing. Provides little or no function in the landscape.	6% to 20%
Dead - 6				0% to 5%

Findings

A total of 64 trees were assessed within the study area. There were a total of 31 Douglas-firs (*Pseudotsuga menziesii*), nine western white pines (*Pinus monticola*), five Pacific madrones (*Arbutus menziesii*), five western red cedars (*Thuja plicata*), three bigleaf maples (*Acer macrophyllum*), two western hemlock (*Tsuga heterophylla*), two Sitka spruce (*Picea sitchensis*), two eastern arborvitae (*Thuja plicata*), and one each of deodar cedar (*Cedrus deodara*), common hawthorn (*Crataegus monogyna*), American sweetgum (*Liquidambar styraciflua*), red maple (*Acer rubrum*), and saucer magnolia (*Magnolia x soulangeana*).

Of the 64 trees assessed, the majority (54) were in *Good* condition, six were in *Fair* condition, two were in *Poor* condition, one was in *Excellent* condition, and one was *Dead*.

The diameters of assessed trees ranged from six to 47.7 inches and the average diameter was 20.9.

The heights of assessed trees ranged from 20 feet to 100 feet and the average height was 67 feet.

The canopy radius of assessed trees ranged from three feet to 25 feet and the average canopy radius was 15 feet.

See the enclosed Tree Inventory Table for specific tree inventory results including the species, size measurements, and condition of each assessed tree.

Discussion

TREE REMOVALS

The 60% plan set provided by Reid Middleton was used to assess tree impacts and retention. A total of 11 trees (#5-#15) will need to be removed due to their location within the proposed roundabout. Additionally, three trees within the ROW(#42, #34, and #37) are recommended for removal. Tree #42 will incur significant impacts from construction due to its proximity to the proposed sidewalk, and trees #34 and #37 are in *Poor* condition and should be removed as they are unlikely to remain viable post-construction.

TREE IMPACTS

Numerous retained trees will incur impacts to their Critical Root Zones (CRZs), however, these impacts will be located in areas where there is currently pavement and compacted soils, so additional impacts are expected to be minimal. Any grading or excavation within the CRZs of retained trees should be overseen by the project arborist and recommendations noted in the Considerations for Proposed Development section should be followed.

Regulations

The following discussion outlines the applicable regulations and best management practices to protect and preserve trees during construction that should be considered during the site plan and tree retention plan development for this project.

TREE REPLACEMENT

If the trees being removed require replacement, they should be replaced according to the ratios set forth in SMC 20.50.360.

- 1. One existing significant tree of eight inches in diameter at breast height for conifers or 12 inches in diameter at breast height for all others equals one new tree.*
- 2. Each additional three inches in diameter at breast height equals one additional new tree, up to three trees per significant tree removed.*
- 3. Minimum size requirements for replacement trees under this provision: Deciduous trees shall be at least 1.5 inches in caliper and evergreens six feet in height.*

See the enclosed Tree Inventory Table for specific replacement quantities of trees proposed for removal.

TREE PROTECTION DURING DEVELOPMENT

Tree protection measures are required according to SMC 20.50.350:

Tree protection measures ensuring the preservation of all trees identified for retention on approved site plans shall be guaranteed during development through the posting of a performance bond equal to the value of the installation and maintenance of those protection measures.

Tree Protection guidelines shall be imposed for all trees to be retained on site according to SMC 20.50.370:

- 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.*

Considerations for Proposed Development

MINIMIZE ROOT ZONE DISTURBANCE

All construction activities, including staging and driving machinery, should be located outside of the CRZ. If temporary impacts in the CRZ are unavoidable, the arborist recommends using one of the following temporary measures to minimize soil compaction and root damage:

- Install six to twelve inches of wood chip mulch over the CRZ.
- Lay down a ¾-inch thick plywood sheet over at least four inches of wood chip mulch.
- Apply four to six inches of gravel over staked geotextile fabric.
- Place commercial logging mats on top of a 4-inch mulch layer.

The gravel, geotextile fabric, mats, and all mulch over four-inches thick **must** be removed after the temporary disturbance is finished.

MINIMIZE GRADE CHANGES

The grade should not be altered in the TPZ. Most tree roots grow in the top six to 18 inches of soil and are highly susceptible to damage from grade changes. If the grade is lowered, roots critical to health and stability will be removed. If the grade is raised, roots can suffocate from lack of oxygen.

If an increase in grade within the TPZ is recommended and approved, these best management practices should be followed:

- Do not place fill or other organic matter against the trunk.
- Do not compact soils.
- If the fill to be applied is no more than two to four inches, it should be a coarser texture than the existing soil.

If a decrease in grade within the TPZ is recommended and approved, these best management practices should be followed:

- No more than six inches of soil should be removed from the existing grade.
- Consider retaining walls or terraces to avoid excessive soil loss. Support for retaining walls should not impact major structural roots. Soil excavation by hand or hydro-vac prior to mechanical augering is recommended to avoid root impacts.
- Spread two to four inches of mulch over the exposed area to buffer the root's environment change.
- Apply supplemental water during dry months to encourage new root growth by soaking the CRZ once a week.

ROOT PRUNING

If any excavation or construction is proposed within the dripline, critical root zone, or tree protection zone, roots must be protected or properly pruned to ensure tree health and stability. Prior to

excavation within a tree's root zone (either within or outside of the TPZ), exposing roots using high-pressure air (pneumatic) or water (hydraulic) excavation is recommended. Any roots over one inch that are exposed after excavation should be clean-cut by hand and overseen by the project arborist.

CANOPY PRUNING

All construction activities should stay out of the canopy zone. However, if the canopy of a tree will conflict with construction, the canopy could be raised to avoid aerial conflicts after consulting with the project arborist. Any pruning of trees should be performed by or overseen by a certified professional through the International Society of Arboriculture (ISA) or Tree Care Industry Association (TCIA). Specific city requirements are noted in the Applicable Regulations section of this report.

MAINTENANCE

The impacts of construction are stressful to trees, which may not show signs of stress for up to five to ten years after being impacted. Applying additional woodchip mulch and providing supplemental irrigation may be necessary to reduce tree stress during construction. Specific city requirements are noted in the Applicable Regulations section of this report.

REPLACEMENT OF PAVEMENT OVER ROOTS

Pavement repair is often necessary work that is performed within a tree's root zone. Care should be taken to protect roots during these activities. Tree protection measures for working around tree roots should be described and submitted as part of any required permit documentation.

These best management practices for replacing pavement over roots include the following:

- Pavement should be broken into manageable pieces and carefully removed.
- Equipment and materials should be kept outside of the TPZ.
- Base rock should remain in place for feeder roots. Only remove rock if it is obscuring roots that need to be pruned.

During hot, dry months, care should be taken to keep the exposed roots and surrounding soil moist through the application of mulch, wet burlap, or other approved measures. Measures should be applied immediately and kept in place until overlay surface is in place, ideally within the same day.

TRENCHING, EXCAVATION, AND TUNNELING

Trenching and excavation within the critical root and tree protection zones should be avoided to reduce root loss and to help preserve the structural integrity of the tree. Alternative routes outside the CRZ should be considered for underground infrastructure. If no alternative path is possible, consider using air excavation to create a trench or tunneling at least 18 inches below the soil to reduce the loss of roots.

The following best practices for trenching are as follows:

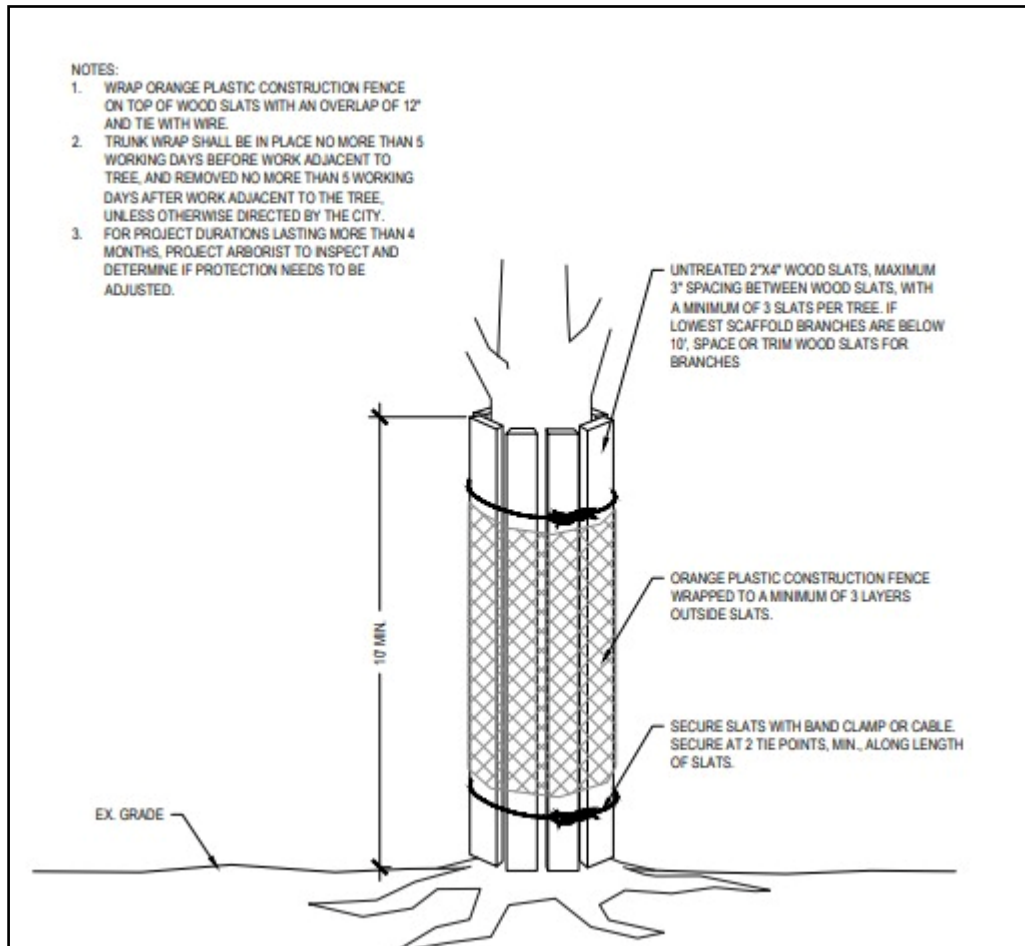
- Keep equipment and excavated material farthest away from the tree and out of the TPZ.
- Backfill should be replaced the same day it was excavated to reduce root desiccation.
- Cover exposed roots with wet burlap immediately; burlap should be kept moist.

- Chemicals, debris, trash, or other materials should not be mixed with backfill.
- Backfilled soil should match and not exceed the compaction of the surrounding soil.
- Water the tree's root zone to keep impacted roots moist.

Trunk Wrap

Trunk wrap should be applied to the trunks of trees where tree protection zones are within five feet of tree trunks.

Figure 2. Example of trunk wrap.



Disclaimer

The findings of this report are based on the best available science and are limited to the scope, budget, and site conditions at the time of the assessment. Although the information in this report is based on sound methodology, internal physical flaws (such as cracking or root rot) or other conditions that are not visible cannot be detected with this limited basic visual screening. Trees are inherently unpredictable. Even vigorous and healthy trees can fail due to high winds, heavy snow, ice storms, rain, age, or other causes.

This report is based on the current observable conditions and may not represent future conditions of the trees. Changes in site conditions, including clearing and grading, will alter the condition of remaining trees in a way that is not predictable.

References

American National Standard (ANSI) A300 (Part 5). 2019. Tree, Shrub, and Other Woody Plant Management Standard Practices (Management of Trees and Shrubs During Site Planning, Site Development, and Construction). Londonderry, NH: Tree Care Industry Association.

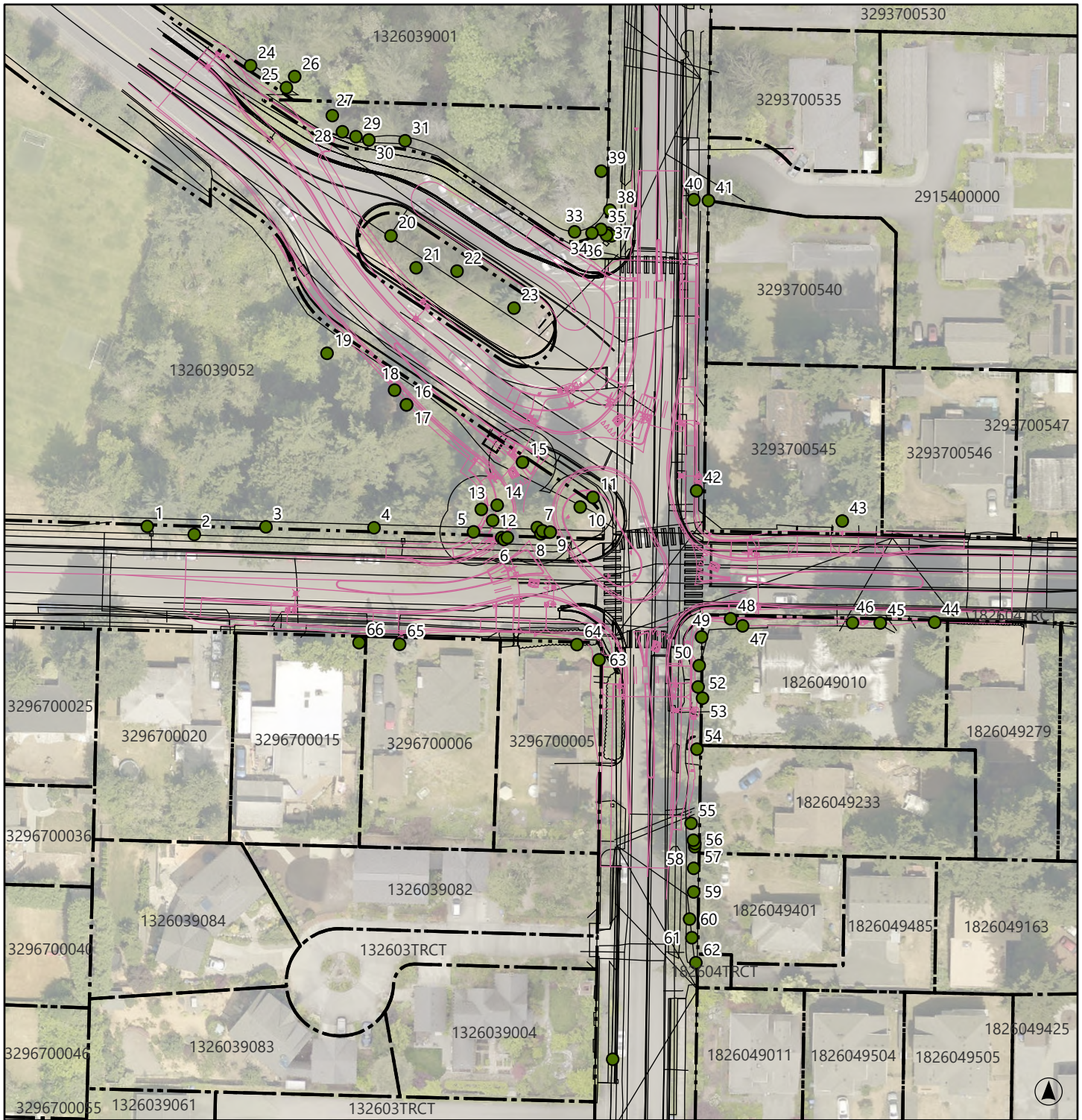
Council of Tree & Landscape Appraisers (CTLA). 2020. Guide for Plant Appraisal: 10th Edition, Revised. Atlanta, GA: International Society of Arboriculture.

Matheny, Nelda, and James R Clark. Trees and Development: A Technical Guide to Preservation of Trees During Land Development. International Society of Arboriculture, 1998.

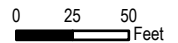
Shoreline Municipal Code. Ch. 20.50.290 Tree Conservation, Land Clearing and Site Grading Standards. Accessed June 3, 2024

TAG #	TREE NAME	# STEMS	COMB DBH (IN)	HEIGHT (FT)	RADIUS (FT)	CONDITION	SIGNIFICANT	REMOVAL	LOCATION	NUMBER OF REPLACEMENT TREES
1	Pseudotsuga menziesii (Douglas-fir)	1	32.0	90	22	Good	Yes	No	Private	0
2	Cedrus deodara (Deodar cedar)	1	12.8	35	15	Excellent	Yes	No	ROW	0
3	Pseudotsuga menziesii (Douglas-fir)	1	40.5	90	22	Good	Yes	No	Private	0
4	Arbutus menziesii (Pacific madrone)	1	21.0	40	15	Fair	Yes	No	Private	0
5	Pseudotsuga menziesii (Douglas-fir)	1	17.0	70	15	Good	Yes	Yes	Private	3
6	Arbutus menziesii (Pacific madrone)	3	22.2	35	18	Good	Yes	Yes	ROW	3
7	Pinus monticola (Western white pine)	1	30.8	100	18	Good	Yes	Yes	Private	3
8	Arbutus menziesii (Pacific madrone)	3	19.9	30	15	Fair	Yes	Yes	Private	3
9	Pseudotsuga menziesii (Douglas-fir)	1	9.7	25	8	Good	Yes	Yes	Private	1
10	Pinus monticola (Western white pine)	1	28.5	100	16	Good	Yes	Yes	Private	3
11	Crataegus monogyna (Common hawthorn)	1	6.5	20	6	Good	Yes	Yes	ROW	0
12	Arbutus menziesii (Pacific madrone)	1	13.8	30	12	Good	Yes	Yes	Private	1
13	Pseudotsuga menziesii (Douglas-fir)	1	16.4	100	14	Good	Yes	Yes	Private	3
14	Pinus monticola (Western white pine)	1	15.0	100	13	Good	Yes	Yes	Private	3
15	Tsuga heterophylla (Western hemlock)	1	23.2	90	15	Dead	Yes	Yes	Private	3
16	Pseudotsuga menziesii (Douglas-fir)	1	15.3	90	15	Good	Yes	No	Private	0
17	Pseudotsuga menziesii (Douglas-fir)	1	12.8	60	15	Good	Yes	No	Private	0
18	Pseudotsuga menziesii (Douglas-fir)	1	13.1	30	15	Fair	Yes	No	Private	0
19	Pinus monticola (Western white pine)	1	27.5	100	19	Good	Yes	No	Private	0
20	Picea sitchensis (Sitka spruce)	1	27.3	90	13	Good	Yes	No	Private	0
21	Pinus monticola (Western white pine)	1	12.9	60	12	Good	Yes	No	Private	0
22	Pseudotsuga menziesii (Douglas-fir)	1	27.2	100	16	Good	Yes	No	Private	0
23	Pseudotsuga menziesii (Douglas-fir)	1	24.5	100	18	Good	Yes	No	Private	0
24	Pseudotsuga menziesii (Douglas-fir)	1	24.2	100	18	Good	Yes	No	Private	0
25	Acer macrophyllum (Bigleaf maple)	1	24.3	50	18	Good	Yes	No	Private	0
26	Acer macrophyllum (Bigleaf maple)	1	18.0	50	18	Good	Yes	No	Private	0
27	Pseudotsuga menziesii (Douglas-fir)	1	18.0	100	13	Good	Yes	No	Private	0
28	Pseudotsuga menziesii (Douglas-fir)	1	8.0	45	13	Good	Yes	No	Private	0
29	Pseudotsuga menziesii (Douglas-fir)	1	8.0	45	13	Good	Yes	No	Private	0
30	Pseudotsuga menziesii (Douglas-fir)	1	8.0	45	13	Good	Yes	No	Private	0
31	Pseudotsuga menziesii (Douglas-fir)	1	32.3	100	21	Good	Yes	No	Private	0
33	Pseudotsuga menziesii (Douglas-fir)	1	6.5	30	8	Good	Yes	No	Private	0
34	Thuja occidentalis (Eastern arborvitae)	1	7.2	25	3	Poor	Yes	Yes	Private	0
35	Pseudotsuga menziesii (Douglas-fir)	1	14.3	25	12	Fair	Yes	No	ROW	0
36	Acer macrophyllum (Bigleaf maple)	1	11.0	25	12	Good	Yes	No	ROW	0
37	Thuja occidentalis (Eastern arborvitae)	1	6.7	25	3	Poor	Yes	Yes	ROW	0
38	Pinus monticola (Western white pine)	1	16.3	25	20	Fair	Yes	No	ROW	0
39	Pseudotsuga menziesii (Douglas-fir)	1	38.0	100	20	Good	Yes	No	Private	0
40	Pseudotsuga menziesii (Douglas-fir)	1	28.0	100	20	Good	Yes	No	ROW	0
41	Thuja plicata (Western red cedar)	1	38.4	100	25	Good	Yes	No	ROW	0
42	Arbutus menziesii (Pacific madrone)	1	12.3	30	12	Good	Yes	Yes	ROW	1

TAG #	TREE NAME	# STEMS	COMB DBH (IN)	HEIGHT (FT)	RADIUS (FT)	CONDITION	SIGNIFICANT	REMOVAL	LOCATION	NUMBER OF REPLACEMENT TREES
43	Pseudotsuga menziesii (Douglas-fir)	1	30.0	100	18	Good	Yes	No	Private	0
44	Pinus monticola (Western white pine)	1	28.4	100	18	Good	Yes	No	ROW	0
45	Pinus monticola (Western white pine)	1	22.0	100	15	Good	Yes	No	ROW	0
46	Thuja plicata (Western red cedar)	1	39.3	100	18	Good	Yes	No	ROW	0
47	Thuja plicata (Western red cedar)	1	17.3	60	11	Good	Yes	No	Private	0
48	Tsuga heterophylla (Western hemlock)	1	13.0	50	10	Fair	Yes	No	Private	0
49	Pinus monticola (Western white pine)	1	9.3	35	9	Good	Yes	No	ROW	0
50	Pseudotsuga menziesii (Douglas-fir)	1	46.0	100	20	Good	Yes	No	ROW	0
52	Pseudotsuga menziesii (Douglas-fir)	1	25.7	100	18	Good	Yes	No	ROW	0
53	Pseudotsuga menziesii (Douglas-fir)	1	30.0	100	18	Good	Yes	No	Private	0
54	Pseudotsuga menziesii (Douglas-fir)	1	47.7	100	24	Good	Yes	No	ROW	0
55	Pseudotsuga menziesii (Douglas-fir)	1	39.8	100	25	Good	Yes	No	ROW	0
56	Thuja plicata (Western red cedar)	1	6.5	25	7	Good	Yes	No	ROW	0
57	Thuja plicata (Western red cedar)	1	7.0	25	8	Good	Yes	No	ROW	0
58	Pseudotsuga menziesii (Douglas-fir)	1	36.0	100	20	Good	Yes	No	ROW	0
59	Pseudotsuga menziesii (Douglas-fir)	1	32.5	100	20	Good	Yes	No	ROW	0
60	Pseudotsuga menziesii (Douglas-fir)	1	28.8	100	18	Good	Yes	No	ROW	0
61	Pseudotsuga menziesii (Douglas-fir)	1	16.8	80	12	Good	Yes	No	ROW	0
62	Pseudotsuga menziesii (Douglas-fir)	1	32.0	100	23	Good	Yes	No	ROW	0
63	Liquidambar styraciflua (American sweetgum)	1	7.0	20	10	Good	Yes	No	Private	0
64	Acer rubrum (Red maple)	1	6.0	20	10	Good	No	No	Private	0
65	Picea sitchensis (Sitka spruce)	1	16.0	40	6	Good	Yes	No	Private	0
66	Magnolia x soulangeana (Saucer magnolia)	1	14.0	25	13	Good	Yes	No	Private	0



160th & Greenwood/Innis Arden Roundabout Tree Assessment

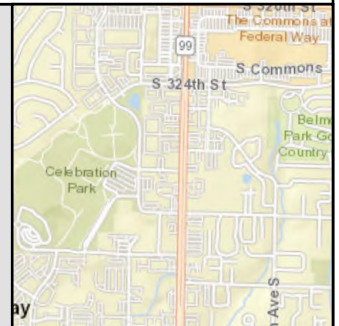


Legend

- Tree Locations
- Parcels
- Proposed Plan Linework
- Survey Linework

Project Details

Site Address: N 160th St, Greenwood Ave N,
 & NW Innis Arden Way Intersection
 Shoreline, WA
 Site Visit Date: 05/14/2024
 Prepared for: Charles Smith
 TWC Project #: 2208.0226.00



All inventoried trees were assigned a unique digital identification number, but not physically tagged. Reid Middleton provided survey data to Facet prior to the tree inventory. Survey data was provided to Facet in PDF and CAD format.

