

Arborist Report

To: Covenant Living Communities and Services c/o Randy Gross
Site: 9150 Fortuna Drive, Mercer Island, WA 98040
Re: Tree Inventory and Assessment
Date: February 6, 2026
Project Arborist: Julian Garcia
ISA Certified Arborist PN-9969A
ISA Qualified Tree Risk Assessor
Reviewed By: Sean Dugan, Registered Consulting Arborist #457
ISA Board Certified Master Arborist PN-5459B
ISA Qualified Tree Risk Assessor
Referenced Documents: Conceptual Site Plans (Navix, February 5, 2026)
Attached: Table of Trees
Tree Site Map

Summary

This project on Mercer Island proposes the demolition of a retirement community's existing lodge building and the construction of a new two-story community center with underground parking and possible additional surface parking lot on two adjacent separate parcels.

I inventoried and assessed 52 large (regulated) trees on this site.¹ Of the on-site trees assessed, 35 met the exceptional tree criteria outlined in the Mercer Island City Code (MICC).²

Per a conversation with the client in January 2026, tree 610 failed during a windstorm in December 2025 and trees 40, 608, and 611 are scheduled to be removed in February 2026 as part of a separate tree removal permit. Therefore, following these tree removals and failure there are a total of 48 large trees on-site, 31 of which are exceptional.

I found one tree grove on-site.³ Trees that are part of a grove shall be considered exceptional trees unless they meet the definition of a hazardous tree.

¹ MICC 19.16.010 defines a large (regulated) tree as any tree with a diameter at standard height (DSH) of ten inches or more, and any tree that meets the definition of an exceptional tree.

² MICC 19.16.010 defines an exceptional tree as a tree or group of trees that because of its unique historical, ecological, or aesthetic value constitutes an important community resource. An exceptional tree is a tree that is rare or exceptional by virtue of its size (>36" DSH), species, condition, cultural/historic importance, age, and/or contribution as part of a tree grove.

³ MICC 19.16.010 defines a tree grove as a group of eight or more tree each 10-inches or more DSH that form a continuous canopy.

There were five adjacent trees to the south that required documentation for this property. Trees on neighboring properties were documented if they appeared to be large (regulated) or exceptional trees and their driplines extended over the property line.

Assignment and Scope of Work

This report outlines the site inspection by Julian Garcia of Tree Solutions Inc. on June 25, 2025. I was asked to visit the site and provide an updated arborist report including findings and management recommendations. George Lenes, a consultant of Covenant Living Communities and Services, requested these services for project planning and design purposes.

An initial arborist report was completed by Ashley Adams of Adams Tree Consulting in July 2023. Because of the discovery of an existing watercourse in the proposed project area the project's design changed, and a new arborist report was required to inventory trees within the updated scope area.

Following the failure of tree 610 and proposed removals of trees 40, 608, and 61 on a separate permit, this report was updated on January 30, 2026.

Observations

Site

This 558,590 square foot site is comprised of three parcels (072405-9016, 413930-0230, and 413930-0225) that front N Mercer Way, SE 33rd Pl, and Lake Washington on the north shore of Mercer Island. There are ten multistory residential, health, and community buildings with associated driveways, parking lots, and open spaces that currently exist on-site. The existing community lodge building is located within the shoreline buffer in the northeast corner of parcel 072405-9016.

According to the City of Mercer Island GIS Portal, this property is zoned as MF-3 (parcel 072405-9016) and R-9.6 (parcels 413930-0230 and 413930-0225). Per a conversation with the client, the two parcels that are R-9.6 may be rezoned as MF-3 under a separate application to the City. Moreover, five critical areas (CAs) exist on-site including a type F unpipied watercourse that runs through the property from south to north, steep slope area along the southwest property line, newly found wetland, potential slide area, seismic area, and erosion area throughout the property (see Figure 1).

Proposed Plans

The most recent Conceptual Site Plans (Navix, February 5, 2026) propose to demolish the existing community lodge building and replacing it with a new two-story community center, underground parking garage, dining, kitchen, fitness, and administrative staff spaces. They also propose the development of a parking lot on parcels 413930-0230 and 413930-0225 to the east under a separate application to the City.

Trees

I have included an annotated survey of the site to serve as the Tree Site Map and attached a Table of Trees that has detailed information about each tree.

I inventoried and assessed 52 large (regulated) trees on-site. Of the on-site trees assessed, 35 met the exceptional tree criteria as defined in MICC 19.16.010. I observed one tree grove consisting of 21 trees 10-inches DSH or greater.

Updates to the report include that tree 610 failed during a windstorm in December 2025 and trees 40, 608, and 611 are scheduled to be removed in February 2026 as part of a separate tree removal permit. Therefore, following these tree removals and failure there are a total of 48 large trees on-site, 31 of which are exceptional.

The previous arborist who conducted the initial inventory in July 2023 used 1x3" aluminum tags for trees 1 through 49. I tagged each newly inventoried tree with a numbered round aluminum tree tag. Tree identifiers correspond to the number on each tag (608-633). All trees on adjacent properties were estimated from the subject site or public property such as the adjacent right-of-way (ROW). I used alphabetical tree identifiers for trees off-site.

Trees 40 & 608-611

Trees 40 and 608 to 611 are exceptional trees in mostly good health and structural conditions located adjacent to Fortuna Drive SE (see Photo 1). They provide abundant shade to the housing buildings to the north and northeast. Although they are located six to ten feet from the existing sidewalk, I did not observe any heaving or cracking in the sidewalk caused by their roots. As previously stated, tree 610 failed during a windstorm in December 2025 and trees 40, 608 and 611 are proposed for removal in February 2026.

Trees 612-616 & 618-633

Trees 612 to 616 and 618 to 633 are part of a tree grove and meet the criteria of exceptional trees per MICC 19.16.010. The majority are native coniferous and deciduous species in fair to good health and structural conditions (see Photo 2).

Dead Trees

I observed trees 9, 27, and 48, which were previously inventoried to be dead at the time of my visit.

Trees A-E

Trees A to E are off-site western redcedars (*Thuja plicata*) growing south of parcel 413930-0225's property line. They are all in good health and structural conditions and are part of the tree grove.

Not Regulated Trees

Richard Thuringer, of Covenant Living, explained community members' wishes to retain and transplant on-site Japanese maples (*Acer palmatum*) and other ornamentals trees near the existing lodge if possible (see **Photo 3**). I included these trees and labeled them "NR" (not regulated) if they had community sentimental value, but did not meet MICC definition of a large (regulated) tree (MICC 19.16.010).

Discussion—Tree Regulations

Tree Removal

Per MICC 19.10.060.B.1.b, tree permits are required for tree removal and will be granted if it is "necessary to enable construction work on the property to proceed and the owner has used reasonable best efforts to design and locate any improvements and perform the construction work in a manner consistent with the purposes set forth in MICC 19.10.005." Furthermore, MICC 19.10.060.B outlines other criteria for tree removal for properties in the MF-3 zoning designation.

Tree Replacement

Replacement trees are required to be planted for trees removed for site development. Replacement tree requirements and ratios are located in MICC 19.10.070 - Tree Replacement. If current site plans are implemented, then 93 tree replacements will be needed. Replacement tree requirements are outlined in Table 1 below.

Table 1. Tree replacement requirements (*Per MICC 19.10.070 – Tree Replacement*)

Diameter of Removed Tree	Number of Replacement Trees Required
Less than 10 inches	1
10 inches up to 24 inches	2
24 inches up to 36 inches	3
More than 36 inches and any exceptional trees	6

In general, replacement trees are required to be planted on-site and are required to be species native to the Pacific Northwest. Planted deciduous trees must be at least 1.5 inches in caliper and planted evergreen trees must be at least 6 feet tall. The City may authorize alternative replacement species if it is demonstrated that they are more suited to the site conditions.

Replacement trees should be planted in the wet season between October 1 and April 1. In the case of development projects, the City may allow for an extension to ensure optimal planting and weather conditions for tree replacement survival. All replacement trees shall be maintained in healthy condition for five years after planting. Any replacement tree that dies, becomes diseased, or is removed during this five-year period shall be replanted (MICC 19.10.070.D).

Per MICC 19.10.070.C, fees-in-lieu may be authorized by the City if it is determined that there is insufficient area on-site or in the adjacent ROW. Costs are determined based upon the expected tree replacement cost including labor, materials, and maintenance for each tree and the most current council tree and landscaper appraisers guide for plant appraisal (MICC 19.10.070.C.3).

Trees Located on Public Property

Trees located on public property are regulated under MICC 19.10.100. A tree permit must be obtained prior to removing or pruning any tree located on public property, including the ROW.

No trees on public property are currently proposed for removal. All trees on public property must be protected during construction.

Discussion—Construction Impacts

Tree Removals

If current plans are implemented, then 31 trees will be proposed for removal. Of the proposed removals, seven are exceptional trees, seven are not regulated trees, and three are already dead. Tree removals will be required because of conflicts with the proposed building’s footprint, the expansion of Fortuna Drive SE and additional parking stalls, and the possible construction of a parking lot on parcels 413930-0230 and 413930-0225.

Tree Protection

All retained, on-site trees and all off-site trees must be protected during construction to the standards outlined in MICC 19.10.080.

No ground disturbance is allowed within the minimum limits of disturbance (MLOD), defined as five times diameter at standard height (DSH), or six feet from the tree trunk, whichever is greater. Development work within the MLOD has a high potential for mechanical damage to structural roots and may destabilize trees.

Development work may occur within the recommended limits of disturbance (RLOD), defined as eight times DSH or greater, depending on individual tree species and/or condition. All work proposed within the RLOD must be reviewed and approved by the project arborist and the City of Mercer Island. Tree protection fencing consisting of six-foot-tall chain-link fencing is required to be installed at the RLOD of each protected tree. The RLOD for each retained tree is listed in the attached Table of Trees.

The areas contained within the tree protection fencing are referred to as Tree Protection Zones (TPZs). Per arborist approval, TPZ fencing may be placed at the edge of existing hardscape (e.g. existing driveway or road) within the TPZ to allow for staging and traffic.

When possible, trees should be retained as a group and the fencing shall encompass the entire area including all landscape beds or lawn areas associated with the grove. Reductions to the limits of disturbance to below the RLOD, or work proposed within the RLOD will likely require specialized construction techniques including, but not limited to, alternative excavation, soil protection, and arborist monitoring.

Additional tree protection specifications can be found in Appendix C .

Recommendations

Pre-Construction

- Obtain all necessary permits and approval from the city prior to commencement of site work.
- Plan to protect all retained trees and all off-site trees to the standards outlined in MICC 19.10.080 and Appendix C .
- All relevant plan sheets must include:
 - The MLOD and RLOD of all retained trees.
 - The proposed locations of tree protection fencing consistent with the recommendations in this report.
 - The locations of all trees proposed for removal marked with an X.
 - Notes pertaining to specific tree protection efforts described in this report.
- Have the project arborist present a pre-construction meeting to coordinate tree protection efforts.

During Construction

- Tree protection consisting of six-foot-tall chain-link fencing should be installed at the precise locations outlined in the body of this report prior to any construction related activities including demolition.
- Install a 4- to 6-inch layer of woodchip mulch within all TPZs.
- Establish and maintain supplemental irrigation within the TPZs from June to September.

- Any required pruning or removals should be conducted by an ISA certified arborist in accordance with current and applicable ANSI A300 pruning standards.
- Follow tree protection specifications located in Appendix C throughout construction.

Post-Construction

- Plant 93 required replacement trees and/or pay in-lieu fees.
- Continue supplemental summer irrigation for three years following construction.

Respectfully submitted,

Julian Garcia,
Consulting Arborist

Appendix A Figure

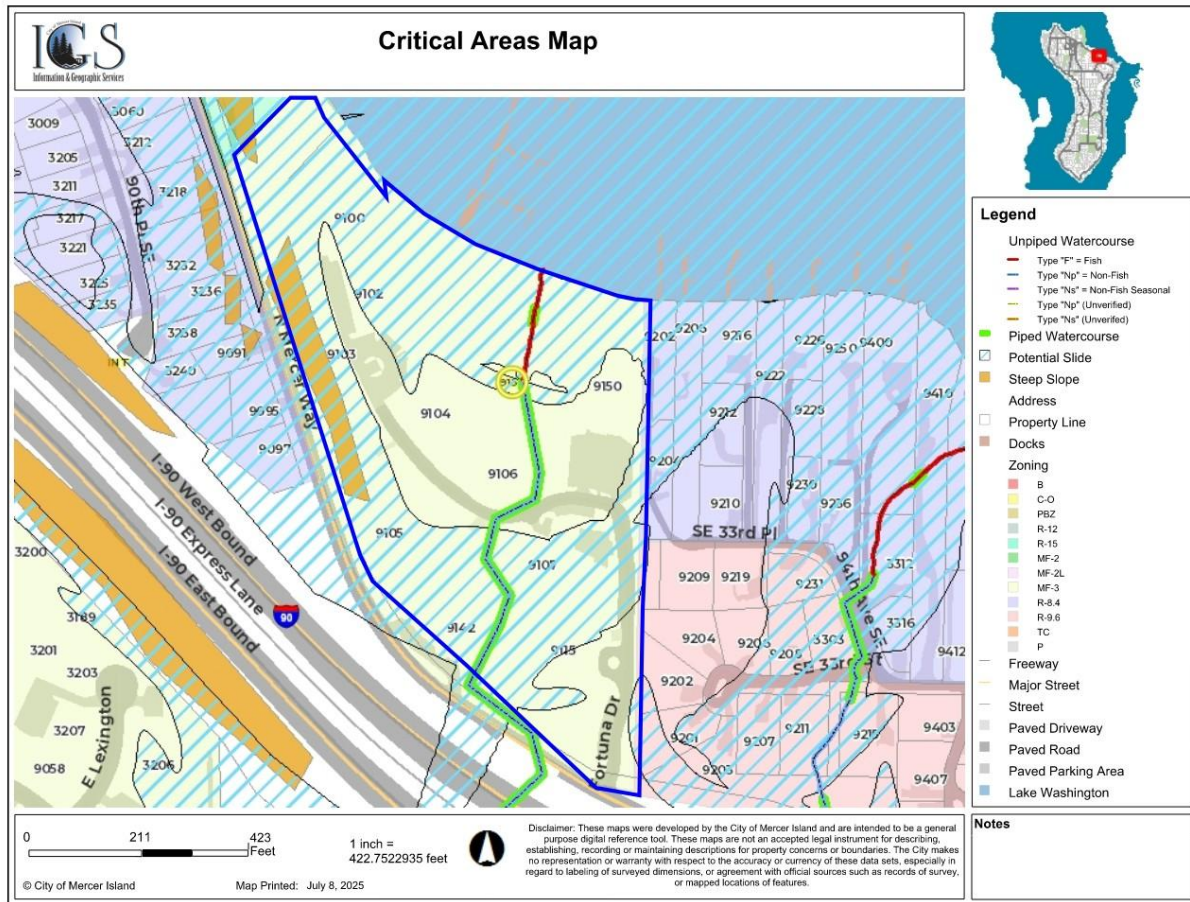


Figure 1. Critical Areas (CAs) Site Map shows property outlined in blue (accessed on July 1, 2025).

Appendix B Photographs

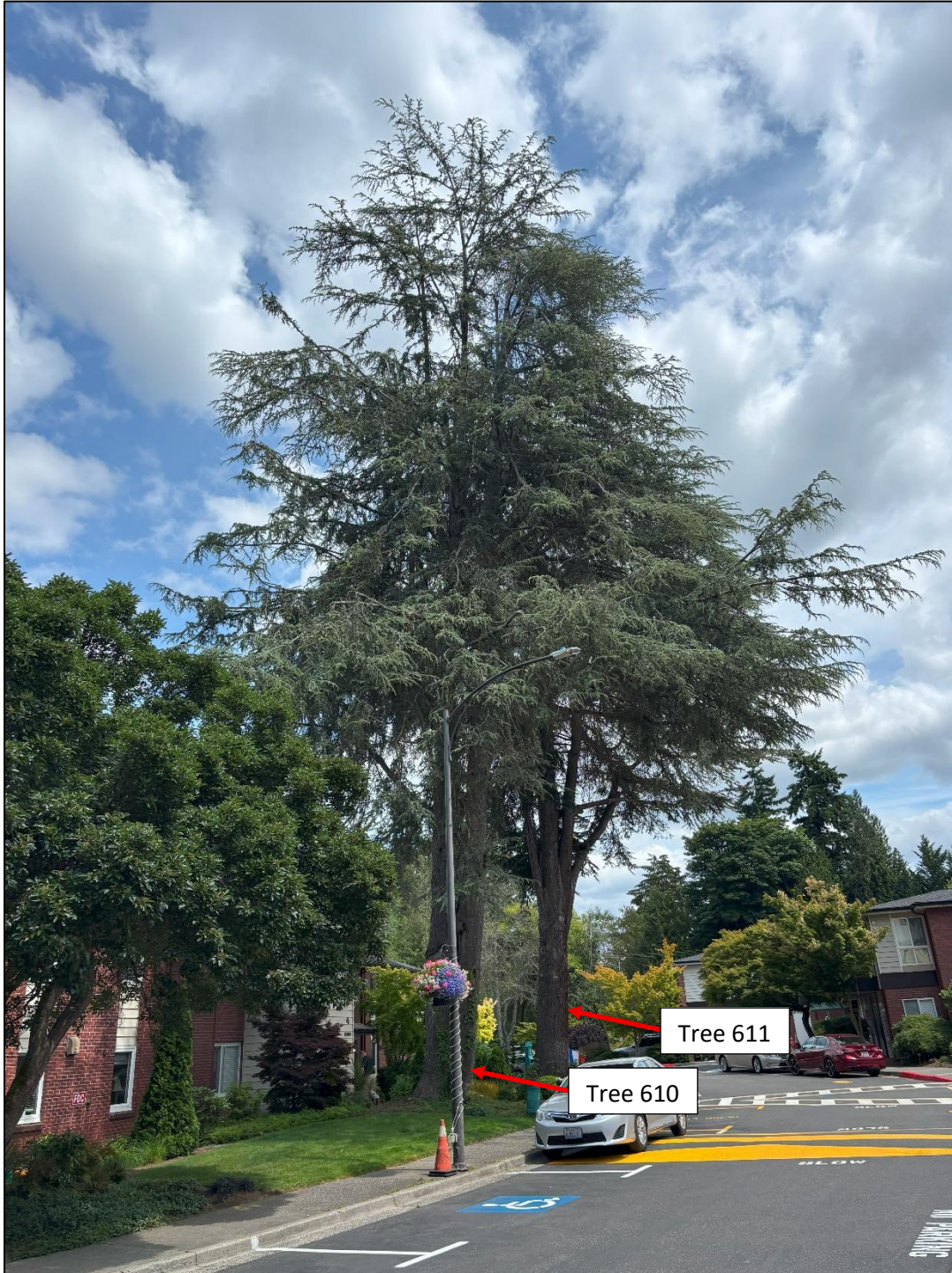


Photo 1. Looking east, trees 610 and 611 are landmark atlas cedars (*Cedrus libani ssp. atlantica*) adjacent to Fortuna Drive SE and the existing sidewalk. Tree 610 failed in December 2025 and tree 611 is proposed for removal on a separate permit in February 2026.



Photo 2. Looking south, this is the tree grove on-site consisting of 21 exceptional trees. The majority of the trees in the grove are native species in fair to good health and structural conditions.



Photo 3. Looking southeast, two examples of Japanese maples that the community hopes to retain per my conversation with Richard Thuringer of Covenant Living are indicated by arrows.

Appendix C Tree Protection Specifications

The following is a list of protection measures that must be employed before, during and after construction to ensure the long-term viability of retained trees.

1. **Project Arborist:** The project arborists shall at minimum have an International Society of Arboriculture (ISA) Certification and ISA Tree Risk Assessment Qualification.
2. **Tree Protection Zone (TPZ):** The TPZ is to be set at the Recommended Limits of Disturbance listed in the Table of Trees. In some cases, the TPZ may extend outside tree protection fencing. Work within the TPZ must be approved and monitored by the project arborist.
3. **Tree Protection Fencing:** Tree protection shall consist of 6-foot-tall chain-link fencing installed at the TPZ as approved by the project arborist. Fence posts shall be anchored into the ground or bolted to existing hardscape surfaces.
 - a. Where trees are being retained as a group the fencing shall encompass the entire area including all landscape beds or lawn areas associated with the grove.
 - b. Per arborist approval, TPZ fencing may be placed at the edge of existing hardscape within the TPZ to allow for staging and traffic.
 - c. Where work is planned within the TPZ, install fencing at edge of TPZ and move to limits of disturbance at the time that the work within the TPZ is planned to occur. This ensures that work within the TPZ is completed to specification.
 - d. Where trees are protected at the edge of the project boundary, construction limits fencing shall be incorporated as the boundary of tree protection fencing.
4. **Access Beyond Tree Protection Fencing:** The project manager or project arborist shall be present when tree protection areas are accessed.
5. **Tree Protection Signage:** Tree protection signage shall be affixed to fencing every 20 feet. Signage shall be fluorescent, at least 2' x 2' in size. Signage will note: "Tree Protection Area – Do Not Enter: Entry into the tree protection area is prohibited unless authorized by the project manager." Signage shall include the contact information for the project manager and instructions for gaining access to the area.
6. **Filter / Silt Fencing:** Filter / silt fencing within or at the edge of the TPZ of retained trees shall be installed in a manner that does not sever roots. Install so that filter / silt fencing sits on the ground and is weighed in place by sandbags or gravel. Do not trench to insert filter / silt fencing into the ground.
7. **Monitoring:** The project arborist shall monitor all ground disturbance at the edge of or within the TPZ, including where the TPZ extends beyond the tree protection fencing.
8. **Soil Protection:** No parking, foot traffic, materials storage, or dumping (including excavated soils) are allowed within the TPZ. Heavy machinery shall remain outside of the TPZ. Access to the tree protection area will be granted under the supervision of the project arborist. If project arborist allows, heavy machinery can enter the area if soils are protected from the load. Acceptable methods of soil protection include applying 3/4-inch plywood over 6 inches of wood chip mulch or use of AlturnaMats® (or equivalent product approved by the project arborist). Retain existing paved surfaces within or at the edge of the TPZ for as long as possible.
9. **Soil Remediation:** Soil compacted within the TPZ of retained trees shall be remediated using pneumatic air excavation according to a specification produced by the project arborist.
10. **Canopy Protection:** Where fencing is installed at the limits of disturbance within the TPZ, canopy management (pruning or tying back) shall be conducted to ensure that vehicular traffic does not damage canopy parts. Exhaust from machinery shall be located 5 feet outside the dripline of retained trees. No exhaust shall come in contact with foliage for prolonged periods of time.

11. **Duff/Mulch:** Apply 6 inches of arborist wood chip mulch or hog fuel over bare soil within the TPZ to prevent compaction and evaporation. TPZ shall be free of invasive weeds to facilitate mulch application. Keep mulch 1 foot away from the base of trees and 6 inches from retained understory vegetation. Retain and protect as much of the existing duff and understory vegetation as possible.
12. **Excavation:** Excavation done at the edge of or within the TPZ shall use alternative methods such as pneumatic air excavation or hand digging. If heavy machinery is used, use flat front buckets with the project arborist spotting for roots. When roots are encountered, stop excavation and cleanly sever roots. The project arborist shall monitor all excavation done within the TPZ.
13. **Fill:** Limit fill to 1 foot of uncompacted well-draining soil, within the TPZ of retained trees. In areas where additional fill is required, consult with the project arborist. Fill must be kept at least 1 foot from the trunks of trees.
14. **Root Pruning:** Limit root pruning to the extent possible. All roots shall be pruned with a sharp saw making clean cuts. Do not fracture or break roots with excavation equipment.
15. **Root Moisture:** Root cuts and exposed roots shall be immediately covered with soil, mulch, or clear polyethylene sheeting and kept moist. Water to maintain moist condition until the area is back filled. Do not allow exposed roots to dry out before replacing permanent back fill.
16. **Hardscape Removal:** Retain hardscape surfaces for as long as practical. Remove hardscape in a manner that does not require machinery to traverse newly exposed soil within the TPZ. Where equipment must traverse the newly exposed soil, apply soil protection as described in section 8 of these specifications. Replace fencing at edge of TPZ if soil exposed by hardscape removal will remain for any period of time.
17. **Tree Removal:** All trees to be removed that are located within the TPZ of retained trees shall not be ripped, pulled, or pushed over. The tree should be cut to the base and the stump either left in place or ground out. A flat front bucket can also be used to sever roots around all sides of the stump, or the roots can be exposed using hydro or air excavation and then cut before removing the stump.
18. **Irrigation:** Retained trees with soil disturbance within the TPZ will require supplemental water from June through September. Acceptable methods of irrigation include drip, sprinkler, or watering truck. Trees shall be watered three times per month during this time.
19. **Pruning:** Pruning required for construction and safety clearance shall be done with a pruning specification provided by the project arborist in accordance with American National Standards Institute ANSI-A300 2017 Standard Practices for Pruning. Pruning shall be conducted or monitored by an arborist with an ISA Certification.
20. **Plan Updates:** All plan updates or field modification that result in impacts within the TPZ or change the retained status of trees shall be reviewed by the senior project manager and project arborist prior to conducting the work.
21. **Materials:** Contractor shall have the following materials onsite and available for use during work in the TPZ:
 - **Sharp and clean bypass hand pruners**
 - **Sharp and clean bypass loppers**
 - **Sharp hand-held root saw**
 - **Reciprocating saw with new blades**
 - **Shovels**
 - **Trowels**
 - **Clear polyethylene sheeting**
 - **Burlap**
 - **Water**

Appendix D Glossary

DBH or DSH: diameter at breast or standard height; the diameter of the trunk measured 54 inches (4.5 feet) above grade (Council of Tree and Landscape Appraisers 2019)

tree grove: a group of eight or more trees each 10 inches or more in diameter that form a continuous canopy. Trees that are part of a grove shall also be considered exceptional trees, unless they also meet the definition of a hazardous tree. (MICC 19.16.010)

exceptional tree: a tree measuring 36 inches DSH or greater or with a diameter that is equal to or greater than the diameter listed in the Exceptional Tree Table (MICC 19.16.010)

ISA: International Society of Arboriculture

large tree (regulated): A tree measuring 10 inches or greater DSH (MICC 19.16.010)

MLOD (Minimum Limits of Disturbance) Minimum Limits of Disturbance: represents a distance five (5) times that of the trunk or 6-feet, whichever is greater, and is the minimum distance from a trunk that a structural root can be cut to maintain tree stability.

RLOD (Recommend Limits of Disturbance): As outlined in ISA Best Management Practices: Managing Trees During Construction, this is calculated as a radial distance 8 times the trunk diameter or greater depending on tree species and/or condition. For the purpose of this report, this represents the critical root zone (CRZ).

Visual Tree Assessment (VTA): method of evaluating structural defects and stability in trees by noting the pattern of growth (Mattheck & Breloer 1994)

Appendix E References

Accredited Standards Committee A300 (ASC 300). ANSI A300 (Part 1) Tree, Shrub, and Other Woody Plant Management – Standard Practices (Pruning). Londonderry: Tree Care Industry Association, 2017.

Council of Tree and Landscape Appraisers, Guide for Plant Appraisal, 10th Edition Second Printing. Atlanta, GA: The International Society of Arboriculture (ISA), 2019.

Fite, Kelby and Dr. E. Thomas Smiley. Best Management Practices: Managing Trees During Construction, Second Edition. Champaign, IL: International Society of Arboriculture (ISA), 2016.

Mattheck, Claus and Helge Breloer, The Body Language of Trees.: A Handbook for Failure Analysis. London: HMSO, 1994.

Mercer Island Municipal Code (MICC) 19.16.010. Definitions

Mercer Island Municipal Code (MICC) 19.10. Trees

Appendix F Assumptions & Limiting Conditions

- 1 Consultant assumes that the site and its use do not violate, and is in compliance with, all applicable codes, ordinances, statutes or regulations.
- 2 The consultant may provide a report or recommendation based on published municipal regulations. The consultant assumes that the municipal regulations published on the date of the report are current municipal regulations and assumes no obligation related to unpublished city regulation information.
- 3 Any report by the consultant and any values expressed therein represent the opinion of the consultant, and the consultant's fee is in no way contingent upon the reporting of a specific value, a stipulated result, the occurrence of a subsequent event, or upon any finding to be reported.
- 4 All photographs included in this report were taken by Tree Solutions, Inc. during the documented site visit, unless otherwise noted. Sketches, drawings and photographs (included in, and attached to, this report) are intended as visual aids and are not necessarily to scale. They should not be construed as engineering drawings, architectural reports or surveys. The reproduction of any information generated by architects, engineers or other consultants and any sketches, drawings or photographs is for the express purpose of coordination and ease of reference only. Inclusion of such information on any drawings or other documents does not constitute a representation by the consultant as to the sufficiency or accuracy of the information.
- 5 Unless otherwise agreed, (1) information contained in any report by consultant covers only the items examined and reflects the condition of those items at the time of inspection; and (2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, climbing, or coring.
- 6 These findings are based on the observations and opinions of the authoring arborist, and do not provide guarantees regarding the future performance, health, vigor, structural stability or safety of the plants described and assessed.
- 7 Measurements are subject to typical margins of error, considering the oval or asymmetrical cross-section of most trunks and canopies.
- 8 Tree Solutions did not review any reports or perform any tests related to the soil located on the subject property unless outlined in the scope of services. Tree Solutions staff are not and do not claim to be soils experts. An independent inventory and evaluation of the site's soil should be obtained by a qualified professional if an additional understanding of the site's characteristics is needed to make an informed decision.
- 9 Our assessments are made in conformity with acceptable evaluation/diagnostic reporting techniques and procedures, as recommended by the International Society of Arboriculture.

Appendix G Methods

Measuring

I measured the diameter of each tree at 54 inches above grade, diameter at standard height (DSH). If a tree had multiple stems, I measured each stem individually at standard height and determined a single-stem equivalent diameter by using the method outlined in the Guide for Plant Appraisal, 10th Edition Second Printing published by the Council of Tree and Landscape Appraisers. A tree is regulated based on this single-stem equivalent diameter value.

Tagging

I tagged each newly inventoried trees (608-633) with a circular aluminum tag at eye level. I assigned each tree a numerical identifier on our map and in our tree table, corresponding to this tree tag. I used alphabetical identifiers for trees off-site.

Evaluating

I evaluated tree health and structure utilizing visual tree assessment (VTA) methods. The basis behind VTA is the identification of symptoms, which the tree produces in reaction to a weak spot or area of mechanical stress. A tree reacts to mechanical and physiological stresses by growing more vigorously to re-enforce weak areas, while depriving less stressed parts. An understanding of the uniform stress allows the arborist to make informed judgments about the condition of a tree.

Rating

When rating tree health, I took into consideration crown indicators such as foliar density, size, color, stem and shoot extensions. When rating tree structure, I evaluated the tree for form and structural defects, including past damage and decay. Tree Solutions has adapted our ratings based on the Purdue University Extension formula values for health condition (*Purdue University Extension bulletin FNR-473-W - Tree Appraisal*). These values are a general representation used to assist arborists in assigning ratings.

Health

Excellent - Perfect specimen with excellent form and vigor, well-balanced crown. Normal to exceeding shoot length on new growth. Leaf size and color normal. Trunk is sound and solid. Root zone undisturbed. No apparent pest problems. Long safe useful life expectancy for the species.

Good - Imperfect canopy density in few parts of the tree, up to 10% of the canopy. Normal to less than ¾ typical growth rate of shoots and minor deficiency in typical leaf development. Few pest issues or damage, and if they exist they are controllable or tree is reacting appropriately. Normal branch and stem development with healthy growth. Safe useful life expectancy typical for the species.

Fair - Crown decline and dieback up to 30% of the canopy. Leaf color is somewhat chlorotic/necrotic with smaller leaves and “off” coloration. Shoot extensions indicate some stunting and stressed growing conditions. Stress cone crop clearly visible. Obvious signs of pest problems contributing to lesser condition, control might be possible. Some decay areas found in main stem and branches. Below average safe useful life expectancy

Poor - Lacking full crown, more than 50% decline and dieback, especially affecting larger branches. Stunting of shoots is obvious with little evidence of growth on smaller stems. Leaf size and color reveals overall stress in the plant. Insect or disease infestation may be severe and uncontrollable. Extensive decay or hollows in branches and trunk. Short safe useful life expectancy.

Structure

Excellent - Root plate undisturbed and clear of any obstructions. Trunk flare has normal development. No visible trunk defects or cavities. Branch spacing/structure and attachments are free of any defects.

Good - Root plate appears normal, with only minor damage. Possible signs of root dysfunction around trunk flare. Minor trunk defects from previous injury, with good closure and less than 25% of bark section missing. Good branch habit; minor dieback with some signs of previous pruning. Codominant stem formation may be present, requiring minor corrections.

Fair - Root plate reveals previous damage or disturbance. Dysfunctional roots may be visible around the main stem. Evidence of trunk damage or cavities, with decay or defects present and less than 30% of bark sections missing on trunk. Co-dominant stems are present. Branching habit and attachments indicate poor pruning or damage, which requires moderate corrections.

Poor - Root plate disturbance and defects indicate major damage, with girdling roots around the trunk flare. Trunk reveals more than 50% of bark section missing. Branch structure has poor attachments, with several structurally important branches dead or broken. Canopy reveals signs of damage or previous topping or lion-tailing, with major corrective action required.

DSH (Diameter at Standard Height) is measured 4.5 feet above grade, or as specified in the Guide for Plant Appraisal, 10th Edition, published by the Council of Tree and Landscape Appraisers.
Multi stem measurements are listed under DSH Multistem. The value listed under the DSH column for these trees is a single stem equivalent, calculated using the method defined in the Guide for Plant Appraisal, 10th Edition.
Letters are used to identify trees on neighboring property with overhanging canopies.
Minimum Limit of Disturbance (MLOD) is defined as 5 times trunk diameter or 6 feet, whichever is greater.
Recommended Limit of Disturbance (RLOD) is 8 times trunk diameter or greater depending on tree species and/or condition.
Dripline is measured from the center of the tree to the outermost extent of the canopy.

Tree ID	Scientific Name	Common Name	DSH (inches)	DSH Multistem	Health Condition	Structural Condition	Dripline Radius (feet)	Exceptional Threshold	Exceptional	24-Inch DSH or Greater	MLOD (feet)	RLOD (feet)	Proposed Action	Replacement Trees	Notes
1	<i>Metasequoia glyptostroboides</i>	Dawn redwood	17.3		Good	Good	14	-		-	7	12	Retain		Good candidate for retention
2	<i>Metasequoia glyptostroboides</i>	Dawn redwood	14.5		Good	Good	13	-		-	6	10	Remove	2	Small mechanical damage on west side of trunk one foot up
3	<i>Cercidiphyllum japonicum</i>	Katsura	22.2		Good	Good	22	30.0		-	9	15	Remove	2	Deadwood up to 1-inch diameter; DSH taken at narrowest point below union
4	<i>Cercidiphyllum japonicum</i>	Katsura	14.2	7.7,8.3,8.6	Good	Good	17	30.0		-	6	9	Remove	2	
5	<i>Cercidiphyllum japonicum</i>	Katsura	13.7	5.4,5.4,5.8,6.8,7	Good	Good	14	30.0		-	6	9	Remove	2	Asymmetrical canopy to north
6	<i>Cercidiphyllum japonicum</i>	Katsura	12.9	5.4,5.5,6.8,7.8	Good	Good	14	30.0		-	6	9	Remove	2	
7	<i>Pinus nigra</i>	Austrian black pine	17.8		Good	Good	20	24.0		-	7	12	Remove	2	Codominant stems at 12 feet with included bark; river rocks piled up at base of tree
8	<i>Pinus nigra</i>	Austrian black pine	13.4		Good	Good	15	24.0		-	6	9	Remove	2	
9	<i>Ulmus americana</i>	American elm	0.0				0	30.0		-	6	0	Remove	2	Dead
10	<i>Acer rubrum</i>	Red maple	21.4		Good	Good	25	25.0		-	9	14	Remove	2	1-inch diameter surface roots up to four feet from trunk
11	<i>Acer rubrum</i>	Red maple	26.0		Good	Good	27	25.0	Exceptional - Size	Yes	11	17	Remove	6	Codominant stems at five feet
12	<i>Acer rubrum</i>	Red maple	13.2		Good	Good	38	25.0		-	6	9	Remove	2	Phototropic lean to west over parking lot
13	<i>Acer rubrum</i>	Red maple	13.6		Good	Good	28	25.0		-	6	9	Remove	2	2-inch diameter surface roots up to five feet from base of tree
14	<i>Acer rubrum</i>	Red maple	17.7		Good	Good	27	25.0		-	7	12	Remove	2	Growing phototropically to south and north
15	<i>Thuja plicata</i>	Western redcedar	31.1	15.3,15.5,15.5,15.9	Fair	Fair	19	30.0	Exceptional - Size	Yes	13	21	Remove	6	Codominant stems 1-3 feet above grade; included bark between west leaders; all four leaders have top dieback and thin canopies
16	<i>Ulmus americana</i>	American elm	30.3		Good	Good	44	30.0	Exceptional - Size	Yes	13	20	Remove	6	Trunk splits at 10 feet and has epicormic shoots up to 30 feet; well balanced crown
17	<i>Cornus florida</i>	Eastern dogwood	4.9		Fair	Good	12	12.0		-	6	3	Retain		Not regulated - undersize; sentimental value for community
18	<i>Acer palmatum</i>	Japanese maple	5.5	2.5,3,2.5,3	Good	Good	9	12.0		-	6	4	Retain		Not regulated - undersize; sentimental value for community
19	<i>Thuja plicata</i>	Western redcedar	9.5		Good	Good	8	30.0		-	6	6	Remove	1	Slightly sparse canopy; limited rooting space in median planter
20	<i>Thuja plicata</i>	Western redcedar	8.6		Good	Good	10	30.0		-	6	6	Remove	1	Slightly sparse canopy; limited rooting space in median planter



Table of Trees
9150 Fortuna Drive
Mercer Island, WA

Arborist: JG
Date of Inventory: June 25, 2025
Table Updated: February 6, 2026

Tree ID	Scientific Name	Common Name	DSH (inches)	DSH Multistem	Health Condition	Structural Condition	Dripline Radius (feet)	Exceptional Threshold	Exceptional	24-Inch DSH or Greater	MLOD (feet)	RLOD (feet)	Proposed Action	Replacement Trees	Notes
21	<i>Prunus serrulata</i> 'shirofugen'	Flowering cherry	23.9		Good	Good	17	23.0	Exceptional - Size	-	10	16	Remove	6	Swollen graft union near base of trunk, but appears sound
22	<i>Styrax obassia</i>	Big-leafed styrax	5.9		Good	Good	9	30.0		-	6	4	Remove	1	Not regulated - undersize
23	<i>Styrax obassia</i>	Big-leafed styrax	4.2		Good	Good	8	30.0		-	6	3	Remove	1	Not regulated - undersize
24	<i>Acer palmatum</i>	Japanese maple	13.2	5.6,5.6,5.8,8.8	Excellent	Good	16	12.0	Exceptional - Size	-	6	9	Retain		1-inch surface roots three feet from base of tree; community sentimental value
25	<i>Acer palmatum</i>	Japanese maple	8.0	5.7,3.5,4.3	Good	Good	13	12.0		-	6	5	Retain		Not regulated - undersize; sentimental value for community
26	<i>Prunus serrulata</i>	Flowering cherry	8.4		Fair	Fair	14	23.0		-	6	6	Remove	1	Not regulated - undersize; unhealthy, thin canopy with signs of shothole fungus and brown rot; shade suppressed
27	<i>Albizia julibrissin</i>	Silk tree	0.0				0	-		-	6	0	Remove	2	Dead
28	<i>Ulmus americana</i>	American elm	36.2		Good	Good	47	30.0	Exceptional - Size	Yes	15	24	Remove	6	Trunk splits at 13 feet and has epicormic shoots up to 30 feet; appears healthy otherwise
29	<i>Prunus campanulata</i>	Taiwanese cherry	8.7		Fair	Good	17	23.0		-	6	6	Remove	1	Not regulated - undersize; signs of shothole fungus and brown rot
30	<i>Prunus campanulata</i>	Taiwanese cherry	7.8		Fair	Good	20	23.0		-	6	5	Remove	1	Not regulated - undersize; signs of shothole fungus and brown rot
31	<i>Acer palmatum</i>	Japanese maple	15.5		Good	Good	15	12.0	Exceptional - Size	-	6	10	Remove	6	Codominant at base with included bark up to three feet; some dead branches in canopy
32	<i>Prunus campanulata</i>	Taiwanese cherry	10.5		Fair	Good	15	23.0		-	6	7	Remove	2	Signs of shothole fungus and brown rot
33	<i>Salix babylonica</i> 'Pendula'	Weeping willow	42.6		Good	Fair	28	-	Exceptional - Size	Yes	18	28	Remove	6	Previously failed at 10 feet, but has reiterated very well and formed entirely new canopy
36	<i>Thuja plicata</i>	Western redcedar	37.3		Good	Good	24	30.0	Exceptional - Size	Yes	16	25	Retain		Slight corrected lean to south; previously topped at 25 feet and reiterated; full canopy
45	<i>Rhododendron</i> sp.	Tree rhododendron	11.4	5.4,5.4,8.4	Good	Good	13	-		-	6	8	Retain		Growing eastward away from building
47	<i>Betula papyrifera</i>	Paper birch	10.5		Good	Fair	17	20.0		-	6	7	Remove	2	Signs of bronze birch borer in upper crown; deadwood up to 2.5-inches diameter
48	<i>Acer rubrum</i>	Red maple	0.0				0	25.0		-	6	0	Remove	6	Dead
49	<i>Ulmus pumila</i>	Siberian elm	17.9		Good	Good	19	-		-	7	12	Remove	2	
609	<i>Crataegus phaenopyrum</i>	Washington hawthorn	19.2	9.8,10.5,12.7	Good	Good	20	9.0	Exceptional - Size	-	8	13	Remove	6	
612	<i>Tsuga heterophylla</i>	Western hemlock	33.9		Good	Good	30	24.0	Exceptional - Size	Yes	14	23	Retain		Previously topped at 15 feet; reiterated to form new canopy; large wound with good reaction wood on south side
613	<i>Thuja plicata</i>	Western redcedar	10.0		Good	Good	12	30.0	Exceptional - Grove	-	6	7	Retain		
614	<i>Crataegus monogyna</i>	Common hawthorn	10.2		Good	Good	10	-	Exceptional - Grove	-	6	7	Retain		
615	<i>Prunus domestica</i>	Common plum	13.5		Good	Fair	12	-	Exceptional - Grove	-	6	9	Retain		Overgrown; signs of branch failures from fruit load; deadwood present

Tree ID	Scientific Name	Common Name	DSH (inches)	DSH Multistem	Health Condition	Structural Condition	Dripline Radius (feet)	Exceptional Threshold	Exceptional	24-Inch DSH or Greater	MLOD (feet)	RLOD (feet)	Proposed Action	Replacement Trees	Notes
616	<i>Cuprocyparis leylandii</i>	Leyland cypress	19.0		Good	Good	17	-	Exceptional - Grove	-	8	13	Retain		Wound on north side of trunk with good reaction wood; surface roots present up to five feet from base of tree
617	<i>Salix matsudana 'Tortuosa'</i>	Corkscrew willow	16.6		Fair	Good	28	-	Exceptional - Grove	-	7	11	Retain		Signs of bacterial twig blight; some deadwood
618	<i>Thuja plicata</i>	Western redcedar	15.8		Good	Good	16	30.0	Exceptional - Grove	-	7	11	Retain		Asymmetrical canopy to north; shared canopy with tree 619
619	<i>Thuja plicata</i>	Western redcedar	24.1		Good	Good	19	30.0	Exceptional - Grove	Yes	10	16	Retain		Well balanced crown; surface roots present; mechanical damage on west side of trunk two feet up
620	<i>Pseudotsuga menziesii</i>	Douglas-fir	37.0		Good	Good	17	30.0	Exceptional - Size	Yes	15	25	Retain		Dominant tree; 3-inch hanger on south side
621	<i>Acer macrophyllum</i>	Bigleaf maple	20.4	11.2,17.1	Good	Fair	31	30.0	Exceptional - Grove	-	9	14	Retain		Growing phototropically to south; deadwood up to 2.5-inches diameter; previous leader failures with cavities at base of both stems
622	<i>Acer macrophyllum</i>	Bigleaf maple	13.7	11.9,5.5,2.5,3	Good	Fair	21	30.0	Exceptional - Grove	-	6	9	Retain		Topped previously at five feet and reiterated; large hollowed out cavity with decay present at topped point; woodchip mulch pile at base
623	<i>Thuja plicata</i>	Western redcedar	14.6		Good	Good	20	30.0	Exceptional - Grove	-	6	10	Retain		Shared canopy with tree 624
624	<i>Acer macrophyllum</i>	Bigleaf maple	34.3	21.1,27.1	Good	Good	26	30.0	Exceptional - Size	Yes	14	23	Retain		Codominant stems at two feet; dominant tree
625	<i>Thuja plicata</i>	Western redcedar	20.1	7,18.8	Good	Good	14	30.0	Exceptional - Grove	-	8	13	Retain		Growing directly into canopy of tree 624
626	<i>Arbutus menziesii</i>	Pacific madrone	11.6		Good	Good	27	6.0	Exceptional - Size	-	6	8	Retain		Growing phototropically to northeast
627	<i>Thuja plicata</i>	Western redcedar	26.4	10.5,16.6,17.7	Good	Good	20	30.0	Exceptional - Grove	Yes	11	18	Retain		Codominant stems at base
628	<i>Thuja plicata</i>	Western redcedar	26.6		Good	Good	16	30.0	Exceptional - Grove	Yes	11	18	Retain		Clearance pruned away from utility lines; DSH taken at narrowest point below union
629	<i>Pseudotsuga menziesii</i>	Douglas-fir	33.6		Good	Good	13	30.0	Exceptional - Size	Yes	14	22	Retain		Ivy growing up trunk to at least 35 feet; dominant tree
630	<i>Thuja plicata</i>	Western redcedar	35.8		Good	Good	22	30.0	Exceptional - Size	Yes	15	24	Retain		Large wound on south side of trunk from base to 10 feet; good reaction wood around it
631	<i>Thuja plicata</i>	Western redcedar	14.0		Good	Good	15	30.0	Exceptional - Grove	-	6	9	Retain		Slightly sparse canopy; codominant stems at 15 feet and leaders are well knit
632	<i>Thuja plicata</i>	Western redcedar	12.2	8.3,8.9	Good	Good	12	30.0	Exceptional - Grove	-	6	8	Retain		Codominant stems at two feet
633	<i>Thuja plicata</i>	Western redcedar	14.5		Fair	Good	19	30.0	Exceptional - Grove	-	6	10	Retain		Sparse canopy; surrounded by compacted paths and parking spot
A	<i>Thuja plicata</i>	Western redcedar	13.0		Good	Good	17	30.0	Exceptional - Grove	-	6	9	Retain		
B	<i>Thuja plicata</i>	Western redcedar	12.0		Good	Good	17	30.0	Exceptional - Grove	-	6	8	Retain		



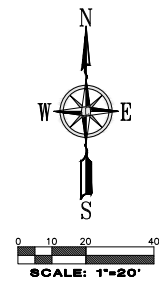
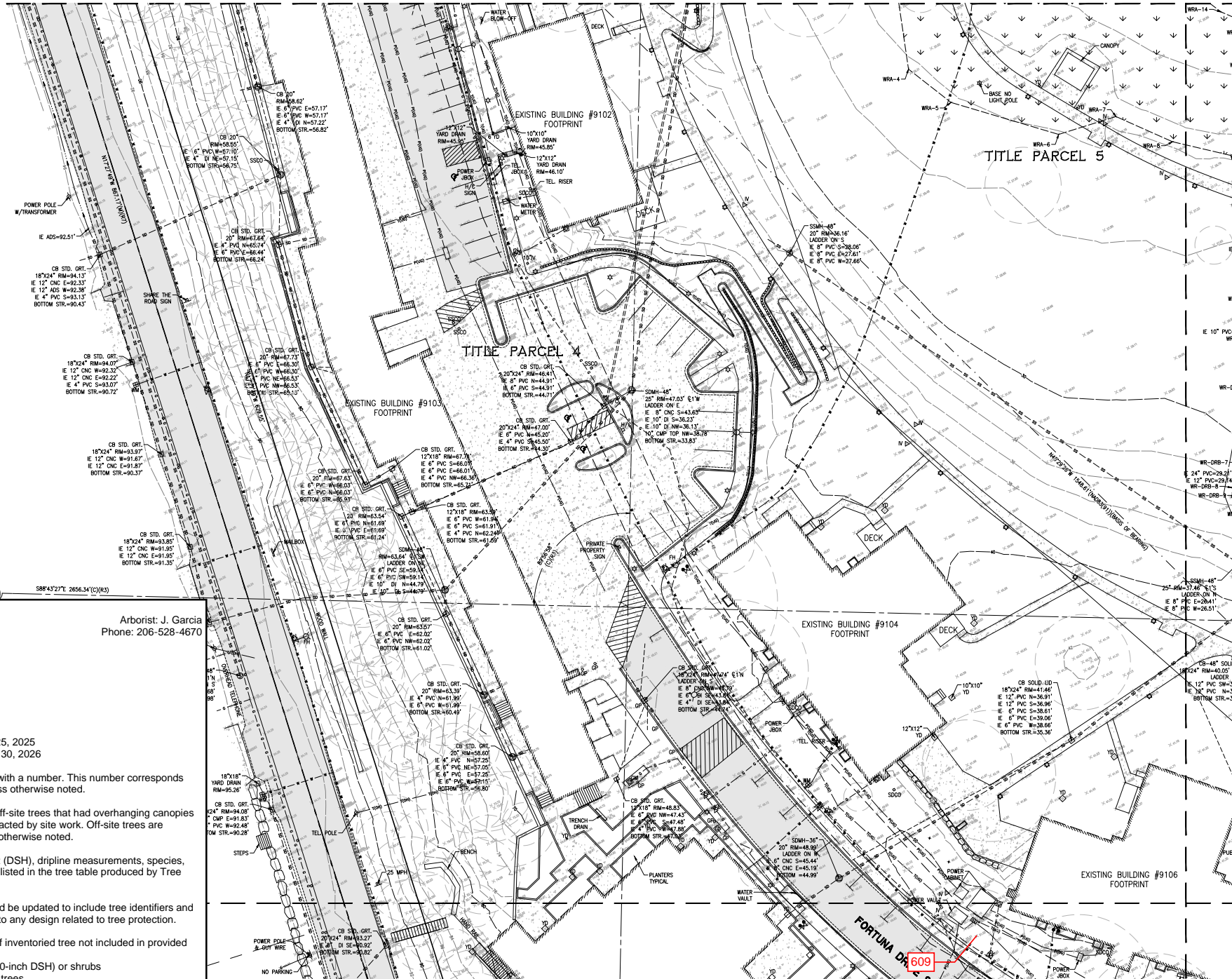
Table of Trees
 9150 Fortuna Drive
 Mercer Island, WA

Arborist: JG
Date of Inventory: June 25, 2025
Table Updated: February 6, 2026

Tree ID	Scientific Name	Common Name	DSH (inches)	DSH Multistem	Health Condition	Structural Condition	Dripline Radius (feet)	Exceptional Threshold	Exceptional	24-Inch DSH or Greater	MLOD (feet)	RLOD (feet)	Proposed Action	Replacement Trees	Notes
C	<i>Thuja plicata</i>	<i>Western redcedar</i>	13.0		Good	Good	16	30.0	Exceptional - Grove	-	6	9	Retain		
D	<i>Thuja plicata</i>	<i>Western redcedar</i>	12.0		Good	Good	16	30.0	Exceptional - Grove	-	6	8	Retain		
E	<i>Thuja plicata</i>	<i>Western redcedar</i>	10.0		Good	Good	13	30.0	Exceptional - Grove	-	6	7	Retain		

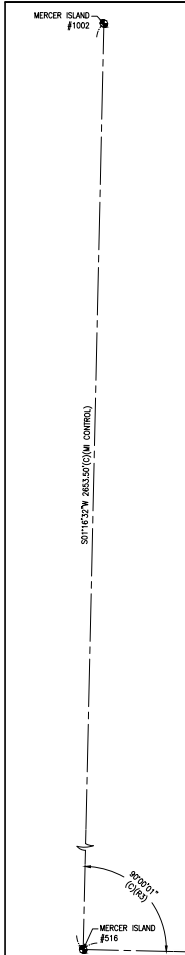
ALTA/NSPS LAND TITLE SURVEY

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SEE SHEET 7 OF 9



Tree Solutions Inc
Consulting Arborists

Tree Site Map

Tree Inventory Date: June 25, 2025
Site Map Updated: January 30, 2026

On-site trees are identified with a number. This number corresponds with the metal tree tag unless otherwise noted.

Inventory also includes all off-site trees that had overhanging canopies or that were likely to be impacted by site work. Off-site trees are identified by a letter unless otherwise noted.

Diameter at standard height (DSH), dripline measurements, species, and other tree specifics are listed in the tree table produced by Tree Solutions Inc.

Survey and site plans should be updated to include tree identifiers and accurate dripline data prior to any design related to tree protection.

- : Approximate location of inventoried tree not included in provided survey
- : Not regulated trees (<10-inch DSH) or shrubs
- : Tree grove exceptional trees

* Tree locations added to the survey are approximate and should be confirmed and added to the survey.

Arborist: J. Garcia
Phone: 206-528-4670

1 1/24/25
2 9/26/24
3 12/20/23
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Tree Site Map
PTNS OF THE NW1/4, NE1/4, SW1/4, SE1/4 OF SEC. 7,
TWP. 24 N., RGE 5 EAST, W. M.
CITY OF MERCER ISLAND
KING COUNTY STATE OF WASHINGTON

For:
NAVIX ENGINEERING
11235 SE 6TH ST, SUITE 150
BELLEVUE, WA 98004

Scale:
Horizontal 1"=20'
Vertical 1"=20'

Designed: []
Drawn: []
Checked: []
Approved: []
Date: 9/29/22

LANKTREE LAND SURVEYING, INC.
25510 74TH AVENUE SOUTH KENT, WA 98032
PHONE: (253) 653-6423
FAX: (253) 793-1616
WWW.LANKTREELANDSURVEYING.COM

Job Number: **6411**
Sheet: **5** of **9**
Date: 1/24/2025

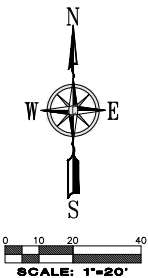
ALTA/NSPS LAND TITLE SURVEY

SEE SHEET 4 OF 9



SEE SHEET 5 OF 9

SEE SHEET 8 OF 9



LEGEND

- (NOTE: NOT ALL SYMBOLS MAY APPEAR ON THE MAP)
- | | |
|---|--|
| <ul style="list-style-type: none"> SURVEY MONUMENT (AS NOTED) SECTION CORNER (AS NOTED) SET REBAR/CAP (L3#45789 OR #41282) FOUND REBAR/CAP (AS NOTED) SET 2"x2" HUB/TACK LINE STAKE MAG/WASHER OR LEAD/TACK (AS NOTED) LUMINAIRE (LUM.) YARD LIGHT ORNAMENTAL LIGHT POWER METER (PM) POWER POLE (PP) JUNCTION BOX (AS NOTED) TELEPHONE MANHOLE (TM) TELEPHONE RISER (TR) CATCH BASIN (CB) STORM MANHOLE (SDMH) STORM CLEANOUT (SDCO) SANITARY SEWER MANHOLE (SSMH) SANITARY CLEANOUT (SSCO) GAS METER (GM) GAS VALVE (GV) WATER VALVE (WV) FIRE HYDRANT(FH) / CONNECTION(FDC) POST INDICATOR VALVE (PIV) WATER MANHOLE WATER METER (WM) BLOW-OFF / AIRVAC WELL IRRIGATION VALVE (IV) DIRECTIONAL ARROW HANDICAP CHAIN LINK FENCE WOOD FENCE WATER LINE GAS LINE TELEPHONE LINE (OH) OR (UG) POWER LINE (OH) OR (UG) STORM LINE SEWER LINE ROCKERY KEYSTONE WALL DECIDUOUS TREE CONIFEROUS TREE TREE SPRINKLE CONCRETE PAVERS GRAVEL/SAND (AS NOTED) ASPHALT BUILDING LINE | <p>ABBREVIATIONS</p> <ul style="list-style-type: none"> (#) REFERENCE SURVEYS (OH) OVERHEAD (UG) UNDERGROUND (TP) TYPICAL (C) CALCULATED (M) MEASURED (GIS) GEOGRAPHICAL INFORMATION SYSTEMS (REF) PER REFERENCE INFORMATION (H) HIGH (W) INFORMATION VALVE (BRH) INFORMATION FROM ALTA BY BUSH, ROED, & HITCHING, JOB NO. 2011104.03, DATED 6/8/16 |
|---|--|

1 1/24/25 TSL METLANS ADDED PER DELINEATION DATE 1/22/2025
 2 9/26/24 TSL BUSH, ROED, & HITCHING PER EMAIL DATE 9/27/2024
 3 12/20/23 TSL BUSH, ROED, & HITCHING PER EMAIL DATE 1/31/2023
 No. Drawn By: [Signature] Date: [Date]

Tree Site Map

PTNS OF THE NWT1/4, NE1/4, SW1/4, SE1/4 OF SEC. 7,
 TWP. 24 N., RGE 5 EAST, W. M.
 CITY OF MERCER ISLAND
 KING COUNTY STATE OF WASHINGTON

For: **NAVIX ENGINEERING**
 11235 SE 6TH ST, SUITE 150
 BELLEVUE, WA 98004

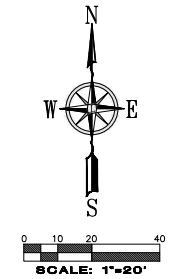
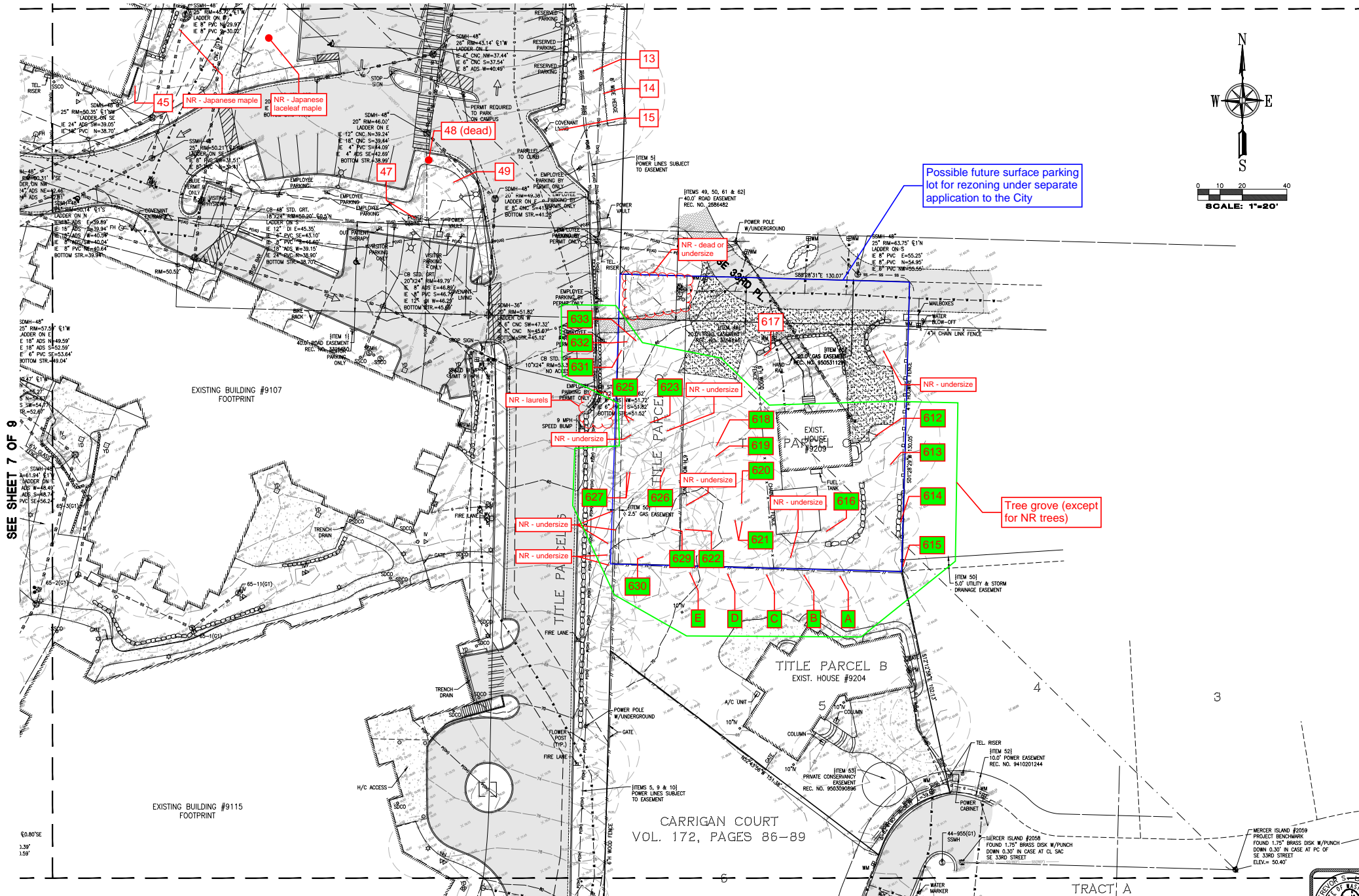
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 Designed: [Signature] Checked: [Signature] Approved: [Signature]
 Date: 9/29/22

Scale: 1"=0' Jack Worm: [Signature]
 LANKTREE LAND SURVEYING, INC.
 25510 74TH AVENUE SOUTH KENT, WA 98032
 PHONE: (253) 653-6423
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 WWW.LANKTREELANDSURVEYING.COM

Job Number: **6411**
 Sheet: **6** of **9**
 DATE: 1/24/2025

ALTA/NSPS LAND TITLE SURVEY

SEE SHEET 6 OF 9



SEE SHEET 7 OF 9

SEE SHEET 9 OF 9

1 1/24/25 TSL METLANS ADDED PER DELINEATION DATE 1/22/2025
 2 1/25/25 TSL ADDED COMMENTS PER FINAL DATE 6/27/2024
 3 1/25/25 TSL ADDED COMMENTS PER FINAL DATE 6/27/2024
 No. Drawn By Date

Tree Site Map

PTNS OF THE NW1/4, NE1/4, SW1/4, SE1/4 OF SEC. 7,
 TWP. 24 N., RGE 5 EAST, W. M.
 CITY OF MERCER ISLAND
 KING COUNTY STATE OF WASHINGTON

For:
NAVIX ENGINEERING
 11235 SE 6TH ST, SUITE 150
 BELLEVUE, WA 98004

Scale: Horizontal 1"=20'
 Vertical Vertical
 Designed: JSL
 Drawn: JSL
 Checked: JSL
 Approved: JSL
 Date: 9/29/22

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Job Number: **6411**
 Sheet: **8** of **9**
 Date: 1/24/2025

