



## **Arborist Report**

**June 28th, 2023**

**Prepared for:**  
Ananta Gudipaty

**Site Address:**  
3632 90th Ave SE  
Mercer Island, Wa

**Prepared by:**  
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## Discussion

Arborist notes for Ananta Gudipaty/Mercer Island project. This is another return trip to this site for me to verify all of the data that I collected during the initial site visit is accurate. I did verify that all of the trees are tagged with consecutive numbers and I also added those numbers to the map again.

After speaking with the client, it appears as though tree number 1660 will be difficult to maintain and the client would like to remove that tree and install the required 10 replacement specimens after the construction project is complete.

It came up in a recent review cycle that tree number 1653 is another Japanese Maple (*Acer palmatum*) that is just barely large enough to have Exceptional status in The City of Mercer Island. This tree has a DSH reading of 14 inches taken at shin height below the main branch union. The drip line radius is also 14 foot and the tree has a critical root zone radius that is also 14 foot. The most current site plan shows the new driveway access to the site being installed approximately 10 to 14 foot to the south of the trunk of this tree. Those measurements need to be verified with the project designers. Because the driveway does not require a deep vertical soil cut, it is my professional opinion that this minor critical root zone disturbance will not have an adverse effect on the overall health of the tree. This is a very nice specimen of Japanese Maple that is partially on private and partially on city land. The tree will need to have its southern profile reduced for vehicle clearance. That pruning can be achieved by making cuts that are between 1/2 inch and 2 inches in diameter. No significant cuts will need to be made on the main stem. Because this is a fairly young tree and still in the beginning of its life curve, I do expect it to endure the driveway installation and subsequent compaction without any adverse effect to its health. There is also the issue of the water main that runs through the critical root zone of this tree. Having to trench through the critical root zone of a tree can have devastating effects because it severs all of the roots that are on the far side of the trench. In order to properly preserve the specimen, the water main installation will need to be moved outside of the inner critical root zone at the very least, or the line can be installed using a boring machine that tunnels under the tree's root system so that no disturbances are necessary. I will verify the approach with the project designers before finalizing the data in this report.

Thank you and please let me know if you have any questions.

## **Tree Inventory**

DSH-Diameter at Standard Height (DSH's of multi-stemmed trees obtained by taking the square root of the sum of the squares of the individual stems), DLR-Drip Line Radius or Limit of Disturbance, TPZ-Tree Protection Zone

## **Condition Ratings**

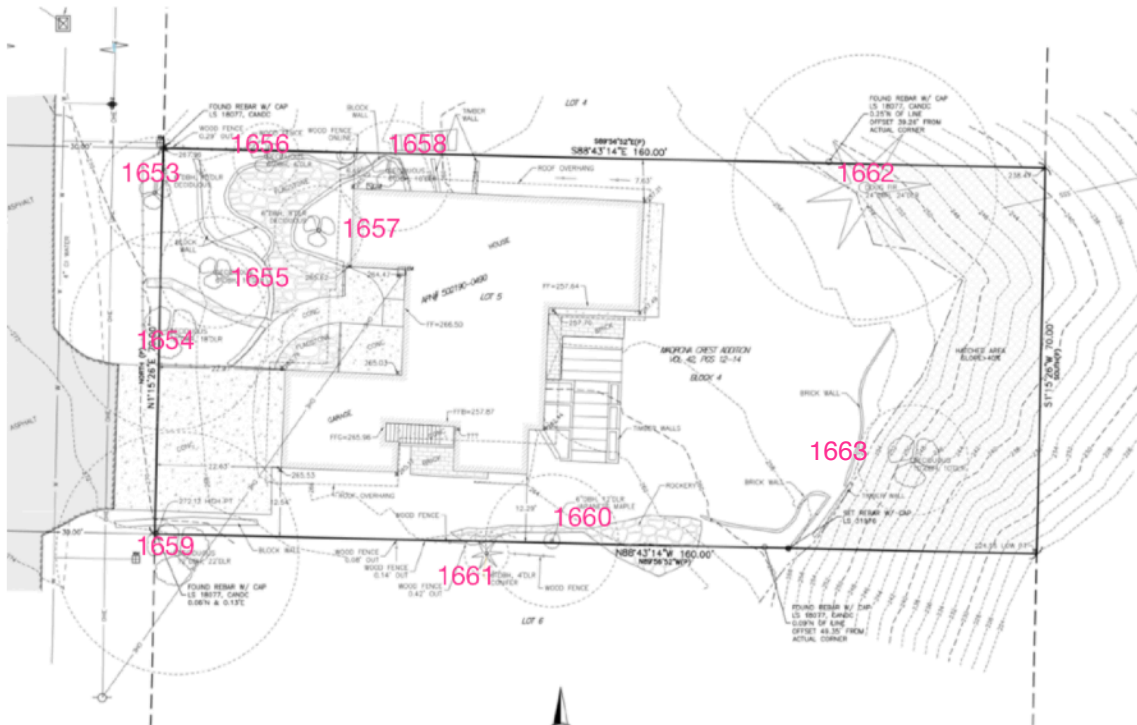
6 = Excellent condition, 5 = Good, 4 = Fair, 3 = Poor, 2 = Very Poor, and 1 = Dying/Dead

## **Tree Protection**

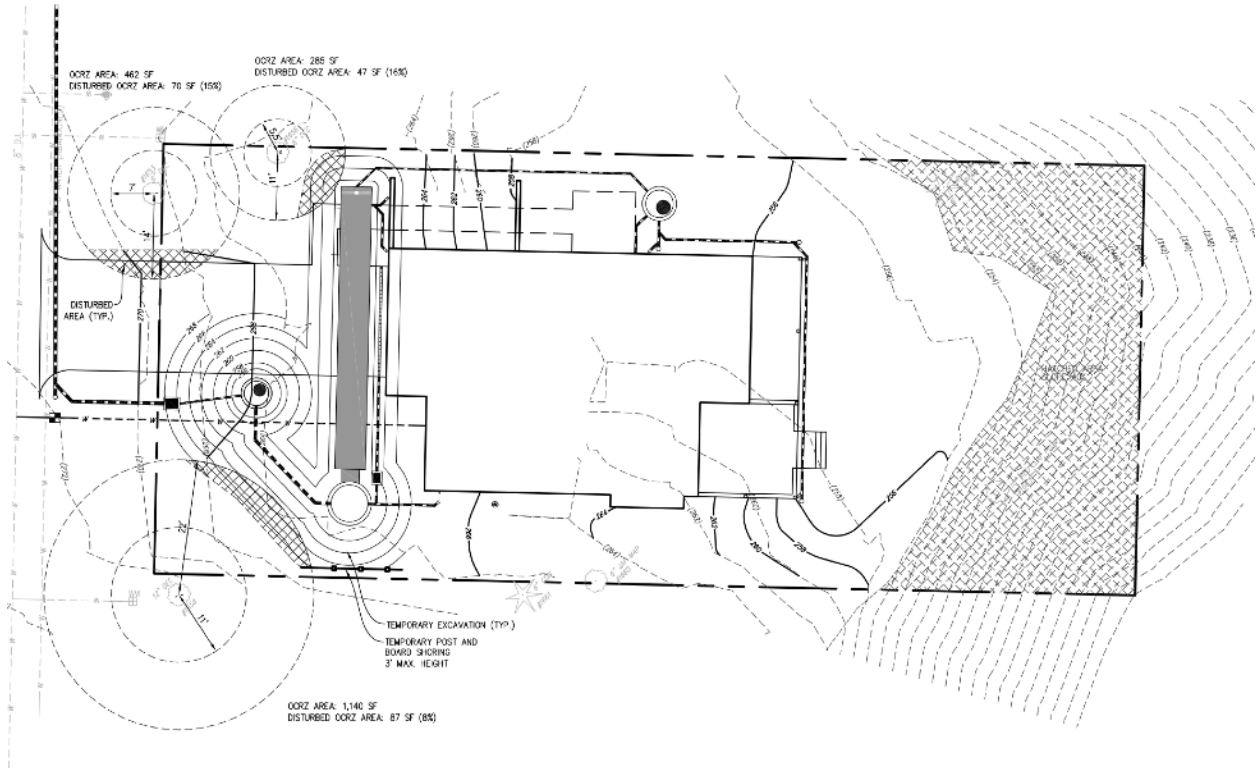
- For the trees being retained, tree protection fencing should be installed at the outer edge of the drip line or as close to it as is practically possible.
- Fencing should be installed prior to construction activities and remain in place for the duration of the project. Fencing should only be moved temporarily if minor disturbances must occur within the drip line and the fencing should be replaced immediately once that portion of the work is completed.
- The tree protection area is designated to be an area of no impact, no storing of materials, no encroachment and no staging of debris.
- The tree protection fencing should have signs every 8' facing access that indicate the area is a tree protection zone.
- Trenching through the TPZ for utilities is not permitted (tunneling is the preferred method).
- Grade changes in the TPZ are not permitted.
- Vehicle maintenance and washing of equipment (especially concrete), is not permitted.
- No attaching anything to the tree with cinching knots or hardware.
- Root flare should be protected with chips so that lawn maintenance equipment does not have to work close to the system.
- Proper clearances should be maintained.
- The TPZ or critical root zone needs to be protected. The Inner TPZ is 50% of the radius of the TPZ and there should be zero disturbance in this zone. The Outer TPZ surrounds the ITPZ. A disturbance of up to 33% of the Outer TPZ is sometimes permissible provided that any heavy digging equipment works toward the tree, and that any roots encountered that are over 1" in diameter are excavated around with hand tools and cut clean with a sharp saw behind the excavation zone so that the root can bifurcate and continue to grow. In some cases, if excessive pruning has been done, the TPZ can be larger than the Drip Line Radius.

Tree Number	Common Name	Latin Name	Diameter at Standard Height in inches (obtained with fabric D-Tape). DSH of multi-stemmed trees is obtained by taking the square root of the sum of the squares of the individual DSH measurements.	Tree Protection Zone Radius in feet (determined by analysis of DSH measurement, drip line radius, and access to soil volume) See report for details on how to interpret Inner TPZ and Outer TPZ radii	Drip Line Radius in feet	Condition Ratings 6 = Excellent condition, 5 = Good, 4 = Fair, 3 = Poor, 2 = Very Poor, and 1 = Dying/Dead	Exceptional per City of Mercer Island's Designation	Remove/Retain
1653	Japanese Maple	Acer palmatum	14	14	14	6	Yes	Retain
1654	Katsura Tree	Cercidiphyllum japonica	15	15	19	5	No	Remove
1655	Pontic Rhododendron	Rhododendrum ponticum	8	8	8	6	This plant is typically considered a shrub and does not count toward the tree inventory	
1656	Japanese Maple	Acer palmatum	11	11	11	6	No	Retain
1657	Japanese Snowdrop Tree	Styrax japonica	9	9	9	6	No	Remove
1658	Pontic Rhododendron	Rhododendrum ponticum	10	5	5	4	This plant is typically considered a shrub and does not count toward the tree inventory	
1659	Magnolia	Magnolia x soulangiana	24	22	22	6	Yes	Retain
1660	Japanese Maple	Acer palmatum	13	13	13	6	Yes	Remove
1661	Hinoki Cypress	Chaemacyparis obtusa	6	6	6	6	No-Tree is off site and does not count toward retention totals	Retain
1662	Douglas Fir	Pseudotsuga mensiezii	29	29	22	5	No	Retain
1663	Purple Plum	Prunus cerasifera	10	12	12	4/5	No	Retain

### Ananta Gudipaty Numbered Map



## Details of the Tree Disturbances



On Tuesday, June 27th, the project designers shared the above map with me. It shows the placement of the detention pipe and the extent of the permanent and temporary disturbances that the trees being preserved will endure. The disturbances are within the accepted tolerances in the profession (less than 1/3 of the OCRZ disturbed and no ICRZ disturbances). Tree Protection Fencing will need to be installed at the Limit of Disturbance prior to any construction activities commencing.

The water line avoids the Critical Root Zones of the trees entirely.

The Limit of Disturbance for the driveway cut is 10'1" south of Tree 1653. This avoids the ICRZ entirely and disturbs 15% of the OCRZ.

*All of the trees that are being preserved and that are also experiencing root zone disturbances should be irrigated during the summer months as well as have their root zones mulched to encourage the development of new feeder roots.*

## **Assumptions and Limiting Conditions**

Any legal description provided to the consultant/appraiser is assumed to be correct. Any titles and ownership to any property are assumed to be good and marketable. No responsibility is assumed for matters of legal character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.

It is assumed that any property is not in violation of any applicable codes, ordinances, statutes, or other government regulations.

Care has been taken to obtain all information from reliable sources. All data has been verified so far as possible, however, the consultant/appraiser can neither guarantee nor be responsible for accuracy of information provided by others.

The consultant/appraiser shall not be required to give testimony or attend court by reason of this report unless subsequent contractual arrangements are made, including payments of additional fees for such services as described in the fee schedule and contract engagement.

Loss or alteration of any of this report invalidates the entire report.

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