Tree Solutions Inc
Consulting Arborists

Project No. TS - 6172

Arborist Report

TO:	Ed Talerman
SITE:	3879 W Mercer Way, 98040
RE:	Assessment of Trees Located on Adjacent Property Impacted by the Proposed Driveway Expansion
DATE:	March 26, 2018
PROJECT ARBORIST:	Michael Tomco ISA Certified Arborist #PN- 8432A
REVIEWED BY:	Katie Hogan ISA Certified Arborist #PN- 8078A ISA Qualified Tree Risk Assessor
ATTACHED:	Site Map, Table of Trees

Summary
I was asked to visit the above addressed site to inventory and assess trees located on adjacent property impacted by the proposed driveway expansion.

Assignment & Scope of Report
This report outlines the site inspection by Michael Tomco, of Tree Solutions Inc, on 3/5/2018 . I was asked to visit the site and assess trees located on the adjacent property. I was asked to produce an Arborist Report documenting my findings and management recommendations. Ed Talerman requested these services for project planning purposes.

Specifics for each tree can be found in the attached Table of Trees. Site maps and photographs are followed by a glossary and list of references. Limits of assignment can be found in Appendix A. Methods can be found in Appendix B. Assumptions and limiting conditions can be found in Appendix C.

Observations and Discussion
The Site and History
The trees assessed in this report are located on property adjacent to the above addressed site. The driveway is proposed to be expanded, 12 trees are located adjacent to the driveway. The existing driveway has large conifer trees located to the north and south of the asphalt.

Based on proposed plans, the driveway expansion will require widening the driveway to the south and the construction of a retaining wall south of the driveway.

The Trees and Tree Protection Recommendations

Trees 1 through 3 are hawthorne (*Crataegus monogyna*) trees located south of the driveway. Based on the proposed plans, the driveway expansion is not likely to negatively impact trees 1 through 3.

Tree 4 is a Douglas-fir (*Pseudotsuga menziesii*) that will conflict with the proposed driveway expansion. In my opinion, the tree will need to be removed to accommodate the proposed driveway expansion.

Trees 5 through 8 are western redcedar (*Thuja plicata*). These trees will likely be impacted by the proposed driveway expansion but impact can be mitigated if the construction of the retaining wall is carefully completed. This should include minimizing the cutting of structural roots and avoiding unnecessarily disturbing the soil under the drip line of the trees.

The rockery south of the existing driveway is approximately 16 inches north of tree 5 and approximately 2 feet north of tree 7. I do not recommend disturbing the soil between the existing rockery and the trunks of the trees. It is likely that large structural roots will be encountered if excavation occurs beneath the existing rockery. I do not recommend cutting roots larger than three inch diameter within approximately 12 feet of trees 5 through 7.

Based on proposed plans, the proposed driveway expansion will utilize the existing rockery to minimize the impact to trees 5 through 8. In my opinion, utilizing the existing rockery to construct the proposed retaining wall in the area south of the driveway will limit the construction impacts to trees 5 through 8. The trees should be reassessed for construction impacts when design plans have been finalized.

Tree 8 is a 14.9 inch western redcedar located adjacent to the asphalt parking area approximately three feet south of the rockery. I do not recommend cutting roots larger than three inch diameter within approximately six feet of the trunk of tree 8.

When excavation must occur near trees 5 through 8, a hand shovel should be used when roots larger than one inch are encountered. Only use mechanical or power tools for digging where encountering roots is not anticipated. Mechanical excavation equipment could possibly rip and shatter roots causing unnecessary damage. To the extent possible do not cut roots over two inches to accommodate the driveway expansion. If root cuts are required, roots should be exposed by hand then cleanly cut with a sharp implement to promote occlusion of the wound and encourage re-growth. Any root cuts three inches and greater should be monitored and assessed by a qualified arborist.

Trees 9 through 11 are located north of the existing driveway. Tree 9 is a 47 inch diameter at standard height (DSH) Douglas-fir located approximately 12 inches north of the existing driveway. Tree 10 is located approximately three feet north of the existing driveway. Trees 9 and 10 likely have large structural roots extending under the existing driveway.

I recommend abandoning the existing driveway asphalt in place in the area of trees 9 through 11. Using heavy equipment to remove the asphalt will likely cause significant disturbance to the root systems of these trees and negatively impact the long term health of trees 9 through 11. Asphalt that is required to be removed for the driveway expansion should be limited to as little as feasible to carry out the expansion to the south side of the driveway.

Based on conversations with the client the existing asphalt is proposed to be abandoned in place. The existing asphalt is proposed to be cut as close as possible to the south edge of the driveway with the existing asphalt remaining in place to avoid disturbing the root systems of the adjacent trees.

Use of heavy equipment should be limited to the asphalt area of the driveway. Heavy equipment can compact soil and damage roots creating site condition unfavorable to the long term health of the trees.

I do not recommend cutting roots larger than three inch diameter within approximately 30 feet of trees 9 through 11. Cutting large roots closer than approximately 5 to 8 times the trunk diameter of a large conifer tree can negatively impact the tree and potentially create a structurally unstable tree.

Tree 12 is a 38.4 inch Douglas-fir located adjacent to the existing asphalt driveway near the entry way to an adjacent property. This tree is located west of the area of the proposed driveway expansion. It is possible the tree has roots extending east beneath the asphalt. Excavation in the area of tree 12 should be carefully carried out to avoid cutting roots and negatively impacting the health of this tree.

For tree 12, I recommend adhering to the same precautions and tree protection measures recommended for trees 9 through 11.

For all trees impacted by the proposed driveway expansion I recommend that a qualified arborist assess root cuts greater than two inch diameter.

Recommendations

- Obtain all necessary permits from the City of Mercer Island prior to beginning site work.
- Obtain all necessary permits from the U.S. Department of Fish and Wildlife pertaining to the bald eagle nest within 660 feet of the site. Tree removal may be restricted.
- Have impacted trees reassessed once design plans and construction methods for the retaining wall have been finalized.
- Qualified arborist should be on site during excavation work to monitor impacts to trees.

Photographs

Photo 1: Looking down the driveway when entering from W Mercer Way. Arrows indicate trees 9 and 10.

Photo 2: Looking northeast up the driveway towards W Mercer Way. Yellow arrow indicates tree 9. Red arrow indicates approximate location of driveway expansion. Blue arrow indicates approximate location of the existing rockery extending east located 1 to 2 feet north of trees 5 through 8.

Photo 3. Tree 4 located adjacent to the south side of the existing driveway. The tree will need to be removed to accommodate the driveway expansion.

Photo 4. Showing trees 5 through 8 from right to left, rockery, and existing driveway located north of the trees.

Photo 5. Showing tree 12 located adjacent to the west side of the driveway. The proposed driveway expansion is taking place on the opposite side of the driveway across from tree 12.

Glossary

ANSI A300: American National Standards Institute (ANSI) standards for tree care
basic assessment: detailed visual inspection of a tree and surrounding site that may include the use of simple tools. It requires that a tree risk assessor walk completely around the tree trunk looking at the site, aboveground roots, trunk, and branches (ISA 2013)
chlorotic: foliage with whitish or yellowish discoloration caused by lack of chlorophyll
codominant stems: stems or branches of nearly equal diameter, often weakly attached (Matheny *et al.* 1998)
cracks: defects in trees that, if severe, may pose a risk of tree or branch failure (Lilly 2001)
crown: the aboveground portions of a tree (Lilly 2001)
crown cleaning: selective pruning to remove one or more of the following parts: dead, diseased, and/or broken branches (ANSI A300)
DBH or DSH: diameter at breast or standard height; the diameter of the trunk measured 54 inches (4.5 feet) above grade (Matheny *et al.* 1998)
deciduous: tree or other plant that loses its leaves sometime during the year and stays leafless generally during the cold season (Lilly 2001)
ISA: International Society of Arboriculture
included bark: bark that becomes embedded in a crotch between branch and trunk or between codominant stems and causes a weak structure (Lilly 2001)
level(s) of assessment: categorization of the breadth and depth of analysis used in an assessment (ISA 2013)
mitigation: process of reducing damages or risk (Lilly 2001)
moment: a turning, bending, or twisting force exerted by a lever, defined as the force (acting perpendicular to the lever) multiplied by the length of the lever (ISA 2013)
owner/manager: the person or entity responsible for tree management or the controlling authority that regulates tree management (ISA 2013)
retain and monitor: the recommendation to keep a tree and conduct follow-up assessments after a stated inspection interval (ISA 2013)
significant size: a tree measuring 6” DSH or greater
snag: a tree left partially standing for the primary purpose of providing habitat for wildlife
sounding: process of striking a tree with a mallet or other appropriate tool and listening for tones that indicate dead bark, a thin layer of wood outside a cavity, or cracks in wood (ISA 2013)
structural defects: flaws, decay, or other faults in the trunk, branches, or root collar of a tree, which may lead to failure (Lilly 2001)
Visual Tree Assessment (VTA): method of evaluating structural defects and stability in trees by noting the pattern of growth. Developed by Claus Mattheck (Harris, *et al* 1999)

References

ANSI A300 (Part 1) – 2008 American National Standards Institute. American National Standard for Tree Care Operations: Tree, Shrub, and Other Woody Plant Maintenance: Standard Practices (Pruning). New York: Tree Care Industry Association, 2008.

Dunster & Associates Environmental Consultants Ltd. Assessing Trees in Urban Areas and the Urban-Rural Interface, US Release 1.0. Silverton: Pacific Northwest Chapter ISA, 2006

Dunster, Julian A., E. Thomas Smiley, Nelda Matheny, and Sharon Lilly. Tree Risk Assessment Manual. Champaign, Illinois: International Society of Arboriculture, 2013

E. Smiley, N. Matheny, S. Lilly. Best Management Practices: TREE RISK ASSESSMENT. ISA 2011.

Lilly, Sharon. Arborists' Certification Study Guide. Champaign, IL: The International Society of Arboriculture, 2001.

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

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

Appendix A - Limits of Assignment

Unless stated otherwise: 1) information contained in this report covers only those trees that were examined and reflects the condition of those trees at the time of inspection; and 2) the inspection is limited to visual examination of the subject trees without dissection, excavation, probing, climbing, or coring unless explicitly specified. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the subject trees may not arise in the future.

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.

A **Hazard Tree** is defined as a tree that has been assessed and determined to have characteristics that make it an unacceptable risk for continued retention. A hazard tree, or a hazardous component, exist when the sum of the risk factors equals or exceeds a predetermined threshold of risk. The predetermined threshold for risk and the actions required to reduce the risk below that threshold is established by the risk manager.

As a Qualified Tree Risk Assessor, my job is to provide the risk manager, in most cases the property owner, with technical information required to make informed decisions. The risk manager must make the decision about how to implement the actions required to reduce risk to acceptable levels.

Appendix B - Methods

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 reinforce weak areas, while depriving less stressed parts (Mattheck & Breloer 1994). An understanding of the uniform stress allows me to make informed judgments about the condition of a tree.

I measured the diameter at standard height (DSH) of each tree, typically at 54 inches above grade. If a tree had multiple stems, I measured each stem individually at standard height and determined a single-stem equivalent diameter by taking the average of the stem diameters, as established by the RZC.

I used a steel soil probe to test soil depths.

Tree health considers crown indicators including foliar density, size, color, stem shoot extensions, decay, and damage. We have adapted our ratings based on the Purdue University Extension Formula Values for health condition. These values are a general representation used to assist in arborists in assigning ratings. Tree health needs to be evaluated on an individual basis and may not always fall entirely into a single category, however, I assigned a single condition rating for ease of clarity.

<u>Excellent</u>
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.

<u>Good</u>
Imperfect canopy density in few parts of the tree, up to 10 percent of the canopy. Normal to less than ¾ of 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.

<u>Fair</u>
Crown decline and dieback up to 30 percent 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 is clearly visible. Obvious signs of pest problems contributing to a lesser condition. Control might be possible. I found some decay areas in the main stem and branches. Below average safe useful life expectancy

<u>Poor</u>
Lacking full crown, more than 50 percent 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.

Tree health condition ratings have been adapted from the Purdue University Extension bulletin FNR-473-W - Tree Appraisal

Appendix C - Assumptions & Limiting Conditions

1. Consultant assumes that any legal description provided to Consultant is correct and that title to property is good and marketable. Consultant assumes no responsibility for legal matters. Consultant assumes all property appraised or evaluated is free and clear, and is under responsible ownership and competent management.

2. Consultant assumes that the property and its use do not violate applicable codes, ordinances, statutes or regulations.

3. Although Consultant has taken care to obtain all information from reliable sources and to verify the data insofar as possible, Consultant does not guarantee and is not responsible for the accuracy of information provided by others.

4. Client may not require Consultant to testify or attend court by reason of any report unless mutually satisfactory contractual arrangements are made, including payment of an additional fee for such Services as described in the Consulting Arborist Agreement.

5. Unless otherwise required by law, possession of this report does not imply right of publication or use for any purpose by any person other than the person to whom it is addressed, without the prior express written consent of the Consultant.

6. Unless otherwise required by law, no part of this report shall be conveyed by any person, including the Client, the public through advertising, public relations, news, sales or other media without the Consultant's prior express written consent.

7. This report and any values expressed herein 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.

8. All photographs included in this report were taken by Tree Solutions Inc. during the documented site visit, unless otherwise noted.

9. Sketches, drawings and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or 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 Consultant as to the sufficiency or accuracy of the information.

10. Unless otherwise agreed, (1) information contained in this report covers only the items examined and reflects the condition of the 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. Consultant makes no warranty or guarantee, express or implied, that the problems or deficiencies of the plans or property in question may not arise in the future.

11. Loss or alteration of any part of this Agreement invalidates the entire report.

Tree Solutions Inc
Consulting Arborists

Table of Trees

3879 W Mercer Way, 98040

Date of Inventory: 3.5.2018
Table Prepared: 3.26.2018

						Drip line Radius (feet)							
Tree ID	**Scientific Name**	**Common Name**	**DSH** (inches)	**Health Condition**	**Structural Condition**	**North**	**East**	**South**	**West**	**Exceptional Threshold**	**Exceptional (yes/no)**	**Proposed Action**	**Notes**
1	*Crataegus monogyna*	*Singleseed hawthorne*	7.4	Good	Fair	15	13	10	10	*36.0*	no	Retain	Approximately 16 inches south of the asphalt driveway. Phototropic lean to the north over driveway. Ivy obscuring the base.
2	*Crataegus monogyna*	*Singleseed hawthorne*	5.0	Good	Fair	4	4	15	5	*36.0*	no	Retain	
3	*Crataegus monogyna*	*Singleseed hawthorne*	4.8	Fair	Fair	13	15	15	3	*36.0*	no	Retain	Heavy lean to the southwest.
4	*Pseudotsuga menziesii*	*Douglas-fir*	14.1	Good	Fair	11	14	8	4	*30.0*	no	Remove	Broken top, phototropic canopy to the north. Approximately 3 feet south of the asphalt. Will likely need to be removed to accommodate driveway expansion.
5	*Thuja plicata*	*Western redcedar*	29.0	Good	Good	12	16	20	13	*30.0*	no	Retain	6.5 feet east of tree 6. Rock retaining wall approximately 16 inches north of trunk.
6	*Thuja plicata*	*Western redcedar*	20.2	Good	Good	12	8	20	8	*30.0*	no	Retain	Ivy removed from trunk. Approximately south of rock retaining wall.
7	*Thuja plicata*	*Western redcedar*	31.7	Good	Good	11	12	18	10	*30.0*	yes	Retain	Rock retaining wall approximately 2 feet to the north. Asphalt approximately 1 foot to the south. Girdling root to the south about 1 inch diameter. Roots likely disturbed from previous work to the south.
8	*Thuja plicata*	*Western redcedar*	14.9	Good	Poor	14	17	14	6	*30.0*	no	Retain	Topped at 20 feet. Adjacent to the asphalt to the south. Approximately 3 feet south of the rock retaining wall.

Table of Trees

3879 W Mercer Way, 98040

Date of Inventory: 3.5.2018
Table Prepared: 3.26.2018

Tree ID	Scientific Name	Common Name	DSH (inches)	Health Condition	Structural Condition	North	East	South	West	Exceptional Threshold	Exceptional (yes/no)	Proposed Action	Notes
9	*Pseudotsuga menziesii*	*Douglas-fir*	47.0	Good	Good	21	19	30	24	*30.0*	yes	Retain	Approximately 12 inches north of the asphalt driveway. Bird activity at the base, superficial excavation in the bark. Broken top. Slightly thin canopy. Several dead branches. 132 feet tall, 75 percent LCR. Should be monitored for health.
10	*Pseudotsuga menziesii*	*Douglas-fir*	23.7	Good	Fair	5	12	18	9	*30.0*	no	Retain	Phototropic lean to the south. Broken top. Approximately 3 feet north of the asphalt, 75 percent LCR.
11	*Pseudotsuga menziesii*	*Douglas-fir*	43.7	Good	Good	29	25	27	19	*30.0*	yes	Retain	Heavy pitch flow on the trunk up to 20 feet. Possible crack on the north at 25 feet. Former crack on the south at 15 feet. Trunk buried on the east by approximately 3 feet.
12	*Pseudotsuga menziesii*	*Douglas-fir*	38.4	Good	Good	20	21	22	19	*30.0*	yes	Retain	Located at the edge of the west side of the driveway, asphalt adjacent to the trunk.

GRAPHIC SCALE

5 0 5 10 20

1INCH = 10 FT.

LEGEND

	FOUND MONUMENT AS DESCRIBED
	FOUND REBAR AS DESCRIBED
	TACK IN LEAD FOUND
	SET 5/8" X 24" IRON ROD W/1" YELLOW PLASTIC CAP
	POWER METER
	UTILITY POLE
	GAS METER
	SANITARY SEWER CLEANOUT
	SANITARY SEWER MANHOLE
	WATER VALVE
	FIRE HYDRANT
	WATER METER
	SIGN
SS	APPROXIMATE LOCATION SANITARY SEWER LINE
SD	APPROXIMATE LOCATION STORM DRAIN LINE
OHP	OVERHEAD POWER
OHU	OVERHEAD UTILITIES
X	CHAINLINK FENCE
	WOOD FENCE
	CONCRETE WALL
	ROCKERY
	ASPHALT SURFACE
	CONCRETE SURFACE
	GRAVEL SURFACE
CE	CEDAR
DS	DECIDUOUS
DF	DOUGLAS FIR
MP	MAPLE
PI	PINE

* INDICATES MULTI-TRUNK

OHU	OVERHEAD UTILITIES
X	CHAINLINK FENCE
	WOOD FENCE
	CONCRETE WALL
	ROCKERY
	ASPHALT SURFACE
	CONCRETE SURFACE
	GRAVEL SURFACE
CE	CEDAR
DS	DECIDUOUS
DF	DOUGLAS FIR
MP	MAPLE
PI	PINE

* INDICATES MULTI-TRUNK

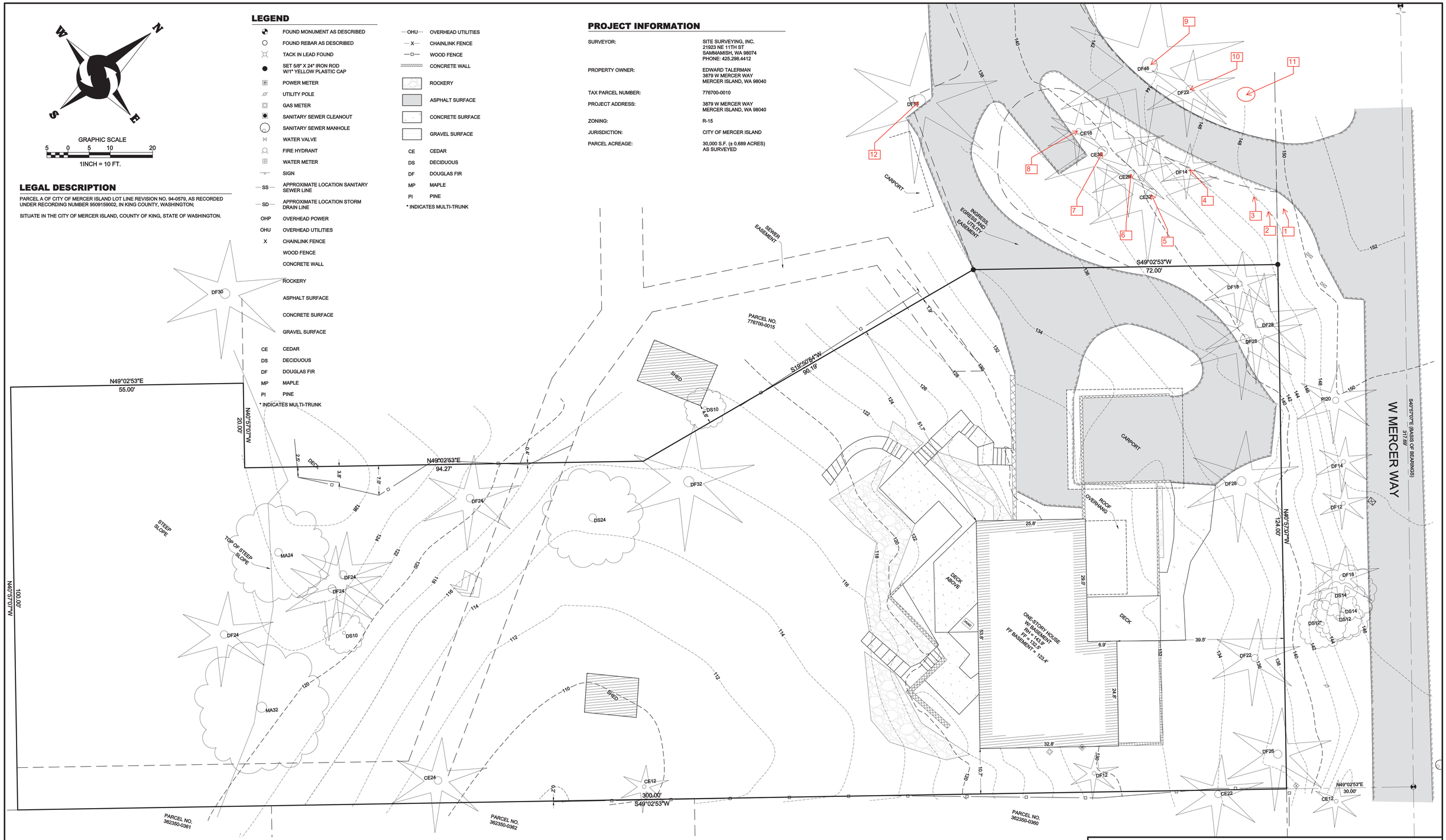
PROJECT INFORMATION

SURVEYOR:	SITE SURVEYING, INC. 21923 NE 11TH ST SAMMAMISH, WA 98074 PHONE: 425.298.4412
PROPERTY OWNER:	EDWARD TALERMAN 3879 W MERCER WAY MERCER ISLAND, WA 98040
TAX PARCEL NUMBER:	776700-0010
PROJECT ADDRESS:	3879 W MERCER WAY MERCER ISLAND, WA 98040
ZONING:	R-15
JURISDICTION:	CITY OF MERCER ISLAND
PARCEL ACREAGE:	30,000 S.F. (± 0.689 ACRES) AS SURVEYED

LEGAL DESCRIPTION

PARCEL A OF CITY OF MERCER ISLAND LOT LINE REVISION NO. 94-0579, AS RECORDED UNDER RECORDING NUMBER 9509159002, IN KING COUNTY, WASHINGTON;

SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.



BASIS OF BEARINGS

PLAT ALTERATION BY TRIAD ASSOCIATES AS RECORDED UNDER RECORDING NUMBER 20110802000835, RECORDS OF KING COUNTY, WASHINGTON.

VERTICAL DATUM & CONTOUR INTERVAL

DATUM

ELEVATIONS SHOWN ON THIS DRAWING WERE DERIVED FROM INFORMATION PROVIDED BY THE WGS SURVEY DATA WAREHOUSE.

POINT ID NO. 8003
CONCRETE MONUMENT IN CASE AT THE CENTERLINE OF W MERCER WAY, 182' NORTH OF THE INTERSECTION WITH SE 40TH STREET.

ELEVATION: 143.51 FEET NAVD 88

2.0' CONTOUR INTERVAL - THE EXPECTED VERTICAL ACCURACY IS EQUAL TO 1/2 THE CONTOUR INTERVAL OR PLUS / MINUS 1.0' FOR THIS PROJECT.

GENERAL NOTES

1. THIS SURVEY WAS COMPLETED WITHOUT BENEFIT OF A CURRENT TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST ON THIS PROPERTY THAT ARE NOT SHOWN HEREON.
2. INSTRUMENTATION FOR THIS SURVEY WAS A 3-SECOND NIKON NIVO 5.C TOTAL STATION. PROCEDURES USED IN THIS SURVEY MEET OR EXCEED STANDARDS SET BY WAC 332-130-090.
3. THE INFORMATION ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE IN SEPTEMBER 2017 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
4. UTILITIES SHOWN ON THIS SURVEY ARE BASED UPON ABOVE GROUND OBSERVATIONS AND AS-BUILT PLANS WHERE AVAILABLE. ACTUAL LOCATIONS OF UNDERGROUND UTILITIES MAY VARY AND UTILITIES NOT SHOWN ON THIS SURVEY MAY EXIST ON THIS SITE.
5. ALL MONUMENTS WERE LOCATED DURING THIS SURVEY UNLESS OTHERWISE NOTED.

NE 1/4 NW 1/4 & SE 1/4, SW 1/4, SEC 12, TWP 24N, RNG 4E, W.M.

PROJECT NO.	17-332
DRAWN BY:	EFJ
CHECKED BY:	TNW
DATE:	3/15/18
SHEET	1 OF 1

TOPOGRAPHIC SURVEY

EDWARD TALERMAN
3879 W MERCER WAY
MERCER ISLAND, WA 98040

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DATE	REVISION	DRN

THOMAS N. WOLDENDORP
STATE OF WASHINGTON
38964
REGISTERED
PROFESSIONAL LAND SURVEYOR

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www.sitesurveymapping.com 21923 NE 11th Street Sammamish, WA 98074 Phone: 425.298.4412