

Memorandum

To: Edson Gallaudet, Build Urban
From: Benjamin Mark, American Forest Management
Date: 9/9/2020
Re: Tree Assessment at 8720 SE 52nd Place, Mercer island

Greetings Mr. Gallaudet,

On August 26th 2020 at your request, I evaluated the condition of three trees located at 8720 SE 52nd Place in Mercer Island. The trees were to be retained and protected from impacts associated with construction of the new house. An arborist report prepared by American Forest Management on August 7th, 2018 detailed development activity near these trees. Each were rated 'Moderate Risk' due to the possibility of failure and high likelihood of striking the new building causing severe damage. The report recommended a re-evaluation of their condition after two years.

Observations/Discussion

Tree #8409 is a western red cedar with a DBH (trunk diameter at 4.5 feet above grade) of 43.5 inches and an overall height of 104 feet. It shows good foliage color and a full crown. Tree protection fencing is in place 15 feet north of the trunk. The arborist report from 2018 describes excavation and minor root disturbance 22 feet to the east of this tree and adjacent tree #8410.

Tree #8410 is a western hemlock with a 35 inch DBH and an overall height of 100 feet. Tree protection fencing is in place 13 feet to the east of its trunk. It shows healthy vigor with good foliage color and a full crown.

Tree #8251 is a western hemlock with a DBH of 21.2 inches and a height of 84 feet. This tree shows good vigor with a high live crown ratio and a slight lean to south. An infiltration drainage system is installed to the north, and a natural gas line will be installed just outside the dripline 17 feet to the west. The arborist report from 2018 described approximately eight 2-4 inch diameter roots damaged by an excavator eight feet north of its trunk. Some yard waste debris is piled at the base, and some construction materials are piled to the north just outside of the dripline. There is no tree protection fencing between this tree and the construction zone. There is potential for decay originating from the root cuts in 2018 to enter the trunk of the tree. It is possible that this tree could become structurally unstable in the future due to this root disturbance.

Further excavation is necessary to install the gas line north of tree #8251. This excavation should not encroach within 15 feet of the trunk. If it is not possible to maintain at least a 15 foot area of undisturbed soil in each direction of the trunk the tree is likely to be severely impacted. Violating this limit of disturbance would likely create a structurally unstable tree that would not have a long useful life expectancy in that location.

Tree Condition Summary / Recommendations

Each tree detailed in this report show good foliage color and vigor. It is my opinion that they should continue to have a safe useful life expectancy if the following conditions are met.

- Follow all tree protection measures outlined in the arborist report from 2018.
- Tree protection fencing should be installed at the dripline of tree #8251. No further excavation or storage of materials should take place within the fenced area.
- Trees on the property should be reassessed if changes in condition or structure occur.

Planting Summary

I evaluated the planting plan to determine if it met the requirements of MICC 19.10.070 Tree Replacement obligation of 22 native trees. The plan specifies eight vine maple, six Amelanchier and five hybrid dogwoods all at least 1.5 inch caliper spaced at least 10 feet on center. The planting plan also includes 65 native shrubs which replace trees at a 6:1 ratio and 115 native groundcover ferns which replace trees at a 12:1 ratio. This planting specification is equivalent to 39 replacement trees.

Classification	Count	Tree equivalent
Trees	19	19
Shrubs	65 (6:1)	10.8
Ground Cover	115 (12:1)	9.6
		TOTAL REPLACEMENT: 39

Removal of invasive species such as ivy and blackberry from the area around retained trees on the north and west sides of the property will improve the condition of the retained trees and encourage natural regeneration of native species. This work should be accomplished without the use of heavy equipment, and the grade should be covered with 3-4 inches of arbor chip mulch to retain moisture and discourage re-infestation of invasive species.

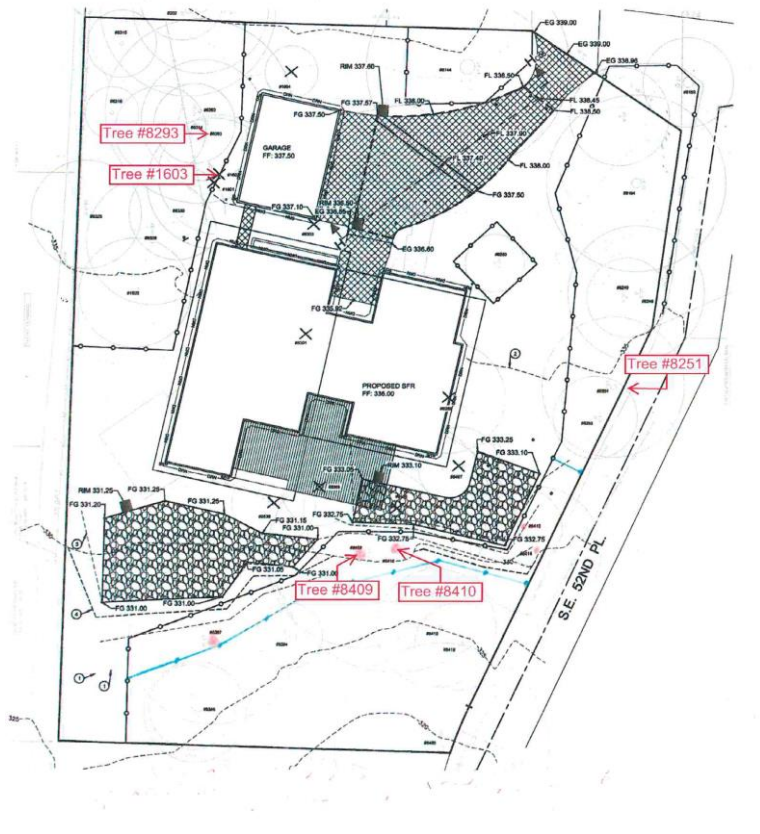
Please call if you have any questions or need further assistance on this project.

Sincerely,



Benjamin Mark
ISA Certified Arborist #PN-6976A
Tree Risk Assessment Qualified (TRAQ)

Site and Tree Location



Photographs

Image from 2018 showing trench east of trees #8409 and #8410



Image from 2018 showing Tree #8251 with roots torn approximately 8' north of the trunk.



Closer view of torn roots of Tree #8251 in 2018



Trunk of Tree #8251 viewed from the east in 2020



Crown of Tree #8251 viewed from the north in 2020



Shared canopy of #8409 (right) and #8410 (left)

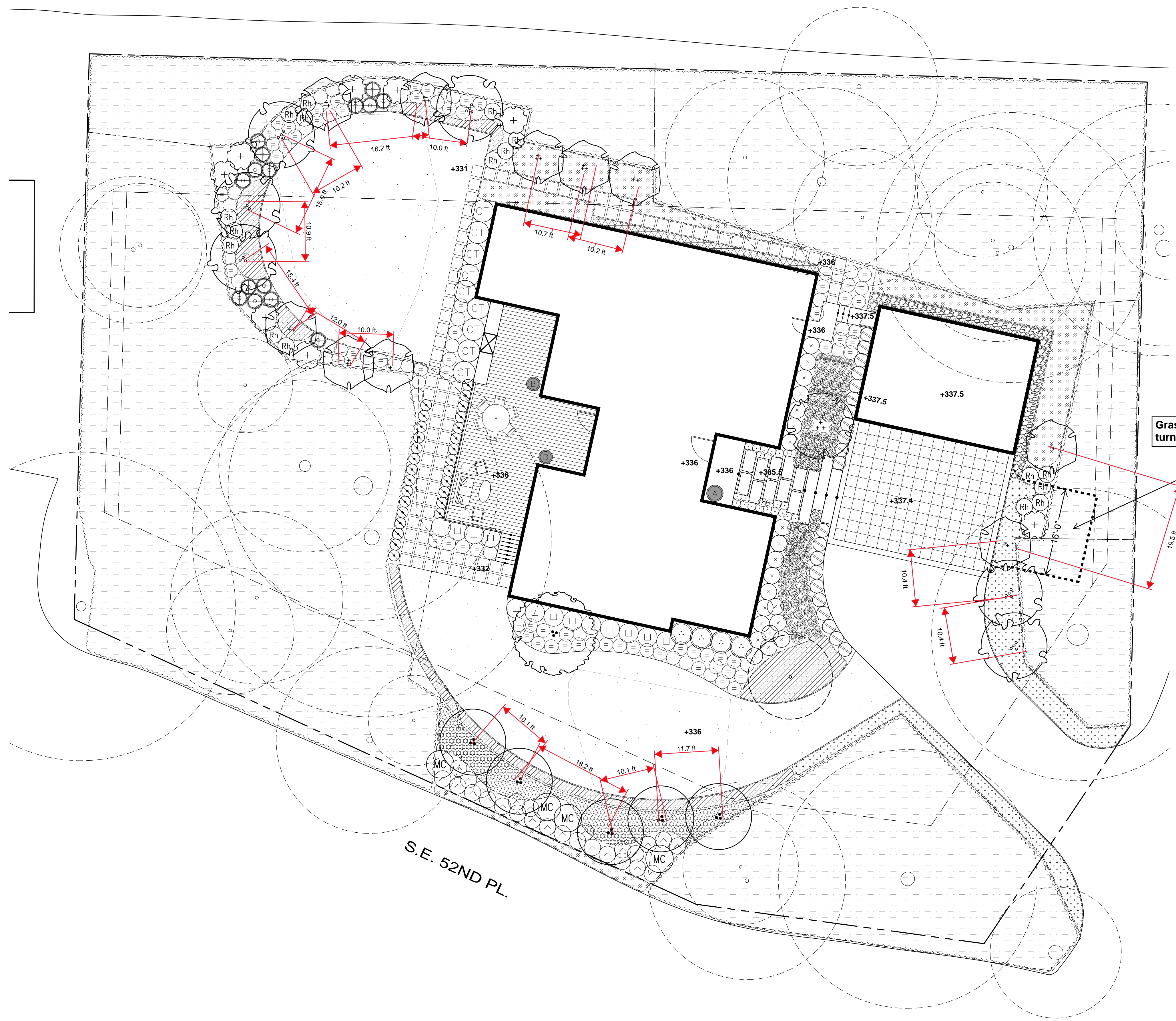


PLANT SCHEDULE

SYMBOL	BOTANICAL NAME/COMMON NAME	SIZE	COMMENTS
TREES:			
(Circle with dot)	EXISTING TREE TO REMAIN, TYPICAL		
(Circle with cross)	ACER CIRCINATUM VINE MAPLE	8'-10' HT., B&B	HEAVY CLUMP, MULTI-STEM SPECIMENS W/ MIN. 3 STEMS @ 1.5" CAL
(Circle with cross and dots)	ACER PALMATUM 'SANGO KAKU' CORAL BARK JAPANESE MAPLE	8'-10' HT, B&B	MULTI-STEMMED SPECIMEN, ASSYMMETRICAL, BALANCED CROWN & OPEN BRANCHING STRUCTURE
(Circle with dots)	AMELANCHIER x GRANDIFLORA 'AUTUMN BRILLIANCE' AUTUMN BRILLIANCE SERVICEBERRY	8'-10' HT., B&B	HEAVY CLUMP, MULTI-STEM SPECIMENS W/ MIN. 3 STEMS @ 1.5" CAL
(Circle with dots and cross)	CORNUS KOUSA CHINENSIS CHINESE DOGWOOD	8'-10' HT, B&B	HEAVY CLUMP, MULTI-STEM SPECIMENS W/ MIN. 3 MAJOR STEMS @ 1.5" CAL
(Circle with dots and cross)	CORNUS 'EDDIE'S WHITE WONDER' HYBRID DOGWOOD	2" CAL., B&B 123-14' HT	BUFFER PLANTING: HEAVY CLUMP, BRANCHED ABOVE 5'
SHRUBS/ ORNAMENTAL GRASS:			
(Circle with cross)	BUXUS MICROPHYLLA JAPONICA 'WINTER GEM' WINTER GEM BOXWOOD	3 GAL. CONT.	DENSE FOLIAGE & BRANCHING TO BASE
(Circle with cross)	CEANOTHUS THYRSIFLORUS 'EL DORADO' EL DORADO CALIFORNIA LILAC	5 GAL. CONT.	VIGOROUS & UPRIGHT W/ MULTIPLE CANES & HARDENED GROWTH
(Circle with cross)	CHOISYA TERNATA 'SUNDANCE' MEXICAN ORANGE BLOSSOM	3 GAL. CONT.	VIGOROUS & WELL SPREAD W/ MULTIPLE CANES
(Circle with cross)	CORNUS STOLONIFERA 'FARROW' ARCTIC FIRE RED TWIG DOGWOOD	3 GAL. CONT.	COMPACT, UPRIGHT FOLIAGE WITH MULTIPLE CANES AND HARDENED GROWTH
(Circle with cross)	HYDRANGEA MACROPHYLLA 'ALL SUMMER BEAUTY' / BIG LEAF HYDRANGEA	5 GAL. CONT.	VIGOROUS & WELL SPREAD W/ MULTIPLE CANES
(Circle with cross)	MAHONIA AQUIFOLIUM OREGON GRAPE HOLLY	5 GAL. CONT.	BUFFER PLANTING: NATIVE AND EVERGREEN SHRUBS - MIN. 3" O.C. AND 36" HGT. AT PLANTING
(Circle with cross)	MYRICA CALIFORNICA PACIFIC WAX MYRTLE	5 GAL. CONT.	BUFFER PLANTING: NATIVE AND EVERGREEN SHRUBS - MIN. 48" HGT. AT PLANTING
(Circle with cross)	NANDINA DOMESTICA 'GULF STREAM' COMPACT HEAVENLY BAMBOO	2 GAL. CONT.	DENSE FOLIAGE & BRANCHING TO BASE
(Circle with cross)	PRUNUS LAUROCERASUS 'OTTO LUYKEN' OTTO LUYKEN CHERRY LAUREL	3 GAL. CONT.	FULL & DENSE FOLIAGE TO BASE
(Circle with cross)	RHODODENDRON X 'CUNNINGHAM'S WHITE' CUNNINGHAM'S WHITE RHODODENDRON	3 GAL. CONT.	DENSE, WELL-SPREAD FOLIAGE
(Circle with cross)	SALIX PURPUREA 'NANA' DWARF ARCTIC WILLOW	3 GAL. CONT.	FULL & DENSE FOLIAGE TO BASE
(Circle with cross)	VIBURNUM PLICATUM TOMENTOSUM 'MARISSI' DOUBLEFILE VIBURNUM	5 GAL. CONT./ 48" HT. MIN.	FULL & DENSE FOLIAGE TO BASE
GROUNDCOVER:			
(Square with diagonal lines)	CAREX MOROWII 'ICE DANCE' ICE DANCE SEDGE	1 GAL. CONT.	COMPACT AND VIGOROUS 18" O.C. TRIANGULAR SPACING
(Square with diagonal lines)	CAREX OSHIMENSIS 'EVERGOLD' EVERGOLD SEDGE	1 GAL. CONT.	COMPACT AND VIGOROUS SPACING - AS SHOWN
(Square with diagonal lines)	CORNUS SERICEA 'KELSEY' KELSEY'S DWARF RED-OSIER DOGWOOD	1 GAL. CONT.	COMPACT AND VIGOROUS 18" O.C. TRIANGULAR SPACING
(Square with diagonal lines)	JUNCUS PATENS 'ELK BLUE' ELK BLUE CALIFORNIA GRAY RUSH	1 GAL. CONT.	COMPACT AND VIGOROUS SPACING - AS SHOWN
(Square with diagonal lines)	LIRIOPE SPICATA CREEPING LILY TURF	1 GAL. CONT.	COMPACT AND VIGOROUS 18" O.C. TRIANGULAR SPACING
(Square with diagonal lines)	LONICERA PILEATA BOX-LEAF HONEYSUCKLE	1 GAL. CONT.	COMPACT AND VIGOROUS 24" O.C. TRIANGULAR SPACING
(Square with diagonal lines)	POLYSTICHUM MUNITUM SWORD FERN	1 GAL. CONT.	COMPACT AND VIGOROUS 24" O.C. TRIANGULAR SPACING

POT SCHEDULE - CONTAINERS APPROX. INSTALL SIZE; PROVIDED BY OTHERS

- POT-A (34" DIA)
CHAMPA CERAMICS - LARGE EGG, ITEM #: 1 02-006, TEL: (206) 762-8395
- TAXUS BACCATA 'FASTIGIATA'/ IRISH YEW 5 GAL. CONT.
(1 PER POT)
- POT-B (25" DIA.)
CHAMPA CERAMICS - KUO ITEM #: 69013RR FINISH: BLACK (TEL: (206) 762-8395)
- HAKONECHLOA MACRA 'AUREOLA' GOLDEN/
JAPANESE FOREST GRASS (1 PER POT)
- GAULTHERIA PROCUMBENS/ CREEPING
WINTERGREEN 4" POTS - INFILL AT BASE AS NEEDED
- POT-C (25" DIA.)
CHAMPA CERAMICS - KUO ITEM #: 69013RR FINISH: BLACK (TEL: (206) 762-8395)
- SKIMMIA REEVESIANA/ REEVES SKIMMIA 3 GAL. CONT.
(1 PER POT)



1 PLANTING PLAN
SCALE: 1"=10'-0"

