4346 E Mercer Way

Valentin Residence

July 16th , 2018

ADDRESS ESA RECOMMENDATIONS TO CRITICAL AREAS REPORT June 8th, 2018 File No. CAO17-003 – Valentin Critical Areas Determination

4346 E Mercer Way, Mercer Island, WA 98040

King County Tax Parcel # 004610-0150

SUMMARY OF MAJOR MODIFICATIONS

THIS REVISION:

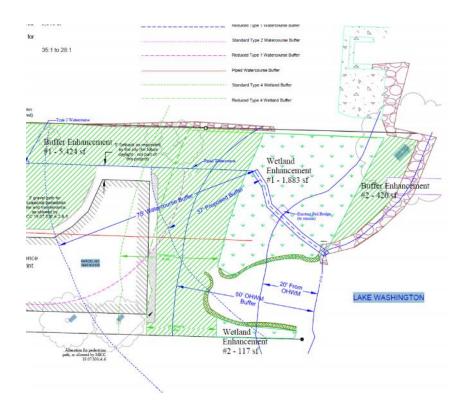
- REVISED AND CLARIFIED 20' SMP AREA CALCULATIONS
- CLARIFIED REQUIREMENTS FOR SETBACK TO PIPED WATERCOURSE
- ADDED DETAILS TO REMOVE FISH BLOCKAGE

PRIOR REVISIONS:

- REVISED SITE DESIGN TO MOVE DRIVEWAY AND PARKING AREA COMPLETELY OUTSIDE REDUCED BUFFER
- RELOCATED WALKWAY OUTSIDE OF REDUCED BUFFER
- REVISED DESIGN TO ALLOW ACCESS AROUND PERIMETER OF RESIDENCE
- REVISED FROM TYPE 2 TO TYPE 1 CLASSIFICATION OF LOWER WATERCOURSE
- MODIFIED PLANS TO NOT PIPE OR RE-ROUTE
 WATERCOURSE

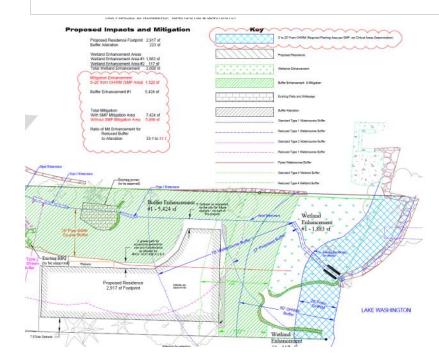
<u>ESA Recommendation #1:</u> The shoreline management requirements are separate from the wetland and stream buffer reduction requirements so the area within 20 feet of the Ordinary High Water Mark should not be included in the wetland and stream buffer calculations consistent with MICC 19.07.110(9)(d)(i). These areas shall be removed from the mitigation ratio calculations for buffer reduction.

OLD



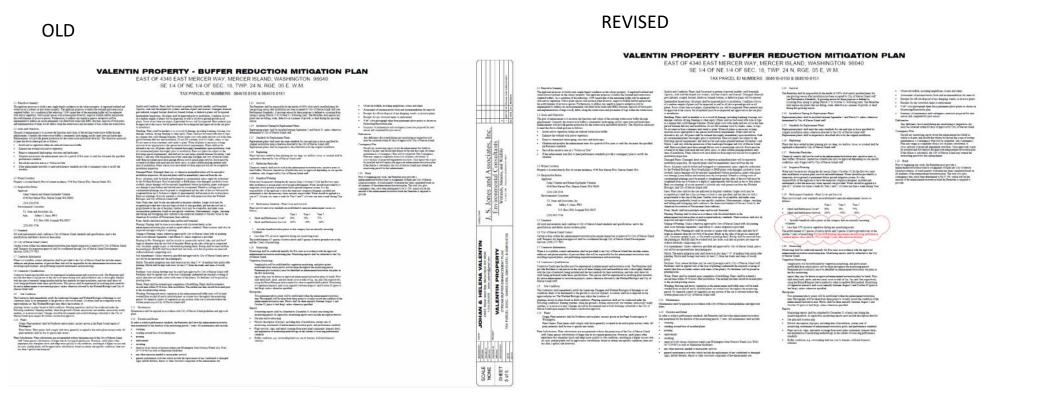
REVISED

The 20' SMP area now has a unique key to distinguish from the buffer enhancement. The calculations list SMP area separate from buffer enhancement.



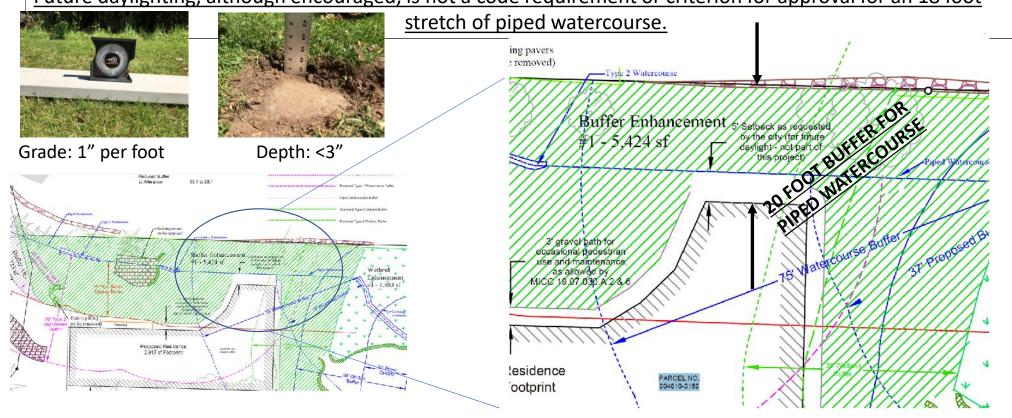
ESA Recommendation #2: Sheet 5 of 5 shall be revised to include a performance standard specifically for the area 20-feet landward of Lake Washington. Native vegetation must meet or exceed 75 percent cover by Year 5 in the shoreline area.

<u>Response:</u> An exhibit has been added that shows 75 percent coverage for the area, 0 to 20 feet from the OHWM (see picture in previous slide). The following language has also been added to Sheet 5 of 5: Native vegetation must meet or exceed 75 percent cover by Year 5 in the shoreline area.



<u>ESA Recommendation #3:</u> The 5-foot buffer proposed for the piped portion of the stream adjacent to the eastern side of the residence <u>could</u> inhibit *future daylighting* of the stream due to its narrowness. A minimum 10-foot buffer shall be provided.

<u>Response</u>: The applicants Biologist has analyzed the terrain and positively concluded that the 20 foot buffer and five foot setback provided will not inhibit future daylighting. The Biologist has analyzed the grade, depth and overall size of the area in question. Please see details below and in the revised report. Future daylighting, although encouraged, is not a code requirement or criterion for approval for an 18 foot



ESA Recommendation #3: Continued

Response (cont.):

- The piped watercourse will be in a 20 foot wide area between the building envelope and the northern property line (The City's planning director had originally proposed placing the stream in a 10 foot area which would have allowed for only a maximum of five feet on each side).
- The five foot setback/distance from the piped watercourse to the building envelope is limited to 18 feet (see picture on previous slide).
- The slope is 1" per foot, and so the area in question is relatively flat (see picture on previous slide).
- The depth of the pipe is less than three inches (see picture on previous slide).
- Future daylighting, although encouraged, is not a code requirement or criterion for approval for an 18 foot stretch of piped watercourse

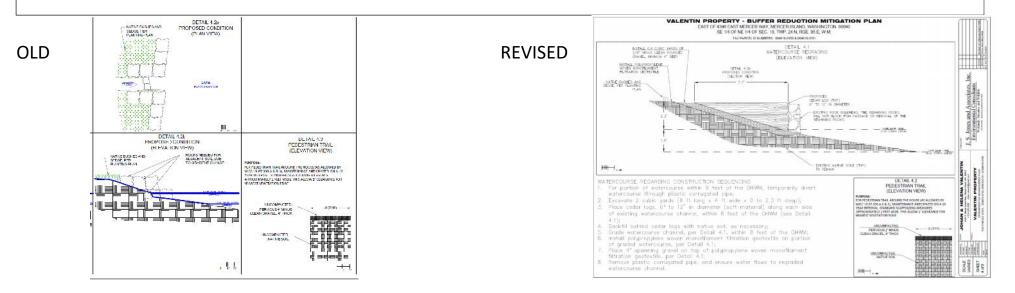
ESA Recommendation #4:

Please provide additional detailed information for the proposed fish blockage removal. Provide the total area of excavation and grading within the stream, the proposed construction sequencing, the engineering design versus conceptual plan, and a statement that the remaining rocks in the stream channel will not block fish passage or removal of the remaining rocks.

Response:

- a. The total area of excavation and grading of the watercourse has been added to Sheet 4 of 5.
- b. The details of construction sequencing has been added to Sheet 4 of 5.
- c. More detailed design has been added to sheet 4 of 5.
- d. The following statement has been added to Sheet 4 of 5:

The remaining rocks in the stream channel will not block fish passage, nor will removal of the remaining rocks.



ESA Recommendation #5:

Given the location of the stream mouth at the transition from the hard stabilization structure and beach, please use soft shoreline stabilization for the shoreline structural stabilization proposed in Details 4.2a and 4.2b of the Buffer Reduction Mitigation Plan.

Response:

See the response to Recommendation 4c) where cedar logs have been chosen as soft shoreline stabilization material.

Prior review included for reference

4346 E Mercer Way

Valentin Residence

June 18th , 2018

ADDRESS ESA RECOMMENDATIONS TO CRITICAL AREAS REPORT May 15, 2018 File No. CAO17-003 – Valentin Critical Areas Determination

4346 E Mercer Way, Mercer Island, WA 98040

King County Tax Parcel # 004610-0150

SUMMARY OF MAJOR MODIFICATIONS

THIS REVISION:

- REVISED SITE DESIGN TO MOVE DRIVEWAY AND PARKING AREA COMPLETELY OUTSIDE REDUCED BUFFER
- RELOCATED WALKWAY OUTSIDE OF REDUCED BUFFER
- REVISED DESIGN TO ALLOW ACCESS AROUND
 PERIMETER OF RESIDENCE

PRIOR REVISIONS:

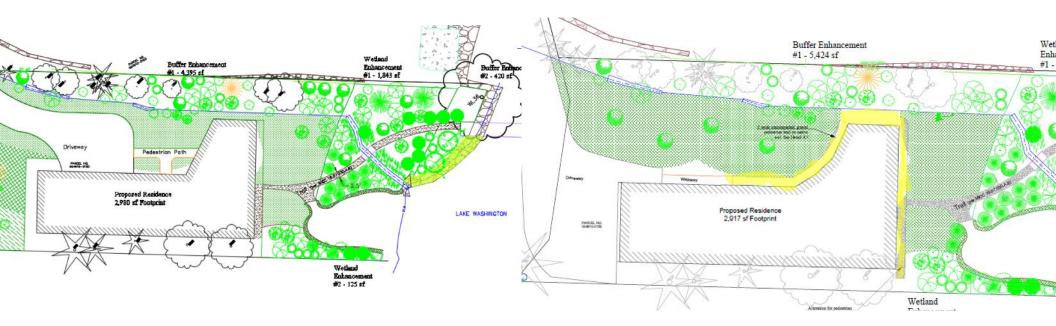
- REVISED FROM TYPE 2 TO TYPE 1 CLASSIFICATION OF LOWER WATERCOURSE
- MODIFIED PLANS TO NOT PIPE OR RE-ROUTE
 WATERCOURSE

<u>ESA Recommendation #1:</u> The footprint of the proposed house extends to the edge of the reduced buffer. This does not allow adequate room for construction and maintenance of the proposed house without disturbing the buffer. Please add an adequate setback (not less than 5 feet in width) from the buffer for construction, and ongoing access and maintenance.

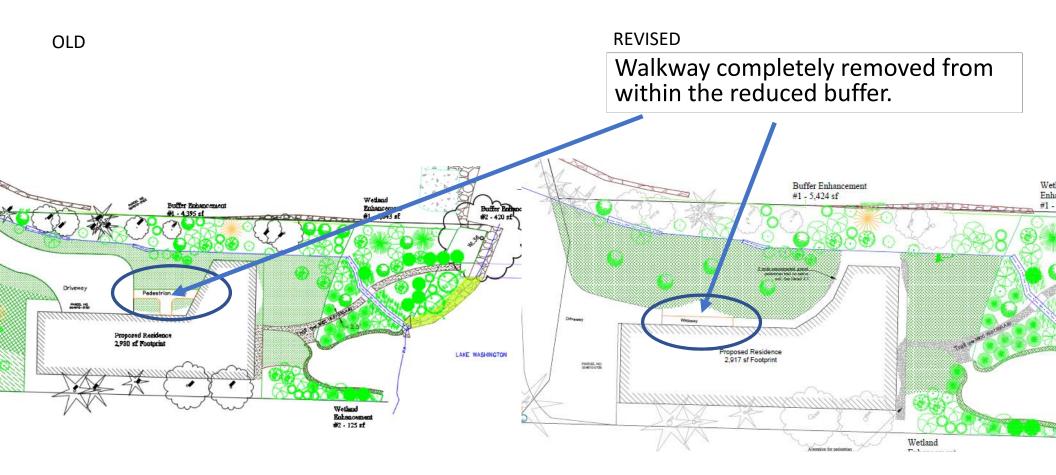
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REVISED

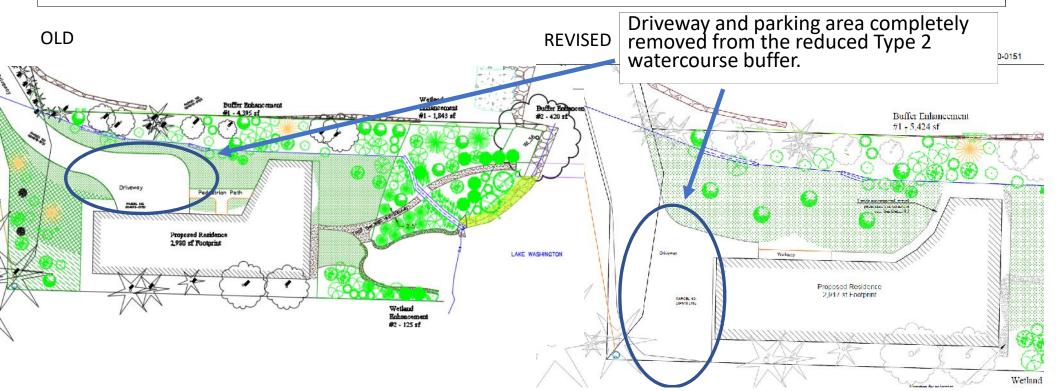
Although not required by code we have created a 3-5 ft path around the entire residence by revising and reducing the footprint. In most areas the path is outside the buffer. In limited areas the path is inside the buffer as an allowed alteration per MICC 19.07.030.A.6.



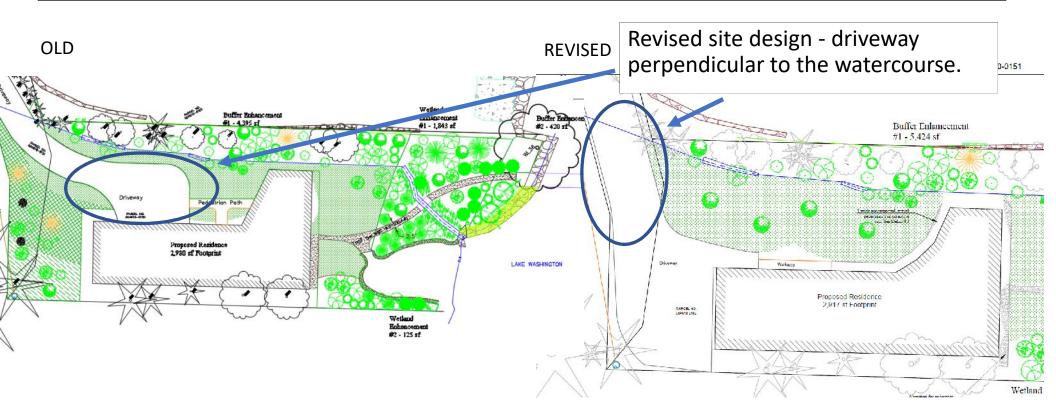
<u>ESA Recommendation #2:</u> On the plans, the walkway from the elongated parking area leading to the proposed house is labeled as a trail. This area is a walkway, not a trail. Please relabel as walkway. Walkways are not allowed in buffers, so the walkway must be removed from the reduced buffer area.



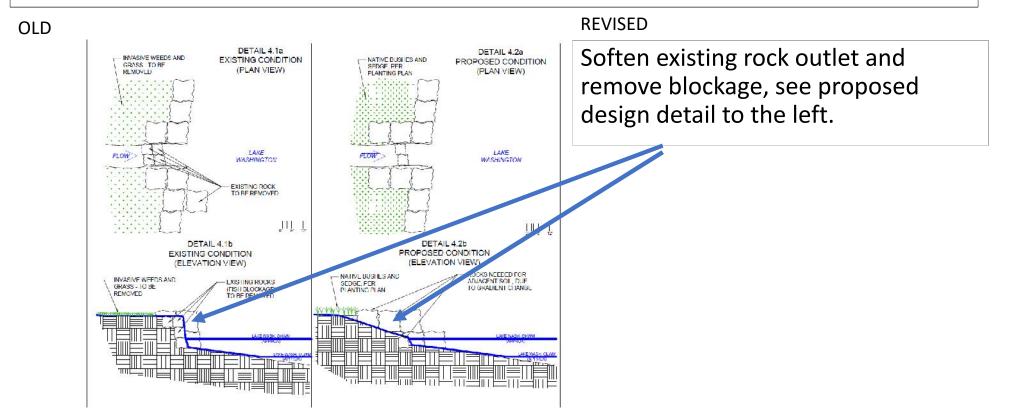
<u>ESA Recommendation #3:</u> To mitigate for reduced watercourse buffer widths, the project proposes to employ option (iii) under MICC 19.07.070(B)(2): removal of invasive species and ornamentals, replanting with native trees, shrubs, and herbaceous plants, and five-year monitoring. In addition, this mitigation type is proposed throughout Wetland A and most of the buffer areas. The enhancement activities are generally appropriate mitigation for the proposed reduced buffers. However, much of the Type 2 watercourse buffer is comprised of driveway pavement and parking area; a driveway crossing is allowable per MICC 19.07.030(A)(6); however, additional mitigation must be provided to offset the new intrusion of driveway in the buffer.



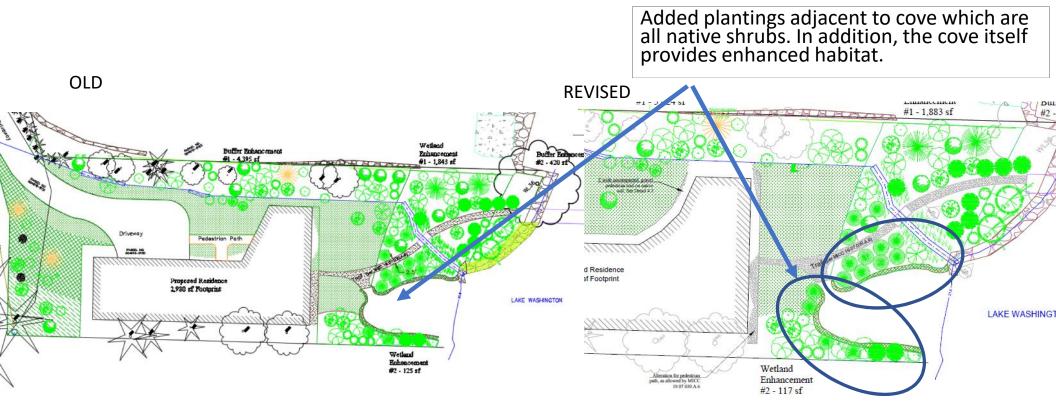
<u>ESA Recommendation #4:</u> A portion of the proposed driveway including the parking area at the terminus of the driveway is parallel with the water course within the buffer and is located within the reduced watercourse buffer. While driveways are allowed in buffers pursuant to MICC 19.07.030(A)(9), the layout is not consistent with best available science and does not avoid impacts to the reduced watercourse buffer. Best available science allows driveways to be placed in buffers perpendicular to critical areas to pass through or cross over the critical area. Please realign the driveway to be perpendicular to the watercourse to ensure no net loss of watercourse and buffer functions; a revised site design is appropriate.



<u>ESA Recommendation #5:</u> The Critical Areas Study proposes mitigation via habitat enhancement within the watercourse with log placement. The stream is too narrow to benefit from log placement. Rather than log placement, please remove or soften the existing rock bulkhead adjacent to the watercourse outlet to the lake. As part of this work, remove all blockages between the lake and the outlet.



<u>ESA Recommendation #6:</u> Pursuant to MICC 19.07.110(E)(9)(d)(i), native vegetation should be planted to meet or exceed 75 percent cover in the area within 20 feet of the Lake Washington OHWM. However, a sandy cove exists within this 20-foot area. To meet the intent of the code, please enhance the proposed plantings adjacent to the cove by adding native shrubs that will provide habitat value not provided by the proposed groundcover plantings in this area.



<u>ESA Recommendation #7:</u> The plantings required by MICC 19.07.110(E)(9)(d)(i) shown on the revised plan set appear to be counted in the total buffer mitigation area. Please account for these plantings separately from mitigation plantings.



<u>ESA Recommendation #8:</u> The "buffer enhancement and mitigation" area shown on the Impacts and Buffer Mitigation sheet includes non-buffer area (southwest corner of parcel). There are no issues with enhancing this area; however, it should not be included in the total buffer enhancement area calculation.

Removed non-buffer area calculations.

<u>OLD</u>

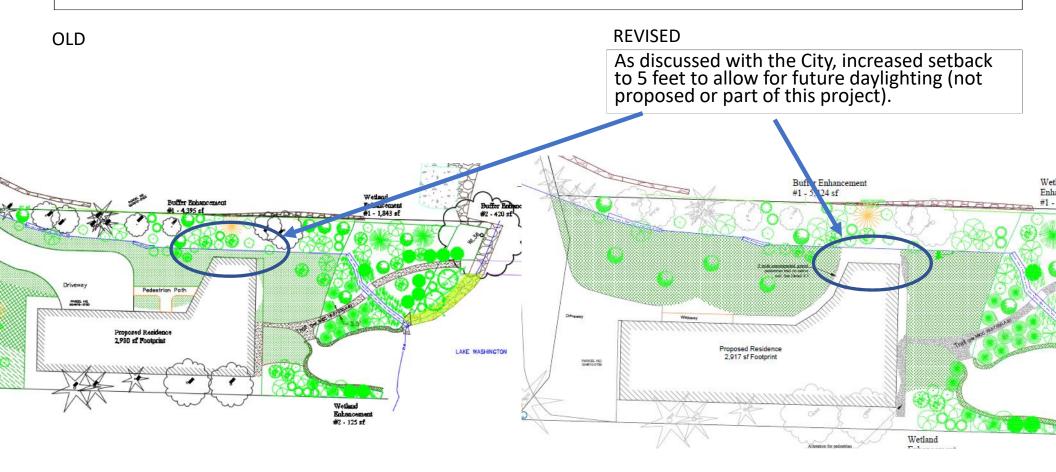
Proposed Impacts and Mitigation

Proposed Residence	2,980 sf	
Buffer Alteration	1,298 sf	
Wetland Enhancement Areas		
Wetland Enhancement Area #1	1,843 sf	
Wetland Enhancement Area #2	125 sf	
Total Wetland Enhancement	1,968 sf	
Mitigation Planting for Reduced Buffer	1,900 sf	
Buffer Enhancement #1 Buffer Enhancement #2	4,395 sf 421 sf	
Total Buffer Enhancement	4,816 sf	
Total Mitigation Ratio of Mit Planting for	8,684 sf	
Reduced Buffer to Alteration	1.46:1	

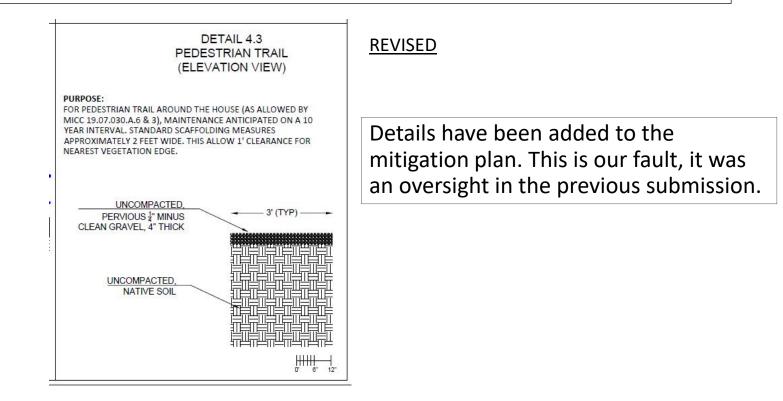
<u>REVISED</u>

Proposed Impacts and Mitigation Key Proposed Residence Footprint 2,917 sf Buffer Alteration 223 sf Proposed R Wetland Enhancement Areas Wetland Enhancement Area #1 1,883 sf Wetlands F Wetland Enhancement Area #2 117 sf Total Wetland Enhancement 2.000 sf Buffer Enha Mitigation Enhancement 0-20' from OHWM (SMP Area) 1,528 sf Existing Pa Buffer Enhancement #1 5,424 sf 420 sf Buffer Enhancement #2 Buffer Alter Total Buffer Enhancement 5,844 sf Total Mitigation: Standard T With SMP Mitigation Area 7.844 sf Without SMP Mitigation Area 6,316 sf Reduced T Ratio of Mit Enhancement for Standard T Reduced Buffer to Alteration 35:1 to 28:1 Reduced T

<u>ESA Recommendation #9:</u> The three-foot proposed reduced buffer from the piped watercourse does not allow for future daylighting of the stream and therefore results in net loss of watercourse and buffer functions. Please proposed a larger buffer that will result in no net loss; please increase the buffer width and provide documentation indicating that the revised width will allow for future daylighting of the watercourse.



ESA Recommendation #10: (Previous Review Comment) Detailed plans should be provided for the proposed trail and bridge to document materials, construction methods, and mitigation to ensure consistency with MICC Chapter 19.07 allowances, and to adequately compensate for wetland, stream, and buffer impacts. The updated Critical Areas Study and Mitigation Plan sheets do not discuss the proposed trail and bridge that provide access to the dock or detail the construction methods or proposed materials. Per MICC 19.07.030(A)(9), trails should be made of pervious materials, unless the code official determines impervious materials are necessary to ensure user safety. Please provide this information.



Prior review included for reference

4346 E Mercer Way

Valentin Residence

April 12th, 2018

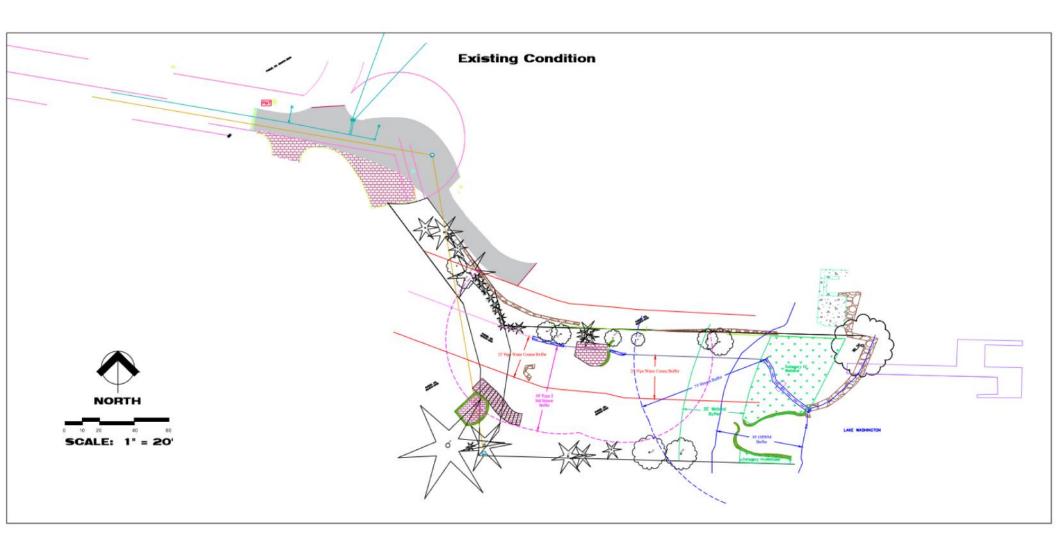
MAJOR ADDITION TO CRITICAL AREAS REPORT

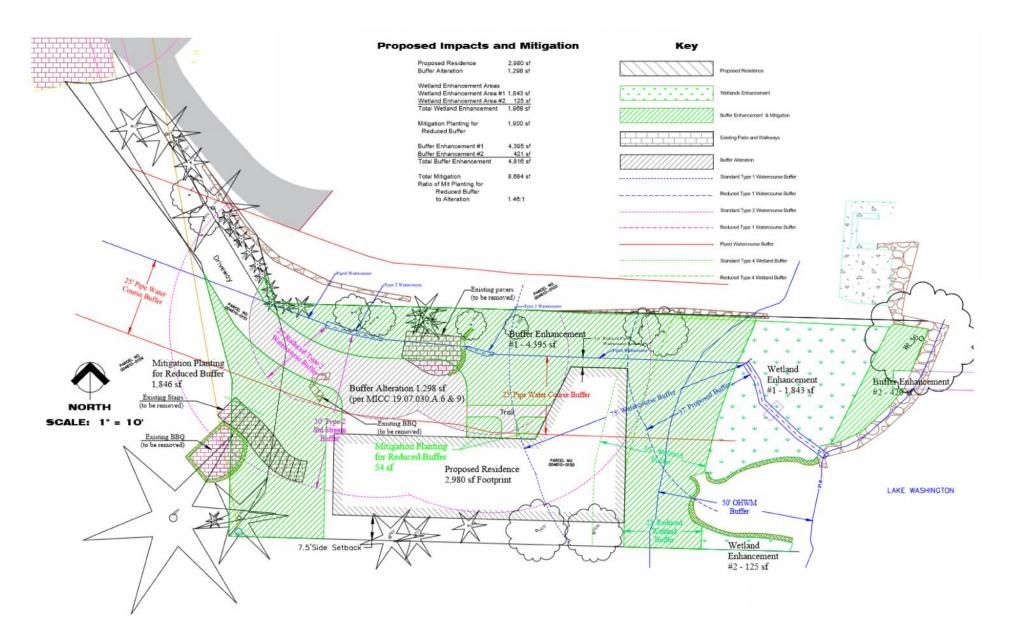
To finish the Critical Areas Report, Jones and Associates addressed each adopted criterion for approval in MICC 19.07.070.B.2.a and 19.07.080.C.2

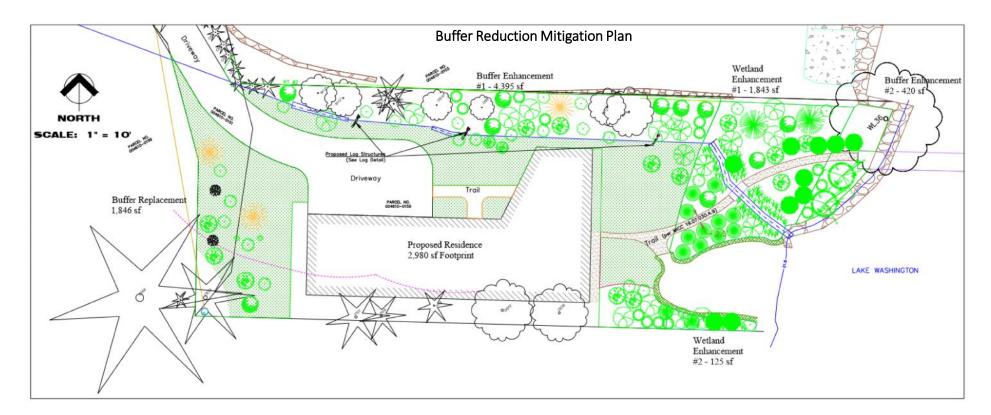
ESA Recommendations

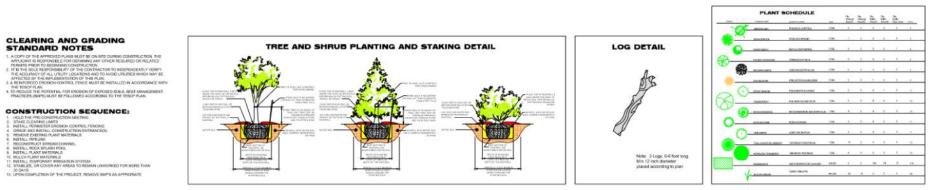
- 1. Type 1 watercourse classification
- 2. Reduce proposed development envelope
- 3. Buffers for Type 2 open watercourse sections and piped watercourse
- 4. Update Mitigation Plan to include open Type 2 watercourse sections
- 5. Not place daylighted watercourse into culvert or to relocate
- 6. Show all trees proposed for removal and detailed tree replacement proposal
- 7. Remove references to offsite watercourse features and building setback
- 8. Provided a survey with the wetland boundary on the southeast corner

	ESA Recommendation	Revised Study
1	Utilize a Type 1 watercourse classification for lower portion of watercourse that empties into Lake Washington.	Revised study uses a Type 1 classification for the lower portion of the watercourse. This includes standard buffers, buffer reduction and associated buffer enhancement proposals. Standard buffer of 75 feet is proposed to be reduced to 37 feet. Revised plan addresses the approval criteria as well as detailed buffer enhancements including a no net loss analysis.
2	Revise proposed development envelope	Revised study proposes buffers for the open section of the Type 2 watercourse, and a 40% smaller development envelope.
3	Add buffers for Type 2 open sections and piped watercourse	Revised study and maps have added standard buffers as well as reduced buffers for both Type 2 open and piped watercourse sections. Revised study increases buffer enhancement area from 1,056 square feet to 4,816 square feet; a four-fold increase.
4	Update Mitigation Plan to include open Type 2 sections	Revised study includes an updated buffer enhancement and mitigation plan for the open Type 2 sections. The updated buffer enhancement is for a total of 4,816 square feet (up from 1,056 square feet, a four-fold increase). Mitigation planting is proposed at a 1.46:1 ratio for a total of 1,900 square feet to compensate for buffer alterations. Additional mitigation implementation is being proposed to include removal of on-site permanent coal fired brick/stone/steel BBQ within the buffer, removal of patio within the buffer and implementation of woody debris and logs along the watercourse.
5	To not place daylighted watercourse into culvert or to relocate any of the onsite watercourse segments	All references and proposals to place daylighted watercourse back into culvert has been removed. All proposals to relocate any of the watercourse segments have been removed. This has resulted in a 40% smaller development envelope.
6	Show all trees proposed for removal and detailed tree replacement proposal	As a result of the revised project plans, no trees within the Critical Areas will be affected by the proposed project.
7	Remove references to offsite watercourse features as well as 15-ft building setback	All references to off-site watercourse features and building setbacks have been removed from the study.
8	Provide a survey with the wetland boundary on the southeast corner of the property	Revised study includes an updated survey with the wetland boundary on the southeast corner of the property. Wetland enhancement is proposed for a total of 1,968 square feet.









Anticipated Next Steps

- 1. ESA to review the resubmittal stream typing, wetland typing, and no net loss;
- 2. City of Mercer Island to review that all other criterion for approval are met;
- 3. City of Mercer Island to issue a Notice of Decision.