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**CITY OF MERCER ISLAND**

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May 11, 2021

MI Treehouse, LLC  
Attn: Bill Summers  
PO Box 261  
Medina WA 98039  
*Via email*

RE: CAO15-001/VAR18-002 Request for Information (5637 E Mercer Way, King County tax parcel #1924059312)

Dear Mr. Summers,

The City of Mercer Island Community Planning and Development Department has completed review of the updated application materials submitted February 1, 2021. There is one item on which additional information will be needed in order to complete review and schedule a public hearing: Details on grading within the slope wetland on site. Please clarify the nature of grading proposed, and if grading is required, please provide details on the on-site drainage system. Please review Attachment 1 for details.

The Planning Division's processing of this application is on hold until this issue is resolved. Please do not hesitate to contact via the information below if you have any questions.

Sincerely,

Robin Proebsting, Senior Planner  
City of Mercer Island Community Planning and Development  
[Robin.proebsting@mercerisland.gov](mailto:Robin.proebsting@mercerisland.gov)  
(206) 275-7717

**Attachments:**

1. Memorandum prepared ESA, dated May 5, 2021
2. Memorandum prepared by Wood Environment & Infrastructure Solutions dated May 4, 2021



# memorandum

date May 5, 2021

to Robin Proebsting, Senior Planner

from Scott Olmsted, ESA

subject Review of 5637 East Mercer Way (MI Treehouse, LLC) – Reasonable Use Exception and Variance Applications (CAO15-001 and VAR18-002)

Environmental Science Associates (ESA) has prepared this memorandum on behalf of the City of Mercer Island (City). On August 7, 2020, a Hearing Examiner issued a decision that returned the reasonable use exception and variance applications to the City and requested the applicant provide additional project information, which included project revisions. The purpose of this memo is to confirm whether the proposed project revisions comply with Mercer Island City Code (MICC) Chapter 19.07 – *Environment*. This project is not vested under the November 2017 version of MICC 19.07; the project must comply with the adopted 2019 critical areas regulations.

ESA previously reviewed multiple project submittals including several Revised Critical Areas Reports (CARs) for the property, a Reasonable Use Exception (RUE) application, State Environmental Policy Act (SEPA) Checklist, and geotechnical engineering study; however, ESA's previous reviews focused on the CARs and RUE. The applicant also provided a variety of response materials as part of the Reasonable Use Exception Application package dated January 24, 2019, including updated plans and two letters from Sewall Wetland Consulting, Inc. (Sewall) responding to a letter sent by the City to the applicant on November 16, 2018. ESA's most recent review letter, dated December 17, 2019, assessed responses provided by Sewall and also provided comments on a geotechnical letter submitted by the applicant.

Documents reviewed by ESA for the current submittal include the following:

- Letter addressed to Robin Proebsting, CAO15-001 & CAR18-002 MI Treehouse, LLC (McCullough Hill Leary, PS, January 27, 2021);
- Site Plan for 5637 East Mercer Way (MI Treehouse, LLC) (Core Design, dated June, 2018 and stamped November 16, 2020);
- 5637 East Mercer Way – *Revised* Critical Areas Report; SWC Job #14-206 (Sewall Wetland Consulting, Inc., January 26, 2021);
- Critical Areas Enhancement Plan, MI Treehouse, LLC (Sewall Wetland Consulting, Inc., revised December 2, 2020); and
- Mitigation Bank Use Plan, MI Treehouse, LLC (NWS-2015-0650) (Sewall Wetland Consulting, Inc., December 28, 2020).



### **Hearing Examiner Information Requests**

The Hearing Examiner requested additional details pertaining to Stream B and for the applicant to update the wetland rating form. In response, Sewall conducted a site visit to flag the ordinary high water mark of Stream B, which was surveyed and depicted on revised site drawings. A 10-foot building setback was applied from the stream boundary and the proposed building footprint was modified and shifted to the south and east so that the structure is located outside of the setback, as requested by the Hearing Examiner. To account for the revised building footprint and location, the critical areas report, mitigation bank use plan, and critical areas mitigation plan were updated.

Reducing the building footprint and shifting the location of the structure results in 3,075 square feet (SF) of direct wetland impact (1,833 SF from the building, 664 SF from a 5-foot structure offset, and 578 SF from temporary construction access). Wetland buffer impacts now total 3,078 SF, comprised of 1,979 SF from the structure, 123 SF from the 5-foot structure offset, and 976 SF from temporary construction access.

To offset wetland impacts, the applicant proposes to purchase an appropriate number of credits from the King County Mitigation Reserves Program to offset the 3,075 SF of wetland impact.

To mitigate for temporary construction impacts to the wetland and buffer, the applicant proposes to install 90 shrubs within the temporary construction access areas of both the wetland (578 SF) and buffer (976 SF) located around the development. To offset the 1,979 SF of buffer impact associated with the structure and the 123 SF the 5-foot structure offset, the applicant proposes to install 30 cedar trees. The trees will be installed along the Stream A riparian corridor and on the southern steep slope.

The wetland rating for Wetland A was updated using Ecology's 2014 rating form; however, the form was not included in the critical areas report for review. While no form was included, the wetland rating scores are consistent with Ecology's translating category and functions scores. Wetland A rates as a Category III wetland, which is the same as the previous rating, and requires a 60-foot buffer.

### **Review and Recommendations**

Mercer Island City Code requires a minimum 10-foot setback from edge of watercourse buffers, Stream B in this case (MICC 10.07.180(C)(7)). Locating the house 10 feet from the ordinary high water mark of Stream B is not consistent with code; however, construction may be allowed by the City as part of the RUE and variance processes.

Credit purchase from the King County Mitigation Reserves Program to compensate for wetland impacts is allowed by code and should provide adequate compensation for the proposed project. The applicant prepared a mitigation bank use plan that indicates sufficient credit purchase, based on current impact calculations, will occur and proof of purchase will be submitted to the City prior to permit issuance.

Onsite plantings to compensate for temporary wetland and buffer impacts appears ecologically sufficient and installation of 30 cedar trees to compensate for a net 1,524 SF of unmitigated buffer impacts is appropriate considering the intact, native understory located onsite.



The revised site plan no longer depicts a retaining wall located west and southwest of the proposed residence. ESA previously commented on the wall and associated grading for the building foundation and potential impacts to wetland hydrology. **ESA seeks clarification for the current lack of grading within the slope wetland to accommodate the structure.** If grading is still required, ESA continues to recommend the applicant provide additional details about the onsite drainage system and how it will operate to not artificially drain wetland areas. Alternatively, the applicant can propose an offset from the drainage system that would account for lost wetland hydrology and mitigate impacts through additional credit purchase.

Once potential impacts to site hydrology due to building construction and detention and conveyance facilities has been addressed, and impacts and mitigation revised, if necessary, it is reasonable to determine that project will result in no net loss of ecological functions and is consistent with MICC 19.07.

If you have any questions, please call me at (206) 789-2381 or via email at [solmsted@esassoc.com](mailto:solmsted@esassoc.com).



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May 4, 2021

Project Number PS21-20341-B

Robin Proebsting  
City of Mercer Island  
Community Planning and Development  
Mercer Island, Washington

Subject: Geotechnical Peer Review – CAO15-001  
5637 East Mercer Way  
Mercer Island, Washington

**Dear Ms. Proebsting:**

Wood Environment & Infrastructure Solutions, Inc., (Wood) presents this letter that summarizes our third-party geotechnical engineering review of the additional geotechnical information submitted for the development permit application requesting a reasonable use exception and a variance. We reviewed the following documents:

- Geotechnical Engineering Assessment of Landslide Hazard Mitigation, Proposed Mercer Island Treehouse Residence, 5637 East Mercer Way, by Geotech Consultants, dated December 3, 2020.
- Site Plan 5637 East Mercer Way, prepared by Core Design, dated November 6, 2020.
- Letter CAO15-001 & VAR18-002 MI Treehouse, LLC, by McCullough Hill Leary, PS, dated January 27, 2021, which summarizes the new information provided as requested by the Hearing Examiner.
- Email from Robin Proebsting RE: Contract Renewal, dated March 23, 2021, which attached the above-described documents and included Comments 6 & 7 from the Hearing Examiner decision.

The Geotechnical Engineering Assessment references previous geotechnical engineering documents prepared by GeoGroup NW between 2015 and 2019 for this development. Geotech Consultants reviewed those previous documents and provided their opinion regarding the recommendations. Those previous documents have also been peer reviewed by another consultant representing the City of Mercer Island.

Our scope of work was to review the recent Geotechnical Engineering Assessment of Landslide Hazard Mitigation by Geotech Consultants and provide our opinion as to whether it meets the request of the Hearing Examiner, the Mercer Island critical areas ordinance, and the standard of practice for geotechnical engineering.

The site is located within the base of an east trending ravine that is currently undeveloped and heavily vegetated with trees, bushes, and undergrowth. Steep slopes rise to the south, west, and north, and extend beyond the property boundaries. Development is not planned on the steep slopes; however, the Hearing Examiner requested more information regarding the entire steep slope to the south and west because development is proposed at the base of these slopes.

Robin Proebsting  
City of Mercer Island  
May 4, 2021  
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The proposed residential structure will be supported on driven pile foundations, and soldier piles will be installed to support the basement wall and a retaining wall near the driveway. These two walls will be designed as catchment walls to resist shallow surficial slide debris. The development will also include drainage systems due to the presences of surface wall runoff through the ravine and shallow groundwater.

Geotech Consultants describe the soils composing the steep slopes as Glacial Till based on their surface observations at the site and their research. They describe Glacial Till and the slope stability issues that are typical with this soil type.

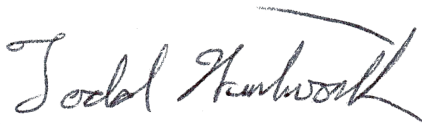
The Geotechnical Engineering Assessment by Geotech Consultants adequately addressed the geologic hazards at the site relative to the proposed development. They assessed the steep slopes that extended beyond the property boundaries and confirmed the geotechnical engineering recommendations for the proposed development provided by GeoGroup NW.

It should be noted that our scope of work for this letter was limited to a review of the documents supplied to us. Our scope did not include a site visit, exploration of actual subsurface conditions, nor does our review purport to verify the accuracy of the geotechnical engineering results presented within the documents.

We hope this letter meets your current needs. If you have any questions, please do not hesitate to contact us at your convenience.

Sincerely,

**Wood Environment & Infrastructure Solutions, Inc.**



Todd Wentworth, PE, PG  
Principal Geotechnical Engineer  
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