From:	Dave Anderson
To:	Robin Proebsting
Cc:	anderson9200@comcast.net; "Gordon Ahalt"; "Rick Duchaine"; "Vicki Duchaine"; robertroyalgraham@gmail.com
Subject:	RE: MI Treehouse
Date:	Thursday, April 8, 2021 9:22:44 PM

Robin,

Thank you for sharing the updated plans for the proposed residence at 5637 East Mercer Way, submitted by MI Treehouse LLC. It is good to see that the type 2 watercourse is now aligned with the contour lines. Based on the updated site plan, it would appear that the building footprint and deck area have been reduced on the north side of the house to maintain a setback from this corrected stream location. It also appears that the entry on the south side of the house has been eliminated. The finish floor elevations for the garage and main floor have been raised and it would appear that the building footprint has shifted south. The storm water detention facilities have been added with a 48-inch diameter pipe, a type 2 catch basin on the west side and a flow control structure on the east side. It is concerning that the catchment wall that was previously shown on the south side of the structure has been deleted and is not shown on the plan.

The Critical Area Enhancement Plan has been updated with the corrected stream location and the smaller building footprint. The impact areas shown around the proposed construction remain exceedingly tight, considering the deep excavation that will be required for the retaining walls and storm water detention facilities. In my opinion, the negative impacts to the surrounding wetland area and the adjacent stream are not accurately depicted on this plan and will far exceed what is currently shown. In order to evaluate these impacts, more detailed information needs to be provided in the plans. During the hearing the Hearing Examiner noted that the RUE application was not vested prior to 12-2018 and the published requirements should be included in the plan set for the application to be considered complete. The RUE application must include plans that comply with the City of Mercer Island requirements that I introduced during the last hearing. The following submittal items required by the City for a complete RUE application are still not shown on the plans:

<u>Site Plan:</u>
E. Designate areas with greater than six (6) feet of cut and/ or fill
O. Existing and proposed utility and drainage improvements;

<u>Critical Area Study:</u>
D. Stormwater and erosion control management plan consistent with MICC 15.09

<u>Conceptual Grading and Utility Plan:</u>
H. Proposed conceptual drainage system design;
J. The number of cubic yard of soil to be added, removed, and relocated;
K. Type and location of fill origin, and destination of any soil to be removed from site, including the foundation areas;
M. A statement indicating the method to be followed on erosion control and restoration of land during and immediately following the construction period of plat improvements;
N. Utility drawings:

2. Existing and proposed water, sewer, and storm water utility locations, including: pipe diameter, ditches, slope/ grade, connections, manhole or catch basin locations, inverts, etc.

Until this information is still missing from the plans the RUE application is not complete. Showing all of the drainage components including the foundation and retaining wall drains, along with the type and depth of fill materials, is required to properly quantify the impacts the project will have on the stream and adjacent wetland areas.

An example of this is the storm water detention pipe and associated drainage structures that have been shown on the plan without any elevations. This type of detention facility requires all of the storage volume to be below the overflow elevation within the restrictor catch basin at the east end of the storage pipe. The storage pipe needs to be installed without slope. The rim elevation for the restrictor catch basin in the driveway will need to be approximately 174. To provide enough clearance for the overflow and the catch basin top with frame and grate, the top of the detention pipe will need to be at least 2 feet below the rim elevation. This would put the invert elevation of the 4' detention pipe at approximately 168. The catch basin at the west end of the pipe will be very close to the entrance to the garage which has a finish floor elevation of 186. The bottom of this catch basin will require an excavation that is at least 2 feet below the detention pipe invert making the structure approximately 20 feet deep. The excavation to install this structure will be 12 feet below the toe of the proposed driveway retaining wall and will extend well below the adjacent stream elevation. Construction of a 20' deep storm structure in a sloping wetland within 15' of a stream will certainly have a much wider impact than what is currently delineated on the plan. Showing a construction impact only 5 feet beyond this wall and so close to such a deep excavation is not accurate or reasonable. Requiring the applicant to comply with the requirements for a complete application including showing the slopes and elevations of the drainage system and the depths and description of the fill materials is critical to properly evaluate and quantify the impacts to the wetlands and adjacent stream.

Another example is the grading and perforated piping that will be required for drainage around the building to comply with the applicant's geotechnical report. This will also impact the wetland area and is not shown on the plan. The recommendations included in Section 5.6 of the geotechnical report for drainage is not acknowledged on the site plan or in the tabulated areas of wetland disturbance. This includes a recommendation to slope the ground surface away from the proposed building at a gradient of at least 3% for a distance of at least 10' away from the building for all areas that are not paved. This would include grading and surface impacts to the existing wetland areas south and west of the building site.

Although it has been left off of the plan, the elevation of the garage will require a retaining wall at the southwest corner of the building footprint. With the garage floor elevation of 186, the bottom of the wall would typically be below 184 which is approximately 10 feet below the existing grade at the southwest corner of the house. The retaining wall will typically require permeable materials behind the wall with drainage collection at the base of the wall and around the structure foundation or slab. With a perforated drain approximately 10 feet below the surface, there will almost certainly be a permanent impact on the existing wetland areas south, west, and potentially northwest of the proposed building location. The wall construction with drainage collection 10 feet below the

wetland surface will permanently impact the wetland area and could de-water a significant portion of the up-gradient wetland areas, potentially including those that extend beyond the parcel limits. The previous responses from the wetland consultant relative to ESA's comments and my previous e-mails included the statement that water will be conveyed from the retaining wall drain to a spreader northwest of the building site that would recharge the existing wetlands. This is also not indicated on the plans. I am not sure how this would be accommodated as the elevation of the retaining wall drain will be below the existing surface grades in the wetlands to the northwest.

As previously noted, I disagree with the 10-30-19 response from Mr. Sewall that the foundation drainage system will not impact the hydrology of wetland as the site has "soils that do not appear prone to drainage". The Geotechnical Engineering Study prepared by GEO Group Northwest dated March 13th, 2015 as well as the supplemental information provided in the responses to third party review dated July 30th, 2015 and October 28th, 2015 appear to contradict this statement. This information shows sandy outwash soils to a depth in excess of 16 feet. The report indicates that this sand contains relatively small percentage of silt and fines. The logs also show very low blow counts which indicate the outwash sand layer is soft and relatively uncompacted. These sandy outwash soils should be considered permeable. I am very surprised by these responses given the previously documented geotechnical report.

Thank you in advance for your consideration of these comments and we look forward to being able to review and comment on a complete application with all of the required plan details. Please feel free to call me at (206) 230-8373 or (206) 660-8944 if you would like to discuss them with me directly, Dave

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From: Robin Proebsting <robin.proebsting@mercergov.org>
Sent: Monday, March 29, 2021 5:16 PM
To: anderson9200@comcast.net
Cc: Dave Anderson <DaveA@dahogan.com>
Subject: RE: Treehouse

Greetings Peter,

It was good to speak just now, and thank you for the comments below. As we discussed, I and the other reviewers are still working our way through the latest submittal from the applicant, and I welcome input on these latest materials. Please email me any additional comments you may have.

Best regards,
Robin

Robin Proebsting
Senior Planner
City of Mercer Island – Community Planning and Development
206-275-7717| mercerisland.gov/cpd
Notice: Emails and attachments may be subject to disclosure pursuant to the Public Records Act (chapter 42.56 RCW).

Due to the COVID-19 outbreak, Community Planning and Development has modified our operations. City Hall and the Permit Center are closed to the public. There is no "walk in" permit service; staff are working remotely and services are being continued via remote operations. More information is available on the City's website: mercerisland.gov/cpd. Please contact us by phone for general customer support at 206-275-7626.

Please note that I will be out of the office beginning Thursday Apr. 1st. I will be back in the office Tuesday Apr. 6th

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From: anderson9200@comcast.net <anderson9200@comcast.net>
Sent: Friday, March 26, 2021 3:31 PM
To: Robin Proebsting <robin.proebsting@mercergov.org>
Cc: 'Dave Anderson' <davea@dahogan.com>
Subject: Treehouse

Dear Ms. Proebsting,

I tried to reach you this morning by telephone. I am interested in knowing the latest as to what is happening with Treehouse case. Also, I want to mention to you that my son, Dave Anderson, who is a party to the case, has been swamped with work at his engineering firm, but plans to contact you soon with his thoughts relating to the latest Treehouse submission. I do not know all of the points that he intends to mention to you. However, he has mentioned to me that the detention pipe shown on the new drawings must be horizontal in placement. With the slope of the driveway, that means that the pipe at the top of the driveway must rest about 20 feet below the ground level. As shown by the two previous test drillings, the soil is porous. The effect is that the design will act as a sink and drain the wetlands. Also the drainage from the containment wall cannot be conveyed by gravity to the wetlands because of the elevation levels. Also the Geotech Consultants rendered their opinion without ever stepping foot on the properties to the south and west. Furthermore, they say absolutely nothing about the properties to the east. These are just some of the thoughts that come to my mind.

Looking forward to hearing from you. Peter Anderson