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To: [Molly McGuire](#)
Cc: susan.mattison.me
Subject: Permit 2207-019 SUB2 Mattison comment ltr
Date: Saturday, March 11, 2023 9:34:16 AM
Attachments: [2207-019 SUB2 Mattison ltr.pdf](#)

Hello Ms. McGuire -

Please see our attached letter and supporting documents pertaining to Permit 2207-019 SUB2. We remain concerned that this project still does not comply with the Mercer Island City Codes. Due to file size, I'll be emailing you the supporting documents via separate messages.

Thank you.

Jim Mattison
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206.255.7017

March 9, 2023

Ms. Molly McGuire
Planner
Community Planning and Development
City of Mercer Island
9611 SE 36th Street
Mercer Island, WA 98040

Re: Permit No. 2207-019 SUB2 - Strand Residence - 6950 SE Maker St. - Additional Input and Feedback

Hello Ms. McGuire -

We have reviewed the SUB2 documents that are on file as of 3/1/2023 and that pertain to review comments from Community Planning and Development. The proposed project (6950) does not meet the definitions of - and therefore - the requirements of the Mercer Island City Code (MICC) with respect to applicant's determination of existing grade and downhill facade height requirements.

Existing Grade

We object to the existing grade for the 6950 site being designated as "the surveyed grade prior to start of this proposed project (5/27/2021)" as stated in the applicant's Comment Response in reference to Terrane survey sheet 1 of 1.

This site was significantly "altered" prior to development of the existing home with extensive placement of fill materials which were retained with tall rockeries. This is well documented in the October 2022 public comments and the geotechnical engineer's initial report.

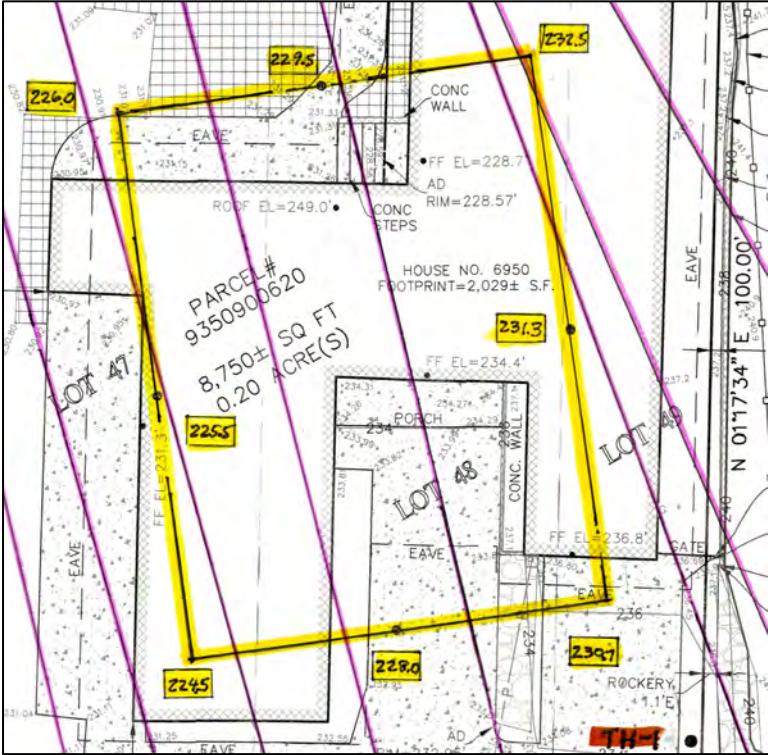


Ca. 1955 view of south (front) and west (rear yard) elevations of 6950 SE Maker Street depicting extensive fill material sloping to foreground prior to rockery placement. Note the lack of native vegetation. Present day Maker Street is in lower right of photo.

In addition, there exists concrete and verifiable evidence and that prior to development, the site was a native steep sloping lot with hillside contours and intervals contiguous and consistent with the contours professionally surveyed on both the north (7145 SE 35th St.) and south (7075 SE Maker St.) parcels that neighbor the 6950 property lines.

We know this to be true because we have surveys of these parcels. (See attached surveys - DR Strong and MW Marshall). We also have test hole and boring logs along with geotechnical engineers' narratives from both the 7145 SE 35th (7145) and 6950 sites. (See attached Geo Engineers report, dated May 9, 1989).

Given this information, we and our neighbor, Dan Grove, utilized these surveys along with test bore and hole logs from the two geotechnical reports to compile a thoughtful and well researched contour interpolation that factually best represents the native topography of the 6950 site prior to alteration.



This figure was taken from the modified survey drawing (Terrane 5/27/21) submitted to the City on October 27, 2022, and prepared by Dan Grove and Jim Mattison. (See attached DG.JM survey).

This modified survey of the 6950 project site aggregates and locates contours from both the DR Strong May 1989 and MW Marshall May 2004 surveys and adjusts them to conform to NAV88 vertical datum.

Linear interpolation (purple lines) was used to join the MW Marshall contours to the south with the DR Strong contours to the north to restore the original contours of the 6950 site prior to alteration and development in the 1950s. From the interpolation, existing grade elevations were determined (yellow) for the proposed building footprint corners with wall line mid-points identified as well.

A comparative review of the test hole and bore logs from the geotechnical reports is instructive as it further confirms the validity of our contour interpolations. Test hole logs 1, 2 and 3 from the 7145 site show that dense material was encountered 30 - 42 inches below the forest duff and topsoil. The report states, *"The soils appeared to grade to dense at the maximum depth of the explorations (test holes). Based upon our previous experience and geologic mapping in the site area, we expect that the soil deposits described above are underlain by glacially consolidated soil."*

Furthermore, the report specifies that spread footings should be *"founded on dense to very dense or hard glacially compacted soil. This should typically require the excavation depth for the footings to range up to 3-1/2 feet deep."*

In essence, the report generalized that glacial till for the 7145 site was within 3-1/2 feet of the native ground.

By contrast, the 6950 geotechnical report shows that remnant topsoil in borings 1 and 2 was located approximately 5 feet and 11-1/2 feet below the ground surface. The material above the topsoil was classified as fill. Glacial till was encountered 10 feet and 15 feet below the ground surface for the two borings. Boring 3 had about 1-1/2 feet of fill with glacial till located 5 feet below the ground surface - which made sense given that the location is upslope and away from the extensive fill.

In summary, all three boring elevations were adjusted lower by subtracting the depth of fill and using the remnant topsoil as the "new" baseline elevations. With this adjustment, glacial till was now located approximately 3-1/2 to 5 feet below the remnant topsoil on the 6950 site. These glacial till depths correlate well with glacial till depths on the 7145 site. This correlation validates that the adjusted boring elevations indeed represent "existing grade" prior to alteration and additionally, they align well with the interpolated contours that extend across the 6950 site.

Our evidence is substantial and verifiable that the Terrane survey (5/27/21) does not represent or meet the MICC definition of existing grade, and as such, the City should use its Administrative Interpretations (#DCI12-004 and #0404) to determine existing grades prior to alteration for GFA and ABE calculations.

Downhill Facade Height

The maximum downhill facade height shown on the south elevation on sheet A3.1 exceeds what is allowed by MICC. It is clear the maximum height allowed from finished or existing grade, whichever is lower, is 30 feet in total.

The 16-3/4 inch roof diaphragm (roof deck in this case) needs to be included within the maximum 30 foot height as does the 6 inch curb and roof sheathing. If all the wood framing is included in the dimension string, the total height is 31-5 3/4 feet, and this exceeds the MICC.

Additionally, the MICC does not allow rooftop railings to extend above the maximum allowed height for the main structure. We did some research on this topic and were able to read about the Rooftop Railings Code Amendment Ordinance 20C-01 and view the City Council discussion (January 21, 2020). The Council clearly voted to kill the amendment as they saw it a workaround (loophole) to the maximum building height restriction.

SUB1 Corrections and Review Comments

We would also like to acknowledge the City's actions regarding SUB1 plan review of the following:

- Shoring Design - Though we did not publicly comment at the time, it was concerning to us, given the upslope risk to our neighbor's property, that the applicant "deferred" the shoring design in the SUB1 documents. We are grateful that the City required the shoring be more explicitly shown on the plans along with inclusion of structural notes and details.

- Storm Water - Given the steep slope of the site and that it is geologically hazardous area, we appreciate that the City required additional specifications and drawing details about the on-site storm water and roof drainage conveyance to catch basin (CB #2) including trenching and removal and reinstatement of the existing rockery.
- Steep Slope Rockery - On sheet A1.0 of SUB1, the City reviewer noted the following correction be made:

The geotechnical engineering report indicates "...due to the loose nature of the upper fill soils behind the rockery, it would only be considered moderately stable, and likely has a current factor of safety of 1.0 or slightly higher with regards to slope stability."

Indicate how this hazard is being mitigated (MICC 19.07.160).

We've reviewed the SUB2 report from Geotech Consultants, Inc. dated February 28, 2023 and observe there was no mention of hazard mitigation pertaining to the stability of the existing western rockery. We certainly understand the guidance and recommendations contained in the report that mitigate the hazard within the footprint of the house and eastward, but we see nothing addressing the western rockery wall and are uncertain if that is what the City had intended with its correction comment.

- Tree Cutting Code Violation - We continue to believe that the owner violated the MICC tree code when she cut a portion of the significant tree located on her neighbor's property at 3515 - 72nd Ave SE. We expressed our concerns about this at length previously in our public comment letter of October 4, 2022. We encourage the City to address this at the full extent possible.

Thank you for making the SUB2 documents publicly available and for taking our input and feedback about this proposed project.

Sincere Regards,

Jim and Susan Mattison