CITY OF MERCER ISLAND

COMMUNITY PLANNING & DEVELOPMENT
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STAFF REPORT

CRITICAL AREA REVIEW 2

Project No.:	CAO24-013
Description:	A request for a Critical Area Review 2 for the demolition of an existing single-family residence and carport and construction of a new single-family residence on a lot containing geologically hazardous areas.
Applicant / Owner:	Mei Yang / Ou Chunling & Fang Hong
Site Address:	3804 E Mercer Way, Mercer Island, WA 98040; Identified by King County Assessor tax parcel number 2107000100.
Zoning District:	Single Family Residential (R-9.6)
Staff Contact:	Molly McGuire, Planner
Exhibits:	1. Development Application, received by the City of Mercer Island on May 5, 2024 2. Revised Development Plan Set, dated August 15, 2024 and received December 16, 2024 3. Project Narrative, received May 5, 2024 4. Geotechnical Engineering Investigation and Critical Area Study prepared by Merit Engineering, Inc., dated February 6, 2025 and received February 13, 2025 5. Geotechnical Plan Review and Minimum Risk Letter prepared by Merit Engineering, Inc., dated February 6, 2025 and received February 13, 2025 6. Critical Areas Disclosure and Notice on Title, recorded with the King County Recorder's Office on November 4, 2024 under Recorder's File No. 20241104000291 7. Landscape Plan, dated December 11, 2024 8. Concurrent Review Request Form, dated March 7, 2024 and received July 16, 2024 9. Hazard Report, generated by the City of Mercer Island on August 30, 2024 10. Letter of Complete Application issued by the City of Mercer Island on July 18, 2024 11. Notice of Application, dated July 29, 2024 12. City of Mercer Island Review Letters 12.1. Review Letter 1, dated September 24, 2024

12.2. Review Letter 2, dated January 27, 2025

13. Applicant Response to City Review Letters
    13.1. Applicant Response to Review Letter 1, received December 16, 2024
14. Notice of Decision, dated March 10, 2025

INTRODUCTION

I. Project Description

The applicant has requested a Critical Area Review 2 for the demolition of an existing single-family residence and carport and the construction of a new single-family residence on a lot containing geologically hazardous areas.

The proposal consists of the following components:

1. A request to demolish an existing single-family residence and accessory structure and construct a new single-family residence subject to the standards of Mercer Island City Code (MICC) 19.07.160, Geologically hazardous areas.

II. Site Description and Context

1. The proposed activity is to occur at 3804 E Mercer Way, Mercer Island, WA 98040. The site is designated Single Family Residential (zoned R-9.6). Adjacent properties are within the R-9.6 zone and contain residential and places of worship uses. The subject site contains potential landslide, erosion, and seismic geologically hazardous areas.

Findings of Fact & Conclusions of Law

III. Application Procedure

1. The application for a Critical Area Review 2 was received by the City of Mercer Island on April 5, 2024. The application was determined to be incomplete on April 30, 2024, resubmitted on July 11, 2024, determined incomplete on July 11, 2024, and resubmitted again on July 16, 2024. The application was determined to be complete on July 18, 2024 (**Exhibit 10**).
2. Under MICC 19.15.030, Table A, applications for Critical Area Review 2 must undergo Type III review. Type III reviews require notice of application (discussed below). A notice of decision is issued once the project review is complete.
3. The City of Mercer Island provided public notice of application for this Critical Area Review 2, as set forth in MICC 19.15.090 (**Exhibit 11**). The comment period for the public notice period lasted for 30 days, from July 29, 2024 to August 28, 2024. The following methods were used for the public notice of application:
    1) A mailing sent to neighboring property owners within 300 feet of the subject parcel.
    2) A sign posted on the subject parcel.
    3) A posting in the City of Mercer Island's weekly permit bulletin.
4. No public comments were received during the public comment period.

IV. State Environmental Policy Act (SEPA)

The proposal is categorically exempt from SEPA pursuant to WAC 197-11-800(1)(b)(i).

V. Consistency with the Critical Areas Code and Land Development Code

1. MICC 19.07.070 lists requirements for disclosure and notice on title. The applicant shall disclose to the city the presence of critical areas on the development proposal site and any mapped or identifiable critical areas within the distance equal to the largest potential required buffer applicable to the development proposal on the development proposal site.

    a. The owner of any property containing critical areas and/or buffers on which a development proposal is submitted, except a public right-of-way or the site of a permanent public facility, shall file a notice approved by the city with the records and elections division of King County. The notice shall inform the public of the presence of critical areas, buffers and/or mitigation sites on the property, of the application of the city's critical areas code to the property and that limitations on actions in or affecting such critical areas and/or buffers may exist. The notice shall run with the land in perpetuity.

    b. The applicant shall submit proof to the city that the notice has been recorded prior to approval of a development proposal for the property or, in the case of subdivisions, short subdivisions, and binding site plans, at or before recording of the final subdivision, short subdivision, or binding site plan.

    Staff Analysis: The applicant submitted a Critical Areas Disclosure and Notice on Title disclosing the presence of the geologically hazardous areas and mitigation required by the city's critical areas code, recorded with the King County Recorder's Office on November 4, 2024 (**Exhibit 6**); therefore, this requirement is met.

2. MICC 19.07.090 describes the purpose and procedures by which the city will review and authorize development and verify consistency with this chapter.

    a. Critical Area Review 2. The purpose of a critical area review 2 is to review critical area studies and mitigation plans in support of proposed buffer averaging and reduction of wetland and watercourse buffers.

    b. Review timing and sequence.

        A. When development and/or activity within a wetland, watercourse, fish and wildlife habitat conservation area or buffer associated with these critical area types is proposed, a critical area review 2 is required to be reviewed and approved prior to construction authorization.

        B. When development and/or activity is proposed on a site containing only geologically hazardous areas, an application has the option of either:

            i. Applying for a critical area review 2 in advance of construction permits, using the procedures required for a Type III land use review; or

            ii. Requesting consolidation of the review of geologically hazardous areas together with construction permit review.

        C. When development and/or activity is proposed on a site containing geologically hazardous areas and on or more of the critical area types listed in subsection (B)(2)(a) of this section or the associated buffer of one of those critical areas, a critical area review 2 reviewing all critical areas is required to be reviewed and approved prior to construction authorization, using the procedures required for a Type III land use review.

    Staff Analysis: The applicant submitted a Concurrent Review Request Form (**Exhibit 8**) requesting that the Critical Area Review 2 application be consolidated with the construction permit review

under Building Permit No. 2309-237; therefore, the review timing and sequence standards have been met.

3. MICC 19.07.100 lists requirements for mitigation sequencing. An applicant for a development proposal or activity shall implement the following sequential measures, listed below in order of preference, to avoid, minimize, and mitigate impacts to environmentally critical areas and associated buffers. Applicants shall document how each measure has been addressed before considering and incorporating the next measure in the sequence:

    a. Avoiding the impact altogether by not taking a certain action or parts of an action. The applicant shall consider reasonable, affirmative steps and make best efforts to avoid critical area impacts. However, avoidance shall not be construed to mean mandatory withdrawal or denial of the development proposal or activity if the proposal or activity is an allowed, permitted, or conditional use in this title. In determining the extent to which the proposal should be redesigned to avoid the impact, the code official may consider the purpose, effectiveness, engineering feasibility, commercial availability of technology, best management practices, safety and cost of the proposal and identified changes to the proposal. Development proposals should seek to avoid, minimize and mitigate overall impacts based on the functions and values of all of the relevant critical areas and based on the recommendations of a critical area study. If impacts cannot be avoided through redesign, use of a setback deviation pursuant to section 19.06.110(C), or because of site conditions or project requirements, the applicant shall then proceed with the sequence of steps in subsections B through E of this section;

    b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, using a setback deviation pursuant to section 19.06.110(C), using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;

    c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

    d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;

    e. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and/or

    f. Monitoring the impact and taking appropriate corrective measures to maintain the integrity of compensating measures.

    Staff Analysis: The Geotechnical Engineering Investigation and Critical Area Study (**Exhibit 4**) provides mitigation measures consistent with the sequence above. The following recommendations have been provided:

    > Vegetation removal and ground disturbance on the slope should be limited to only as necessary in work areas.
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    > Drainage controls and appropriate outlets be applied as possible to limit the potential for slope instability due to water inundation.
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    > Drainage pipes should be tightlined to a natural drain course or dispersed in an appropriate area below and away from slope faces.

    Merit Engineering, Inc. also provided a statement finding that the geotechnical aspects of the architectural plans provided by MJZ Design are generally consistent with the design

recommendations in the Geotechnical Engineering Investigation and Critical Area Study (**Exhibit 5**); therefore, this standard has been met.

4. MICC 19.07.110 lists requirements for a critical area study. A critical area study is required when a development proposal will result in an alteration to one or more critical area buffers or when required to determine the potential impact to a critical area. The critical area study may be waived or modified if the applicant demonstrates that the development proposal will not have an impact on the critical area or its buffer in a manner contrary to the purposes and requirements of this chapter.

   Staff Analysis: The Geotechnical Engineering Investigation and Critical Area Study (**Exhibit 4**) is consistent with the requirements for a critical area study; therefore, this standard is met.

5. MICC 19.07.160 lists standards for development on sites containing geologically hazardous areas.

   A. Geologically hazardous areas are lands that are susceptible to erosion, landslides, seismic events, or other factors as identified by WAC 365-190-120. These areas may not be suited for development activities because they may pose a threat to public health and safety. Areas susceptible to one or more of the following types of hazards shall be designated as geologically hazardous areas: landslide hazard areas, seismic hazard areas, and erosion hazard areas.

      Staff Analysis: Based on the Hazard Report, generated by the City of Mercer Island using the City's GIS Mapping (**Exhibit 9**), the subject property contains landslide, seismic, and erosion hazard areas. The Geotechnical Engineering Investigation and Critical Areas Study prepared by Merit Engineering, Inc (**Exhibit 4**) finds that the subject property does not contain landslide hazard areas as defined in MICC 19.16.010. The Investigation also finds that the site does not consist of erosion hazard areas as defined in the MICC, however erosion may exist during construction from disturbed soils, so recommendations to mitigate erosion hazards were included in the report.

   B. Alteration within geologically hazardous areas or associated buffers is required to meet the standards in this section, unless the scope of work is exempt pursuant to section 19.07.120, exemptions, or a critical area review 1 approval has been obtained pursuant to section 19.07.090(A).

      1. When an alteration within a landslide hazard area, seismic hazard area or buffer associated with those hazards is proposed, the applicant must submit a critical area study concluding that the proposal can effectively mitigate risks of the hazard. The study shall recommend appropriate design and development measures to mitigate such hazards. The code official may waive the requirement for a critical area study and the requirements of subsections (B)(2) and (B)(3) of this section when he or she determines that the proposed development is minor in nature and will not increase the risk of landslide, erosion, or harm from seismic activity, or that the development site does not meet the definition of a geologically hazardous area.

         Staff Analysis: The Geotechnical Engineering Investigation and Critical Areas Study (**Exhibit 4**) concludes that the proposal can effectively mitigate the risks of erosion and seismic hazard areas. The study includes recommendations for appropriate design and development measures. A post-design memorandum has been submitted confirming that the proposed improvements comply with the design recommendations (**Exhibit 5**); therefore, this standard is met.

2. Alteration of landslide hazard areas and seismic hazard areas and associated buffers may occur if the critical area study documents find that the proposed alteration:

    a. Will not adversely impact other critical areas;

    b. Will not adversely impact the subject property or adjacent properties;

    c. Will mitigate impacts to the geologically hazardous area consistent with best available science to the maximum extent reasonably possible such that the site is determined to be safe; and

    d. Includes the landscaping of all disturbed areas outside of building footprints and installation of hardscape prior to final inspection.

    Staff Analysis: The Geotechnical Engineering Investigation and Critical Areas Study (**Exhibit 4**) concludes that the site is suitable for the proposed single-family house if recommendations on the report are followed. The risk of damage as a result of soil instability will be minimal on the property being development, and on adjacent properties. The use of the word "minimal" in the above statement should not be taken to imply that there is no risk, but that the risk is low. The proposed alterations to the critical areas should not adversely impact the surrounding critical areas, or increase surface water discharge, sedimentation, or erosion rates if the recommendations in this report are followed. The applicant prepared a landscaping plan (**Exhibit 7**) that includes the landscaping of all disturbed areas outside of building footprints and installation of hardscape that will be required to be completed prior to final inspection of the associated building permit, as conditioned; therefore, this standard is met.

3. Alteration of landslide hazard areas, seismic hazard areas and associated buffers may occur if the conditions listed in subsection (B)(2) of this section are satisfied and the geotechnical professional provides a statement of risk matching one of the following:

    a. An evaluation of site-specific subsurface conditions demonstrates that the proposed development is not located in a landslide hazard area or seismic hazard area;

    b. The landslide hazard area or seismic hazard area will be modified or the development has been designed so that the risk to the site and adjacent property is eliminated or mitigated such that the site is determined to be safe;

    c. Construction practices are proposed for the alteration that would render the development as safe as if it were not located in a geologically hazardous area and do not adversely impact adjacent properties; or

    d. The development is so minor as not to pose a threat to the public health, safety and welfare.

    Staff Analysis: The Geotechnical Plan Review and Minimum Risk Letter (**Exhibit 5**) provides a statement of risk matching (c) above, as the foundation elements design and constructed per the recommendations in the Geotechnical Engineering Investigation and Critical Areas Study (**Exhibit 4**) should adequately mitigate potential geologic hazards from impacting the subject and surrounding properties.

C. Development is allowed within landslide hazard areas and associated buffers, when the following standards are met:

1. A critical area study shall be required for any alteration of a landslide hazard area or associated buffer;

2. Buffers shall be applied as follows. When more than one condition applies to a site, the largest buffer shall be applied:

    a. Buffer widths shall be equal to the height of a steep slope, but not more than 75 feet, and applied to the top and toe of slopes;

    b. Shallow landslide hazard areas shall have minimum 25-foot buffers applied in all directions; and

    c. Deep-seated landslide hazard areas shall have 75-foot buffers applied in all directions.

Staff Analysis: The Geotechnical Engineering Investigation and Critical Area Study (**Exhibit 4**) finds that the subject site does not contain landslide hazard areas, as defined in MICC 19.16.010; therefore, these standards do not apply.

D. When development is proposed within a seismic hazard area:

1. A critical area study shall be required and shall include an evaluation by a qualified professional for seismic engineering and design, a determination of the magnitude of seismic settling that could occur during a seismic event, and a demonstration that the risk associated with the proposed alteration is within acceptable limits or that appropriate construction methods are provided to mitigate the risk of seismic settlement such that there will be no significant impact to life, health, safety, and property.

2. Seismic hazard areas shall be identified by a qualified professional who references and interprets information in the U.S. Geological Survey Active Faults Database, performs on-site evaluations, or applies other techniques according to best available science.

3. When development is proposed on a site with an active fault, the follow provisions shall apply:

    a. A 50-foot minimum buffer shall be applied from latest Quaternary, Holocene, or historical fault rupture traces as identified by the United States Geological Survey or Washington Geological Survey map databases or by site investigations by licensed geologic professionals with specialized knowledge of fault trenching studies; or

    b. Mitigation sequencing shall be incorporated into the development proposal as recommended based on geotechnical analysis by a qualified professional to prevent increased risk of harm to life and/or property.

Staff Analysis: The Geotechnical Engineering Investigation and Critical Areas Study (**Exhibit 4**) provides an evaluation for seismic engineering and design, a determination of the magnitude of seismic settling that could occur, and a demonstration that the proposed project can be constructed as designed without negatively impacting the project site, adjacent body of water, or adjacent properties. The Geotechnical Plan Review and Minimum Risk Letter (**Exhibit 5**) confirms that the proposed improvements comply with the design recommendations; therefore, this standard is met.

E. When development is proposed within an erosion hazard area:

1. All development proposals shall demonstrate compliance with chapter 15.09, storm water management program.

2. No development or activity within an erosion hazard area may create a net increase in geological instability on or off site.

Staff Analysis: The associated building permit has been reviewed and approved by the City's Senior Development Engineer for consistency with chapter 15.09, storm water management program. The Geotechnical Engineering Investigation and Critical Area Study (**Exhibit 4**) shows that the site is determined to be safe and geological hazard mitigation is also conducted showing that the proposed development will not adversely impact the subject property or adjacent properties and other critical areas. Based on Merit Engineering, Inc.'s review of the plans, it is their opinion that the geotechnical aspects of the documents are generally consistent with the design recommendations in the Investigation (**Exhibit 5**); therefore, these standards are met.

CONDITIONS OF APPROVAL

1. The project proposal shall be in substantial conformance with **Exhibit 2** and all applicable development standards contained within Mercer Island City Code (MICC) Chapter 19.07.
2. The applicant is responsible for documenting any required changes in the project proposal due to conditions imposed by any applicable local, state and federal government agencies.
3. Construction or substantial progress toward construction of a development for which a permit has been granted must be undertaken within three years after the approval of the permit or the permit shall terminate. The code official shall determine if substantial progress has been made.
4. Landscaping of all disturbed areas outside of building footprints and installation of hardscape is required prior to final inspection of the associated building permit.
5. Should the proposed development be revised prior to issuance of the associated building permit, an updated post-design memorandum prepared by the qualified professional confirming that the proposed improvements comply with the design recommendations in the Geotechnical Engineering Investigation and Critical Area Study (**Exhibit 4**) may be required.

DEVELOPMENT REGULATION COMPLIANCE – DISCLOSURE

1. The applicant is responsible for obtaining any required permits or approvals from the appropriate Local, State, and Federal Agencies.
2. All required permits must be obtained prior to the commencement of construction.

DECISION

Based upon the above noted Findings of Fact and Conclusions of Law, Critical Area Review 2 application **CAO24-013,** as depicted in **Exhibit 2**, is hereby **APPROVED**. This decision is final, unless appealed in writing consistent with adopted appeal procedures, MICC 19.15.130(A), and all other applicable appeal regulations.

Approved this 10th day of March, 2025

Molly McGuire

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Molly McGuire, Senior Planner
Community Planning & Development, City of Mercer Island