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# CITY OF MERCER ISLAND

## COMMUNITY PLANNING & DEVELOPMENT

9611 SE 36TH STREET | MERCER ISLAND, WA 98040

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## STAFF REPORT

### CRITICAL AREA REVIEW 2

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<b>Project No.:</b>	CAO25-011
<b>Description:</b>	A request for a Critical Area Review 2 for the remodel and expansion of the existing single-family residence on a site containing geologically hazardous areas and a watercourse buffer.
<b>Applicant / Owner:</b>	Dan Buchser (MacPherson Construction & Design, LLC) / Roger & Nancy MacPherson (McPherson Sammamish Residential Trust)
<b>Site Address:</b>	5320 Butterworth Rd, Mercer Island, WA 98040; Identified by King County Assessor tax parcel number 866140-0040.
<b>Zoning District:</b>	Single Family Residential (R-15)
<b>Staff Contact:</b>	Grace Manahan, Code Compliance Planner
<b>Exhibits:</b>	<ol style="list-style-type: none"><li>1. Development Application received by the City of Mercer Island on May 29, 2025</li><li>2. Revised Development Plan Set, dated February 3, 2026 and received March 11, 2026</li><li>3. Project Narrative, received May 29, 2025</li><li>4. Hazard Report generated by the City of Mercer Island on January 13, 2026</li><li>5. Watercourse Map generated by the City of Mercer Island on January 13, 2026</li><li>6. Concurrent Review Form, received May 29, 2025</li><li>7. Letter of Complete Application issued by the City of Mercer Island on June 11, 2025</li><li>8. Disclosure and Notice on Title recorded with the King County Recorder's Office on August 7, 2025 under recording number 20250807001059</li><li>9. Critical Areas Study prepared by Altmann Oliver Associates, LLC, dated May 22, 2025 and received May 29, 2025</li><li>10. Revised Critical Areas Study prepared by Altmann Oliver Associates, LLC, dated June 2, 2025, and received August 20, 2025</li><li>11. Geotechnical Evaluation prepared by Cobalt Geosciences, LLC, updated August 5, 2025, and received August 20, 2025</li><li>12. Revised Plan Review &amp; Comment Responses prepared by Cobalt Geosciences, LLC dated September 2, 2025, and received October 23, 2025</li><li>13. Additional Comment Responses prepared by Cobalt Geosciences, LLC dated December 11, 2025, and received December 18, 2025</li></ol>

14. Updated Plan Review prepared by Cobalt Geosciences, LLC dated December 18, 2025, and received December 18, 2025
15. Updated Geotech Evaluation prepared by Cobalt Geosciences, LLC dated February 2, 2026, and received March 11, 2026
16. Updated Plan Review Letter prepared by Cobalt Geosciences LLC dated February 26, 2026, and received March 11, 2026
17. Notice of Application, dated June 23, 2025
18. City of Mercer Island Review Letters
  - 18.1. Review Letter 1, dated June 27, 2025
  - 18.2. Review Letter 2, dated August 27, 2025
  - 18.3. Review Letter 3, dated September 19, 2025
  - 18.4. Review Letter 4, dated November 13, 2025
  - 18.5. Review Letter 5, dated January 2, 2026
  - 18.6. Review Letter 6, dated January 22, 2026
19. Notice of Decision, dated March 23, 2026

## INTRODUCTION

### I. Project Description

The applicant has requested approval of a Critical Area Review 2 for the remodel and expansion of the existing single-family residence on a site containing geologically hazardous areas and a watercourse buffer.

The proposal consists of the following components:

1. A request for the remodel and expansion of the existing single-family residence on a site containing geologically hazardous areas and a watercourse buffer. Subject to the standards of Chapter 19.07 of the Mercer Island City Code (MICC).

### II. Site Description and Context

1. The proposed activity is to occur at 5320 Butterworth Rd, Mercer Island, WA 98040. The site is designated Single Family Residential (zoned R-15). Adjacent properties are within the R-15 zone and contain residential uses with Lake Washington to the east. The subject site contains potential slide and seismic geologically hazardous areas (**Exhibit 4**) as well as a watercourse buffer associated with an off-site Type F and Np watercourse (**Exhibit 5**).

## 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 May 29, 2025. The application was determined to be complete on June 11, 2025 (**Exhibit 7**).
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 (**Exhibit 19**).
3. The City of Mercer Island provided public notice of application (**Exhibit 17**) for this Critical Area Review 2 Permit, as set forth in MICC 19.15.090. The comment period for the public notice period lasted for 30 days, from June 23, 2025 to July 23, 2025. 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.

No public comments were received.

#### **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:** A critical areas Disclosure and Notice on Title has been recorded with the King County Recorder's on August 7, 2025, under Recorder's File No. 20250807001059 (**Exhibit 8**). The Notice informs the public of the presence of critical areas and proposed mitigation due to the proposed development; 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 development is proposed on a site containing geologically hazardous areas and the buffer of an offsite watercourse. The applicant applied for a critical area review 2 in advance of construction permits; therefore, the review timing and sequence requirements for this permit have been met.

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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 applicant provided an Updated Plan Review prepared by Colbalt Geosciences, LLC (**Exhibit 14**) which addresses mitigation sequencing for the proposed development and found that the proposed work will not adversely impact the critical areas present on the project

site or the stability of the surrounding properties. The study found there are no buffer or mitigation measures required to address the potential slide mapped and that the mapped seismic hazard can be mitigated by implementing the recommendations for deep foundations and pile design. In this letter it was confirmed the proposed plans were reviewed for conformance with the recommendations provided. The subject site is fully encumbered with critical areas (**Exhibit 4**) so avoiding impact all together is not an option. The impact is minimized, and the proposed development takes affirmative steps to avoid impacts.

The applicant also provided a Critical Area Study (**Exhibit 9**) and revised memo (**Exhibit 10**) prepared by Altmann Oliver Associates, LLC which addresses mitigation sequencing and states the proposed project scope has designed to avoid and minimize potential impacts to the critical areas and their associated buffers to the maximum extent possible. The proposed buffer enhancement and mitigation plan (**Exhibit 2, Sheet 11**) includes the removal of noxious weeds, the replanting of native groundcovers, and replacement trees which will enhance wildlife habitat and provide additional physical and visual screening to the watercourse which will result in equivalent or greater ecological function. Therefore, this standard is 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 applicant provided a Geotechnical Evaluation prepared by Cobalt Geosciences, LLC (**Exhibit 11**) and a Critical Area Study prepared by Altmann Oliver Associates, LLC (**Exhibit 9**) which meets the criteria for a critical area study; therefore, this requirement is met for the alteration to one or more critical areas.

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:** The subject site contains potential slide and seismic hazard areas (**Exhibit 4**)

- 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 Evaluation prepared by Cobalt Geosciences, LLC. (**Exhibit 11**) found that, provided the recommendations presented in the report and addendum are followed during project design and construction, the proposal would not result in adverse impacts to critical areas on the site or neighboring properties.

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 Evaluation prepared by Cobalt Geosciences, LLC (**Exhibit 11**) states that provided the recommendations in the report are followed, the planned development will not adversely impact the stability of the neighboring properties or result in a need for increased critical area buffers on those adjacent properties. The study found there are no buffer or mitigation measures required to address the mapped potential slide area and that the mapped seismic hazard can be mitigated with the utilization of deep foundations to support new foundation elements to minimize the risk of liquefaction and induced settlement. A landscaping plan for all areas disturbed outside of building footprints and installation of hardscape has also been provided (**Exhibit 2, Sheet 12**)

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 Plan Review & Comment Responses prepared by Cobalt Geosciences, LLC (**Exhibit 12**) includes the following statement of risk, matching statement (c) above:

*“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.”*

- 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 Evaluation prepared by Cobalt Geosciences, LLC (**Exhibit 11**) satisfies the requirements of a critical area study. The study finds that the proposed development is not close to any steep or tall slopes and the soil erosion potential can be mitigated through landscaping and surface runoff control. It was recommended that erosion of exposed soils may be mitigated using temporary erosion control measures such as silt fences, hay bales, mulching, control ditches and diversion trenches; therefore, these standards are met, as conditioned.

- 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 Evaluation prepared by Cobalt Geosciences, LLC (**Exhibit 11**) satisfies the requirements of a critical area study. The study finds that the mitigation

measures such as properly installed pin or auger-cast piles can be used to mitigate the liquefaction settlements below foundation elements; therefore, these standards are 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 critical area review for the alteration to geologically hazardous areas is occurring concurrently with review of the associated construction permit under Building Permit No. 2602-056. The construction permit has been reviewed and approved by Ruji Ding, Senior Development Engineer, for compliance with chapter 15.09, storm water management program. The Geotechnical Evaluation prepared by Cobalt Geosciences, LLC (**Exhibit 11**) finds that the risk of erosion at the site resulting from the proposed construction is very low, provided that the typical erosion control measures are in place during construction and all areas are landscaped following construction; therefore, these standards are met.

6. MICC 19.07.180 lists standards for development on sites containing watercourses.

C. Development standards – Buffers

1. Neither lot coverage nor hardscape shall be permitted within a wetland or wetland buffer except as specifically provided in this chapter.

**Staff Analysis:** The subject property has existing legally nonconforming hardscape and lot coverage within the watercourse buffer. Pursuant to MICC 19.01.050(A)(4), a structure, site or use may be maintained in legal nonconforming status as long as no new nonconformances are created, there is no expansion of any existing nonconformity, and legal nonconforming status is not lost under any other circumstances set forth in this section. The proposed development will not increase the hardscape or lot coverage within the watercourse buffer, create any new nonconformance, and legal nonconforming status has not been lost; therefore, this standard is 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. The erosion mitigation measures must be put into place consistent with the Geotechnical Evaluation prepared by Cobalt Geosciences, LLC (**Exhibit 11**).

#### 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 Permit application **CAO25-011**, 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 23rd day of March, 2026



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**Grace Manahan**  
**Code Compliance Planner**  
**Community Planning & Development**  
**City of Mercer Island**