



Development Permit Area 5 – Hazardous Lands Geotechnical Report Checklist

Planning Division

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Map 14 and Map 15 of the City's Official Community Plan (OCP) identify known hazardous lands and steep slopes where Development Permit Area 5 (DPA 5) guidelines apply. These areas include:

- **Earthquake Hazards** - Soils that may be susceptible to liquefaction in the event of an earthquake.
- **Flood and Debris Flow Hazard** - Areas at risk from flooding or debris flow during abnormal storm events.
- **Steep Slopes** - Land slippage due to soil erosion on steepland sediments and sloping sites, and in addition to mapped areas in the OCP sites where a substantial portion of which exceeds 20% (11°) slope.

Development applications within DPA 5 require a **Geotechnical Report**, which provides recommendations for minimizing risk when developing on hazardous lands.

Approval of any application that requires submission of a Geotechnical Report is also subject to execution of a covenant, to be done by the land owner. Through the covenant, the owner agrees to use the land only in accordance with the conditions of the approval and of the Geotechnical Report, and to save the City harmless from any damages as a result of the approval.

Basic information required for Geotechnical Reports

While each Geotechnical Report will vary slightly in content and format, each report must:

- Be prepared, certified and sealed by a professional engineer or professional geoscientist that is a member of the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC), and has experience or training in geotechnical study and geohazard assessments.
- Clearly state that the "subject land may be used safely for the use intended."
- Set out any conditions to enable safe use of the land for the intended purpose.
- Provide an assessment of the potential risks in relation to an accepted risk management framework.
- Make specific recommendations related to each type of hazard risk (earthquake, steep slope, flooding), as specified in the OCP's DPA 5 Guidelines (See Section D).

Specific information required for Geotechnical Reports

Incomplete Geotechnical Reports will not be accepted. The submitted Geotechnical Report must:

- set out any required conditions for the safe use of the land;
- provide an assessment of the potential risks;
- may make recommendations, as appropriate.

This checklist is intended to assist applicants. It is neither an authoritative nor complete statement of the law. Further reference to Port Moody's Official Community Plan and related documents is necessary to ensure compliance with its provisions. The City of Port Moody accepts no responsibility to persons relying solely on this checklist.



The following must be addressed in a Geotechnical Report on **earthquake hazards**

- The siting, structural design and maintenance of buildings, structure or earthworks and their foundations
- The manner and specifications for any excavation or placement of fill and supervision thereof
- Drainage during and after construction
- An assessment of how the development, its grading, and any recommended mitigating measures will affect the level of risk to other nearby properties
- A construction management plan and a two-year post-construction monitoring plan to determine any ground subsidence or lateral movement.
- Determination of any other relevant conditions regarding the safe use of the land, buildings, or structures.
- If the report is related to lands susceptible to earthquake liquefaction, it shall include the results of subsurface investigation.
- Review the Engineering Department Geotechnical Report Library as part of the preparation of a geotechnical report.

The following must be addressed in a Geotechnical Report on **flood and debris flow hazards**

- An identification and analysis of the specific risks on the subject site, in accordance with the Professional Practice Guidelines – Legislated Flood Assessments in a Changing Climate in BC (Engineers and Geoscientists BC), including a sealed Flood Assurance Statement - Appendix I.
- Any mitigating measures required to use the site safely for the intended use, including setting minimum elevation for habitable floor space.
- An assessment of how the development, its grading, and any recommended mitigating measures will affect the level of risk to other nearby properties.
- Review the Engineering Department Geotechnical Report Library as part of the preparation of a geotechnical report.

The following must be addressed in a Geotechnical Report on **steep slopes**

- The results of slope stability analyses, completed in accordance with Guidelines for Legislated Landslide Assessments for Proposed Residential Developments in BC (APEGBC), including a Sealed Landslide Assessment Assurance Statement - Appendix D.
- A clear presentation of hazards, consequences and risks associated with the proposed development
- Setbacks from the toe and crest of steeper slopes, for buildings, structures and fills.
- Prescriptions for the manner of excavation and placement of fill, and supervision thereof.
- The design, siting and maintenance of buildings, structures or works, including drainage and soil retaining works.
- The maintenance or planting of vegetation (slope stability shall be addressed such that there is no net decrease in slope stability resulting from the proposed development.
- An assessment of how the development, its grading, and any recommended mitigating measures will affect the level of risk to other nearby properties within the context of the City's accepted risk management framework.
- A construction management plan and a two year post construction monitoring plan to determine any ground subsidence or lateral movement.
- Review the Engineering Department Geotechnical Report Library as part of the preparation of a geotechnical report