

## What is a Geotechnical Report?

A geotechnical report (the "Report") is required to confirm that the land may be used safely for the use intended without an undue risk of hazards. The Report shall be prepared at the cost of the applicant by a member in good standing with the Association of Professional Engineers and Geoscientists registered in British Columbia with experience in geotechnical engineering (the "Professional").

The Professional shall inspect the property, supervise the geotechnical site investigations and the Report shall clearly state all relevant restrictions, conditions and/or limitations to the proposed development of the land. The geotechnical site investigations and the Report shall be completed in accordance with good professional practice.

### The Report shall address the following minimum criteria:


1. Identify any hazards which may affect the safe development of the land including, but not limited to:
  - Flooding
  - ground water flows
  - mud flows
  - erosion
  - subsidence
  - land slip
  - earthquake
  - avalanche
2. Provide recommendations to reduce the risk of damage to the land, buildings and the Works and Services in regards to:
  - identification of any part of the Works and Services which require inspection by specialized personnel and outline a recommended inspection program during the development of the land;
  - further geotechnical investigations and reports;
  - restricting the use of the land, buildings or the Works and Services;
  - remediation of any unstable or potentially unstable soils; and
  - further reports during the maintenance period.
3. Evaluate the development plans for the property using relevant District bylaws; the Environmentally Sensitive (ESA) designations in the Official Community Plan; Natural Hazard Area (NHA) designations contained within the Official Community Plan; and Development Permit Guidelines contained within the Zoning Bylaw to determine the suitability of the land to accommodate the use intended.

## A Guide to Preparation of Geotechnical Reports

---

4. Establish safe setback line from any watercourses, steep slopes or hazard areas to protect the land, buildings and inhabitants from the risk of injury or damage that may, in the opinion of the Professional, be caused by the hazards of flooding, erosion, land slip, rock fall, subsidence, earthquake, mud flows or any combination thereof. The recommended setback cannot diminish the minimum setbacks requirements established by the Municipal Bylaws.
5. Quantify the risks of geotechnical failure or any substantial hazard.
6. Certify "the land is safe for the use intended."
7. The Professional's recommendations and conclusions of the Report must:
  - acknowledge that the District, its Approving Officer and Building Inspectors may rely upon the Report when making a decision on applications for the subdivision or development of the land;
  - certify the land is safe for the use intended with the probability of a geotechnical failure resulting in property damage of less than 10 percent (10%) in 50 years; with the exception of geohazards due to a seismic event which are to be based on a 2 percent (2%) probability of exceedance in 50 years;
  - identify any deficiency in the design of the buildings, the proposed water, sewer, drainage, access and road works (the "Works and Services") or the construction standards intended for the development;
  - prescribe the geotechnical works and any changes in the standards of the design of the development which are required to:
    - ensure the land, buildings and the Works and Services are developed safely for the use intended;
    - maintain the safety of the land, buildings and any Works and Services as a condition of the approval of the development.

The Report and two duplicate copies shall be provided to the District for consideration of the approval of the application. If the Report identifies any hazards or site conditions which, in the opinion of the Professional or the District, may impact the safe development of the land or an adjacent property unless restrictions on development are established, the Report together with a Section 219 covenant may be required to be registered on the title of the property pursuant to the *Land Title Act*.



## A Guide to Preparation of Geotechnical Reports

---

Registration of a covenant and/or the approval of an application do not warrant or represent that the land may be developed and used safely without risk of damage from hazardous conditions. Notwithstanding the registration of a covenant, a further Report could be required by the District if there is a change in the conditions or some other circumstances arise which are substantially different than those anticipated by the Report.

### Contact Us:

**By Email:** [planning@northcowichan.ca](mailto:planning@northcowichan.ca)

**By Phone:** 250-746-3119

**By Fax:** 250-746-3154

**By Mail:** 7030 Trans-Canada Highway, PO Box 278, Duncan BC, V9L 3X4

**In Person:** Development Services Department – 7030 Trans-Canada Highway, Duncan, BC