

Excavation Bulletin

Building Department: 604-990-2480, building@dnv.org

Effective immediately, construction work that includes excavation close to adjacent properties and District infrastructure must include a site specific shoring design and specifications by a professional geotechnical engineer. The general contractor of record is responsible to ensure that the shoring design and specifications are adhered to. All geotechnical letters for temporary excavation must include items 7.1, 7.2 **NO EXCEPTIONS** and 7.3 if applicable.

Excavation causing damage to adjacent (existing) structures and creating a risk to workers is an unacceptable practice. All or most of these cases are for single family new construction or large additions. At the time of building permit submission, the detailed survey will be reviewed for adjacent existing structures and large trees that need to be protected from damage due to excavation work. The building design will also be reviewed for features such as side yard window wells and basement stairs to be constructed over property setbacks. All of these must be coordinated with the shoring design.

Construction work with excavation

Permit submissions for construction with excavation work must include:

- Letters of assurance for Geotechnical - Temporary including items 7.1, 7.2 **NO EXCEPTIONS** and 7.3 if applicable.
- Ink sealed shoring designs for all excavations with a vertical cut of more than 4' or benched at more than forty-five degree with a vertical height more than 4'.
- A detailed survey that identifies existing structures and large trees within 5' of the property line to be protected.
- Geotech – Permanent items applicable to the project

A shoring design must include detailed drawings and associated construction details, limitations with respect to use of site such as heavy machinery close to the edge of the excavation, the period for which the design applies and changes required for changing weather conditions. The shoring design is a part of the issued permit plans and adherence to the shoring design is a condition of permit issuance.

Construction work with excavation that does not require shoring or Geotechnical - Temporary

Some construction such as slab-on-grade or crawl space only construction may not require letters of assurance for Geotechnical – Temporary and a shoring design. **Note:** Geotech –Permanent items applicable to the project are still required.

For those cases, the submission requirement is still a detailed survey plus sufficient diagrams to demonstrate that the work is safe and existing structures will not be impacted. These diagrams might

include cross sections to show that all excavation work will have vertical cuts less than 4' deep and all other cuts will be benched no steeper than forty-five degrees.

Requests for exemptions must take into account the space required for work at the foot of the excavation, sufficient space to stockpile soil at an angle of 45 degrees and sufficient space to walk around the perimeter of the site.

Special features such as large protected trees and window and stair wells must be considered. Any exceptions must be addressed with a shoring design and Geotechnical - Temporary letters of assurance. The onus is on the applicant to demonstrate that Geotechnical – Temporary and a shoring design are not required.

At permit issuance

At the time of permit issuance the name of the general contractor for the project must be declared and the general contractor must have a valid business license. The general contractor is responsible to ensure that shoring design requirements are met. Failure to meet the shoring design (even by the excavation subcontractor) will result in a stop-work-order and enforcement by WorkSafeBC.

Excavation work on site

On site supervision by the registered professional of the excavation work and shoring construction is required. Groundwater management is also required during and after construction to avoid impact on adjacent properties. A professional field review memo for site safety must also be on site at all times. Failure to meet these requirements may result in a stop-work-order. Copies of any geotechnical field reviews for all applicable items must be submitted to the Building Inspector on request.

