

# Geotechnical Investigation Requirements Policy

**2022 CRC Section R401.4.1.1.1** - The preliminary soil report may be waived if the building department of the city, county or city and county, or other enforcement agency charged with the administration and enforcement of the provisions of this part, shall determine that, due to the knowledge such department has as to the soil qualities of the soil of the subdivision or lot, no preliminary analysis is necessary.

**2022 CBC Section 1803.2: Investigations required** – Geotechnical investigations shall be conducted in accordance with Sections 1803.3 through 1803.5.

**Exception:** The building official shall be permitted to waive the requirement for geotechnical investigation where satisfactory data from adjacent areas is available that demonstrate an investigation is not necessary for any conditions in Sections 1803.5.1 through 1803.5.6 and Sections 1803.5.10 and 1803.5.11.

**Section 1803.5.11: Seismic Design** – For structure assigned to Seismic Design Category C, D, E or F, a geotechnical investigation shall be conducted. This section identifies several parameters that must be assessed within the investigation, including the peak ground acceleration. An exception permits the peak ground acceleration to be determined based on a conservative assumption as opposed to a site-specific study. The remaining parameters must still be assessed with a geotechnical investigation.

## Policy:

**The following structures will require a geotechnical investigation to be submitted with the building permit application with recommendations for grading and foundation design unless of the conditions noted apply. The geotechnical investigation shall conform to the requirements of Chapter 18 of the California Building Code in effect at the time of submittal.**

New commercial/industrial structures, multi-family structures, single family homes, duplexes, second homes, detached guest houses, and other buildings not identified below.

A geotechnical investigation is required unless:

- An existing geotechnical investigation is available for the site or
- The geotechnical investigation exists for the site is less than two years old or, if more than two years old, includes a soils report update letter from a qualified licensed professional.

Additions to Single Family Homes including conditioned or unconditioned space or attached garages

A soils investigation is not required unless **any** of the following conditions apply:

- The addition is more than 500 sq. ft. total foundation footprint, including supports for porches, patios, carports or other open structures.
- The project is in an area that is subject to Hillside Ordinance.
- The project is in an area of suspected placement of fill, slides, slumps or soil creep
- The project footprint is in a setback area of stream or creek.
- The area of the project is known for high water table or soil erosion
- The foundation design does not match the existing structure foundation
- The existing structure does not have an adequate foundation or the existing foundation shows signs of failure.
- The foundation is designed with assumed low expansive soil condition
- The foundation is designed with an assumed soil bearing capacity that exceeds 1,500 lbs per sq. ft.
- The addition exceeds 2 stories.
- The addition is within 50 ft of a known fault or branch fault line

Detached garages and accessory residential structures (unconditioned space)

A geotechnical investigation is not required unless **any** of the following conditions apply:

- The detached structure is more than 500 sq. ft. total foundation footprint.

- The project is in an area that is subject to Hillside Ordinance.
- The project is in an area of suspected placement of fill, slides, slumps or soil creep.
- The project footprint is in a setback area of stream or creek.
- The area of the project is known for high water table or soil erosion.
- The foundation is designed with assumed low expansive soil condition.
- The foundation is designed with an assumed soil bearing capacity that exceeds 1,500 lbs. per sq. ft.
- The structure exceeds 2 stories.
- The structure is within 50 ft of a known fault or branch fault line

Remodels (residential) or tenant improvements with no increase in square footage or no foundation repair or upgrade is proposed

No geotechnical investigation is required.

Foundation replacement or repair

A geotechnical investigation is not required unless any of the following conditions apply:

- The replacement or foundation repair is designed with an assumed low expansive soil condition.
- The foundation is designed with an assumed soil bearing capacity that exceeds 1,500 lbs. per sq. ft.

Swimming Pools

A geotechnical investigation is not required unless **any** of the following conditions apply:

- The pool is in area that is subject to Hillside Ordinance.
- The pool is in any of the following suspected sites: landslide area, over fault line, or over fill.
- The pool is not designed with assumed high expansive soils.
- The product listing of the proposed pool requires a soils investigation.

Retaining Walls:

A geotechnical investigation is not required unless **any** of the following conditions apply:

- The retaining wall has a surcharge load from above or supports a structure.
- The retaining wall exceeds 60" in total height from bottom of footing to top of fill.

General notes:

The requirements noted above are general policy guidelines. The building official may require or waive a geotechnical investigation for any project on a case by case review.

A City of Novato Building Inspector may require a geotechnical investigation upon inspection of footing excavation or a report by a licensed design professional to verify integrity of soils supporting the proposed structure.

An available geotechnical investigation from an adjacent area may be considered if the report demonstrates an investigation is not necessary for any of the conditions noted in Sections **1803.3** through **1803.5**. Written authorization from the licensed professional who prepared the geotechnical report is required to be submitted with any geotechnical investigation on adjacent property.

Although a project may qualify as a project not required providing a geotechnical investigation and report, it may be beneficial to have a geotechnical investigation and report. Information provided in the report may allow a design professional to design a less expensive and/or more appropriate foundation for the project.

If the design professional involved bases the foundation design on information provided in a geotechnical report, the geotechnical report is required to be submitted with the building permit application even if the project would otherwise not be required to provide a geotechnical report per this policy.

Mark Setterland, Chief Building Official