



Memorandum

To: Planning Commission
From: Niall Connolly, Principal Planner
Date: June 27th, 2025
Re: Excavations and Slope Stability

Introduction

At a recent work meeting, the Planning Commission reviewed some draft ordinance language intended to address the potential risks arising from deep excavations next to property lines. The Planning Commission were generally in support of this language, but wished to see this language expanded to cover some additional scenarios:

- A development which may not automatically trigger the requirement for a geotechnical report, but where an excavation is involved.
- An excavation which may not be near a property line, but is adjacent to 30% slopes. In this instance, there may not be any risk to neighboring property, but the slopes may be at risk of collapse. The Code requires that slopes of 30% grade or steeper must not be disturbed during construction, with only a few exceptions.

Staff has made some additions to the draft ordinance language with the aim of achieving this. This is appended to the staff report.

How to deal with situations where a geotechnical report may not be automatically required

The existing ordinance allows staff to require a geotechnical report where they consider it is warranted (see 10-15F-5 A.5). Staff is of the opinion that this addresses the concern that has been raised.

Protecting slopes with a grade of 30% or greater

The draft ordinance language adds a requirement for slope stability analysis where an excavation may pose a risk to steep slopes.

Planning Commission Action

The Planning Commission should review and discuss the draft language. Subject to the Commission's recommendations, staff will prepare this ordinance revision for a public hearing at an upcoming meeting.

10-15F-5: GEOTECHNICAL REPORT REQUIRED:

- A. A geotechnical report is required for the approval of any of the following:
1. Subdivision approval process;
 2. Design/development review process for any new building over 500 square feet in area; and
 3. Any addition to an existing building when the combined area of the existing building and new addition exceed 1,000 square feet in area;
 4. Any structure intended for human occupancy; and
 5. In any other instance where the DCD determines the site or soil conditions warrant a geotechnical report.
- B. The purposes of the geotechnical report are to 1) identify any problematic soils (including subsurface soils) that may be encountered during development and which may pose a threat to the structural integrity of the proposed development; 2) provide specific engineering recommendations to mitigate the threats posed by any problematic soils identified; and 3) conduct an initial analysis of geologic hazards for properties located in a Geologic Hazard Study Area.
- C. The geotechnical report must contain the following information:
1. Boundary lines and dimensions of the subject property.
 2. Existing site conditions: general topography, drainage, vegetation, and other surface conditions.
 3. Location, size, and type of any existing structures, previous surface disturbance or grading, or other improvements.
 4. Location, size, and type of all proposed development.
 5. Subsurface exploration and conditions: description of subsurface exploration methods, results of exploration, and general subsurface conditions.
 6. Laboratory analysis of subsurface exploration and soil sampling.
 7. Geotechnical recommendations for proposed development: site grading and subgrade preparation, foundation and slab design, seismicity and liquefaction, drainage control, and other associated recommendations.
 8. If the proposed development is located in a Geologic Hazard Study Area, or in any other area the DCD determines is at elevated risk from geologic hazards, an initial analysis of the geologic hazards associated with development of the site. Such initial analysis shall include the geotechnical engineer's professional opinion about whether or not additional study and analysis of site-specific geologic hazards is necessary for the safe development of the property.
 9. If the horizontal distance from the edge of an excavation to any property line or any natural slope with a grade of 30% or greater that is not defined as microtopography, is less than twice the depth of the excavation, then the geotechnical report must also include an assessment of slope stability. If the assessment determines that there are potential slope stability impacts to neighboring property or a risk of slope failure or collapse during construction or post construction, the report must include recommendations to mitigate these impacts. Any such recommendations must be implemented in the development. For the purposes of this regulation, the depth of the excavation includes all over-excavation recommended in the geotechnical report.
- D. Geologic Hazard Investigation Report required: For properties in a Geologic Hazard Study Area, if the initial analysis of geologic hazards in a geotechnical report required under paragraph A identifies significant site-

specific risk of geologic hazard on a property, then a geologic hazard investigation and report that meets the standards of this chapter is required.

(Ord. No. 2021-05, 5-12-2021)