



## INFORMATION SHEET

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**NO. S-05**

**DATE** : May 7, 2019  
**CATEGORY** : Structural  
**SUBJECT** : **Geotechnical Report Requirements**

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**PURPOSE** : The purpose of this Information Sheet is to establish the permit work scope which will require the submittal of a geotechnical report.

**REFERENCE** : San Francisco Building Code (SFBC)  
State of California Department of Conservation Division of Mines and Geology (CDMG) Seismic Hazard Zones Map for San Francisco, released November 17, 2000.  
Information Sheet S-18: Interim Guidelines and Procedures for Structural, Geotechnical, and Seismic Hazard Engineering Design Review for New Tall Buildings  
Information Sheet S-19: Projects subject to the Slope and Seismic Hazard Zone Protection Act

**DISCUSSION** :

**(A) Permit requiring geotechnical report**

The following permit application submittal will require a geotechnical report:

1. New Building (with the exception of one-story storage or utility occupancy, including storage shed and garage)
2. Horizontal Additions if the footprint area increases more than 50% of the existing square footage
3. Horizontal and Vertical Additions increase more than 500 square feet of new projected roof area within the earthquake induced landslide area on the state of California Department of Conservation Division of Mines and Geology (CDMG) Seismic Hazard Zones Map for San Francisco, released November 17, 2000, or property exceeding an average slope of 4 horizontal to 1 vertical grade, per SFBC Section 106A.4.1.4.3 and per SFBC Section 106A.4.1.4.4.

[See SECTION (D) page 3]

4. Any of the following grading (per SFBC Section J104.3):
  - a) Cut section is greater than 10 feet in vertical height.
  - b) Cut slope is steeper than 2 horizontal to 1 vertical.

- c) The tops of cut banks are separated from any structure or major improvement by a distance, measured horizontally, less than the height of the bank.
  - d) Grading, excavation or fill of over 5000 cubic yards of earth material.
  - e) Grading performed at a site located within the earthquake induced landslide area on the state of California Department of Conservation Division of Mines and Geology (CDMG) Seismic Hazard Zones Map for San Francisco, released November 17, 2000.
5. Slope of fill is steeper than two units horizontal to one unit vertical (50 percent slope) specified per SFBC Section J107.6, or deviate from the stipulated provisions in SFBC Section J107 Fills.
  6. Any footings on/or adjacent to slopes steeper than one unit vertical in three units horizontal without clearances as indicated per SFBC Section 1808.7 and Figure 1808.7.1.
  7. The design soil lateral loads are less than the minimum design requirements specified in SFBC Section 1610 Soil Lateral Loads.
  8. The design load bearing value used exceeds values stipulated for Class 4 or 5 soil materials in SFBC Table 1806.2 Presumptive Load-Bearing Values.
  9. Special foundation including but not limited to piles, piers, base isolation and any design not covered by code, excluding piers supporting a fence, sign or isolated post.
  10. As required per Building Code:
    - a) Expansive soil per SFBC Section 1803.5.3.
    - b) Drainage system as an alternative to the requirements per SFBC Section J109 Drainage and Terracing.
    - c) Water Table per SFBC Section 1803.5.4 to determine whether the existing ground-water table is above or within 5 feet below the elevation of the lowest floor level where such floor is located below the finished ground level adjacent to the foundation, unless waterproofing is provided in accordance with SFBC Section 1805.
    - d) Ground improvement, including soil mix grouting and chemical soil grouting.
    - e) Where shallow foundations will bear on controlled low-strength material (CLSM), a geotechnical investigation shall be conducted per SFBC Section 1803.5.9 Controlled low-strength material.
    - f) Where geological investigation is deemed necessary per SFBC Section 1803 Geotechnical Investigations.
  11. Permit scope subject to mandatory structural advisory review under SFBC Section 106A.4.1.2 Edgehill Slope Protection Area, Section 106A.4.1.3 Northwest Mt. Sutro Slope Protection Area.
  12. All structures utilizing Modal Response Spectrum Analysis in accordance with ASCE 7-10 Section 12.9 Modal Response Spectrum Analysis.

**(B) Submittal requirements for geotechnical report (if required)**

**GEOTECHNICAL:**

1. Provide original letter wet signed by geotechnical consultant, who is a licensed civil or geotechnical engineer, stating that they have reviewed and approved final structural plans.  
{Note: In addition to the licensed geotechnical or civil engineer, a licensed geologist is also required for properties subject to the Slope Protection Act [See SECTION (D) BELOW]}.
2. Provide two (2) sets of original geotechnical reports and one (1) CD-ROM:  
SOILS REPORTS: Effective November 1, 2011, DBI will no longer accept soils reports solely in

"hard" copy format. Two (2) "hard" copies and one (1) copy on a CD-ROM in Adobe 'PDF' format are required. After DBI review, one "hard" copy will be returned to the applicant with a 'Received' stamp. DBI will retain its copy, and the CD-ROM will be sent to the State Department of Conservation, as required by state law.

3. Geotechnical report shall be in accordance with SFBC Section 1803.2 through Section 1803.6 and Section J104.3.
4. Civil engineers experienced in geotechnical engineering are authorized to practice geotechnical engineering. This includes preparing or reviewing soils reports.

**(C) Projects for new tall buildings**

See Information Sheet No. S-18.

**(D) Projects subject to the Slope and Seismic Hazard Protection Act (SFBC Section 106A.4.1.4)**

See Information Sheet No. S-19.

*Tom C. Hui*

*5/7/19*

Tom C. Hui, S.E., C.B.O.

Director

Department of Building Inspection

*on*

Date

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