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## SOILS REPORT EXEMPTIONS

PCC-06

### A. REFERENCES

2022 California Building Code (CBC), Section 1803 for Geotechnical Investigations

### B. SOILS REPORT REQUIRED

Soils reports prepared by a California registered geotechnical engineer shall be provided in accordance with code requirements in Chapter 18 of the current CBC. Two copies of the soils report that are stamped and signed by the geotechnical engineer shall be provided at the time of plan submittal.

Exemptions: A soils report will not be required for the following:

1. Accessory structures to an existing single family dwelling such as patio covers and carports
2. Light standards where the height is 25 feet or less
3. Fences and blockwalls where the height is 10 feet or less
4. Retaining walls retaining 6 feet or less of level grade, not supporting surcharge
5. The following types of buildings complying with the "*Minimum Foundation Construction Requirements*" in Section C below are met:
  - a. Detached one-story garage serving a single family dwelling
  - b. One-story and two-story attached additions to an existing single family dwelling
  - c. New detached one-story accessory dwelling units (ADU) with a maximum building area of 750 sq. ft.

The building official reserves the right to require a soils report for any project where questionable soil or slope instability conditions at the site warrant a foundation and soils investigation.

### C. MINIMUM FOUNDATION CONSTRUCTION REQUIREMENTS UNDER EXEMPTION #5 ABOVE

1. Depth of foundations below the natural grade shall not be less than 18 inches.
2. Continuous foundations shall be reinforced with at least four continuous #4 reinforcing bars, two #4 bars at the top and two #4 bars at the bottom.
3. Slab construction shall be minimum 4" thick, reinforced with #4 bars at 18" on center each way.
4. Doweling of the new foundations and slabs into the existing foundations and slabs shall be required. Dowels shall be a minimum of 6" into the existing concrete and shall extend a minimum of 24" into the new concrete. Dowels shall be minimum #3 bars at 18" on center or #4 bars at 24" on center.

### D. [NEW] ALTERNATE SOILS REPORT POLICY

ICC Orange Empire Chapter document "*Foundation Requirements for Residential Projects and Accessory Structures (Approved September 22, 2021)*" which is attached, may be used as alternate soils report policy when the document is complied with in its entirety. Code references in this document shall be construed to apply to the corresponding provisions in the current code.



# Foundation Requirements for Residential Projects and Accessory Structures

(Approved September 22, 2021)

## BACKGROUND:

1. Section R401.4 of 2019 California Residential Code (CRC) requires a soils test to determine the soil's characteristics if expansive soils are likely to be present.
2. Section 1803.5.11 of 2019 California Building Code (CBC) requires a "geotechnical investigation" for any structure determined to be in Seismic Design Category C, D, E, or F in accordance with Section 1613.
3. Exception to Section 1803.2 states, "The building official shall be permitted to waive the requirement for a geotechnical investigation where satisfactory data from adjacent areas is available that demonstrates an investigation is not necessary for any of the conditions in Sections 1803.5.1 through 1803.5.6, and Sections 1803.5.10 and 1803.5.11."

## POLICY:

Since the majority of jurisdictions in Orange County is located in Seismic Design Category D and due to the presence of expansive soil in some areas, this policy is developed to comply with the 2019 CRC and CBC.

Geotechnical investigation report is required for all projects except as prescribed below.

### Exception:

1. One story room addition(s) to a single-family dwelling/accessory dwelling unit (SFD/ADU) up to 1,200 sf of individual areas located in non-liquefaction area.
2. One story detached SFD/ADU, or accessory structure up to 1,200 sf located in non-liquefaction area.
3. One story room addition(s) to a SFD/ADU up to 500 sf of individual areas located in liquefaction area.
4. (a) Room addition(s) to a SFD/ADU larger than 500 sf of individual areas but not more than 1,200 sf located in liquefaction area shall require 4' of overexcavation.  
(b) Detached accessory structure or SFD/ADU larger than 500 sf but not more than 1,200 sf located in liquefaction area shall require 4' overexcavation.
5. One story detached accessory structure up to 500 sf located in liquefaction area.
6. Second story addition above existing first floor within the footprint of existing dwelling.  
For item 6, a letter from a California Licensed Geotechnical Engineer or Civil Engineer practicing soil engineering is required, stating the condition of existing foundation and supporting subgrade soils and providing foundation recommendations due to the added vertical and lateral loads from the proposed second story addition.



## Foundation Requirements for Residential Projects and Accessory Structures

Exempted projects as described above in item 1 through 5 shall follow the alternate method as outlined below in lieu of geotechnical investigation report provided minimum foundation clearance from slope is maintained based on Section 1808.7, R403.1.7, or local Grading Code, whichever is more restrictive:

### A. For slab on grade construction:

- Scarify top 12" or recompact 4' overexcavation prior to trenching for the utility and/or foundation. 90% compaction report is required at the time of foundation inspection. Damp proofing, base course and pre-saturation are required.
- Provide 5" slab on grade reinforced with #4 at 18" on centers each way over 4" base of ½" or larger clean aggregate with 10 mil vapor retarder in direct contact with concrete. Slab shall be tied-in to continuous 12" wide X 24" (minimum embedment into firm soil) foundation.
- Continuous foundation must be reinforced with 2 #5 (or 3 #4) top and bottom.

See slab on grade foundation **detail 'A'** below for additional information.

### B. For raised foundation construction:

- Provide continuous foundation with 12" wide X 24" (minimum embedment into firm soil) around the perimeter of the addition.
- Continuous foundation must be reinforced with 2 #5 (or 3 #4) top and bottom.
- Provide 18" (minimum embedment) for all interior pier footing.

See raised floor foundation **detail 'B'** below for additional information.

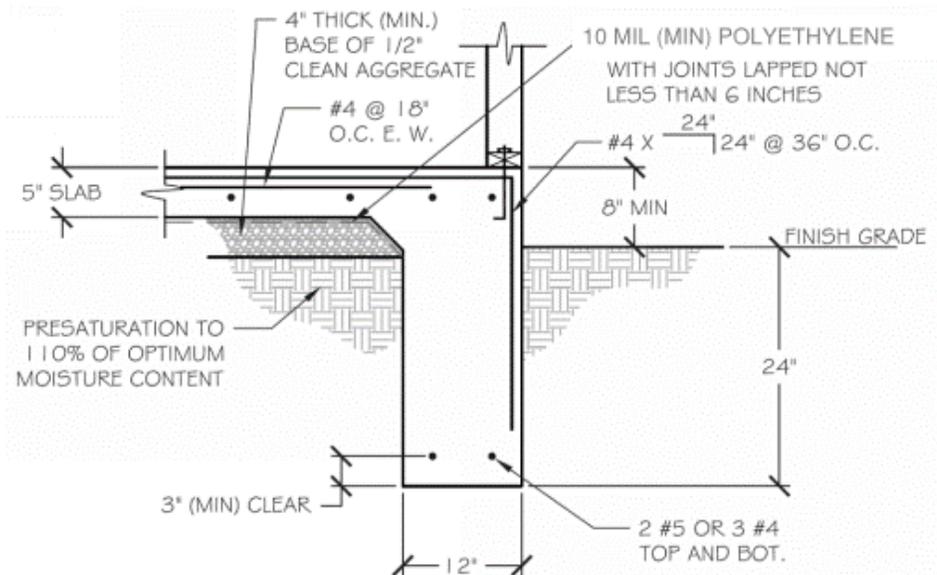
Note: All concrete shall be  $f_c' = 4,500$  psi (minimum) with type V cement maximum water cement ratio of 0.45. No special inspection required if concrete truck mix ticket is provided.

**This policy does not apply to projects that require grading plans and permit per local Grading Code.**



## Foundation Requirements for Residential Projects and Accessory Structures

### SLAB ON GRADE FOUNDATION DETAIL A



### RAISED FLOOR FOUNDATION DETAIL B

