



City of La Puente

Division of Building and Safety

WHEN A SOILS REPORT IS REQUIRED

INTRODUCTION

The topography, development history, and soils/geologic conditions within La Puente present some unique and challenging development conditions by which a soils and/or geology report may be required to address and mitigate the identified conditions. These conditions, along with the new requirements of the 2007 California Building Code necessitate the need for certain minimum foundation standards.

A review of past developments, both in the City of La Puente and the surrounding hillside communities has led the city to establish the following policies in regards to when a soils and/or a geology report is required and for certain construction requirements.

SOILS REPORT REQUIRED

A soils and/or geology report is required when any of the following conditions exist:

1. Any new construction (not an addition or alteration of an existing building)
2. Additions to a single family dwelling with one/all of the following conditions:
 - a) Additions with a floor area increase greater than 750 sq. ft.
 - b) An addition of a second floor level
 - c) Addition with a total floor area increase of 50% or greater
3. Any new construction solely based on the 2007 CBC chapter 23
 - a) Conventional light-frame construction
 - b) A design based on a specified compressive strength $f_c > 1500$ pounds per square inch
4. Retaining walls greater than 3 ft. high, walls that contain a design other than the city standard, and/or are supporting any surcharge (see retaining wall handout for further clarification).
5. Any construction (new, additions, and alterations) in the following areas:
 - a) Hillside or Bluff top properties
 - b) Within 50' Feet of Ascending and/or descending slope
6. Any construction or repair where any type of soils or structure failure has occurred.
7. When required by the Building Official. CBC 1802.1
8. Existing slope conditions within the building footprint or the graded area exceed 5:1. (Soils and Geology report is required)
9. When a grading plan is required. (Soils and Geology report is required. A non-conventional foundation system is used such as piles, caissons, deepened footings, pre-stressed/post-tensioned slab, etc.)
10. Slope-setback conditions exceed the La Puente grading ordinance.

11. New Swimming Pools:

- a. Ungraded Lots — Swimming pools built on ungraded lots.
 - b. Special construction— swimming pools built in a flood plain area or on a bluff top. Exception:
- i) Existing Flat Lots — Pools proposed on existing, flat, non-hillside lots may not require a soils report if the terrain/topography is indicated on the plan and can be verified and the engineer provides a letter indicating that the pool construction is compatible with the site. A site pre-permit inspection and/or specific approval by the Building Official may be required.
- ii) Graded Lots — Graded lots that are part of a subdivision should provide the tract soils and/or geology reports. These reports should specifically address the requirements for pool construction. If no reference is made, then a soils report is required addressing pool construction. The Engineering Department may or may not have record copies of previously developed sites. The applicant can check with the Engineering Department for their availability or provide a copy of the original from the developer or obtain a current (new) report.

STANDARD CONSTRUCTION REQUIREMENTS

For residential additions and renovations where any of the above conditions do not apply, in lieu of a soils report, the following minimum construction requirements will be acceptable:

1. Depth of foundations below the natural and finish grades shall not be less than 24 inches for foundations.
2. Exterior walls and interior bearing walls shall be supported on continuous foundations. (Interior bearing walls on raised floor systems require a continuous footing).
3. Foundation construction shall be reinforced with at least four continuous #5 reinforcing bars. Two bars shall be placed within 4 inches of the bottom and two bars within 4 inches of the top of the foundation
4. Slab construction shall be a minimum 4" thick, reinforced with #3 bars @ 18" on center each way, a minimum 6 ml. moisture barrier, and at least 4" of sand. Alternatively, you may submit a soils investigation as described above.
5. Isolated footings shall be tied with a grade beam.
6. Specify Type V cement with a water/cement ratio of 0.45 and an $f_c = 4,500$ psi for all concrete in contact with soil.
7. Doweling of the new foundations and slabs into the existing foundations and slabs to resist the movements of expansive soils is required. Dowels shall be a minimum of 6" into the existing concrete and shall extend a minimum of 24" into the new concrete with #3 bars @ 18" on center, each way.

SPECIAL INSPECTION REQUIRED

1. When the Structural Design of the footing is based on a compressive strength, f_c , no greater than 2500 psi and is specifically noted and shown on the plans as such, deputy inspection is not required. However, a copy of the batch plant trip ticket is required for verification
2. Grading > 25 yds. Or over 12" deep total fill