

NSW 4.2.3

4.2.3 Excavation for footings

[2019: 3.2.2.1]

- (1) Excavation for footings, including thickenings for slabs and pads must be clean cut with vertical sides, wherever possible.
- (2) The base of the excavation must be—
 - (a) for flat *sites*, generally level but may slope not more than 1:40 to allow excavations to drain; and
 - (b) for sloping *sites* at an angle of not more than 1:10; and
 - (c) for stepped footings in accordance with 4.2.7.
- (3) Footing excavations must be free of loose earth, tree roots, mud or debris.
- (4) Topsoil containing grass roots must be removed from the *site* of the *foundation*.
- (5) Excavation depths and soil cuts must comply with Part 3.2.
- (6) On loose sand *sites* or *sites* subject to wind or water erosion, the depth below *finished ground level* to the bottom of footings must be not less than 300 mm.
- (7) The height of a finished slab-on-ground must be in accordance with 3.3.3(b).

4.2.4 Filling under concrete slabs

[2019: 3.2.2.2]

Filling placed under a slab (except where the slab is suspended) must comply with the following:

- (a) Filling must be either *controlled fill* or *rolled fill* as follows:
 - (i) Sand used in *controlled fill* or *rolled fill* must not contain any gravel size material and achieve a blow count of 7 or more per 300 mm using the test method described in AS 1289.6.3.3.
 - (ii) Clay used in *controlled fill* or *rolled fill* must be moist during compaction.
 - (iii) *Controlled fill*:
 - (A) Sand fill up to 800 mm deep — well compacted in layers not more than 300 mm deep by vibrating plate or vibrating roller.
 - (B) Clay fill up to 400 mm deep — well compacted in layers of not more than 150 mm by a mechanical roller.
 - (iv) *Rolled fill*:
 - (A) Sand fill up to 600 mm deep — compacted in layers of not more than 300 mm by repeated rolling by an excavator or other suitable mechanical equipment.
 - (B) Clay fill up to 300 mm deep — compacted in layers of not more than 150 mm by repeated rolling by an excavator or similar machine.
- (b) A level layer of clean quarry sand must be placed on top of the fill, with a depth of not less than 20 mm.
- (c) A graded stone termite management system complying with Part 3.4 may be substituted for the sand *required* in (b).

4.2.5 Foundations for footings and slabs

[2019: 3.2.2.3]

Footings and slabs, including internal and edge beams, must be founded on soil with an allowable bearing pressure as follows:

- (a) Slab panels, load support panels and internal beams — natural soil with an allowable bearing pressure of not less than 50 kPa or *controlled fill* or *rolled fill* compacted in accordance with 4.2.4.
- (b) Edge beams connected to the slab — natural soil with an allowable bearing pressure of not less than 50 kPa or *controlled fill* compacted in accordance with 4.2.4(a)(iii) and extending past the perimeter of the building 1 m