

## Detached garage foundations and slabs

### Footings

The minimum width of footings, for a conventional one-story detached garage is 12 inches. All exterior footings shall be placed at least 12 inches below the undisturbed ground surface. Carport and garage floor slabs shall be air entrained and must have a minimum compressive strength of 3,500 psi.

### Foundation anchorage

Wood sole plates on monolithic slabs and all wood sill plates shall be anchored to the foundation with anchor bolts spaced a maximum of 6 feet on center and shall be protected against decay and termites. Bolts shall be at least 1/2 inch in diameter and shall extend a minimum of 7 inches into concrete or grouted cells of concrete masonry units. A nut and washer shall be tightened on each bolt. There shall be a minimum of two bolts per plate section with one bolt located not more than 12 inches or less than 7 bolt diameters from each end of the plate section. All anchor bolts installed in masonry shall be grouted in place with at least 1 inch of grout between the bolt and the masonry.

Exceptions:

1. Foundation anchor straps spaced as required to provide equivalent anchorage to 1/2-inch diameter anchor bolts. When vertical reinforcement is required by other sections of this code, the foundation anchor straps shall align with the reinforcing.
2. Walls 24 inches total length or shorter connecting offset braced wall panels shall be anchored to the foundation with a minimum of one anchor bolt located in the center third of the plate section and shall be attached to adjacent braced wall panels according to Figure R602.10.5 at corners.
3. Walls 12 inches total length or shorter connecting offset braced wall panels shall be permitted to be connected to the foundation without anchor bolts. The wall shall be attached to adjacent braced wall panels according to Figure R602.10.5 at corners.

### Unbalanced backfill

Walls supporting more than 48 inches of unbalanced backfill that do not have permanent lateral support at the top or bottom, or walls that are subject to hydrostatic pressure from groundwater, shall be designed in accordance with accepted engineering practice.

### Height above finished grade

Concrete and masonry foundation walls shall extend above the finished grade adjacent to the foundation a minimum of 4 inches where masonry veneer is used and a minimum of 6 inches elsewhere.

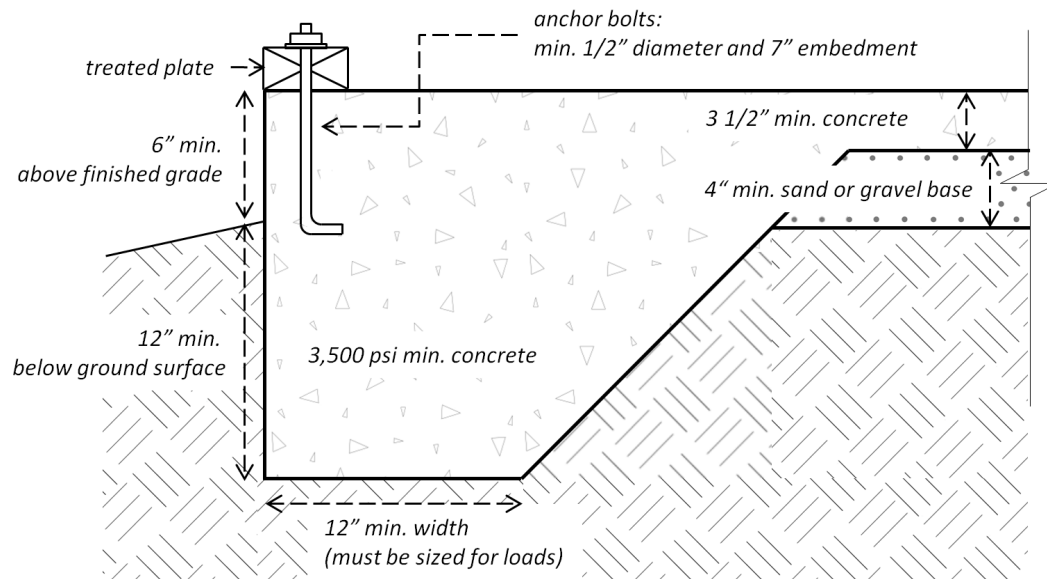
### Concrete floors on ground

Concrete and masonry foundation walls shall extend above the finished grade adjacent to the foundation a minimum of 4 inches where masonry veneer is used and a minimum of 6 inches elsewhere.

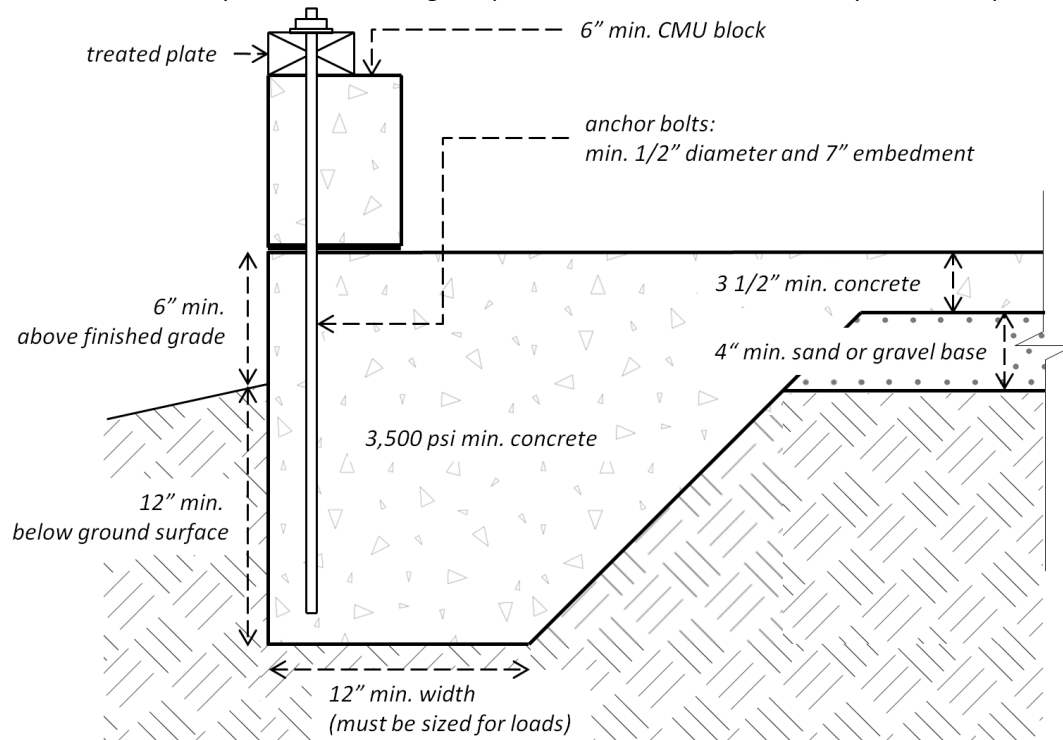
Most detached garages are not required to be built on frost depth foundations; however, this will depend on the grade or soil conditions at the property.

**Typical unfinished one-story detached garage (maximum 1,000 square feet)**

- Floating slab on grade: wall framing and plate lay directly on thickened perimeter footing.



- One course masonry curb: Wall framing and plate sit on one course of masonry block on top of thickened perimeter footing.



### One story detached garage with ADU or two-story detached garage

- Slab on grade with concrete or masonry stem wall and frost depth footings: Frost footings extending 42" below undisturbed ground surface are always required when a garage has a habitable attic or a second story.

