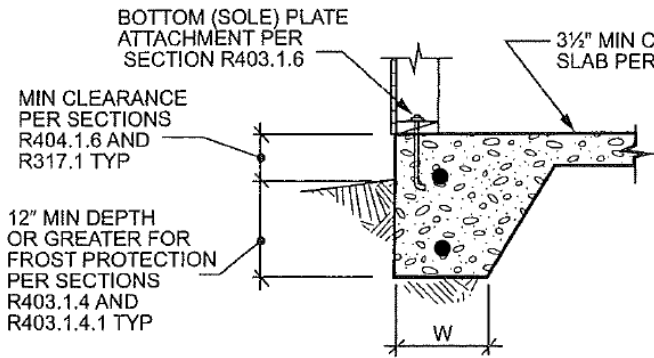
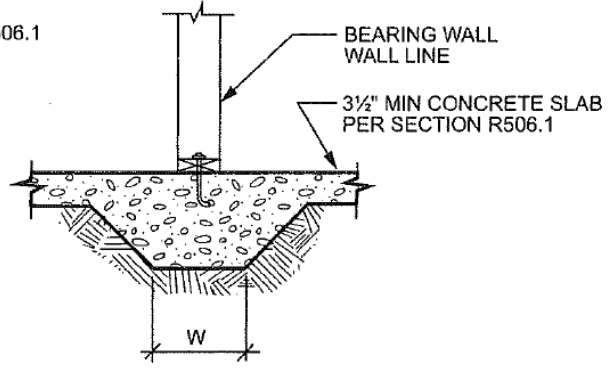


## FLOATING SLAB DETAILS



**1** MONOLITHIC SLAB-ON-GROUND WITH TURNED-DOWN FOOTING  
SCALE: NOT TO SCALE



**2** THICKENED SLAB-ON-GROUND FOOTING AT BEARING WALLS OR BRACED WALL LINES  
SCALE: NOT TO SCALE

**W = Width of footing, T = Thickness of footing and P = Projection per Section R403.1.1**

### Footings (R403.1)

All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings or other approved structural systems. Footings shall be supported on undisturbed natural soils or engineered fill.

### Foundation Anchorage (R403.1.6)

Sill plates and walls supported directly on continuous foundations shall be anchored to the foundation. Bolts shall be at least 1/2-inch diameter and extend a minimum of 7 inches into concrete. Bolts shall be located in the middle third of the width of the plate, a maximum of 6 feet on center apart, not more than 12 inches from each end of plate and a minimum of two bolts per plate. Sill plates and sole plates shall be protected against decay and termites where required by Sections R317 and R318. All anchor bolts installed in masonry shall be grouted in place with at least 1-inch of grout measured from the inside face of the masonry and the anchor bolt.

### Wood Sill Plates (R404.3)

Wood sill plates shall be not less than 2-inch by 4-inch nominal treated lumber. Sill plate anchorage shall be in accordance with Sections R403.1.6 and R602.11.

### Height Above Finished Grade (R404.1.6)

Concrete and masonry foundation walls shall extend above the finished grade adjacent to the foundation at all points not less than 4 inches where masonry veneer is used and not less than 6 inches elsewhere.

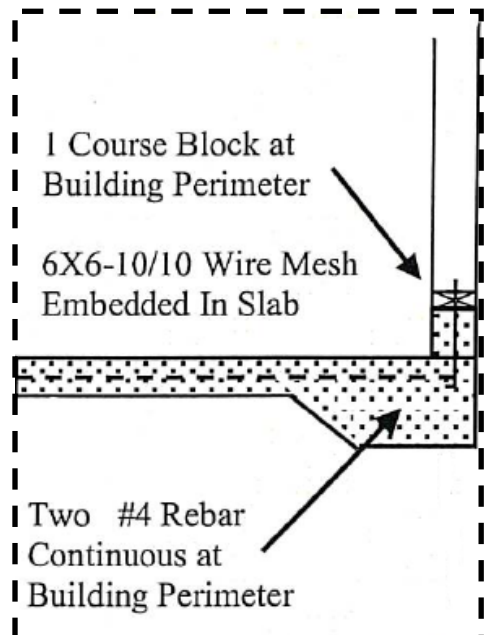
### Footing Depth for Frost Protection (1303.1600)

42" is the minimum allowable footing depth below grade.

### Vapor Retarder (R506.2.3)

A 6-mil (0.006 inch; 152 μm) polyethylene or approved vapor retarder with joints lapped not less than 6 inches shall be placed between the concrete floor slab and the base course or the prepared subgrade where a base course does not exist.

### RECOMMENDED DETAIL



**Minimum size (R403.1.1)**

The minimum width, W, and thickness, T, for concrete footings shall be in accordance with Tables R403.1 (1) through R403.1(3) and Figure R403.1(1) or R403.1.3, as applicable. These tables are based on 32-foot wide house with load-bearing center wall that carries half of the tributary attic, and floor framing. For every 2 feet of adjustment to the width of the house add or subtract 2 inches of footing width and 1 inch of footing thickness (but not less than 6 inches thick). Footing projections, P, shall be not less than 2 inches (51 mm) and shall not exceed the thickness of the footing.

| MINIMUM WIDTH AND THICKNESS FOR CONCRETE FOOTINGS                       |  |                                  |
|---|--|----------------------------------|
| TABLE R403.1(1) FOR LIGHT-FRAME CONSTRUCTION (inches)                   |  |                                  |
| TABLE R403.1(2) FOR LIGHT-FRAME CONSTRUCTION WITH BRICK VENEER (inches) |  |                                  |
| SNOW LOAD OR ROOF LIVE LOAD   | STORY AND TYPE OF STRUCTURE WITH LIGHT FRAME | LOAD-BEARING VALUE OF SOIL (psf) |
|   |  | 2000                             |
| 50 PSF  | 1 STORY - SLAB ON-GRADE                      | 12" × 6"                         |

| MINIMUM WIDTH AND THICKNESS FOR CONCRETE FOOTINGS   |  |                                  |
|---|--|----------------------------------|
| TABLE R403.1(3) FOR CONCRETE FOOTINGS WITH CAST-IN-PLACE CONCRETE OR FULLY GROUTED MASONRY WALL CONSTRUCTION (inches) |  |                                  |
| SNOW LOAD OR ROOF LIVE LOAD   | STORY AND TYPE OF STRUCTURE WITH LIGHT FRAME | LOAD-BEARING VALUE OF SOIL (psf) |
|   |  | 2000                             |
| 50 PSF  | 1 STORY - SLAB ON-GRADE                      | 13" × 6"                         |

**Frost-protected shallow foundations (R403.3)**

For buildings where the monthly mean temperature of the building is maintained at not less than 64°F, footings are not required to extend below the frost line where protected from frost by insulation in accordance with Figure R403.3(1) and Table R403.3(1). Foundations protected from frost in accordance with Figure R403.3(1) and Table R403.3(1) shall not be used for unheated spaces such as porches, utility rooms, garages and carports, and shall not be attached to basements or crawl spaces that are not maintained at a minimum monthly mean temperature of 64°F.

This informational document may not comprehensively address all City Ordinances and State Building Codes regarding the subject addressed. It is provided to serve only as a helpful guide during design phase. Any work requiring permits is not allowed until all required permits have been issued by the City of Andover.