



**Continuous Footer**



**Non-Continuous Footer**

Check out the honeycombing. Not the best work.

7.2.1.2 Wall footing thickness shall not be less than the greater of 6 in. or half the footing width minus the supported wall thickness.

2. *Isolated* footings-Isolated footing dimensions shall not be less than the applicable dimensions specified in Table 7.3.

3. *Footing surfaces*-The bottom surface of footings shall not exceed a slope of 1 vertical in 10 horizontal. The top surface of footings shall be level within the tolerances specified.

**4. Footings not continuously supported**-Footings that are not continuously supported shall be constructed in accordance with Section 7.2.4.1, 7.2.4.2, or 7.2.4.3.

1. Where an unsupported wall footing section does not exceed a 3 ft span, a minimum of two No. 4 reinforcing bars shall be placed in the bottom of the footing and extend at least 18 in. into the supported sections on both sides. Reinforcing bars shall have a specified minimum cover of 3 in. from the sides and bottom of the footing.

2. Trenches under footings shall be backfilled to prevent movement of the adjacent soil and compacted to match the adjacent soil conditions.

**Table 7.2-Minimum specified width of wall footings**

No. of stories above grade		Allowable soil-bearing capacity lb/ft <sup>2</sup>					
		1500	2000	2500	3000	3500	4000
Conventional wood frame construction (above grade)	One-story	16	12	10	8	7	6
	Two-story	19	15	12	10	8	7
	Three-story	22	17	14	11	10	9
4 in. brick veneer over wood frame; 8 in. hollow concrete masonry unit (above grade)	One-story	19	15	12	10	8	7
	Two-story	25	19	15	13	11	10
	Three-story	31		19	16	13	12
8 in. grouted concrete masonry unit	One-story	22	17	13	11	10	9
	Two-story	31	23	19	16	13	12
	Three-story	40	30	24	20	17	15

\*specified minimum concrete strength / shall be 2500 psi.

Footing widths less than 12 in. are restricted to walls that meet all of the following criteria:

- a) 4 ft or less in height;
- b) Seismic Design Category C or less; and
- c) wall footings that support garages, porches, or single-story roof loads.

Table includes foundation (for example, a one-story includes the story above grade and a foundation).

**Table 7.3—Minimum specified size and reinforcement for isolated footings, in. <sup>††</sup>**

Tributary area <sup>†</sup>	Allowable soil-bearing capacity, lb/ft <sup>2</sup>					
	1500	2000	2500	3000	3500	4000
Footing supporting roof load	36 x 36 x 8 in. with 3 No. 4 each way	30 x 30 x 8 in. with 3 No. 4 each way	30 x 30 x 8 in. with 3 No. 4 each way	24 x 24 x 8 in. with 3 No. 4 each way	24 x 24 x 8 in. with 3 No. 4 each way	24 x 24 x 8 in. with 3 No. 4 each way
Footing supporting roof and one floor	48 x 48 x 10 in. with 3 No. 4 each way	48 x 48 x 10 in. with 3 No. 4 each way	36 x 36 x 10 in. with 3 No. 4 each way	36 x 36 x 10 in. with 3 No. 4 each way	30 x 30 x 10 in. with 3 No. 4 each way	30 x 30 x 10 in. with 3 No. 4 each way
Footing supporting roof and two floors	60 x 60 x 12 in. with 4 No. 5 each way	60 x 60 x 12 in. with 4 No. 5 each way	48 x 48 x 12 in. with 4 No. 5 each way	48 x 48 x 12 in. with 4 No. 5 each way	42 x 42 x 12 in. with 3 No. 5 each way	36 x 36 x 12 in. with 3 No. 5 each way

specified minimum concrete strength/d shall be 2500 psi. tspecified minimum yield strength / shall be 40,000 psi.

†Maximum tributary area is 20 x 32 ft (based on loads prescribed in Table 7. 1).

**7.2.4.3 Unsupported wall footing spans exceeding 3 ft** are beyond the scope of this Code.

### **5. Discontinuous wall footings-**

A wall footing shall be permitted to be discontinuous at an abrupt elevation change according to Section 7.2.5.1 or 7.2.5.2.

1. A maximum horizontal discontinuity of 4 ft shall be permitted by this Code and conform to the reinforcement requirements of Section 8.2.9.

2. Horizontal footing discontinuities greater than 4 ft are beyond the scope of this Code.

*6. Foundation anchorage in Seismic Design Categories (SDCs) C, D<sub>0</sub>, D<sub>1</sub>, and D<sub>2</sub>.*  
The following requirements shall apply to wood light-frame structures in SDC D<sub>0</sub>, D<sub>1</sub>, and D<sub>2</sub> and wood light-frame townhouses in SDC C as defined by Section 1.3.1 of this Code:

- (a) Plate washers that are a minimum of 0.229 x 3 x 3 in. shall be provided for all anchor bolts between the sill plate and the nut. Properly sized cut washers shall be permitted for anchor bolts in wall lines not containing braced wall panels; Interior braced wall plates shall have anchor bolts spaced at not more than 6 ft on center and located within 12 in. of the ends of each plate section when supported on a continuous foundation;
- (c) Interior bearing wall sole plates shall have anchor bolts spaced at not more than 6 ft on center and located within 12 in. of the ends of each plate section when supported on a continuous foundation; and
- (d) The specified maximum anchor bolt spacing shall be 4 ft for buildings over two stories in height.



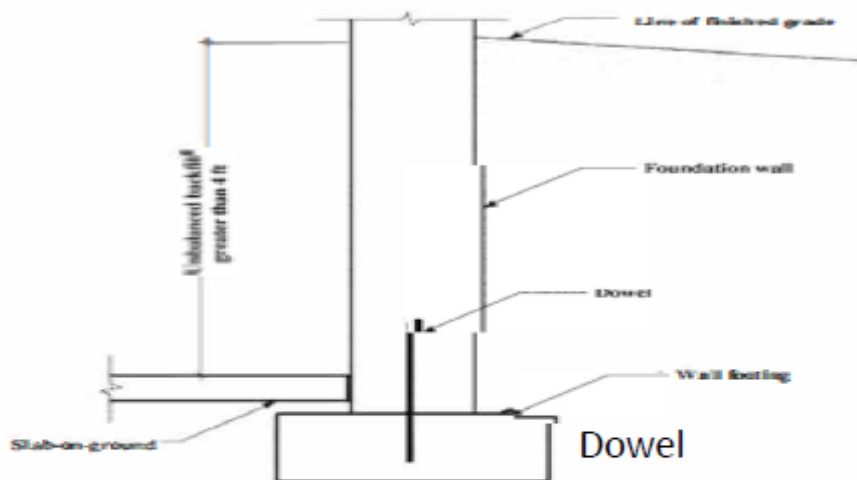


Fig. R7.6—Wall-to-footing joint with dowel.

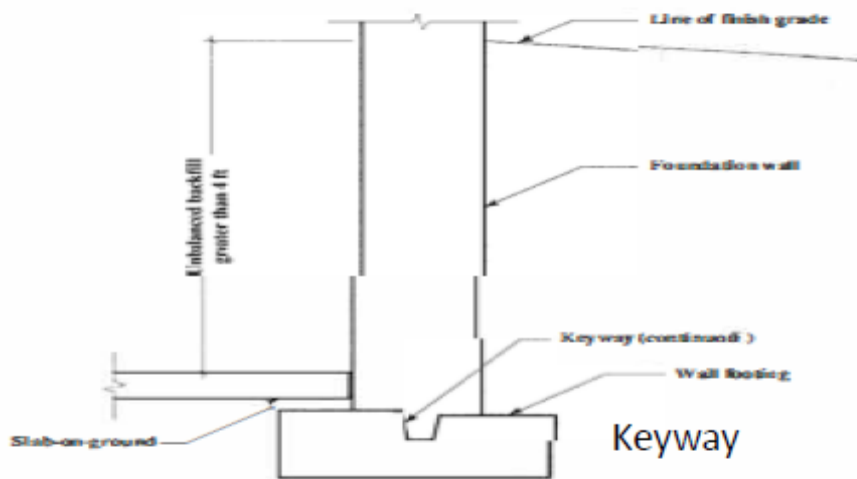


Fig. R7.7—Wall-to-footing joint with keyway.

**Table 7.4—Required wall-to-footing joint designs**

SDC	Height of unbalanced backfill	Acceptable joint
A, B, C	≤ 4 ft	Clean construction joint*
	> 4 ft	7.3.4.1 or 7.3.4.2
D <sub>0</sub> , D <sub>1</sub> , D <sub>2</sub> , E	All	7.3.4.1

\*Clean construction joint refers to the interface between footing and foundation wall with no debris and with no tooled surface characteristics; refer to Fig. R7.4.

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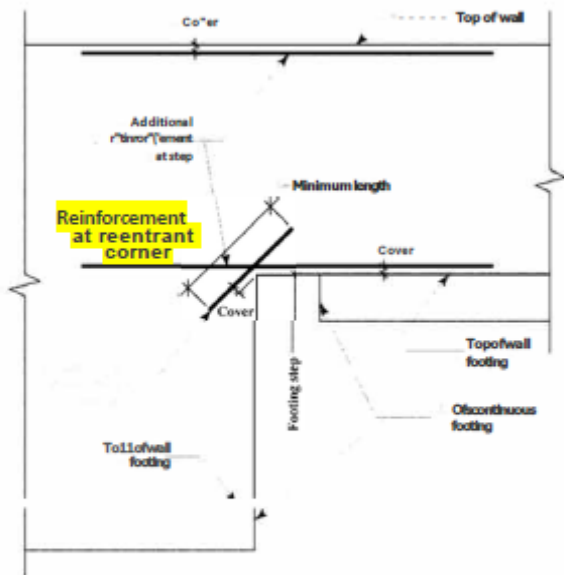


Fig. R7.2-Discontinuous wall footing and additional wall reinforcement.

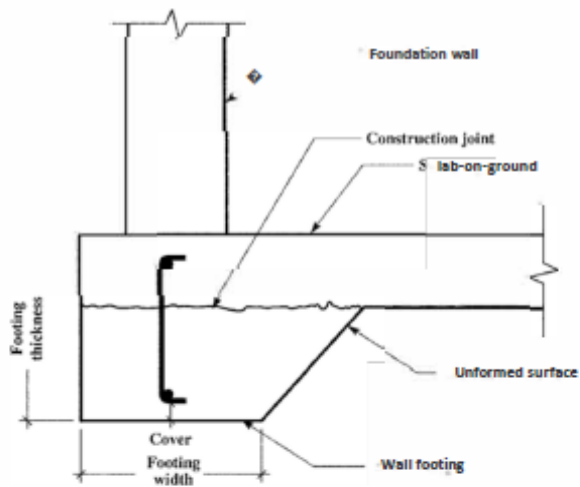


Fig. R7.3-Thickened slab footing with horizontal construction joint.

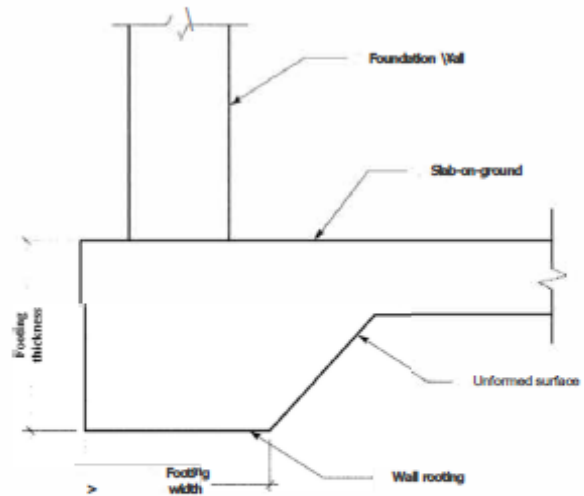


Fig. R7.4-Exterior unformed thickened slab footing.

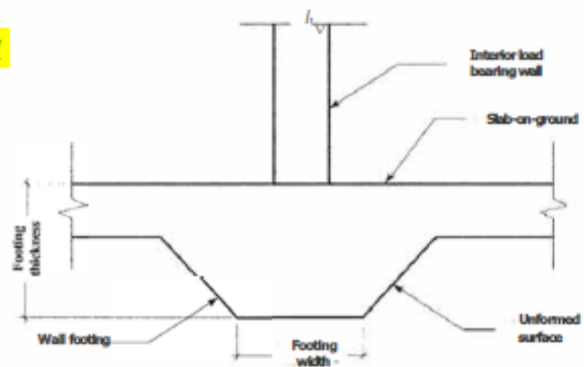


Fig. R7.5-Interior unformed thickened slab footing.

**Standard 8' Basement walls require dowels or key-way** due to the back-fill height usually exceeds 4'