

**TABLE R403.1a**  
**PIER(1) AND FOOTING (2) SIZES FOR SUPPORT OF GIRDERS**

AREA (5)	1 (ONE) STORY			2 (TWO) STORY			2-1/2 (TWO & ONE HALF) STORY		
	PIER(3,4)	FOOTING	ALLOWABLE LOAD	PIER (3,4)	FOOTING	ALLOWABLE LOAD	PIER(3,4)	FOOTING	ALLOWABLE LOAD
50	8" x 16"	1'-4" x 2' 0" x 8"	2500	8" x 16"	1'-4" x 2' 6" x 8"	4500	8" x 16"	1'-4" x 2' 6" x 8"	6500
100	8" x 16"	1'-4" x 2' 0" x 8"	5000	8" x 16"	2'-6" x 2' 0" x 10"	9000	16" x 16"	2'-6" x 2' 0" x 10"	13000
150	8" x 16"	2'-0" x 2' 0" x 8"	7500	16" x 16"	2'-8" x 2' 8" x 10"	13500	16" x 16"	3'-0" x 3' 0" x 10"	19500
200	8" x 16"	2'-4" x 2' 4" x 10"	10000	16" x 16"	3'-0" x 3' 0" x 10"	18000	16" x 16"	3'-11" x 3' 8" x 1'-0"	26000
250	-	-		16" x 16"	3'-4" x 3' 4" x 1'-0"	22500	16" x 24"	4'-0" x 4' 0" x 1'-0"	32500
300	-	-		16" x 16"	3'-8" x 3' 8" x 1'-0"	27000	16" x 24"	4'-6" x 4' 6" x 1'-0"	39000

**FOOTNOTES:**

1. Pier sizes are based on hollow CMU capped with 4" of solid masonry for 1 (one) story and 8" of solid masonry for 2 (two) and 2-1/2 story houses. Mortar shall be Type S.
2. Footing sizes are based on 2000 psf allowable soil bearing and 2500 psi concrete.
3. Centers of piers shall bear in the middle 1/3 of the footings, and girders shall center in the middle 1/3 of the piers, except exterior girders. Footings shall be full thickness over the entire area of the footing.
4. Pier sizes given are minimum for height/thickness limitations see section 606.5.
5. Area at first level support by pier and footing (sq. ft.)

**ASSUMPTIONS:**

- 50 1. FIRST FLOOR 50# PSF (40 PSF LIVE, 10 PSF DEAD)
- 40 2. SECOND FLOOR 40# PSF (30 PSF LIVE, 10 PSF DEAD)
- 40 3. ATTIC FLOOR 40 PSF (30PSF LIVE, 10 PSF DEAD)
- 0 4. ROOF 30 PSF (20 PSF LIVE, 10 PSF DEAD)