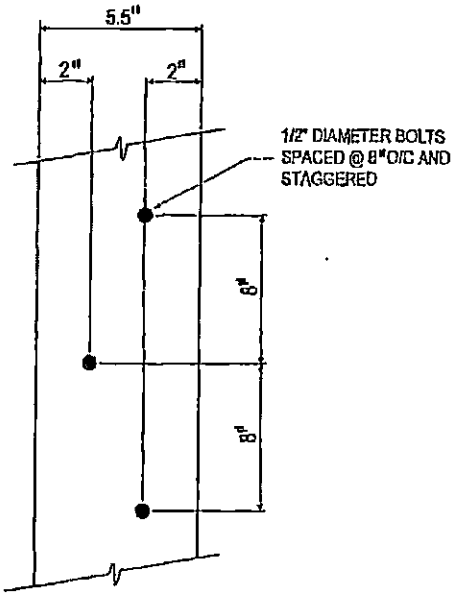
TABLE R324.3
POST FRAME PIER DIAMETERS[1, 2, 3]

Building width (length of truss) including overhang (feet)							
	25	28	32	36	40	44	48
Diameter (inches) 20 lb. Roof Snow Load	18	22	24	26	28	28	30
Diameter (inches) 20 lb. Roof Snow Load	24	26	28	28	30	30	32

1. Pier footing thickness shall be a minimum one-half of the diameter of the footing.
2. Based upon 2000 PSF soil bearing capacity and truss loads of 20 or 30 PSF live or snow load top chord, 10 PSF dead load top chord, 5 PSF dead load on the bottom chord and no live load on the bottom chord.
3. Fractional widths shall be rounded to the next higher pier footing diameter.

R324.4 Column and wall construction. Columns shall be three (4) ply unspliced, reinforced spliced or solid wood and shall not be less than 6 inch by 6 inch nominal size. Columns shall comply with the requirements of Section R319 and shall be restrained to prevent lateral displacement. Built up columns shall be fastened as illustrated in Figure R324.2.



BUILT UP COLUMN FASTENING DETAIL

Figure 324.2

R324.4.1 Column uplift protection. Columns shall have uplift protection by one of the following methods:

1. Two 2x6 12 inch column uplift protection blocks attached to each side of the base of the column. The column uplift protection blocks must be placed horizontally, attached per Table R324.7 and comply with Section R319.
2. 12 inch high, concrete collar poured on top of footing around the post with 2 #5x9 inch rebar placed through the post at 3 inches and 9 inches from bottom of post in opposite directions. The rebar ends shall be installed in accordance with ACI 332 for the specified distance in inches from contact with the soil. See Figure R324.3

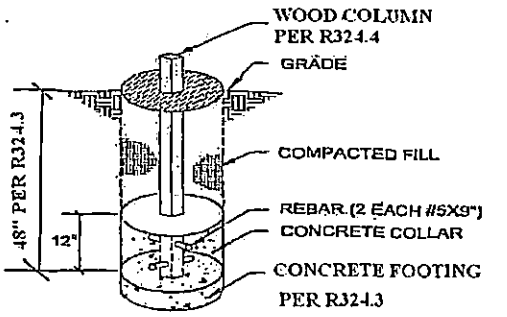


Figure R324.3
Column Uplift Protection Exception
No Scale

R324.4.2 Column spacing. The maximum spacing for columns shall be 8 feet.

R324.4.3 Skirt boards. Skirt boards shall be treated lumber meeting the requirements of Section R319 and attached per Table R324.7.

R324.4.5 Load bearing beams and headers. Load bearing beams and headers shall comply with Table R502.5.1.

Exceptions:

1. Bearing beams are not required if the trusses or ceiling joists and rafters bear directly on the columns.
2. Opening on the gable end walls of post and frame buildings supporting a door or roof total load not exceeding 5 square feet per lineal feet of wall area, headers must be sixed per Table R324.4.5.

TABLE R324.4.5 GABLE END HEADER SIZES

Opening Width (feet)	10	12	16
Header Size (inches)	2 - 2x8	2 - 2x10	2 – 2x12

R324.4.6 Exterior Structural Sheathing or Wall Bracing. Provide exterior structural sheathing or wall bracing to resist all racking and shear forces.

Bracing must comply with the applicable provisions of section R602.10 or by installing 2x6 diagonal braces between two adjoining columns at 8 feet on center or multiple spacing totaling a minimum of 8 feet on center where the post spacing design is less than 8 feet on center. The diagonal brace shall be placed from the top header or girt to the next adjoining column at the skirt board. The bracing shall be placed installed on each side of the building and shall be a minimum of 25 feet on center and within 12 feet of the end of the building and attached to the wall girts and columns per Table R324.7. Any splices of the diagonal brace required due to excessive length, must lap over two consecutive wall girts.

R324.4.7 Beams supporting trusses or rafters and ceiling joists attachment to column. Bearing beams supporting roof trusses or rafters and ceiling joists shall be connected to columns by one of the following methods:

1. Bolts that are 12 inch diameter through-bolted to the side of the column
2. Bolts that are 12 inch diameter, directly attached to a 3-ply column notch, enclosing the truss or rafter at the top of column; or
3. Other fasteners with minimum shear or withdraw values stated in Table R324.4.7

R324.4.7.1 Number of fasteners. The minimum numbers of through bolts or the fasteners with minimum shears or withdraw values required per Table R324.4.7.

TABLE R324.4.7
BEAM OR TRUSS CONNECTION AT COLUMNS MINIMUM FASTENERS OR TOTAL SHEAR OR WITHDRAW VALUES [1, 2, 3]

Building width (length of truss) including overhang (feet)							
	24	28	32	36	40	44	48
Shear or withdraw (pounds) 20# snow load	3360	3920	4480	5040	5600	6160	6720
Number of Bolts 20# roof snow load	2	2	2	3	3	3	3
Shear or withdraw (pounds) 30# roof snow load	4320	5040	5760	6480	7200	7920	8640
Number of Bolts 30# roof snow load	2	3	3	3	3	3	3

1. Based upon truss loads of 20 or 30 PSF live or snow load top chord, 10 PSF dead load top chord, 5 PSF live load on the bottom chord and no live load on the bottom chord.
2. Based upon post spacing at intervals not exceeding 8 feet.
3. When beams are attached at each side of the column and fasteners do not extend through both beams such as though-bolts, the required values are one-half the amount shown above for each beam.