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Office of Building Safety POST FRAME FOOTINGS

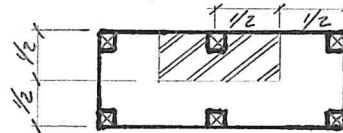
A SIMPLE GUIDE FOR POST FRAME BUILDINGS AND DECKS FOOTINGS BASED ON THE
MICHIGAN RESIDENTIAL BUILDING CODE 2015

HOW TO CALCULATE SIMPLE VERTICAL LOADS IMPOSED FROM POST FRAME STRUCTURES

1.) TOTAL LOAD ON FOOTING:

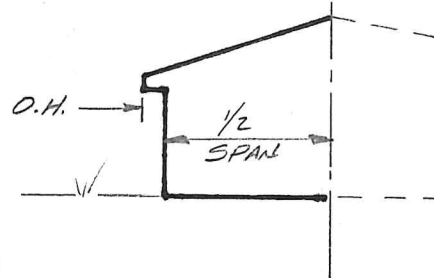
Uncovered decks; SQFT x loads = total load on footing

- SQFT Tributary Area: 1/2 the span between supporting members calculated in square feet
- x Multiplied by loads [**live** (40PSF minimum) and **dead** (10 PSF minimum)]
- = Total load



Pole building {[SQFT x roof loads] x pole spacing} + wall load = total load

- SQFT Tributary Roof Area: ½ the truss span plus (+) over hang.
- x Multiplied by roof loads [**live** (30PSF min. ground snow) and **dead** (10 PSF min.)]
- x Multiplied by post spacing (in feet)
- + Plus wall load (5#/sqft)+/-
- = Total load



2.) SOIL CLASSIFICATION: As determined by Table R401.4.1

Footing Diameter (Ø)	CLAY 1,500 PSF	SANDY 2,000 PSF	GRAVEL 3,000 PSF
8-inch Ø (0.35 SQFT)	525 PSF	700 PSF	1,050 PSF
12-inch Ø (0.785 SQFT)	1,178 PSF	1,570 PSF	2,355 PSF
14-inch Ø (1.069 SQFT)	1,604 PSF	2,138 PSF	3,207 PSF
16-inch Ø (1.396 SQFT)	2,094 PSF	2,792 PSF	4,188 PSF
18-inch Ø (1.767 SQFT)	2,651 PSF	3,534 PSF	5,301 PSF
20-inch Ø (2.182 SQFT)	3,273 PSF	4,364 PSF	6,546 PSF
24-inch Ø (3.142 SQFT)	4,713 PSF	6,284 PSF	9,426 PSF
30-inch Ø (4.909 SQFT)	7,364 PSF	9,818 PSF	14,727 PSF
36-inch Ø (7.069 SQFT)	10,604 PSF	14,138 PSF	21,207 PSF