

POLE BUILDING HANDOUT

Unheated, Detached, Residential Accessory Building, Smooth Metal Roof, Slope = 4:12

Sand, Silty Sand or Clayey Sand Soil Types, **Ground Snow Load = 70 psf**

| Post Spacing | Grade | 20 Foot Wide Building | | 24 Foot Wide Building | | 28 Foot Wide Building | | 30 Foot Wide Building | |
|--------------|-------|-----------------------|--------------|-----------------------|--------------|-----------------------|--------------|-----------------------|--------------|
| | | Truss Carrier Beam | Footing Size | Truss Carrier Beam | Footing Size | Truss Carrier Beam | Footing Size | Truss Carrier Beam | Footing Size |
| 4 FEET | A | 1.75" x 5.5" | 15' dia. | 1.75" x 5.5" | 16' dia. | 1.75" x 5.5" | 18" dia. | 1.75" x 5.5" | 19" dia. |
| | B | 2" x 10" | | 2" x 10" | | 2" x 10" | | 2" x 12" | |
| | C | 2" x 8" | | 2" x 8" | | 2" x 10" | | 2" x 12" | |
| 6 FEET | A | 1.75" x 7.25" | 18" dia. | 1.75" x 7.25" | 20" dia. | 1.75" x 9.25" | 22" dia. | 1.75" x 9.25" | 23" dia. |
| | B | 2 - 2" x 10" | | 2 - 2" x 10" | | 2 - 2" x 10" | | 2 - 2" x 12" | |
| | C | 2 - 2" x 10" | | 2 - 2" x 10" | | 2 - 2" x 10" | | 2 - 2" x 12" | |
| 8 FEET | A | 1.75" x 9.25" | 21" dia. | 1.75" x 9.25" | 23" dia. | 1.75" x 11.25" | 25" dia. | 1.75" x 11.25" | 26" dia. |
| | B | 2 - 2" x 12" | | 3 - 2" x 10" | | 3 - 2" x 12" | | 3 - 2" x 12" | |
| | C | 2 - 2" x 12" | | 3 - 2" x 10" | | 3 - 2" x 12" | | 3 - 2" x 12" | |
| 10 FEET | A | 1.75" x 11.25" | 24" dia. | 1.75" x 11.875" | 26" dia. | 2 - 1.75" x 9.5" | 28" dia. | 2 - 1.75" x 9.5" | 29" dia. |
| | B | 3 - 2" x 12" | | 4 - 2" x 12" | | 5 - 2" x 12" | | 5 - 2" x 12" | |
| | C | 3 - 2" x 12" | | 4 - 2" x 12" | | 4 - 2" x 12" | | 4 - 2" x 12" | |
| 12 FEET | A | 2 - 1.75" x 9.25" | 26" dia. | 2 - 1.75" x 11.25" | 28" dia. | 2 - 1.75" x 11.25" | 31" dia. | 2 - 1.75" x 11.25" | 32" dia. |
| | B | 5 - 2" x 12" | | 5 - 2" x 12" | | 6 - 2" x 12" | | No | |
| | C | 4 - 2" x 12" | | 5 - 2" x 12" | | 5 - 2" x 12" | | 6 - 2" x 12" | |
| 14 FEET | A | 2 - 1.75" x 11.25" | 28" dia. | 2 - 1.75" x 11.875" | 31" dia. | 3 - 1.75" x 11.25" | 33" dia. | 3 - 1.75" x 11.25" | 34" dia. |
| | B | 6 - 2" x 12" | | No | | No | | No | |
| | C | 5 - 2" x 12" | | 6 - 2" x 12" | | No | | No | |
| 16 FEET | A | 3 - 1.75" x 11.25" | 30" dia. | 3 - 1.75" x 11.25" | 33" dia. | 3 - 1.75" x 11.875" | 35" dia. | 4 - 1.75" x 11.25" | 37" dia. |
| | B | No | | No | | No | | No | |
| | C | No | | No | | No | | No | |
| 18 FEET | A | 3 - 1.75" x 11.25" | 32" dia. | 4 - 1.75" x 11.25" | 35" dia. | 4 - 1.75" x 11.875" | 37" dia. | 3 - 1.75" x 14" | 39" dia. |
| | B | No | | No | | No | | No | |
| | C | No | | No | | No | | No | |

| Post Spacing | Grade | 32 Foot Wide Building | | 36 Foot Wide Building | | 40 Foot Wide Building | | 50 Foot Wide Building | |
|--------------|-------|-----------------------|--------------|-----------------------|--------------|-----------------------|--------------|-----------------------|--------------|
| | | Truss Carrier Beam | Footing Size | Truss Carrier Beam | Footing Size | Truss Carrier Beam | Footing Size | Truss Carrier Beam | Footing Size |
| 4 FEET | A | 1.75" x 5.5" | 19" dia. | 1.75" x 7.25" | 20" dia. | 1.75" x 7.25" | 21" dia. | 1.75" x 7.25" | 24" dia. |
| | B | 2" x 12" | | 2" x 12" | | 2 - 2" x 10" | | 2 - 2" x 10" | |
| | C | 2" x 12" | | 2" x 12" | | 2" x 12" | | 2 - 2" x 10" | |
| 6 FEET | A | 1.75" x 9.25" | 23" dia. | 1.75" x 9.25" | 25" dia. | 1.75" x 9.25" | 26" dia. | 1.75" x 11.25" | 29" dia. |
| | B | 2 - 2" x 12" | | 3 - 2" x 10" | | 3 - 2" x 10" | | 3 - 2" x 12" | |
| | C | 2 - 2" x 12" | | 3 - 2" x 12" | | 3 - 2" x 10" | | 3 - 2" x 12" | |
| 8 FEET | A | 1.75" x 11.25" | 27" dia. | 1.75" x 11.875" | 28" dia. | 2 - 1.75" x 9.25" | 30" dia. | 2 - 1.75" x 11.25" | 33" dia. |
| | B | 3 - 2" x 12" | | 4 - 2" x 12" | | 4 - 2" x 12" | | 5 - 2" x 12" | |
| | C | 3 - 2" x 12" | | 3 - 2" x 12" | | 4 - 2" x 12" | | 5 - 2" x 12" | |
| 10 FEET | A | 2 - 1.75" x 11.25" | 30" dia. | 2 - 1.75" x 11.25" | 32" dia. | 2 - 1.75" x 11.25" | 33" dia. | 3 - 1.75" x 11.25" | 37" dia. |
| | B | 5 - 2" x 12" | | 5 - 2" x 12" | | 6 - 2" x 12" | | No | |
| | C | 5 - 2" x 12" | | 5 - 2" x 12" | | 6 - 2" x 12" | | No | |
| 12 FEET | A | 2 - 1.75" x 11.875" | 33" dia. | 3 - 1.75" x 11.25" | 35" dia. | 3 - 1.75" x 11.25" | 37" dia. | 4 - 1.75" x 11.25" | 41" dia. |
| | B | No | | No | | No | | No | |
| | C | 6 - 2" x 12" | | No | | No | | No | |
| 14 FEET | A | 3 - 1.75" x 11.25" | 35" dia. | 3 - 1.75" x 11.875" | 37" dia. | 4 - 1.75" x 11.25" | 39" dia. | 3 - 1.75" x 14" | 44" dia. |
| | B | No | | No | | No | | No | |
| | C | No | | No | | No | | No | |
| 16 FEET | A | 4 - 1.75" x 11.25" | 38" dia. | 4 - 1.75" x 11.875" | 40" dia. | 4 - 1.75" x 14" | 42" dia. | 4 - 1.75" x 14" | 47" dia. |
| | B | No | | No | | No | | No | |
| | C | No | | No | | No | | No | |
| 18 FEET | A | 4 - 1.75" x 14" | 40" dia. | 4 - 1.75" x 14" | 42" dia. | 4 - 1.75" x 14" | 45" dia. | 4 - 1.75" x 16" | 50" dia. |
| | B | No | | No | | No | | No | |
| | C | No | | No | | No | | No | |

Lumber Grade Legend

A - Laminated Veneer Lumber, Fo = 2,600 psi, Fv = 285 psi, E = 1,900,000 psi

B - Hem-Fir #2, Fo = 850 psi, Fv = 150 psi, E = 1,300,000 psi

C - Southern Yellow Pine #2, Fo = 975 psi, Fv = 175 psi, E = 1,600,000 psi

