

EXAMPLES OF RESIDENTIAL BUILDING METHODS AND BASIC CONSTRUCTION CODES

These examples are a general outline for residential construction. Refer to your **2015** Michigan Residential Code Book and other resources for actual methods and code specifications, as they apply to your specific project.

Pole Buildings (engineering revised 7-18-2022)

Pole Barns with roof spans 0' to 24' and sidewall heights 0'-10' and less than 600 sq. ft.

Concrete support pad excavation depth minimum **48"** from top of grade
Concrete support pad size: min. **16" dia. X 8"** thick concrete pad required
(Support pads must be approved wet mix concrete or precast concrete 8"x 16", 5000psi rated pads.
Wall support post size: treated **4" x 6" posts**, 8'o.c. (4" width facing out) with 2 x 6 uplift anchors at the post base.
Truss carrier/beam size: min. **2 - 2"x12" spf, with vertical 2 x 6 blocks 24" o.c.** between the 2 x 12 carriers.
Surface mounted carrier/beam, fasteners min. **4- 5/16"x 4" ACQ screws** per post connection.
Manufactured roof trusses installed with lateral bracing, per manufactures specifications.
Roof trusses fastened to carriers with metal brackets or vertical wood carrier blocks
Roof purlins properly spacing for roof sheeting. Roofing installed as per manufactures specifications
Wall girts as per drawings with diagonal wall bracing in all corners from truss carriers to floor
Base wall girt/rim board, min. 2"x 8" treaded board (ground contact rated)
Exterior sheathing/siding, doors and windows installed as per manufactures specifications.

Pole Barns with roof spans 0' to 32' and sidewall heights 0' to 12' and more than 600 sq. ft.

Concrete support pad excavation depth minimum **48"** from top of grade
Concrete support pad size: min. **24" dia. X 10" thick wet mix concrete pad, from an approved supplier.** (redi-mix truck)
Wall support post: treated **6" x 4" posts**, 8'o.c., walls, **6"x6" posts for walls 13'to 16' tall**, 2 x 6 uplift anchors post base.
Truss carrier/beam size: min. **2 - 2"x12" spf, with vertical 2 x 6 blocks 24" o.c.** between the 2 x 12 carriers.
Surface mounted carrier/beam, fasteners min. **4- 5/16"x 4" ACQ screws** per post connection.
Y- Bracing required from support posts to truss carriers on load bearing walls. **Y-Bracing** 2-2 x 6 x 40" long on 45 deg.
Manufactured roof trusses installed with lateral bracing, per manufactures specifications.
Roof trusses fastened to carriers with metal brackets or vertical wood carrier blocks
Roof purlins properly spacing for roof sheeting. Roofing installed as per manufactures specifications
Wall girts as per drawings with diagonal wall bracing in all corners from truss carriers to floor
Base wall girt/rim board, min. 2"x 8" treaded board (ground contact rated)
Exterior sheathing/siding, doors and windows installed as per manufactures specifications.

Pole Barns with roof spans 33' to 48' and sidewall heights 11' to 16'

Concrete support pad excavation depth minimum **48"** from top of grade
Concrete support pad size: min. **30" dia. X 12" thick wet mix concrete pad, from an approved supplier.** (redi-mix truck)
Note: 1/2" x 16" rebar hairpin anchors thru the post into the concrete floor may also be required on large structures.
Wall support post size: treated **6" x 6" posts**, 8'o.c. with 2 x 6 uplift anchors post base.
Truss carrier/beam size: min. **3 - 2"x12" spf, with vertical 2 x 6 blocks 24" o.c.** between the 2 x 12 carriers.
Surface mounted carrier/beam, fasteners min. **4- 5/16"x 4" ACQ screws** per post connection.
Y- Bracing required from support posts to truss carriers on load bearing walls. **Y-Bracing** 2-2 x 6 x 40" long on 45 deg.
Manufactured roof trusses installed with lateral bracing, per manufactures specifications.
Roof trusses fastened to carriers with metal brackets or vertical wood carrier blocks
Roof purlins properly spacing for roof sheeting. Roofing installed as per manufactures specifications
Wall girts as per drawings with diagonal wall bracing in all corners from truss carriers to floor
Note: Knee bracing from support posts to trusses maybe required in buildings exposed to sustained high winds.
Base wall girt/rim board, min. 2"x 8" treaded board (ground contact rated)
Exterior sheathing/siding, doors and windows installed as per manufactures specifications.

Note: Buildings with roof spans great than 48' in width and walls taller than 16' in height and/or buildings having 2nd story storage areas, require approval of engineered drawings with details

Engineering Review provided by Nordlund & Associates of Ludington, Michigan