

City of Soda Springs

Mobile/Manufactured Home Installation Requirements

Installation of Mobile or Manufactured Homes must be done either by the **Owner** or a **Licensed Installer**. The installer's license must be in effect at the time of the application for the installation permit.

Installation instructions supplied by the manufacturer of the mobile/manufactured home specifying the location and capacity of stabilizing devices may be used. If the manufacturer's installation instructions are not available the mobile/manufactured home must be installed according to **Idaho Code sub section 44-2204**. (Copy of this section of the I.C. is attached.)

In addition to the installation permit an electrical permit from a Certified Electrician must be attained and the water & sewer must be installed with rigid pipe before the electricity can be connected.

CHAPTER 3

GENERAL INSTALLATION STANDARDS

301. GENERAL.

There are two basic types of installations - standard set and permanent foundation set. See Figures 301.1 and 301.2. This Chapter prescribes the general installation requirements which apply to both types. Requirements that specifically apply to standard set homes are prescribed in Chapter 4. Requirements that specifically apply to homes set on permanent foundations are prescribed in Chapter 5. To facilitate the use of this standard, detailed support requirements which are applicable to both types of installations are prescribed in both sections. All design calculations upon which the requirements in Chapters 3, 4, and 5 are based, have been reviewed by an Idaho Registered Professional Engineer for compliance with the current version of the Idaho Residential Code and the International Building Code as adopted and amended by the Idaho building code board.

01. Content: This Chapter prescribes requirements for:

- a. The siting, and design of manufactured homes;
- b. Joining the sections of multi-section homes;
- c. Flood resistance; and
- d. Access and egress.

The requirements for installation and tie down anchoring are prescribed in Chapters 4 and 5.

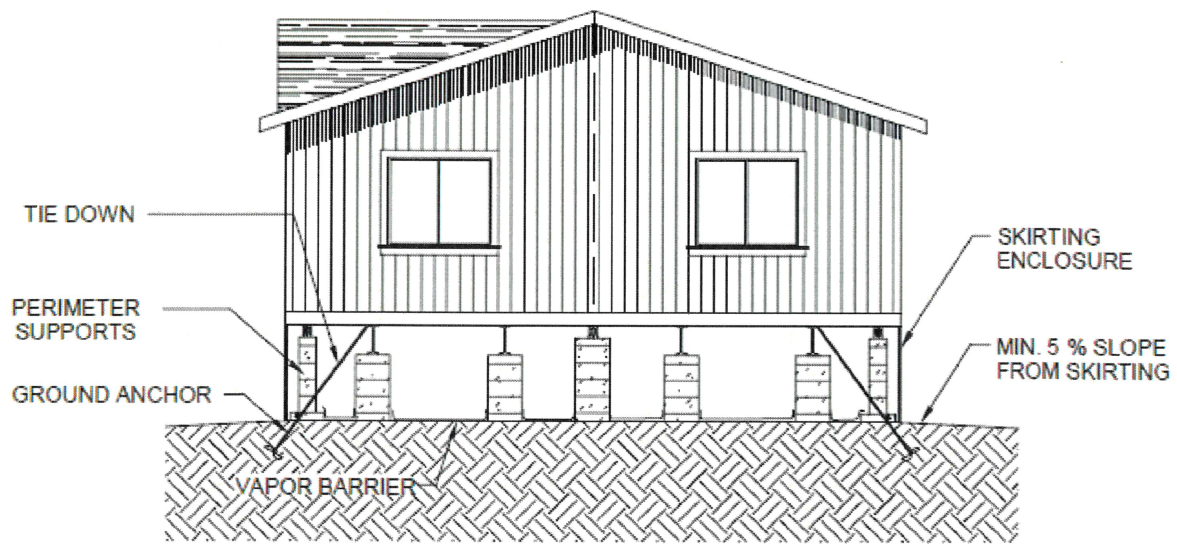
02. Installation Standard. The siting and installation requirements contained in this standard are based on a roof live load of thirty to one hundred twenty pounds per square foot (30 to 120 psf), a roof dead load of ten to eighteen pounds per square foot (10 to 18 psf), and a soil bearing capacity of one thousand five hundred pounds per square foot (1,500 psf).

All manufactured homes shall be installed to the minimum requirements of this standard.

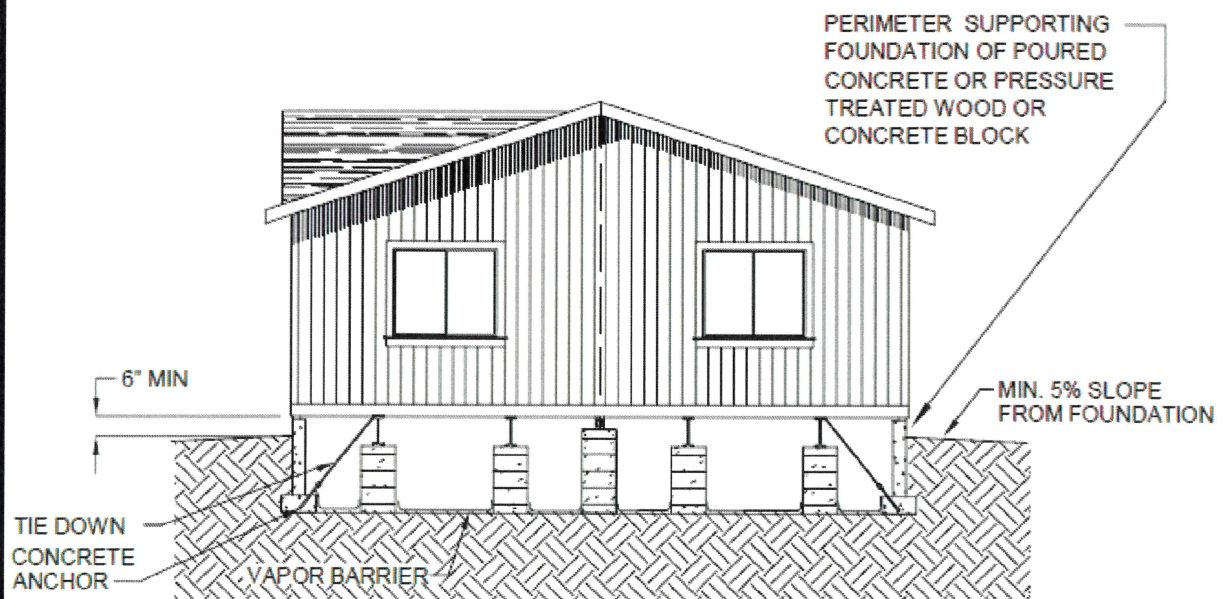
- a. Manufacturers' installation instructions may be used where specifically permitted in Subsections 301.04, 304.03.b, 403.03.b and 503.03.b.
- b. Manufactured homes placed temporarily on display, or are in storage and not occupied or intended to be occupied, shall be temporarily placed according to the requirements of Subsection 301.14.

03. Roof Snow Loads. New manufactured homes sold in Idaho are required by HUD to be constructed to withstand a minimum of thirty pounds per square foot (30 psf) roof snow load. Some jurisdictions may require a higher roof snow load. The dealer shall verify that roof snow load requirements are being complied with before selling a home in a jurisdiction. Jurisdictions with a higher roof snow load requirement have the authority to ask for compliance with the higher snow load standard.

04. Unique Installations. Manufactured homes with unique installation requirements not specifically addressed in this standard shall be installed according to the manufacturer's installation instructions.



STANDARD SET
FIGURE 301.1



PERMANENT FOUNDATION SET
FIGURE 301.2

However, the use of those instructions shall be limited to the specific aspects which are unique. Examples of unique installation aspects are: hinged rafters, perimeter floor frames, two storied homes, hinged eaves, add-on roofs, marriage line tie-downs, items identified in a HUD and DAPIA approved Alternate Construction (AC) Letter, and those items specifically identified in a Division interpretation.

05. Manufacturer's Installation Instructions. If the manufacturer's installation instructions have been used for any portion of the installation, as permitted by Subsection 301.04, a copy of those instructions shall be provided to the inspecting jurisdiction.

06. Unusual Installations. A person is allowed to design for unusual installations not provided for in this standard or in the manufacturer's installation instructions. However, prior written approval must be granted by the authority having jurisdiction. The jurisdiction may require an approved design by an Idaho Licensed Professional engineer.

07. Basic Requirement. Regardless of the type of installation system provided, it shall assure that the manufactured home has adequate support, a substantially level floor, and a flush floor connection at the marriage lines of multi-section manufactured homes.

08. Chassis Removal. Except for wheels, tires, axles, hitches, and transportation lights, no portion of a manufactured home chassis shall be removed before or after the manufactured home is installed.

09. Underfloor Ventilation. Underfloor areas of all manufactured homes shall be enclosed and ventilated according to Sections 902 and 903 of this standard.

10. Separation From Ground. A minimum clearance of 12 inches must be maintained between the lowest member of the main frame (I-beam or channel beam) and the grade under all areas of the home.

11. Close Up. Multi-section manufactured homes shall be sealed at the marriage lines to resist the elements. Wall and roof close up shall be made with similar materials and installed according to the material manufacturer's installation instructions. Shipping fasteners shall be removed from the roof and the roof sealed.

12. Compliance. A manufactured home shall not be installed in a manner which takes the manufactured home out of compliance with state or federal manufactured home construction and safety standards.

13. Approval. Installations shall not be approved until all applicable provisions of this standard have been met, including but not limited to, site preparation, support system, structural connections, tie-down requirements, access and egress requirements, underfloor enclosures with ventilation and access, and all utility connections and crossovers.

14. Temporary Placement. When a manufactured home is placed temporarily in storage by a manufacturer, dealer, or distributor in excess of thirty (30) days, the owner shall assure the manufactured home is adequately supported at each corner and under each main frame beam by a minimum of four supports located within two feet (2') from each end and within eight feet (8') of the front and rear axle. The home shall be sealed to resist exposing the interior of the manufactured home to the elements of weather. When the home is to be set up in excess of 30 days for display, the owner shall assure the home is adequately supported by a minimum of main frame supports located within two feet (2') of each end and spaced a maximum of eight feet (8') on center. The perimeter shall be blocked at all doors and

windows over forty-eight inches (48") wide, and at each corner. The marriage line shall be supported at each ridge beam column, and sealed against the weather.

302. SITE PREPARATION.

01. Suitability of Site. Each site shall be suitable for its intended use and acceptable to the authority having jurisdiction based on this standard and local land use regulations. No person shall install a manufactured home on a site which is not in compliance with this Chapter.

02. Unforeseen Factors. When unforeseen factors are encountered (e.g., rock formation, high ground water levels, springs), corrective work shall be completed prior to installing the manufactured home.

03. Grading. Site grading and drainage shall provide:

- a. Diversion of any surface water away from the manufactured home and accessory structures.
- b. Sufficient site drainage to prevent standing water and soil saturation from becoming detrimental to structures and use of the site.
- c. Finished grade away from the home's foundation or skirting at a minimum slope of five percent (5%) horizontally. See Figures 301.1 and 301.2.
- d. Uncovered slabs, patios, or walks shall slope away from the home and structures in order to drain water away from the home and structures.

04. Erosion. Where erosion due to high runoff velocity threatens the manufactured home site, adequate grading, landscaping, or drainage systems shall be provided to protect the site from degradation.

05. Site. Manufactured home sites shall be natural undisturbed soils or controlled fills and shall be free of grass and other organic material. All fill shall be engineered, compacted, and tested.

06. Vapor Retarder. The ground within the enclosed crawl space beneath every manufactured home shall be covered with a six one-thousandths inch (.006") thick continuous black membrane sheeting vapor retarder installed according to the following requirements.

- a. Membrane sheeting seams shall be overlapped by at least eight inches (8").
- b. Edges of the membrane sheeting shall not extend beyond the perimeter of the manufactured home.
- c. All holes, tears, and penetrations in the membrane sheeting shall be adequately sealed or patched with durable tape.
- d. Underfloor membrane sheeting shall not be in contact with wood unless the wood is pressure treated lumber.
- e. Black polyethylene membrane sheeting shall be installed over the ground. Clear sheeting may be installed under gravel or concrete.

- f. When the manufactured home has a recessed entry, porch, or deck, and the floor in the recessed area is constructed of open decking, the membrane sheeting shall not be installed below the open decking floor.

303. APPROVED INSTALLATION MATERIALS AND COMPONENTS

01. Component and Materials Specifications. All installation components shall be designed for their intended use and shall comply with the following:

- a. Concrete Products. All precast concrete pads, blocks, caps, and shims shall be equivalent to, or exceed, ASTM C-90-96 and constructed to be lightweight with a blend of aggregates that conform to ASTM C-33 and ASTM C-331. Pumice and cinder block components shall not be used.
- b. Poured Concrete. All poured in place concrete shall cure at least four days prior to the installation of the manufactured home and shall have a compressive strength of not less than two thousand five hundred pounds per square inch (2,500 psi) in twenty-eight (28) days.
- c. Wood Products. All pressure treated wood shall be treated with preservative according to AWPAC22 and shall be identified as to conformance with such standard by an approved agency. Field treatment of cut ends of pressure treated wood is allowed with approved products.
- d. Wood-Polymer Composite Products. All wood-polymer composites shall comply with ASTM 790, ASTM 1037, ASTM D-1413, and AWPAC E172.

02. Testing. All components of the support system shall be tested to their dead load plus superimposed live load equal to three times the required live load using the test procedures in 24 CFR 3280.401.

304. MARRIAGE LINE CONNECTIONS.

01. General. After all shipping and close-up material is removed, all sections of multi-section manufactured homes shall be secured to immobilize each section, allow for the transfer of required loads, and protect interior and enclosed spaces.

02. Shimming. Gaps from one-half inch (1/2") to one inch (1") between manufactured home sections shall be shimmed and sealed according to Subsection 304.07. Gaps greater than one inch (1") shall be corrected by the manufacturer. In no case shall the installer attempt to close gaps by tensioning the lag bolts while joining the sections together. This procedure will destroy the truss and floor integrity.

03. Ridge Beam Connections. Ridge beams of multi-section manufactured homes shall be secured together either:

- a. With three-eighths inch (3/8") diameter lag bolts with full penetration, with washers, and spaced equally along the length of the ridge beam at a maximum of twenty-four inches (24") on center and no more than forty-five (45) degrees from perpendicular. Lag bolts will be installed on both sides of the beam, offset approximately one-half of the spacing from each other. See Figure 304.1. All ridge beam lag bolts shall be installed in an area where there is solid ridge beam material between the manufactured home sections. Ridge beams shall be predrilled for lag bolts; or

b. With a connection system other than lag bolts which may be engineered by the manufacturer who shall supply the dealer and installer with complete installation instructions. Those instructions shall be in the manufactured home and the ridge beams shall be tagged to indicate an alternate system is required.

04. Floor Connections. Floors of multi-section manufactured homes shall be secure together. See Figures 304.2 and 304.3.

a. With three-eighths inch (3/8") diameter lag bolts with washers installed diagonally at forty-five (45) degrees or less through each section's rim joists installed in pairs or staggered, but not exceeding a maximum spacing of twenty-four inches (24") on center; or

b. With the manufacturer's installed mating devices bolted together with appropriately sized bolts and washers.

05. End Wall and Interior Wall Connections. All end wall studs and interior wall column supports shall be screwed together with four inch (4") long Number Eight (#8) screws spaced sixteen inches (16") on center. See Figures 304.4 and 304.5.

06. Lag bolts. Whenever lag bolts are used one-quarter inch (1/4") pilot holes shall first be drilled. The bolts shall be installed so as to provide full penetration of the lag bolt into both beams or joists.

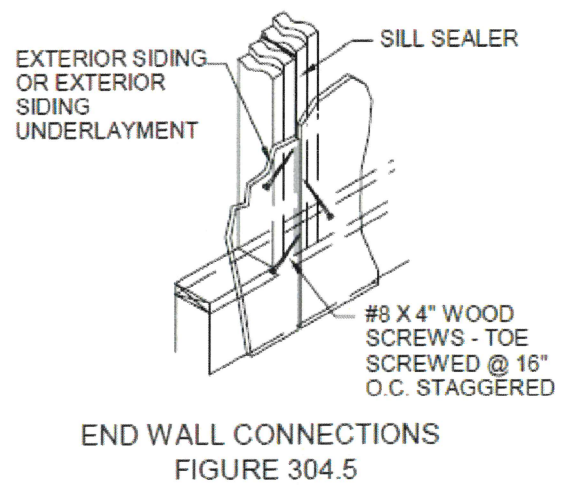
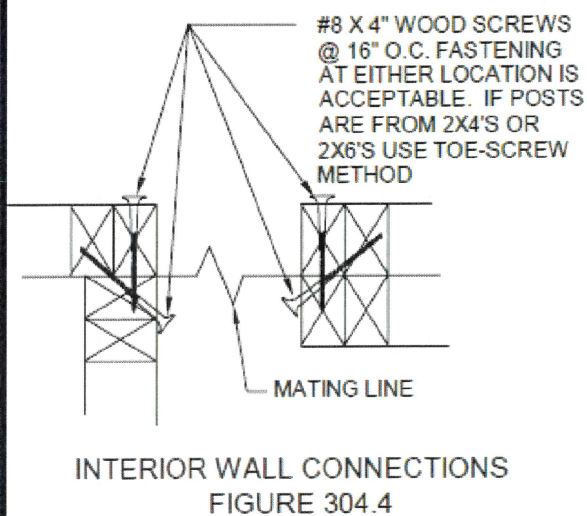
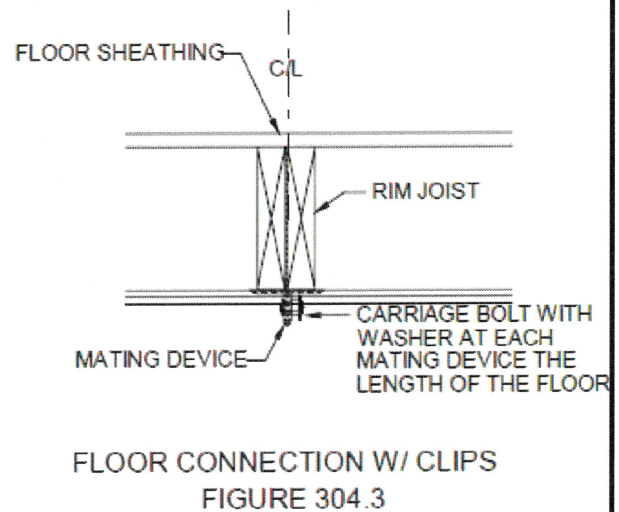
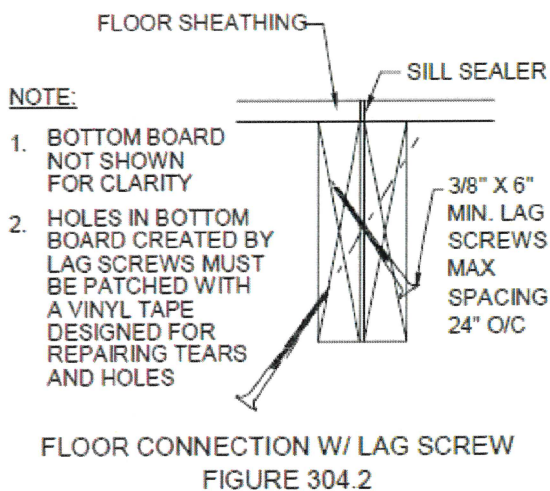
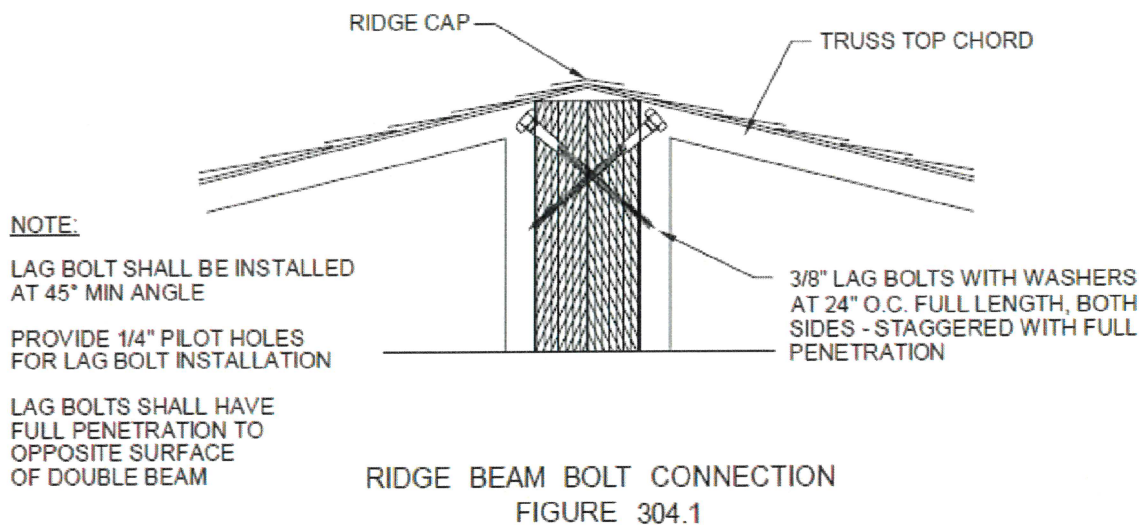
07. Sealing. During installation, joints between all sections shall be cleaned. Where the gap exceeds one-half inch (1/2") top or bottom it shall be filled with a shim. The joints shall then be sealed with a weather stripping gasket material to limit heat loss and prevent air, moisture and other damaging infiltration. The gasket material shall be durable, non-porous caulking, closed cell foam, urethane, or sill seal. If the manufacturer supplies a sealer, it shall be used by the installer. Caulking, when used, shall fill the gap and be capable of compressing and stretching. Sill seal, if used, shall be a minimum of five and one-half inches (5-1/2") wide and attached with fasteners staggered at six inches (6") on center and compressed to form a tight seal. Any remaining gaps shall be caulked or foamed to complete the seal.

08. Patching. All cuts, holes, or tears in the bottom board or floor insulation including, but not limited, to areas around structural connections and electrical, plumbing and mechanical shall be repaired.

305. FLOOD RESISTANCE.

01. Location. Manufactured homes shall not be installed in designated flood ways but may be installed in flood hazard areas according to the minimum requirements of this section.

02. Installation. All manufactured homes installed in designated 100 year flood hazard areas shall be installed according to FEMA guidelines or be placed on permanent perimeter foundations to resist flotation, collapse, or lateral movement during a base flood. Homes installed in Manufactured/Mobile home parks shall be allowed to be installed and anchored in accordance with FEMA guidelines.



03. Elevation. The underside of the floor of all manufactured homes installed in designated 100 year flood hazard areas shall be a minimum of twelve inches (12") above the flood elevation to resist flotation, collapse, or lateral movement

04. Underfloor Enclosures. Notwithstanding the requirements of Section 703, manufactured homes installed in designated flood hazard areas shall have the underfloor enclosure foundation vents located within twelve inches (12") vertically of the finished grade.

NOTE: The following information on FEMA is not adopted as part of this standard but referenced in this standard for the convenience of the user.

Federal Emergency Management Agency (FEMA). In addition to the state's minimum standards for elevating manufactured homes in flood hazard areas, 44 CFR, Chapter 1, Section 60.3(c) (6) (iv) of the Federal Emergency Management Agency (FEMA) regulations, requires all manufactured homes in designated flood areas to be elevated to resist flotation, collapse, and lateral movement during the base flood. For additional up-to-date information of FEMA requirements, programs, or insurance contact:

- a. State Coordinator
Dept. Of Water Resources
322 E Front St, Boise, ID 83702
(208) 287-4800
- b. Federal Emergency Mgmt. Agency
Federal Regional Center
130-228th St. SW
Bothell, Washington 98021-9796

306. EGRESS REQUIREMENTS.

01. Egress. Upon completion of installation, and prior to occupancy, each manufactured home shall conform with the following requirements:

- a. Each egress door on a manufactured home shall be accessible by stairs, a ramp, or a deck.
- b. Windows and doors shall be adjusted, secured in place, and made operational to provide security, egress, and to minimize air leakage and water penetration.
- c. Damage to windows and doors which affect their safety features, thermal performance, or operation shall be repaired or replaced.
- d. Each manufactured home shall have an underfloor access provided and constructed according to Section 704.

02. Inspection Approval. Installations shall not be approved until a means of access has been provided to each of the two required exit doors on the manufactured home.

03. Stairs. At set-up and prior to occupancy, stairs which meet or exceed the following standard, shall be provided at each egress door in accordance with the current version of the Idaho Residential Code as adopted and amended by the Idaho building code board (2012 IRC section R311.7). See Figure 306.1

04. Permanent Construction Requirements. All permanent ramps, steps, stairways, railings, decks, porches, and landings shall be constructed and installed according to Section 1006.

307. -- 399. RESERVED.

