

WAC 296-150M-0410 What are the requirements for altering mobile/manufactured homes? (1) Roof over framing (dormer) additions to manufactured/mobile homes must meet the following requirements:

(a) Maintain a minimum twenty pound roof, live load, and provide documentation to the department.

(b) The dead load for the dormer must be the difference between the live load design of the roof and the roof design snow load of the manufactured/mobile home location (as per Snow Load Analysis for Washington, by Structural Engineers Association of Washington).

(c) Existing roofing material, other than the sheathing, must be completely removed under the dormer.

(d) An engineering analysis shall take into account the wind load on the structure, when the dormer extends above the original ridge line of the manufactured/mobile home.

(e) The engineer or architect of record must clarify in writing on the original stamped drawings that the design plans may be used on other manufactured/mobile homes of the same live load, for generic designs that are to be used more than one time.

(f) Submit all manufactured/mobile home alterations to the department to be reviewed by plan review for compliance.

(2) Reroofing of a manufactured/mobile home must be installed and vented according to the manufacturer's installation instructions. Installation of underlayment must follow the shingle manufacturer's LOW SLOPE INSTALLATION INSTRUCTIONS and/or the Asphalt Roofing Manufacturers Association (ARMA) instructions for installations under 4/12 pitch. For roof pitches above 4/12, the manufacturer's installation instructions or ARMA installation instructions still apply.

(a) Existing asphalt roof will require removal of the original asphalt roofing material prior to the installation of new asphalt roofing.

Reuse of plastic skylights is not allowed. Skylights must be curb mounted type and step flashed per roofing manufacturer and/or ARMA requirements.

(b) If the original asphalt roofing material is not removed and a second layer of asphalt roofing is added, an engineering analysis must be completed to ensure that the existing roof structure can support the additional load while maintaining a 20 pounds per square foot (psf) live roof load, or maintaining the specified roof load listed on the homes data compliance certificate.

(c) Metal roofing with or without insulation board applied after removing existing asphalt shingles must:

(i) Follow the roofing manufacturer's installation requirements.

(ii) Maintain minimum pitch of the roof as required by the roofing manufacturer's installation requirements.

(d) Metal roofing with or without insulation board over an existing metal roof must be installed per the manufacturer's installation requirements.

Skylights installed in mobile or manufactured homes with metal roofing must be installed with specific installation instructions. Installations, if not curb mount factory flashed type, shall be flashed and counter flashed per specific installation instructions detailed by the skylight manufacturer or the metal roofing manufacturer.

(e) Bonding of noncurrent-carrying metal parts: All exposed non-current-carrying metal parts that become energized shall be effectively bonded to the grounding terminal or enclosure of the distribution panel board (note: This includes metal roofing pursuant to MCHSS

3280.809(d)). A bonding conductor shall be connected between each distribution panel board and an accessible terminal on the chassis.

(3) Grounding terminals shall be of the solderless type and approved as pressure-terminal connectors recognized for the wire size used. Star washers or other approved paint-penetrating fitting shall be used to bond terminals to chassis or other coated areas. The bonding conductor shall be solid or stranded, insulated or bare and shall be No. 8 copper minimum, or equal. The bonding conductor shall be routed so as not to be exposed to physical damage. Protection can be afforded by the configuration of the chassis.

(4) Replacing floor decking must meet the following requirements:

(a) Plan review is not required for the following:

(i) The floor decking being replaced is not greater than eight feet by sixteen feet of each section of home. All edges shall be blocked.

(ii) Two-by-six blocking is added to each floor joist and secured with 16d nails at six inches on center.

(iii) Two-by-six blocking is added at the ends of the cut such that one-half is under the existing decking and one-half is under the decking being replaced and is secured with 16d nails, two at each joint.

(iv) Floor decking must be the same thickness and grade as originally installed.

(v) Adding decking that is secured with construction adhesive bead and #8x1-3/4 inch screws at six inches on center.

(b) Plan review is required, but engineering will not be required under the following condition:

(i) The floor decking being replaced is greater than eight feet by sixteen feet.

(ii) The decking being replaced is no more than fifty percent of the floor length, each section of home.

(iii) The decking being replaced is no more than seventy-five percent of the floor width, each section of home.

(c) If the floor decking being replaced is greater than eight feet by sixteen feet of each section of home, both plan review and engineering will be required.

(d) On generic designs that are to be used more than once, an engineer or architect must clearly state in writing on the original stamped drawings that the design plans may be used on other manufactured/mobile homes of the same manufacturer.

(5) Additions (i.e., rooms, garages, carports, etc.) added to manufactured/mobile homes.

(a) Labor and industries factory assembled structures section is responsible for any alterations to the manufactured/mobile home. This includes:

(i) Any opening that is added or changed.

(ii) Electrical circuits added to the addition that come from the electrical panel in the manufactured/mobile home.

(iii) Using the manufactured/mobile home for support of the addition.

(b) A plan review is required when adding an addition to a manufactured/mobile home for:

(i) Openings not constructed per the department.

(ii) Manufactured/mobile homes which use the structure for support of the addition.

(iii) Adding a dormer on the home.

Note: An engineer or architect licensed in Washington state must design the plans and seal the plans and calculations. The department's FAS plan review section will perform a plan review.

(c) Labor and industries electrical section is responsible for any electrical circuits added to a manufactured/mobile home's addition that comes from the pedestal where the electrical section has electrical inspection authority. Some cities have electrical inspection authority and would make those electrical inspections in their jurisdiction.

(d) Local jurisdiction (city or county) is responsible for the inspection of the addition except as noted above.

(e) Items to pay particular attention to:

(i) If the addition is being served by a required egress door:

- The lock must be removed and nonlocking passage hardware installed or the door may be removed entirely leaving a passageway. One of the required egress doors must be accessible from the doorway of each bedroom without traveling more than thirty-five feet.

- An exit door at least equal in size to the one removed must be installed in the addition.

(ii) If the addition is being served by a 3rd door and the other doors meet the egress requirements outlined above, no changes to the exterior door are required.

(iii) Electrical circuits run from the manufactured/mobile home electrical panel must:

- Be in conduit if routed under the home; and

- Terminate at the edge of the home in a junction box.

(iv) The addition may be flashed to the manufactured/mobile home for purposes of sealing the exterior joint and may have trim installed on the interior for finishing.

(6) Attaching awnings and carports and garages.

(a) Self-supporting awnings and carports.

When awnings and carports are self-supporting they may be flashed to the manufactured/mobile home and no permit is required from L&I FAS section. The awnings and/or carports must be constructed to not block required egress doors or windows. Please check with your local jurisdiction building department for any permits required by them.

(b) Awnings and carports using the home for support.

Aluminum or wood awnings and carports that use the manufactured/mobile home for support will need to:

- Have the connections to the home designed and the additional load on the home analyzed by an engineer or architect licensed in Washington state. The engineer or architect will need to seal these designs and calculations;

- The installer must submit the designs to the FAS plan review section for a review; and

- The installer must have the installation inspected, after the plans are approved.

(c) Manufactured home comes from factory garage ready.

If the manufactured home comes from the factory garage ready, no inspection is required by L&I. Garage ready from the factory means:

- Dormers, if required, are installed by the factory;

- All gypsum board required on the home has been installed at the factory;

- Any door between the home and the garage meets the requirements for separation of a residence from a garage as required by the building code;

- All electrical installations meet the requirements of the National Electrical Code for one hour walls;

- The dryer outlet termination has been designed at the factory to not exhaust into the garage; and
- No other changes are required to the manufactured home at the installation site.

Note: If any changes are required to the manufactured home at the installation site, an alteration permit is required from the department.

(d) Manufactured/mobile home is not garage ready.

If the manufactured/mobile home is not garage ready when it leaves the factory, an alteration permit is required. Engineering analysis and plan review may also be required if additional loads are placed upon the home or openings are made or changed.

The following are some examples of when a plan review would be required:

- A dormer is added;
- An opening in the home is made or changed (note: Openings constructed to the department's approved details would not require a plan review); and
- Gypsum board is added to the wall of the home.

Items to also be aware of:

When a garage is to be attached to a manufactured/mobile home, the following must also be considered:

- The means of egress through exterior doors is not compromised (two are required);
- The means of egress from the bedroom(s) is not compromised (one egress directly to the exterior from each); and/or endwalls are usually shearwalls and any additional openings in them will need an engineering analysis and plan review to substantiate.

(7) Decertification of a manufactured/mobile home.

(a) Can only be decertified if the jurisdiction having authority will allow the unit to remain on the property.

(b) All electrical components, including the electrical panel, receptacles, switches and light must be removed and wires cut to where they enter the device.

(c) All plumbing fixtures and exposed plumbing water, drain and waste lines must be cut off where they enter any wall, floor or ceiling.

(d) All mechanical components including water heaters, furnaces, and kitchen appliances must be removed from the home.

(8) Installation of gas lines on manufactured homes:

(a) Gas lines must be material approved for gas distribution in manufactured/mobile homes.

(b) Must have a report available showing that the gas line tests were completed successfully. Either of the following shall be acceptable:

(i) A "Gas Piping Test Affidavit" completed and witnessed by a Washington state registered mechanical contractor representative who shall prepare a report. The test shall meet the requirements of the current HUD C.F.R. 3280 705 (8)(i)(ii).

(ii) The test must be witnessed by an L&I inspector.

[Statutory Authority: Chapter 43.22 RCW. WSR 16-01-163, § 296-150M-0410, filed 12/22/15, effective 2/1/16; WSR 08-12-041, § 296-150M-0410, filed 5/30/08, effective 6/30/08; WSR 07-05-063, § 296-150M-0410, filed 2/20/07, effective 4/1/07.]