



# Manufactured Home Update

Oregon Department of Consumer & Business Services ■ Building Codes Division

January 2008

## Alternate construction homes

By Albert Endres

Alternate construction inspections are now being handled through a special inspection process similar to site-built construction. Generally, alternate construction homes cannot be completed in the factory and require additional construction at the home site. HUD must approve an alternate construction home prior to production.

Although the Building Codes Division will remain the authority for the special inspection process, manufacturers and dealers will be using Oregon-licensed third-party inspectors, other state inspection agencies, or other approved IPIA agencies to complete the inspections. This applies to homes located out of state, as well as those in Oregon.

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## Buying and selling flood-damaged manufactured homes

By Tom Nicolai

The Pacific Northwest recently experienced a series of storms that included high winds and excessive amounts of rainfall in a short time. Flooding took place in Oregon and Washington and many homes were damaged. Some of the homes are total losses, and others can be salvaged, repaired, and sold. Here are the rules for buying and selling flood-damaged manufactured homes:

### “As is” sales

A home can be sold “as is.” This means that the buyer accepts responsibility for the home’s performance and quality. Oregon law (ORS

446.155(5)(d)) requires the seller disclose on the bill of sale that the home is being sold “as is” or “with all faults.”

### Salvage sales

When flood damage is more severe, an insurance company may declare a home as salvage. Once that is declared, the home cannot be sold, except as salvage, and is considered non-habitable. However, the buyer may remanufacture a home that has been declared salvage.

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## Alternate construction homes, *continued from Page 1*

The manufacturer or dealer will be responsible for contacting the inspection agencies they choose for the inspections. The manufacturer, dealer, and inspector will determine the financial arrangements and inspection processes. The selected inspector will make the arrangements for the inspection and receive the inspection material. The reports will be distributed as agreed and in accordance with the requirements of the HUD AC approval. The division will be provided with the reports and will review them and track the activity as required by HUD.

This process will provide for more timely inspections, and the capability of using inspectors in the area, and it will give the manufacturers some ability to control the cost of the inspections. Jurisdictions that are interested in providing this service to the manufacturers should contact the Oregon manufacturers to express their interest. If you have any questions about the changes, the process, or other inquiry, please contact me at [albert.g.endres@state.or.us](mailto:albert.g.endres@state.or.us) or (503) 378-5975. ■

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## Flood-damaged manufactured homes, *continued from Page 1*

### Remanufacturing

The first step is to contact the Building Codes Division for an inspection to determine whether the home can be remanufactured. If the inspection finds that the home can be remanufactured, the work must follow these guidelines:

1. Obtain a permit from BCD (Cost is \$125).
2. Before remanufacturing begins, an inspector from the division must examine the home to identify items in need of repair or replacement.
3. Leave repaired areas open for inspection.
4. Replace all wet insulation.
5. Replace all damaged materials.
6. Sanitize all exposed surfaces with a 1:10 ratio of bleach to water.
7. Remanufacture the home to the codes in effect at the time of original manufacture.
8. Replace all electrical devices and appliances that were submerged.

9. Replace any fiberglass ducts and sanitize any metal ducts that were submerged.
10. Install smoke detectors.
11. Contact the BCD for final inspection.

### Labels and insignias

If the HUD labels or state insignias are still on the home, and the home passes the final inspection by BCD, the division will consider the labels recertified. If the labels are missing, BCD will issue an "Oregon Insignia of Compliance" to be attached to each section of the home once it has passed the final inspection. The Oregon Insignia of Compliance labels cost \$50 each.

### Beyond salvage

BCD may consider badly damaged homes unsalvageable. In these cases BCD cannot recertify the home, and the labels on the home, if any, must be returned to BCD. ■

# Federal dispute resolution program dealer requirement

*By Albert Endres*

The U.S. Department of Housing and Urban Development's new regulation, CFR 3288, becomes effective on Feb. 8, 2008. One of the provisions of the regulation, section 3288.5, requires that dealers notify purchasers of the dispute resolution program. HUD has determined that this notice applies only to new HUD-labeled homes that were produced on or after Feb. 8, 2008.

The text of the regulation is as follows:

3288.5 Retailer notification at sale.

Retailer notice at the time of signing. At the time of signing a contract for sale or lease for a manufactured home, the retailer must provide the purchaser with a retailer notice. This notice may be in a separate document from the sales contract or may be incorporated clearly in a separate section on consumer dispute resolution information at the top of the sales contract. The notice must include the following language:

The U.S. Department of Housing and Urban Development (HUD) Manufactured Home Dispute Resolution Program is available to resolve disputes among manufacturers, retailers, or installers concerning defects in manufactured homes. Many states also have a consumer assistance or dispute resolution program. For additional information about these programs, see sections titled "Dispute Resolution Process" and "Additional Information – HUD Manufactured Home Dispute Resolution Program" in the Consumer Manual required to be provided to the purchaser. These programs are not warranty programs and do not replace the manufacturer's or any other person's warranty program.

For more information, please contact me at [albert.g.endres@state.or.us](mailto:albert.g.endres@state.or.us) or call (503) 378-5975. ■

## Cite it, write it

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*By Albert Endres*

As most of you know by now, Oregon Administrative Rule 918-098-1900 requires that any corrective notice must adequately cite the applicable specialty code that addresses the noncompliance observed. This rule took effect Jan. 1, 2006. To some, this may appear to be a new requirement but in reality, this requirement has been in place for manufactured home installation violations since April 1, 2002. The reference is in the Manufactured Dwelling and Park Specialty Code, Section 1-12.1.

Unfortunately, some of the inspection reports and phone calls that come to my attention indicate inspectors are not following this requirement universally. I realize that at times inspectors may forget or do not have the appropriate codebook with them when the inspection report is written, but it appears there are some who disregard the requirement.

When citizens, installers, or dealers call me with questions, they frequently report that they have been written up for something and they are not sure of the code requirements. I ask them what reference the inspector quoted, and they either cannot produce the inspection report or they say there is no reference noted.

Making the reference is required, but it also is helpful to me in identifying the problem.

If you have any questions about this, please feel free to contact me at [albert.g.endres@state.or.us](mailto:albert.g.endres@state.or.us) or (503) 378-5975. ■

# Vents and venting on site

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By Dan Jones

It seems that homes keep getting bigger and more elaborate, with A/C-hinged roofs and upgraded appliances. Often appliance vents and other equipment are being shipped loose in the home, left to be installed on site.

If you are performing this type of work on a home for an on-site installation, repair, or replacement, take a moment to review the installation requirements for the specific equipment that you are installing. Products and their installation instructions change frequently. Proper installations will help ensure consumer safety and the durability of the home.

You must install vents and their termination fittings according to the terms of their listing and manufacturer installation instructions. Some vent and flashing kits are specific in use for a designed roof pitch, e.g. 4/12, 6/12. Others may require a specific type and number of fasteners, and the use of a compatible sealant applied to the flashing and around swivel-type joints. Here are a few of the general requirements that sometimes need attention.

**Mechanical vents:** Must terminate outside of the home (top of roof sheathing) and not be located any closer than three feet to a motor-driven air intake.

**Chimneys:** Shall extend a minimum height of three feet above any portion of the roof, and a minimum of two feet above the highest elevation within 10 feet. Pay attention to areas around tower-type dormers.

**Ceiling roof/cavity ventilation:** Each home should be provided with a minimum free area of 1/300. At least 50 percent of the free ventilation is from the upper portion, typically using roof vents or ridge vents. At least 40 percent is from the lower portion using eave, soffit, or lower roof vent.

**Roof vents:** The vent capacity is listed on the vent. Ensure that the hole in the roof sheathing is of adequate size, and that the underlayment paper and shingles are not obstructing the opening area.

**Ridge vent:** The capacity is listed on the installation instructions, indicating the required length of the vent, the area of roof sheathing to be removed, and the method to seal the ends of the vent. Be aware that many homes are now 15 to 16 feet in width, thus requiring more ventilation. ■

## RV corner

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By Brian Lamb

Manufactured housing plants around the Pacific Northwest continue to produce recreational park trailers. Many of these park models have lofts, which greatly expand their usable area. 2005 ANSI 119.5, Recreational Park Trailer Standards adopted codes pertaining to the lofts.

5-10.1 Loft areas shall have a glazed area of not less than 8 percent of the gross floor area.

5-10.4.1.1 Stairways shall not be less than 17 inches in clear width at all points at or above the permitted handrail. The minimum width below the hand rail shall not be less than 20 inches.

5-10.4.1.2 Stair risers shall be a minimum of 7 inches and a maximum of 12 inches.

5-10-6.1 Requires handrails to have a minimum and maximum height of 30 inches and 38 inches measured from the nosing of the tread. These

handrails are required to be on one side of the stairways having three or more risers and must be continuous the full length of the stairs. A spiral stairway must have the handrail located on the outside radius. Handrails adjacent to a wall must maintain a minimum of 1½ inches between the handrail and the wall.

5-10-6.2 Handrail grip size if circular shaped shall have a diameter 1¼ inches to 2 inches. If using a non-circular shape hand rail, the cross section perimeter must be 4 inches to 6¼ inches.

5-10.7 36-inch minimum guardrails are required on open-sided stairways, raised floor areas, balconies, and/or porches. The rails shall be spaced so an object 4 inches in diameter will not pass through. The opening between the bottom of the railing and tread shall not allow less than a 6-inch sphere to pass through it.

## RV corner, *continued*

5-10.5.1 If ladders are used to access the loft they shall have a 12-inch minimum rung width and 10-inch to 14-inch spacing between rungs. Ladders shall be capable of supporting a 200-pound load.

5-10.5.2 Ladders shall be designed to prevent lateral movement in excess of 2 inches when in use. Ladders shall be designed to be installed at 70 to 80 degrees.

5-10.2 Lofts shall have two means of egress, remote from each other: an egress window on the opposite side as the stairway, or two remote egress windows in the case of a fully enclosed loft.

5-10.3 In addition to the main smoke alarm, the loft area shall have at least one smoke alarm installed.

This is only an overview reminder of the requirements pertaining to lofts in recreational park trailers. The ANSI 119.5 standards should be referenced for specific code requirements. ■

### 2005 Oregon Recreational Park Trailer Code

**5-10.6.1 Handrails.** Handrails having a minimum and maximum heights of 30 inches and 38 inches respectively, measured vertically from the nosing of the tread, shall be provided on at least one side of stairways of three or more risers. Spiral stairways shall have the required handrail located on the outside radius. All required handrails shall be continuous the full length of the stairs. Ends shall be returned or shall terminate in newel posts or safety terminals. Handrails adjacent to a wall shall have a space not less than 1½ inches between the wall and the handrail.

**Exceptions:**

1. Handrails shall be permitted to be interrupted by a newel post at a turn.
2. The use of a volute, turnout or starting easing shall be allowed over the lowest tread.

**5-10.6.2 Handrail Grip Size.** Handrails shall have either a circular cross-section with a diameter of 1¼ inches to 2 inches or a non-circular cross-section with a perimeter of at least 4 inches but not more than 6¼ inches and a largest cross-section dimension not exceeding 2¼ inches. Edges shall have a minimum radius of ⅛ inch.

To establish the ratio for the rise and run of a stairway the following formulas shall be used.

$20'' \text{ minus } (\frac{R}{4} \times \frac{3}{4}) = \text{Tread (T) depth}$     Or     $15'' \text{ minus } (\frac{T}{4} \times \frac{3}{4}) = \text{Riser (R) height}$

**Example:** If the riser height is known to be 7½ inches, the tread depth would be 10 inches.

$(\frac{7.5}{4} \times \frac{3}{4} = 2.25) 20 - 2.25 = 17.75 = 10 \text{ inch tread depth.}$

Or if the tread depth is known to be 10 inches, then you'd figure it like this;

$(\frac{10}{4} \times \frac{3}{4} = 7.5) 15 - 7.5 = 7.5 \text{ inch riser height.}$

# Manufactured home installation certification and licensing class schedule for 2008

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*By Dwight West and Albert Endres*

Several changes to the installer licensing and inspector certification classes for manufactured dwelling installations take effect in January 2008. The classes will be held in Salem at the Building Codes Division office. The four-hour class will be held once a month. Instruction will take place from 8 a.m. to noon with testing starting after lunch, at 1 p.m.

Any individual in the business of installing manufactured dwellings or assisting in the installation of manufactured dwellings (including skirting) must be licensed with the Building Codes Division (BCD). In addition, individuals who perform inspections of manufactured dwelling installations for local jurisdictions must be certified by BCD.

To become licensed as a manufactured-dwelling installer, limited installer, limited skirting installer, or certified as a manufactured home installation inspector, you must attend the class and pass the written examination. Limited installers and limited skirting installers do not need to take the test.

You must submit your application with the fee for the appropriate license or certification. The application forms are on our Web site ([www.bcd.oregon.gov](http://www.bcd.oregon.gov)). An inspector applicant will use Form 440-2520 and a license applicant will use Form 440-2501. The application also serves as your class registration. You must indicate on the application the date of the class you choose to attend. The fee for the class is included in the application fee. You must submit the application to BCD at least 10 days prior to the date of the class.

The application form is available at [http://www.cbs.state.or.us/bcd/programs/mdprogram/class\\_attendance\\_form.pdf](http://www.cbs.state.or.us/bcd/programs/mdprogram/class_attendance_form.pdf).

Due to the shortened instructional period, attendees will need to purchase the code book (Manufactured Dwelling and Park Specialty Code) before the class and read it so they have some familiarity with the contents. You can order the code book by calling the Oregon Manufactured Home Association at (503) 364-2470. You should familiarize yourself with the code prior to the class, as instruction time will not allow full coverage of the contents. Oregon Revised Statute (ORS Chapter 446) and Oregon Administrative Rule (OAR 918-500 through OAR 918-520) also are on our Web site at [www.bcd.oregon.gov](http://www.bcd.oregon.gov). The statute and rules will be available at the class but you must bring the Manufactured Dwelling and Park Specialty Code book to the class.

You must bring the code book with you to the class. We will have copies of the statute and administrative rule on hand, but please read them before the class. The test is open book, so if you don't have the code book, the test will be significantly more difficult to pass.

Class dates for 2008 are: Tuesday, Jan. 29; Tuesday, Feb. 26; Tuesday, March 25; Tuesday, April 22; Wednesday, May 28; Tuesday, June 24; Tuesday, July 29; Tuesday, Aug. 26; Tuesday, Sept. 23; Tuesday, Oct. 28; Tuesday, Nov. 25; and Wednesday, Dec. 17. The schedule is also on the Web site.

Classes will be held at the Building Codes Division, Room A, 1535 Edgewater Street NW, Salem, OR 97309. Registration is at 7:30 a.m. with the class starting at 8 a.m. Lunch break will be from noon to 1 p.m. Lunch is not provided, but there are several eateries nearby. Testing will begin at 1 p.m.

If you have any questions, contact Albert Endres at [albert.g.endres@state.or.us](mailto:albert.g.endres@state.or.us) or call (503) 378-5975. ■

# Field installation tips

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*By Kurt Pugh*

In the past couple of issues, I have reviewed product installation requirements. I thought I would continue down that path. As discussed in the past, more of the home completion is being left to the set-up crews. In the field, installation materials and instructions are not always readily available. Here are some helpful hints.

We have discussed ridge venting in the past, but there has been a change. Instructions for the ridge vent are on the outside of the roll that is provided by the factory. The old instructions told us that when we spliced two pieces together, we sealed both pieces. Now, the instructions say to put the foam piece on each section and seal them together. The foam piece is the one we are supposed to put in each end to seal it from insects. There should be enough material provided to install it at both locations.

One thing that is sometimes overlooked is bottom-board repair. There are several types being used by Oregon manufacturers. All of them have specific types and methods to repair the bottom board. It is not always OK to use regular duct tape for the repairs. The plants should provide close-up material. If they don't and you have repairs, contact them for the proper material. If you have large repairs, they should not be taped. A large piece of the same type of material should be put over the hole. In most cases a spray adhesive should be used. Again, the plants can tell you what to use. Bottom board is important because it keeps out unwanted vermin and it holds the insulation in place. If you are making a repair or fixing a p-trap, make sure it is well insulated before it is closed. If the floor is insulated with loose fill, it should be filled with batt insulation.

We reviewed down-draft venting last time. Now we are looking at standard range-hood vent pipes. All range hoods, but not all vent pipes, are installed at the plants. When assembled, all range-hood vent pipes are required to be mechanically fastened together. Foil tape is not an acceptable means of securement, though it can be used to seal the joint after the mechanical portion is complete. We need to be careful when connecting to the hood itself, so as not to hinder the damper operation. If the pipe is going to be exposed in the overhead cabinet, it needs to be bonded to the range hood. In both cases, a small sheet-metal screw is the recommended means of attachment.

I have not seen any bath fans at the plants that do not have the flex pipe connected to the fan, so the only thing we need to worry about is the flex to the exterior of the home. When the flex pipe is installed, it should be as vertical as possible. If there are bends in the pipe, condensation can collect there and drip back into the home or collect there and start to mildew. This is very important, because the HUD standards only require a 50 cfm for each bathroom. However, if you read the instructions for the fan, it will state that they only recommend it for rooms of 50-70 square feet. Some of our bathrooms far exceed that. So, get those flex pipes as vertical as possible.

One of my inspection tricks in the field is to go into the home and turn on all the fans and then go on the roof to see if there is good air flow. That goes for range hoods, bath fans, and whole house fans. It is a simple method to check if everything is installed and in good working order.

If you have any questions, contact me at (503) 378-6065. ■

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