Manufactured Home Update

Oregon Department of Consumer & Business Services ■ Building Codes Division July 2002

Joe Brewer resigns as BCD administrator

Mary Neidig, director of the Department of Consumer and Business Services, accepted Joe Brewer's resignation letter June 4.

Linda Riddell is acting administrator until a new administrator is hired. Neidig and Greg Malkasian, deputy director, will work closely with the BCD executive team to develop a transition plan, ensure continuity of program services, and implement a process to fill the position on a permanent basis as soon as is practicable. ■

Newest code available on BCD's Web site

By Larry Iverson
Chief of Manufactured Structures and Parks

The complete 2002 Manufactured Dwelling and Park Specialty Code is now available to anyone with an Internet connection.

This Web version of the code is available in PDF format and may be downloaded and viewed and printed by chapter. Just click on the chapter in the table of contents, and you go to that chapter. The chapter files are fairly large, so they take a few minutes to download. The address: www.oregonbcd.org/sws/2002mds.html

You may purchase a spiral-bound paper copy of the code by calling the Oregon Manufactured Housing Association, (503) 364-2470. ■

HUD updates rules

Manufactured homes constructed on or after September 16, 2002, will be subject to new HUD standards for smoke-alarm systems.

Smoke-alarm mechanisms, which were required to be installed outside bedroom areas, will be required *inside* each bedroom or designed sleeping area. This would add three alarms to the average three-bedroom home.

HUD updates *… continued on Page 3*

Inside

A salute to the good guys and gals

By Albert Endres

This is a special "hats-off salute" to people who recently have gone well beyond their obligations and who have contributed significantly to the manufactured home industry.

- Barney Martin, Silvercrest
- Bill Bradford, Liberty Homes
- Jeff Carlson, inspector
- Lynn Estenson, installer
- Rick Torgerson, Skyline Corporation
- Phil Bond, installer
- Ardy Berg, Paramount Homes
- Al Rust, BCD
- Chris Ruddell, building official
- Terry Roebuck, Fuqua Homes
- Littlebrook Estates
- All factory staff who complete 302 Reports
- Ron Crapser, Garland Homes
- Rusty Bowser, Liberty Homes
- Hank Eckhardt, building official
- Tom Moraga, Redman Homes, Idaho
- Dale Hall, Fleetwood
- Jack Chaney, installer
- Jim Rogers, Marlette Homes
- Rich Morse, building official
- Joe McClay, building official

There are many more outstanding people in this industry who are doing much more than required. As we at BCD work with them, I hope to acknowledge their contributions, also.

What happens to old manufactured homes?

By Tom Nicolai

When homeowners are in the market for a new manufactured home, they often intend to install the new home on the site occupied by their old home. So — what to do with the old home?

Many owners will trade them in if dealers will accept them as trade-ins. Others may keep them to use as storage or for other purposes.

If a dealer accepts an old home as a trade-in, what does the dealer do with it?

If the home is in good shape and was built to HUD code after June 15, 1976, the dealer may try to sell it used. But it is becoming more difficult to get permits to install older homes in cities and counties.

If the home is not worth trying to sell, dealers may salvage what parts they can and scrap the rest. **If the home still has the HUD labels affixed, the dealer is required to remove the HUD labels and send them to BCD.**

This ensures that the labels are not used for other purposes or affixed to homes that might not be built to HUD standards.

Removing and sending HUD labels also applies to homeowners who decide to keep old homes and use them for storage sheds or other purposes.

When you send us HUD labels, please include as much information about the home as you can, such as manufacturer, serial number, and address at which the home is — or was — located.

If you have questions concerning this issue, contact Albert Endres, (503) 378-5975. Removed HUD labels may be sent to Building Codes Division, P.O. Box 14470, Salem, OR 97309-0404. ■

Skirting installation not as easy as it seems

By Tom Nicolai

Many consider the skirting installed on the manufactured dwelling to be the easiest part of the overall installation. But many tasks that should be part of the skirting installation are frequently overlooked or done incorrectly.

Proper venting of the crawlspace remains the most common problem: 56 percent of sets are undervented. The second-most-common problem is the use of improper skirting materials. Use of incorrect material for skirting occurs when something besides block masonry or poured-in-place concrete is used.

Skirting is to be constructed of durable, rigid materials such as wood, vinyl, aluminum, or steel siding suitable for exterior exposure.

These materials are required to be installed in accordance with skirting manufacturers' installation instructions as referenced in ODDS Chapter Three, Section 3-9. Manufacturers' instructions cover support and securement as well as intended uses of the product.

It is under "intended uses" that mistakes commonly occur. Materials not rated for ground contact are being installed in contact with the ground or installed to retain backfill.

Many of these products are to be used only for exterior siding. The exterior edges are intended to be painted, sealed, flashed, or separated from the ground to avoid moisture exposure.

One siding material being used more often for skirting is made of concrete and wood fiber. Product instructions say not to place the material closer than six inches from the ground and not to use it to retain backfill.

Many believe that this material is OK for ground contact because of the concrete content. But remember, the product also contains wood fibers that gradually absorb water through unsealed edges or unpainted back surfaces and break down when exposed to ground moisture or backfill.

Before installing skirting on a home, read the product literature and the manufacturers' installation instructions to make sure you are using the product as intended.

Of the most commonly used materials, masonry block units, pressure-treated plywood (foundation grade), and poured-in-place concrete are the only materials that are suitable for direct contact with the ground or backfill. ■

HUD updates *… continued from Page 1*

Smoke alarms must continue to be provided in the kitchen and living areas, and, if within 20 feet of a cooking appliance, alarms must be photoelectric or equipped with a silencing feature.

Other requirements for smoke alarms installed in manufactured homes:

- Interconnectedness so that activation of one alarm causes all alarms in the home to activate.
- Visible or tactile notification when requested by hearing- or visually impaired customers.
- Hard wiring (with battery back-up) or operation by batteries rated for 10 years.

The new HUD requirements are expected to add from $37.40 to $41.50 to the price of a new home.

Provisions for factory and site testing have been added along with requirements for two-story or basement alarm placements where applicable. Mounting and location requirements have also been revised to be more consistent with other single family housing model and fire code requirements.

Homes produced prior to the September 16, 2002, **cannot** be required to be upgraded during the initial sale and installation. ■

What's the biggest problem?

By Albert Endres

Nearly every homeowner will tell you he or she expects some problems with a new home. Having been in this industry for 29 years, I can assure you that problems are to be expected. When a home is built in a factory, shipped many miles down the road in sections, sited over rough delivery routes, installed in sometimes-harsh weather without power or heat, and subjected to many different workers, problems arise. This will always be true.

Frustration occurs with the correction process. Not all homeowner experience a high degree of frustration, but we, as inspectors, certainly hear from a good share that do. (Keep in mind that division inspectors are usually involved only when problems arise.)

Homeowners regularly recount to us how many times they called for service repairs and had appointments ignored by repair people. They take time off work, rearrange their schedules and wait. The service crew either fails to show up without a courtesy call or shows up two hours late, works for a couple hours, and tells the homeowner, "We'll be back." But unlike Arnold Schwarzenegger in the movies, they forget to go back.

We believe some of these "repair horror stories" that we hear because it's highly unlikely that anyone would — or could — concoct them.

I realize there are some valid reasons for cancellations — such as parts delays — but cancellations are all too common.

The other thing that really gets under our skins is the inadequacy of corrections. So many times, when homeowners have been compelled to involve us, we find corrective work to be of poor quality, incomplete, or noncompliant, or that workers corrected the result of the problem but not the cause, leaving an opening for recurrence. We find this to be true in physical inspections in the field, and, when we do service-record reviews in the factory or at the retail sales center, we find numerous trips were made to the same home to repair a problem.

I am not a statistical analyst or a marketing expert, but instinct tells me is that if we spent more time addressing delays and improper repairs than poring over customer-satisfaction survey data, we might raise the customer-satisfaction level by truly improving satisfaction among the owners. ■

Some things improve

By Albert Endres

The installer-licensing program began in July 1990, partly in response to the industry wanting more accountability and partly to deal with installation problems in homes the division inspected as a result of consumer complaints. We needed better accountability among installers and a method to identify which installers had worked on the homes.

In the early years of the program, one of the most common complaints of homeowners was that their home was not level. Sure enough, the home was generally out-of-level when we checked the installation. It seemed that I was always getting out the old water level and checking the home. Most of the time, the leveling problem was drop-off at the sidewalls, but it was not unusual to find the I-beams out of level, also.

As I was cleaning out my truck recently I found the water level in its container. I couldn't remember the last time I had had to use it. Because space is at a premium in the truck and I have had such limited need for the level, I have quit carrying it. Now if only I could quit carrying the ladder ... . ■

Pay attention to code requirements for skirting access and materials

By Al Rust

On a recent inspection, I found a skirting-access opening that was the right size (Figure 1) — but there was no way this could properly be called *access*. The opening was blocked with water lines, drain lines, electrical conduit, and a perimeter pier. Yes, this opening gave access to the water shutoff valve, but it did not provide access to the crawlspace under the home.

The skirting material (Figure 2) was the same as the exterior siding of the home, which is not rated for ground contact. The 2002 Oregon Manufactured Dwelling and Park Specialty Code, in Section 3-9.3, states that this type of material must be protected or must have a 5 1/2-inch separation from the ground. The skirting on this home was neither protected nor separated from the ground. Three years after the home installation, deterioration had begun (Figure 3).

The requirements in our code are intended to protect the home and the homeowner. Let us all remember the importance of complying with the code when we install, inspect, and talk to others about manufactured-home installations. ■

Figure 1: This access opening is the right size, but it's blocked by pipes, piers, and lines.

Figure 2: This skirting is made of siding material not rated for ground contact.

Figure 3: Just three years after installation, deterioration is visible.

Consumer inspection results show few worries

By Albert Endres

Our database shows only three problem areas that were beyond what we expected in the past 60 days, which is a good sign that factories, retailers, and installers are doing a good job of prevention by doing the job right the first time.

The three problems are perimeter piers and leaks at exterior doors and windows. Window leaks can generally be attributed to their installation at the factory. What we usually find are workmanship failures in which window installers fail to completely fill siding grooves above the windows or don't ensure the sides of the windows are sealed. This is easily preventable.

The other two problems can be attributed to manufactured-home installers. The most common problem with perimeter piers is simply loose piers. There is the occasional missing or over-spaced pier, or piers not installed at door openings or other openings wider than four feet. Installers paying more attention to the requirements can prevent most of these situations.

Door leaks are also common, and many of them are attributable to brick molding not being sealed to the siding. Many factories omit door sealing at the plant to allow for adjustment in the field once the home is set.

Oregon Administrative Rule 918-515-0150(2)(f) requires the installer to ensure that the door is adjusted, secured, and operational. Part of this installation is ensuring that the door is properly sealed.

Other than the three problem areas that exceeded our expectations, the problems recorded were well within the expected range.

Overall, the most common problems we see are not directly related to the production-and-installation process, but to service work not being scheduled in a timely manner and not being followed through with high-quality work. We continually hear about appointments not being kept by service crews and see repair work that has not been done properly.

If you have questions about this article, call me at (503) 378-5975 or send e-mail to Albert.G.Endres@state.or.us. ■

Mistakes in access well and skirting can come back to haunt you

By Mark Campion

Most homes set on private property have poured runners or full slabs with masonry block skirting for perimeter support. For access to the crawlspace, we typically see two methods employed, depending on whether or not the home is pit-set.

On aboveground sets, simple plywood doors are installed. When the home is pit- set, a masonry-block access well is built around the opening to keep the soil back. In this application, the access well must be covered unless a low-point drain is installed in the well and a plywood door installed.

Regardless of the method employed, the skirting contractor must post his or her installer certificate, as required by the *2002 Oregon Manufactured Dwelling and Park Specialty Code*, Chapter One 1-10.1.1.

Several times I've run across pit-set homes with access wells, but no covers (and no low-point drains with plywood doors). In this scenario, access-well covers are mandatory, not up to the discretion of the skirting contractor. If homeowners want to make and install their own covers, then the dealer and/or skirting contractor must clearly state this in the contract. Otherwise, the skirting contractor — ultimately the dealer, in some instances — is responsible for retrofitting an access-well cover at his own expense. So plan ahead. ■

Installation-inspection quarterly statistics

This is the information gathered from installation inspections around the state, which shows the number of inspections per quarter, the average score for each quarter, and the top 10 non-conformances in each quarter, with percentage rate per inspection.

January-March 2001

Number of inspections: 92
Average score: 91.6

Rate		Occurrence
1	Permit not posted	24%
2	Perimeter pier placement	16%
3	Water supply not insulated	17%
4	DWV: green tracer wire missing	12%
5	DWV: not supported	13%
6	Electrical conduit not secured	13%
7	No frame bonding	12%
8	Crossover wire protection	8%
9	Temporary steps: none/not safe	11%
10	MDI certification tag missing	15%

April-June 2001

Number of inspections: 93
Average score: 91.1

Rate		Occurrence
1	Centerline piers missing	14%
2	Perimeter pier placement	12%
3	Piers are loose	16%
4	Water supply not insulated	18%
5	Water supply line not supported	15%
6	Electrical conduit not secured	11%
7	Dryer vent not to skirting	18%
8	Exterior close-up not sealed	12%
9	MDI certification tag missing	16%
10	LSI certification tag missing	10%

July-September 2001

Number of inspections: 72
Average score: 89.7

Rate		Occurrence
1	Permit not posted	22%
2	Centerline pier missing	16%
3	Perimeter pier placement	14%
4	Piers are loose	14%
5	Water supply not insulated	16%
6	DWV: not supported	14%
7	Electrical conduit not secured	21%
8	No frame bonding	16%
9	Crossover wire protection	18%
10	MDI certification tag missing	21%

October-December 2001

Number of inspections: 70
Average score: 91.2

Rate		Occurrence
1	DWV: not supported	13%
2	LSI certification tag missing	13%
3	Perimeter pier placement	13%
4	Piers are loose	14%
5	Exterior close-up not sealed	14%
6	Dryer vent not to skirting	16%
7	Water supply line not supported	17%
8	DWV: Grade incorrect	19%
9	MDI certification tag missing	19%
10	Water supply line not insulated	20%

January-March 2002

Number of inspections: 69
Average score: 91.4

Rate		Occurrence
1	No frame bonding	10%
2	Shutoff not accessible	12%
3	Perimeter pier placement	13%
4	Perimeter missing	14%
5	Piers are loose	14%
6	Water supply not supported	17%
7	DWV: grade incorrect	17%
8	Exterior close-up not sealed	17%
9	MDI certification tag missing	19%
10	Elect: conduit not secured	20%

Code change allows pier-spacing options

By Albert Endres

Since the adoption of the Manufactured Dwelling and Park Specialty Code in April, several callers have asked about the number of piers required under manufactured homes.

You have all noticed that spacing has been reduced from what you were accustomed to. There are options to placing piers closer together, as required by the new code.

One option is to beef up the pounds per square foot of soil capacity by adding gravel or continuous-concrete footings or slabs, which will allow you to use fewer piers. Refer to Table 3-B and Section 3-4.5 for guidelines for correctly increasing spacing. Another option is to check county or city records to find out if soil capacities have been determined to be above the 1,000-psf minimum that is the assumed capacity of all Oregon soils. With appropriate verification that the soil capacity is higher, you may place piers farther apart. In some cases, it may be cost-efficient to have soil tested prior to home installation to determine soil capacity.

So, some planning and a couple of phone calls may well reduce your costs and effort. Call me if you have questions, (503) 378-5975. ■

Quizzin' Corner

This is a tough one. The words listed below are all common to the manufactured home industry. This month, you need to get out your Oregon **M**anufactured **D**welling **a**nd **P**ark Specialty Code. After you have found all the words in the puzzle, go to the MD&P book and look up the definitions. You will find the definitions in Appendix A, on page 165 of the MD&P. Have fun!

ACCESSIBLE
ALTERATION
AWNING
BONDING
CABANA
CARPORT
CHASSIS
CONCEALED
CONNECTOR
CONSTRUCTION
DRAIN
EQUIPMENT
PLENUM
PREFABRICATED
REPAIR
STAND
UTILITIES
VISUAL
FILL
FOOTING
GARAGE
GRADE
INSTALLATION
INSIGNIA
INSTALLER
FOOTCANDLE
PHOTOCELL
MODEL
OPTION
PIER
PORCH
RAMADA
SKIRTING
STRUCTURE
VENT
WEATHERIZATION

I	N	S	I	G	N	I	A	B	C	G	R	A	D	E
A	C	C	E	S	S	I	B	L	E	D	E	F	G	H
F	A	A	G	I	J	I	N	S	T	A	L	L	E	R
I	R	B	A	S	K	E	Q	U	I	P	M	E	N	T
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A	R	A	K	L	E	A	M	N	N	P	O	E	S	E
T	I	I	Q	H	R	M	S	T	D	U	N	I	N	N
I	A	N	T	S	T	A	N	D	I	L	C	T	O	U
O	P	A	V	L	E	D	O	M	N	W	E	I	C	M
N	E	X	Y	Z	W	A	B	L	G	K	A	L	S	R
W	R	R	O	T	C	E	N	N	O	C	L	I	W	U
P	Q	A	G	N	I	T	R	I	K	S	E	T	X	Y
S	T	R	U	C	T	U	R	E	V	L	D	U	M	E

Tape-and-texture warranties may not be needed

By Mark Campion

As long as I have been tracking corporate- and independent-dealer policies on tape-and-texture warranties, the industry has been pretty much 50/50 on offering warranties. Even if retailers do not offer warranties, they respond to many requests for help from customers, performing the work and absorbing the costs.

One thing that all retailers should be aware of is that all close-up tape-and-texture work is automatically "warranted" by Oregon rule and statute through the Construction Contractors Board. You may have to perform repairs even though you do not warrant them.

As an example, if the marriage-line ceiling develops a bad crack, it is probable that the dealer will be held responsible for the repairs. Factories are not subject to this requirement.

Even if a crack is cosmetic and not an indication of an underlying structural problem, the CCB has the authority to require repair. So in effect, by default, all retailers in Oregon offer a one-year warranty on close-up tape-and-texture work.

Remember, the homebuyer usually has no contractual relationship with the installer or close-up crew, so it is logical that the tape-and-texture work not land in his back yard. ■

What is a permanent foundation?

By Albert Endres

We get calls each month from people wanting to know the definition of a permanent foundation. The call is usually placed because some lending institution, local zoning law, or insurance company has "permanent foundation" requirements for placing or insuring the manufactured homes.

The division's standpoint is that any home installed to the 1997 Oregon Manufactured Dwelling Standard or the 2002 Oregon Manufactured Dwelling and Park Specialty Code is considered by the division to be on a "permanent" foundation. There is no definition of a "permanent foundation" in statute, administrative rule, the OMDS or the Oregon Manufactured Dwelling and Park Specialty Code.

Home sets exceeding those standards that meet the minimum requirements would also be considered "permanent" by the division.

Lenders, retailers, insurance writers, manufacturers, and homeowners may require that code be exceeded to meet their specific requirements if they have a different opinion as to the definition of a "permanent foundation."

When you're asked if a home is on a permanent foundation, be sure you find out whose requirement you are being asked to meet.

If you have questions concerning this article, call Albert Endres, (503) 378-5975 or send e-mail to Albert.G.Endres@state.or.us. ■

Soil capacity determines pier placement

By Dwight West

As stated in the Oregon Manufactured Dwelling and Park Specialty Code, all soil in the state of Oregon is assumed to have a bearing capacity of 1,000 pounds per square foot. When soil-compaction tests are performed, a soil-investigation report is submitted to the local jurisdiction.

Soil-investigation reports must be done by one of the following: an independent, Oregon-certified engineering geologist; Oregon-registered licensed geotechnical engineer; Oregon professional engineer; or by a laboratory conforming to the requirements of ORS Chapter 672.

In some jurisdictions, where soil has been tested or can otherwise be verified to have a soil-bearing capacity equivalent to those mentioned in the Oregon Manufactured Dwelling and Park Specialty Code, the

***Soil capacity**… continued on Page 10*

Permits Protect

A new Web site is on-line to remind builders and homeowners to get permits and use licensed contractors for home construction and remodeling jobs as a way of protecting the investment a home represents.

The site, www.permitsprotect.info, provides information on when a permit is needed, how to obtain permits, and how to find licensed contractors, plumbers and electricians. The Permits Protect site also incudes links to other helpful Web sites. ■

Soil capacity *… continued from Page 9*

piers and footings may be installed at the increased spacing without the stand having to be improved with rock or concrete.

For example, if the jurisdiction says that the soil capacity in the area is 1,500 pounds per square foot, a home to be set on bare, undisturbed soil with no vegetation can have piers every 5 feet, 6 inches. ■

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DCBS Communications

BCD Acting Administrator
Linda C. Riddell

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If you would like to be included on the *Manufactured Home Update* mailing list, please call Albert Endres, (503) 378-5975.

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