



Manufactured Home Update

Oregon Department of Consumer & Business Services Building Codes Division

April 1996

From the editor _____

As you've probably noticed, between the Building Codes Division and Oregon State University Extension Service, we find plenty to fill this newsletter.

Most of us spend a lot of time in the field or in manufacturing facilities, and we see or hear about things we want to let you know about.

But we're not the only eyes and ears in the industry, and we have our own points of view. I suspect some of you have ideas you'd like to share for the good of the industry, or things you've seen that could help us all out.

So I'm reminding you all that I've got a standing offer for you to submit ideas, articles, questions, and suggestions for future issues.

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Supporting the center line _____

When the new 1996 Oregon Manufactured Dwelling Standard (OMDS) was developed, one of the most important considerations was to make the standard uniform, so that no matter who manufactures the house, the same instructions would be followed to set it up. Until now you had to figure out a different method of supporting the center line for each manufacturer's homes. That could get pretty confusing. Now, the center line supports are the same, no matter who built the house.

Early this year we found a number of homes installed without proper center line supports. We hope installers will pay special attention to this important area of structural support so that Oregon homes will be structurally sound.

For each home there are two things to figure out:

- Where should center line piers be placed?
- How large does the footing need to be for each pier?

To figure out location and size of piers, you need to know whether there is a wall or an open span above the location.

Center line wall supports

Center line supports that are under a wall (often called a "marriage wall") are the easiest to figure out. A pier is required every four feet on center.

The minimum footing size is 256 square inches (a standard 16x16 concrete footing pad). The pier footings at each end of the wall may need to be larger to support the open span that begins where the wall ends.

Center line column supports

At the end of each wall is a column that carries the roof loads for the adjacent open span from the ridge

Please see "Supporting," next page.

Supporting (continued from Page 1)

beam to the floor. Because this span may be long, the loads at these columns are usually greater than under the walls, and these piers often require larger footing sizes than the piers under the walls. The size of the pier depends on the length of the span. The following chart is taken from 1996 OMDS, Table 304, which describes pier and footing requirements:

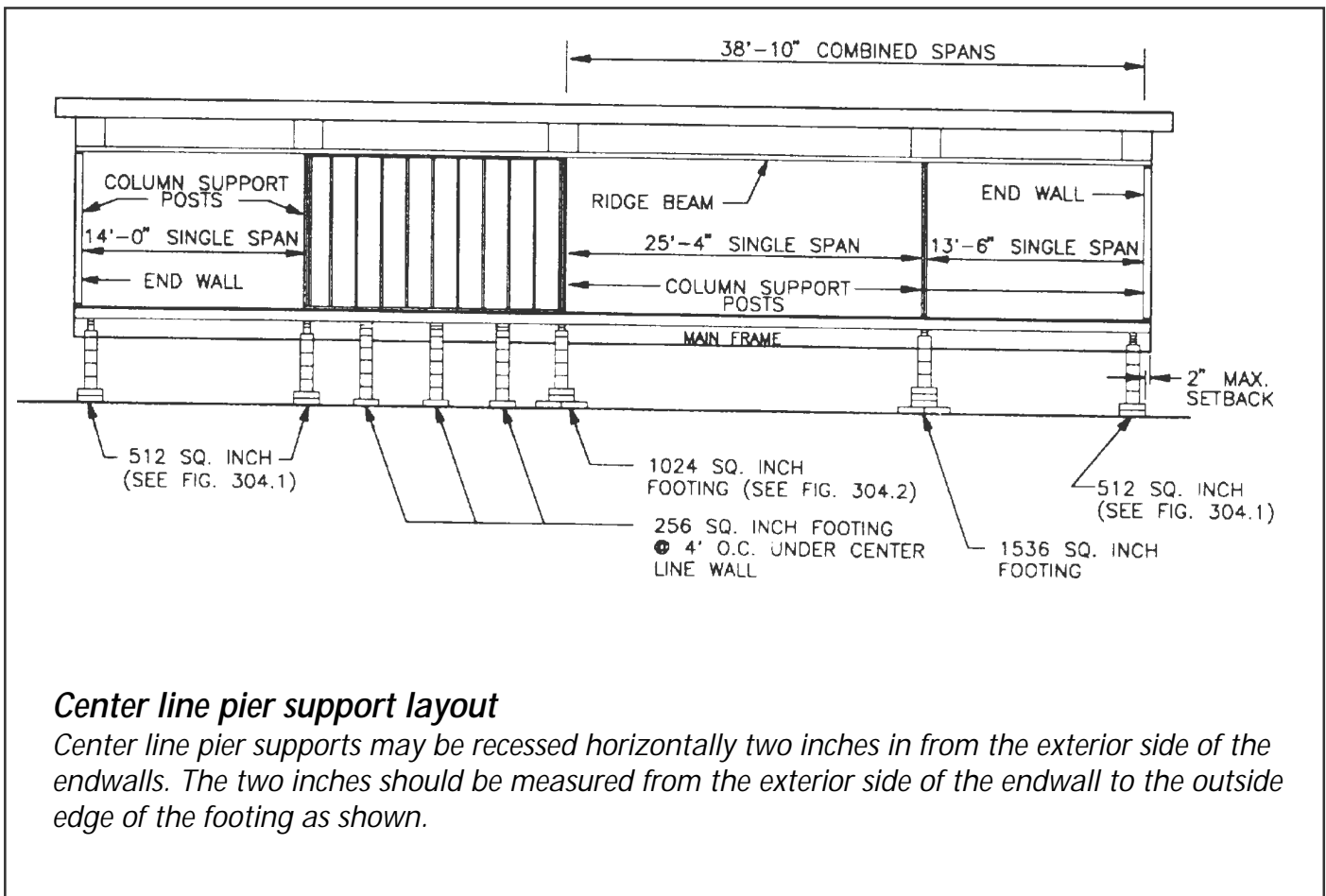
Length of span	Footing size	# of 16x16 pads at base of footing
Up to 14'	512 sq. in.	2
Up to 20'	768 sq. in.	3
Up to 26'	1,024 sq. in.	4
Up to 38'	1,536 sq. in.	6

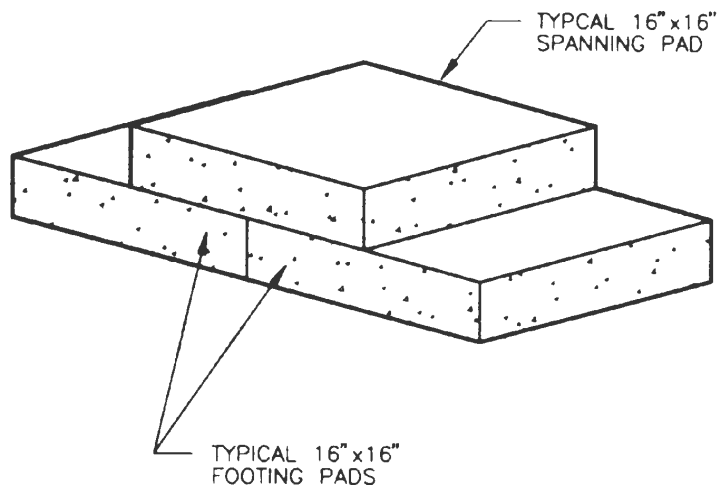
Note: For full requirements for foundation supports, see 1996 OMDS, Section 304.

Adjacent spans

Occasionally, you may encounter a long span with a support column in (or near) the middle. This column divides what would have been a long single span into two separate spans. Of course, you need a pier under that column. The trick is to figure out what size footing goes under that pier. The standard requires you to use a footing equal to the sum of the footing sizes required by each span. For example, if you had a column with a span of 22 feet on one side and 12 feet on the other:

1. From the chart, find the footing size required for a 22-foot span. The chart shows a footing of 1,024 sq. in.
2. From the chart, find the footing size required for a 12-foot span. The chart shows a footing of 512 sq. in.
3. Add the footing sizes together:
 $1,024 + 512 = 1,536$ sq. in. If you're using 16x16 concrete footing pads (256 sq. in. each), you'd need a footing base of six pads.



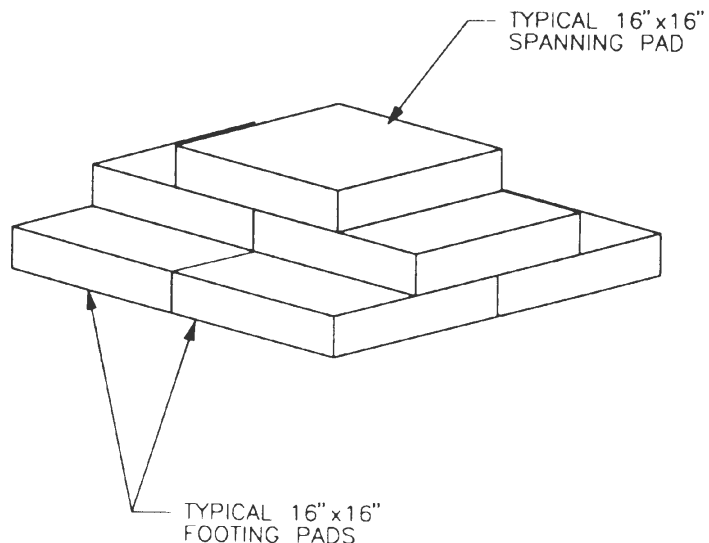


1024 sq. in. footing layout

Where a single column support post supports a ridge beam in the middle of a combined span, the footing size under that column support post should be equivalent to the sum of the footings required for the two single spans making up the combined span.

512 sq. in. footing layout

Where a center line wall does not extend full height to the bottom of the ridge beam, the ridge beam above that wall shall be treated as another single span and may be subject to the requirements of the standard.



Dealing with large footings

With three-pad pours or other continuous footings (including slabs) of reinforced concrete, it's not hard to create large footings. However, with precast 16x16 footing pads, you'll need to take care to build up an adequate footing. The basic principle is to layer the pads in a pyramid so the pier rests on only one pad, but the loads are spread into more pads as you go down each layer.

As you go up each layer, pads should overlap the pads below by at least 50 percent.

Don't overlook support locations

Center line support columns are usually the heaviest loads in a multi-wide manufactured home. To maintain structural integrity and durability and to keep floors level, make sure all columns have properly sized supports under them. It may require more blocks or pads than you're used to, but it will pay off in reduced call-backs and fewer corrections at inspection time.

For more information, contact Patrick Lewis of the Building Codes Division at (503) 373-1266. ■

Required corrections: 1996 changes to requirements

Among the changes to the Manufactured Dwelling Administrative Rules for 1996 is the inclusion of “the HUD Standard” in the language of OAR 918-500-0420. This means that, on a single home, manufacturers can now be required to complete any repairs to correct non-compliances. The required repairs are to be completed within 30 days, unless an extension is granted.

In the past, most non-compliances have been resolved with the cooperation of all parties involved. In the rare event that a dealer or manufacturer does not voluntarily make the code repair, the Building Codes Division can require it under this rule. As of January 1, 1996, the rule reads as follows:

Notice of violations

918-500-0420

- (1) When an inspection reveals that a manufactured dwelling or the equipment violates a provision or ORS Chapter 446, the **HUD Standard, the 1996 Oregon Manufactured Dwelling Standard** or these administrative rules, the Division shall serve upon the distributor, manufacturer or agent thereof a copy of the inspection report giving details of the violations. The division may also post a Notice of Violation on the manufactured dwelling or equipment.
- (2) Violations shall be corrected within 30 days from the date of such notice or at a later date, if approved by the division.

- (3) If the violations are not corrected in the allotted time, the division may withdraw any previously issued Insignia of Compliance.
- (4) The recipient of a Notice of Violation shall within 30 days of the date of the notice, inform the division in writing of the action taken to correct the violations. A manufactured dwelling subject to a Notice of Violation shall not be transported without division approval.
- (5) When a Notice of Violation has been posted on the manufactured dwelling or equipment, the notice shall not be removed until authorized by the division. A Notice of Violation may be removed only by the division or a person authorized by the division.

If you are wondering where the federal regulations preempt state law, refer to 24 CFR 3282.10(c) which states, “A state may establish or continue in force consumer protections, such as warranty or warranty performance requirements, which respond to individual consumer complaints and so do not constitute systems of enforcement of the federal standards, regardless of whether the state qualifies as an SAA or PIA.”

If you have any questions concerning this issue, please contact Albert Endres at (503) 378-5975. ■

Alternate construction and the dealer/installer

When a manufacturer builds a house using an “alternate method of construction” (AC), the dealer and installer should be aware of the following inspection problems and consumer complaints:

Inspections

Alternate construction models require an inspection by the Oregon Building Codes Division. The dealer or installer is responsible for arranging this inspection by contacting BCD. Keep in mind that AC models are more complicated to install than a regular set, because there usually is an additional roof system to be installed. Track progress closely so you can ar-

range a timely inspection. For more information or to arrange an inspection, contact Mike Goettl at (503) 378-6065.

Special instructions

Building Codes Division inspectors are finding that installers and other contractors have not been following installation instructions. It is critical that installers follow the special installation instructions sent with every AC home, and it is critical that they are followed carefully. Installers who complete a house incorrectly may incur a re-inspection fee. ■

Super Good Cents: Yesterday and today

Well, it's 1996 and Super Good Cents is still here! I remember when we started back in 1992 with an incentive-based Super Good Cents (SGC) program marketed to the customer. There were a lot of "doubting Thomases" back then. Some of the proposed changes were unheard of: vinyl windows, R-38 lids, R-21 walls, and R-33 floors. What about all the air sealing that was required?

Just when we got a handle on the SGC program, the Manufactured Home Acquisition Program (MAP) arrived, requiring all electrically heated homes sited in the Bonneville Power Administration service area to meet the SGC standards. While there was a substantial incentive to manufacturers, the changes required an exceptional level of coordination and an increased level of workmanship.

We rose to the MAP challenge and succeeded. In fact, when HUD revised the energy conservation portion of the federal standards, they looked to the Northwest for direction. The Northwest has set the standard for the nation in energy conservation in manufactured homes.

Even though the SGC program is now voluntary, the vast majority of homes produced in Oregon today meet the SGC standards. We have truly achieved a market transformation. Everyone involved deserves a pat on the back.

To maintain the credibility that the industry has earned through the SGC programs, we must continue to build homes correctly. If we don't, it will be hard to get that credibility back. We need to be involved in a maintenance program to ensure SGC quality. Since the typical turnover rate in manufactured home plants is more than 75 percent, many of the people

who were trained in SGC are no longer around. Those of you who were around at the beginning need to take the new folks under your wing and train them.

There are some formal training options still available. The principle SGC trainers are:

- Tom Hewes from the Oregon Department of Energy at (503) 373-7875.
- Bill Mills from the Building Codes Division at (505) 378-2633.
- Ed Tanguy from Oregon State University at (503) 378-4530.

These trainers will come to your plant and work with personnel, either in a classroom setting or one-on-one. (If you don't call us today, we can't save you any headaches.)

In closing, here are some areas observed in the past weeks that needed improvement:

- completely insulate floor rim joist.
- cut insulation far enough past the I-beam.
- ensure exterior wall bottom plate is tight to the floor.
- loft insulation around plumbing, mechanical, and electrical components.
- blown-in insulation should completely cover the entire exterior wall top plate and extend to within one inch of the roof sheathing.
- use exterior wall insulation around skylight wells.

Again, don't back off on the energy measures. If you have any questions, call Ed Tanguy, Oregon State University, Extension Energy Program at (503) 378-4530. ■

Manufactured dwellings as multi-family housing

Up to six manufactured dwellings may be placed on a single lot or parcel (or aggregation of lots or parcels) and joined to create the appearance and economy of multi-family housing. The 1996 Oregon Manufactured Dwelling Standard (OMDS), section 1205, sets nine conditions that must be met before such a project can receive approval from the local building authority.

One of these conditions is to submit plans to the Oregon Building Codes Division for approval before receiving permits. The content of these plans is described in OMDS, section 202(b). The Building

Codes Division examines plans to assure that these projects meet all state requirements without violating federal standards or regulations.

You can get copies of the 1996 Oregon Manufactured Dwelling Standard for \$10 from Oregon State University Extension Energy Program, Batcheller Hall 344, Corvallis, Oregon 97331-2405.

For more information, contact Patrick Lewis of the Building Codes Division at (503) 373-1266. ■

Tips from the Installation Monitoring Program

Three areas that frequently come to our attention during installation monitoring visits and follow-ups are dryer venting, center line walls supports, and tape and texture cracks. I'd like to share some information regarding these areas in hopes of reducing reports of problems for us at Building Codes Division and reducing call-back for installers and dealers.

Dryer venting

Improperly vented clothes dryers are among the most common problems identified during installation monitoring inspections. Improper venting can cause severe moisture problems in crawl spaces and in floor joist spaces.

The 1996 Oregon Manufactured Dwelling Standard requires dryer vents to be smooth or flexible metal. Plastic "slinky tube" materials, commonly found in building supply and hardware stores, are not allowed. The Manufactured Dwelling Installer (MDI) is responsible for ensuring that the dryer duct is of the proper material, whether or not the installer is making the actual physical connection, and even if the skirting is not yet in place (Oregon Administrative Rules 918-515-0150{2}[e]).

If the dryer is not in the home, as is typically the case, and there is a vent through the floor, the installer is responsible for ensuring that the duct material from the bottom board to the outside of the skirting (even if skirting is not installed) is correctly installed, made of the correct type of material, and in place. To prevent the installer having to make a return trip, even if there is no skirting in place, the installer should still install the vent and support it to the future skirting location.

For through-wall vents, nothing is required if the dryer is not yet installed. If the dryer is in, metal vent material is required from the back of the dryer to the sidewall.

Since many buyers supply their own washer and dryer, dealers should inform them of the state requirements during the walk-through, or at some other point in the sales process. Perhaps this should be a check-off item on the walk-through paperwork.

For more information contact Mark Campion, Building Codes Division, (503) 378-8053.

Center line wall supports

Before 1996, each manufacturer had different instructions on spacing center line piers and sizing center line footings. Beginning in January, all manufactur-

ers are treated the same. The new 1996 Oregon Manufactured Dwelling Standard requires support columns under center line walls every four feet on center. Table 304 shows that footings equivalent to 256 square inches are required (i.e., the typical 16x16 concrete footing).

One subtle point to be aware of is that installers cannot increase the size of the footing, and then increase the spacing (as is allowed for the main rails or I-beams when a continuous runner is used). So regardless of whether or not you use a larger footing, or even if the home is set on a three-pad pour or full slab, the spacing cannot be greater than four feet. (See "Supporting the center line" on Page 1 for more details on center line supports.)

Tape and texture cracks

In my experience, cracks in tape and texture are an unavoidable problem. Even if cracks from transportation are fixed soon after the home is installed and before the homeowners take possession, the home may "relax," and many cracks reappear.

Based on my experience as a consumer complaint inspector, one way to help avoid misunderstandings is to have a written policy, such as a "Delivery, Set-Up, and Warranty Instructions" form, or even a separate "Tape and Texture Policy," on which the homeowners sign off. In this policy, you can state whether your dealership will fix any cracks that reappear (typically after "one hot and one cold season") or whether you will not repair cracks if anything less than concrete runners are used.

Here are some reminders:

1. Service crews should use tape on cracks greater than 1/8" width. Thinner cracks seem better suited to an application of mud or grout. And of course, paint alone works well on hairline cracks.
2. Vertical marriage line wall seams and connections at the ceilings seem to benefit from application of tape.
3. Some factories don't use tape at the wall to ceiling seams — usually they apply caulk and touch-up paint. However, caulk can shrink over time. If the original gap is greater than 1/8", tape and mud may be called for.

Of course all of us in the industry must consider both viewpoints — customer satisfaction and cost — in deciding which methods to use. ■

Alternate methods of construction and the manufacturer

Manufacturers are allowed to construct homes outside or even contrary to the usual HUD standards (24 CFR 3280) under what is known as an "alternate construction method." To build under an alternate construction method, there are both federal and state requirements to be met.

Federal

Authority for building under an alternate construction method is in the Manufactured Home Procedural and Enforcement Regulations. Regulation 24 CFR 3282.14(a) lists the circumstances under which alternate construction methods may be undertaken.

To build a manufactured home to an alternate construction method, the manufacturer must submit a request to HUD including the following information:

1. A copy of the manufactured design or plan for each nonconforming model to be built.
2. An explanation of how the design fails to conform to the federal standards.
3. An explanation of how the design will provide the same level of performance, quality, durability, and safety as the federal standards.
4. A copy of engineering calculations, certifications, and testing data adequate to support the request.
5. An estimate of the maximum number of manufactured homes affected and the locations to which they will be shipped.
6. An indication of the period of time in which the nonconforming homes will be sold.
7. A copy of the proposed notice to be shipped to homeowners.

8. A list of dealers who will be selling the nonconforming homes.

9. A letter from the manufacturers DAPIA, indicating that the design(s) meet the standards in all other respects.

To comply with federal regulations, send requests to the U.S. Department of Housing and Urban Development, Manufactured Housing Standards Divisions, 451 Seventh Street SW, Washington, D.C. 20410.

State of Oregon

Oregon requirements concerning alternate construction methods are contained in Oregon Administrative Rules (OAR 918-500-0400(3)). They state: "To facilitate required in-plant and field inspections, no manufacturer shall construct a manufactured dwelling under an alternate construction method ... without first notifying the division in writing and supplying a copy of the alternate construction method approval from the Department of Housing and Urban Development."

The Oregon rules do not represent another layer of government approval. They ensure that the In-Plant Inspection Agency (IPIA) is informed of HUD-approved alternate construction methods so that the In-Plant inspector does not treat the alternate construction as a nonconformance.

To meet the Oregon requirement, simply send copies of the HUD-approved alternate construction method to the Building Codes Division, Attn: Mike Goettl, at 1535 Edgewater NW, Salem, OR 97310. ■

Alterations and codes

Alterations may be made to a manufactured dwelling any time after the original manufacture of the home. The time of the alterations in relation to the sale determines which codes govern the alterations and which jurisdiction inspects the alterations.

Before or at time of sale

An initial alteration before or at the time of first sale to the consumer (up to the time when all terms of the sales contract have been met) must conform to the Manufactured Home Construction and Safety Standards (“HUD Code”), the National Electrical Code, and the manufacturer’s design approved package.

Alterations performed at this time are inspected by the Oregon Building Codes Division in-plant inspectors.

Contact Albert Endres at (503) 378-5975, or Brian Lamb at (503) 378-3731 to obtain a permit. Normally the dealer coordinates the inspections and approvals on site.

There are some exceptions to this rule, including site-installed solid fuel burning fireplaces, wood stoves, heat pumps, and air conditioning equipment.

These may be inspected by the local authority to the terms of the appliance listing. The Building Codes Division can help the customer identify the appropriate local jurisdiction.

After initial sale

A secondary alteration is one that is done after the first sale to the consumer. These alterations must conform to the Oregon One and Two Family Dwelling Specialty Code and the National Electrical Code. Permits and inspections are obtained through the local authority having jurisdiction (again, the Building Codes Division can help identify the appropriate jurisdiction).

Energy conservation levels do not have to be brought up to present State Energy Code requirements, nor do live roof loads need to be brought up to State Structural Specialty Code requirements.

The following are not considered alterations:

- Minor repairs with approved component parts.
- Adjustments and maintenance of equipment.
- Replacement of equipment or accessories in kind.

HUD labels or state insignias do not have to be removed when alterations are done in accordance with ORS 446.155 and OAR 918-500, 918-515, and 918-520, and in accordance with 1996 Oregon Manufactured Dwelling Standard, Sections 1001 through 1005 where applicable.

If you have questions, feel free to contact Brian Lamb at (503) 378-3731. ■

Safety equipment and clothing

Most set-up crews, dealers’ service representatives, manufacturers’ service representatives, and contractors wear protective clothing while working. Sometimes you may feel that protective equipment gets in the way, or is uncomfortable to wear — maybe you feel it’s easier to do without. Think again!

You may not feel much at first, a scrape here or a bruise there, but after many crawls in gravel or on concrete slabs, the abuse to your knees and elbows will take its toll. It may not be noticeable now, but think about the effects 20 years from now. Abuse to joints can lead to arthritis or other debilitating joint diseases in later years. Think about that before you leave off knee or elbow pads just because you’re only going “for a short crawl.”

What about the air you breathe while you’re under a home? It may not look too bad, but some of that dust you’re stirring up gets in your lungs. That’s why

wearing a mask is so important. If you don’t believe it, try wearing one on your next crawl and then check out the filter or mask and see how much dirt and dust it has kept out of your lungs (and that’s just the stuff you can see). Multiply this amount by the number of times you’ve crawled, and you’ll see it really adds up.

It is important to wear a mask that has been approved to stop the hanta virus. Hanta virus can be spread to people who breathe dust that contains mouse droppings — often under a house where mice live. Those who crawl homes in areas where the virus has been found should be sure to wear breathing protection.

Other forms of protective clothing include gloves, coveralls, and goggles. Whatever the reason you’re under the house, always wear the protective clothing or gear that is appropriate for your task. ■

IPIA/SAA Program improvement update

As you may know from reading previous issues of *Manufactured Home Update*, the Building Codes Division has begun a process to improve our In-plant Inspection Program (IPIA) and state Consumer Assistance Program (SAA). Here's an update of what we've done so far:

Manufacturer input

We've visited all the plants in our first effort to gather constructive criticism of our manufactured housing inspection program. It's been a pleasant surprise to see how enthusiastically everyone has responded. I guess we should have expected this enthusiasm. Since we've spent so much time looking for "opportunities" for manufacturers to improve, they in turn found many "opportunities" for us to improve. There's a great deal of merit in many of their recommendations.

One recommendation is to have the IPIA inspectors spend time providing instruction for the production and QA personnel. This could take many forms, but two things are certain: The manufacturers should work out specific expectations with the IPIAs from the start, and the IPIAs should be prepared for teaching.

Another recommendation is to have a forum for service managers. The general idea is to bring service managers together on a regular basis. We would send out a questionnaire four to six weeks before the meeting, so that everyone can send back a list of the main issues they are struggling with. We would then put together a list of the top items for the group to address. This will provide everyone with a more

comprehensive set of potential solutions. This should be good for manufacturers, dealers, and — of course — consumers.

There are several other suggestions from the industry that we will review in the future.

IPIA training

In addition to asking manufacturers for recommendations, we're also interviewing the IPIAs and SAAs to find what they feel will upgrade their programs.

The first request is for them to receive additional training in the code areas they are least comfortable with. Even when inspectors are certified in all code areas, they have strong and weak areas. With an ongoing effort to target our training to specific needs, we expect to raise the level of competence and reduce inconsistencies between inspectors.

We have begun offering classes as time is available. Through February, we offered eight training sessions, including such subjects as breaker sizing and wire capacity, gas furnace and water heater installations, main panel box wiring, and electrical testing.

It's been an education just seeing the interest and participation of the IPIA staff in the first few sessions. With the support of BCD administration, there should be more opportunities for manufacturers to participate in the training. For more information contact Bill Mills at (503) 378-2633. ■

Shingle damage

This year's tough winter weather brought with it a greater-than-usual number of phone calls concerning shingles breaking or blowing off. Wind storms have been more frequent this winter than in the past, with higher average speeds and stronger gusts.

When shingles blow off, home owners typically call either the dealer or manufacturer. They often suspect that the shingles were not installed correctly or are defective. Since the dealer did not build the home or install the shingles, the customer is referred to the home's manufacturer, only to be told that the shingles were installed correctly, in accordance with the shingle manufacturer's instructions.

Can this situation be avoided? Probably not always, but providing the right information when the buyer

first sits down with the sales representative would help. The sales representative should ask whether the home will be located in a high-wind area, such as near the coast or along the Columbia River. Then the buyer and sales representative can discuss the roof.

This could be carried one step further — to the manufacturer — who could ask the dealer where the home will be located. In some cases, there may be the option of hand tabbing the shingles. Even this method is not guaranteed by shingle manufacturers against winds that exceed 60 mph. However, hand tabbing may minimize damage. The most important thing is to provide adequate information to the homeowners at the time of purchase rather than after they have lost shingles. ■

Contractor repairs

The goal of the Building Codes Division's manufactured home Consumer Assistance Program is to provide assistance to homeowners, as well as to any business involved in the industry.

Often, our Customer Assistance Program requires that repairs be made to homes. Different people make these repairs, including manufacturers, dealers, installers, suppliers, independent contractors, and homeowners. Consumer assistance inspectors sometimes find the attempted repairs have been improperly made, are ineffective, or are not up to code. The Consumer Assistance Program wants to ensure that these repairs are properly done and that those who do not make proper repairs are held accountable.

Making repairs often is a demanding job done under difficult working conditions. Crews often deal with inaccurate information (or none at all), long drives, insufficient or incorrect materials, scheduling difficulties, delays, and other problems. In spite of these difficulties, they usually complete the work properly. The Building Codes Division commends these crews for their efforts and responsible attitudes.

Unfortunately, there are some crews who do not complete assignments properly — work is not done to

code or is inadequate to ensure the performance and durability of the home. Consumer Assistance inspectors will monitor repairs more closely, at times through random inspections.

When inspections reveal that work was not properly completed, the inspectors will establish who did the work and notify the responsible party. Inspectors then will require that the responsible party make corrections or repairs and notify BCD when the required work is completed. Authority for these actions is Oregon Administrative Rule 918-500-0420, which also requires repair within 30 days unless the division approves additional time.

Consistent with the Consumer Assistance Program procedures in other cases, the first letter of notification is a request for information and repair, if required. This notice does not prejudge a situation. If the recipient of the letter is not the responsible party, they must still notify the division of their assessment, so the responsible party can be identified.

If you have any questions concerning this program, please contact Albert Endres at (503) 378-5975. ■

New licensing requirements for installers

Here's a reminder of changes to installer licensing rules that went into effect January 1:

Installers

Individuals who are becoming licensed as Manufactured Dwelling Installers (MDI) for the first time are no longer required to pay a testing fee to the National Assessment Institute in addition to the licensing application fee and registration fee for the training seminar. The examination will be part of the initial licensing application and will reduce the application fee by \$75.

Limited installers

Individuals who wish to be licensed as Limited Installers must attend the two-day training seminar before receiving the two-year license from the Building Codes Division. People wishing to renew their licenses in 1996 must have attended a continuing

education class offered in 1995 or the two day seminar in 1996. They will not have to take the licensing examination.

Skirting installers

People who install skirting on manufactured dwellings must have the Manufactured Dwelling Installer's license or a new license called a Limited Skirting Installer License.

This new license will require an individual to attend the first day of the two-day training seminar conducted for installers and limited installers, and will limit the individual to installing skirting on manufactured dwellings only.

If you have questions concerning the changes to the licensing program or how to obtain any of these licenses, contact Allen Aschim at (503) 373-1256. ■

Foundation systems and skirting installation

As manufactured housing has evolved over the years, so has its foundation systems. Today we see systems ranging from concrete block, to steel piers, to engineered daylight basements, to poured concrete perimeter walls.

This variety of systems has caused problems with skirting installation. To address these problems, Oregon now requires skirting installers to be licensed. The training required for this license is designed especially to educate skirting installers regarding the importance of perimeter blocking and supports under the home.

Here are some of the most common issues with perimeter supports:

All too often during field inspections we find that perimeter blocks have been moved out of the way when skirting is installed. The blocks often are not properly replaced, if at all. Yet, these blocks are required to support the weight of the manufactured home's exterior walls.

Another scenario we see is when a full cell block wall is added later and the old perimeter blocks are

removed. This is acceptable for perimeter wall support only when shimmed tight to the bottom of the home. The *1996 Oregon Manufactured Dwelling Standard* requires shims to be spaced at a maximum of 16" on center.

It's important for dealers to be aware of homes that buyers want to be "foundation ready." Manufacturers supply foundation-ready homes with recessed front and rear cross members and outside outriggers to accommodate the foundation perimeter wall. This type of construction requires special components and construction to account for these frame changes. When a home is not built foundation ready and a full perimeter wall is installed, the installer or skirting installer may be tempted to cut the cross member and outriggers back. This could easily weaken the integrity of the frame, causing the home to fail. Having the dealer specify a foundation-ready home when it is ordered will reduce this risk.

If you have questions or need more information, contact Brian Lamb at (503) 378-3731. ■

OMHA honors Allen Aschim

Allen Aschim of the Building Codes Division was presented an "Appreciation Plaque" at a recent Oregon Manufactured Housing Association (OMHA) Board meeting. Aschim was recognized by OMHA for his outstanding contribution to the Manufactured Home Installer/Inspector Licensing and Training program (a joint effort between OMHA and BCD).

Aschim has been involved in this program since its beginning in 1989, developing rules and legislation. For the past three years, he has coordinated and conducted the training for the many seminars held each year for licensing and continuing education.

In presenting the award, OMHA President Les Toth said, "Allen does the kind of work that is always appreciated, but not always recognized. We are pleased we had the opportunity to commend his work."

Aschim has been in the manufactured home industry since 1974, beginning as a line worker and progressing through quality control, then as a state on-line production inspector.

During his nine years with BCD, Aschim has been a code specialist and assistant chief of the manufactured structures and park section. In his "spare" time, he is assistant fire chief of the Amity Fire District. ■

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Code change class offered on 1996 Manufacturing Dwelling Standard

The Building Codes Division, in cooperation with Oregon Manufactured Housing Association (OMHA), will conduct a manufactured dwelling code change class Wed., June 12, at the Springfield Red Lion Inn.

The class will be on the new *1996 Oregon Manufactured Dwelling Standard*, which includes installation, alteration, setbacks, accessory structures, and alternate uses.

This class has been approved for eight hours of code change credit, meeting the required continuing education credits for Manufactured Dwelling Installa-

tion Inspectors (MHI) and Manufactured Dwelling Construction Inspectors (MCI).

This is the last manufactured dwelling code change class offered by the division for this current code change year.

Complete and mail the registration form with \$40 registration fee to OMHA. Registration must be received two weeks prior to class. The fee covers the class, a copy of the *1996 Oregon Manufactured Dwelling Standard*, coffee, and lunch. Contact OMHA at (503) 364-2470. ■

Manufactured Home Inspector Continuing Education Seminar

Name: _____

Representing: _____

Address: _____

Phone: _____

Mail to: Oregon Manufactured Housing Association, 2255 State Street, Salem OR 97301



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