

## THE IOURNAL OF LIGHT

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# **Letters**

### **Weathertight Windows**

To the Editor:

Regarding the article "Working with Vinyl Windows" (1/00), all the vinyl and vinyl-clad windows installed in my projects are applied to resist severe weather conditions. Caulking is never used as a primary means of defense against air and water penetration, as it has a high failure rate. If a vinyl window can expand and contract up to <sup>7</sup>/<sub>16</sub> inch, how can caulking possibly remain weathertight?

Vinyl windows can be installed tight to the weather without caulking if three steps are taken. Step one is to place a bitumen membrane flashing pan over the sill before window installation. Step two is to use a good quality sealing tape over the nail flange and onto the housewrap after the window has been nailed off (housewrap tape, not duct tape). Step three is to place 6- to 8-inchwide bituminous flashing strips over the taped side flanges and over the top flange but under the housewrap at the top, as in Step 5 in your flashing detail.

This adds 8 to 10 minutes to each window installation, but will provide superior resistance to the elements with no caulking at all.

> Mark A. Grebbin Mark II Construction Foxboro, Mass.

#### **Likes New Subfloor**

To the Editor:

I agree with Ted Yeates's comments in the article, "On Site With Advantech" (2/00). I first asked my local lumberyard to special-order Advantech two years ago to test the product. I have been so impressed that I used it in a home I built for myself. I typically install Advantech glued and nailed over 2x10's and have found that it produces a stiffer floor system than either plywood or OSB installed the same way. As Ted states, the carpenters like the fact that it

truly is easier to install. Like Ted I have experienced wet weather exposure with no ridging, expansion, or delamination. My customers have been impressed with Advantech's 50 year warranty.

In my own house, I used Advantech as the subflooring for oak hardwood floors to test its suitability for this purpose. The hardwood installer liked its nailability and smooth surface. I'll let you know if it worked in about a year or so.

Local lumberyards have not yet begun stocking Advantech, so the yard I use continues to special-order it for me. Even then, the price is about \$2 less per sheet than plywood and about \$2 more than OSB. I expect the price to drop as the product becomes better known and is regularly stocked.

> Jim McIntyre via e-mail

### **Advantech Losing Its Price Advantage?**

To the Editor:

Although Advantech seems to answer the market's call for a more weatherresistant product, its cost does not compare favorably to 3/4-inch T&G CDX fir plywood. A recent check at the lumberyard revealed that a sheet of fir cost \$20.90 versus \$23.80 for Advantech.

> Geoffrey Fossett **Downeast Construction Systems** Hampton, N.H.

### **Leading the Way**

To the Editor:

I recently read your February issue about Huber's Advantech OSB Floor panel. Weyerhaeuser has been marketing a weather-resistant, no-edge-swell OSB floor panel since 1994. Huber actually followed our lead.

> Randy Robins Regional Market Manager Western OSB Weyerhaeuser

### Faulty Copper to Blame?

To the Editor:

The article "When Copper Goes Bad" (Notebook, 12/99) on leaky copper pipes addresses what seems to be a growing problem. I wonder why manufacturing defects are not being considered as a possible cause. I see this problem more often in newer installations, which leads me to think that "they don't make copper pipe like they used to." Impurities in the tubing or different alloys used in the copper could certainly be contributing to the development of pinhole leaks. Has anyone done any tests comparing sections of newer pipe to pipe manufactured, say, in the 1960s? Lee Johnson Walden, Vt.

Master plumber and electrician Rex Cauldwell responds: The Copper Development Association assures me that the formula for making copper has not changed; it's still alloy 122. In fact, the copper of today has fewer impurities than that of the past. They're fond of saying that copper doesn't change, water does.

The problem of copper being eaten away is not new — I saw it back in the '50s. However, the problem is aggravated today by increased acidity in the water. It's not a good idea to spec pipe for a building until the water has been tested, but unfortunately this just doesn't happen. I see copper pipe being installed in houses in areas that have acid water, and I know the pipe will be eaten through in a few years. In one case, I replaced the copper pipes in two houses on the same street with plastic, while a third house being built in between them got new copper pipe — go figure. I have personally replaced probably a warehouseful of copper pipe over the years. If you have acidic water (low pH), treat the water or put in plastic.

### Is Electrolysis Causing Pinholes? To the Editor:

One possible cause of pinhole leaks in copper pipe that your article (*Notebook*, 12/99) didn't address is electrolysis. As a contractor doing remodel and repair work, I have found

the same problem here in Western Washington State. In trying to figure out the cause of the pinholes, I used my voltmeter to check the copper pipes, since the electrical system is bonded to the pipes. I got readings of 5 to 35 volts between the pipes and ground. I also found that the main water supply to the house was via plastic pipe, so there was no positive ground for the pipes. It seems that somewhere in the electrical system, an appliance or fixture was bleeding power into the ground circuit. Shouldn't the copper pipe be grounded separately from the electrical system? And just what is the effect of low voltage on water pipes?

> Sam Brode Sedro Woolley, Wash.

Rex Cauldwell responds: Anyone who has been in the trade for a long time has seen the problem. Electrolysis seems like a logical culprit, but I have yet to see any proof. In theory, electrolysis cannot occur unless some DC is on the line; low-voltage AC should have no effect on copper water lines.

We get the voltage readings because the pipes are not bonded properly and/or the house is not grounded properly. Any metal water line must be bonded to the house grounding system. Also, a jumper must be placed around the water heater and water meter. This will bleed any stray current from the pipes to the main service panel grounding bus. To properly bleed the system to ground, you must also have a very good grounding electrode system.

If there is a problem with an appliance, the current will not flow to ground. Therefore, the faulty appliance must be found. In my experience, the water heater is the usual culprit.

### **Learning From Our Mistakes** To the Editor:

I have enjoyed reading your magazine for many years, but I don't remember having read an article that I can relate too as closely as I do with "Bidding Errors to Avoid" (2/00), by Al Coddington. The author points out

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#### Mailing Address:

Journal of Light Construction 932 West Main Street Richmond, VT 05477 802/434-4747

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simple mistakes that we all seem to make. As I read through the article the first time, I had many flashbacks to jobs I have undertaken in the past 22 years where I made most of the same bidding errors. I felt as though he was talking about me.

I applaud your decision to publish an article that reaches out to the human in each of us, and tries to help us all learn from our mistakes.

> Tad E. Becker Just Wood Construction Co. Dayton, Ohio

### **Ventilation Makeup Air** To the Editor:

The article "Effective Bathroom Ventilation" (*Kitchen & Bath, 2*/00) fails to recognize that replacement air is needed to allow air to be exhausted from a room or a structure. Codes often specify that a space of up to 1 <sup>1</sup>/2 inches be left under the bathroom door to accomplish this. The air may also come from other rooms if the bathroom is supplied with heat or air conditioning ducts. Air will enter the structure through the chimney or the

basement floor drains if there are no other spaces for it to enter the house. In the long run, it may be advisable to leave a window open somewhere in the house.

> Kevin M. Kelly New Hartford, N.Y.

### **Eaves Membrane a Good Idea** To the Editor:

I have some minor comments regarding the article "Sealing and Flashing Metal Roofs" (1/00). Under certain winter conditions, especially in northern New England, the snow and ice on the roof may slide, and the ribs in the metal roof will direct the slides toward the valley, where they will thicken and sometimes form an ice dam. One way to lessen the problem is to make the valley wider than you show it in Figure 7. Another is to flash under the valley and some distance to the sides with an eaves flashing material that will seal the penetrations made by the metal roof fasteners. I agree that it is a good idea to make the metal watertight at the

valleys, but I would be surprised if a durable, fully watertight joint can be achieved when joining so many pieces of metal, many of which move differentially.

Donald Baerman, AIA Yale School of Architecture North Haven, Conn.

#### **Credit Due**

Thanks to Roofmaster Products Co. of Monterey Park, Calif., which provided photography and information for the February Notebook story "New Valves on Propane Tanks Irk Roofers."

**KEEP 'EM COMING!** Letters must be signed and include the writer's address. *The Journal of Light Construction* reserves the right to edit for grammar, length, and clarity. Mail letters to *JLC*, 932 West Main St., Richmond, VT 05477; or e-mail to *jlc@bginet.com*.