

LETTERS



Wood Siding Problem

To the Editor:

I enjoyed David Utterback's article "Troubleshooting Wood Siding" (6/93). I recently inspected two cedar-sided homes. One was built in 1980, one in 1987. Each was bevel-sided. In each home, approximately one quarter to one third of the nail heads were countersunk up to 1/8 inch — obviously, not a good situation. Water accumulation in the nail depressions had already caused some rot in the 1980 home. I did not find rot in the 1987 home.

I would be interested in hearing Mr. Utterback's comments on this condition. My guess was that the builder had pneumatically nailed the siding with nail gun pressures set a bit too high. Another possibility is that initial nailing was too tight, and with drying and movement the countersinking occurred.

How can this best be corrected? In these cases, the siding on one house was painted, the other was stained. Is there a cure short of total replacement of the defective pieces? I'd appreciate any recommendations Mr. Utterback can make.

Roger J. Olson, P.E.
Mechanicsburg, Pa.

David Utterback responds:

Without looking at the houses you mentioned, it's difficult to say positively what the cause of the problem is, but you are probably right about the pneumatic nailing. Many builders use nail guns to apply siding because it's quick and easy. Unfortunately, it is sometimes difficult to get the pressure set so the nails go in flush instead of being countersunk. Another problem with nail guns is the nails — even if galvanized, they usually end up rusting. Pneumatic nails are galvanized using an electroplating process so they stay smooth and can easily pass through the nail gun. This plating generally cracks when being driven by the nail gun. Water then gets through the plating, causing the nails to rust. You didn't mention any rusty nail heads, but this would also give you a clue as to how the siding was attached.

If, on the other hand, the siding was hand-nailed too tightly and then dried out, the nails would typically loosen up as the thickness of the siding diminished from shrinkage. If the siding was applied over foam sheathing and nailed too tightly, what you are describing might happen as the foam expands back to its original shape. Many times, however, this expansion has a tendency to pull the nails out.

Since the siding on the 1980 house shows signs of decay while the 1987 house does not, you might want to look at the wood species on the older house a little closer — it may not be cedar. In the early 1980s, there was a shortage of cedar and other species were substituted. In your particular area, there was a lot of Canadian spruce-pine-fir used in place of cedar. This could account for the decay you are finding in the older house.

Proper maintenance of the finish is also important. Even pine siding should last a long time if the wood is protected from moisture and ultraviolet rays from the sun.

As for a solution, you could fill the indentations with an exterior wood filler and then paint over them. However, staining would leave each nail head showing, since the filler won't take the stain like the wood will. I would replace only those pieces of siding that are badly split or severely decayed.

Felt for Fire Rating

To the Editor:

With regard to the question "Is roofing felt necessary under asphalt shingles?" (On the House, 5/93):

Mr. Spies is correct [in the reasons that he gives for using felt]. However, there is an additional reason: For a Class A roof covering, felt is one of the components that make up this Class A rating. Check with your insurance company.

Jack Rivel
Federation of Appalachian
Housing Enterprises
Berea, Ky.

Arch Made Simpler

To the Editor:

In response to Mr. Rush's formula for determining the radius of a segmental arch, may I submit a simpler formula:

$$\text{radius} = \frac{(1/2w)^2 + h^2}{2h}$$

Zane Elrod
Elrod Construction Co.
Charlotte, N.C.

Glued Wood Floors

To the Editor:

"Radiant Heat & Wood Flooring" by Howard Brickman (8/93) describes radiant heat's tendency to dry wood flooring, causing severe "gapping" (open seams). The article also states that "In general, glued flooring systems don't work over radiant heat," due to the heat-related failure of the adhesive.

Recent technology has seen the development of new, quartersawn oak flooring panels that include strips of foam between pieces of oak; these "expansion joints" allow for the movement of the wood, thus eliminating gapping. In addition, at least one adhesive manufacturer, Franklin International, encourages use of its adhesive (and wood flooring) over radiant heat.

Sources at Franklin make the following recommendations: Turn the radiant heat off during, and for two weeks after, the flooring installation, as the adhesive cures; and keep the temperature on the concrete slab surface between 85°F and 100°F.

Si Grondin
Waterville, Maine

Si Grondin is vice president of marketing for Wood Flex, manufacturer of quarter-sawn oak flooring panels.

Egress Windows a Must

To the Editor:

I appreciate the fact that Paul Hanke reviewed my book *The Complete Book of Home Inspection — 2nd Edition* in the September 1993 issue. However, I take exception to his comment that “the specs given for egress windows are completely wrong.” This is incorrect. The specs on page 107 of my book are from Section 714.1, paragraph C, of the New York State Uniform Building Code. Some states have their own building and fire code, whereas others have adopted codes such as BOCA and NFPA, in which different specs for egress are defined.

My book was not intended to be an architectural text. I agree, however, that I should have alerted the reader to check with their local building department for the egress window specs for their municipality. Since the book was written in part for the home-buyer, the important message in the paragraph cited by the reviewer is not the size of the egress window, but the fact that in addition to the primary exit, all bedrooms must have a secondary means of egress.

Norman Becker, P.E.
Universal Home Inspection Inc.
Pomona, N.Y.

Ventilation Logic

To the Editor:

I feel I must comment on Bruce Sullivan's article, “Using Heating Ducts for Ventilation” (*Focus on Energy*, 9/93). There are some logical inconsistencies that could mislead people attempting to follow his advice.

Mr. Sullivan correctly points out that backdrafting (more correctly, spillage) of combustion gases is the most important reason for providing better ventilation for the building. In view of this fact, what is wrong with a barometric damper? The damper will open in response to blower operation. During cold weather, this will roughly coincide with operation of the burner. What better timing mechanism could there be? Of course it “acts like a leak in the return duct”! Any fresh air intake can be viewed as a leak. Why is this leak any less desirable than one

attached to a timer?

The article then suggests adding an exhaust fan to remove roughly the same air volume as that supplied by the fresh air duct. Doesn't this defeat the initial intent, which was to eliminate depressurization? In all probability, the house is already exhausting too well all by itself, which is the problem we are trying to solve.

Indoor air quality is a very complex problem. Careful testing with micro-manometer and/or blower door and well-reasoned analysis of each case are necessary before any cure can be prescribed.

Matthew Beyanson
Madison Heights, Mich.

Bruce Sullivan responds:

I agree indoor air quality is a complex problem. Fortunately, builders have much more control over equipment selection and installation in new construction, which was the primary topic of the column. Existing homes present so many variables that generalization is dangerous.

Spillage or backdrafting is not the only reason for ventilation. Perhaps a few more words should have been dedicated to the need to remove moisture vapor, odors, and fumes that come from furnishings and building materials, radon gas, etc. None of these pollutants correlate to furnace operation. Electric furnaces and heat pumps don't have a spillage problem at all. Yet homes with these appliances need adequate ventilation, too.

A barometric damper ventilates only when the house needs heat. That doesn't necessarily correspond to when it needs ventilation. Those other pollutants could easily build to unacceptable levels over the course of a week or month when the heating system doesn't operate. Until there's a low cost device that will measure pollutants directly and control the fan, timed control is the best option.

Neither a barometric damper nor the system I described should be considered a fix for a spillage problem. In new construction, I recommend only sealed combustion furnaces and water heaters, which draw all combustion air through a duct from outside. For any air-sealing work on existing homes (including duct sealing), enlist the services of a trained professional who can sleuth out the problem and take responsibility for the consequences of “fixing” it.

This Side Up

To the Editor:

I enjoyed Carl Hagstrom's article “Concrete Block Foundations” (10/93). However, I feel that an important point was neglected: He made no mention of which side of the block should be laid facing up.

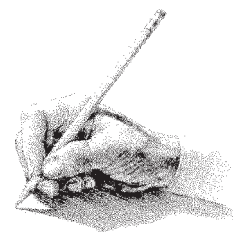
The cores of cement blocks are manufactured with a taper oriented to one side. When laid correctly, the thicker edge of the block faces up, forming a wide shelf for the mortar to rest on. This means less mud falls into the core from the joint that it is supposed to support. When the blocks are laid upside down, there is less surface area for the mud to rest on. This can significantly compromise the structural integrity of the wall in two ways. First, less mortar is available to support the compression load. Second, the reduced amount of mortar in the joint provides reduced adhesive strength from block to block.

Rubin Shmulsky
Amherst, Mass.

Corrections

The price for *The Sourcebook for Sustainable Design: A Guide to Environmentally Responsible Building Materials and Processes* is \$25, not \$75 as we reported in the article “A Guide to Green Building Resources” (11/93).

Iris Communications, mentioned in the same article, has moved. Their new address is 258 E. 10th Ave., Suite E, Eugene, OR 97401; 503/484-9353.



Keep 'em coming.... We welcome letters, but they 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, RR#2, Box 146, Richmond, VT 05477.