

Better Air Flow May Cure Condensation Problems

To the Editor:

I have some additional thoughts about the window condensation problem in the May 2003 Q&A. Every time I have seen a condensation problem, it was eventually tracked to an air flow problem. I have seen such problems in cases where the air flow in front of the window was blocked too effectively, such as by mini blinds that fit real well in the opening and were closed up all the way. Leaving the blinds a tiny bit open allowed the area to breathe and eliminated the condensation.

I have also seen such problems where steam from either cooking or a shower would naturally flow into the area of a window or skylight. Turning on the stove vent hood or bathroom exhaust fan when steam was being created cured those issues pretty well.

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More on Hip Framing

To the Editor:

Thanks to Joe Fusco, Dave Holbrook, and the rest of you at *JLC* for the article "Laying Out a Split-Pitch Hip" (4/03). It has helped me to refine my thoughts when preparing a layout. I'd also like to offer some comments about the article.

I don't understand why the "Partial Roof Plan" on page 87 displays the "Unequal overhangs" label when it becomes evident later that the goal is to create an equal overhang. Also, the diagram on page 90, labeled "Solution," clearly depicts equal overhangs with level fascias. These were correctly achieved, simultaneously, by multiplying the difference in pitches by the length of the overhang, expressed in feet.

Therefore, the statement at the top of page 91, "the overhangs will be unequal," misleads the reader. Instead, this section only seeks to determine how far the hip must shift off the corner and how far the ridge extends from a typical 45-degree hip.

The jack rafters on the end are already "shifted out" when the additional 3 inches of plate material are added, even though the birdsmouth hasn't actually moved off the wall.

Here's how I would lay out the same roof plan:

1. I would determine the pitch rise of the 8/12 side. The run is 15 feet x 8 inches = 120-inch rise. This rise would be the same for the 8 and 10 sides.

2. The 10 side will require 12 feet of run to rise to the same height, since 12 feet x 10 inches = 120 inches.

3. This run establishes a preliminary ridge end point at 12 feet off the outside of the end wall.

4. Next, I would calculate the plate differential required to level the fascias at 18 inches, as described on page 90. I need to be certain to maintain the same rafter depth at the birdsmouth when I cut on the two different pitches.

5. However, if I raise the plate 3 inches on the end wall and cut a 10/12 rafter based upon the 12-foot run in steps 2 and 3, the rafter end will stick above the present ridge point by 3 inches.

6. Therefore, I must reduce the run on the end rafter and extend the ridge the same distance until those lines terminate at the same point. This would be determined by finding out how much run will equate to 3 inches of drop on a 10/12 pitch. The proportion "10 is to 12 as 3 is to what?" provides the answer: $3\frac{5}{8}$ inches. So my new ridge point is an 11-foot x $8\frac{3}{8}$ -inch run from the end of the house. I lengthen my ridge $3\frac{5}{8}$ inches and offset the hip from

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Letters

the corner out from the front wall that same distance. (This is where Mr. Fusco helped me to see how to calculate the location of the hip. Prior to this we had snapped lines at full scale to locate the hip on the wall, as described in an earlier *JLC* article.)

7. At this point, I still have the familiar 8/12 and 10/12 pitches for my common and jack rafters and only have to calculate a pitch for my hip. To get the hip run I find the hypotenuse of a right triangle, triangle A, which has 15-foot and 12-foot sides. The result is 19.21 feet. Once I convert that to inches ($19.21 \times 12 = 230.52$ inches), I can express the hip pitch as the ratio of 120 inches of rise to 230.52 inches of run and reduce it to something manageable on the framing square for my cut marks. Reducing by a factor of 10 and converting from the decimal, this would be about a 12-to-23 pitch.

8. Then I can calculate the hip length by finding the hypotenuse of a right triangle, triangle B, with a 120-inch rise and a 230.52-inch run for its sides. This calculates to be 259.88 inches long.

9. I would calculate jack rafter and plywood cut angles pretty much the same way as Mr. Fusco, using a calculator and paper for visualization. I got lost in the backing angle calculation method and currently use a method suggested by my lead man. Using a speed square, he noted that if you project the common rafter pitch through the hip/val reading to the degrees, you get a reading that works. I don't know why, but it works well enough for our needs.

10. Now I have to make sure the rafter depth (height above plate) is the same on all the rafters, and in particular that this height on the backed hip is located in line with the front wall $3\frac{5}{8}$ inches out from the corner. Finally, keeping in mind that all these calculations are point to

point and that I have to adjust for lumber dimensions, I'm ready to cut.

David A. Brothers
Elizabeth City, N.C.

Good Communication

To the Editor:

In the article "High-Tech Office in a Truck" (5/03), the author talks about his communication preferences and says about Nextel that "the walkie-talkies have a range of over 50 miles in flat areas, but when we are working in the hills ... reception can be a problem."

Actually, Nextel's Direct Connect, as it is called, is not a simple line-of-sight "walkie-talkie," but rather a two-way radio that uses the same towers as Nextel's mobile phone service. The range is basically limited only by your local calling area. Nextel is in the process of even expanding this to include the entire United States.

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Performance Guidelines Come in Handy

To the Editor:

The article "Trade Standards" (*Legal*, 4/03) discusses two implied warranties, fitness-of-purpose and workmanlike manner. The first is basically covered by any good local building inspection. The author suggests handling the second, workmanlike manner, by comparing your work to the "community standard of quality." I feel this is a poor approach. The homeowner could find a dozen builders or crew chiefs to support their side, and likewise the remodeler in question.

I take care of small issues and quality concerns without batting an eye. I find this goes a long way with my clients and puts me on top of the list of contractors they call for

their next project. Plus, the word-of-mouth advertising that comes from this attitude toward service is immeasurable.

For those few clients who seem determined to get a reduction in the final payment and feel they can use the quality of my work as justification, I use published quality guidelines. My customer agreement states that all projects I complete conform to the *Residential Construction Performance Guidelines* published by the NAHB. Recently that \$6 investment quickly resolved an issue with a prefinished hardwood floor. The guidelines provide a way to measure quality, determine corrective measures, and have a brief "discussion" to help educate clients. For example, this section about wood flooring talks briefly about the fact that shifts in humidity will affect the size of gaps between boards.

My clients walk away feeling much better about the work I've completed. And I walk away with my full final payment and a client that I'm confident will use me again.

Steve Torla
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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*, 186 Allen Brook Ln., Williston, VT 05495; or e-mail to jlc-editorial@hanley-wood.com.