

# Vinyl Siding Without Paper?

**Q.** *Is it a good idea to install vinyl siding over OSB sheathing without putting up any housewrap or felt? I see this more and more often, and wonder whether the OSB should be protected since vinyl is fairly leaky. Apparently there is nothing in the codes against this practice.*

**A.** *Corresponding editor Paul Fissette responds:* I agree with you that this is a bad practice. OSB is not manufactured to withstand repeated wettings, and over time it will deteriorate, as rainwater is driven behind the vinyl siding. Once OSB swells, it will not return to its original thickness, and this permanent deformation can telegraph through to affect the surface appearance.

As you note, most building codes unfortunately (and incorrectly I think) don't require protection over OSB and plywood. Omitting the paper not only leaves the OSB or plywood unprotected, it also gives you no way to protect the top edge of window and door flashings with an overlapping layer. Water running down the sheathing can run behind the window flanges and into the framing cavity.

## Adding Living Space Over a Deck

**Q.** *A client wants to build a heated room over an existing deck. I'm suggesting that we insulate the deck floor by placing two layers of 2-inch "polyiso" foam board between the existing joists. Two layers should bring the floor to the required R-30 after discounting for heat loss through the joists. Will this work, and what should I do to protect the foam board from moisture, insects, fire, and so forth?*

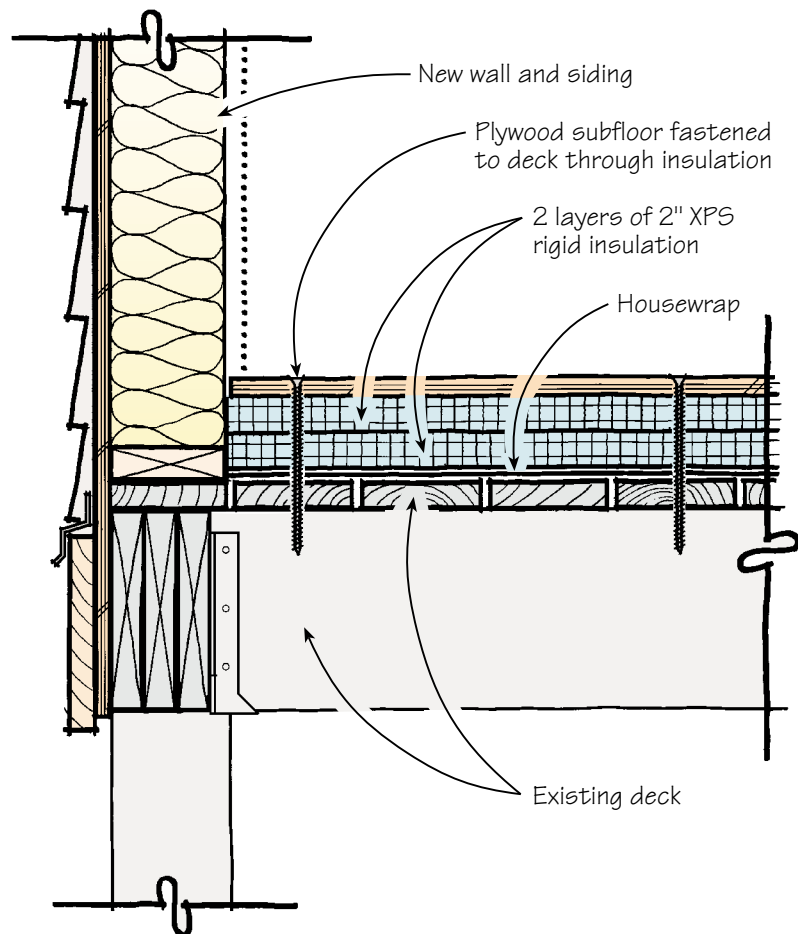
**A.** *Corresponding editor Henri de Marne responds:* Assuming it wouldn't create any floor height problems with door swings, I would lay the foam board

directly over the top of the existing deck instead of fitting it between the joists (see illustration). Not only would this be a lot easier and faster, but it would also eliminate conductive heat loss through the joists. Plus it helps protect the insulation board from the various problems you mention.

Set the sole plates of the new walls directly on the deck, forming a perimeter for the installation of the insulation. By installing the insulation in two layers as you propose, you will eliminate any thermal short circuits at the wall plates, because the wall insulation between the studs will reach

below the top of the rigid insulation (as long as you use only a single plate, that is). Stagger the second layer of foam board so that the joints don't overlap. Use long screws to fasten the plywood subflooring to the deck through the insulation.

I don't know where your building is located, but you are probably aware of the controversy about the outgassing of polyisocyanurate rigid insulation: It is said to reduce the R-value significantly over a few years. Extruded polystyrene (XPS) may be a better buy. I am not sure you should be overly concerned about the "required" R-30 for floor



insulation. (Is this a local code requirement?) Rigid insulation of any type is so efficient at air sealing that the R rating is not the only consideration. I believe that the double layer of 2-inch-thick XPS will give you excellent performance even though its official rating would only be around R-20.

### **Crawlspace Mildew**

**Q.** *How can I get rid of mildew growing on joists in an insulated crawlspace? The mildew is only on the bottom edges and sides of the joists where the batt insulation doesn't cover them. I suspect it's from warm, humid air wafting through the basement in the summer. The soil is basically dry.*

**A.** *Paul Fisetto responds:* Mildew needs a local relative humidity of around 70% to grow. Even though the earth feels dry to the touch, it isn't. That's probably where the moisture is coming from. (I'm assuming there are no other obvious sources of moisture, such as a reverse grade outside, or gutter downspouts dumping water against the foundation.)

As a first measure, you should install a polyethylene ground cover throughout the crawlspace. There is quite a bit of research showing that ground cover eliminates up to 75% of the moisture that ends up in the air as humidity in a crawlspace. The mildew itself will probably not cause any great problem in the

crawlspace, but this moisture eventually moves up into the walls and living spaces through wiring and plumbing holes, and other bypasses.

Take some humidity readings in the basement before you put down the poly and after, when the basement has had a chance to dry out. If this doesn't make a big difference, you will need to search harder for the source of the moisture.

**GOT A QUESTION?** Send it to On the House, JLC, 932 West Main St., Richmond, VT 05477; or e-mail to [jlc@bginet.com](mailto:jlc@bginet.com).

