LETTERS

I-Joists and Deflection

To the Editor:

I read with interest John Siegenthaler's article "Wood I-Joist Fundamentals" (*Practical Engineering*, 10/95). I am curious why the author did not mention deflection in this article, as this often controls in bending member design.

John "Buddy" Showalter, P.E.
American Wood Council
Washington, D.C.

John Siegenthaler responds:

The purpose of the article was to illustrate to builders (who are often more familiar with hefty solid-sawn lumber) how an I-joist, with its thin profile and light weight, can handle the bending forces present in a floor joist. Nevertheless, your point is a good one; namely, that deflection — of either a solid-sawn joist or an I-joist — is usually the limiting factor in joist selection.

Most building codes allow a maximum deflection of 1/360th of the joist clear span under full live loading. This is intended to minimize both the bounce of the floor and hairline cracks in drywall or plaster ceilings. I personally prefer to design floors so that deflection under full live loading is limited to 1/480th of the clear span, or 1/2 inch, whichever is less.

Likes Housewrap

To the Editor:

I've long been a proponent of building wrap, whether Tyvek, Typar, Barricade, or some other brand. By definition, this product is both a water and air infiltration barrier. Your article "Housewrap Effective on New Homes" (*Eight-Penny News*, 11/95) talked about payback for housewrap but dealt only with energy costs saved; yet the real worth of this material is water integrity.

Water kept out of insulation (and eventually drywall, wallpaper, carpet, etc.) permits the insulation to function at its potential. Water kept out of framing members allows them to remain dimensionally stable and prevents eventual rot.

The cost for a homeowner to tear out and rebuild a rotted wall system is too horrific to contemplate. Building wrap properly applied is cheap insurance; to build a house without it is foolhardy.

Steve Thomas
Columbus, Ohio

Done Right, Duct Cleaning Effective

To the Editor,

You cited a publication "Efficiency of Residential Duct Cleaning" in your article "Duct Cleaning Results a Mixed Bag" (*Eight-Penny News*, 11/95). I have microscopically examined both the duct dust and airborne particulates from hundreds of homes where inhabitants were suffering from allergy and asthma. Proper cleaning of the furnace and ducts (with a simultaneous house-dust cleanup) can significantly reduce symptoms. A 1990 study by R.A. Garrison and others found that duct cleaning reduced airborne mold by more than 90% in the houses studied.

The quality of duct cleaning varies from A to Z. I always tell clients to specify that the entire furnace be cleaned and that the ducts be cleaned to "penny bright."

As the article pointed out, return ducts are more of a problem than supply ducts. Since the metal surface of a basement return duct is often cool, moisture in the air can condense on the interior surfaces. The lower-velocity air in the return duct deposits dust in this moisture and the moist dust in turn supports the growth of mold. One problem is that duct cleaning the way it's often done leaves too much residual dust — and therefore mold — in the return ducts.

On the other hand, in several

houses I inspected, only the ducts were cleaned, while the blower blades and the A/C coils were left covered with mold and bacteria. Under such circumstances, duct cleaning alone is almost useless.

Jeffrey C. May, M.A.
J. May Home Inspections
Cambridge, Mass.

About Impact Wrenches

To the Editor:

I read with great interest the article "Tools With an Impact" (*Toolbox*, 12/95). Like the author, I too needed a better way to install lags and bolts. However, after doing battle with several electric impact wrenches, I went back to using an air-powered impact wrench. It is powered by the same 3 1/2 hp compressor I use for my nailers and has considerably more torque than an electric wrench, but in a smaller tool. The best part is that an air-powered impact wrench can be had for less than $100 at any auto parts store.

In your article you mention that an impact wrench allows lags to be installed without the use of pilot holes. Shame on you! This is the very reason that the building inspectors here in the Atlanta, Ga., area will no longer allow the use of lags in framing a deck. When lags are used to install a ledger without drilling a clearance hole through the ledger and the correct size pilot hole through the band joist or post, they will split the wood, leaving the ledger only loosely connected to the house. Or, as one inspector joked, many deck framers think of lags as large nails; they just hammer them in with a bigger hammer.

The method we use is to install 1/2-inch bolts (with washers) through the band joist and ledger with the nut on the *outside* so the inspector can see it. The speed of the impact wrench allows the nut to be tightened onto the bolt without a wrench on the bolt head, making this a one-man operation.

Dave Burroughs
Home Repair & Renovation Service
Marietta, Ga.

QuickBooks Question

To the Editor:

In your article "QuickBooks Job Costing" (*State-of-the-Art Contractor*' 9/95), you mention CSI-like divisions for breaking down accounts. Do these divisions exist in QuickBooks or are they available as an add-on? How can I get these accounts set up for QuickBooks 3.0?

Kirk Beck
Beck Construction
Lafayette, Calif.

Craig Savage responds:

The CSI (Construction Specifications Institute) divisions you refer to are a standard set of 16 major construction categories used for specifications, estimating, and job-costing. They do not come preinstalled in Quicken or QuickBooks. I recommend that you look at one of the other available classification systems, such as the ones published by the National Association of Home Builders (800/368-5242) and the National Association of the Remodeling Industry (800/966-7601, Education Dept.), since these more closely match the small builder's job-cost requirements. In any case, you can input the cost divisions into the QuickBooks Chart of Accounts as subaccounts of the Cost of Goods Sold account that is already set up in QuickBooks.

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*, RR 2, Box 146, Richmond, VT 05477; or e-mail to 76176.2053@compuserve.com.