LETTERS

Inspectors Protecting Themselves?

To the Editor:

Why do some building inspectors require construction plans to be stamped by a licensed engineer to "certify" compliance before they'll issue a permit — a situation that seemingly is not required by any specific laws in New York state, where I work. One wonders if the inspectors are not just protecting themselves with such demands. Meanwhile, the builder is powerless to disagree because the desired permits won't be issued unless the inspector gets what *he* wants, regardless of legal requirements.

I have no formal educational "credentials" in the form of degrees, yet I have *many* years of construction and project engineering/management experience, and likely forgot more than many officials ever knew. Still there's a barrier to certifying my own plans. Why?

Edward K. Williams
Delanson, N.Y.

Howard Beebe responds:

Mr. Williams raises three points. First, he asks why inspectors require plans to be stamped, and questions whether the practice is required by any specific laws in New York State. In answer, I'll quote from the Codes, Rules, and Regulations of the State of New York *(Title 8, Section 7209), which states:*

"… No official of this state, or of any city, county, town or village therein, charged with the enforcement of laws, ordinances or regulations shall accept or approve any plans or specifications that are not stamped:

a. With the seal of an architect or professional engineer or land surveyor licensed in this state and bearing the authorized facsimile of the signature of such architect or professional engineer or land surveyor…"

As with most rules, there are exceptions. For example, a New York state inspector does not have to require a stamped plan for residential buildings under 1,500 square feet or costing less than $20,000, or for buildings intended solely for agricultural purposes.

Second, Mr. Williams "wonders if the inspectors are not just protecting themselves with such demands." The answer is no, because an engineer's or architect's stamp does not relieve the building inspector of the responsibility to do a thorough review to ensure compliance with the pertinent codes.

Third, Mr. Williams questions why, with years of engineering experience, he cannot certify his own drawings. I am sure that he asks this both for himself and others who face the same dilemma. Perhaps someday there will be a way to authorize people of this caliber, who do not have a "degree," to stamp and sign their own drawings — though this would require changes in state law.

Howard Beebe is chief building inspector for the town of Duanesburg, N.Y.

L.A. Quake Aftermath

To the Editor:

Mr. Dorazio's comments about my article "Earthquake Aftermath: On-Site Report" (*Eight-Penny News*, 4/94) were right on target, and helpful. He commented that hollow steel columns are common practice in some areas and that he could not imagine how a contractor could use stucco to wrap an improper column to get past a building inspector.

I was uncertain about some of the failures I observed at Northridge Meadows, the scene of the worst fatalities in the Los Angeles area. The specific observation that prompted my comment about columns wrapped with stucco was not accompanied by a photograph. Had there been a photograph, Mr. Dorazio may have been as curious as I was to see several 4-inch steel I-beams used as supporting columns at the first-floor level of a three-story structure. When the first floor collapsed, the stucco wrap on these and other columns burst open to reveal the actual post inside.

In most of the building, I observed 6-inch steel columns. But unless the building inspector was on site during all construction, it would be unlikely that he or she would have observed the difference between these column types once the stucco was in place. A check with several engineers, an architect, and building officials at the site resulted in my lay opinion that during construction the crew may have run short of proper columns and substituted improper materials.

Dan Friedman
American Home Inspection Service
Poughkeepsie, N.Y.

Tile Vapor Barrier

To the Editor:

Regarding the article "Water in the Walls: Three Case Studies" (8/94): In Case 1, I certainly agree that omission of a vapor barrier is what caused the problem of decayed wood behind the shower walls. I also think it's good practice to use a barrier behind the wall board, as Mr. Smulski says. However, it is most important to have a vapor barrier between the tile mortar bed and the drywall. Omission of this critical membrane would have still turned that drywall to mush. In fact, all "mortar method" tile installations over wood framing must have a vapor barrier under the mortar, according to the Tile Council of America handbook. The acceptable vapor barrier products are 4-mil poly or 15-pound felt.

I have a tile contracting business and work in approximately 20 different cities in my area of California. Only one of these cities requires a vapor barrier behind the drywall, but all require a barrier behind the mortar.

Scott Duncan
Saratoga, Calif.

Breaking the Law

To the Editor:

The answer by Carl Hagstrom, "Sealing a Foundation Cold Joint" (*On the House*, 6/94), caught my attention because it seems to violate the laws of physics.

When you install a ring of footing drains around a foundation within an area of high groundwater, you create a "slope" in the surface of the water; the denser the soil, the steeper the slope. The water pressure at the top of the slope is zero. If you doubt that this slope is created, imagine putting a footing drain system around a model house standing in a swimming pool. Since you can't create a slope at the surface of the water, you have to drain the entire pool in order to create a dry basement.

So, if the outer drain works, you are creating a sloped surface around the house and can't have water under the slab. Conversely, if you have water under the slab, you either have a spring under the slab or the outer drains aren't working. (I discount capillary action, since there is porous material under the slab.)

All that said, I have the greatest respect for people in the field, who have to fix real problems that "can't exist" according to theory. Since there doesn't seem to be any way around the theory, maybe Carl could detail the conditions of a particular failure that caused him to feel the need for the interior drain. Maybe there was something else going on!

Gordon Tully
Arlington, Mass.

Carl Hagstrom responds:

Groundwater behavior and soil conditions, in a regional sense, are micro-specific. I can only speak for my area of northeastern Pennsylvania, where groundwater often comes within a foot of the surface in the spring time. And whether it's a function of the rock formations below or a result of a 20-ton loader repeatedly turning around in the center of a basement excavation, I've seen wet spots appear in the center of a freshly excavated foundation hole.

A 250-foot coil of perforated "elephant pipe" placed on the interior side of the footing (at 20¢ per foot) is cheap insurance against an interior spring. Crowning the interior of the foundation excavation, so it's 3 to 4 inches higher than the perimeter, not only helps drainage, but also saves on gravel, offsetting the cost of the additional drain piping.

Design Values Misstated

To the Editor:

In the article "Innovative Building Products" (7/94), you improperly listed the flexural capacity of Parallam PSL at 2,400 psi. Parallam (manufactured by Trus Joist MacMillan) has the following design values: E = 2,000 psi; Fb = 2,900 psi; Fv = 290 psi; and $Fc_{\perp}$ (beam) = 750 psi.

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Charlotte, N.C.

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.