

Staying Right on Fire Assemblies

As Long as Actual Field Construction Can Vary From Actual
Tested Assemblies, You Should Be Careful

Dear Mike:

Let's not discuss the weather here or elsewhere—it's all bad. Winds, rain, mud slides, snow and cold all slow down our business from a crawl to a near standstill.

The jobs I've seen recently are mostly rehab. That's an area where everyone needs a lot more information than is readily available. Have you taken a look at the HUD publication, *Guideline on Fire Ratings of Archaic Materials and Assemblies*? Not only does it bring back memories of the old, old days but could be a great help to those contractors who are getting into remodeling old structures. By the way, this booklet is available at no cost from HUD USER, P.O. Box 280, Germantown, Maryland 20767—phone (301) 251-5154.

But on to the problem at hand. In recent months I've been working with a state authority which administers one of the model building codes. The issue concerned the requirement of the two hour fire resistant party wall or firewall between townhouses.

Editor's Note: Here is another of our fictional letters that is prepared by AWCI's Technical Department, pinpointing various technical problems that could cause problems for the unwarly wall and ceiling contractor.

The authority's original contention—believe it or not—involved the combustible or non-combustible classification of gypsum board and metal stud separation wall. That's the same wall we use for elevator enclosures. This question was resolved even though my extraordinary persuasive powers could not earn agreement that our walls were as good as, if not better than, old fashioned masonry block construction.

The issue with which we are left, and one—admittedly—that *does* exist, is poor workmanship. As the department supervisor so elegantly put it, “. . . actual field construction could greatly differentiate from the actual tested assemblies”.

As we both know, a contractor who erects *any* rated gypsum assembly *must* follow as closely as possible, the material and fastening schedule as outlined in the Gypsum Association Fire Resistance Manual, UL Fire Resistance Directory or a manufacturer's spec sheet. Any modification to the assembly as tested must be approved *before* that modification is made. This avoids tearing out and rebuilding a wall even if a modification may be justified on the basis that the original requirement of the tested assembly is still fulfilled.

In case you want to pass some good information along, let me note a few can-do's and a bunch of can-not-do's.

In generic assemblies, products meeting the same (produce) standard can be interchanged; insulation can be added but only on walls and partitions—not above ceilings; screws can be substituted for nails but adhesives cannot be substituted for mechanical fasteners.

Assemblies must be tight fitting with no openings which could allow the passage of smoke, gases or flames. Cracked or damaged board should never be used in rated assemblies and only when specifically tested can gypsum boards be installed horizontally.

The contractor, and more importantly his men doing the actual installation, must bear in mind that they are building an assembly of materials, which, when in place, is designed to provide a certain degree of life safety to the occupants of that building. The wall and ceiling assemblies are designed to contain a fire (and sound), not just separate one space from another.

Glad to hear you took a deserved “honey-do” vacation. Those little chores around the homestead should make your bride happy.

Best regards

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