DO WE HELP WITH "SOUND BOARDS"?

Often clients come to us with problems which they have decided can be solved only by installing "sound boards," or acoustical absorption. They want to know whether we can help them. The answer is "yes," but not necessarily in the way that they expect. There are several aspects to this issue.

What do you really need?

In many cases, acoustical problems involve too little absorption in the room, but in just as many, the problem is more complex. We have consulted for clients who had lobby spaces that were too noisy, but unfortunately the noise came directly to the listeners' ears without striking walls, ceilings, or floors. In this case, absorption would not help at all. There are listening spaces in which the reverberation needs to be fairly prominent in order to support music, but speech is poorly understood. These spaces need something other than absorption, because absorption would diminish the quality of the room for music. There are cases where discrete echoes mar the hearing of music and speech. In these cases, absorption may help, but there may be better ways to solve the problem.

If absorption, what kind?

The most common "sound boards" are made of 1" compressed fiberglass wrapped in porous fabric. These work well at high frequencies. But if your problem is rumble, they will do little good. The thickness matters, and there are other types of construction that work more effectively in specific cases.

How much?

A company who sells "sound boards" can give you free advice on how much absorptive material you need, and that advice will certainly be worth all you pay for it. These companies generally use an inexpensive computer program that calculates using a statistical equation developed early in the last century. This equation is valid if the room is large enough, if the geometry randomizes sound reflections, and if the absorption is evenly distributed on all interior surfaces (it never is). The proper way to evaluate the amount and type of absorption needed is to use an acoustical modeling program.

By the way, the relationship between the reduction of reverberation provided by "sound boards" and the perceived reduction of noisiness in … say, a banquet hall is complex and does not lend itself to easy computations.

Where?

You can spend a lot of money putting absorption all over the place and not accomplish much, or you can put the correct amount of the correct material in the right place, and

accomplish your goals for the room. Again, computerized modeling can serve as a basis for correct advice.

Can you build your own "sound boards"?

Certainly you can, but the materials for building good-looking absorptive panels that perform well are not generally available to the public. Also, the design of the panels is not intuitive, but requires knowledge of acoustics. Besides, home-made panels always seem to look … well … home-made.

But do you guys sell and install "sound boards"?

Nope. Our function is to provide expert advice so that you use the right amount of the right material at the right place. Of course, you could just guess, and you may get it right – on the second or third try. Engaging a qualified consultant will be more satisfactory, and very likely more cost-effective as well.