

Project Experience Acoustics



Absorption and diffusion panels in a multi-purpose room



Absorption panels in an elementary school gymnasium



Absorption panels on the rear wall of a performing arts theater



Diffused wall in a choir area at the front of a church

Sometimes a “bad sound system” is not the fault of the sound system. Sometimes it is caused by a “difficult room.” Without getting into the advantages and disadvantages of rooms that are more reverberant or less reverberant, let's just say that it is easier to have clear, intelligible, sound in a room that is less reverberant.

Usually we get called in to “fix the room” because the client wants to use it more as an auditorium than as an organ recital hall. This would be true in many gymnasiums, multi-purpose rooms, fellowship halls, and in some church worship spaces.

Many of these rooms have high ceilings, parallel walls, and hard surfaces. Any sound energy (whether amplified or not) does not get absorbed by the room's surfaces but continues to be reflected from surface to surface. This is wonderful if you have a pipe organ and want a reverberant room. It is not so wonderful if the spoken word becomes “unintelligible” (did he say sixty or sixteen?).

We always recommend a solution that retains the character of the room while providing more intelligibility for the spoken word. What we don't want to do is give the room the acoustical properties of a pillow.

First, if we have the opportunity (as in new construction), we design in some type of diffusion (picture #4). Two hard, flat, parallel surfaces *will* cause problems. If we can design in diffusion for one or both surfaces, we can increase the intelligibility.

Next, we design a solution with acoustical material or panels for the “problem” frequencies. Since not all frequencies are problem frequencies, we may design a solution with absorption or with absorption and diffusion.

Whether your room is going to be used as an organ recital hall, as an auditorium for seminars, or both, call us. Sound Planning can help!

Sound Planning's Project Experience
Your assurance of success