Subject: Designing proper acoustics into a building
Posted by sawyer25 on Sun, 16 Dec 2018 11:46:39 GMT
View Forum Message <> Reply to Message

Most of us add acoustic treatments (to a building) after construction, but then there are suggestions that having this in mind during site selection and building orientation almost halves the cost. Is this true?

Subject: Re: Designing proper acoustics into a building
Posted by Porter on Sun, 16 Dec 2018 20:26:51 GMT
View Forum Message <> Reply to Message

I've done a few DIY projects, but I'm not sure whether designing with acoustics in mind is always less costly. I think the end result will definitely turn out better when you're starting from scratch rather than solving problems later. For instance, if you have a small band and you want to practice at night, you'll know to use dense flooring and to use noise controlling materials between the walls. You'll know the best placement for the electrical outlets and everything else. Overall, designing with acoustics in mind should give you a better experience, but I'm not sure if it's cheaper though.

Subject: Re: Designing proper acoustics into a building
Posted by Wayne Parham on Mon, 17 Dec 2018 16:16:07 GMT
View Forum Message <> Reply to Message

You can definitely do a better job for less money when you have acoustics in mind during initial construction. You can use golden ratio room dimensions and walls can be made into panel dampers using constrained layers, for example. Be sure to incorporate both absorption and diffusion in the ceiling.

Subject: Re: Designing proper acoustics into a building
Posted by musicluvr on Sun, 23 Dec 2018 20:51:23 GMT
View Forum Message <> Reply to Message

I figured it would be cheaper to add things later like thick drapes or sound panels than to utilize specific audio friendly building materials. I see I was wrong.

Subject: Re: Designing proper acoustics into a building
Posted by johnnycamp5 on Tue, 01 Jan 2019 15:44:15 GMT
View Forum Message <> Reply to Message

It's not always cheaper later, and sometimes more costly.

I'm currently working on a quote for an office suite that is approx. 4000' square (Its new construction, in a large, old concrete building).

All of the walls are proposed using 20guage metal studs 16" on center, with "Roxul" safe and sound in the cavities. All office partition walls use resilient channel or "sound channel" (on both sides of framing) every 2' horizontally, topped with 1 sheet of 5/8th's rock.

The common walls also use resilient channel, but with two layers of 5/8th's for both density and fire rating. Ceiling height at this project is about 12.5' (concrete, no drop ceiling). 2'x 4' Owens 703 (2" thick) panels are to be material covered, and hung in each office ceiling at around 10' (parallel to the ceiling).

In my experience, these are some general construction practices that seem to make any office space or lobby a very comfortable space (acoustically), more so after a few pieces of soft furniture are added.

Ive also done this in residential (studio) type settings with good general effect.