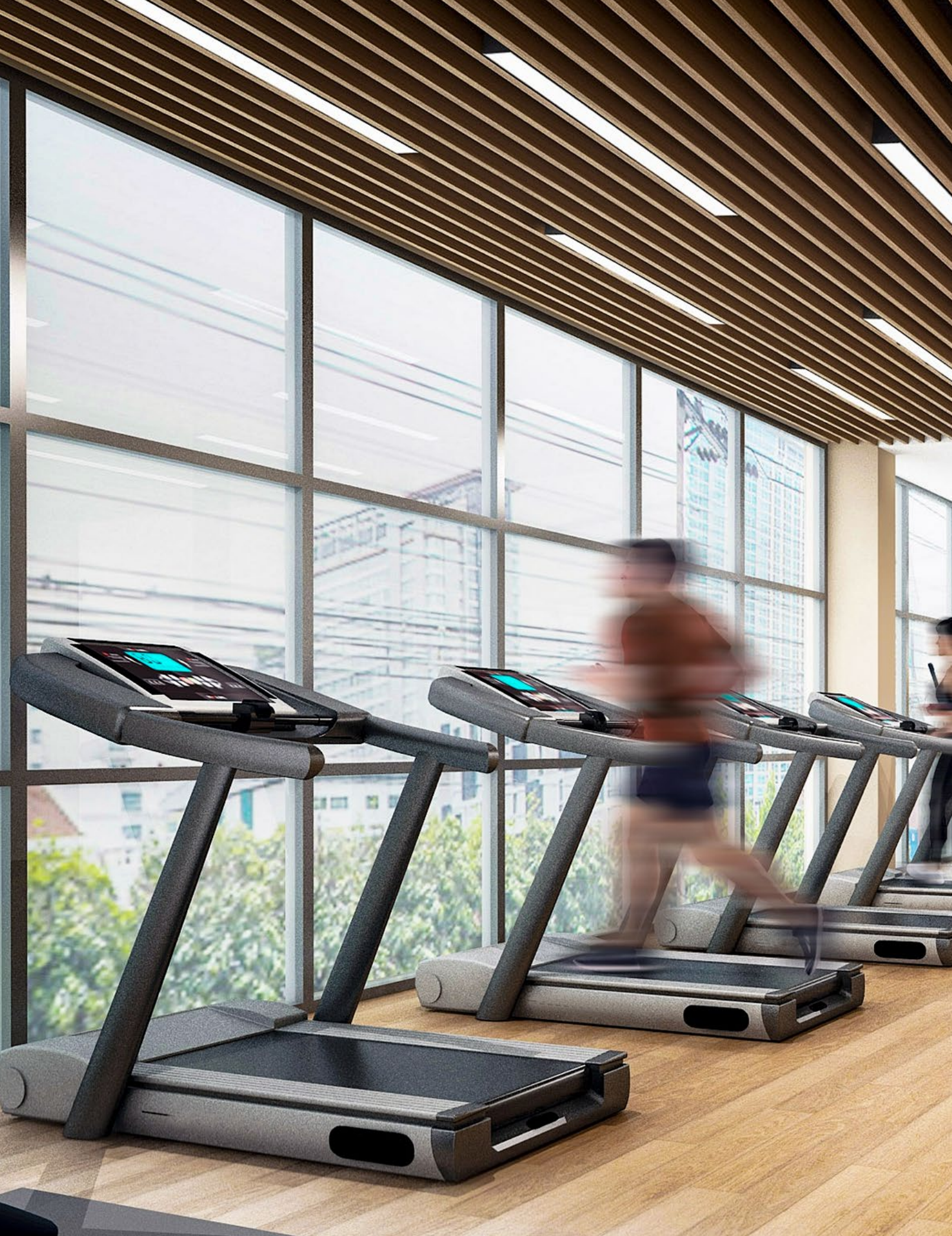

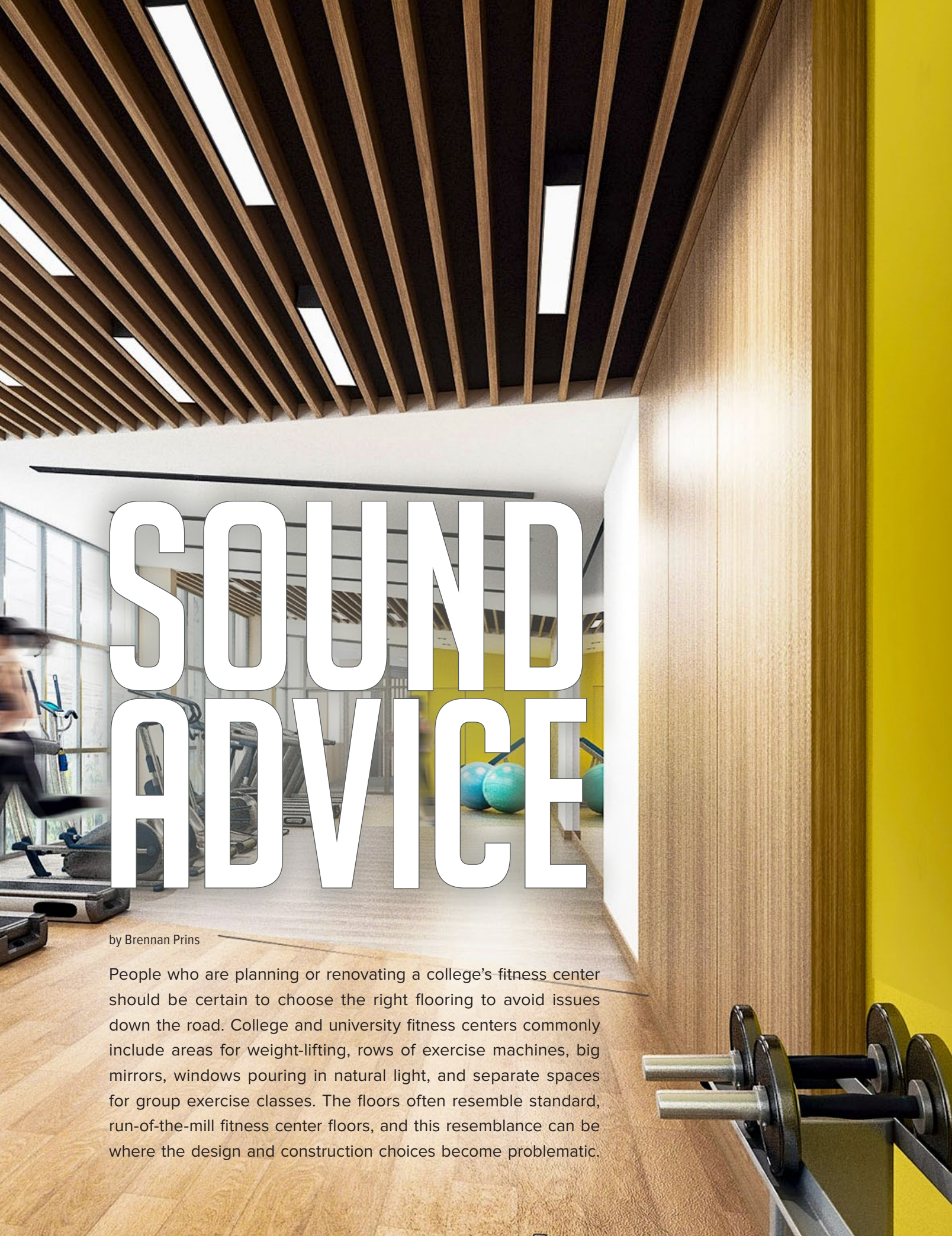

SOUND ADVICE

by Brennan Prins

People who are planning or renovating a college's fitness center should be certain to choose the right flooring to avoid issues down the road. College and university fitness centers commonly include areas for weight-lifting, rows of exercise machines, big mirrors, windows pouring in natural light, and separate spaces for group exercise classes. The floors often resemble standard, run-of-the-mill fitness center floors, and this resemblance can be where the design and construction choices become problematic.

Everything may look impressive, but looks can be deceiving, and appearance alone is not how campus fitness centers are judged when they are filled with students and staff there for unique fitness regimens. Understanding how sound travels in a facility can lead to the entire facility's success or failure.

Fitness Is Changing

A university's fitness center isn't like the old-fashioned health clubs that have been around for decades. Everything about fitness in the college setting is different, and university recreation centers can feature sprawling sizes, complex regulations, and a mind-boggling array of equipment.

One method of exercise is increasing in popularity: group fitness classes, with proprietary workout regimes from the likes of Zumba®, BODYPUMP™, and CrossFit. These and many other programs challenge students with high-intensity training that pushes them beyond anything fitness experts of just a few years ago could have imagined. However, with more pushing comes more force, and with force comes both vibration and noise.

Once vibrations and noise are combined within mixed-use buildings, increasingly the norm in these impressive centers—especially those on elite, private college and university campuses—the reduction of structure-borne noise in fitness centers becomes essential.

The Invisible Killer—Noise Pollution

Any sound that's too loud or lasts too long—like that of a student dropping a barbell or a room full of CrossFit participants running in sync—can result in unnecessary stress, anxiety, and annoyance for others nearby. And this pervasive noise won't just stay in the room. In most cases, the acoustics of a fitness center will allow the audible structure-borne sound to travel through standard floor mats, floors, and ceilings, disrupting those in adjoining rooms, buildings, or living spaces. In fact, neglecting the noise factor has compromised or ruined countless fitness centers.

Choose Noise Abatement Wisely

In essence, fitness centers need to find ways to stop or reduce sound in every possible way. For airborne noise, wall air leaks should be sealed, air ducts insulated, and acoustical sealant applied along joints. Flooring also needs attention; impact and footfall noise/ vibration will travel through the floor and into connected structures.

Understanding the effects of structure-borne sounds and vibrations from athletes and equipment is a science. Circuit training, treadmills, spin classes, dance, CrossFit and aerobics—and the noise pollution generated from each—need attention; all of these activities require appropriate flooring to mitigate sound. The result contributes to a pleasing experience for everyone who uses the fitness center, thereby encouraging repeated visits.

Weighing The Options

Administrators of campus fitness centers can choose one of two options: Pretend that sound won't be an issue in the fitness center and hope for the best, or choose resilient rubber surface tiles that are designed to dissipate structure-borne noise to guarantee better sound-level experiences for students and staff. The second of these two options is almost always the right choice. The result will be a surface that greatly reduces the bounce of weights, the humming vibrations of fitness equipment, and the repetitive thumps from group exercise.

Certainly, administrators should research flooring manufacturers and installers. Many university administrators believe that fitness center flooring is all the same, but the reality is there's a significant difference among products and companies. We've seen fitness centers struggling to remain in their space because of their inability to control the noise within their center due to sub-standard surfacing solutions.

Holistic Approach

Several variables must be considered, such as the shape of the fitness center, the walls and bracketing systems, doors, windows, ceiling, and—of course—the flooring assemblies. Planners must consider external areas and their needs, as well. In short, planners need to have a holistic approach to noise mitigation and consider the construction materials of adjoining spaces. Much of this information is new to administrators, which is why flooring professionals are often eager to share everything they know about the particulars.

One of my favorite parts of going through the process of choosing the right flooring is the initial meeting I have with a prospective customer. I'll show them the differences between our options and how one rubber floor product can be superior to another. We'll also look at a product's test results, usually another eye-opener, since some rubber tile products have been engineered to reduce structure-borne noise by as much as 38 decibels. Obviously, in these facilities, aesthetics matter tremendously. Luckily, style doesn't need to be sacrificed for practicality. There's flooring that is aesthetically pleasing yet can take a beating and absorb the sound of everything students want to do, without noise creating an unpleasant environment for students seeking to become or remain fit and healthy. Here's the sound advice I give my clients: Make sure that your fitness center plan accounts for noise considerations, then let the experts handle the rest.

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