the challenge:

The gymnasium at the Village Green Community Center is in use every day, ranging from youth basketball games to adult pickleball games to a myriad of youth club activities. However, even though the gym was only three years old, Linda Fyfe, the center’s manager, described reverberation in the space as “a nightmare.” “It sounded like an echo chamber, which made it extremely difficult for the staff to communicate with anyone in the gym, especially the kids,” she states. “It was simply too loud and reverberant.” On-site acoustical testing affirmed the situation — reverberation time was as high as 6.0 seconds, far above the recommended time for such a space.

the solution:

To reduce noise levels, the Center partnered with Armstrong Ceiling & Wall Solutions and installed 1,800 square feet of white, one-inch-thick FeltWorks™ acoustical panels on the gym’s 17-foot-high ceiling. An excellent retrofit solution for controlling noise in exposed structure spaces, a total of 65 panels were attached to 7/8” hat track using screws and washers. This mounting method resulted in a Noise Reduction Coefficient (NRC) of 0.80, meaning the panels absorb 80% of the sound that strikes them.

“We could hear the improvement even as the panels were going up,” Fyfe reports. By the end of the installation, acoustical modeling calculations indicated that reverberation time would be reduced to 1.8 seconds or a 70% improvement. “The staff was extremely pleased,” Fyfe adds, “especially because they would now be able to communicate easily with people in the gym and each other and no longer have to leave the gym to have a conversation.”

From an installation point of view, Travis Gimse, President of Acoustics Northwest, Inc., notes that the Center was his firm’s first project using FeltWorks panels, but won’t be his last. “The panels are extremely easy to install, which is probably their greatest strength,” he says. “They’re lightweight, easy to handle, cut easily, don’t create a lot dust, and, very importantly, the crews like working with them.”

In addition, the contractor notes the panels have a Class A fire rating and the color in the panels is clear through, meaning edges don’t have to be painted after trimming. “FeltWorks panels are now my number one felt product,” he concludes. “I would recommend them anytime there is a need for a combination of sound absorption, a soft, appealing visual, and easy installation.”