the challenge:

The gymnasium at the Boys & Girls Club of Lancaster is in use every day, not only for sports activities but a variety of other functions as well. Its acoustic environment, however, was not always ideal. Acoustical testing showed that reverberation time in the gym was 5.05 seconds, far above the 2.00 seconds or less recommended for this type of space. As Karen Schloer, the Club’s Chief Executive Officer, notes, “The noise level was putting a real strain on the staff because they had to shout so often when trying to communicate with the kids.”

the solution:

To solve the problem, Armstrong Ceiling and Wall Solutions installed more than 3,500 square feet of Tectum® Direct-Attach wall panels on the gym’s masonry walls. The panels were chosen because of their ability to absorb both sound and the impact of basketballs, volleyballs, and other objects that hit the walls.

Aesthetically, the two-inch-thick, 2’ x 4’ panels are installed in ribbons of white and a custom blue that match the Club’s colors. They start nearly ten feet off the floor and continue up the wall another 18 feet.

In addition, a re-creation of the Boys & Girls Club logo is installed at each end of the gym. The 15 feet wide and 13 feet high visual of two interlocking hands was created using custom 8” triangular Tectum shapes. The white triangles are one inch thick, while the blue triangles are two inches thick so that they stand out from the wall. Two rows of 12 Soundsoak® Baffles were installed in the center of the ceiling for added noise absorption.

Acoustically, the 2” Direct-Attach Tectum wall panels have a Noise Reduction Coefficient (NRC) of 0.70. Acoustical testing conducted after the installation of the combination acoustical treatment showed that reverberation time dropped to 1.85 seconds, a 63% reduction.

According to Chief Operations Officer, Scott McLellan, the difference is “like night and day. The biggest takeaway is how much easier it is now for the staff to gain control of the space because the kids can hear directions much more clearly.

Looking back at the difference in the gym’s acoustic comfort, McLellan adds, “The staff simply didn’t realize how bad it was because they didn’t realize how good it could be.”