

New Acoustical Ceiling Lowers Lunchtime Noise Levels

The 2,400-square-foot, lower-level, multi-purpose cafeteria at St. Michael's Country Day School in Newport, RI suffered acoustically from both high reverberation time and high levels of background noise.

The reason: The cafeteria's exposed concrete ceiling deck, drywall walls, vinyl on concrete floor, and wood and glass doors offered little acoustic control of lunchtime noise.

To help improve acoustics within the space, school officials decided to install Optima® Capz™ ceiling panels from Armstrong. Ideal for new construction, the system is also a simple, affordable way to retrofit poor acoustic-performing spaces, especially open plenum spaces in which HVAC, plumbing and other building service lines are exposed.

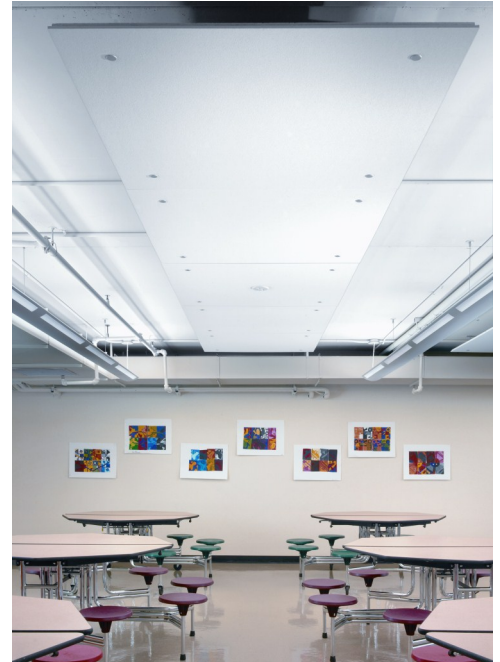
The panels feature a Noise Reduction Coefficient (NRC) of 0.90 and can be installed directly to the deck above to maximize

ceiling height, or suspended with wires. At St. Michael's, 35 large 4'x 4' panels were installed directly to the concrete deck in long runs between the ribbons of linear light fixtures.

Aesthetically, the panels' fine-textured surface helped impart a more finished look to the space. Acoustically, their extremely high NRC significantly enhanced acoustics.

Acoustical testing validated the improvement. Even though they only covered about 23% of the ceiling area, the added sound absorption provided by the Optima Capz panels reduced reverberation time 55% to 1.0 seconds.

They also lowered the unoccupied background noise level by 3 decibels. And, because students did not have to compete as much with neighboring conversations, they spoke softer, resulting in a decrease of 5 decibels in the occupied background noise level.



As second grade teacher, Kate Joubert, noted, "The sound level is much quieter and it's easier to get the children to respond. I don't have to screen over them and I can talk in a normal voice. I don't walk out of here with a headache anymore."

For more information about acoustical ceilings or this application story, please contact:

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