

case study

Project . . . **St. Michael's Country Day School, Multi-purpose cafeteria**
Location . . . **Newport, RI**
Product . . . **Optima® Capz™ Ceiling System**

the challenge:

The 2,400-square-foot, lower-level, multi-purpose cafeteria at St. Michael's Country Day School 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, wood and glass doors were not designed for acoustic control of lunchtime noise.

the solution:

To help improve acoustics within the space, school officials decided to install Optima Capz ceiling panels. The system is ideal for new construction or to retrofit poor acoustically-performing spaces.

The panels feature a Noise Reduction Coefficient (NRC) of 0.90 and can be installed directly to the deck 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 ribbons of linear light fixtures.

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

Before and after acoustical testing validated the improvement. Even though only about 23% of the ceiling area is covered, the added sound absorption provided by the Optima Capz panels reduced reverberation time by 55%.

Panels also lowered the unoccupied background noise level by over 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 kids to respond. I don't have to scream over them and I can talk in a normal voice. I don't walk out of here with a headache anymore."



1 877 276 7876

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