

Project Profile



USG Millennia™ ClimaPlus™ Ceiling Panels

Part of a Platinum Solution

Name:

Sidwell Friends Middle School

Location:

Washington, D.C.

Approx. Size:

72,500 Square Feet

Architect:

KieranTimberlake Associates, LLP

Environmental Building Consultant:

GreenShape, LLC

Contractor:

Hitt Contracting, Inc.

Featured Product:

USG Millennia™ ClimaPlus™ Ceiling Panels

Sustainableceilings.com / usg.com



During initial planning and design of Sidwell Friends Middle School, a Washington, D.C.-based school for children in pre-K through 12th grade, green building was to serve as both a reflection of the school's Quaker values and a catalyst to weave environmental stewardship into its curriculum. Upon completion of the project, however, Sidwell's green vision produced much more than just an innovative school building and a good citizenship lesson—it made history.

In early 2007, Sidwell was awarded a Leadership in Energy and Environmental Design (LEED) Platinum rating by the U.S. Green Building Council (USGBC), making it the first Platinum-rated K-12 school in the world and the first Platinum-rated building in Washington, D.C.

GreenShape LLC, a leading Washington, D.C.-based environmental building consultant, helped lead the vetting, consideration and recommendation of all green design aspects for Sidwell's \$28 million, three-story, 72,500-square-foot project.

"The project team was very thorough in their analysis and decision-making about the components of the building to ensure that all building systems were integrated for optimum performance and that all materials used in the project contributed to the LEED goals," said Iris Amdur, GreenShape Principal and LEED Accredited Professional.

According to Sidwell Facilities/Plant Manager Steven Sawyer, Sidwell's board also played an instrumental role throughout the building process. "Rather than just focusing on the initial upfront costs, they considered the long-term operating expenses and the efficiencies that could materialize down the road as a result of the decisions made today. From conception through completion, they really did a phenomenal job at looking at the whole picture, not just the sum—and cost—of its parts."

Among the many building products selected for the Sidwell project were **USG Millennia™ ClimaPlus™ Ceiling Panels and Finline Ceiling Suspension System**. The product's material and acoustical attributes, as well as its proximity to the school, were among other characteristics considered prior to its selection.

Millennia ClimaPlus panels are fine-textured acoustical panels that are manufactured using a unique process that maximizes sound and anti-sag performance. Comprised of 74 percent recycled content, they are also proven to have very low volatile organic compounds (VOCs) and formaldehyde emissions, which play an important role in overall Indoor Environmental Quality (IEQ).

Manufactured by
United States Gypsum Company
550 West Adams Street
Chicago, IL 60661

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What about the Acoustics

According to Sawyer, going green can sometimes present greater acoustical challenges, not by design but as a result of the green-certified products and recycled materials—which by nature of their composition are often hard surfaced—that comprise the actual building and its surroundings.

This wasn't the case, however, with the USG ceiling system. “It's actually one of the only few ‘soft’ products we used that also met LEED specifications,” noted Sawyer. “It was perfectly suited for Sidwell—on both an environmental and acoustical level.”

Because of its excellent Noise Reduction Coefficient (NRC) value of .70 (on a scale from 0 to 1, with 1 representing perfect sound absorption), Millennia ClimaPlus panels are ideal for the demanding sound-control needs of libraries and schools, which require solid sound absorption.

“Excellent acoustics are vital to any productive learning environment,” noted Amdur, who, in addition to serving as vice chair of the USGBC Formal Education Committee, was contracted to help the USGBC on its new LEED for Schools green building rating system. “Students need to be able to hear the teachers and vice versa, which is why prerequisites and credits for acoustics were included in LEED for Schools.”

Material World

The product's low embodied energy, high recycled content and excellent contribution to Indoor Environmental Quality, proximity to the school and the strong commitment of USG to the environment also played a role in the selection of the ceiling system.

In fact, in addition to the Finline ceiling suspension system used throughout the school, USG SHEETROCK™ brand wallboard, DUROCK™ brand cement board, FIBEROCK® brand panels and SECUROCK® brand roof board products are all also manufactured within a 500-mile radius of the Washington, D.C. area. Further, any future tile replacements needed are supported through the USG ceiling recycling program, which sources old and used ceiling materials to create new tiles.

An economical alternative to face-laminated panels, Millennia ClimaPlus panels also provide dual inhibition of mold and mildew growth, and odor- and stain-causing bacteria. And its high light reflectance helps improve the quality and quantity of natural light, as well as conserves energy.

“Millennia ClimaPlus represents just one of the many design elements that helped us earn a LEED Platinum product rating,” noted Sawyer. “But it's certainly not hard to see why.”

