

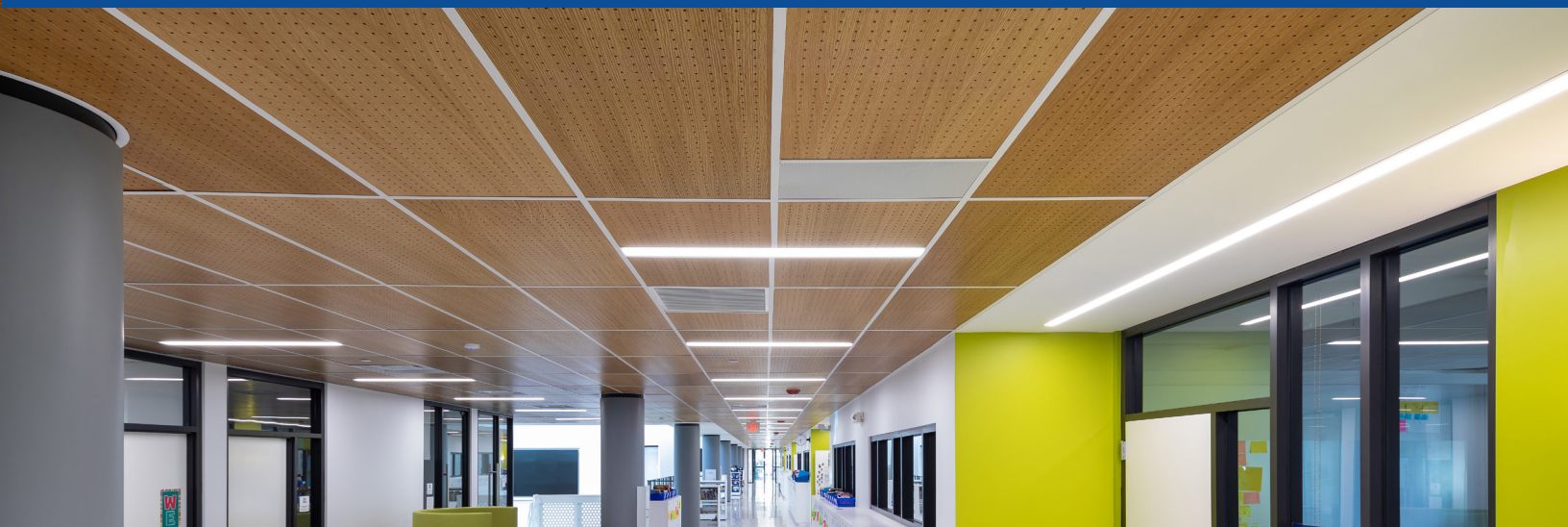


CASE STUDY

INSPIRED BY NATURE, DESIGNED FOR LEARNING

LISLE ELEMENTARY SCHOOL

How biophilic design enhanced a community school, addressed acoustical challenges, and brought nature indoors





Wood-look Box® series metal ceilings greet students under the canopies at the south and east entrances

The design of the spaces and selection of building materials were critical when it came to performance. The classrooms and common areas had to be flexible enough to promote individual focus at times, encourage collaboration at others, and offer a durable performance level that stands the test of time in a high-use environment.

And, of course, it all had to have the polished look and feel of a state-of-the-art educational facility that the community could be proud of and that young children would look forward to attending.

Educational Design, Naturally

For the Perkins and Will design team, the new construction of the building offered a blank canvas that allowed them to make unconventional aesthetic choices for an elementary school while relying on best building design practices for 21st century students.

“A lot of times elementary schools are filled with loud colors,” says Angelica Paleczny, interior designer and architect at Perkins and Will. “This is not one of those spaces. We used natural building products to bring warmth in

and let the kids and teachers bring their color and life into the building. We wanted them to be able to create an identity for their own spaces, rather than us dictating it for them.”

It’s no surprise then, that their creation relies heavily on biophilic design principles – with warm, neutral tones and rich, textural brick and wood elements permeating the space.

One immediately striking feature is the sprawling wood-look plank ceiling that greets students outside in the canopies at the school’s south and east entrances.

The village of Lisle, IL, a small suburb in the Chicago metro area, is a small, tight-knit community with a vibrant cultural scene, a charming arboretum, and an annual hot air balloon festival. It’s the kind of town that consistently lands on annual “Best Places to Live” lists.

Until the 2019-20 school year, the town’s school district, known as Lisle Community Unit School District 202 (Lisle CUSD 202), included two aging elementary schools: Tate Woods for pre-kindergarten, first-grade, and second-grade students; and Schiesher for kindergartners and third- through fifth-graders.

Having two elementary schools separated students in ways that some community members argued weren’t ideal for children and their families. Moreover, both schools were in need of expensive structural repairs and upgrades.

So during the summer of 2018, construction began on a new \$39 million, 100,000-square-foot building that would bring all Lisle CUSD 202 elementary students under one school roof with modern educational facilities. The new school, which opened in August 2019, is known simply as Lisle Elementary School, and it houses up to 750 students – pre-kindergartners to fifth-graders.

Because Lisle Elementary serves students at various stages of their developmental and educational journeys, the challenge was to create a space that fosters a culture of learning for a wide array of pupils. Architecture and design firm Perkins and Will planned the school with 35 classrooms, including some geared specifically for kindergarten and preschool curricula, as well as STEM rooms, small group collaboration rooms, a band and music room, and a centralized learning resource center.



The Box® series metal ceiling at the school’s east entrance runs from the exterior to the interior, in a design nod that connects the outdoors with the indoors.

The natural aesthetic of wood continues in the school's corridors, where the design team specified CertainTeed perforated lay-in ceiling panels in Rift Cut White Oak veneer for their natural aesthetics and acoustic qualities.

From a distance, the ceiling is unmistakably wood. In reality, it's metal with a wood-look finish from CertainTeed's Box series. Thanks to a unique metal construction of 92 percent recycled materials, the Box series is engineered to perform in both interior and exterior applications, and features design flexibility with a variety of versatile wood finish options. For Lisle, Paleczny selected the wood-look, powdercoat paint finish in Rustic Cherry (8739).

CertainTeed wood panels can achieve up to NRC 0.80 with Theatre® Black f panels as infill. Lisle's corridors feature various small breakout spaces for quiet reading or small group collaborations, and the CertainTeed perforated lay-in wood panels help absorb ambient noise from high corridor activity.

Outside the school, Paleczny and team took aesthetic cues from the nearby Morton Arboretum, a 1,700-acre nature preserve and public garden that serves as a centerpiece of the Lisle community.

"We cared very deeply about the landscape," Paleczny explains. "We incorporated as many different types of trees as we could.

And to create a direct connection with the natural world outside, you can see outdoors from almost any location in which you stand inside the school."

Classroom Performance

While biophilic design contributes to the wellbeing of students, there were also very real and varied performance demands needed from the building materials that Paleczny selected. Much of that came down to acoustic control inside the classrooms.



The school's classrooms and breakout spaces feature Symphony® m mineral fiber acoustic panels.



Perforated wood panels offer a natural aesthetic while helping to control acoustics in the school's corridors.

PROJECT
Lisle Elementary School

LOCATION
5801 Westview Lane,
Lisle, IL 60532

CERTAINTEED PRODUCTS

- » Box® series metal ceilings with wood-look, powder-coat paint finish
- » CertainTeed perforated lay-in wood ceiling panels
- » Symphony® m mineral fiber acoustic panels
- » Theatre® Black f fiberglass infill panels

"Unlike offices, where workers can leave their desks at any point, students are, for the most part, plugged into classrooms for most of the day," says Paleczny. "So creating the ideal educational environment inside the classroom is so important to us. And performance is the high point for what we look for in a ceiling, especially in a school setting."

Schools – elementary schools especially – tend to be noisy places, and studies show that excessive noise negatively impacts the learning process. That's why the Perkins and Will team relied

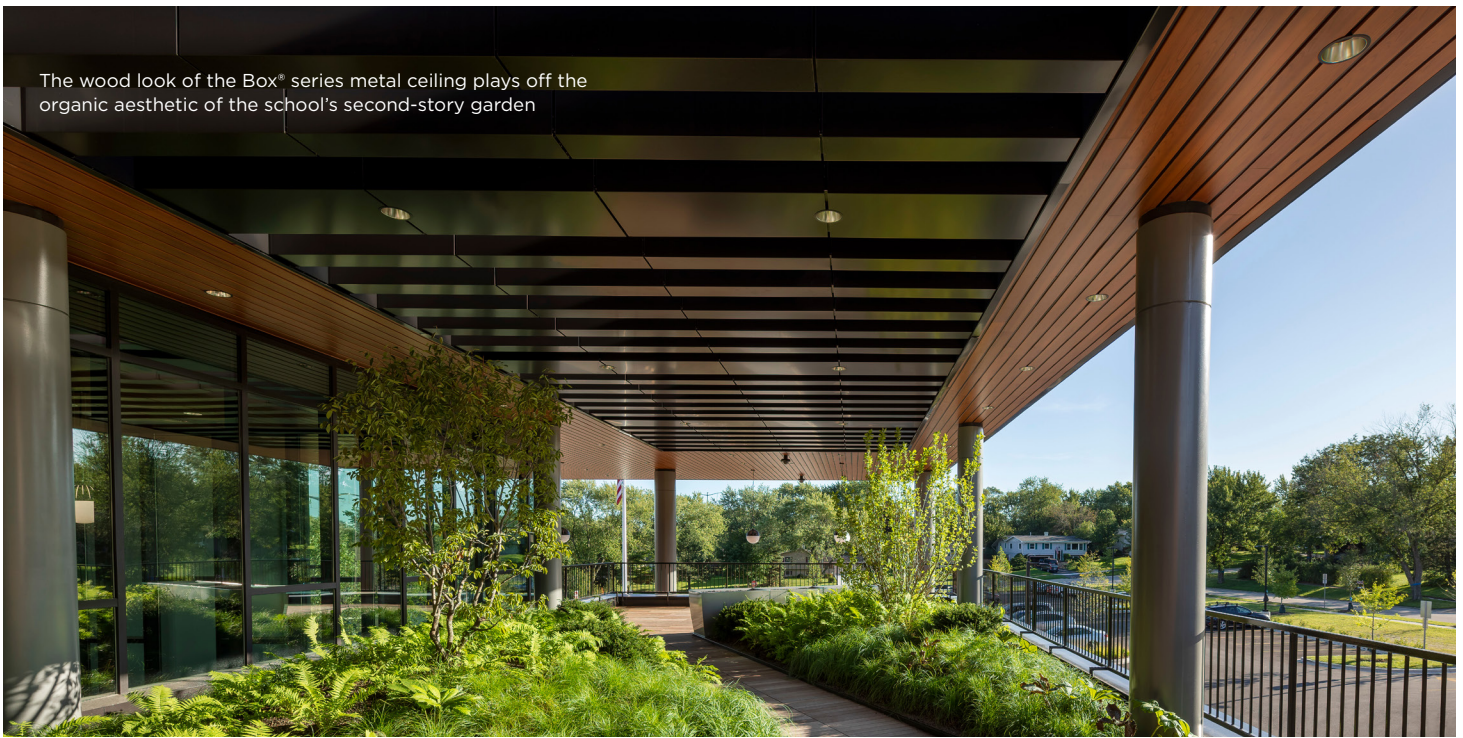
on CertainTeed Symphony® m acoustic panels for Lisle's classroom and breakout spaces.

The Symphony family features a comprehensive line of highly durable mineral fiber panels encompassing different sizes, acoustic ratings, and edge details to suit any acoustic scenario. At Lisle, the superior acoustic control and smooth, flawless looks of Symphony m help control excessive classroom noise, while encouraging collaboration in small breakout spaces between the classrooms allowing small groups to work without distracting other students.

"The wood ceilings, wood-look metal ceilings, and Symphony® products hit every aesthetic and performance mark that we wanted them to hit ... They also happened to have the best value."

– Angelica Paleczny
Architect and Designer,
Perkins and Will

View ceiling product details, design tips, and inspirational videos at certainteed.com/architectural



The wood look of the Box® series metal ceiling plays off the organic aesthetic of the school's second-story garden

Single Source Solutions

Meeting varied performance requirements with an array of ceiling products can often mean a frustrating, complicated specification process. Fortunately, the Perkins and Will team was able to significantly streamline the process by specifying the entire Lisle project through a single ceiling supplier: CertainTeed.

“The wood ceilings, wood-look metal ceilings, and Symphony products hit every aesthetic and performance mark that we wanted them to hit, as compared to other products that we’d seen on the market,” says Paleczny. “They also happened to have the best value, so they easily won out.”

The acoustical panels were originally specified from another manufacturer, but since CertainTeed is well known in the industry for

dependable acoustical products, switching the spec to specifying all the ceiling products from CertainTeed was an easy choice.

With a product portfolio that encompasses ceilings, suspension systems, and accessories that can suit any design aesthetic or performance level, CertainTeed offers complete project solutions – along with customer and technical support to simplify the entire process, from specification to installation.

Preparing Today’s Students for the Future’s Challenges

In a broad sense, the Lisle Elementary School project was about creating one coherent elementary school that reflects its surrounding community. But for elementary school-age children, the design of their new school environment helps them learn in ways that they can carry throughout the rest of their school years and beyond.

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“It’s important that we start embracing the new wave of learning and incorporating the flexible educational design we see on college campuses into the educational design for students of all ages,” says Paleczny. “Everyone learns so differently. And for children at elementary school ages, it helps set the stage for the rest of their educational lives.”