



FLEXIBILITY, FUNCTIONALITY AND FORTITUDE EARN AN A+ IN ELEMENTARY SCHOOL DESIGN

Project: John Diemer Elementary School
Location: Overland Park, KS
Architect: incite Design Studio
Product: OfficeSlide™ sliding doors



EXTREME FLEXIBILITY WAS A DRIVING FORCE IN THE DESIGN,” DUANE CASH, PRINCIPAL ARCHITECT AT INCITE DESIGN STUDIO, SAYS. “THESE DOORS CAN EASILY BE OPENED TO SPREAD THE KIDS OUT OR TO ALLOW THE TEACHER TO OBSERVE WHAT’S HAPPENING IN THE CLASSROOM AND CO-LAB SIMULTANEOUSLY.”

As students returned to classes at John Diemer Elementary School in early 2023, they were greeted with cutting-edge classroom designs. Their school, located in an east Kansas suburb, had been transformed into a facility that embodies the idea that learning happens everywhere. But the school’s transformation was already in motion well before the spring semester.

After several visioning meetings with parents and staff, the architects at incite Design Studio developed plans that focused on “visual openness, safety, flexibility, collaboration and grade level cohorts where students can help define their individual pathway towards learning.” These concepts, however, were not the only goals of the renovation.

The architects and the Shawnee Mission School District also wanted to create a



SLIDING DOORS ELIMINATE SWING ARC TRAJECTORIES, SAVING UP TO 30 SQUARE FEET OF USEABLE SPACE PER DOOR.”

design that contributed to a more secure school environment. The solution to both challenges came in the form of mini maker spaces, dubbed “Co-Labs,” that were situated between classrooms.

with classwork or to sketch out their own ideas. Their durable hardware and space-efficient design also helped the team meet their design goals, including creating long-term, easy-to-maintain spaces.



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Complete with storage space, restrooms and collaborative tools, these spaces ensure students have access to a variety of learning experiences. They are also designed to double as shelter-in-place locations in the event of an emergency.

Key to the shelter-in-place aspect of the Co-Labs, the sliding doors that led into the spaces were customized with markable surfaces to camouflage the opening. The markable surfaces also double as a way for students to engage

Space-efficient sliding doors contribute to design flexibility

Integrating the Co-Labs between classrooms required a creative use of space. The design team identified sliding doors as a way to preserve square footage. Sliding doors eliminate swing arc trajectories, saving up to 30 square feet of useable space per door. For this project, because there was no need to plan for swing arc trajectories, the design team could maximize the size of the Co-Labs without drastically reducing classroom

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space. Further, because the doors slide along the wall, students and teachers can operate them without rearranging desks and other furniture to minimize disruptions.

“Extreme flexibility was a driving force in the design,” Duane Cash, principal architect at incite Design Studio, says. “These doors can easily be opened to spread the kids out or to allow the teacher to observe what’s happening in the classroom and Co-Lab simultaneously.”

The flexibility of these openings not only allows teachers to approach lesson plans creatively, but it also gives students agency to learn in a way that is best suited to their needs. “Sliding doors define and blur the line between classroom and Co-Lab,” Cash elaborates. “And because they have markable surfaces, they can help students jot down ideas or sketch out concepts.” This quality centers the belief that learning can be flexible and happen anywhere and at any time.

Designing for functionality at every age level

The OfficeSlide™ sliding doors specified for the project met the size requirements, came complete with high-quality, robust hardware and could be opened quietly so as not to disturb students on either side

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of the door. In other words, they met the functionality requirements of the project. However, given this is an elementary school, the doors’ functionality extends beyond these parameters to include ease-of-operation and how well they contribute to safety and security goals.

The student ages at John Diemer Elementary span from 5 to 12 years old. As such, the doors needed to have the appropriate weight and useability for a variety of strengths and coordination levels. The no-twist handles and soft closers



AS A FULL SYSTEM, THE SLIDING DOORS FROM AD SYSTEMS CAN LAST THROUGH THE WEAR-AND-TEAR TYPICAL OF AN EDUCATIONAL SETTING FOR YEARS TO COME WITH MINIMAL MAINTENANCE.”



help students across a range of ages and abilities use the doors. In fact, the doors worked so well, the architects plan to use them in future education projects.

In addition, the doors’ functionality could also be measured based on how well they contributed to security goals. Cash explains, “We wanted the Co-Labs to be able to function as a comfortable shelter-in-place area in case of an intruder. Our research indicated that getting students out of sight is highly important.”

Not only are the Co-Labs visually isolated from hallways when the sliding doors are closed, but their whiteboard surfaces also blend into the wall—someone quickly scanning rooms may not notice they are doors at all. These qualities, along with their single-cylinder locks, contribute to a safer, more secure environment for kindergarteners, 6th graders and every age in-between.

Manufacturer ensures fortitude for the long-term

The doors’ ability to provide some protection during an emergency is an important aspect of the school’s design. However, these sliding doors also needed to be strong enough to withstand the normal wear-and-tear of elementary student use.

“These doors are substantial,” Cash continues. The OfficeSlide doors feature durable leaves, hardware and framing. The system’s soft closers are tested to last through over 150,000 cycles. As a full system, the sliding doors from AD Systems can last through the wear-and-tear typical of an educational setting for years to come with minimal maintenance.

That said, no system can be fully impervious to damage. If atypical damage occurs, it is equally important for a manufacturer to be responsive and provide the services necessary to remedy any situation quickly. In the case of John Diemer Elementary School, when a student unexpectedly damaged one of the doors, AD Systems responded immediately, sending in a team of certified technicians to fix the issue and recommend designs that could prevent similar types of damages from occurring.

Proof that learning can happen anywhere, even the design phase

One of the guiding concepts behind the renovation of John Diemer Elementary School was that learning can extend beyond the classroom walls. The Co-Labs and openings of the project help make this concept a reality by contributing to classroom flexibility and student agency.



THIS DESIGN SOLVED ISSUES FROM PAST PROJECTS,” CASH CONCLUDES. “IT’S A BIG STEP FORWARD FOR ARCHITECTS TRYING TO BALANCE EDUCATION GOALS AND A SENSE OF SAFETY AND SECURITY FOR CHILDREN.”

The planning of John Diemer Elementary also proved to be a learning experience for incite Design Studio and the Shawnee Mission School District. “This design solved issues from past projects,” Cash concludes. “It’s a big step forward for architects trying to balance education goals and a sense of safety and security for children.”

TO LEARN MORE ABOUT OFFICESLIDE SLIDING DOORS, AND OTHER AD SYSTEMS DOOR PRODUCTS, CONTACT OUR TECHNICAL TEAM AT (425) 740-6011 OR EMAIL ADSYSTEMS.SALES@ALLEGION.COM.



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