

CASE STUDY

# EHRMAN CREST ELEMENTARY AND MIDDLE SCHOOL CRANBERRY TOWNSHIP, PENNSYLVANIA



# A NEW ERA IN EDUCATION BUILDING DESIGN

Based in Pennsylvania's Seneca Valley School District, the 198,000-square-foot Ehrman Crest Elementary and Middle School is a distinctive educational facility that provides a fresh, innovative approach to education with its striking architectural design.

The primary goal of the school's design was to provide a learning environment that allows students to direct their own education in ways that are most appropriate and stimulating to them, making the overall educational experience more enriching, interactive and effective.

A wide variety of Kawneer's architectural aluminum solutions helped create the comfortable, light-filled spaces that are a central part of the school's success, while ensuring the building's longevity and energy efficiency, including our 1600UT System™1 Curtain Wall, Trifab® VersaGlaze® 451 and 451T Framing Systems, GLASSvent® UT Windows and 500 Wide Stile Entrances.



Architects: CannonDesign, Pittsburgh, PA  
General Contractor: Rycon Construction, Inc., Pittsburgh, PA  
Glazing Contractor: Specified Systems Inc., Canonsburg, PA

Photography: © Laura Peters, CannonDesign



## MODERN DESIGN MEETS EDUCATIONAL EXCELLENCE

The architects at CannonDesign partnered with the Children's Museum of Pittsburgh to design a unique learning space that combines museum-like features with an inspiring sense of wonder and curiosity for students.

The school consists of a series of interconnected, interactive environments that blend artwork and engaging elements, fostering all learning styles—visual, auditory and kinesthetic—within shared spaces. The architects seamlessly integrated these elements to craft a playful yet cohesive environment that ensures every student has an equal opportunity for meaningful educational experiences. TIME magazine recognized this innovation by listing the school among its 'Best Inventions of 2022.'

By seamlessly connecting classrooms, collaboration areas and corridors, the school reimagines traditionally overlooked features of educational buildings and transforms them into dynamic elements that support learning beyond the classroom.

## SUSTAINABLE SOLUTIONS FOR SCHOOLS

With the intent of supporting different styles of learning while also adding interactive learning opportunities, Kawneer's solutions were specified to promote natural lighting, sustainability, occupant comfort, functionality and energy efficiency. Our 1600UT System™1 Curtain Wall was utilized to provide energy efficiency and thermal performance while delivering light-filled spaces that enhance the school's interactive learning environments and engaging features.

Further, our GLASSvent® UT (Ultra Thermal) Windows were specified to incorporate functionality and ventilation throughout the school, with the ability to be opened and allow outside air into the school. Additional sustainability features incorporated in the school's design include a solar array, sundial window and flooring materials that emphasize units of measure.

## DESIGNING LEARNING SPACES WITH COLLABORATION IN MIND

Ehrman Crest Elementary and Middle School allows students to learn and interact with one another through individual and group experiences. Throughout the school's classrooms, collaborative areas and smaller instruction rooms, the educational facility's varying learning formats help cater to the academic and emotional needs of students and staff, creating spaces for teachers and students to engage in one-on-one instruction and for students to work in groups. Floor-to-ceiling views, provided by our 1600UT System™1 Curtain Wall and Trifab® VersaGlaze® 451T Framing System, allow the students to better explore and connect with exterior environments beyond the classroom walls.

The result of sustainable building materials and systems combined with innovative architectural design, creativity and collaboration resulted in a bespoke educational facility that will serve the next generation of leaders for years to come.



## CHALLENGES

- The innovative design of the school—created to mimic the look and feel of children's museums—required the seamless integration of educational spaces with flexible layouts.
- The school needed to maximize daylight penetration while maintaining thermal performance to reduce energy costs.
- The architects were tasked with implementing functionality and ventilation that features high thermal performance for the facade.
- The architectural design demanded solutions capable of withstanding heavy foot traffic while aligning with the project's commitment to long-term sustainability.





## SOLUTIONS

- Kawneer's 1600UT System™1 Curtain Wall provided superior thermal performance and enabled expansive glazing, delivering light-filled spaces that enhance the school's interactive learning environments and engaging features while improving energy efficiency.
- Our Trifab® VersaGlaze® 451 and 451T Framing Systems allowed for the design flexibility required to connect the interior and exterior spaces, creating the interactive and engaging environments envisioned by the architects.
- GLASSvent® UT (Ultra Thermal) Windows were specified to provide functionality and resilience, while supporting out-of-classroom learning with seamless ventilation.
- Our 500 Wide Stile Entrances were incorporated throughout the school to help meet the demands of a high-traffic educational facility.



## PRODUCTS USED

- 1600UT System™1 Curtain Wall
- Trifab® VersaGlaze® 451 Framing System
- Trifab® VersaGlaze® 451T Framing System
- GLASSvent® UT (Ultra Thermal) Windows
- 500 Wide Stile Entrances