



smart. healthy. secure.  
kawneer institutional solutions

Architectural Aluminum Systems  
Entrances + Framing  
Curtain Walls  
Windows

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 **KAWNEER**  
AN ALCOA COMPANY



## smart. healthy. secure.

Institutional buildings should be more than just shared spaces. They should inspire and reflect the people occupying these spaces. Designing these buildings can present unique and complex architectural challenges. The goal of educational buildings is to foster smarter students as well as reduce energy demand and environmental impact by using smarter products. Healthcare facilities need to promote health and well-being while supporting a healthier bottom line through reduced operating expenses. When it comes to security, public and civic buildings must provide maximum security for occupants as they help secure the respect of the local and global community.

Kawneer, the industry-leading manufacturer of architectural aluminum products and systems, specializes in meeting the challenges of the institutional market with inspired design and the strength of an integrated product portfolio that unifies enviable aesthetics and world-class engineering. Our commitment to social and environmental responsibility empowers us to deliver smart, healthy and secure solutions.



**University of Alaska, Museum of the North**  
Fairbanks, Alaska, USA

**architects:** GDM Inc., Anchorage, Alaska, USA;  
and Hammel, Green and Abrahamson, Inc. (HGA),  
Minneapolis, Minnesota, USA  
**glazing contractor:** Commercial Contractors, Inc.,  
Anchorage, Alaska, USA  
**products:** 7500 Wall® curtain wall, Entara® Entrances

## education

**Ohlone Community College Newark Center  
for Health Sciences and Technology**  
Newark, California, USA  
**LEED Certification — Platinum**

**architect:** Perkins + Will, San Francisco, California, USA  
**glazing contractor:** Walters & Wolf Glass Company,  
Freemont, California, USA  
**products:** 1600 Wall System®1 curtain wall,  
1600 Wall System®2 curtain wall



## healthcare

**Dell Children's Medical Center of Central Texas**  
Austin, Texas, USA  
**LEED Certification — Platinum**

**architect:** Karlsberger, Columbus, Ohio, USA  
**glazing contractor:** Win-Con Enterprises, Inc.,  
New Braunfels, Texas, USA  
**products:** 1600 Wall System®1 curtain wall



## public

**Southeast Division Police Station**  
Edmonton, Alberta, Canada  
**LEED Certification — Gold**

**architect:** IBI Group Architects, Engineers,  
Edmonton, Alberta, Canada  
**glazing contractor:** Cantech Glass Contracting Inc.,  
Edmonton, Alberta, Canada  
**products:** 7500 Wall® curtain wall, 5500 ISOWEB®  
Windows, 1600 SunShade®, InLighten® (Light Shelf),  
Heavy Wall™ Entrances





smart.

## education

Today's K-12 and higher-education buildings need smart solutions that can provide a healthy, productive learning environment for our future leaders. Kawneer is committed to delivering energy-efficient solutions that comply with the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) standards and promote integrated, whole-building design practices. Our sustainable products can help contribute to LEED points across several categories and assist schools in achieving certification. LEED-certified schools have demonstrated a 30% to 50% reduction in energy use, which lowers operational costs and allows more resources to be channeled into students' education.<sup>1</sup>

Kawneer's high-performance products are designed to allow maximum use of natural light, which studies have shown helps students to be more productive, work faster and perform better on cognitive tests. In fact, some studies have found that students progress 20% faster in math and 26% faster in reading as a result of increased daylight in classrooms.<sup>2</sup> Our rigorously tested products provide proven performance to help ensure the safety and security of students and staff.





**Maximum Daylighting**

Studies show natural light promotes better learning by positively impacting mood, memory and mental function.<sup>3</sup> Kawneer's light shelf products are designed to integrate with our curtain wall systems to reflect natural light to interior spaces, while our sloped glazing and skylights are designed to let in maximum daylight.

**Natural Ventilation**

Improved classroom air quality can lead to better health and fewer sick days.<sup>4</sup> Kawneer's operable windows significantly improve indoor environmental quality by providing controllable natural ventilation.

**Energy Efficiency**

Kawneer's wide range of windows, curtain wall systems and overhead glazing are engineered to reduce requirements for artificial lighting, thereby reducing energy costs. Our photovoltaic products generate on-site renewable energy that can be fed back into the building's system, while our high-performance thermal products and sunshades reduce solar heat gain, resulting in less energy used by HVAC units.

**Building Security**

Security is a major concern at most schools. Kawneer entrances are engineered for unequalled strength and durability in high-traffic applications. Our entrances feature panic exit devices for crowded buildings, allowing quick emergency egress as well as controlled user access.

**Student and Staff Safety**

Protecting students is among a school's primary goals. Kawneer products have been stringently tested for impact resistance for both large and small missile impacts and blast tested to ASTM standards. Our entrances include options that make them ADA (Americans with Disabilities Act) compliant to better protect students and staff from potential hazards.

**A The Pennsylvania State University School of Architecture and Landscape Architecture (SALA)**  
University Park, Pennsylvania, USA  
**LEED Certification — Gold**

**architect:** Overland Partners, San Antonio, Texas, USA; and WTW Architects Pittsburgh, Pennsylvania, USA  
**glazing contractor:** Nittany Building Specialties, Port Matilda, Pennsylvania, USA  
**products:** Trifab® VG (VersaGlaze®) 451T (Thermal) Framing, 500 Tuffline® Entrances, GLASSvent™ Windows

The SALA building, designed to integrate landscape and building design incorporates many green-building features, including mechanically operable studio windows interconnected to the HVAC system using GLASSvent™ Windows. The creative use of materials helped increase energy efficiency throughout the building and contributed to LEED Gold Certification.

**B Fossil Ridge High School Poudre School District**  
Ft. Collins, Colorado, USA  
**LEED Certification — Silver**

**architect:** RB+B Architects, Inc., Ft. Collins, Colorado, USA  
**glazing contractor:** B&W Glass, Cheyenne, Wyoming, USA  
**products:** 1600 Wall System®1 curtain wall, Trifab® VG (VersaGlaze®) 451T (Thermal) Framing, 500 Tuffline® Entrances, GLASSvent™ Windows

**C North Schuylkill Elementary School**  
Ashland, Pennsylvania, USA

**architect:** E. I. Associates, Harrisburg, Pennsylvania, USA  
**glazing contractor:** Empire Paint & Glass, Pottsville, Pennsylvania, USA  
**products:** 1600 Wall System®1 curtain wall, 8225TL ISOLOCK® Windows, 1600 SunShade® Trifab® VG (VersaGlaze®) 451T (Thermal) Framing, 500 Wide Stile Doors

**D Woodsworth College Residence, University of Toronto**  
Toronto, Ontario, Canada

**architect:** architectsAlliance, Toronto, Ontario, Canada  
**glazing contractor:** Ferguson-Neudorf Glass, Inc., Beamsville, Ontario, Canada  
**products:** Modified 2500 PG Unitwall™ unitized curtain wall, GLASSvent™ Windows, 1600 Wall System®1 curtain wall, 518 ISOPORT® Window Framing, 526 ISOPORT® Vents

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# healthy.

## healthcare

**Healthcare facilities require an environment that is designed for healing as well as operational efficiency.** Kawneer's healthy solutions not only promote better health among patients, families and staff, they also contribute to a healthier bottom line. Kawneer's products and systems can help reduce energy consumption and costs, which is critical given the fact that healthcare facilities consume nearly twice the annual energy of an average office building.<sup>5</sup> Our sustainable products and solutions can contribute to LEED points across several categories and help healthcare facilities achieve certification, resulting in LEED-certified hospitals that use as much as 35% less energy than an average hospital.<sup>6</sup>

Indoor air quality is also a crucial consideration for healthcare facilities where germs can be easily transmitted and there are variable temperature needs. Kawneer offers products that are engineered to promote superior ventilation throughout healthcare facilities, resulting in better air circulation. In addition, sunlight in healthcare facilities is associated with substantial reductions in medical costs as lighter, brighter rooms help patients experience less pain and have shorter hospital stays. Kawneer's solutions for healthcare facilities help to strengthen the link between the quality of the environment and a healthier outcome.





**Efficient,  
Effective  
Airflow**

Proper ventilation can increase comfort, reduce germ transmission and control exposure to airborne toxins. Kawneer's windows enable healthcare facilities to improve indoor air quality by providing controllable natural ventilation and air circulation.

**Healthy  
Natural  
Light**

Studies show natural light speeds up the body's healing process and promotes health.<sup>7</sup> Kawneer windows, overhead glazing and curtain wall systems aid in this process by providing optimum views as well as allowing maximum levels of daylight into healthcare facilities.

**Temperature  
Control**

Maintaining constant temperature control can be energy efficient for healthcare facilities. Our high-performance thermal entrances, framing systems, windows and curtain wall systems are designed to limit solar heat gain and provide low thermal transmittance, reducing energy consumption.

**Hygienic  
Surfaces**

Nowhere is hygiene more important than in a healthcare facility. Kawneer's aluminum finishes provide high-performance durability and scratch resistance surfaces that can be easily cleaned.

**Occupant  
Safety**

Protecting patients, families and staff is of paramount importance in healing environments. Our products have been stringently tested for hurricane resistance for both large and small missile impacts and blast tested to ASTM standards.

**Patient and  
Staff Safety**

Unmatched strength and durability are the hallmarks of Kawneer products and of providing a secure environment. Our entrances are engineered for strength and durability and feature panic exit devices for crowded buildings, allowing quick emergency egress as well as controlled user access. ADA compliant solutions better protect patients, families and staff from potential hazards.

**A Geisinger Center For Health Research**  
Danville, Pennsylvania, USA  
**LEED Certification — Silver**

architect: EwingCole, Philadelphia, Pennsylvania, USA  
glazing contractor: King Glass Co., Exeter, Pennsylvania, USA  
products: 1600 Wall System®1 curtain wall, 1600 Wall System®2 curtain wall, Trifab® VG (VersaGlaze®) 450 Framing, 350 Tuffline® Entrances

This facility, which earned a LEED Silver Certification, features an intricate design created by extending the mullion on the curtain wall. This innovative use of materials added a visual element and kept material costs low.

**B Medical Center of the Rockies**  
Loveland, Colorado, USA  
**LEED Certification — Gold**

architect: Heery-HLM/design, Denver, Colorado, USA  
glazing contractor: A-1 Glass, Inc., Englewood, Colorado, USA  
products: 1600 Wall System®1 curtain wall, 1600 SunShade®, InLighten® (Light Shelf), GLASSvent™ Windows, 2250 IG (Inside Glazed) curtain wall, Custom 350 Medium Stile Entrances

**C Rebecca and John Moores UCSD  
Cancer Center**  
La Jolla, California, USA  
**LEED Certification — Gold**

architect: Zimmer Gunsul Frasca Architects LLP, Los Angeles, California, USA  
glazing contractor: Center Glass Company #3, La Mesa, California, USA  
products: 1600 Wall System®1 curtain wall, 1600 SunShade® 350 Medium Stile Entrances

**D Children's Hospital of Pittsburgh of UPMC**  
Pittsburgh, Pennsylvania, USA  
(photographed while under construction)  
**Seeking LEED Certification**

architect: Astorino, Pittsburgh, Pennsylvania, USA  
glazing contractor: D-M Products, Inc., Bethel Park, Pennsylvania, USA  
products: 1600 Wall System®1 curtain wall, 8225TL ISOLOCK® Windows, 1600 SunShade®, 1600 S.G. (Sloped Glazing), Trifab® VG 450 Framing, Trifab® VG (VersaGlaze®) 451T (Thermal) Framing, 560 Insulclad® Entrances, 500 Wide Stile Entrances, Flushline® Entrances

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secure.

## public

From libraries, to community centers, to government offices, security is a top priority for occupants, and securing a positive reflection of the community is important to local residents. Kawneer's products and systems help increase security for workers and visitors to these public buildings while also keeping occupants safe from hazards, such as hurricanes and manmade threats.

Kawneer continually provides solutions for buildings that serve the needs of local citizens as well as the larger global community through sustainable products and systems. Our integrated curtain wall systems, windows,

entrances and framing systems are focused on energy efficiency, which can significantly reduce operating costs. Our commitment to creating products and systems that comply with LEED standards has helped to create secure environments that not only protect occupants, but also secure the future of our planet through sustainable building solutions.





**Enhanced Security**

Increased security is a fact of life in most public buildings. Kawneer entrances, framing systems, windows and curtain wall systems yield unparalleled strength and durability to help increase security for building occupants. We offer entrances with panic exit devices for crowded buildings, allowing quick emergency egress as well as controlled user access.

**Occupant Safety**

Kawneer windows, entrances and curtain wall systems can be safe havens for occupants. Our products have been stringently tested for hurricane resistance for both large and small missile impacts and blast tested to ASTM standards. ADA compliant solutions also better protect occupants from potential hazards.

**Increased Energy Efficiency**

Lowering operating costs through increased energy efficiency is a primary objective in public buildings. Kawneer windows, curtain wall systems and overhead glazing are engineered to take full advantage of natural light, thereby reducing the use and cost of artificial lighting. Our high-performance thermal products and sunshades also reduce solar heat gain, resulting in less energy used by HVAC units. In addition, our photovoltaic products generate on-site renewable energy that can be fed back into the building's system.

**Natural Ventilation**

Many studies have linked poor indoor air quality to a variety of health issues, such as allergies, asthma and other illnesses.<sup>8</sup> Kawneer windows allow occupants to take full advantage of natural ventilation, which can increase comfort, reduce germ transmission and aid occupants in experiencing fewer illnesses.

**Maximum Natural Light**

Studies have shown that natural light increases productivity and work-related performance while access to outside views can have important stress-reducing effects.<sup>9</sup> With Kawneer windows and curtain wall systems, public building occupants can enjoy the benefits of natural light as well as maximum exposure to pleasant vistas.

**A Homer Public Library**  
Homer, Alaska, USA  
**LEED Certification — Silver**

architect: ECI/Hyer Architecture & Interiors, Anchorage, Alaska, USA  
glazing contractor: DoorsWindows Unlimited, Inc., Soldotna, Alaska, USA  
products: 360 Insulclad® Entrances, Trifab® VG (Versa Glaze®) 451T (Thermal) Framing, IR 500 Framing, 1600 Wall System®1 curtain wall, 1600 SunShade® 8225TL ISOLOCK® Windows, 512 Ventrow ISOLOCK® Ventilator, 350 Tuffline® Entrances, 350 Heavy Wall™ Entrances

Homer Public Library was the first municipal building in Alaska to achieve LEED Silver Certification. The facility utilizes curtain wall and sunshades to maximize daylighting and reduce solar heat gain.

**B Arkansas Department of Environmental Quality**  
North Little Rock, Arkansas, USA  
**LEED Certification — Gold**

architects: Taggart Foster Currence Gray Architects, Inc., North Little Rock, Arkansas, USA; and Williams & Dean Associated Architects, Little Rock, Arkansas, USA  
glazing contractor: ACE Glass Co., Inc., Little Rock, Arkansas, USA  
products: 1600 Wall System®2 curtain wall, 350 Medium Stile Entrances, 1600 SunShade® Trifab® VG (Versa Glaze®) 451T (Thermal) Framing, Trifab® 400 Framing

**C Missouri Department of Natural Resources Lewis and Clark State Office Building**  
Jefferson City, Missouri, USA  
**LEED Certification — Platinum**

architect: BNIM Architects, Kansas City, Missouri, USA  
glazing contractor: Brady's Jefferson City Glass & Paint Co., Jefferson City, Missouri, USA  
products: 8225TL ISOLOCK® Windows, Trifab® VG (Versa Glaze®) 451T (Thermal) Framing, 1600 Wall System®1 curtain wall, 500 Wide Stile Entrances

**D Brookhaven National Laboratory, Center for Functional Nanomaterials**  
Upton, New York, USA  
**LEED Certification — Silver**

architect: HDR Architecture, Inc., Alexandria, Virginia, USA  
glazing contractor: Craftsman Storefronts and Glass, Inc., Bay Shore, New York, USA  
products: 1600 Wall System®1 curtain wall, 350 Medium Stile Entrances

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World-class engineering and design expertise, combined with the flexibility and sustainability of our comprehensive product portfolio, have established Kawneer as a leader in institutional building solutions. Our commitment to quality, reliability and innovation has remained constant for more than a century, reflected in the more than 400 patents we hold. In addition to our range of products and systems, Kawneer's Architectural Services Team is available to help with product application and technical assistance. Our team of experts can also assist with the LEED certification process, helping identify and select Kawneer products that can qualify for LEED points.

From entrances and framing systems to windows and curtain wall systems, Kawneer offers strong, versatile solutions for smarter, healthier and more secure institutional buildings.

**Lawrence Berkeley National Laboratory —  
Molecular Foundry**  
Berkeley, California, USA  
**LEED Certification — Gold**

architect: SmithGroup, San Francisco,  
California, USA  
glazing contractor: Royal Glass Co., Inc.,  
Santa Clara, California, USA  
products: 2250 IG (Inside Glazed) curtain wall,  
1600 Wall System®1 curtain wall, 500 Wide Stile  
Entrances, 7225 Non-Thermal Windows

**Sources**

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cover photo:  
**Garland Special Events Center**  
Garland, Texas, USA

architects: HKS, Inc., Dallas, Texas, USA  
glazing contractor: B & B Glass, Inc., Dallas, Texas, USA  
photography: ©Blake Marvin, HKS, Inc.  
products: 1600 Wall System®1 curtain wall, 1600 Wall  
System®5 curtain wall, 350 Medium Stile Entrances







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