

A Dramatic Shift: Recreating the Schine Student Center with Fire-Rated Glass

TGP



“ VOICE OF OUR CUSTOMER

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Project:	Schine Student Center at Syracuse University
Location:	Syracuse, NY
Architect:	Mackey Mitchel Architects and Ashley McGraw Architects
Glazing Contractor:	Flower City Glass
Product:	Fireframes ClearView® System with Pilkington Pyrostop® fire-rated transparent wall panels and Fireframes® Aluminum Series perimeter frame; Fireframes® Designer Series fire-rated doors

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The Schine Student Center has been a focal point for student activities on Syracuse University's campus since its construction in 1985. It hosts a wide range of programs: dining services, student and staff offices, an auditorium, campus store and several spaces for students to gather. Nearly 35 years after the student center was completed, design trends, student expectations and material capabilities had shifted considerably. These shifts prompted the university to reevaluate the building's design in 2019.

Featuring the talents of several Syracuse alumni, Mackey Mitchel Architects and Ashley McGraw Architects partnered to transform the Schine Student Center with current design best practices and Syracuse student feedback. Gathering student comments from online surveys, informal suggestions and other forms of input, the design firms planned the 108,000 square foot renovation to prioritize visual and physical connection, accessible circulation and a comfortable and memorable environment.

The Schine Student Center has a central atrium with four adjoining quadrants. The connections between these spaces are important to the renovation's design as they help promote a sense of openness between spaces as well as within them. However, fire- and life-safety codes required the use of fire-rated materials at these crucial points. This posed two challenges to the design teams: how to achieve code-compliance without sacrificing visual connection and how to create a cohesive design with fire-rated materials. The architects

turned to Technical Glass Products (TGP), a supplier of fire-rated glazing assemblies, for assistance with solving for code compliance without compromising their design intent.

TRANSPARENT FIRE-RATED GLAZING MINIMIZES DESIGN COMPROMISE

Benjamin Darby, architect at Ashley McGraw Architects, notes, "Visual connection was the primary driver for the design of the renovation." This was partially achieved by replacing isolated zones within the central atrium with inviting vistas. It was also actualized by preserving visual connection between the quadrants and atrium through the use of transparent, fire-rated glazing assemblies and adjacent non-rated assemblies.

The use of full-lite fire-rated glass doors within narrow-profile, fire-rated glass storefronts balance the visual connection central to the renovation. They also protect egress stairwells and compartmentalize the building. Previously, this level of protection may have only been achievable with opaque materials or with limited amounts of glazing. Now, TGP's Fireframes Designer Series Doors and Fireframes ClearView systems (both with Pilkington Pyrostop fire-rated glass) allowed the architects to meet requisite codes without hindering the desire for visual connection. The building's openness fosters a sense of connection to the campus and supports easy wayfinding.

Darby continues, "When a student walks into the building, they are given sightlines into each of the quadrants, as well as clear wayfinding to help navigate through the expansive building." This helps create a welcoming atmosphere that encourages students to connect with each other and the programs housed in the student center.

TGP's glass and framing systems allowed the architects to meet requisite codes without hindering the desire for visual connection. The building's openness fosters a sense of connection to the campus and supports easy wayfinding.



BUTT-GLAZED ASSEMBLIES LETS STUDENTS SEE ORANGE

While the storefront assemblies help maintain visual connection at crucial points throughout the building's quadrants, fire-rated glazing also contributes to a sense of openness within the central atrium itself. One of the primary examples is the Fireframes ClearView assemblies that surround the campus store. These transparent, butt-glazed systems feature floor-to-ceiling, fire-rated glass wall panels that stretch between structural supports. Rather than opaque vertical mullions, the glass wall panels come together at a five millimeter butt-joint, which maximizes the amount of glazing within the perimeter frames.

Because the Fireframes ClearView assemblies allow uninterrupted views into and through the campus store, they facilitate easy

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wayfinding for both new students looking to buy textbooks and visitors wanting to snag Syracuse clothing and gifts. Though the glass itself is impressive, the minimal aluminum perimeter frames and butt-glazed joints meet important design criteria as well, such as creating a coherent design throughout the student center.

NARROW-PROFILE FRAMES SUPPORT A UNIFORM GLAZING DESIGN

Not all the glazing within the Schine Student Center needed to be fire rated. However, throughout the building, rated and non-rated assemblies were specified near each other. To preserve a seamless look, the designers chose fire-rated frames and glass that provide a close visual match to non-rated systems.

“The success of these glazing applications,” Darby states, “can be found in their non-unique appearance. Our design team valued TGP’s fire-rated systems’ ability to frame views between spaces, while being non-intrusive and uniform with other interior glazing used in the project.”

Since TGP’s fire-rated glazing systems complement adjacent non-rated assemblies, they allowed the design firms more freedom to create impressive and visually connected spaces—whether or not a fire rating was required in a specific application. As such, the architects were able to meet code-required fire ratings without compromising their student-centered and award-winning design.

FROM DESIGN EXCELLENCE TO STUDENT EXCELLENCE

Following its completion, the Schine Student Center has won architectural excellence awards from Central New York’s chapter of the American Institute of Architects (AIA), the Association of College Unions International (ACUI) and the Illumination Engineering Society (IES). These awards cite the project’s commitment to the principles of Universal Design, Student-Centered Design and Design for Diversity and Inclusion as to why the Schine Student Center’s renovation is remarkable.



The Jury’s comments for the AIA award state the renovation created a “dramatic improvement in terms of visibility, engagement and inviting spaces of this essential campus building.” While several systems come together within the student center to achieve this improvement, fire-rated glazing plays a part in realizing the open design by preserving visibility and connection where previously opaque materials might have been necessary to achieve fire- and life-safety code requirements.

These awards underscore the original intent of the Schine Student Center—to be a central hub of student activity on campus. By supporting easy wayfinding and creating a welcoming environment, fire-rated glazing contributes to this design intent while also maintaining code-driven safety.



Learn more about:

[Fireframes ClearView System](#)

[Fireframes Aluminum Series](#)

[Fireframes Designer Series fire-rated doors](#)

[Pilkington Pyrostop fire-rated glass](#)



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