



## Translucent Canopies by Duo-Gard Elevate CTA's New Morgan Street Station

For the first time in 15 years, Chicago Transit Authority riders are stepping onto the platform of a new elevated station. And when they do, they're sheltered by two long translucent canopies that provide protection from the weather, allow diffused sunlight by day and serve as an illuminated landmark by night. The CTA Morgan Street Station, which opened last May, was designed by the Chicago firm of Ross Barney Architects. The canopies were engineered and fabricated by Duo-Gard Industries Inc. in Canton, Michigan, innovators in translucent technology for custom architectural canopies and daylighting systems.

The architectural team led by Ross Barney Architects is renowned for design of transit facilities. Wanting to create a feeling of openness with their design, they opted for canopies which contributed to that goal.

Each over 320 feet long, the structures combine aluminum framing and multiwall polycarbonate glazing in a standing seam configuration. A soft, sage-green tint enhances the station's aesthetics.

Often referred to as the gateway to the Loop and the center of the resurging Fulton Market area, Morgan Street Station sits among an eclectic mix of warehouses, boutiques, restaurants and industrial conversions.

"The station's translucent canopies are a predominant part of the design," said Ryan Giblin, AIA, LEED AP, Project Manager. "Historically, canopies are solid and dark. Morgan Street's canopies are a major expression of the station's platform, the place where people spend their time waiting. The translucent polycarbonate glazing lets in a lot of diffused daylight, plus the material is durable and easily maintained."



Morgan Street is the third collaboration for Duo-Gard and Ross Barney Architects, following Fullerton and Belmont station projects. However, Giblin said this is his first experience with multiwall polycarbonate: “I like it. The firm has worked with it several times, and I can rely on our good experiences. In fact, the polycarbonate has been well-received and has become something of a standard for CTA designs.”

The material integrates with the station’s other elements of steel, glass, metal mesh, concrete and cast iron. Giblin said the six-wall, 20mm-thick polycarbonate, virtually shatterproof, has the advantage of being much lighter in weight than glass, significantly reducing the need for structural support. He also cited the Duo-Gard system’s ease of maintenance. Repair – a major factor for CTA consideration – simply involves removal and replacement of the damaged panel.

Sustainability was also a factor. The polycarbonate contributes to this with recycled content, and it’s completely recyclable.

Morgan Street’s design utilizes Duo-Gard’s Series 2500 System, a proprietary engineered framing profile designed for long expanses with minimal mullions and structural support. It’s one of Duo-Gard’s standard systems and can be field-fabricated for installation ease, a necessity for working around the canopies’ expansion joints.

“Many of our architectural canopies require a custom system, but because of the architects’ ability to visualize the end result, we were able to use a standard system, configured to their design, without having to recreate the wheel,” said David Miller, Duo-Gard’s president. “We’re very proud of the result.” Duo-Gard also fabricated the station’s 65-foot-long stairwell canopy, as well as the 47-foot bridge canopy.

“Encouraging the use of mass transit is a major goal for cities today,” Miller said. “The CTA’s new station attests to Chicago’s efforts on behalf of the community.”

Those efforts are paying off, according to Giblin: “When the CTA planned for this station, they projected probable usage. It’s already broken those initial projections. That’s a good indication of its success.”

The project was honored with an AIA Chicago 2012 Distinguished Building Award, Citation of Merit and garnered the Chicago Department of Transportation a Patron of the Year honor from the Chicago Architecture Foundation.

Project collaborators included TranSystems, LTK Engineering Services, OSA Engineers, FH Paschen and Whited Brothers Inc.