



## Airport's New Entrance Canopy Reflects Rolling Hills of Eastern Iowa

Located amid fields of corn and soybeans, The Eastern Iowa Airport outside Cedar Rapids has an impressive past and a progressive future. Yet it hadn't had a major modernization since 1980. That changed in June 2014 when a multi-million-dollar renovation began.

Led by the Minneapolis office of Mead & Hunt, a national architecture – engineering – consulting firm, Phase 1 was completed in early 2015. It focused on the airport's front façade, which is now visually anchored by an undulating 453-foot canopy that integrates a translucent glazing system engineered by Duo-Gard Industries Inc.

"The canopy is an important element. When you fly into Cedar Rapids, you see a landscape of rolling hills. We wanted to reflect this in our canopy design," said Matt Dubbe, AIA LEED AP and National Market Leader for Architecture. Dubbe and Mitchell Walker, Associate AIA, wanted their design to evoke the region's agricultural heritage and actual topography.

The north-facing façade includes stone, insulated panels, wood and glass.

The canopy is Duo-Gard's new Sleekline system, which integrates monolithic polycarbonate glazing in a low-profile aluminum frame with variable edge baseplate and cap. The system gives designers exceptional flexibility. For this application, the system included quarter-inch-thick diffusing polycarbonate panels 2 feet wide by 16 feet long. The panels sit directly atop the glulam rafters – each with a varying elevation – and are attached with lag screws.

"We're driven by performance first," said Dubbe, "and the system's ability to pick up the radius and pick up the snow load, as well as its hail-resistance, was impressive, as well as its ability to capture and send light along the planes of the rafters."

"We designed the Sleekline canopy system to provide architects with more cost-effective flexibility, aesthetic options and structural capacity, which is geared to each project's requirements," said David Miller, Duo-Gard's president, and added that it offers lightweight, shatter-resistant protection at 35 – 50 percent less than glass.

“The individually cut-to-fit pieces that could lie on top of the glulam were a great advantage,” said Dubbe. The architect said he considered multiwall polycarbonate and laminated glass options for the glazing, but decided multiwall wouldn’t work effectively with the rolling effect he wanted, and the weight of glass was prohibitive. The monolithic material allows diffuse natural light as well as protection against the weather, which the entrance lacked previously.

Established as a small private concern in the 1920s, the airport evolved with a new facility in 1947 and became The Eastern Iowa Airport in 1997. It now serves more than a million passengers a year. It contains one of Linn County’s largest farms, with 2,000

acres in corn and soybeans and a commitment to sustainability. Recently it was named the state’s first certified Industrial Super Park with 582 acres of development-ready land.

The airport is obviously poised to attract, encourage and accommodate economic growth. It needed a facelift that reflected its progressive pursuit of this growth, as well as its prominent place in the community. Often, the airport is the first and last thing visitors see. “Airports are changing. Today, an airport is the front door to every community,” said Dubbe.

And today, the new front door to The Eastern Iowa Airport, with its unique entrance canopy, is providing a warm welcome to the region. “We get countless calls. People are so delighted and so intrigued,” said Dubbe.

## Duo-Gard Sleekline Monolithic Canopy

