

KAWNEER

PROJECTPROFILE



Lindsey-Flanigan Courthouse

Denver, Colorado, USA

ARCHITECT

klipp Architecture Planning Interiors
Denver, Colorado, USA

GLAZING CONTRACTOR

Trainor Glass
Denver, Colorado, USA

FEATURED PRODUCTS

1600 SS (Screw Spline)
Unitwall™ curtain wall (modified)
GLASSvent™ for Curtain Wall



GIVING JUSTICE THE GREEN LIGHT

When plans were drawn for the Lindsey-Flanigan Courthouse in Denver, Colorado, the idea that drove both the design and product specification was to represent the "Lantern of Justice." Architects from Denver-based firm Klipp Architecture Planning Interiors used this metaphor to describe the five-story, 317,000-square-foot building that is part of the Denver Justice System. Not only does the metaphor represent the transparent nature of justice, but it also refers to the literal translucence of the building and the significance that it has to the greater community.

The courthouse opened in July 2010 and is on track for Leadership in Energy and Environmental Design (LEED®)* Gold certification. In addition to receiving positive response from the community, the building received the 2010 AIA Denver Honor Award for design excellence.

"Overall, the building is a visual success," said Keat Tan, AIA, principal designer of the project at Klipp Architecture Planning Interiors. "The sloped glass blossoms from the inside and the proportions of the atrium are absolutely perfect. I've stood on every level looking out and I can't think of one thing we could have done better."

Design Highlights

- The building itself was designed around several theoretical components that are reflected in both the materials used on the structure and the overall building function and aesthetic. Tan and his team were challenged to express their ideas in a way that corresponded with the larger design scheme of the complex and with the aesthetic of the downtown cityscape as a whole. Articulating this idea is a folding wall of glass on the east side of the building that reaches 92' high. The wall, made with modified 1600 SS (Screw Spline) Unitwall™ curtain wall from Kawneer, extends from north to south forming the "lens" of the lantern.
- During the day, light filters deep into the building through the glass curtain wall onto five levels of circulation, open stairs and balconies. Directly behind the curtain wall sits the "Filament of Justice," a vertical light fixture that radiates from the inside at nighttime or when daylight is insufficient. The transparent glass façade allows the light from the building to be visible from Denver's downtown business district as well as other prominent points throughout the area.

Challenges

- The intricate design of the wall, which incorporates several setbacks, folds and slopes, posed several challenges. To maintain the integrity of the design and the concept of transparency and light, the architect did not want to incorporate a steel support behind the wall, but rather have the wall appear to float.

- The run of the building emphasized horizontal lines, which also posed a challenge. To create the "lens" appearance, large lites of glass were used in the curtain wall, which were approximately 9 feet by 3 feet and very heavy.
- The city of Denver requires all applicable new building construction and major renovations to be built and certified to at least the LEED NC (New Construction) Silver standard and achieve Energy Star status.

Solutions

- To successfully achieve the design concept, the curtain wall had to be top hung from a secondary steel structure that was supplied by Trainor Glass and coordinated with Kawneer every step of the way.
- Working with the architect and Kawneer engineers, Trainor Glass created a 3D model of the wall to ensure that all components could fit together and that the dead load could be supported. Additionally, experts from Viracon joined the technical engineering team to help design the wall's support system and determine the weight and flexion of the glass.
- All the rooms, including 35 courtrooms, are set up the same from top to bottom – courtrooms on top of courtrooms with the holding areas stacking. This makes it easier to handle security as well as keep the design economically feasible. Even this budgetary issue was enveloped into the thematic design. The layering idea fits into the idea of the stratification of justice. From the outside visitors can look in and see the courtrooms in all five floors.
- The use of Kawneer's 1600 SS Unitwall™ helped the project with maximum daylight goals and several LEED requirements in the Materials & Resources category. The use of recycled billet contributed to the requirements for recycled content; additionally, the curtain wall was fabricated and glazed at Trainor's shop, which was located less than 500 miles from the job site. In addition to providing daylighting, Kawneer's 1600 SS Unitwall™ incorporates GLASSvent™ Windows throughout the judges' chambers. These integrated seamlessly with the building's design.

Featured Products

Kawneer's 1600 SS (Screw Spline) Unitwall™ curtain wall (modified); GLASSvent™ for Curtain Wall.

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