

"As AWS Owner and CEO, I'm confident to commit my reputation and long term warranty - which I must personally guarantee - when AWS teams up with Unicel for its monumental applications for glazed roofs."

Mike Cunningham CEO
Architectural Wall Systems, Co.

Partnering for Innovative Skylight Solutions

Background:

For over 20 years, Architectural Wall Systems (AWS) has specialized in the custom design and production of advanced building envelope solutions, including skylights and curtain walls. For 50 years, Unicel Architectural has built a reputation for the most advanced daylighting solutions to enhance major global construction initiatives with utmost quality and reliability. Twenty years ago, these two firms combined their expertise to deliver skylights and other interior and exterior glazing solutions for notable building and design initiatives in Iowa.



Developing superior skylight systems:

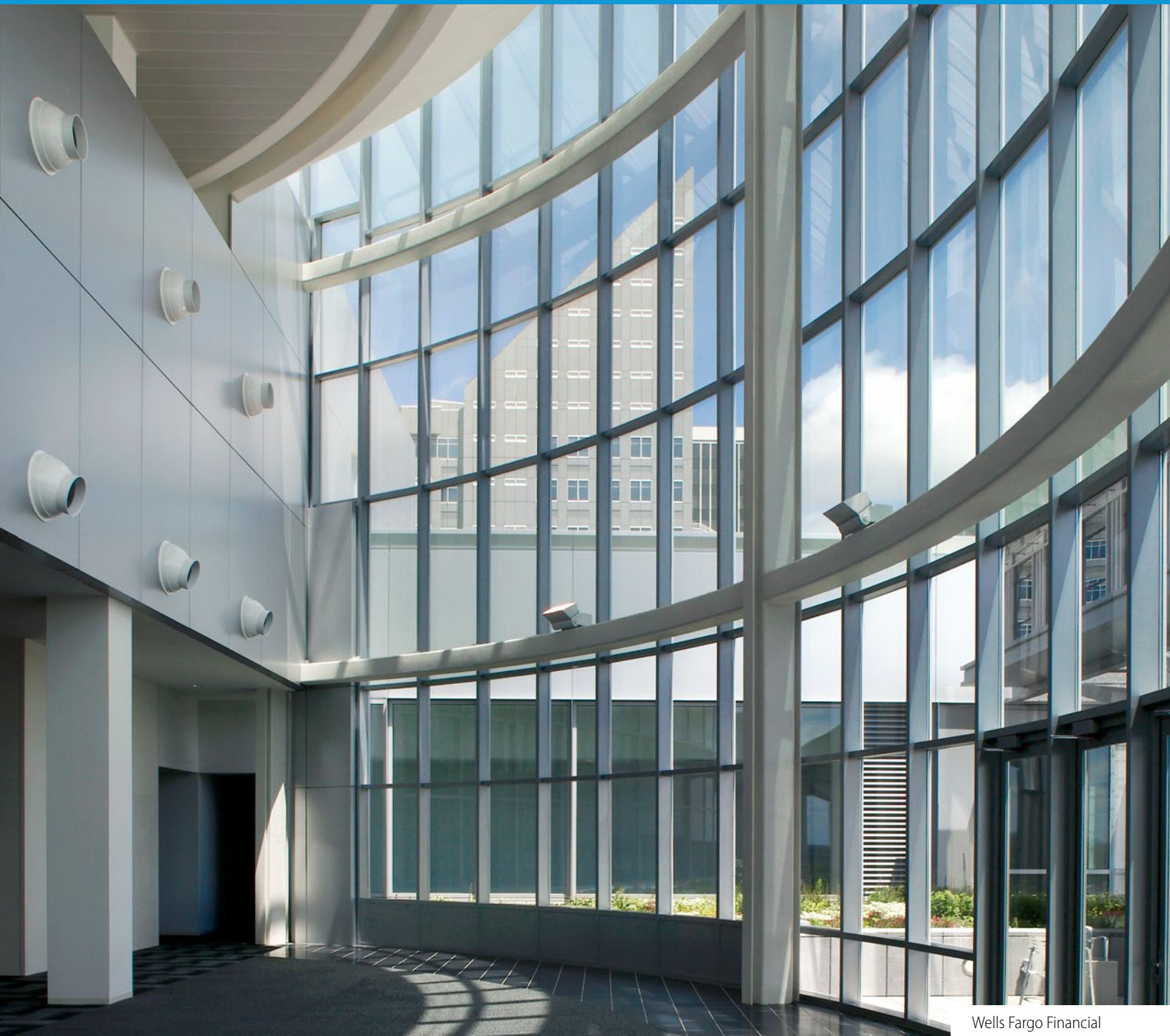
AWS first connected with Unicel in 1991 for their internal guttering system that was designed with pressure-equalized rain screen technology. Since then, AWS has incorporated into their projects a number of Unicel custom-engineered horizontal glazing systems ranging anywhere from small one-opening skylights to glass roofs of up to 10 thousand square feet with long spans and complicated shapes.

AWS selected Unicel's solution as it featured the largest water infiltration and condensation guttering system that they could find in the industry. Additionally, they were attracted by Unicel's rafter system which is fabricated with notched rafters and coped purlins that come together at their intersection to accommodate gutter continuity and thermal expansion. This ensures a plumbing system that does not rely on any sealant to perform.

AWS also appreciated that Unicel solutions take into account severe climate conditions as a result of the company's Canadian experience with harsh winters and extreme temperature variations. Working with Unicel, AWS became proficient in the installation, water management, condensation control and thermal movement accommodation for horizontal glazing applications.

Noteworthy Projects:

The following pages highlight three distinctive projects that feature the collaborative AWS and Unicel efforts.



Wells Fargo Financial

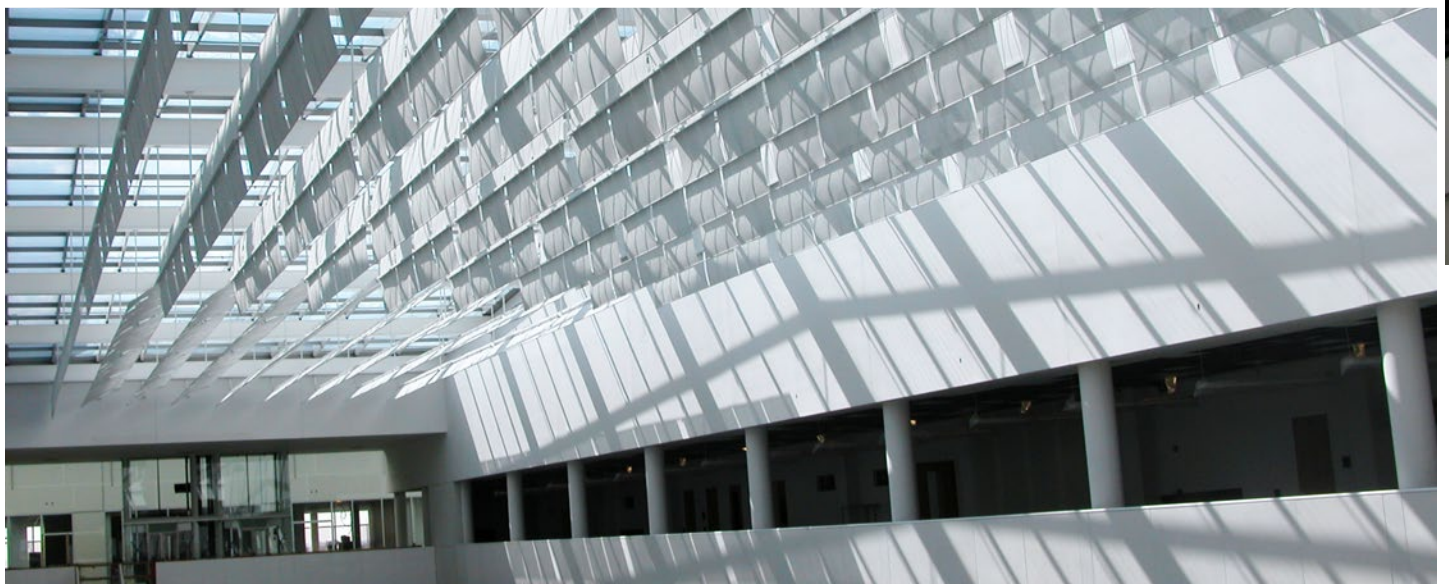
1. WELLS FARGO FINANCIAL (SOUTH), DES MOINES, IA

To accommodate its rapidly growing business, Wells Fargo Financial, the consumer finance subsidiary of Wells Fargo & Company, needed to enlarge its office space in Des Moines, IA. The new building design had to be integrated with the existent office tower and the surrounding street landscape. One of the most important requirements of the project was to introduce daylight to core areas of the building. To achieve this, the architect turned to AWS and Unicel for a solution for the new 11-storey addition that would complement a busy urban environment while delivering the benefits of natural light to the building occupants.

Unicel provided the aluminum curtain wall system that envelops the curb lantern atop the building. The lantern top was made out of one hundred 45-foot (14m) glass panels that enclose a reception area and a training and conference room. AWS designed, engineered and assembled the unitized rain screen system. The building features a guttered skylight system that collects condensation and water infiltration and drains it to the exterior. As a result, Wells Fargo Financial is now one of the most recognizable architectural structures in Des Moines, and AWS received an AIA Excellence in Craft Award for the project.



USDA Consolidated Laboratory



2. USDA CONSOLIDATED LABORATORY, AMES, IA

The United States Department of Agriculture (USDA) facility in Ames, IA, the only complex in the country to diagnose both domestic and foreign animal diseases, received \$430 million to upgrade its 480-acre laboratory area, during a five-year construction project called “Ames Modernization Program”. The program was designed to remodel and create new space to host three key USDA agencies: National Veterinary Services Laboratories, Center of Veterinary Biologics and National Animal Disease Center. Sustainability was fundamental to the design approach for all facilities, using the LEED rating system as a guideline.

The consolidated laboratory needed to accommodate advanced lab technology, so the building was designed to facilitate research and integrate daylight while eliminating the damaging effects of direct sunlight. AWS and UniceL joined forces to provide the administrative offices area with a sloped skylight and the main atrium area with a skylight and shading system. The main atrium skylight incorporates a sunshade system with perforated aluminum panels specially designed to minimize solar heat gains while filtering daylight into the interior. In order to achieve the best results for the building, the skylight is controlled by 18 separate motors, each operating four banks of four shades.

3. FIGGE ART CENTER, DAVENPORT, IA

Davenport, Iowa's glass-clad Figge Art Museum is a stunning example of urban renewal. The \$46.9 million landmark was designed by London's David Chipperfield Architects, and its double-pane exterior combined with a passive wall cavity ventilation system is the first of its kind in the United States. The art museum's design challenge was to meet detailed standards governing lighting, ventilation and temperature control to protect the valuable artwork and artifacts from sunlight and the elements.

AWS and Unicel partnered to provide a daylighting solution that allows diffused and controlled natural light to filter into the galleries through a system of 28 skylights. The skylights contain 92 of Unicel's Vision Control® units consisting of hermetically sealed insulating glass units with integrated operable louvers made of extruded aluminum. Sun sensors monitor light intensity and transmit data to a computer that automatically adjusts motorized louvers and artificial lights to desired levels of intensity.

About Unicel Architectural

For 50 years, Unicel Architectural has built a reputation for the most advanced aluminum and glass solutions. These solutions encompass louvered glazing, skylights, curtain walls and solar shading to enhance major global construction initiatives with utmost quality and reliability. With its proprietary technology, Unicel's Vision Control® delivers unprecedented comfort and control of vision, light, temperature and sound with a patented combination of louvers between glass that are hermetically sealed and cordless. Unicel's solutions are guaranteed for longevity, optimized for energy efficiency, and customizable to any design, environmental or cultural requirements.

4. JACOBSON ATHLETIC BUILDING, IOWA STATE UNIVERSITY

Iowa State's state of the art Jacobson Athletic Building houses all football offices, locker rooms, meeting rooms, strength and conditioning room, and sports medicine room. AWS furnished and installed the windows, curtain walls, aluminum plate panels, sunscreen, skylight and entrances. Skylight panels over the auditorium featured Unicel's Vision Control® power-operated louvers within a sealed glass airspace. The Vision Control® louvers ensure adjustable lighting as required for projector and game film purposes.



Jacobson Athletic Building

