

KEY FACTS

Design Team:

Architect: RDG Planning and Design

MEP: Holabird & Root, Inc

Structural: Charles Saul Engineering, Inc.

Civil/Landscape: Conservation Design Forum

Energy: The Weidt Group

Cost Estimating: Stecker-Harmsen, Inc

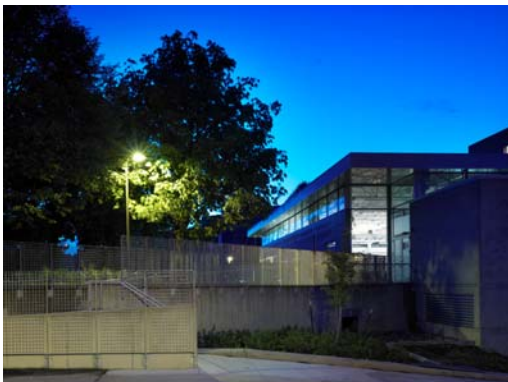
General Contractor: Miron Construction

Occupancy Date: August 2009

Square Footage: 22,906 gsf

Project Budget: \$6,619,197

Dean Emeritus Mark Engelbrecht wrote that this project was driven by two interconnected objectives: combining the construction of a set of studios designed to accommodate the community of all beginning design students within a fabric carefully developed to perform within and inspire environmental practices within the College of Design.



Photos by Cameron Campbell

LEED

Leadership in Energy and Environmental Design

LEED is an internationally recognized green building certification system, providing third-party verification that a building was designed and built using strategies aimed at improving performance across all the metrics that matter most: energy savings, water efficiency, CO₂ emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

Developed by the U.S. Green Building Council (USGBC), LEED provides building owners and operators a concise framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions.

Iowa State University is committed to incorporating LEED principles when undertaking new construction or major renovation projects with the goal of obtaining certification at the Gold Level. Currently, ISU has four LEED Building with many others in the process of applying for LEED Certification.

The King Pavilion achieved Platinum LEED-NC certification in February 2009.

PROJECT MANAGEMENT SERVICES
FACILITIES PLANNING AND MANAGEMENT

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College of Design King Pavilion



SUSTAINABLE
DESIGN FOR A
DESIGN EDUCATION

Iowa State's First LEED-NC
Platinum Building



LEED Brochure

IOWA STATE UNIVERSITY

FACILITIES PLANNING AND MANAGEMENT



The King Pavilion of the College of Design opened in fall 2009 and contains studios for upper level students in architecture, interior design, landscape architecture, and

first year students enrolled in the core curricula.

Daylighting

The building takes advantage of natural daylight through the extensive use of clerestory windows and corner units. Each studio has a view to the outside, with operable windows on the upper level.

Controls on the lighting system respond to the amount of natural light coming into the spaces and either increase or decrease fluorescent lighting levels in the studios. Occupancy sensors automatically turn off the lights after it senses there is no activity in a studio.



Recycled Materials

Approximately 33% of the materials used to construct the building were composed of recycled materials. The most unique of these materials is the wall insulation - made from recycled blue jeans. The insulation, UltraTouch by Bonded Logic, has an insulation value of R-19 and is used throughout the building's exterior walls.



ISU's First Green Roof

The most prominent feature of the King Pavilion is one that is not seen on a daily basis—a 9,200 square foot living roof.



One of the 13 varieties of sedum on the roof.

Green roofs are used to reduce 80 percent of rainwater that is typically sent into the storm sewer system, to decrease the heat island effect, and to reduce heat gain inside a building during the summer months. The growing media and plants also protect the roofing membrane underneath from ultra-violet ray degradation.

The King Pavilion roof features 14 varieties of

sedum, prickly pear, prairie coneflower, blue grama grass, fame flower, and native chives.

A smaller sedum shade roof is visible to the public from the connecting walkway to the College of Design building.

Storm Water Management

In addition to the green roof, the project utilizes several methods to mitigate storm water. Detention cells under the porous pavers in the courtyard areas of the building collect rainwater during an event. These hold the water and slowly release it into the storm water system, reducing strain on the system during a storm. A series of laterals moves surplus rain water from the roof into the soil along courtyard area where it is either absorbed or moves into the detention cells.

