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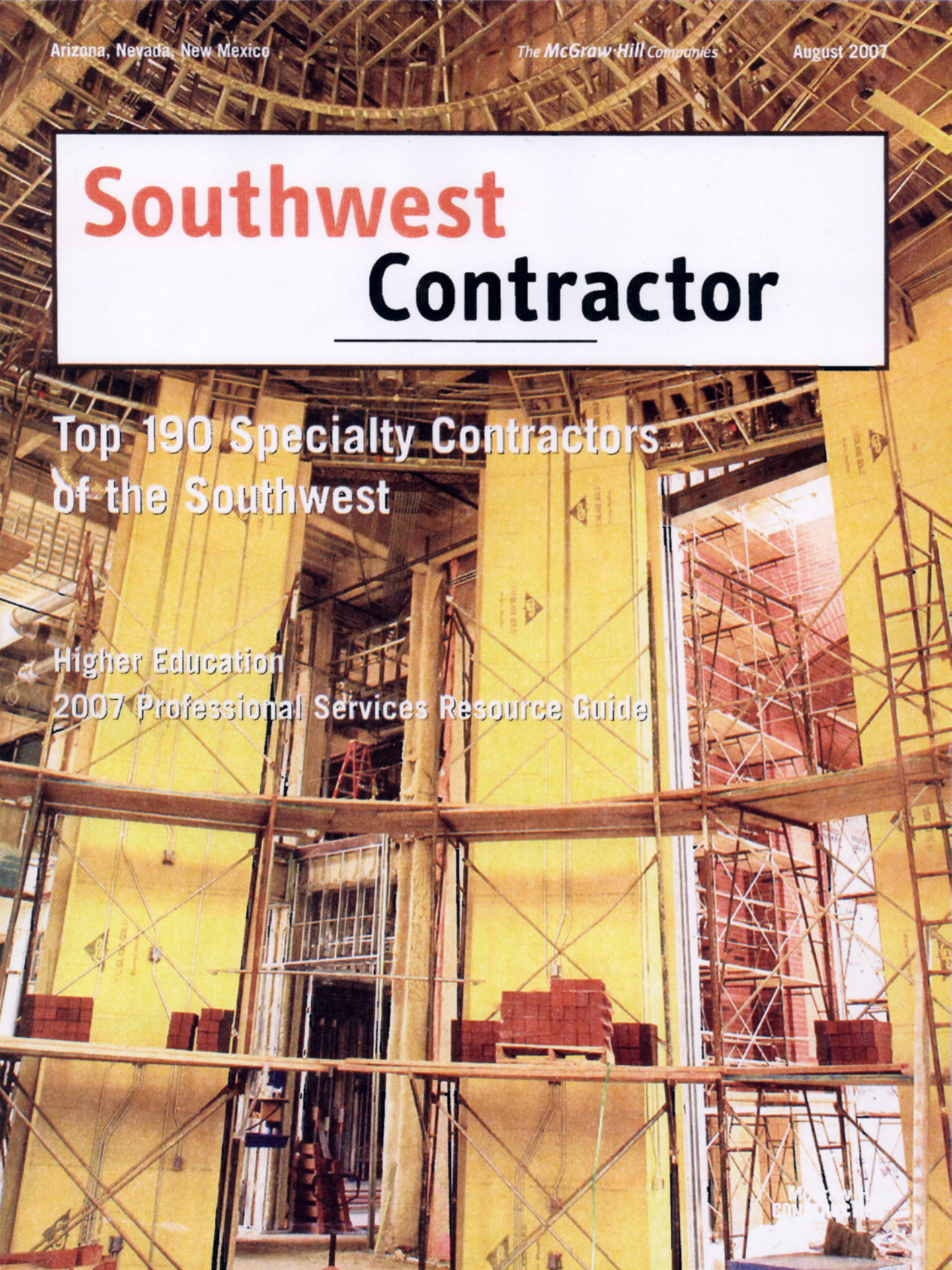


Top 190 Specialty Contractors of the Southwest

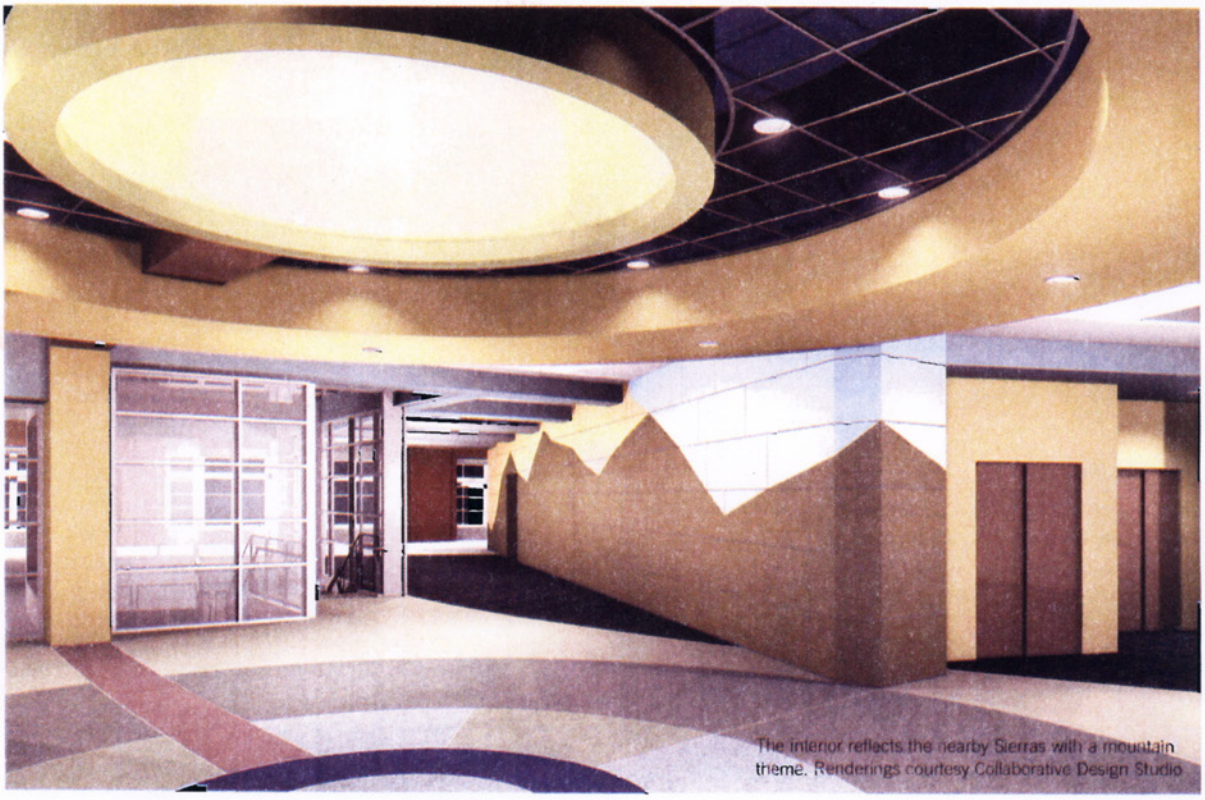
Higher Education

2007 Professional Services Resource Guide

Sustaining Student Goals

Student Input Used for UNR Joe Crowley Center

By David M. Brown



The interior reflects the nearby Sierras with a mountain theme. Renderings courtesy Collaborative Design Studio

The $56 million, student-funded Joe Crowley Student Union at the University of Nevada, Reno isn't just built for students. In a way it is being built by them, with everything from the building's sustainable design to its name chosen by students.

A few years ago, a significant percentage of the 16,000 students at the 250-acre University of Nevada, Reno campus decided to pay for 95% of the new Joe Crowley Student Union Building through self-assessed fees. They also wanted to help design the floor layout, select the architect and make finishes and furniture decisions.

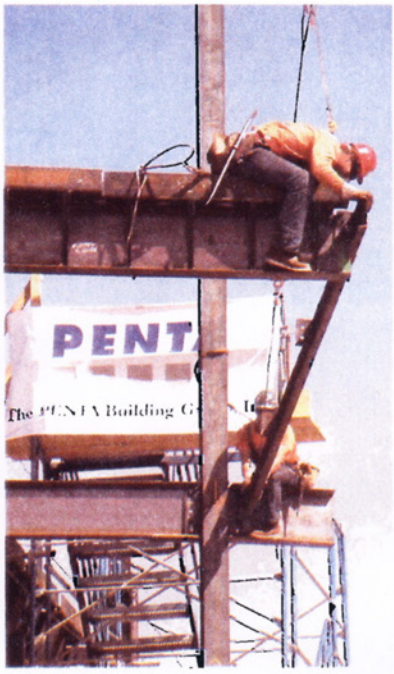
And they wanted their building to be environmentally sustainable.

They decided that the $56 million multi-use center would honor Joe Crowley, who served as the president of the university from 1978 to 2000 - the longest tenure for a president in the school's 133-year history.

Construction on the 167,000-sq-ft, structural-steel building began in April 2006 and is expected to be completed in September during the fall semester.

The four-story building is designed by WTW Architects of Pittsburgh and Reno-based Collaborative Design Studio, formerly Lundahl & Associates, which also handled the day-to day relationships and coordinated local construction practices. The PENTA Building Group is the general contractor through their Reno office. >>

A steeply sloping and tight construction site along with the neighboring construction at the Knowledge Center made logistics a challenge.



The steel-framed, four-story building is scheduled for completion in September. Photo courtesy PENTA

Next to a number of existing and under-construction buildings, including the new Mathewson-IGT Knowledge Center, Joe Crowley will help in creating a vibrant campus life including late-night activities for students, says Chuck Price, director of the Jot Travis Student Union, which the university will recycle into new uses when the center opens.

The new student union will contain a bookstore; retail areas, including a 7,500-sq-ft food court; 1,200-seat grand ballroom; 48,000 sq ft of conferences rooms; a 220-seat, two-level movie theater; 2,000-sq-ft student organization center; and outdoor seating and program areas with views of the Sierras.

"The Knowledge Center and the Joe Crowley Student Union, when finished, will become the new front door to the University of Nevada, Reno. Together they create a new quad that will anchor UNR's future expansion."
R.O. 'Rock' Kernick, AIA

"The Knowledge Center and the Joe Crowley Student Union, when finished, will become the new front door to the University of Nevada, Reno," says R.O. 'Rock' Kernick, AIA, project manager for WTW Architects. "Together they create a new quad that will anchor UNR's future expansion."

A mountain theme is being used in the finishes throughout the building, including a Sierra wall mural through all four floors.

Meeting a variety of construction challenges, PENTA had to build on a compact project site next to other ongoing UNR projects. "The logistics of the project have been difficult," says John Itzaina, the company's project manager.

In addition, PENTA had to build into the side of a steeply sloping hillside.

As a result, two stories are partially underground and serve as retaining walls - consistent with the energy-efficient goals suggested by students. The overall environmental sensitivity includes daylight harvesting strategies, xeriscaping for landscapes, using recycled materials and incorporating high-energy-efficiency systems for power, heat and cooling.

"It's responsive to the built environment adjacent to it on campus, it's very responsive to the environmental forces on it, and it's sustainable," says Peter W. Grove, AIA, principal and managing partner for the Collaborative Design Studio.

He says the building design was studied for daylighting and energy-savings opportunities at PG&E Energy Center in San Francisco. Here, the team used the center's heliodon, a device that simulates relationships between an architectural model and a representation of the sun. >>

The exterior skin is a complex combination of brick, metal panels and glass because each façade is different depending on its orientation to the sun. Photo courtesy Collaborative Design Studio.

A specialist in architectural lighting projects, David Nelson & Associates of Littleton, Colo., and the company's subconsultant Victor Olgay, principal of Boulder, Colo.-based Rocky Mountain Institute/ENSAR Group, suggested this daylight modeling, says Kernick.

As a result, every facade has slightly different detailing that reflects findings from the Energy Center study.

"One of the biggest challenges is the construction of the complex exterior skin," Itzaina notes. These include metal composite panels, glass system, sunshades and brick veneer.

"The standard glass box modernist building spends a great deal of energy to buy construction repetition and convenience, but with today's technological advances and high energy costs, that model no longer works," Kernick says. "Each facade in our building is different because each orientation to the sun needs to address different realities."

He adds that the design team also incorporated the results of an energy model by Denver-based Enermodal Engineering, a company specializing in sustainable design solutions.

"We've got a ballroom with large skylights and faux alabaster skylight diffuser/lighting pendants that should have a 2% daylight factor all day long," Kernick says.

Also incorporated are Solatube skylights, light shelf/sunshade assemblies, and low-VOC building components. In addition, the building captures the cooling tower run-off and treats it without chemicals for cistern storage and use in the high-efficiency drip-irrigation system.

Kernick says that because of the paperwork expense, the building will not go for LEED certification as a new building, but it will achieve sustainability because "this was important to UNR's staff and students - in addition to the project team." <<

Key Players

Owner: University of Nevada, Reno

Architect: WTW Architects; Collaborative Design Studio

General Contractor: The PENTA Building Group

Subcontractors: Brussa Masonry; Sanpete Steel; Northern Nevada Rebar; Applied Mechanical; Custom Glass Co.; Nelson Electric Co.; KHS&S Contractors; Complete Millwork Systems; Lindell's Painting Svc.

Useful Sources

To find out more about this project, visit UNR's website at www.unr.edu/newstudentunion