

# PR



# JECT OF THE YEAR

## W I N N E R

### GENERAL CONTRACTOR (UNDER \$5 MILLION)

**R**au Construction Company was selected in the fall of 2013 as the general contractor for the addition and renovation of the KU Sigma Kappa Sorority Xi Chapter on its 100th Anniversary on the KU campus. (The sorority was installed on April 2, 1913.)

The project involved renovation of the 5,000 square foot main floor to provide both a large study area and a larger and updated living quarters for the House Director. Rau also added a 3,000 square foot third floor above the north wing for the student living quarters and a large bathroom formerly located on the main floor of the existing house. The third floor addition required removal of all the interior load-bearing walls and installation of a new steel support structure under the second floor. Work was done to match the traditional construction finishes of the 60-year-old structure.

Rau Construction began working in the conceptual planning stages in July 2014 to determine the project's scope, size and feasibility. During the design process with NSPJ Architects, P.A. and key members of the Sigma Kappa Sorority Alumni Board, they reviewed numerous design concepts, selected prequalified design-build MEP contractors, and held meetings with the City of Lawrence to discuss significant code and construction issues.

With the load-bearing interior walls on the first floor being removed, threading a web of new steel beams and columns into the house to support the existing second floor and new third floor from new foundations in the basement was a challenge, both practically and within the time constraints of the project. The practical challenge of making the columns and beams small enough to be hand-manuevered into place was solved with additional splices and connections. The time challenge was solved by completing the



— photo courtesy of NSPJ Architects, P.A.

### Rau Construction Company KU Sigma Kappa Sorority Xi Chapter 100th Anniversary Addition and Renovation Lawrence, Kansas

foundation work in the finished basement during the week of spring break – allowing for the steel to be measured and fabricated before summer.

Rau met numerous challenges to complete the work in only 77 calendar days. From the first day of summer break in 2015 and for the next 30 days, there were 13 days of rain, with four days of rain in excess of one-half inch. Crews worked 10-12 hours, 6-7 days a week to protect the structure from water damage. To maintain the schedule, the roof structure was cut into large sections which were rapidly removed by crane during fair weather. This allowed for rapid framing of the new walls and roof structure, and weatherproofing during the night.

Hoisting and staging of materials was also a challenge. With an overhead power line running 15 feet off the west side of Sigma Kappa Sorority, lifting materials from the west side of the parking lot was not an option. The front yard on the east side of the building (off West Campus Road) was not only small, but had a significant four-foot elevation change. The project team met

this challenge by devising a way to set the crane on a 30' x 90' patch of open ground on the east side. Just-in-time deliveries were scheduled as if this were a zero lot line building in a downtown setting.

Fitting all the construction equipment onto the property was not the only tight squeeze on the project. The design team had to find a way to comfortably fit four students and their possessions into each new 14' x 25' suite. Rau worked closely with the design team and the sorority to develop a plan that included new casework in order to meet their needs.

To enhance the level of coordination and communication among the project team, Rau utilized web-based project management software. This software streamlined their ability to distribute changes to plans, meeting invitations and

agenda, meeting notes, and any other notices.

Rau continues its partnership with OSHA and The Builders' Association as a participant in the Build Safe Partnership Program (BSPP). The project team completed the work with zero lost worker hours.

"Rau Construction was extremely helpful in working with the House Corporation Board to reduce the construction cost of the project following the initial bidding process," commented Sharon Uhlig, Treasurer, Xi of Sigma Kappa House Corporation. "During construction, [their] knowledge and expertise were instrumental in successfully completing the project on time and within the final budget."

Added Cheryl S. Beaver, AIA, NCARB, Principal Architect, Vice President, NSPJ Architects, P.A., "Gus Meyer and his staff were quick to adjust the construction schedule to accommodate the weather conditions and protect the property of the owner. Their expertise, knowledge and dedication helped ensure that the project was a success." ▲