

Student Housing — Delivering Reliability

 **Oldcastle Precast**[®]
Building Systems



Innovative Methods Produce Lasting Results

Colleges and universities must respond to the housing needs of students of different ages and socio-economic backgrounds. The facilities must withstand heavy use from high-spirited, temporary residents while retaining their attractive appearance and structural integrity over many years.

The Oldcastle Precast Residential Building System can be adapted to a variety of residence-hall formats, including dormitories, suites, apartments, studios, and couples' housing. The system can be customized in appearance to blend with any existing campus architectural style or to create a specific image for the structure.



University of Delaware, Newark, DE

The first state is home to the first Oldcastle Precast Residential Building System in the United States. Installed at the University of Delaware in 1971, the two 17-story tower residence halls are low maintenance facilities that anchor the northern side of campus. A total of 5,000 concrete units totaling more than 10,000 yards of concrete make up the projects including thermally broken sandwich wall panels. No repairs have been needed on the façade or framework of the two structures. The one- and two-bedroom apartment layout was modified so that a shear wall design could be utilized. The project graced the cover of *Engineering News Record* magazine in 1971 and has since been the home for thousands of students.



Photo: © ENR magazine



3



University of Scranton, Scranton, PA

In October, 2007, Oldcastle Precast Building Systems began the precast design of the new Condron Hall at the University of Scranton. Just ten months later, in August, 2008, 386 students moved into their new home. Winter construction and a tight site added to the challenges of working on an active university campus.

The 108,000 sf residence hall is laid out into two-bedroom suites strictly for sophomores. The University logo and the name of the building are cast into the panels at the entrance of the building. The load bearing precast concrete exterior walls feature either a sandblast finish or embedded thin brick. Oldcastle Precast Building Systems helped to meet the goal to enhance the skyline of the University Campus and to be an asset to the neighborhood.

Photo: Burkavage Design



Creating A Community-Minded Atmosphere

More and more universities are creating a community-minded atmosphere for their residential housing, in which students can live and learn in the manner best suited to them. Guidelines are being set higher. Today, they must include green principles, conservation, and minimization of energy use, as well as spaces that create a quiet environment for students to learn and study in an atmosphere conducive to academic success.

Oldcastle Precast's Total Residential Building System has been proven through the years at a multitude of universities and colleges around the country. University officials have learned the benefits that precast concrete systems can provide, and they are seeing that, no matter the size, aesthetics, or configuration needed, precast concrete can make the grade.

Temple University, Philadelphia, PA

Administrators coordinating the 1,000-bed Cooney Site Housing at Temple University faced conflicting goals for the project. The project had to open on time and without those rooms, many students would have their lives disrupted. *Commitment to the schedule had to be absolute—when the new school year started, the dormitory had to be ready.*

Oldcastle Precast served as the single-source supplier of the structural system, ensuring components were cast to tight tolerances, delivered on schedule, and erected with maximum efficiency.



Despite working through harsh winter weather, the 1,000 new beds were ready for the start of the semester.



Proven Through the Years

5



Photos: AP3C Architects

Lincoln University, Lincoln University, PA

A total-precast concrete structural system was erected through the middle of winter for this four-story, 127,000-sf, 400-bed residence hall. The project features Oldcastle Precast Residential Building Systems Cross-Wall layout, with load bearing interior wall panels supporting hollow-core floor and roof planks. The cross wall design provides sound-deadening precast walls between rooms. The precast concrete components also included stair, landings, and elevator and stair-shaft walls.

A Sustainable Product for a Healthy Environment

The responsible management of energy and environmental resources has become the greatest challenge in the building industry. Nowhere is this need more keenly felt than at universities and colleges, which have a responsibility to their community, their students, and their families to ensure a strong future that is sensitive to resource usage.

This learning environment provides the ultimate atmosphere in which to promote sustainable design, meeting today's needs without compromising the needs of future generations. Sustainable and safe designs are not an option for residential housing, they are an expectation.

Precast concrete offers the most sustainable material on the planet for student housing facilities. Oldcastle Precast Building Systems enhances those attributes by incorporating sustainability principles and concepts into the design of its components consistent with budget limitations and customer requirements.

“...precast allowed us to save time on our schedule and therefore money on construction costs.”

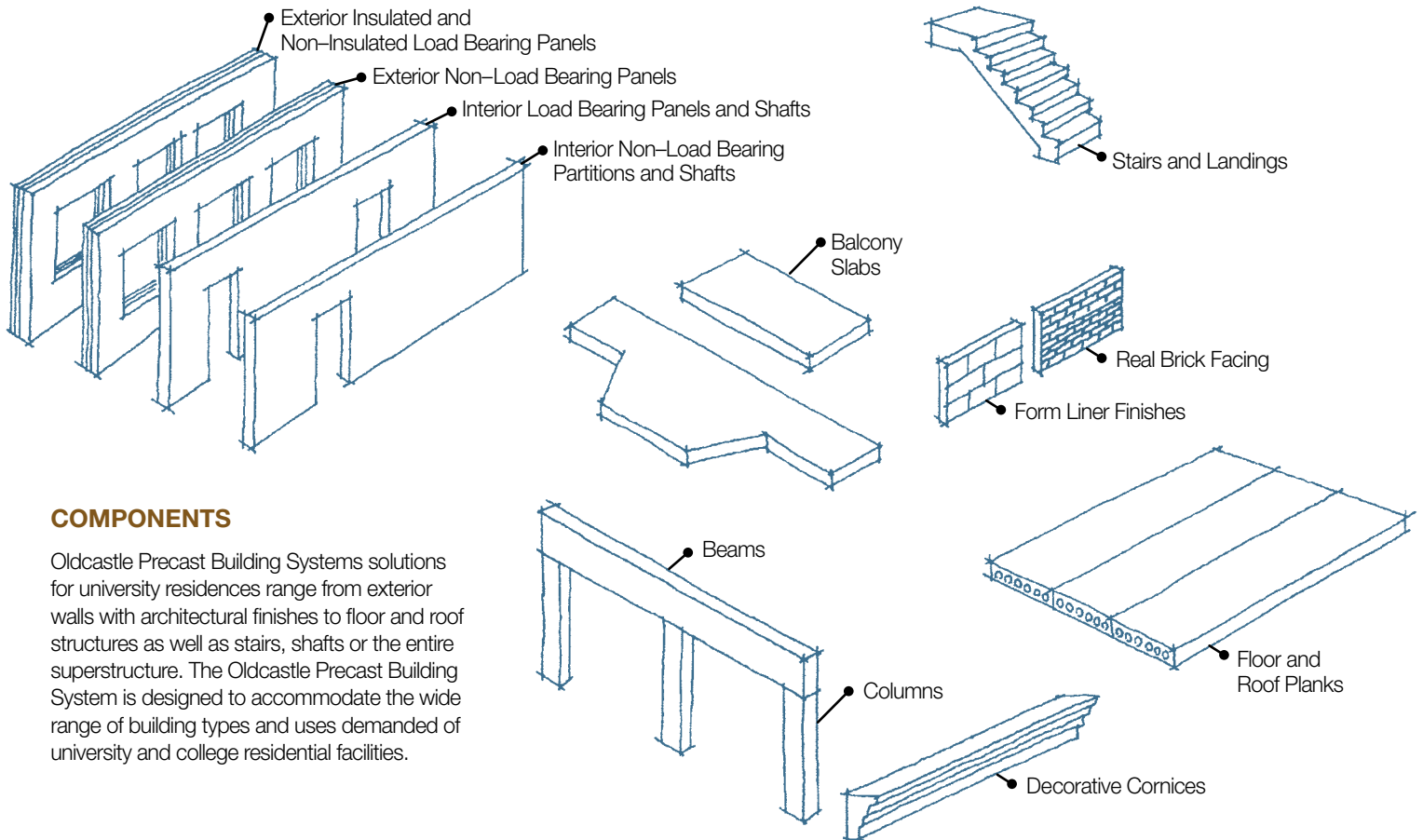
David Newman, Director of Construction Management at Cornell University

Cornell University, Ithica, N.Y.

Cornell University wanted to create a more community-minded atmosphere where students could live and learn. The transformation included rehabilitation of existing buildings and construction of seven new residence halls — guided by green principles. Oldcastle Precast Building Systems was tasked with constructing total precast student residences and shortening construction time by three months for each project. Working with the university’s design team and general contractor, Oldcastle designed a structure that provided wide-open flexible spaces by using exterior precast bearing walls and long spans of 12-inch deep by 40-foot long hollow-core plank.



Cornell has chosen to continue the Oldcastle Precast Residential Building System concept as well as follow LEED guidelines for construction of three other student housing facilities that will be completed in phases.



COMPONENTS

Oldcastle Precast Building Systems solutions for university residences range from exterior walls with architectural finishes to floor and roof structures as well as stairs, shafts or the entire superstructure. The Oldcastle Precast Building System is designed to accommodate the wide range of building types and uses demanded of university and college residential facilities.

oldcastlesystems.com