

ARCHITECTURE AND CONSTRUCTION SCIENCE AND MANAGEMENT FACILITY FOR BUILDING RESEARCH AND EDUCATIONAL ADVANCEMENT

The Need

Clemson University's School of Architecture and Department of Construction Science and Management have nationally recognized undergraduate and graduate programs, faculty and graduates making a positive impact throughout the world. However, to move both the school and the department to a higher level of excellence, a unique academic and research support facility is needed to enhance instructional initiatives and to conduct applied research and professional development activities for the benefit of the architecture and construction disciplines and the economic development of the state and nation.

In response to design and building industry leaders who have expressed the need for the next generation of hands-on education, Clemson is embracing the opportunity to have a one-of-a-kind academic and research facility in the United States – more specifically at Clemson University.

The Impact

Based on projections for the Southeast's 2017 construction market and predicted population and economic growth in the Charlotte-Atlanta megalopolis, contractors and designers should begin focusing upon continued growth. The recession decimated the construction workforce, driving away many workers from the industry altogether. More than ever, it is critical that Clemson continues to produce a pipeline of the best-prepared talent.

The Department of Construction Science and Management needs low-bay and high-bay space to provide hands-on, laboratory-based experience for our students to reinforce concepts presented in the formal classroom setting and to conduct meaningful applied research. Such a space could also be used for professional development activities for practicing construction professionals.

In addition, the School of Architecture has a need for space to house a prototyping and product design shop to support both the work of the Architecture + Health Center of Economic Excellence and the work of its service-learning Architecture + CommunityBUILD graduate certificate program.



The Facility

The proposed facility would feature 77,000 square feet indoors and 74,000 square feet outdoors:

Project Site Simulation Lab – to educate current students and practicing professionals in the design/build disciplines, including civil engineering, on the practical discipline-related ramifications of their decisions and how to make more effective and efficient ones in the future. While the lab would be used predominantly for teaching, it could also be used to help support applied research projects, which require a live and simulated project site environment. There is no other similar lab in the United States; in fact, there are only two others in the world.

Construction Assembly Lab – to serve three major purposes: First, to provide the opportunity for students in the design/build disciplines to obtain hands-on experience with the concepts and theoretical applications they are learning about in the classroom at all levels of their education. Second, to allow students and faculty in the design/build disciplines to conduct applied research for the purpose of solving real-life problems and developing new techniques to assemble building components. Finally, to provide facilities for service-learning and community outreach design/build projects conducted in collaboration with members of this team as well as other University, industry and community partners.

Prototyping and Product Design Shop – to be used principally by the Architecture + *Health Center of Economic Excellence* and the Architecture + CommunityBUILD graduate certificate program to carry out their fabrication activities.

Materials Testing and Analysis Lab – to support the teaching/learning and applied research that would take place in the Construction Assembly Lab and the Prototyping and Product Design Shop.

Outdoor Lab and Building Logistic Space – to be used for design and building logistics such as material and equipment storage for on-site and off-site construction, outdoor assembly space and other workspace overflow/future needs. Secure outdoor yard space will facilitate efficient and safe research operations.

An Invitation to Invest

We invite you and/or your business to invest in the future of architecture and construction science and management at Clemson University. An investment in the Academic and Research Support Facility will ensure the continuation and growth of this life-changing experience for Clemson University's design and build students, offer services to the design and build community not found anywhere else in the nation and boost Clemson's reputation nationally and internationally.

A few examples of what your support could provide include but are not limited to the following:

- Facility Naming Opportunity – 25 percent of the actual cost of construction of the facility
- Equipment
- Offices
- Conference rooms
- Classrooms
- Materials needs



ClemsonForward will position Clemson for the next 50 years and make an impact on real issues facing the people of our state and nation. Clemson Forever supports the goals of ClemsonForward through its unrelenting mission to strengthen the University by building a solid financial base of private giving, providing exemplary stewardship of those gifts and clearly communicating to donors the impact of their gift and the gratitude of the Clemson Family.

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