



## *Advanced Construction and Materials Laboratory*

Missouri S&T has always been a forward-looking institution, dedicated to embracing the future. Now we are looking ahead to the next phase of enhancing our research capacity and impact by investing in new faculty, technical staff and laboratory infrastructure in the growing area of civil engineering structural materials. The Advanced Construction and Materials Laboratory will create a new home for construction materials research and development by significantly adding to the facilities involved in the design, testing, monitoring and evaluation of new and repaired structures.

### **New Technologies**

Missouri S&T has identified transportation infrastructure as one of its top investment priorities. This new facility will give students and researchers the ability to develop innovative and sustainable cement-based materials that will be used to maintain our country's aging infrastructure, as well as design the next generation of resilient construction materials. The development of new "green" technologies in particular will ultimately lead to cost savings, extension of service life and a reduction in the carbon footprint of construction activities.

### **New Opportunities**

The new laboratory has been ranked as a top need in the Civil, Architectural and Environmental Engineering (CArEE) Department's Vision 2020 strategic plan. This expansion project encompasses the four priorities identified in the strategic plan:

- enhancing educational programs and delivery methods
- recruiting an even greater number of high-caliber undergraduate and graduate students
- promoting interdisciplinary teaching and research collaborations
- nurturing knowledge creation and technology transfer

This unique laboratory will give S&T investigators a competitive edge and will help build our reputation as one of the nation's leading teaching and research universities. It will provide an interactive area to promote experiential learning for undergraduate, graduate and post-graduate students. It will foster collaboration among investigators, enhance the breadth of interdisciplinary research activities and strengthen working relationships with industry partners.

### **Support for a Signature Area**

Advanced Materials for Sustainable Infrastructure is one of four signature areas on the S&T campus — a best-in-class teaching and research hub where the university is well-positioned to achieve international prominence with additional investment. The Advanced Construction and Materials Laboratory is vital to strengthening this signature area, which is led by Dr. Kamal Khayat, the Vernon and Maralee Jones Professor in Civil Engineering.

### **Project Design**

Missouri S&T contracted with the St. Louis-based firm of Hastings+Chivetta Architects, Inc. to develop a concept for this laboratory expansion. The 13,000-square-foot laboratory will house a state-of-the-art research infrastructure, including 35 pieces of new equipment acquired with a \$2.5 million grant from the U.S. Department of Transportation.

### **Project Support**

The estimated cost of the expansion is \$6 million. Making this strategic campus project a reality will take teamwork. We are pleased to announce that a gift of \$3 million in support of the laboratory has been secured thanks to the generosity of alumnus James A. Heidman, CE'65. This gift will be used to match any future gift dollar-for-dollar up to \$3 million.

For information on the laboratory expansion, or other priorities in the Vision 2020 strategic plan, contact Sue Wallace, Senior Development Officer, at 573-466-3202 or wallacesue@mst.edu.

