

## Ford Hall

### A New Building for the Sciences and Engineering

Smith College, the nation's largest women's college, broke ground in spring 2007 for Ford Hall, a state-of-the-art, \$73 million sciences and engineering building. The plans call for an approximately 140,000-square-foot facility that will house the college's Picker Engineering Program and the departments of computer science, chemistry, biochemistry and molecular biology. Named in honor of the lead donor to the project, the Ford Motor Company Fund, the new facility will symbolize Smith's commitment to producing women leaders in engineering, technology and science.

Ford Hall will be certified as a Leadership in Energy and Environmental Design (LEED) "green" facility. The project will provide jobs in scientific and technological fields and will enhance Smith's contribution to regional economic development and educational achievement. It will also attract national interest to innovative design and environmentally sound building practices.

#### *Changing the Face of Science: Women in Science, Engineering and Technology*

Smith College is a national leader in science education, with nearly 30 percent of students majoring in the sciences. Smith is in the top ranks of colleges producing graduates who receive doctorates in the sciences.

In 2000 Smith launched the country's first engineering program at a women's college. The Picker Engineering Program combines strengths in science and math education with a high-quality liberal arts curriculum. It seeks to increase the number of women pursuing engineering careers. The program is also transforming engineering pedagogy by incorporating current educational research about women and girls in the fields of science, math and engineering from elementary school to the college level. These approaches have brought the Picker Program national attention and have made it a model for other established and emerging engineering

programs. The program has grown quickly from an entering class of 20 in 2000 to some 100 majors and intended majors in 2008. 118 students have graduated from the program.

Smith is positioned to expand its already prominent role as a local, regional and national catalyst in educational innovation and outreach. The college provides curricular support to K–12 teachers in schools and districts throughout Massachusetts and the region. Smith's work on behalf of women and girl's advancement to pursue science, math, engineering and technology has attracted strong support from nonprofit, federal and corporate grantmakers.

#### *Sustainability and Innovation*

Sustainability concerns shape the educational program as well as the fundamental design for Ford Hall. The facility will incorporate green roofs, porous pavement, vegetated swales, shading for temperature control and environmentally responsible mechanical systems. Smith has developed a unique combined heat and power cogeneration system, designed by a student Design Clinic team under the supervision of project architects and mechanical and electrical engineers. This onsite sustainable power facility will support a portion of Ford Hall's heat and electricity needs through renewable means. Smith is currently pursuing a variety of funding sources to support the installation of other innovative energy technologies, including biodiesel-fueled microturbine engines, fuel cells, photovoltaic solar panels and thermal solar panels. These systems will extend educational opportunities involving sustainable energy technologies to K–12 students, college and university faculty and the business community while providing environmental and financial benefits.

Ford Hall will be a highly visible demonstration of Smith's commitment to sustainable construction practices, environmental education and advancing women in the engineering and science fields.

