



## The Duke Environment Hall: An Iconic Home for a Sustainable Future

by William L. Chameides



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Imagine a building on the Duke University's campus that is

*Designed and constructed along the highest standards of sustainability;*

*Operated as a living laboratory for aligning human behavior, functionality and sustainability;*

*A showcase for artists portraying our profound connection to the natural world; and*

*The home of one of the world's premier environmental programs.*

Since arriving on the Duke campus in 2007 I, along with my colleagues at the Nicholas School, have not only been imagining such a building but doing everything we could to make it a reality.

At long last our dream is about to be realized; our work is coming to fruition.

In February, the Duke Board of Trustees gave the go-ahead for the 70,000-square-foot Duke Environment Hall. We will break ground in April during Duke's Reunions Weekend and we anticipate that construction will be complete by summer 2013.

The iconic glass-and-concrete structure that rises from the footprint of our old parking lot will house classrooms, offices, laboratories, study lounges, meeting spaces, computer labs and an environmental arts gallery, and will serve as the hub of environmental activity on campus.

It will stand as a bold statement of our university's environmental aspirations and leadership, and as a testing ground for technological innovation. It also will provide our school the much-needed space and resources to keep pace with our growing enrollments and the expand-

ing scope of our academic, research and professional programs.

The five-story hall will be the first programmatic building on the Duke campus to be certified LEED Platinum, the highest rating awarded by the U.S. Green Building Council. It will push the boundaries of sustainable design by employing technologies such as a chilled beam system for air conditioning and a thermal corridor to provide natural insulation. Solar hot water and photovoltaic panels systems and natural lighting will enhance energy efficiency. Graywater and rainwater will be recycled for use in toilets and irrigation. A green roof will mitigate urban heat island effect, provide a habitat for wildlife, reduce stormwater runoff and provide improved thermal insulation, while serving as a student testing ground for sustainable gardening and agriculture.

In the end, however, Duke Environment Hall's success—and by extension, our success as environmental educators and leaders—depends as much on the human factor as on the high-tech bricks and mortar we employ.

Our responsibility to push the boundaries of sustainability won't end with construction. Once occupied, Duke Environment Hall will become a living laboratory where students and faculty, using an advanced energy monitoring and management system, explore how human behavior can be most effectively aligned with technology to maximize building performance and occupant productivity. The results of these "experiments" will not only reap benefits for the Environment Hall but, through the experiential learning afforded our

students and the insights revealed, will reverberate throughout and well-beyond the Duke campus.

The natural and social environmental sciences are the lifeblood of the Nicholas School. But there is something else, something that exists outside of the scientific enterprise that also is important to our mission: it provides us with a more visceral, perhaps spiritual as well as material connection to the Earth. It is the arts. Through internal and outdoor design elements and an Environmental Arts Gallery, the Duke Environmental Hall will showcase the essential role of the arts in conveying that profound connection and, in so doing, inspiring others to help forge a more sustainable future for all.

Fulfilling our dream for the Environment Hall requires significant financial capital. Our university's leaders have made a substantial and far-sighted investment to get the Hall on its way, but funding challenges and opportunities remain for like-minded visionaries who want to join us in this historic project.

As we celebrate Duke Environment Hall's construction, we must not lose sight that this building, much needed and long delayed by the global economic downturn, is not an end in itself. It's a milestone, a major step toward our mission of creating knowledge and leaders of consequence for a sustainable future.

This dream is now a reality. There are many more to pursue.

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