

## Tsoi Kobus' renovation at the Marine Biological Lab's Loeb Lab Building receives LEED Gold Certification

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Renovations to the Marine Biological Laboratory's Loeb Lab Building by Cambridge-based Tsoi/Kobus & Associates (TK&A) have been awarded LEED (Leadership in Energy and Environmental Design) gold status by the U.S. Green Building Council (USGBC).

The recognized improvements to the laboratory facility are part of a 10-year master plan designed by TK&A to address the Marine Biological Laboratory's need for facilities that accommodate program growth, strengthen competitive position, and advance its research and education mission. The renovations introduce classroom and lab spaces supporting new technologies for seven key programs, including embryology, neural systems and behavior, biology of parasitism, frontiers in reproduction, microbial diversity, physiology, and neurobiology.

Key among efforts recognized by the award:

\* The building uses 37% less energy, compared to similar examples, through measures including a white roof, efficient lighting design, improved wall insulation, an engine driven chiller, and heat recovery for gas-fired chillers, boilers, and water heaters.

\* Use of a Dolphin Water Treatment System in the building's cooling towers avoids annual discharge of 196 pounds of chlorine gas and 174,000 gallons of blow down water containing phosphate, zinc, and chlorine. The system saves more than 380,000 gallons of water per year. By also replacing fixtures with waterless urinals, dual flush toilets, and low flow faucets, water use at the site is reduced almost 33%.

\* Interior lighting is 22% better than code, thanks to measures including occupancy sensors with automatic shutoff and efficient exit signs.

\* There are no ozone-depleting CFC-based refrigerants in the HVAC system.

\* Low-emitting materials were used wherever possible, including adhesives, sealants, paints, and carpets.

\* Recycled materials make up almost 24% of the project whole. More than 50% of the wood used is responsibly sourced and FSC certified.

\* 95% of the building's structural frame and exterior envelope was re-used.

\* No new parking was added, and three of the existing 47 spaces are designated as reserved for fuel-efficient vehicles. An adjacent building offers showers for patrons who choose to bike to the site.

\* Finally, Shawmut Design and Construction recycled almost 100% of demolition and construction waste and also successfully managed the project's Construction Indoor Air Quality Plan.

The Loeb Lab Building renovations were completed in May 2010.

"Our work with the Marine Biological Laboratory is intended to secure their well-earned reputation as a global leader in marine research," said Jonathan Cohen, associate principal at TK&A. "It was

essential to all team members that both the building process and the resulting improvements meet or exceed environmental standards. This acknowledgement by the USGBC is a great validation of our hard work."

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