Science Laboratory

NEW CONSTRUCTION

FLANSBURGH ARCHITECTS
77 N. Washington Street
Boston, MA 02114
www.faiarchitects.com

Jessica Osborne
617/367-3970

BURO HAPPOLD CONSULTING ENGINEERS
www.burohappold.com

DESIGN TEAM

David Croteau, AIA,
Project Architect

Christopher Brown, AIA,
Project Manager

Quality Builders, Inc.,
General Contractor

Pa'ahana Enterprises, LLC,
Project Manager

OWNER/CLIENT

Hawaii Preparatory Academy
Kamuela, HI

Lindsay Barnes Jr., Headmaster
808/885-7321

KEY STATS

Grades Served: K-12
Building Area: 5,000 square feet
Square Foot Cost: $650
Total Project Cost: $7.7 million
Completed: Jan. 2010
Completion: 100%

PHOTOGRAPHY: MATTHEW MILLMAN

COMBINED-LEVEL SCHOOL

Hawaii Preparatory Academy Energy Lab

Kamuela, HI

Conceived as a high school science building dedicated to the study of alternative energy, the new energy lab at Hawaii Preparatory Academy functions as a zero-net-energy, fully sustainable building. The project's fundamental goal is to educate the next generation of students in environmentally conscious, sustainable living systems.

The building's donor, the founder of a German alternative energy corporation, believes that only through generational education will we truly achieve improved patterns of sustainability. It was his initiative that challenged the design team to develop a green science building, insisting that it be powered principally by alternative means. The design team and the head of Hawaii Prep's science department have furthered these goals, expanding the mission to include a great number of building systems that employ sun, water, and wind.

The project targets LEED Platinum and Living Building Challenge certification. Completed in January 2010, the energy lab shines as a living laboratory, furthering its educational goals as a functioning example of sustainability.

The energy lab was developed as a reflection of the science curriculum it houses. Progressing from smaller project rooms, to a large research center, to a laboratory, spaces were designed to encourage student discovery, exploration, and experimentation. The building's configuration facilitates scientific study both indoors and out, linking interior spaces with the surrounding landscape. Students are constantly surrounded by the systems they study, where Hawaii Prep's energy lab offers a continuous sustainable teaching moment. ■