



# ASU BIODESIGN INSTITUTE BUILDING A

Tempe, Arizona

The Biodesign Institute is a research facility housed in two buildings on the Arizona State University campus. The slightly larger Building A became LEED certified in 2007, three years after occupancy and one year after construction of the LEED Platinum Building B. Both buildings share many common sustainable features. A large open atrium runs the length of both buildings bringing abundant daylighting into all levels from roof to basement. Glazing on the east elevation brings in additional light controlled by sensor-operated louvers. Interior glass allows views to the exterior even from labs across the atrium. The shared site features shielded lighting and a desert garden that attracts wildlife and collects stormwater.



<b>OWNER</b>	<b>ARCHITECT</b>	<b>CONTRACTOR</b>
ARIZONA STATE UNIVERSITY	GOULD EVANS, LORD, AECK & SARGENT	SUNDT, DPR CONSTRUCTION

## SUSTAINABLE STRATEGIES

- Exterior sun louvers automatically adjust in response to heating or cooling need
- A 166.8 kW photovoltaic system was installed to produce renewable energy on site
- A 5,000 gallon cistern harvests enough water to eliminate the use of potable water for landscape irrigation
- Cool paving and roofing materials contribute to reducing the Urban Heat Island Effect
- Occupancy sensors in all regularly occupied spaces control artificial lighting, reducing both lighting energy demand and associated cooling loads
- The day-lit facility maximizes the introduction of diffused natural light while preventing direct exposure to the intense desert sun

## PROJECT RESULTS

- LEED** for New Construction GOLD level achieved
- 90%** of occupants have individual lighting controls
- 22%** energy cost savings above ASHRAE 90.1-1999 energy standard
- 100%** savings of potable water use for irrigation
- 45%** of building materials manufactured within a 500 mile radius

## LEED Facts

LEED for New Construction v 2.1  
Square Footage: 176,018 SF  
Certification Date: 6/19/2007



POINTS ACHIEVED	40/69
Sustainable Sites	12/14
Water Efficiency	4/5
Energy and Atmosphere	6/17
Materials and Resources	3/13
Indoor Environmental Quality	10/15
Innovation and Design Process	5/5

Think

Design

Build



**Green Ideas**<sup>TM</sup>  
Environmental Building Consultants