American Institute of Architects Committee on the Environment

2006

Top Ten Green Projects Awards
AIA Committee on the Environment

> 7,600+ members

> 49 local and state chapters

> 2006 Advisory Group
  * James Binkley, FAIA
  * Kira Gould, Assoc. AIA
  * Vivian Loftness, FAIA
  * Ken Scalf, AIA
  * Henry Siegel, FAIA

> 6 Regional Team Leaders (past COTE chairs)

> 50+ volunteers
AIA Committee on the Environment

Mission

“... promote the role of the architect as a leader in preserving and protecting the planet and its living systems.”
Support for the Top Ten Program

Sponsor
▷ EPA ENERGY STAR Program

Partners
▷ BuildingGreen / Environmental Building News
▷ DOE / High Performance Database
▷ National Building Museum
COTE Top Ten Measures of Sustainable Design

1. sustainable design intent & innovation
2. regional community design/connectivity
3. land use & site ecology
4. bioclimatic design
5. light & air
6. water cycle
7. energy flows & energy future
8. materials & construction
9. long life & loose fit
10. collective wisdom & feedback loops
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The 2006 Jury

David Miller, FAIA, The Miller Hull Partnership
Kath Williams, Kath Williams + Associates
Kevin Burke, AIA, William McDonough + Partners
Kevin Hydes, PE, Stantec Engineers
Catriona Campbell Winter, The Clark Construction Group
RK Stewart, FAIA, Gensler
Top Ten Measure 1: Sustainable Design Intent

> How did ecological, social, and economic circumstances drive the project’s design?
> How were they expressed?
> How does the architectural expression demonstrate the sustainable design intent?
> How did the sustainable design effort lead to a better overall project design?
Solar Umbrella House

Measure 1: Sustainable Design Intent and Innovation

Pugh + Scarpa Architects
Solar Umbrella House

Pugh + Scarpa Architects
Solar Umbrella House

The form is elegant and beautiful and comes from an environmental solution. This is a billboard to the neighborhood that you can do photovoltaics in this way.

David Miller

Pugh + Scarpa Architects
Top Ten Measure 2: Regional/Community Design & Connectivity

> How does the design promote regional and community identity and an appropriate sense of place?
> How does the project contribute to public space and community interaction.
> How does the project’s location reduce automobile travel?
> Does the project make use of any alternative local or regional transportation strategies?
Benjamin Franklin Elementary School

Measure 2: Regional/Community Design & Connectivity

Mahlum Architects
Benjamin Franklin Elementary School

There are a lot of teaching opportunities here for the kids, parents, and the public.

Kath Williams

We thought this building was beautifully sited. The plan and section seemed very coherent; there is an overall consistency here.

Kevin Burke

Mahlum Architects
Benjamin Franklin Elementary School

Mahlum Architects
Top Ten Measure 3: Land Use & Site Ecology

> How does the development of the project’s site respond to its ecological context?

> How does the site selection and design relate to ecosystems at different scales, from local to regional?

> Describe the landscape design and the creation, re-creation or preservation of open space, on-site ecosystems and habitat.
Ballard Library & Neighborhood Service Center

Measure 3: Land Use & Site Ecology

Bohlin Cywinski Jackson Architects
The roof is the real expression of this building: it vents, it’s a green roof, there are photovoltaics; it’s a big move that does many things at once. Beautiful buildings will be preserved, and this is very much part of sustainability.  

David Miller
Ballard Library & Neighborhood Service Center

Bohlin Cywinski Jackson Architects
Top Ten Measure 4: Bioclimatic Design

> Describe how the building responds to the site, climate and bio-climatic region through passive design strategies.

> What are the most important issues to address for your climate and building type?
BNIM Architects & Lake Flato Architects

School of Nursing & Student Community Center

Measure 4: Bioclimatic Design

I like that they set this building up to get greener; there is a framework for photovoltaics when they can afford it. I think we should all be thinking about designing buildings that can adapt over time.

RK Stewart
School of Nursing & Student Community Center

BNIM Architects & Lake Flato Architects
School of Nursing & Student Community Center

BNIM Architects & Lake Flato Architects
Top Ten Measure 5: Light & Air

> How does the design create a comfortable interior environment while providing abundant daylight and fresh air.

> Outline design strategies for daylighting, lighting design, ventilation, indoor air quality, view corridors, and personal control systems.

> Describe how the project’s design enhances connections between indoors and outdoors.
Philadelphia Forensic Science Center

Measure 5: Light & Air

*They did some simple, clever things: the tapered ceiling, putting all the mechanical systems in the middle of the building. This was one of the best building sections we saw.*  
Kevin Hydes
Philadelphia Forensic Science Center

Croxton Collaborative Architects & Cecil Baker Associates
Philadelphia Forensic Science Center

This is an adaptive reuse project and lab building. They found a way to get really outstanding performance, and this was a low-bid public project with no extra money for green strategies.  

*Kath Williams*
Top Ten Measure 6: Water Cycle

> Describe how building and site design strategies conserve water, manage site water and drainage, and capitalize on renewable sources.

> Outline water-conserving landscape and building design strategies, as well as any water-conserving fixtures, appliances, and HVAC equipment.

> List water reuse strategies for rainwater, graywater, and/or wastewater.
Renovation of the Motherhouse

Measure 6: Water Cycle
The sisters’ comment that sustainability is a moral mandate was compelling. There is also a strong connection to the neighborhood and a reconstructed wetland, showing how the building engaged in its site and place.

Kath Williams
Renovation of the Motherhouse

Susan Maxman Partners
There are a lot of ... buildings of this general vintage that we can and should reuse. In fact, many of them were designed to function without lighting and HVAC systems; they can teach us a great deal. **Kevin Hydes**
Top Ten Measure 7: Energy Flows & Energy Future

> Describe how the design of building systems contributes to energy conservation, reduces pollution, and improves performance and comfort.

> Describe how your project responds to the on-going reduction and possible loss of fossil fuels.

> Does the project employ or encourage alternative energy sources?

> EPA Performance Rating: ____
Regional Animal Campus

Measure 7: Energy Flows & Energy Future

Tate Snyder Kimsey Architects
Regional Animal Campus

Tate Snyder Kimsey Architects
Regional Animal Campus

This is in a tough climate and uses natural ventilation... They really simplified the type and did it really well. It’s really a radically different solution, and that is what we love about it.

Kevin Hydes

Tate Snyder Kimsey Architects
Top Ten Measure 8: Materials & Construction

> How does material selection conserve resources, reduce impacts of harvesting, production, and transportation.

> How do materials improve building performance, and enhance occupant health and comfort.

> Describe the most important selection criteria, considerations, and constraints for materials or building assemblies for your project?
World Birding Center

Measure 8: Materials & Construction

Lake Flato Architects
World Birding Center

Lake Flato Architects
World Birding Center

This one follows the big moves: reduce, reuse, recycle. Reducing square footage is the biggest move you can make... There’s a lot of value there.  

Kevin Hydes

Lake Flato Architects
Top Ten Measure 9: Long Life, Loose Fit

> Describe how the project’s design creates enduring value through long-term flexibility and adaptability.

> Describe any components designed for disassembly.

> Describe design solutions developed to enhance versatility, durability, and adaptive reuse potential.

> Describe efforts to “right size” the project.
Corporate Headquarters for Alberici

Measure 9: Long Life, Loose Fit

This is a major transformation project; they reused a giant old warehouse. There seemed to be strong corporate commitment and the result is a project that really came at this from all directions (and it’s the highest rated LEED building in the world).

Kath Williams
Corporate Headquarters for Alberici

Mackey Mitchell Associates
Top Ten Measure 10: Collective Wisdom & Feedback

> Describe how your design process enhanced the ultimate performance and success of the building.

> How did collaborative efforts between the design team, consultants, client, and community contribute to success?

> What lessons were learned during the design, construction, and occupation of the building?

> If starting over today, how would your approach or emphasis change?

> Describe how commissioning and monitoring will contribute to better building performance, occupant satisfaction, or design of future projects?
Westcave Preserve

Measure 10: Lessons Learned

Jackson & McElhaney Architects
This project is truly of its place. They looked at building as a teaching tool.

RK Stewart
Westcave Preserve

Jackson & McElhaney Architects
to see more images
and detailed information on all winners
visit www.aiatopten.org

to learn more about COTE, start a chapter, or volunteer to be a part
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