Sustainable Design Education Conference
Course Descriptions

Session 101/201: **Biomimicry in Design and Planning: Introduction and Application** (2 Hour Session)
Take advantage of nature’s 3.85 billion years of R&D! Biomimicry is an old practice, a new science, and an emerging discipline that studies, and then emulates, nature’s time-tested natural forms, processes, and ecosystems to create healthier and more sustainable designs. These natural inspirations lead to new strategies for achieving environmental goals, building a toolbox of innovative ideas from water use, to waste reduction, to interior materials safe enough to eat.

Lisa Schmidtke CID, ASID, LEED AP
Certified Biomimicry Professional
Clark Nexsen

+ (2)AIA, GBCI ERB approved

Session 102: **Commercial Wood Window Installation Systems**
Water leakage through the building envelope continues to be one of the major reasons for litigation involving architects. In this seminar we discuss how architects can limit water infiltration at windows through proper design of the window installation system.

Barry Beer
Pella

+ (1)AIA, PDH

Session 202: **Brick Masonry & Sustainable Design**
Have you considered using brick with high recycled content? Having the truck that delivers the brick take back the waste? Using light colors to reflect the sun’s energy? This session covers the characteristics of traditional clay brick that can help you with sustainable design & contribute to LEED certification.

Chuck Kepley
Boxley Block

+ (1)AIA

Session 301: **Rainwater Harvesting**
Learn about innovative rainwater reclamation and reuse solutions. Gain insight into the history and reasons for rainwater harvesting systems; explore the science behind designing a successful rainwater harvesting system; and gain valuable lessons learned from multiple case studies.

Benjamin Sojka
Rainwater Management

+ (1)AIA, PDH
Session 302: Significant Changes You Should Know: IBC 2006 vs. IBC 2009
Review the significant changes between IBC 2006 vs. IBC 2009 and explore the enforcer codes and standards that make IBC 2009 work.

Alan Tuck
Froeling & Robertson, Inc.

Session 303: Energy Recovery Wheels and Air Purification
This session combines two topics of interest related to mechanical ventilation: Energy Recovery Wheels and the ASHRAE 62.1-2010 IAQ Procedure. Through the first part of the course, participants will learn how energy recovery wheels operate and why they are required. The second part focuses on the concept of cleaning the indoor air to a higher degree through the use of gas phase filtration to reduce the need of outside air for dilution of indoor contaminants. A case study will be covered to prove first cost reduction, operational savings and acceptable IAQ are all achieved employing the IAQ Procedure.

Charlie Waddell
Global Plasma Solutions

Session 401/501: Etiquette for Business Effectiveness (2 Hour Session)
Developing individual and team focused professional relationships are an integral part of doing business in the design industry. This session focuses on the wide scope of personal interactions required to maintain a professional relationship with a client or prospect. The emphasis is on three key elements: being a great host in the company of prospects or clients; guidelines for managing awkward moments or difficult questions; and acknowledging guest and maintaining positive on-going relationships.

Cindy Donn
Haworth

Session 402: The Proper Use of Spray Polyurethane Foam in High Performance Buildings
Discover how to use an air barrier system to control air leakage through all six sides of the building envelope. Uncontrolled air movement causes most of the indoor environmental problems that occur in you buildings. This includes high heating and cooling bills, high humidity levels, poor air quality, drafts, and mold. Discuss how using a spray polyurethane foam (SPF) insulation air barrier will help seal the building from the outside and how SPF insulation can contribute to your LEED rating. Review applications of SPF in high performance buildings and how SPF works as a vapor retarder.

Roger McGuire CSI
Bayer Material Science
Session 403: **Going Up: Elevators, Sustainability, and LEED**
This course reviews how a key building system – elevators – can contribute to a project’s sustainability and to obtaining LEED credits. Often overlooked in sustainability analyses, elevators can, in fact, make significant contributions to the energy and environmental efficiency of a building. The course first delineates five recent advances that are improving the energy performance of elevator systems. It then reviews how elevators can contribute to indoor and outdoor environmental quality, followed by a detailed review of where elevators can – and currently cannot – help achieve LEED points. The course concludes with a discussion of what to look for in a sustainable elevator company.

Keith Tensen
Thyssenkrupp

AIA, GBCI ERB approved

Session 502: **Sustainable Site Design and Stormwater Management Utilizing Permeable Pavers**
Permeable Interlocking Concrete Pavement (PICP) using the Bio-Aquifer Storm System (BASS) is an engineered stormwater management system designed to trap first flush pollutants, provide detention and/or retention under parking lots and streets, and promote ground water recharge. Discuss design and construction of projects as well as features and benefits of permeable pavement systems. Explore synergies with LID principles, sustainable site design, and LEED certifications.

Ashley Snead
Oldcastle - Adams Products

AIA, PDH, ASLA, GBCI ERB approved

Session 503: **More Green for Your Green: Sustainable Solutions for Affordable Housing Projects**
This seminar focuses on green materials, techniques and technologies that promote cost-effective and scalable solutions for affordable housing projects. See a design/build business model for project delivery to more effectively meet the housing and service needs of low-to-moderate income citizens.

Colin Arnold AIA, LEED AP
R. Todd Peacock
Josh Holloway
Community Housing Partners

AIA

Session 601: **The International Green Construction Code: A Preview**
The International Green Construction Code (IgCC), introduced in March of this year, promises to fundamentally alter the way owners and architects view sustainability. The presentation will cover the basic organization and operation of the IgCC, review how this revolutionary new code will shift the sustainability discussion from manufacturing and construction to life-cycle performance and durability, and examine the relationship between the IgCC and the USGBC’s LEED certification program.

Greg Winkler AIA
Mid-Atlantic Precast Association

AIA
Session 602: Geothermal Energy Piping Systems
Gain a fundamental understanding of geothermal earth energy systems using water-to-water and water-to-air heat pumps. This course will explain the basic principles of geothermal heating and cooling systems and articulate the benefits of geothermal systems from energy saving and cost-saving perspectives, while identifying opportunities for green recognition. You’ll learn about the various types of geothermal systems, the advantages and disadvantages of each one, and the factors that affect the output capacities. Finally, receive guidance on specifying various heating and cooling distribution strategies that complement geothermal systems.

Michael Maher
Rehau

(1)AIA, PDH

LEGEND

+ HSW

SD