



**New Jersey
New York State
Pennsylvania**



**EAST
COAST
GREEN
CONFERENCE**

**EAST COAST GREEN VIRTUAL 2-DAY CONFERENCE
FRIDAY, APRIL 22, 2022 AND SATURDAY, APRIL 23, 2022**

COURSE DESCRIPTIONS

Friday, April 22, 2022

9:30 – 11:00 am

KEYNOTE 1 (1 HSW)

What Every Architect needs to know about Building Science

Speaker: Joe Lstiburek, B.A.Sc., M.Eng., Ph.D., P.Eng

Description: Learn building science principles (such as the control of heat, air, and moisture and IAQ) and how to apply them to low-energy enclosure design, advanced HVAC systems, forensic investigations, and the repair and retrofit of existing buildings.

11:00 – 12:30 am

BREAKOUT SESSION 2A (1 HSW)

Frameworks for Sustainability with Betsy Rupp del Monte, FAIA

Speaker: Betsy Rupp del Monte, FAIA

Description: How does the adoption of the Framework for Design Excellence fit the AIA's current priorities? How can the Framework be effectively used on different scales and types of projects? By signing the 2030 Commitment, what is a firm promising? How can signing up for the 2030 Commitment make a difference, even if its goals aren't met? Through this exploration, attendees may have a broader view of the definition of sustainability practices and how each firm can set the tone for equity, community, and resilience.

BREAKOUT SESSION 2B (1 HSW)

Housing 2.0 – A Disruption Survival Guide

Speaker: Sam Rashkin, Founder, Retooling the U.S. Housing Industry, LLC

Description: lessons learned in Sam Rashkin's 20-year career in architecture, as national director for ENERGY STAR Certified Home, and as Chief Architect with the U.S. DOE Building Technologies Office directing the Zero Energy Ready Home program. Through decades of experience, research, and detailed observations, Sam has learned two things. One, high-performance is a critical must-have for success in the housing industry. Two, high-performance is not nearly enough to meet the new user experience imperative. Sam's latest work and new book, "Housing 2.0 – A Disruption Survival Guide," provides the guidance needed for high-performance builders to become industry leaders with a comprehensive framework for optimizing the housing user experience.

12:45 – 2:00 pm

BREAKOUT SESSION 3A (1 HSW)

A Story of the Public Sector and Architects Successfully Reducing Carbon Emissions with ‘Clean Power’: Lessons Learned About Customer Engagement, Resilience, Innovation, and Equity

Speaker: Elizabeth “Liz” Gibbons, AIA, LEED AP, Mayor of Campbell, California (2017-2021) and 2020 AIA Strategic Council At-Large

Description: Relationships with state and regional regulators created positive Climate Change actions. This presentation provides the story of successful strategies for clean electric power independence resulting in GHG reduction and lower electric power consumption. Understanding of 100% clean, renewable power is leveraged to engage legislators and customers to transition to all-electric building codes.

BREAKOUT SESSION 3B (1 HSW)

Outlining Sustainable Advances in Concrete Production

Speaker: William J. Martin, AIA, P.P

Description: Today’s concrete bears little resemblance to those used in contemporary construction. Remarkable developments in the technology of cementitious materials, mineral additions and admixtures, coupled with advances in production methods, have led to a wide range of high-performance concretes that can provide cost-effective, environmentally sound solutions for the most demanding applications will be examined.¹

Bill will discuss the processes energy demand in concrete production and how developments in the use of alternative fuels are predicted to reduce its overall environmental impact. Additionally, he will explore the technological advances that allow concrete to cure while releasing 30% less CO₂ than its previous formulations. The last 30 years there has been significant increase in the range of admixtures and fibre technology available to both the cement manufacturer and the ready-mixed concrete producer.²

2:00 – 3:30 pm

BREAKOUT SESSION 4A (1 HSW)

Made of Water: What is Your Water Story?

Speaker: Royce Epstein, LEED AP A&D Design Director Mohawk Group

Description: Water is essential for all life and is nature’s currency. As humans, we have been influencing and managing the capital of water for our own benefit and survival. But not all water is the same. Beyond this, we have reached a new era in the Anthropocene where there are critical challenges and instability to water supplies. These factors put tremendous stress on our natural ecosystems, and we have an urgent need to redesign how we interact and utilize water in order to survive, as well as to enjoy the benefits of water in all aspects of our lives. It’s up to us to be efficient and resourceful stewards of water. So how can we be inspired to think of water as a precious resource, and use the power of design to solve issues of climate change and social equity? Only we can ensure that water will be clean, healthy, and available for generations to come. By looking at examples from the past and present, as well as speculations for the future, we can tell our water story. What is your water story?

¹ <https://www.agg-net.com/resources/articles/concrete/advances-in-concrete-technology>

² <https://www.agg-net.com/resources/articles/concrete/advances-in-concrete-technology>

BREAKOUT SESSION 4B (1 HSW)

Decarbonization and Net Zero Everything

Speaker: Sara Gutterman, Co-Founder and CEO of Green Builder Media

Description: Receive a roadmap towards the transition to a decarbonized economy. The transition to the Decarbonization Economy will effectively require a complete overhaul of our socio-economic system. We won't be able to shoehorn sustainability into old systems, meaning that we have the rare and thrilling opportunity to redesign our economy at a scale and scope that equals the transformation brought about by the Industrial Revolution.

3:15 – 4:30 pm

BREAKOUT SESSION 5A (1 HSW)

Addressing Sustainability, Health, & Wellness on the Clemson University Campus through Integrated Design

Speakers: Tehmina Husain (Merrick & Co.), Cindy Benjamin (LS3P), & Megan Baker (GBI)

Description: Higher education has been deeply affected by the COVID-19 pandemic. As colleges and universities begin to reaccommodate in-person learning, it is important to incorporate best practices from lessons learned during this public health crisis. Ensuring a safe and healthy environment is critical to reopening and providing occupant wellness. Green Globes third-party certification provides guidance for responding to indoor air quality issues and updates to design, while evaluating the environmental sustainability for both new and existing buildings. Clemson University has been committed to sustainable principles for over 20 years. The College of Business started the design process in 2015 and obtained an occupancy certification in the spring of 2020, during a peak surge of the global pandemic. This project serves as a great example of environmental sustainability and occupant health and safety being deeply engrained into design.

BREAKOUT SESSION 5B (1 HSW)

Design for Zero Energy and Wellness in Multifamily Buildings

Speakers: Wendy Meguro, AIA, LEED AP BD+C, Elliot Glassman, AIA, NCARB, LEED AP BD+C, CPHD, and John Delaney, NCARB, LEED AP BD+C

Description: Learn how integrated performance simulation and energy policy can dramatically reduce multifamily building energy use while improving indoor environmental quality and wellness. They will share research demonstrating a replicable design process to reduce energy use and estimate future thermal comfort in multifamily residential buildings alongside other healthy building metrics. Building operation accounts for almost 30% percent of annual global greenhouse gas emissions. Many states and municipalities are implementing more rigorous energy code requirements and electrification goals as a means of reducing carbon impacts.

4:30 – 5:30 pm

SESSION X (1 LU)

Zero Waste Mixology: Using Locally Sourced or Leftover Ingredients to Create Spirits and Cocktails with a Low Carbon Footprint with Hawaiian Architect

Speaker: Jason Takeuchi, AIA, NCARB, NOMA, AIA YAF Committee

Description: Based on a series of articles by @mindful_mixologist in the UK, our speaker Jason Takeuchi, AIA, NCARB, NOMA will walk us through several conference created cocktails made from low/zero waste ingredients. “Sustainable cocktails are cocktails that are more in harmony with nature. It’s about minimizing natural resources and conserving energy. In a nutshell, it’s about throwing away less ‘leftovers’ and using the full potential of an ingredient. Finding balance between nature and cocktails”. Through techniques like making wine from leftover banana peels and infusing vodka with leftover herbs, we can reduce our waste. Additionally, attendees will learn that we waste 50% of the water we use through the process of making ice, and that draught beer would be a more sustainable choice. We will also learn the benefits of “farm to glass” and other methodologies to lower our carbon footprint in our own homes.

Saturday, April 23, 2022

9:30 – 11:00 am

KEYNOTE 6 (1 HSW)

Stewardship & Climate Action

Speaker: Carl Elefante FAIA, FAPT

Description: Carl Elefante, FAIA will speak to his experience attending COP26, the UN Climate Change Conference in Glasgow brought together 120 world leaders and over 40,000 registered participants for 2 weeks to discuss the new “building blocks” to advance implementation of the Paris Agreement through actions that can get the world on a more sustainable, low-carbon pathway forward. Carl will speak to what role buildings play in this international theatre. He will further explain that existing and heritage buildings must play a crucial role in curtailing greenhouse gas emissions. For years, building sector decarbonization has focused exclusively on new buildings and operational energy. There is no pathway to achieving Paris Agreement targets without also zeroing out current operational emissions from the existing building stock and accomplishing it without overwhelming gains with embodied emissions expenditures. Stewardship & Climate Action explores the opportunities for retrofitting and re-using existing buildings as an indispensable component in meeting the Nation’s climate commitments.

11:00 – 12:30 am

BREAKOUT SESSION 7A (1 HSW)

New Jersey STEAM Tank : A Powerful Design Challenge to Engage Creativity Entrepreneurism in K-12 Education

Speakers: John Henry, NJSBA, Jennifer Siehl, NJSBA, and Andrew Becker, 1st Lieutenant
US Army and STEAM Fellow

Description: The STEAM Tank team will review why STEAM Tank is a powerful teaching and learning method that engages students and enhances creativity through entrepreneurial and design thinking. Attendees will also learn the benefits for participating and how AIA NJ serve as mentors and as judges, and how this program encourages students to be the climate change problem solvers for the built environment. This collaboration from AIA NJ and experts from other industries play a key role in extending student learning beyond the boundaries of the classroom and introduce students to emerging green collar careers.

BREAKOUT SESSION 7B (1 HSW)

Custom Residential Design Trends Blended with High-Performance Strategies

Speakers: Peter L Pfeiffer, FAIA and Alan K Barley, AIA, Principals of Barley | Pfeiffer Architecture in Austin, TX

Description: Peter L. Pfeiffer, FAIA and Alan K Barley, AIA of Barley Pfeiffer Architecture, environmental advocates since the 1980's, will speak to their commitment to making the industry aware that through sensible building design and building science, we can emphasize energy efficiency and water conservation in buildings. By taking a "street-wise" common-sense approach to popular custom home design strategies, and marrying them with relevant and up-to-date building science, they will present how trends in kitchen design, Master suite placement, etc. effect building performance, health and other things not typically associated with "green" building. Topics covered will include smarter floor plans, efficient design, right-sizing, kitchen design, lighting design, and other interior design strategies that provide for better & healthier living that is more in tune with the natural setting, and how the informed buyer wants to live today. This presentation speaks to Individuals and organizations interested in reducing the carbon footprint of our communities, the built environment, and themselves - and what can they do to execute and promote a more achievable approach than what is popular in the main-stream media.

12:45 – 2:00 pm

BREAKOUT SESSION 8A (1 HSW)

The Edge Effect: Design at the intersection of Habitats

Speaker: Martina Decker, Professor at the Hillier College of Architecture and Design at the New Jersey Institute of Technology

Description: We will learn the period of time during which human activities have had an environmental impact on the Earth regarded as constituting a distinct geological age is described as the Anthropocene. Additionally, we will learn that a megalopolis, or supercity, is a group of metropolitan areas which are perceived as a continuous urban area through common systems of transport, economy, resources, and ecology. We will analyze the data to illustrate that it is through the human built environment that we changed the ecology to the detriment of these regions and through the built is where we can effect change to reduce the effects. Most scientists agree that humans have had a hand in warming Earth's climate since the industrial revolution—some even argue that we are living in a new geological epoch. How can designers influence the built environment to create biodiverse cities thereby possibly protecting us from the next pandemic, next famine, or next extinction.

BREAKOUT SESSION 8B (1 HSW)

The Business Case for Resilience: Resilient Design Strategies

Speaker: Illya Azaroff, FAIA

Description: As resilience becomes more prominent in design dialogue, how are firms integrating it into practice? In this course will discuss how to incorporate resilient design strategies into your work. You will leave with a deeper knowledge as well as the tools and practical resources that can bring you

success in this work. It is not just talk or trend, the world is moving toward resilience. Don't let your practice get left behind.

2:00 – 3:15 pm

BREAKOUT SESSION 9A (1 HSW)

The Effects of Climate Change Migration in El Paso, TX

Speakers: Ersela Krippa, RA and Stephen Mueller from Texas Tech College of Architecture (CoA)

Description: Ersela Krippa, RA and Stephen Mueller will discuss their recent work on the US-Mexico border. They will share data and maps they have constructed to analyze the inequity of solar and UV damage distribution in the El Paso / Ciudad Juarez areas, as it particularly impacts vulnerable migrant populations. The talk will show workflows and analysis tools to better assess the dangers of unplanned shade availability in the high desert climate.

BREAKOUT SESSION 9B (1 HSW *pending*)

Passive Haus and Retrofit NY in Industrialized High Performing Retrofits

Speaker: Justin Taylor of PH Design

Description: This course will explain the mission to transform the built environment in North America using the tools and frameworks developed by the international Passive House Standard and supported by the United Nations. This content is appropriate for educating design and building professionals, policymakers and the public in support of making Passive House design and construction the accepted standard.

3:15 – 4:30 pm

BREAKOUT SESSION 10A (1 HSW *pending*)

Prevention and Preparedness: Strategies for Putting Health First

Speaker: Joelle Jach, IWBI

Description: Joelle Jach of the International WELL Building Institute, or IWBI will discuss the metrics of WELL Building Standard and how that protects the health and welfare of employees as they return to life and work in the post-covid era and how the WELL standard helps to illustrate to the public what qualities that a healthy building will possess to give the public a sense of awareness and comfort.

WELL is made up of seven concepts, each of which includes individual features that can shape a project. Some concepts, like Air and Water, address goals similar to those set out in LEED. Beyond energy efficiency and building performance, however, WELL builds on LEED's goals to include concepts like Comfort and Mind, which target workplace aspects like acoustics, ergonomics, stress reduction, and mental health. Incorporating these considerations into design, construction, and operations can have measurable benefits on occupant health, and demonstrating a commitment to human well-being can positively impact an organization's bottom line.

BREAKOUT SESSION 10B (1 HSW)**Speaker: Michael Ermann, AIA**

Description: The Bubble Wrap house, an international Architizer A+ design award winning project, is a gut renovation to a 1930 brick colonial house and adds a floating translucent insulated bubble wrap box addition. Volume subtractions (pass-throughs and niches) removed from the interior surfaces bring daylight, promote views, and make places for building systems and storage; and the project is marked by rigorous analysis, trimless details, thoughtful transitions, reuse of salvaged materials, custom-fabricated components, attention to proportion, purposeful composition, and innovation. Based on the lessons learned from this project, Michael Ermann, AIA, will be teaching attendees about the daylight, thermal resistance, structural cantilevers, thermal bridging, and radiant heating applied to the Bubble Wrap house and how attendees can apply this same knowledge a broad range of building typologies to limit on-site energy usage and limit carbon emissions in their projects.