

Sustainable Building Education Day & Trade Show

For a Healthy, Prosperous & Sustainable Future!

DESIGN
COLUMBUS
2015

Monday, April 20, 2015
8:00 AM - 5:30 PM



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WELCOME from CSI Columbus Chapter President



As President of the CSI Columbus Chapter, I want to personally welcome you to the 2015 DesignColumbus trade show and education event. The CSI Columbus Chapter and the USGBC Central Ohio Chapter are thrilled to provide you with a high level of education sessions, quality product vendors, fantastic show environment and the opportunities for you to meet new people and grow your professional network. By bringing different construction professionals together in one location, we have created an unique opportunity within Central Ohio where we can learn from each other's experiences and improve our professional knowledge. Whether you are a student or seasoned professional, the show will provide you with new insight into sustainable design, new products, and the future of Columbus, Ohio construction industry.

As one of the premier construction trade shows in Central Ohio, I invite you to take advantage of everything DesignColumbus has to offer. It is an exciting day full of informative education sessions and opportunities for you to expand your professional network. We look forward to seeing you on the trade show floor, in the education sessions and future CSI and USGBC events.

Thank you for your continued support of the CSI Columbus Chapter and the USGBC Central Ohio Chapter!



Peter J. Scott, CSI, CDT
Senior Associate
Meyers + Associates Architecture

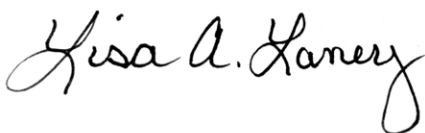
WELCOME from USGBC Central Ohio Chapter Chair



On behalf of the USGBC Central Ohio Chapter, I would like to welcome you to Design Columbus 2015. It is our pleasure to cohost Design Columbus with the CSI Columbus Chapter. Thank you for sharing all or a part of your day with us. We are proud to offer a variety of exhibitors and sessions that we hope will educate and inspire as you continue to design and construct a more sustainable built environment in Central Ohio.

Visit the exhibitors, make new friends, learn about new and innovative products and earn a few Continuing Education Credits to round out your day! I hope you enjoy your day and please stop by either of the respective booths to learn how you can get involved in shaping your Central Ohio built environment. We believe that Design Columbus is an event for all construction

professionals and we encourage you to provide feedback on how we can make your Design Columbus experience more fulfilling.



Lisa A. Laney, LEED Green Associate
Chair, USGBC Central Ohio Chapter
Chair, USGBC COH Green School Committee
Chair, USGBC National Green School Committee

VENDORS & SPONSORS

BOOTHS

- | | | | |
|----|------------------------------------|----|--|
| 01 | SHERWIN WILLIAMS | 29 | ALLEGION |
| 02 | ENGINEERED SYSTEMS | 30 | MECHOSYSTEM |
| 03 | PPG INDUSTRIES | 31 | DALTILE & MOHAWK |
| 04 | ANDERSEN WINDOWS | 32 | MORIN |
| 05 | THE BLUE BOOK | 33 | SEWARD ASSOCIATES |
| 06 | ASSA ABLOY | 35 | 290 SIGNS |
| 07 | FRANKLIN INTERNATIONAL | 36 | STAT COMMUNICATIONS |
| 09 | AGC GLASS COMPANY OF NORTH AMERICA | 37 | ADVANCED SOLUTIONS |
| 10 | KNAUF INSULATION | 41 | ARCHITECTURAL PRODUCTS RESOURCE |
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| 15 | HIGHER GROUND / ROOFMEADOW | 43 | MILLIKEN CARPET |
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| 22 | FIBERTITE MEMBRANE ROOFING | 49 | CENTRIA ARCHITECTURAL SYSTEMS |
| 23 | OLSON ARCHITECTURAL PRODUCTS | 50 | RMAX - HTTP://WWW.RMAX.COM/ |
| 24 | DIMENSIONAL METALS INC. | 53 | SIKA CORPORATION |
| 25 | SNYDER BRICK & BLOCK | 54 | V&S COLUMBUS GALVANIZING |
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CABARET TABLE (BOOTH)

- Oberfield's
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KEYNOTE

- The Green Funds of the Columbus Foundation

LUNCH TABLE

- Columbus 2020
- The Green Funds of the Columbus Foundation

BIZ CARD AD

- National Gypsum
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EDUCATION SESSIONS

8:00 AM - 9:00 AM

SESSION 101

Riversouth District: A Case Study

Presented by

David B. Meleca, *David B. Meleca Architects, LLC*

Chase Miller, *Lifestyle Communities*

1 AIA LU/HSW, 1 GBCI CE

This session will focus on Lifestyle Communities™ Riversouth District development, specifically targeting the Trautman Residential Development as a case study in three parts. The developer will discuss the process of turning one development into a multi-block district including structures of various sizes and uses, and the importance of turning the area into an urban neighborhood with its own identity. The architect, David Meleca, will discuss the role of architectural language in the creation of this independent identity. Finally, the team will discuss the challenges of incorporating the design-build process into a dense urban context, from schematic design through construction.

SESSION 102

Performance and Beauty - Integrating Sustainability and Design

Presented by

Eric Thompson, *NBBJ*

Justin Gantz, *NBBJ*

1 AIA LU/HSW, 1 GBCI CE

Increasingly, leading architects are using sustainability as a primary design driver. Consideration of daylight, energy and environment have the possibility of providing new and meaningful means of generating design ideas. New tools and analytic methods allow designers to use a research-driven, performance based approach to sustainability, targeting especially early planning decisions, massing, and passive measures as the site for experimentation and investigation. These tools allow us to refine and test traditional rules of thumb. We'll share some of our research and show how it has impacted design, and in turn how design has affected sustainability. The team will present recent case studies and projects highlighting these approaches to the integration of sustainability and design.

9:30 AM - 10:30 AM

SESSION 201

The New James - The Purpose and Process for Sustainability

Presented by

Karen D. Joslin, *LEED AP-BD+C, Joslin Consulting, LEED Project Manager*

Dr. David E. Schuller, *Ohio State University Wexner Medical Center, Cancer & Critical Care Project Leader*

TBD – *OSU Facilities Operation & Development, CCCT Project Leader*

TBD – *Turner Construction Project Leader*

1 AIA LU/HSW, 1 GBCI LEED Specific BD+C

The new James Cancer Center and Richard Solove Institute at the Ohio State University Wexner Medical Center is the largest single construction project for Ohio State but will be earning a LEED Silver certification as evidence of the sustainable strategies in place. The CCC Tower at 1,122,228 sf and the dozen enabling projects exceed \$1 Billion in construction cost, and were designed to concentrate the patient care, education and research expertise in a single location with the goal of cutting edge treatment.

The presentation will introduce the leader of the project since its inception, Dr. David Schuller, to describe the vision and purpose of the new James and the role of environmental considerations. We

will present the LEED and other design highlights of the facility and how the University requirements for sustainability were incorporated. Representatives from Ohio State and the Turner Lend Lease CM team will discuss overcoming the challenges of the campus location, coordinating the many associated projects, and the new CM at Risk construction delivery method. Innovative choices for educational materials will be shared along with university programs for communicating operational sustainability.

SESSION 202

Sorting out the Alphabet Soup of Sustainability: LCAs, EPDs, and HPDs

Presented by

Lisa Britton, *CSI, CCPR, LEED AP BD+C, GGP Industrial Louvers Inc.*

1 AIA LU/HSW, 1 GBCI LEED Specific BD+C

The multitude of rating systems and product labels is causing tremendous confusion in the building industry. Multiple, overlapping and sometimes conflicting reporting formats make sorting out the green from the greenwash increasingly difficult. This course covers the basics of three types of reporting, Life Cycle Assessments (LCAs), Environmental Product Declarations (EPDs) and Health Product Declarations (HPDs). Each has an important role to play and provides

SESSION 103

Preparing for LEED v4, ASHRAE 90.1, and 2030 Challenge with Building Modeling

Presented by

Ryan Hoffman, *Heapy Engineering*

1 AIA LU/HSW, 1 GBCI LEED Specific BD+C, O+M

High-performance building standards continue to evolve, becoming more stringent and often causing confusion in the industry. Many of us have agreed to improve the performance of our projects in parallel with these criteria, but how do we get there? This session will review each of the mentioned sustainable building standards to offer an understanding of the associated goals, and outline design concepts and processes for achievement of these guidelines.

Project teams preparing for LEED v4 understand that the Integrative Process Credit calls for a preliminary "simple box" energy modeling analysis before completion of schematic design as well as a preliminary water budget. While energy modeling is necessary for energy code compliance and green building certification, it's important

that project teams utilize the tools we have available early and often during design. Therefore, this session will describe how early-stage energy modeling can influence design decisions through an integrative design process, and highlight the proven tools which yield the desired outcomes in the shortest time.

This session will explain the value proposition of energy and daylight modeling, including the essential functionality and expected outcomes of energy modeling. Demonstrative case studies will be provided, along with comparisons of modeled versus actual post-occupancy performance.

challenges and opportunities for product evaluation. After this course, attendees will have a better understanding of what tools will provide the information they need to make better choices.

SESSION 203

Transforming Columbus by Transforming Travel

Presented by

Shira Orlowek, *Operations Manager, Midwest High Speed Rail Association*

1 AIA LU/HSW, 1 GBCI CE

Shira Orlowek serves as the Operations Manager for the Midwest High Speed Rail Association (MHSRA), a member-supported non-profit organization advocating for fast, frequent and dependable trains linking the entire Midwest.

Shira has been working with MHSRA for the last 2.5 years on transportation policy reform and revolutionizing rail in the Midwest through advocacy efforts. She graduated from the University of Michigan with a major in biology and minor in environmental studies and has a strong interest in a sustainable future.

12:00 PM - 1:00 PM

KEYNOTE

THE SPIRIT OF COLUMBUS TAKES FLIGHT

Presented by

Douglas F. Kridler, *The Columbus Foundation*

1 AIA LU/HSW, 1 GBCI CE

The estimated trajectory of growth of Central Ohio is as impressive as it is daunting. We are so lucky to be living and working here at this time of optimism and opportunity. Are we up to the challenge of getting it right? It is our time, and the quality of what we do today will put a stamp on the strength and sustainability of our community for generations to come. What are some of the characteristics of Columbus that we can build on going forward to ensure we do current generations proud? Clearly, the design community has much to contribute - how can your voice be heard and heeded more.



EDUCATION SESSIONS (CONTINUED)

1:30 PM - 2:30 PM

SESSION 301

Ohio's K-12 Energy Conservation & Sustainable Initiatives

Presented by

Ron Spangler, P.E., CEM, *Ohio Facilities Construction Commission*

Lisa A. Laney, *Ohio Facilities Construction Commission*

1 AIA LU/HSW, 1 GBCI LEED Specific BD+C, Schools

Established in 1986, the School Energy Conservation Program (known as House Bill 264) enables K-12 schools to invest in energy efficiency construction projects that pay for themselves within 15 years. The Ohio Facilities Construction Commission approves approximately 40 projects per year, at an average construction cost of approximately \$2M for each project. Projects must pay for themselves within 15 years from the energy savings realized. This presentation will provide tips on how to implement a successful project.

Ohio is leading the nation in LEED certified and registered schools across Ohio. Over 340 schools are registered through the USGBC LEED for Schools rating system with 200 certifications to date. Learn what impact the projects are having on the schools and communities across Ohio. We will look at program accomplishments and examples of schools that have incorporated energy efficiencies and

environmental initiatives into their operations and/or curriculum. What areas of sustainability are schools focusing on and are they successful in their pursuit? Are there common hurdles to schools pursuing certain areas of sustainability? Learn what resources are currently available for sustainable and environmental awareness issues.

SESSION 302

Preserving a Community Landmark: A Historic Factory Becomes a Modern Office

Presented by

Shaun Holloway, *Association of College and University Housing Officers - International*

Sallie Traxler, *Association of College and University Housing Officers - International*

1 AIA LU/HSW, 1 GBCI CE

Environmental and sustainable efforts in new construction are expected; however, evaluating and implementing those practices into a historical facility can be challenging. As cities, districts, and neighborhoods evolve, it is increasingly important to balance modern amenities with respect to the past during renovation and

3:00 PM - 4:00 PM

SESSION 401

Urban Transformation & Community Building

Presented by

Mike Suriano, *NBBJ*

1 AIA LU/HSW, 1 GBCI LEED Specific BD+C

As we move forward in our pursuit of designed places that limit the negative impacts of development on our environment, we need to recognize the ability of sites and buildings to be a key protagonist in the holistic transformation of communities. The act of building and densifying urban cores, is in and of itself a sustainable practice, and critical to the renewal of the hearts of our cities.

Through three case studies local to Columbus, Nationwide Children's™ Hospital Research Building 3, Driving Park Library, and 250 High, the session will explore how different typologies present distinct opportunities in sustainable design practices as tools for urban revitalization and community building. In addition to active design strategies specific to each building type, the session will also explore how unique passive responses to design problems can have a huge impact on use, user mind set, and future growth and stewardship.

In a future where resources are scarce, and time to adapt is finite, it is not enough for buildings to simply create better environments, they must bring us together.

SESSION 402

Designing for Net Zero Energy

Presented by

Kirk Paisley, *M+A Architects*

Jacqueline Langhals, *M+A Architects*

1 AIA LU/HSW, 1 GBCI CE

At first glance, designing for Net Zero Energy can seem like a daunting task, which has led many to shy away from pursuing a Net Zero Energy project. In Ohio particularly, there have been few examples to learn from; however, as we begin work on our second Net Zero project here locally in Columbus, we feel it would be of great value to our industry to share the insightful and sustainable lessons we are learning. Although it may be intimidating to begin, designing for absolute zero™ can be a very attainable goal.

sustainability-focused construction projects. This session will overview the process and considerations taken to transform a historical building into a modern, commercial office environment, while embracing the impact on the surrounding community, neighborhood, and historical registry.

SESSION 303

The Roofspace Battle: PV vs Skylights and other Technologies in Net-Zero Energy Capable Facilities

Presented by

Gregory Raffio, *Go Sustainable Energy*

1 AIA LU/HSW, 1 GBCI CE

In a net zero energy (NZE) facility, the roof is not just a leaky liability, it is an important source for energy savings and production. A project can utilize passive solar design, reflective roof surfaces, a green roof, skylights, and renewable energy generation. In a NZE design, the roof must contribute either extreme savings or generation. In particular, two uses of the roof space are directly tied to energy; skylights to reduce lighting energy and PV to produce renewable energy. However,

when it comes to implementing these technologies in energy efficient or NZE projects, competition for roof space occurs.

This presentation highlights the importance of proper calculations in choosing technology for best utilization of roof space in a NZE building and presents the main factors. First, it introduces the common energy efficiency technologies competing for roof space and their potential to contribute to NZE and conflict with one another. Next, the NZE path is chosen and a metric for NZE evaluation is introduced. Finally, sample scenarios for PV generation and skylight savings are analyzed and PV's impact is favored. The findings demonstrate that, while PV reigns supreme in the roof space battle, successful integration of PV with surrounding technologies offers a project the best chance for NZE.

Our presentation will walk people through our design process for Net Zero Energy buildings. We will provide an overview of building science principles and how an understanding of those is essential for all project team members, including the owners. It is vital for the design process and its resulting sustainable solutions to be used as a teaching tool for future user groups, as occupancy behavior is a key component in maintaining Net Zero Energy. We aim to relate this design process back to LEED principals, as LEED has been at the forefront when it comes to designing sustainable buildings. Our presentation will highlight some of these synergies and draw parallels between the two.

SESSION 403

Upcycling St. Clair: Project Design & Neighborhood Redevelopment thru Analysis & Branding

Presented by

Andrea Bruno, *St Clair Superior Development Corporation*

Gregory Soltis, *RDL Architects*

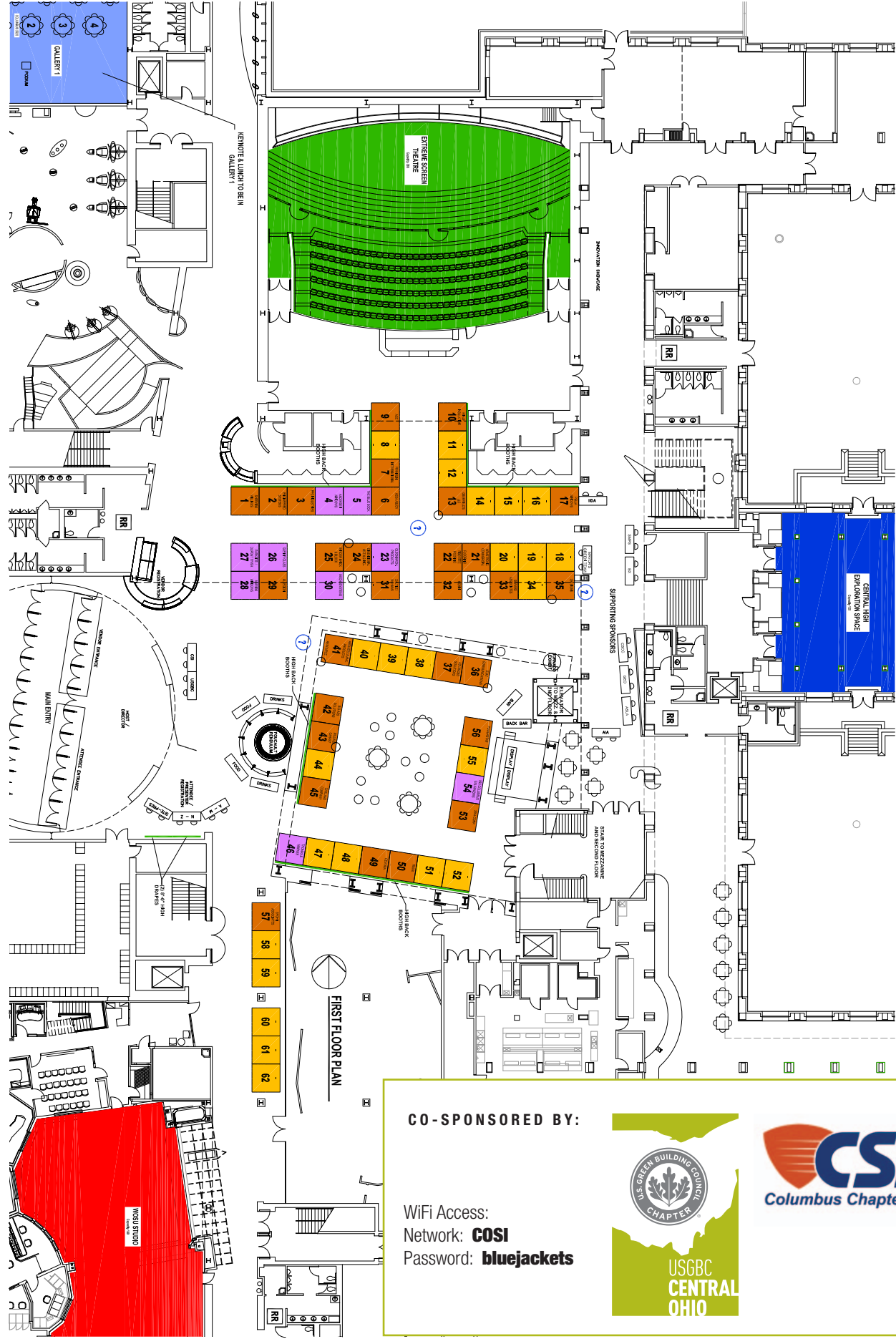
Kevin Dreyfuss-Wells, *RDL Architects*

Ron Lloyd, *RDL Architects*

1 AIA LU/HSW, 1.0 GBCI CE

Historic structures, such as the old east Ohio Gas research facility in St. Clair can be the catalyst for the resurgence of an historic neighborhood. This facility was identified as a potential structure for redevelopment as a multifamily residence appealing to artists, millennials and boomers. It was a conceptual project presented to over 600 national developers and other real estate professionals at the Multi-Family Executive conference in Las Vegas this year. RDL conducted a rigorous neighborhood analysis, held many stakeholder meetings, worked with the local Community Development Corporation, and analyzed the existing structure and surrounding parcels in order to envision its redevelopment. Neighborhood planning principles were implemented to identify the best ways to leverage the structure and its surrounding area for redevelopment.

PROGRAM MAP



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