



Awards Presentation at  
Architectural Engineering Conference  
Oakland, California  
April 1, 2011



CHARLES PANKOW  
FOUNDATION

Building Innovation through Research

**ASCE** | STUDENT  
COMPETITION



ARCHITECTURAL  
ENGINEERING  
INSTITUTE



# CHARLES PANKOW FOUNDATION

Building Innovation through Research

- The Charles Pankow Foundation was established to provide the public with buildings of improved quality, efficiency, and value by advancing innovation in building design and construction
- The Charles Pankow Foundation now focuses on research grantmaking in two research goal areas: Structures and Project Teams - Tools and Practices



The competition project is focused on the design, integration and construction management of the engineered aspects of a high performance building.

- Open to both graduate and undergraduate students in accredited architectural engineering programs and programs actively seeking accreditation by EAC/ABET
- Supervised and advised by faculty
- Work together in multi-disciplinary teams



Submissions were entered in the building systems integration category and one or more of the following four categories:

- Structural systems design
- Mechanical systems design
- Electrical systems design
- Innovative construction management and methods



# The Challenge

Contemporary Art Museum  
San Francisco, California

The project for this year's competition is a new Contemporary Art Museum at the Presidio in the San Francisco Bay area

- Space programming for the new museum was shown on the schematic plans
- Required to be sensitive to the local architecture and history of the area



# The Challenge

Contemporary Art Museum  
San Francisco, California

The submittals addressed the following challenges:

- Best practices in sustainable design as related to green building design and construction
- Construction and design issues for a site located within a high seismic area

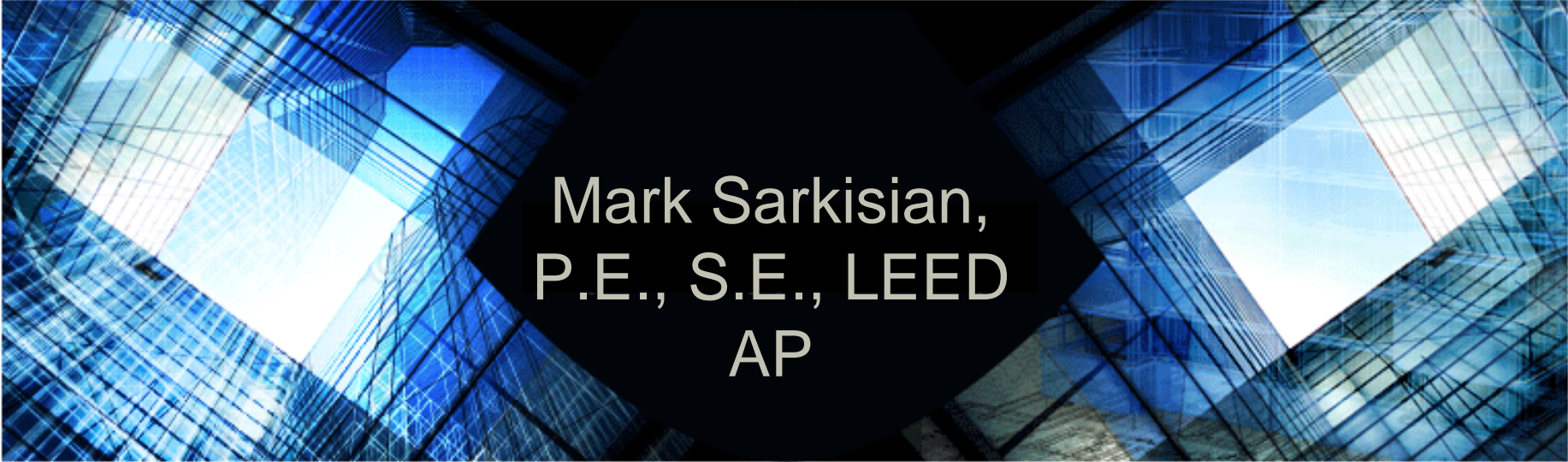
Additionally, participants were encouraged to meet the challenge to integrate the engineered systems of the building towards the goal of a high performance building



- Kenna Chapin, P.E.  
Associate at Wallace Engineering  
Tulsa, Oklahoma
- Craig Baltimore, PhD, S.E.  
Associate Professor at California Polytechnic State University  
San Luis Obispo, California
- Ray Yunk, P.E., LEED AP BD+C  
Architectural Engineering Program Coordinator at Kansas State University  
Manhattan, Kansas
- Shaun Nienhueser, E.I., QCxP, LEED AP  
Mechanical Engineer at KRS Engineering  
Omaha, Nebraska

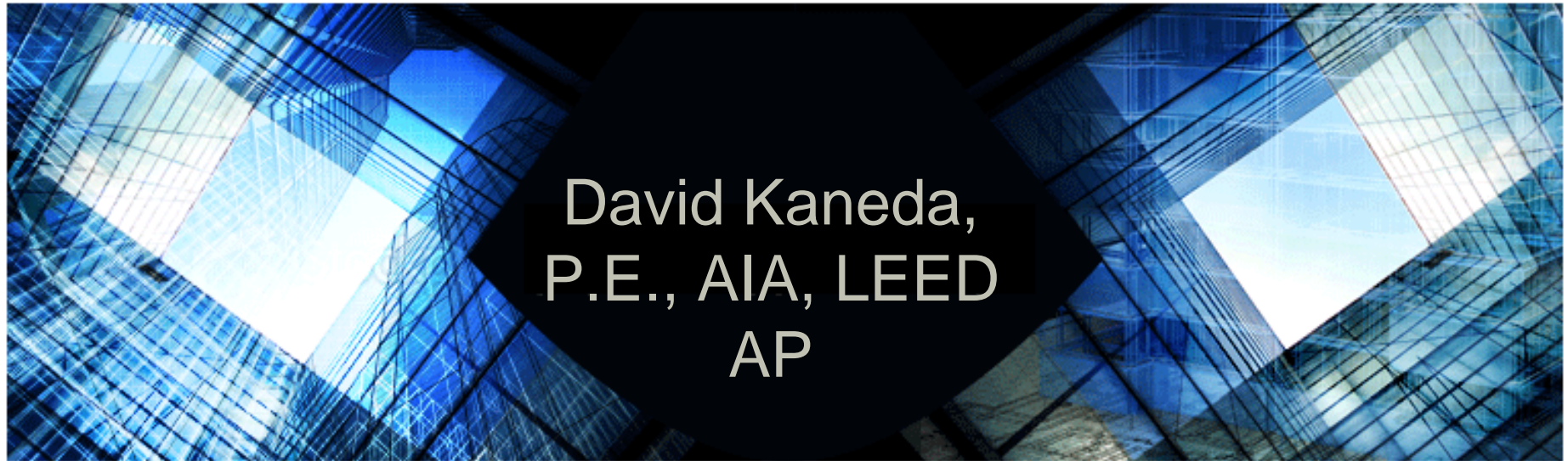


- Mark Sarkisian, P.E., S.E., LEED AP - Director, Skidmore, Owings & Merrill LLP
- David Kaneda, P.E. - Principal, Integrated Design Associates, Inc.
- Erin McConahey, P.E., LEED AP, ASHRAE, HBDP - Principal, ARUP
- Mason Walters, S.E. - Principal, Forell/Elsesser Engineers, Inc.
- Patrick Crosby, S.E. - President, Crosby Group

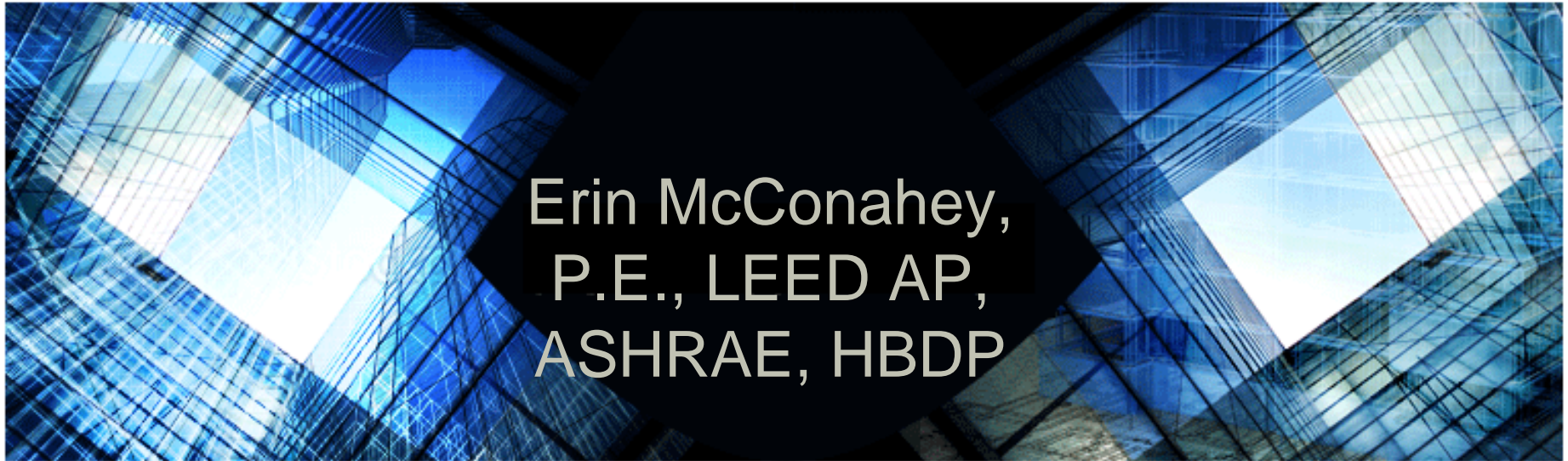


Mark Sarkisian,  
P.E., S.E., LEED  
AP

- Director of Seismic and Structural Engineering in the San Francisco office of Skidmore, Owings & Merrill LLP
- Bachelor of Science in Civil Engineering from University of Connecticut where he is a member of the Academy of Distinguished Engineers
- Master of Science in Structural Engineering from Lehigh University
- His career has focused on developing innovative structural engineering solutions for building projects.



- Principal of IDeAs - Integrated Design Associates, Inc. in Santa Clara, California
- Bachelor of Architectural Engineering from Pennsylvania State University
- Master of Business Administration from London Business School
- Responsibilities include strategic planning, sustainability research, peer review, conceptual design and interdisciplinary coordination.

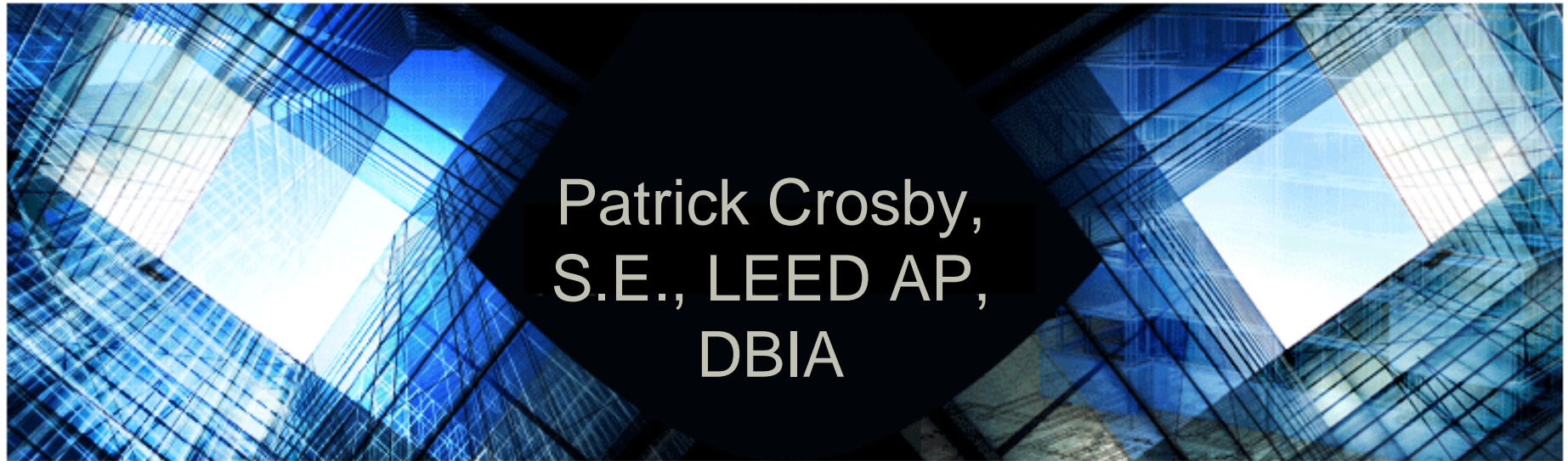


Erin McConahey,  
P.E., LEED AP,  
ASHRAE, HBDP

- Principal at Arup in Los Angeles, California
- Bachelor of Science in Mechanical Engineering from University of California at Berkeley
- Master of Science in Structural Engineering from University of California at Berkeley
- Concentrates on mechanical engineering, sustainability consulting, multidisciplinary design and 3D/BIM implementation



- Principal and Technical Director at Forell/Elsesser Engineers, Inc. in San Francisco, California
- Bachelor Architectural Engineering from California Polytechnic College
- Master of Engineering from University of California at Berkeley
- Expertise includes the development and application of new technologies to solve seismic engineering problems



Patrick Crosby,  
S.E., LEED AP,  
DBIA

- President of the Crosby Group in Redwood City, California
- Bachelor of Science in Civil Engineering from Santa Clara University
- Visionary of the Crosby Group, sets the direction of the firm and is an innovator and leader in the seismic design field



- 14 teams participated in the competition from a total of 12 universities
- All teams participated in the Integration category
- 12 teams in the Structural Category
- 12 teams in the Mechanical Category
- 5 teams in the Electrical Category
- 7 teams in the Construction Category



## Participating Universities

- Kansas State University
- University of Kansas
- Drexel University
- Texas A&M University-Kingsville
- University of Missouri of Science and Technology
- University of Texas at Austin
- California Polytechnic State University-San Luis Obispo
- Illinois Institute of Technology
- Milwaukee School of Engineering
- University of Nebraska, Lincoln
- Philadelphia University
- Sultan Qaboos University in Oman



- **Winner: Team #3 - Drexel University - James Mitchell**  
Alexander Stadel, Alisha Strayer, James Achey, Andrea Christiani, Michael Snader & Joshua Lessard
- **Finalist: Team #6 - Cal Poly - James Guthrie**  
Julie Bolander, Linda Huang, Alexandre Batista, Sarah Arrin, Philip Ost, Brian Croshal
- **Finalist: Team #11 - Illinois Institute of Technology - William Paschal**  
Joe Millham, Aaron Anderson, Jennifer Gibbons, Jaeha Jun, Emir Aykut Pekdemir, Ellen Gallagher, Yao Xiao, Indira Oraziman



## Structural Category Finalists

- Winner: Team #9 - Cal Poly-San Luis Obispo - Peter Laursen  
Dan Loesch, Brad Stevens, Luke Wegener-Vernagallo, Tim Dieu
- Finalist: Team #6 - Cal Poly-San Luis Obispo - James Guthrie  
Julie Bolander, Linda Huang, Alexandre Batista, Sarah Arrin, Philip Ost, Brian Croshal
- Finalist: Team #3 - Drexel University - James Mitchell  
Alexander Stadel, Alisha Strayer, James Achey, Andrea Christiani, Michael Snader & Joshua Lessard



## Mechanical Category Finalists

- **Winner: Team #6 - Cal Poly-San Luis Obispo - James Guthrie**  
Julie Bolander, Linda Huang, Alexandre Batista, Sarah Arrin, Philip Ost, Brian Croshal
- **Finalist: Team #3 - Drexel University - James Mitchell**  
Alexander Stadel, Alisha Strayer, James Achey, Andrea Christiani, Michael Snader & Joshua Lessard
- **Finalist: Team #10 - University of Nebraska - Clarence Waters**  
Justin Veik, Tim Gall, Dakota Kelley, Andrew Wiese, Adam Brumbaugh, Heidi Kuchta, Cary Schroeder, Tim Morrison, Barry Albert



- **Winner: Team #1 - Kansas State University - Blythe Vogt**  
Marshall Van Tuyl, Vincent Pianalto, Alejandro de Luna, Marshall Frey, Bryant Denning, Laura Geiger, and Kyle Overcash
- **Finalist: Team #8 - Missouri University of Science and Technology - Stuart Baur**  
Ryan Reed, Teresa Rose, Todd Richbourg, Ellen Richardson, Robert Hall, Brett Balsters, John Issawi, Stephen Schrock, Lauren Svoboda
- **Finalist: Team #10 - University of Nebraska - Clarence Waters**  
Justin Veik, Tim Gall, Dakota Kelley, Andrew Wiese, Adam Brumbaugh, Heidi Kuchta, Cary Schroeder, Tim Morrison, Barry Albert



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- **Finalist: Team #15 - University of Texas at Austin – Michael Engelhardt**  
Joyce Chiu, Stacy Chiu, Matthew Homer, Jimmy Principe, Alan Del Olmo, Sarah Turner, Zahra Bhora, Tammy Pham, Oliver Chang, Evan Reschreiter



Please plan to participate in the student competition next year. Information will be posted on the website in August.

Finals will be held at the Architectural Engineering Institute Conference planned in Omaha, Nebraska next year.



Thank you to the committee, the AEI staff, the Charles Pankow Foundation, jurors, and all of the participating teams and faculty.

Congratulations to our finalist teams and winners!