



Center for the Built Environment

An Industry/University Research Collaboration
University of California, Berkeley

A large, faint watermark of the University of California seal is visible in the background. It features a central book with a star above it, surrounded by the text 'UNIVERSITY OF CALIFORNIA' and a banner at the bottom that reads 'LET THERE BE LIGHT'.

www.cbe.berkeley.edu

About Us

Our Mission

To improve the environmental quality and energy efficiency of buildings by providing timely, unbiased information on building technologies and design and operation techniques.

Our Approach

We believe that research about energy and the indoor environment must go hand-in-hand in order to create transformational change in the building industry. We study promising new energy conserving strategies and technologies, along with how people use and interact with buildings.

We actively participate in the development of new standards and guidelines to remove barriers to effective building technologies, and to speed their implementation. We also provide tools, guidance and training for design, building and operations.

Industry Collaborations

The Center for the Built Environment was founded in 1997 under the National Science Foundation Industry/University Cooperative Research Center program.

CBE is guided by an Industry Advisory Board (IAB) that meets semi-annually to discuss research, approve annual budgets, and plan future research. The IAB represents the diversity of the building industry, including manufacturers, building owners, facility managers, contractors, architects, engineers, government agencies, and utilities.

Our Research

The Center for the Built Environment's research portfolio is based on industry partner feedback, and represents relevant and timely topics in building science research. Our key areas of research are:



Indoor Environmental Quality

We have developed new methods to measure the performance of buildings in terms of occupant comfort, energy efficiency and operations, and we are testing new approaches to providing energy-efficient comfort.



HVAC Systems

We are a leader in HVAC systems research, and are investigating topics such as advanced integrated building systems, underfloor air distribution, radiant systems, and new methods for performance monitoring.



Human Interactions

We are studying how new digital technologies can improve information exchange between building occupants and managers, and influence commercial building occupant behavior in positive ways.



Envelope Systems

We are developing tools and criteria for evaluating facade performance in terms of occupant comfort and energy efficiency. We are evaluating the impact of operable windows, controllable building features, and mixed-mode strategies.



Sustainability and Whole Building Energy

We are providing useful feedback to commercial building designers and operators through comprehensive case studies that utilize the full range of CBE's research capabilities.

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CBE provides us with **immediate, usable and innovative technical value**, while extending our professional network to a uniquely diverse cross section of professionals. **No other organization consistently expands our horizons like CBE.**

Phil Williams, Vice President, Delos Living

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Clif Bar Headquarters
2012 Livable Buildings
Award Winner

Arch: ZGF Architects
MEP: Integral Group
GC: DPR Construction

Collaborations

CBE welcomes firms and organizations to become involved through membership in our industry consortium. This consortium is a rare opportunity to identify information needs and advance research in directions to benefit your organization, without the high costs of in-house research.

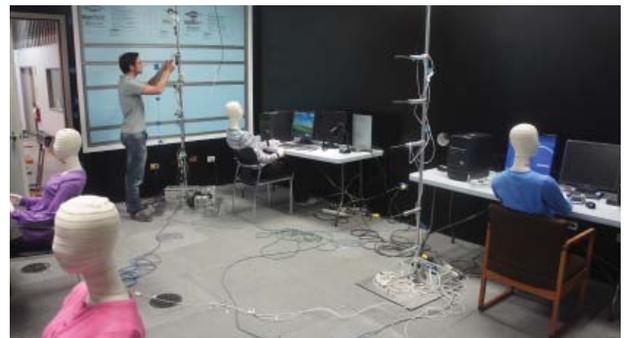
Benefits of membership include:

- Participation in semi-annual Industry Advisory Board Conferences (April and October).
- The ability to direct research in areas relevant to your business, and opportunities to directly participate in high-impact research efforts.
- Access to specialized design and performance tools, including occupant surveys (four free per year).
- Networking opportunities with diverse sectors of the building industry.
- Priority access to specialized research tools, facilities, and staff, and the ability to recruit highly trained graduates.
- Advance review of internal reports and research results.
- Acknowledgment in CBE reports, websites, and publicity materials.
- Members' investments are greatly leveraged through research grants from institutional and governmental sources.

Affiliation with UC Berkeley gives CBE's research a high level of credibility within the industry. Industry partners benefit from this research, by using empirical results to influence clients and regulators, and through recognition of their commitment to promoting sustainability and improving our built environment.



CBE's Industry Advisory Board guides research towards relevant and current topics, and provides a unique opportunity for collaboration.



Our research team uses simulation, lab, and field study methods. Above, researchers prepare for tests in Price Industries' lab.



Our research team is testing new ideas for simultaneously improving energy efficiency and comfort in workplace environments.

Photo: Jeremy Blittermann



Packard Foundation Headquarters
2014 Livable Buildings
Award Winner

Arch: EHDD
MEP: Integral Group
Acoustics: C.M. Salter Assoc.
GC: DPR Construction

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The design and construction industry fundamentally needs to take a more **rigorous, science-based approach** to designing and operating buildings that really work for our clients. **CBE is leading the way on this critical transformation.**

Scott Shell, Principal, EHDD

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Our Partners

CBE's partners are leading organizations across the spectrum of the building industry. Partners (as of October 2017) include:

Sustaining Partners

| | |
|--------------------------------|----------------------------|
| Armstrong World Industries | REHAU |
| Big Ass Solutions | Saint-Gobain |
| California Energy Commission | Southern California Edison |
| Genetech | U.S. Department of Defense |
| Google, Inc. | Viega |
| Ingersoll Rand | Wells Fargo |
| Pacific Gas & Electric Company | |

Small Business Members

Aclima
Delos Living

Architecture, Engineering and Construction Partners

| | |
|------------------------------|-----------------------------|
| Affiliated Engineers, Inc. | Integral Group |
| Arup | Interface Engineering |
| Charles M. Salter Associates | LPA Inc. |
| DIALOG | Skidmore, Owings, & Merrill |
| HGA Architects and Engineers | Stantec |
| HOK | Syska Hennessy Group |

Architecture, Engineering and Construction Team Partners

| | |
|-------------------|---------------------------|
| <i>SERA Team:</i> | <i>Taylor Team:</i> |
| SERA Architects | Taylor Engineering |
| CPP | Atelier Ten |
| DPR Construction | TRC Solutions |
| P2S Engineering | Western Allied Mechanical |
| Perkins+Will | WRNS Studio |



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