

JENNIFER O'CONNOR, M. Arch.

Group Leader
Energy and Environment
Building Systems Program
FPInnovations

Profile:

Jennifer O'Connor has been working in construction-sector sustainability since 1983, with diverse multidisciplinary roles in research, design, analysis, consultation and technology transfer in Canada and the U.S. Her work experience has an emphasis on energy efficiency, sustainable design, and overall building performance, and her background in both architecture and engineering provides a strong technical foundation in many building systems. At FPInnovations, she leads a research program addressing environmental footprint of building materials and global carbon balance with respect to forest products, among other research topics. Past experience includes building science research in the Windows and Daylighting Group at the Lawrence Berkeley National Laboratory, where she did her thesis work addressing the interface between designers and technical information. She held a faculty position at the California College of the Arts, where she initiated a course in environmental control systems and delivered it for three years. As part of a multidisciplinary team at the Pacific Gas and Electric Energy Center, she had responsibility for developing the program providing technical assistance and education to architects. She was a founding member of the AIA San Francisco chapter environmental committee, and she taught an AIA preparatory course for the environmental systems section of the architectural licensing exam. In design practice with mechanical engineering firms, she provided performance analysis including energy and daylighting simulations or other technical assistance on dozens of commercial and institutional construction projects in BC and California. She is the author of numerous technical and non-technical publications.

Citizenship: Canada and USA

Education: M. Architecture University of California, Berkeley 1989
B.A. (Arch) University of California, Berkeley 1983

Work Experience:

August 1998 - present

FPInnovations Vancouver, BC

A private research lab supporting the Canadian solid wood products industry.

Group Leader: Responsible for research and tech transfer in sustainable construction, durability and construction market intelligence.

April 1995 - February 1998

TESCOR PACIFIC ENERGY SERVICES Vancouver, BC

An engineering firm specializing in sustainable design and energy efficiency retrofits.

Building Envelope Specialist

October 1987 - June 1994

LAWRENCE BERKELEY LABORATORY Center for Building Science, Berkeley, CA

Large, internationally known research facility in all the sciences. Center for Building Science is one of the world's premier institutions addressing architectural and engineering energy efficiency issues.

Scientist/Architect

July 1992 - March 1994

PACIFIC GAS & ELECTRIC PG&E Energy Center, San Francisco, CA
Public facility providing energy efficiency information to the design and construction community.
Coordinator, Architectural Program

August 1991 - June 1994

CALIFORNIA COLLEGE OF THE ARTS School of Architecture, San Francisco, CA
A long-established university in the fine arts, practical arts and architecture.
Adjunct faculty member

February 1985 - June 1986

FLACK + KURTZ CONSULTING ENGINEERS San Francisco, CA
Designer/Analyst

June 1983 - February 1985

BENTLEY ENGINEERING and BENTLEY/CUMALI ENERGY MANAGEMENT San Francisco, CA
Designer/Analyst

Appointments: Board Director, 2000 – present, the Athena Sustainable Materials Institute, Ottawa, Canada.

Affiliations: ASHRAE (affiliate), Society of Building Science Educators.

Awards: 1999: Team P/A Award for Architectural Research for a five-year, \$1.5 million effort to integrate daylighting with building envelope and lighting systems.

Selected Publications:

- **O'Connor, J.** 2009. Considerations for environmental footprinting of wood doors. FPIinnovations.
- Tardif, P. and **J. O'Connor.** 2009. Selling Wood Products to the Green Market. FPIinnovations.
- Sathre, R and **J. O'Connor.** 2010. Meta-analysis of greenhouse gas displacement factors of wood product substitution. *Environmental Science and Policy*, 13(2): 104-114.
- Sathre, R and **J. O'Connor.** 2008. A Synthesis of Research on Wood Products and Greenhouse Gas Impacts. Vancouver, B.C. FPIinnovations - Forintek Division. 74 p. (Technical Report TR-19).
- Bushi, L., J. Meil, W. Trusty, **J. O'Connor.** 2008. A Cradle-to-Gate Life Cycle Assessment of Canadian Oriented Strand Board (OSB) Products to Encourage the Sustainable Production in the Wood Industry. SETAC North America 29th Annual Meeting.
- Meil, J., J. Wilson, **J. O'Connor,** and J. Dangerfield. 2007. An assessment of wood product processing technology advancements between the CORRIM I and II studies. *Forest Products Journal* 57:7/8.
- McKeever, D., C. Adair, and **J. O'Connor.** 2006. Wood Products Used in the Construction of Low-Rise Nonresidential Buildings in the United States, 2003. Wood Products Council.
- Meil, J., M. Lucik, **J. O'Connor,** and J. Dangerfield. 2006. A life cycle environmental and economic assessment of optimum value engineering in houses. *Forest Products Journal* 56:9 (September 2006).
- Olutimayin, S.O., C. Simonson, **J. O'Connor,** M. Salonvaara, and T. Ojanen. 2005. Effect of moisture storage on indoor humidity and vapor boundary layer thickness. *Proceedings of the 10th Canadian Conference on Building Science and Technology*, Volume 1, 194-203, Ottawa, May 12-13.
- **O'Connor, J.,** S. Horst and C. Argeles. 2005. Survey on actual service lives for North American buildings. *Proceedings, 10th International Conference on Durability of Building Materials and Components*, Lyon, France, April 2005.

- Simonson, C., S. Olutimayin, M. Salonvaara, T. Ojanen and J. **O'Connor**. 2004. Potential for hygroscopic building materials to improve indoor comfort and air quality in the Canadian climate. Proceedings: Performance of Exterior Envelopes of Whole Buildings IX, Clearwater Beach, USA, December 2004.
- **O'Connor**, J and J. Dangerfield. 2004. The environmental benefits of wood construction. Proceedings of the 8th World Conference on Timber Engineering, Lahti, Finland, June 2004. Vol 1, pp.171-176.
- **O'Connor**, J., R. Kozak, C. Gaston and D. Fell. 2004. Wood-use in non-residential buildings: opportunities and barriers. *Forest Products Journal* 54:3 (March 2004).
- Montayne, D. and J. **O'Connor**, 2000. Information Resources on Wood-frame Construction Practice in North America: an annotated bibliography. Forintek.
- **Schuman**, J. 1992. "Cool Daylight," *Progressive Architecture*, April 1992.

Selected Projects, sustainability consulting:

- Centre for Molecular Medicine and Therapeutics, Vancouver BC - laboratory facility.
- Earth Sciences Building, University of British Columbia, Vancouver BC.
- Richmond City Hall, Richmond BC.
- Native Friendship Centre, Prince George BC.
- San Francisco Design Center, San Francisco CA - large interior design showroom.
- Charleston Place, Mountain View CA - office park.
- Bank of America, Concord CA - mid-rise office tower.
- Bay Center, Emeryville CA - office park.
- The Resort at Squaw Creek, Squaw Valley CA - year-round destination resort at Lake Tahoe.
- Hyatt Regency Hotel, Burlingame CA - included 28,000 sf daylighted atrium.
- Pacific Design Center, Los Angeles CA - new building added to interior design showroom campus.
- 600 California Street, San Francisco CA - high-rise office tower.
- March Lane TransAmerica, Stockton CA - low-rise office building.
- Clorox Technical Center, Pleasanton CA - major addition to existing R&D facility.
- Stonestown Shopping Center, San Francisco CA - major addition to, and enclosure of, open-air mall.
- 301 Howard Street, San Francisco CA - high-rise office tower.
- Foley Square Federal Office Building, New York NY - high-rise tower.
- Regina Public Schools, Regina SK - energy performance contract, 30 schools.
- W.A. Fraser Elementary School, Abbotsford BC - energy performance contract.
- Greater Victoria Hospital Society, Victoria BC - energy performance contract, 4 hospitals.
- Saanich Peninsula Hospital, Saanichton BC - energy performance contract.
- California Academy of Science, San Francisco CA - convert courtyard to new climate zone exhibit.
- Four Embarcadero Center, San Francisco CA - high-rise tower.
- Francisco Bay Office Park, San Francisco CA.
- Customer Service Center, Sacramento Municipal Utility District, Sacramento CA.
- Customer Service Center, Los Angeles Department of Water and Power, Canoga Park CA.
- Walmart "Ecostore," Lawrence KS.
- Over 100 consultations to architects, engineers, builders and home owners while at PG&E Energy Center, San Francisco CA.