Call for Abstracts/Papers – DEADLINE EXTENDED

Sustainable Structures Symposium
The Intersections of Architecture, Structural Engineering and Green Buildings

April 17-18, 2014
Portland State University
Portland, OR

The School of Architecture in the College of the Arts at Portland State University is pleased to announce its fifth annual symposium. This year’s theme will focus on the intersections of structural systems, materials and sustainability. Faculty and students in architecture, structural engineering and related disciplines as well as practicing architects and engineers are invited to submit abstracts for blind peer review. Authors of selected abstracts will to be asked to submit full papers for another round of blind peer review to ensure quality and give feedback to the authors. Accepted papers will be presented at the symposium and included in the published proceedings.

Overview
Buildings are responsible for roughly 40% of all carbon emissions and primary energy use, more than any other sector in the United States. Moreover, this excludes the significant energy and emissions required to extract, process, transport and assemble building components. Globally, the production of cement alone accounts for 5% of carbon dioxide emissions. Consequently, reducing the environmental impact of building construction and operations is critical to address interrelated issues such as global climate change.

Building envelopes, mechanical systems and daylighting are the traditional emphasis of green building practice and scholarship. The role of structural systems in the overall performance of a building has been largely neglected. In contemporary practice, architects and engineers choose a structural system very early during the design process depending on constraints such as building codes, cost, required spans, construction schedule and site constraints. Very little consideration is typically given to other ways the structure could contribute to improving sustainable outcomes. This is in spite of the fact that the structure of a typical office building contributes roughly one-quarter of the initial embodied energy and is, at the very least, the armature for all other building systems. Like all other aspects of a building, the structural system needs to be understood in terms of wide range of sustainability issues: carbon emissions, operational energy, longevity and reuse. This symposium will explore the greater role structure should have in the design, impact and operation of green buildings.
Topics
It is the goal of the symposium to discuss a wide range of topics through original research, case studies, design tools and processes, and other means. Topics for papers may include but are not limited to:

- life-cycle analysis/impact of structural systems in green buildings
- low embodied energy and carbon structural materials
- the role of structures in green building rating systems
- adaptive reuse of existing building structures
- intersections of structural systems with other building systems (heating, cooling, lighting, enclosure, finishes) to reduce initial and operational resource consumption
- integrated design processes, multidisciplinary collaboration
- building retrofits – combining structural and other types of retrofits
- building longevity, resiliency and role of structural systems
- deconstruction, structural material reuse and end-of-life issues

Important Dates
Thursday, August 15, 2013 – Website open for Abstracts
Thursday, September 12, 2013 – Abstracts due [DEADLINE EXTENDED]
Monday, October 7, 2013 – Notification of Abstract Acceptance
Monday, November 4, 2013 – Full Papers due
Friday, January 3, 2014 – Notification of Full Paper Acceptance

Submissions
Abstracts should be no more than 500 words and include a sample image along with five keywords. Full papers will be 3000-4000 words. Formatting for abstracts and papers will be available on the symposium website.

For additional information, please see the symposium website at: www.sustainablestructure.org or contact Assistant Professor, Corey Griffin, at cgriffin@pdx.edu.