

CCHRB 2023 Scholarship Seminar
Chicago, Illinois
Thursday, June 15, 2022

What: **High Rise Fire and Life Safety: Recent Changes and Forthcoming Developments**

A comprehensive overview of the approaches to recent challenges posed by Tall and Supertall Buildings in the rapidly evolving field of Fire and Life Safety; presented by national and internationally recognized leaders in the field.

AIA Continuing Education learning objectives include the following:

1. Attendees will be presented with an outline of the progress in high rise fire safety over the past fifty years, both domestic and foreign; as well as a review how building and fire codes have evolved, and how changes in technology have facilitated the broader use of fire protection systems,
2. Information on notable building fires involving the exterior facades, the history of passive requirements outlined in the major building codes that address facade materials, the confusing world of fire tests and why some of the new façade materials are contributing to these fires
3. The physics behind stack effect and the various passive and active means of controlling smoke propagation in tall buildings.
4. The unique challenges that tall timber buildings present and approaches developed to satisfy regulatory requirements and the need for fire safety.

Who Should Attend: Architects, engineers, designers, contractors, subcontractors, developers, building owners, property managers, building officials, fire officials, and those involved in the planning, design, construction, and operation of buildings of all types and heights, especially “high-rise” buildings.

Date and Time: Thursday, June 15, 2023
8:30 am – 1:00 pm (US CDT)

Location: **The Auditorium at AON Center**
200 East Randolph Street
Chicago, Illinois 60601

Sponsor: **Chicago Committee on High Rise Buildings:** <https://www.cchrb.org/>
Proceeds from this seminar go towards the annual CCHRB Scholarship Fund.

Cost: \$150.00 Members of CCHRB or Co-sponsoring organization
\$175.00 Non-members
\$50.00 Students [Student identification will be required at check-in].

Group Discounts of 5 tickets for the price of 4 are available.

Use this link to go directly to registration:

SCHEDULE

8:30: Call to Order and Welcoming Remarks:

- Bob Grupe

8:40: Introduction to Session 1:

- Peter Weismantle

8:45: High Rise Fires: The Nature of the Issue and the State of the Art:

- **Presenter:** Carl Baldassarra

9:30: High Rise Fires – State of the Art in the Management of Stack Effect and the Movement of Fire and Smoke:

- **Presenter:** Mehdi Jalayerian and Tyler Jensen

10:15: Refreshment Break

10:40: Introduction to Session 2:

- **Peter Weismantle**

10:45: Façade Fires: How We Got Here and How We Move Forward

- **Presenters:** Jeff Harper and Jon Boyd

11:30: High Rise Fires: Tall Timber:

- **Presenters:** John Peronto + (TBC)

12:15: Roundtable Discussion

- **Moderator:** Peter Weismantle

12:55: Closing Remarks:

- **Bob Grupe**

Co-sponsors:

AIA: Chicago Chapter of the American Institute of Architects

ALA: Association of Licensed Architects

ASHRAE: Chicago Chapter of the American Society of Heating, Refrigeration and Air Conditioning

BOMA: Chicago Council of Building Owners and Managers Association

CSI: Chicago Chapter Construction Specifications Institute

CTBUH: Council on Tall Buildings and the Urban Habitat

LI: Landmarks Illinois

SEAOI: Structural Engineers Association of Illinois

SFPE: Chicago Chapter of Society of Fire Protection Engineers

USGBC: United States Green Building Council

ULI: Urban Land Institute

Additional Information:

Peter Weismantle, Seminar Task Force Chair: peterweismantle@smithgill.com
or 1- 312-714-4677

Continuing Education:

Four hours of Continuing Education Credits are available for members of AIA. Sign-in sheets will be available at the end of the seminar. A certificate for 4 hours of continuing education learning units will be provided upon request.

Presentation 1



Carl F. Baldassara, PE FSFPE
Senior Principal, Fire Protection
Wiss, Janney, Elstner Associates, Inc.

Carl is a Senior Principal and Manager of the Fire Protection practice at Wiss, Janney, Elstner Associates in Northbrook, Illinois. Prior to that, he was Executive Vice President at Rolf Jensen & Associates for five years, and President of Schirmer Engineering Corporation where he worked for more than thirty years. Over his forty-plus year career, Mr. Baldassarra has served on many NFPA and ICC technical committees, including: the ICC Ad Hoc Committee on Tall Wood Buildings; NFPA 1, *Fire Code*; NFPA 13, *Standard for the installation of Sprinkler Systems*; NFPA 101, *Life Safety Code*; and NFPA 5000, *Building Construction and Safety Code*. He is, of course, a long-term member of the Chicago Committee on High-Rise Buildings.

Presentation 2



Mehdi Jalayerian, PE LEED AP
Senior Managing Director
Environmental Systems Design, Inc.

Mehdi is the Senior Managing Director for ESD. His expertise spans over three and half decades of work on iconic tall-megatall mixed-use, public assembly, commercial and institutional buildings that include the world's first positive energy large scale building and the world's next tallest building. He is a frequent speaker on integrated building systems design with a focus on high performance tall building design strategies with focus on energy efficiency, stack effect mitigations, flexibility, life safety, phased occupancy and Intelligent Buildings and is a major contributing author to the ASHRAE Design Guide for Tall, Supertall and Megatall Buildings and chairs the Application Handbook for ASHRAE TC9.12. He holds bachelor's and master's degree in Mechanical Engineering from the University of Kansas and is a licensed Professional Engineer in 14 states.



Tyler Jensen, PE
High Performance Buildings Studio Leader
Environmental Systems Design, Inc.

Tyler is a Studio Leader in the High-Performance Buildings group at ESD. He has broad experience as a mechanical engineer and project manager across a variety of markets, with a focus on tall buildings, infrastructure, life sciences, and repositioning projects. As Studio Leader, Tyler is responsible for ensuring the performance, efficiency, and profitability of an interdisciplinary team of engineers and project managers. He has published and presented multiple articles pertaining to mechanical engineering, sustainable design, and stack effect mitigation. He holds B.S and M.S. in Mechanical Engineering degrees from Washington University in St. Louis and is a licensed Professional Engineer in Illinois.

Presentation 3

Façade Fires: How We Got Here and How We Move Forward



Jeffery E. Harper, PE
Technical Fellow
Jensen Hughes Associates

Jeff is a degreed fire protection engineer from the University of Maryland. He has been a licensed professional consulting engineer for over 32 years and has worked with JENSEN HUGHES, Inc. for nearly 34 years. He worked as a firefighter and paramedic for 10 years prior to that. Jeff is currently a Technical Fellow and senior consultant located in JENSEN HUGHES' Chicago office. Jeff has worked on many projects developing fire and life safety programs, evaluating code compliance and developing equivalent approaches. He participated in the development of the SFPE Guide to Fire Protection in Very Tall Buildings. Mr. Harper has also presented on the fire safety of high-rise façades at the 2016 and 2018 CTBUH annual conferences. He is an SFPE Fellow, has received the SFPE Hats Off Award, and has also received the Finnegan and Freeman Awards from the Chicago Chapter of SFPE.



Jon M. Boyd, RA SE
Senior Principal Consultant
Klein & Hoffman

Jon is a Licensed Architect and Licensed Structural Engineer with 47 years of diversified experience in the fields of structural and architectural engineering. He has provided structural and architectural engineering services for a broad range of building types, including structural engineering design of numerous buildings in the US and the middle east. For the past 36 years, his central practice has focused predominately on exterior cladding consulting, including investigative services, retrofit and rehabilitation design, project troubleshooting, architectural engineering and structural engineering analysis and design. Jon served as Chairman and CEO of Klein & Hoffman from 2010 to 2020, and recently retired from full-time professional practice. He served as President of the Structural Engineers Association of Illinois; as Chairman of the Chicago Committee on High Rise Buildings; and has been an active member of ASTM committee E06.55 'Building Exterior Walls'. He received the 2000 Award of Excellence from the ASTM Committee on Publications, and the Distinguished Service Award of the Structural Engineers Association of Illinois.

Presentation 4



High Rise Fires: Tall Timber:

**John Peronto, SE PE SECB LEED AP
President
Thornton Tomasetti, Inc.**

John Peronto, Chicago co-office director and a leader in our Structural Engineering practice, has designed a variety of building types, including commercial, residential, cultural and aviation facilities.

Round Table



Round Table Discussion, Q & A

**Moderator
Peter A. Weismantle FAIA RIBA
Consulting Director Supertall Building Technology
Adrian Smith + Gordon Gill Architecture**

Peter is the Consulting Director for Supertall Building Technology at Adrian Smith + Gordon Gill Architecture. Formerly an Associate Partner at Skidmore, Owings & Merrill in Chicago, he has been responsible for the technical design and coordination of systems including vertical transportation, fire and life safety and the building façade on projects including Broadgate, Ludgate and Canary Wharf Developments in London, Jin Mao Tower, Shanghai and the world's tallest building, Burj Khalifa in Dubai. Projects currently under construction or recently completed include Al Wasl Plaza (the multi-building and immersive experience trellis structure and garden centerpiece of Expo 2020) and Uptown Dubai Tower in Dubai, Wuhan Greenland Center and the Greenland Dongcun Center in China and Jeddah Tower (formerly known as Kingdom Tower), in Jeddah, Saudi Arabia which, when completed, will be the first building and first freestanding structure in the world to be more than 1000 meters in height.

Notes:

The **Chicago Committee on High Rise Buildings (CCHRB)** is a not-for-profit organization founded to investigate problems or enhancements; support research and disseminate information for the economic design, construction, operation, and rehabilitation of high-rise buildings. Its members are experienced and skilled in the design, construction and operation of high-rise buildings. CCHRB was formally established in 1969, reportedly making it the first organization in the world established to specifically advance knowledge of high-rise buildings.

Proceeds from this annual Seminar help fund the Chicago Committee on High Rise Buildings (CCHRB) Scholarship program. This \$5,000 yearly scholarship supports graduate students, and highly qualified senior and junior-level undergraduates at any college or university with an alumnus who serves as a member of the CCHRB, provided the student's area of study is directly related to some aspect of the design, construction, operation and/or rehabilitation of high-rise buildings. Applicants must submit an essay or a proposal; and must demonstrate academic achievement, community service, extracurricular activities and financial need.
