

Session 2A: After the Fire: Damage Assessment for the Repair of Mass Timber Building Elements

The 2021 edition of the International Building Code includes comprehensive language for the design and construction of taller and larger buildings of mass timber construction. A concern has been expressed by owners, designers and insurers of these buildings about repairing them following a fire or other damage. This presentation provides an overview of the methods used to assess structural damage and potential structural repair options associated with the impacts of fire and firefighting water on engineered mass timber construction. The presenters will identify recent research on this topic, typical water demand used for firefighting, and case studies of mass timber repair projects.



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Carl Baldassarra 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, and President of Schirmer Engineering Corporation where he worked for more than thirty-five years. Over his career, Mr. Baldassarra has served on many NFPA and ICC technical committees, including the ICC Ad Hoc Committee on Tall Wood Buildings, responsible for development of the first comprehensive criteria for mass timber construction in the 2021 edition of the IBC. He has also served on the ICC Code Technology Committee; and technical committees for NFPA 1, NFPA 13, NFPA 92, and NFPA 101. Carl is a Past President of the Society of Fire Protection Engineers and former member of its board of directors. Carl currently serves as Chair of the SFPE Ethics committee and is a member of the SFPE's Editorial Board responsible for FPE magazine. Carl also currently serves as a member of the Board of Directors of the Chicago Chapter of SFPE. He has a BS degree in fire protection engineering from the Illinois Institute of Technology, an MBA, and is a licensed professional engineer in several states. He has been a frequent presenter at the SFPE Atlanta conferences.