

Target Audience - Architects and Engineers

Presentation Description:

Today, structural engineers are well trained in college and university to tackle structural problems with steel reinforced concrete and steel solutions. Structural Masonry is less understood and often left to one or two subject matter experts with in a firm or to an outside consultant to engineer. FEM software can be easily adapted and configured to accurately model structural masonry's capabilities. With a little more knowledge on the true performance and capability of structural masonry and the right FEM software, any structural engineer can become comfortable designing with masonry, a low cost and readily available material.

Learning Objectives –

- Compare/ contrast how masonry behaves relative to steel and steel reinforced concrete solutions. Explain why a masonry solution is often over-engineered, which erroneously adds cost to masonry and makes it appear less appealing
- Identify the areas of a typical building that are candidates for structural masonry and how to accurately model them in FEM software with masonry in mind as opposed to steel or steel reinforced concrete.! Explain why structural masonry is actually more efficient for certain details.
- Understand how masonry is constructed on site so that designs/ details: are accurate and on module, use standard materials, are constructible by masonry sub-contractors and sequenced correctly



Presenter Bio – Cathleen Jacinto, SE, PE

Cathleen has 16 years of experience in the design industry as a structural engineer. A seasoned project manager and team leader, Cathleen collaborated on a variety of building design projects while at Thornton Tomasetti and T.Y. Lin International in Chicago, Illinois. Her resume includes small to large-scale project types in healthcare, aviation, commercial, infrastructure, cultural, and steel connection design located in the U.S. and abroad. Since joining FORSE in May 2015, Cathleen provides structural engineering design, modeling, and detailing services in collaboration with other structural engineering firms. Her solid knowledge base of various building materials, including steel, masonry, concrete, and wood contributes to FORSE's designs, seminars, and publications. She serves as a technical consultant to the Illinois Structural Masonry Coalition. One topic Cathleen highlights is structural masonry analysis and design. Cathleen also currently holds the position of Technical Consultant with SE Solutions, LLC where she provides technical input to structural engineering webinars as well as writes technical documents that serve as resources for the practicing structural engineering community. Cathleen has a Professional Masters in Structural Engineering from the Illinois Institute of Technology and a Bachelor of Science in Civil Engineering from the University of Illinois Urbana-Champaign. She is a licensed Structural Engineer (SE) and Professional Engineer (PE) in the State of Illinois.



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