

## **Target Audience – Engineers only**

### **Presentation Description:**

Masonry lintel design is a critical part of an efficient structural masonry solution. The design of masonry lintels can add significant capacity to the structural design and add robustness to the wall that contractors and owners will welcome for crack prevention. In many cases in the past we have made assumptions to simplify the analysis of masonry lintels that has been a detriment to the architectural, and engineering design. Today we have software tools to analyze complex integrated masonry lintels, and therefore engineers should be utilizing those tools for masonry wall and lintel design. We will be demonstrating the construction of several different types of masonry lintels. Engineers, architects, and contractors can see firsthand how "different design problems are being solved with masonry lintels.

### **Learning Objectives –**

- Build knowledge on fundamental features of lintels for masonry walls
- Acquire insights on the behavior and load distribution of lintels and masonry walls with openings
- Discover the advantages of modeling masonry walls with finite elements, what we will gain
- Comprehend practical design tips to achieve high performance masonry lintels

## **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.

