



Climate-Responsive Design: Balancing Resilience, Thermal Performance and Embodied Carbon with Concrete Masonry

Description

This course explores how using concrete masonry units (CMU) in the built environment provides an integrated approach to climate-responsive design by simultaneously addressing three critical sustainability strategies: resilience, operational energy use, and embodied carbon reduction. Participants will examine how CMU construction offers inherent solutions to modern building challenges, from natural disasters and extreme weather events to energy conservation and carbon footprint reduction. The course demonstrates that CMU structures perform beyond code requirements without additional measures, providing durable, cost-effective buildings that support community resilience while contributing to low embodied carbon goals.

- Program Length: 2 hours
- Content: 3 Modules
- Level: Intermediate
- Quiz: 10 questions

Objectives

1. Describe architectural versatility of concrete masonry construction and how CMU offers countless colors, textures, and finishes.
2. Summarize how concrete masonry offers inherent resilience strategies that exceed building code minimums and discuss how concrete masonry can help to redefine affordability by reducing repair and recovery expenses after extreme events.
3. Investigate how concrete masonry's thermal mass provides energy efficient designs and reduces operational energy use.
4. Explore groundbreaking industry research demonstrating concrete masonry's low embodied carbon and investigate three key factors: lower cement content from unique manufacturing, accelerated carbon sequestration, and hollow core design reducing concrete volume.

About the Instructor

As the Executive Director for the Utah Masonry Council Cassie Mejia is an experienced professional in the field of concrete masonry construction, known for her expertise in sustainable building practices and innovative material applications. She has led numerous educational sessions and industry workshops, helping architects, engineers, and builders enhance their understanding of resilient and energy-efficient masonry solutions. Cassie shares industry research and advancements, making her a useful resource for those seeking to expand their knowledge and skills.

Agenda

Date: May 19th

Time: 11:30am-1:30pm

Location: 299 S Main St ste 1300 Salt City Utah 84111

11:30am- Introductions, Lunch, Overview, Industry Challenges Discussion

12:00pm-1:00pm-Presentation-Interactive

1:00pm-1:30pm-Q&A and Quiz