MASONRY INSTITUTE OF ST. LOUIS

In 1971, a trust fund was established to promote the use of masonry materials. Through this trust fund, the Masonry Institute of St. Louis was created to serve as the promotional and technical arm in the Missouri counties of the Greater St. Louis Area Masonry Industry.

Seminar participants earning continuing education credits will receive a certificate after each event. Annual certificates showing credits earned through the Masonry Institute of St. Louis are available upon request.





Masonry Institute of St. Louis seminars are profession-specific. However, everyone is welcome to attend all programs.



The Masonry Institute of St. Louis is a registered provider of AIA Continuing Education under Provider Number G137. All seminars listed on the schedule have been approved for AIA LUIHSW credits.



All attendees receive Professional Development Hours (PDH) for each of the seminars listed on the schedule.

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2023 ARCHITECTURAL SEMINARS

All Architectural seminars are held at the St. Louis Masonry Center, 1429 South Big Bend Boulevard, from Noon–1PM unless otherwise noted. Lunch is provided. Vegetarian meals are available upon prior request.

MASONRY MOVEMENT JOINTS

Wednesday, September 27, 2023 Speaker: Joseph Alberts

International Masonry Institute

One of the most common questions IMI receives is how to locate masonry movements joints in concrete block walls and masonry veneers. Join Joseph 'Joe' Alberts to learn where and how to locate vertical and horizontal control joints and expansion joints. Joe will also provide rules of thumb for block walls, masonry veneers comprised of different materials, and thick and thin masonry veneers over various substrates like CMU, steel, and wood frame buildings.

Sponsor: Caliber Cast Stone www.CaliberCastStone.com

A DECADE OF ADVANCES: THE NEW MADRID SEISMIC ZONE

Wednesday, October 25, 2023 Speaker: Greg Hempen, PhD, PE, RG EcoBlast, LC

The 200th Anniversary of the *Great New Madrid Earthquake Series* was just over a decade ago. Within the decade there have been a variety of advances in the understanding of U.S. earthquakes, assessing the risk from varied seismic zones, and furnishing products for assessment of, design for, and mitigation of earthquakes. *The New Madrid Seismic Zone* (NMSZ) remains the most active U.S. seismic zone east of the Rocky Mountains, according to the Missouri Department of Natural Resources. New large structures and the rehab of certain structures are required to meet the adopted code for life safety of occupants during an earthquake. Join Dr. Greg Hempen, Geophysicist, as he discusses the NMSZ, and advances for the region and the St. Louis area in the last decade.

Sponsor: Irwin Products www.IrwinProducts.com

THE CREATIVITY OF BRICK MATCHING

Wednesday, November 29, 2023

Speaker: Don Foster

Masonry Cosmetics, Inc.

Join Don Foster, an expert on the subject matter with over 30 years of hands-on experience in the brick industry, as he educates participants on how to make masonry match for any project repair or project addition. Don will discuss topics such as selecting the right brick, use of the physical brick-blending process, selecting a masonry coloring process, and specifying matching masonry in architectural plans. Don will review several projects in which brick matching was successfully achieved and what factors contributed to projects where the matching was inadequate.

Sponsor: Richards Brick www.RichardsBrick.com

BLAST DESIGN REQUIREMENTS - OVERVIEW

Wednesday, January 31, 2024 Speaker: Hani Hanna, PE, SE

US Army Corps of Engineers

Compared to the typical forces usually included in building design, such as

wind and design. A catastrop and prote designing NEW DATE MARCH 13, 2024

blast resistance. Han will explain now the intensity of blast loading on a given structure depends upon several key factors.

Sponsor: Lemay Concrete Block www.LemayBlock.com CMU LINTELS & ASSOCIATED VENEER LINTELS

Wednesday, February 28, 2024 Speaker: Pat Conway, AIA International Masonry Institute

Masonry lintels provide many advantages in CMU walls and are identified as one of the most effective methods to span a masonry wall opening. Join Pat Conway as he reviews the benefits as well as examines how masonry and veneer lintels support efficient and sensible constructability while positively impacting project cost and schedule. Pat will discuss lessons learned and how loose or attached veneer lintels address moisture control and air control, movement, insulation continuity, and aesthetic issues.

Sponsor: Earthworks Stone www.EarthworksStone.com

WHAT NON-ENGINEERS NEED TO KNOW ABOUT STRUCTURAL MASONRY Wednesday, March 27, 2024

Speaker: Beth Suminski, PE, SE FORSE Consulting

Structural masonry saves time and money while providing a durable and attractive solution for building design. Join Beth Suminski to observe how structural masonry's inherent design benefits support budget goals while enhancing functional and aesthetically pleasing architectural projects. Beth will discuss current structural masonry design methods, load bearing wall case studies, interior partitions, shear walls, foundation walls, and stair towers. Keys for achieving economical and sustainable projects by utilizing masonry that is not over-designed or under-utilized will be provided. **Sponsor: Best Block**

www.BestBlock.com

MASONRY VENEER MODIFICATIONS IN TMS 402/602-22: A WHOLE NEW CHAPTER

Wednesday, April 24, 2024

Speaker: Christine 'Tina' Subasic, PE, LEED AP, FTMS C. Callista Subasic Consulting

The chapter on masonry veneer has been extensively revised and updated for the 2022 edition of TMS 402/602. Join Tina Subasic for discovery of the essential elements for designing masonry veneer with the new provisions and determine where your specifications need to be upgraded to meet the new requirements. Tina will summarize the changes for both anchored and adhered veneers, including updated installation and inspection requirements and allowable tolerances in construction. With the updated requirements, you will be able to simplify the design of your masonry veneer projects and ensure the most efficient design methods are being used.

Sponsor: Building Products Corporation www.BuildingProductsCorp.com

HISTORICAL MASONRY: THE ART AND SCIENCE OF ARCHES Wednesday, May 22, 2024

Speaker: David T. Biggs, PE, SE

Biggs Consulting Engineering

Was the arch discovered or copied from nature? The earliest recorded use of man-made masonry arches dates to Mesopotamia and India between 1000 and 2000 BCE. The Greeks and Chinese were early adopters of the technology, and the Romans expanded their use throughout Europe. Eventually, all cultures reinvented the arch or learned from others. The arch also led to the development of vaults and domes. Join David Biggs as he presents historical examples of arches, vaults, and domes that have survived centuries. David will, in addition, describe various repair and strengthening techniques.

Sponsor: Leonard Masonry www.LeonardMasonry.com

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DETAILING LOADBEARING CONCRETE MASONRY

Wednesday, September 20, 2023 Speaker: Jason Thompson, PE Coltivomae, LLC

Once loadbearing concrete masonry has been designed, proper load-path detailing must then take place. Join Jason Thompson as he identifies key detailing items including wall to foundation, floor, and roof connections; minimum seismic reinforcement of walls, bond beams, lintels, opening, and control joints; splicing of reinforcement; and structural effects of through-wall flashing.

Sponsor: Best Block www.BestBlock.com

MASONRY PARAPET WALLS

Wednesday, October 18, 2023 Speaker: Phillip Shinn, PE Jacobs

Originally designed to protect against enemy attack, the modern parapet design must provide certain components according to code. Join Phillip Shinn as he discusses these components as well as how to evaluate structural considerations for new and existing parapets. Phillip will describe how using masonry easily provides the requisite for safety and stability code requirements as he designs for dead load, out-of-plane wind, and out-of-plane seismic.

Sponsor: Frisch Masonry

www.linkedin.com/in/nick-frisch-28b8a75

NONDESTRUCTIVE AND DESTRUCTIVE TEST METHODS TO EVALUATE EXISTING MASONRY STRUCTURES Wednesday, November 15, 2023

Speaker: Steven Fults. PE

Special Inspections & Design

In some cases, it is necessary or desirable to evaluate the properties of existing masonry construction using the actual construction materials instead of representation samples. Join Steven Fults as he discusses practices for the physical evaluation and testing of existing masonry walls, grout, mortar, reinforcing, and cornice assemblies. Steven will define and illustrate nondestructive techniques and equipment to include GPR, ultrasonic tomography & pulse velocity, borescope, GPR, pachometer, IR testing and drone inspections. Destructive testing topics include in-situ shear testing, flat-jack compressive testing, wrench-bond mortar testing, bond testing of epoxied rebar, and load testing of fall protection anchors. Chronological footage of masonry construction special inspections will be shown.

Sponsor: John J. Smith Masonry www.SmithMasonry.com

ARE YOU OVER-ENGINEERING MASONRY?

Wednesday, January 24, 2024 Speaker: Philippe Ledent, PE, SE Maconny Institute of Michie

Masonry Institute of Michigan

Join Philippe 'Phil' Ledent to explore the minimum building code requirements for masonry structures as presented in the *International Building Code* (IBC) and the *Building Code Requirements and Specifications for Masonry Structures* (TMS 402/602). Seismic design requirements may govern the mandatory spacing of reinforcement both vertically and horizontally; accordingly, Phil will review these shear wall systems for participating elements. Minimum and maximum reinforcement provisions for both walls and beams will be reviewed, along with recommendations for the most economical masonry assemblies.

Sponsor: John J. Smith Masonry www.SmithMasonry.com

STRUCTURAL MASONRY AND FIBER-REINFORCED POLYMERS

Wednesday, February 21, 2024 Speaker: John J. Myers, PhD

Missouri University of Science & Technology

Last year, Darrell McMillian, Masonry Institute of St. Louis (Retired), touched on fiber-reinforced polymer (FRP) systems and how they can be used to reinforce/strengthen existing and new masonry components. Join Dr. John Myers for a more in-depth look at this system, its advantages and the extensive work completed in the field of FRP research and standardization. John will provide a brief update to ongoing FRP research efforts and other design resources. John will discuss the new *TMS 402-22 Appendix D* for using glass fiber-reinforced polymer (GFRP), which is the first standard in the U.S. for the use of GFRP reinforcement for masonry.

Sponsor: Raineri Building Materials www.Raineri-Materials.com

STRUCTURAL MASONRY SPECIAL INSPECTIONS

Wednesday, March 20, 2024

Speaker: John Chrysler, PE, FTMS Masonry Institute of America

The International Building Code (IBC) now defers to the TMS 402, Building Code Requirements for Masonry Structures, for the type and frequency of masonry special inspections. Join John Chrysler, Chair of TMS 402/602-22 Main Committee and member of the International Code Council Exam Development Committee, for an overview of current masonry special inspection requirements and a discussion of the IBC and TMS 402/602 relationship regarding the special inspections process.

Sponsor: John J. Smith Masonry www.SmithMasonry.com

MAJOR STRUCTURAL DESIGN CHANGES: TMS 402/602-22

Wednesday, April 17, 2024

Speaker: Richard M. Bennett, PhD, PE, FTMS University of Tennessee, Knoxville

One of the biggest changes in the TMS 402/602-22 *Building Code Requirements and Specifications for Masonry Structures* was the introduction of compression-controlled sections in Strength Design (Chapter 9). As a result of this, the maximum reinforcement provisions were deleted except for beams and intermediate and special shear walls under in-plane loads. Join Dr. Richard 'Dick' Bennett for details about this change and an overview of other changes, their impact on design, with some design aids presented.

Sponsor: Trends In Tile www.TrendsInTile.com

ECONOMICAL STORM SHELTER DESIGN: PROTOTYPES

Wednesday, May 15, 2024

Speaker: Darrell W. McMillian, PE, FTMS Masonry Institute of St. Louis (Retired)

Since IBC 2015 started mandating ICC-500 compliant storm shelters in schools and other public institutions, the demand has skyrocketed, putting significant strain on their already tight budgets. Join Darrell McMillian as he provides an update on designing storm shelters with reinforced concrete masonry. Utilizing concrete masonry is a very economical way to protect human life and is a reliable wall system for delivering a project on time and on budget. Darrell will identify three prototype storm shelters with cost and scheduling estimates.

Sponsor: Grant Contracting Co., Inc. www.GrantContracting.com

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2023 CODE OFFICIALS SEMINARS

2024 Code Official seminars are Co-Sponsored by St. Louis Professional Chapter of ICC/AIA St. Louis Building Code Committee.

All Code Official seminars are held at the St. Louis Masonry Center, 1429 South Big Bend Boulevard, from Noon–1PM unless otherwise noted. Lunch is provided. Vegetarian meals are available upon prior request.

Sponsor:

EXISTING MASONRY EVALUATION CASE STUDIES

Wednesday, October 11, 2023 Speaker: David Birenbaum, PE

Engineered Inspection & Consulting Services, LLC

St. Louis is known as "Bricktown" for its large number of existing loadbearing brick structures. Many of these are still performing as intended after 100 plus years of service. However, some are in need of help due to deferred maintenance or past alterations. Join David Birenbaum as he presents case studies from his investigations of local brick structures which highlight issues encountered and potential solutions to those issues.

Sponsor: Lampkin Masonry www.LampkinMasonry.com

MASONRY RETAINING WALL OPTIONS

Wednesday, January 17, 2024 Speaker: Jack Sanders

St. Louis County Code Official (Retired)

A retaining wall is a structure designed and constructed to resist the lateral pressure of soil when there is a desired change in ground elevation. Join Jack Sanders as he explores using masonry materials for this purpose including retaining wall types, typical code related requirements, and masonry retaining wall options.

Sponsor: Lemay Concrete Block www.LemayBlock.com BASICS OF MASONRY

Wednesday, April 10, 2024

Speaker: Steve Gantner, RA, CDT, CCS, CCCA Conspectus, Inc.

Join Steve Gantner for an overview of current materials and processes for constructing new masonry exterior wall envelopes. Topics include codes and standards, masonry units, mortars, and grouts, flashing and weeps, anchors and ties, hot and cold weather precautions, field tolerances, and masonry cleaning. Current online masonry informational sources will also be discussed.



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Come Join Us for a Lunch and Learn! Our speakers are knowledgeable and fascinating. See you soon.



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