CAROLINAS CHAPTER

"Changes to the Concrete Design Standards"

The ACI Carolinas Chapter proudly presents our educational seminar to include presentations and discussions for:

- **Changes to the Concrete Design Standard 318-19**
- **New ACI Code 440.11-22 Building Code Requirement Structural Concrete Reinforced GFRP bars**
- **Sustainable Construction Pathways: Emerging Trends in Cement**
- **ACI Reference Specifications: Unraveling Concrete Specs**
- **ACI Repair Code 562-25**

The Chapter has assembled speakers from the American Concrete Institute (ACI) and Titan America that are instrumental in the development and design of concrete's insight and impact of its use. This seminar will benefit Owners, Architects, Engineers, Contractors, Material Suppliers, Testing Laboratories and others in the Concrete Industry.

Date: September 30, 2025
Location: Hilton Garden Inn, Charleston Airport & Convention Center
5265 International Blvd, N. Charleston, SC 29418
Time: 7:30 am – 3:30 pm

Registration via the Chapter's website only www.aci-carolinas.org

Cost: Member: $200.00
Non-Member: $250.00

The last day to register is September 24, 2025

Education Credits: 6 PDH's

There will also be a giveaway drawing at the end of the seminar. Choices include only one of the following:

- **ACI Individual Membership (New memberships only) for one year**
- **ACI Online Collections of Concrete Codes, Specifications and Practices**
- **ACI University Digital Subscriptions (Webinars and on-demand courses)**
- **ACI Concrete Repair Digital Subscription**

We look forward to you joining us for a day of education and discussion.

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“Changes to the Concrete Design Standards”

Agenda

- 7:30 – 8:00 am Registration and Coffee
- 8:00 – 8:30 am Welcome and Overview of ACI Carolinas Chapter and ACI PRO
  Presented by Neal Barber, Carolinas Chapter President and Chad Hensley, Chapter Director
- 8:30 – 9:45 am Changes to Concrete Design Standard ACI 318-19
  Speaker: Khaled Nahlawi, Engineer - American Concrete Institute
- 9:45 – 10:00 am Break
- 10:00 – 11:00 am New ACI Code 440.11-22 Building Code Requirement
  Structural Concrete Reinforced GFRP bars
  Speaker: William Gold, Engineer - American Concrete Institute
- 11:00 – 12:00 am Sustainable Construction Pathways: Emerging Trends in Cement
  Speaker: Kisia Kimmons, Technical Services Manager - Titan America
- 12:00 – 12:45 pm Lunch (Provided)
- 12:45 – 1:45 pm ACI Reference Specifications: Unraveling Concrete Specs
  Speaker: William Gold, Engineer - American Concrete Institute
- 1:45 – 2:00 pm Break
- 2:00 – 3:00 pm ACI Repair Code 562-25
  Speaker: Khaled Nahlawi, Engineer - American Concrete Institute
- 3:00 – 3:30 pm Audience Discuss, ACI Raffle Giveaway and Chapter Talk Survey

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Changes to the Concrete Design Standard ACI 318-19

- Understanding where higher grades of reinforcement are accepted and changes to the requirements for structural concrete to allow the higher reinforcement grades
- Identifying changes to development lengths for straight bars, hooks, and headed deformed bars
- Learning the new requirements for post-installed screw-type anchors and shear lug design for anchoring to concrete
- Describing the changes to shear design provisions and equations

New ACI CODE-440.11-22: Building Code Requirements for Structural Concrete Reinforced with Glass Fiber-Reinforced Polymer (GFRP) Bars

- Explain where the new ACI code for GFRP-reinforced concrete applies, what the limitations are for using this code, and how it relates to other standards from ACI, ASTM International, and ICC
- Gain a basic knowledge of the mechanics of GFRP-reinforced concrete and how it compares to steel-reinforced concrete
- Describe the code requirements that relate to the installation of GFRP bars and other general considerations for their field application

Sustainable Construction Pathways: Emerging Trends in Cement

- Delves into the latest advancements in cement technology, with a focus on sustainable innovations
- Examines the American Cement Association's (ACA) value chain impact and the Global Cement and Concrete Association's (GCCA) roadmap to net-zero emissions
- Discussion includes next-generation lower carbon cements, such as Portland Limestone Cement (PLC) and Type IT, and the performance characteristics of blended cements
- Addresses the evolution of specifications from prescriptive to performance-based approaches, highlighting the technical benefits and implementation strategies of these advanced materials in enhancing the durability, strength, and sustainability of concrete structures

ACI Reference Specifications: Unraveling Concrete Specs

- What are ACI specifications
- Common features of ACI specifications, using ACI 301
- Summary of the ACI 301 checklists
- Important upgrades in ACI 301-20

ACI Repair Code 562-25

- Main changes to ACI 562-21
- New Chapter on Fire
- New Chapter on Historical Reinforcement
- Introduction of reliability-based assessment
- Significance of a quality assurance program for successful repairs

ACI Carolinas Chapter Educational Seminar
September 30, 2025

Hilton Garden Inn
Charleston Airport & Convention Center
North Charleston, SC 29418

Speaker Bio's

Khaled Nahlawi, PHD, PE - Engineer at American Concrete Institute (ACI)
Khaled Nahlawi provides technical and administrative support to ACI's Technical Committees and communicates the work of these committees to other standard developing organizations and regulatory agencies. He received his PhD from the University of Michigan and has over 20 years of experience in the design and strengthening of structures. He joined ACI in 2009 and has supported, among other duties, the re-organization effort of 318 and is the secretary to ACI 562. Khaled is the author of the Reinforced Concrete Design Handbook (MNL-17), the Detailing Manual (MNL-66), and Guide to the ACI 562 Code (MNL-3). He is a registered Professional Engineer in California and Michigan.

William J. Gold, PE, FACI - Engineer at American Concrete Institute (ACI)
William Gold is a Senior Engineer at the American Concrete Institute. He has over 25 years of experience in the concrete and construction chemicals industry. His interests and expertise include structural engineering, FRP materials, concrete repair, and rehabilitation, and building envelopes. He holds a bachelor's degree from the University of Kansas in Architectural Engineering and completed post-graduate work at Penn State University and the Missouri University of Science and Technology. Mr. Gold is former Chairman of ACI Committee 440 on FRP Reinforcement of Concrete Structures and is active in ASTM and the Canadian Standards Association. He is a registered Professional Engineer in the State of Ohio.

Kisia Kimmons - Technical Services Manager at Titan America
Kisia Kimmons oversees the cement and aggregates divisions for the Mid-Atlantic region. With a Civil Engineering degree, an MBA in Supply Chain Management, and over 25 years in construction materials research, she excels in managing materials lab and field-testing operations. Her expertise encompasses the application of scientific methodologies for evaluation, development, promotion, and marketing of construction products. In her capacity as Technical Services Manager, Kisia has successfully managed concrete paving projects with budgets surpassing 400 million. Her technical proficiency includes advanced concrete mix design, production optimization, and stringent quality assurance protocols. She has been instrumental in the adoption and implementation of lower carbon cements, such as Portland Limestone Cement (PLC) and innovative next- generation cements like IT. Her efforts have significantly contributed to the industry's acceptance and the inclusion of these materials in technical specifications.