

FOR ARCHITECTS, CONTRACTORS, ENGINEERS, OWNERS, AND UNIVERSITIES

CONTINUING EDUCATION UNITS, PROFESSIONAL DEVELOPMENT HOURS, AND AIA LEARNING UNITS AVAILABLE UPON REQUEST.



Building Better Outcomes with Concrete

The choice of a structural system for a building is not an engineering or construction decision – it's a business decision that will affect every phase of the building and its operation for the lifetime of the structure. This presentation examines how the structural system can affect a building project in five vital areas, and how reinforced concrete can help in building a better outcome. (1 hour)



Concrete Contributions to High-Performance Buildings

Concrete, known for its strength, durability, and design flexibility, also offers many environmental advantages that support the goal of High-Performance Buildings. With the advent of Green Building Tax Credits, opportunities exist to convert these advantages into economic benefits. Learn how concrete framing systems support green building standards. (1 hour)



Building for the Information Age: Concrete for Technology Driven Buildings

Today's high-technology tenants are fueling much of the building growth throughout North America. Likewise, they are setting new benchmarks for space planning, conditioning, utility infrastructure, and structural systems. Learn how concrete is integral to each of these new trends. (1 hour)



Concrete Floor Systems

This presentation provides an overview of the various concrete framing systems available and includes guidance in selecting the most economical system for a given set of constraints: span, loading, fire resistance, and economy. Case studies of notable projects illustrate why concrete framing was chosen and how it satisfied the requirements of the project team. Resources include PCA publications and CD. (1 or 2 hours)



Concrete Buildings 2002

What's new in concrete buildings? Longer and taller systems, casual surfaces, and structures that defy definition in two dimensions are just a few of the characteristics exemplified through case studies of current concrete building projects. (1 hour)



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High-Strength Concrete for Buildings

This presentation focuses on the advantages of using high-strength concrete for building structures, and includes a discussion on the differences between high-performance and high-strength concrete. Also presented are the essential ingredients that comprise high-strength concrete, and their overall impact on the mix. Included are case studies of buildings that have utilized high-strength concrete. (1 hour)



PCA Resources for Universities

This presentation outlines the numerous resources available to university students and professors from PCA. Covered is a brief history of PCA, its mission, and a description of all of the resources that can be utilized in its Building and Special Structures Department. (30 minutes or 1 hour)



Noteworthy Concrete Buildings

Presented is an overview of the world's most notable reinforced concrete buildings, from commercial and residential skyscrapers to buildings designed for natural disasters. Included is information on why concrete was chosen for the structural framing system. (1 hour)

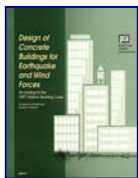
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Design of Low-Rise Concrete Buildings for Earthquake and Wind Forces

Illustrated are the analysis and design of low-rise concrete buildings according to the requirements of the 1999 editions of the BOCA National Building Code and Standard Building Code. (4 hours)



Design of Reinforced Concrete Buildings for Earthquake and Wind Forces According to the 1997 UBC

This presentation focuses on the proper design and detailing of concrete buildings for earthquake and wind forces based on the provisions of the 1997 edition of the Uniform Building Code. (4 hours)



Overview of the Seismic Design Provisions of the 2000 IBC

Presented are the seismic design provisions of the 2000 International Building Code as they relate to concrete buildings. Included is information on how to determine the seismic base shear and how to apply the proper detailing requirements. (1 hour)



PCA Resources for Structural Engineers

This presentation outlines the numerous resources available to structural engineers from PCA. Included is a brief description of PCA's Buildings and Special Structures Department, its mission, and all of the currently available resources that can enable structural engineers to design concrete buildings faster and easier. (30 minutes or 1 hour)



Post-tensioned Concrete Floor Systems

Provided is an overview of the various post-tensioned concrete floor systems available and includes guidance in selecting the most economical system for a given set of constraints, which are span, loading, fire resistance, and economy. (1 hour)



Reinforced Concrete Analysis and Design Software

Demonstrated are the currently available PCA analysis and design software packages. Emphasis is on how the software can significantly decrease the overall design time of a concrete building. (1 hour or more)

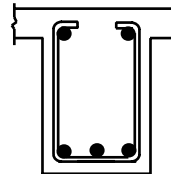
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Seismic Detailing of Reinforced Concrete Buildings

This presentation provides comprehensive coverage of the seismic detailing requirements of the 1999 edition of the ACI 318 Building Code. The material presented is also valid for detailing concrete buildings according to the provisions of the 2000 International Building Code, since that document references the 1999 ACI 318 provisions for seismic design. (1 hour)



Unified Design Provisions of ACI 318

Presented are the unified design provisions of ACI 318-02 for reinforced concrete members. Included are design aids and examples that illustrate the use of the provisions. (1 hour)



Timesaving Design Aids for Reinforced Concrete

Timesaving analysis and design techniques are presented for reinforced concrete beams, one-way slabs, two-way slabs, columns, and walls. The methods conform to the provisions of the ACI 318 Code, and can significantly decrease the required time for design and detailing of structural elements. (1 hour or more)

PRESENTERS



Dr. David A. Fanella, S.E., P.E. is Manager, Buildings and Special Structures with the Portland Cement Association. Since joining PCA in 1993, he has demonstrated PCA services at many locations across the country. He is primary author of numerous PCA publications, including the most recent ones on seismic design, and is co-editor of the seventh edition of *Notes on ACI 318-99*. Dr. Fanella is an active member of the American Concrete Institute, where he is a member of two technical committees and the Reinforced Concrete Research Council where he serves on the Executive Committee and the Awards and Publicity Committee; the American Society of Civil Engineers, where he is a member of ASCE 7; and the Structural Engineers Association of Illinois. Prior to joining PCA, he was an assistant professor of structural engineering at the University of Illinois at Chicago where he co-authored two textbooks and numerous papers on structural design, and a consultant with CBM, Inc. (now Thorton-Tomasetti), Chicago, where he was involved in the design of numerous high-rise buildings.



Dr. Attila Beres, P.E., Western United States Regional Engineer with the Portland Cement Association, provides technical assistance in all areas of building design to engineers, architects, contractors, owners, and universities throughout the western portion of the United States. Prior to joining PCA, Dr. Beres was a project engineer at Englekirk & Sabol Consulting Engineers, a major design firm in Los Angeles, where he was involved in the seismic design of many major commercial and institutional structures. In addition, he has lectured at 3 universities in California where he taught senior/graduate level courses on analysis and design of reinforced and prestressed concrete structures. Dr. Beres is an active member of the Concrete Subcommittee of the Seismology Committee of the Structural Engineers Association of California, the

American Concrete Institute, and the Earthquake Engineering Research Institute. He has also authored numerous technical papers on a wide variety of topics.



Michael C. Mota, P.E., Eastern United States Regional Engineer with the Portland Cement Association, provides technical assistance in all areas of building design to engineers, architects, contractors, owners, and universities throughout the eastern portion of the United States. Michael has been practicing structural engineering and construction management for over 13 years. Most recently he was lead structural engineer at J.E. Rosenkrantz Engineers in Atlantic City, NJ, where he was responsible for the design of commercial, residential, and marine structures. Prior to that, he was project manager for Loews Theaters in New York, NY, where he managed the design and construction of several entertainment centers throughout the U.S. Michael has an MS degree in structural engineering from the New Jersey Institute of Technology.



Amy Reineke Trygestad, P.E., Central United States Regional Engineer with the Portland Cement Association, provides technical assistance in all areas of building design to engineers, architects, contractors, owners, and universities throughout the central portion of the United States. Prior to joining PCA, she was a structural engineer at Ericksen Roed & Associates, a major design firm in St. Paul, MN, where she was involved in the development and design of numerous building structures. Amy has a MCE from the University of Minnesota and is an active member of the American Concrete Institute, the American Society of Civil Engineers, and the Council of American Structural Engineers (MN).