Troubleshooting Concrete Forming and Shoring

ONE DAY, 7.5 HOURS
Minimize problems during construction process

Program Content:

**Forming systems**
- Wood wall forms
- Panel forms
- Gang forms
- Column forms
- Column-hung forms
- Flying table forms
- Tunnel forms
- Shoring and scaffolding
- Specialty systems

**Forming economics**
- Design repetition
- Dimensional standards
- Dimensional consistency
- Slopes for drains
- Beam sizes, spandrel beams, beam-column intersections
- Column shapes and sizes
- PCA preliminary design guides

**Loads and pressures**
- Lateral pressures
- Vertical loads
- Lateral loads
- Shoring loads

**Form removal and reshoring**
- Form removal specifications and requirements
- Calculation techniques
- Stripping and reshoring techniques
- Reshoring example problem

**Tolerances and finishes**
- Wall finishes (smooth form, rough form, rubbed finishes)
- Vertical alignment and relative alignment
- Balcony drainage issues
- Tolerance compatibility issues

**Formed surface defects**
- Definitions and specifications
- Honeycomb
- Air voids in formed surfaces
- Form streaking
- Aggregate transparency
- Subsidence cracking
- Color variation
- Sand streaking
- Layer lines
- Form offsets
- Cold joints

**Advanced topics**
- (some of the following topics will be included)
- One-sided forming
- Bracing to slabs on grade and elevated slabs
- Forming overhangs (balconies)
- Overhanging access forms for materials and equipment
- Strength rating of used materials
- Wall pour size and joint location
- Shrinkage trips
- SCC formwork basics
- Mudsill settlement
- Formwork failures
- Form liners
- Free fall and concrete splatter on reinforcing steel

**Questions and answers**

**Related Documents:**
- Guide to Formwork for Concrete (ACI 347)
- Guide for Shoring/Reshoring of Concrete Multistory Buildings (ACI 347.2R)
- Specifications for Tolerances for Concrete Construction and Materials and Commentary (ACI 117)
- Identification and Control of Visible Effects of Consolidation on Formed Concrete Surfaces (ACI 309.2R)
- Guide to Cast-in-Place Architectural Concrete Practice (ACI 303R)
- (In-House Seminar customers have the option to purchase related documents 50% off the regular price)

**Who should attend:**
Contractors and engineers

**Instructors:**
Troubleshooting Concrete Forming and Shoring

In-House Seminar

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Learning Objectives:

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• Guide to Cast-in-Place Architectural Concrete Practice (ACI 303R)

Instructors:
Two of the following will present:

Up to 40 copies of presentation handouts included. Additional copies can be purchased.

Related Documents:

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Learning Objectives:

• Learn how to economically design formwork to meet dimensional standards and consistency, and how to utilize design repetition for beams and columns.
• Recognize formed surface defects and methods to prevent surface defects.
• Identify available forming systems, including wood wall, panel, gang, column forms, and which types of systems are more suitable for various construction processes.
• Understand the loads and pressures on formwork.

Instructors:
Two industry experts will present this seminar.

Related Documents:

To expand attendees knowledge, ACI In-House Seminar customers may purchase multiple copies of related documents at 50% off the regular price.

• Guide to Formwork for Concrete (Reapproved 2021) (ACI PRC-347-14(21))
• Guide for Shoring/Reshoring of Concrete Multistory Buildings (ACI PRC-347.2-17)
• Specifications for Tolerances for Concrete Construction and Materials and Commentary (ACI 117)
• Identification and Control of Visible Surface Effects of Consolidation on Formed Concrete Surfaces (ACI 309.2R)
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Up to 40 printouts of the presentation included. Additional copies can be purchased.

ACI is an approved education provider for AIA and ICC.