Troubleshooting Concrete Forming and Shoring

In-House Seminar

ONE DAY, 7.5 HOURS (7.5 PDHs/0.75 CEUs)

Minimize problems during construction process

Who should attend: Contractors and engineers

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
(one of the following topics will be included)
One-sided forming; Bracing to slabs on grade and elevated slabs; Forming overhanging (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

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

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

ACI is an approved education provider for AIA and ICC.

www.ConcreteSeminars.org