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Titolo	Prestressed Concrete : Building, Design, and Construction // by Charles W. Dolan, H. R. (Trey) Hamilton
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Descrizione fisica	1 online resource (XXIII, 452 p. 304 illus., 78 illus. in color.)
Disciplina	624.183412
Soggetti	Building materials Buildings—Design and construction Building Construction Engineering, Architectural Building construction Structural materials Ceramics Glass Composites (Materials) Composite materials Building Materials Building Construction and Design Solid Construction Structural Materials Ceramics, Glass, Composites, Natural Materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Basic Concepts -- Prestressed Concrete Applications -- Materials -- Partial loss of Prestress -- Flexural Basics of Analysis and Design -- Flexure - Design -- Shear and Torsion -- Camber and Deflections -- Continuous Slabs and Beams -- Composite Beams -- Two-way Slabs -- Axially Loaded Members -- Spliced Girders -- Strut-and-Tie method -- Connections and Anchoring to Concrete -- Comprehensive Problems.

This textbook imparts a firm understanding of the behavior of prestressed concrete and how it relates to design based on the 2014 ACI Building Code. It presents the fundamental behavior of prestressed concrete and then adapts this to the design of structures. The book focuses on prestressed concrete members including slabs, beams, and axially loaded members and provides computational examples to support current design practice along with practical information related to details and construction with prestressed concrete. It illustrates concepts and calculations with Mathcad and EXCEL worksheets. Written with both lucid instructional presentation as well as comprehensive, rigorous detail, the book is ideal for both students in graduate-level courses as well as practicing engineers. Maximizes reader understanding with the most thorough and up-to-date treatment of prestressed concrete structures based on 2014 ACI code; Illustrates concepts and calculations with Mathcad and EXCEL worksheets; Reinforces instruction with detailed and comparative examples; Provides comprehensive coverage of prestressed concrete appropriate for both students and professional engineers.
