Manual of Concrete Practice 2017

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ACI MANUAL OF CONCRETE PRACTICE INDEX—2017

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New editions of each part of the *ACI Manual of Concrete Practice* are issued annually and include the latest ACI standards and committee reports.

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The final quality of a concrete structure depends on qualified people to construct it. ACI certification programs identify craftsmen, technicians, and inspectors who have demonstrated their qualifications. The following programs are administered by ACI to fulfill the growing demand in the industry for certified workers. More information about these programs is available at **www.acicertification.org.**

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Tilt-Up Supervisor & Technician
Shotcrete Nozzleman (Dry-Mix Process)
Shotcrete Nozzleman (Wet-Mix Process)
Concrete Flatwork Finisher, Technician, & Tradesman
Specialty Commercial/Industrial Concrete Flatwork Finisher
Concrete Field Testing Technician—Grade I
Concrete Strength Testing Technician
Concrete Laboratory Testing Technician—Levels 1 & 2
Aggregate Base Testing Technician
Aggregate Testing Technician—Levels 1 & 2
Concrete Construction Special Inspector
Concrete Transportation Construction Inspector
Associate Concrete Transportation Construction Inspector
CSA-Based Concrete Construction Special Inspector
CSA-Based Concrete Field Testing Technician—Grade I
Concrete Quality Technical Manager
Masonry Field Testing Technician
Masonry Laboratory Testing Technician
Residential Concrete Foundation Constructor

This document may already contain reference to these ACI certification programs, which can be incorporated into project specifications or quality control procedures. If not, suggested guide specifications are available on request from the ACI Certification Department.

Enhancement of ACI Documents

ACI documents are subject to periodic review, and suggestions for their improvement are invited. All comments regarding ACI documents should be addressed to the Managing Director of Engineering at ACI.

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Printed in the United States of America
ISSN 0065-7875
ISBN 978-1-945487-33-0

Carl R. Bischof, Editor

ACI’s guides, reports, specifications, and codes are based upon the most current information and research available, and every effort is made to publish error-free documents. Occasionally, however, mistakes are uncovered after publication of a document. When this happens, a list of corrections, called an errata, is issued. All errata for ACI’s technical committee documents and SPs (symposium publications or special publications) are now available on-line. Go to www.concrete.org, click on “Publications” on the top menu bar, then on “Errata.”

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The *ACI Manual of Concrete Practice* is an eight-part compilation of current ACI standards and committee reports.

Part 1—ACI 117-10(15) to ACI 224.2R-92(04)
Part 2—ACI 224.3R-95(13) to ACI 313-16
Part 3—ACI 314R-16 to ACI 341.3R-07
Part 4—ACI 341.4R-16 to ACI 350-06
Part 5—ACI 350.1-10 to ACI 374.3R-16
Part 6—ACI 376-11 to ACI 446.3R-97
Part 7—ACI 446.4R-04 to ACI 544.7R-16
Part 8—ACI 544.8R-16 to ACI ITG-9R-16

Some of the most important work of the Institute is performed by its technical committees that prepare the committee reports and standards contained in the *Manual*. Technical committees of the Institute are organized into the following five groups with regard to their function: 100—General, 200—Materials and Properties of Concrete, 300—Design and Construction, 400—Concrete Reinforcement and Structural Analysis, and 500—Specialized Applications and Repair. Committees are assigned numbers that indicate their group or general area of responsibility.

Each standard of the Institute bears a hyphenated number to identify it. The first three digits identify the committee originating the standard, and the last two digits identify the year it was adopted. Thus, standard ACI 305.1-14 was prepared by Committee 305 and was adopted as a standard in the year 2014.

Committee reports are also identified by a hyphenated number with the addition of an "R" to indicate a report rather than a standard. For committee reports, the last two digits refer to either the year of original publication or, in a few cases, to the year of adoption of a related standard.

The following list contains the numbers and titles of all committee reports and standards found in the *2017 ACI Manual of Concrete Practice*. Reports and Standards are listed numerically and the location in the *Manual* follows the title.

100—General

117-10 **Reapproved 2015** Specification for Tolerances for Concrete Construction and Materials (ACI 117-10) and Commentary, **Part 1**

117.1R-14 Guide for Tolerance Compatibility in Concrete Construction, **Part 1**

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122R-14 Guide to Thermal Properties of Concrete and Masonry Systems, **Part 1**

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132R-14 Guide for Responsibility in Concrete Construction, **Part 1**

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201.2R-16 Guide to Durable Concrete, **Part 1**

207.1R-05 **Reapproved 2012** Guide to Mass Concrete, **Part 1**

207.2R-07 Report on Thermal and Volume Change Effects on Cracking of Mass Concrete, **Part 1**

207.3R-94 **Reapproved 2008** Practices for Evaluation of Concrete in Existing Massive Structures for Service Conditions, **Part 1**

207.4R-05 **Reapproved 2012** Cooling and Insulating Systems for Mass Concrete, **Part 1**

207.5R-11 Report on Roller-Compacted Mass Concrete, **Part 1**

209R-92 **Reapproved 2008** Prediction of Creep, Shrinkage, and Temperature Effects in Concrete Structures, **Part 1**

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209.2R-08	Guide for Modeling and Calculating Shrinkage and Creep in Hardened Concrete, **Part 1**
210R-93	**Reapproved 2008** Erosion of Concrete in Hydraulic Structures, **Part 1**
211.1-91	**Reapproved 2009** Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete, **Part 1**
211.3R-02	**Reapproved 2009** Guide for Selecting Proportions for No-Slump Concrete, **Part 1**
211.4R-08	Guide for Selecting Proportions for High-Strength Concrete Using Portland Cement and Other Cementitious Materials, **Part 1**
211.5R-14	Guide for Submittal of Concrete Proportions, **Part 1**
211.6T-14	Aggregate Suspension Mixture Proportioning Method, **Part 1**
211.7R-15	Guide for Proportioning Concrete Mixtures with Ground Limestone and Other Mineral Fillers, **Part 1**
211.8R-15	Guide to Troubleshooting Concrete Mixture Issues as Influenced by Constitutive Materials, Jobsite Conditions, or Testing Practices, **Part 1**
212.3R-16	Report on Chemical Admixtures for Concrete, **Part 1**
213R-14	Guide for Structural Lightweight-Aggregate Concrete, **Part 1**
214R-11	Guide to Evaluation of Strength Test Results of Concrete, **Part 1**
214.4R-10	Guide for Obtaining Cores and Interpreting Compressive Strength Results, **Part 1**
216.1-14	Code Requirements for Determining Fire Resistance of Concrete and Masonry Construction Assemblies, **Part 1**
221R-96	**Reapproved 2001** Guide for Use of Normal Weight and Heavyweight Aggregates in Concrete, **Part 1**
221.1R-98	**Reapproved 2008** Report on Alkali-Aggregate Reactivity, **Part 1**
222R-01	**Reapproved 2010** Protection of Metals in Concrete Against Corrosion, **Part 1**
222.2R-14	Report on Corrosion of Prestressing Steels, **Part 1**
222.3R-11	Guide to Design and Construction Practices to Mitigate Corrosion of Reinforcement in Concrete Structures, **Part 1**
223R-10	Guide for the Use of Shrinkage-Compensating Concrete, **Part 1**
224R-01	**Reapproved 2008** Control of Cracking in Concrete Structures, **Part 1**
224.1R-07	Causes, Evaluation, and Repair of Cracks in Concrete Structures, **Part 1**
224.2R-92	**Reapproved 2004** Cracking of Concrete Members in Direct Tension, **Part 1**
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230.1R-09	Report on Soil Cement, **Part 2**
231R-10	Report on Early-Age Cracking: Causes, Measurement, and Mitigation, **Part 2**
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232.2R-03	Use of Fly Ash in Concrete, **Part 2**
232.3R-14	Report on High-Volume Fly Ash Concrete for Structural Applications, **Part 2**
233R-03	**Reapproved 2011** Slag Cement in Concrete and Mortar, **Part 2**
234R-06	**Reapproved 2012** Guide for the Use of Silica Fume in Concrete, **Part 2**
237R-07	Self-Consolidating Concrete, **Part 2**
238.1R-08	Report on Measurements of Workability and Rheology of Fresh Concrete, **Part 2**
238.2T-14	Concrete Thixotropy, **Part 2**

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302.1R-15 Guide to Concrete Floor and Slab Construction, **Part 2**

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303R-12 Guide to Cast-in-Place Architectural Concrete Practice, **Part 2**

303.1-97 Standard Specification for Cast-in-Place Architectural Concrete, **Part 2**

304R-00 **Reapproved 2009** Guide for Measuring, Mixing, Transporting, and Placing Concrete, **Part 2**

304.2R-96 **Reapproved 2008** Placing Concrete by Pumping Methods, **Part 2**

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304.4R-95 **Reapproved 2008** Placing Concrete with Belt Conveyors, **Part 2**

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307-08 Code Requirements for Reinforced Concrete Chimneys (ACI 307-08) and Commentary, **Part 2**

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CP-70(16)	Masonry Testing Technician Workbook
CP-80PACK	Adhesive Anchor Installer Workbook with Companion DVD
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