



SIGNIFICANT CHANGES TO THE

# A117.1 ACCESSIBILITY STANDARD<sup>®</sup>

2017 EDITION

**SIGNIFICANT CHANGES TO THE  
A117.1 ACCESSIBILITY STANDARD®**

**2017 EDITION**

Jay Woodward, Author

**International Code Council**

**ICC Staff :**

Executive Vice President and Director of Business  
Development: Mark A. Johnson

Senior Vice President, Business and Product  
Development: Hamid Naderi

Vice President and Technical Director of Products  
and Services: Doug Thornburg

Senior Marketing Specialist: Dianna Hallmark

ISBN: 978-1-60983-709-9

Cover Design: Lisa Triska

Project Head: Hamid Naderi

Publications Manager: Mary Lou Luif

COPYRIGHT © 2017



ALL RIGHTS RESERVED. This publication is a copyrighted work owned by the International Code Council, Inc. Without advance written permission from the copyright owner, no part of this book may be reproduced, distributed or transmitted in any form or by any means, including, without limitation, electronic, optical or mechanical means (by way of example, and not limitation, photocopying or recording by or in an information storage retrieval system). For information on permission to copy material exceeding fair use, please contact: Publications, 4051 Flossmoor Road, Country Club Hills, IL 60478. Phone 1-888-ICC-SAFE (422-7233).

The information contained in this document is believed to be accurate; however, it is being provided for informational purposes only and is intended for use only as a guide. Publication of this document by the ICC should not be construed as the ICC engaging in or rendering engineering, legal or other professional services. Use of the information contained in this book should not be considered by the user to be a substitute for the advice of a registered professional engineer, attorney or other professional. If such advice is required, it should be sought through the services of a registered professional engineer, licensed attorney or other professional.

Trademarks: "International Code Council" and the International Code Council logo are trademarks of International Code Council, Inc.

Errata on various ICC publications may be available at [www.iccsafe.org/errata](http://www.iccsafe.org/errata).

First Printing: November 2017

PRINTED IN THE U.S.A.

# Contents



This table of contents includes references from sections that are covered with a related topic elsewhere in the book. The changes and their summary could easily be overlooked since the topic is not covered in the sequential order but is instead addressed with a related change. These hidden or less apparent changes are identified by two methods in the table of contents. The “hidden” changes are indented in the table of contents and include a reference to “See page” prior to the page number. The section numbers of these hidden changes are also shown enclosed in brackets. The number following the bracket is the section numbering shown with the actual page in the book where the discussion occurs.

For example, if you look between Sections 802.7.2 and 802.10.4 you will see an entry for “(802.10.3.1) 906, 802.10.3.1, 1102.15.4, Charging Stations, See page 140.” This entry indicates that there was a change affecting Sections 802.10.3.1 and 1102.15.4 and the “Charging Station” requirements that are covered in the discussion with Section 906 on page 140 of the book. Combining related subjects like this allowed for additional topics to be included in the book and will also help show how changes relate to similar topics in other parts of the standard.

## Chapter 1. Application and Administration

- 105.2  
Calculation of Percentages 1
- 105.3  
Dimension Tolerances 3

- 107.5  
Defined Terms - Existing Building 5
- 107.5  
Defined Terms - Wheelchair Charging Area 7

## Chapter 2. Scoping

No changes covered

## Chapter 3. Building Blocks

- 304.3.1  
Circular Turning Space 8
- 304.3.2  
T-shaped Turning Space 11
- 305.3  
Size of Clear Floor Space 14
- 308.3.1  
Unobstructed Side Reach 16
- 309.1, 1102.9, 1103.9  
Operable Parts 17

## Chapter 4. Accessible Routes

- 403.5  
Clear Width of Accessible Routes 21
- 403.5.2  
Clear Width at 180-Degree Turn 23

- **403.5.3**  
Clear Width at 90-Degree Turn 25
- **403.5.4**  
Passing Space 27
- **404**  
Doors, Doorways and Gates 29
- **404.2.3**  
Maneuvering Clearances - Manual  
Doors and Gates 33
- **404.2.6, 404.2.8**  
Door and Gate Hardware 37
- **404.3**  
Automatic Doors and Power-assisted  
Doors and Gates 39
- **405**  
Ramps 42
- **406**  
Curb Ramps and Blended Transitions 43
- **406.2**  
Perpendicular Curb Ramps 46
- **406.3**  
Parallel Curb Ramps 49
- **406.4**  
Blended Transitions 52
- **406.6.2**  
Location of Detectable Warning Surfaces 54
- **Table 407.4.1**  
Minimum Dimensions of Elevator Cars 58
- **407.4.6.2.2, 407.4.7.1.2**  
Elevator Car Control Designations 60
- **407.4.9.1.1**  
Size of Elevator Car Position Indicators 62
- **408.4.1**  
Inside Dimensions for LULA Elevator Cars 63
- **409.4.1**  
Inside Dimensions for Private Residence  
Elevator Cars 65
- **410.5.1**  
Platform Lifts with Single Doors or Doors on  
Opposite Ends 66

**Chapter 5.  
General Site and Building Elements**

- **502.1, 502.9**  
Parking Spaces 67
- **502.10**  
Parking Meters and Parking Pay Stations 70
- **502.11**  
Electrical Vehicle Charging Stations 71
- **503.3.2**  
Access Aisle for Passenger Loading Zones 73
- **504.5**  
Stairway Nosings 75
- **504.6, 504.9.1**  
Visual Contrast and Illumination  
Levels for Stairways 77
- **504.10, 504.11**  
Tactile Signage within Stairway  
Enclosures and at Exits 80
- **506, 1102.9, 1102.13, 1103.9, 1103.13**  
Windows 81
- **507**  
Accessible Routes through Parking 84

**Chapter 6.  
Plumbing Elements and Facilities**

- **602**  
Drinking Fountains and Bottle Filling Stations 87
- **604.5.1, 604.5.2**  
Grab Bars for Water Closets 90
- **604.7.1, 604.11.7**  
Dispensers 92
- **604.9.2.3, 604.9.3, 604.10.3**  
Alternate Wheelchair Accessible Toilet  
Compartments 94
- **604.9.5.1, 604.9.5.2**  
Toe Clearance at Wheelchair Accessible  
Toilet Compartments 97
- **(604.10.3) 604.9.2.3, 604.9.3, 604.10.3**  
Alternate Wheelchair Accessible Toilet  
Compartment See page 94
- **(604.11.7) 604.7.1, 604.11.7**  
Dispensers See page 92
- **606.2**  
Clear Floor Space at Lavatories and Sinks 99

■ <b>608.2.1.2</b> Clearance for Transfer Shower	101	■ <b>802.7.2</b> Companion Seat Alignment	124
■ <b>608.3.2</b> Grab Bars in Standard Roll-in-type Showers	103	(802.10.3.1) <b>906, 802.10.3.1, 1102.15.4</b> Charging Stations	See page 140
■ <b>608.4.3</b> Controls and Hand Showers in Alternate Roll-in Showers	105	■ <b>802.10.4</b> Spaces Utilized Primarily for Viewing Motion Picture Projections	125
■ <b>612.2</b> Sauna and Steam Rooms, Bench	107	■ <b>802.11</b> Sign Language Interpreter Stations	127
<b>Chapter 7. Communication Elements and Features</b>		■ <b>804.2, 1103.12.1.2, 1104.12.1.2</b> Kitchen Clearance	129
■ <b>702.1</b> Alarms, General	108	■ <b>808</b> Enhanced Acoustics for Classrooms	132
■ <b>703.2.10.1, 703.5.3.1, 703.6.2.1</b> Nonglare Finish for Visual Characters, Pictograms and Symbols of Accessibility	109	<b>Chapter 9. Built-In Furnishings and Equipment</b>	
■ <b>Tables 703.2.4, 703.7.4</b> Visual and Low Resolution VMS Character Height	111	■ <b>903.2</b> Clear Floor Space at Benches	135
(703.5.3.1, 703.6.2.1) <b>703.2.10.1, 703.5.3.1, 703.6.2.1</b> Nonglare Finish for Visual Characters, Pictograms and Symbols of Accessibility	See page 109	■ <b>904.3</b> Sales and Service Counters and Windows	137
(Table 703.7.4) <b>Tables 703.2.4, 703.7.4</b> Visual and Low Resolution VMS Character Height	See page 111	■ <b>906, 802.10.3.1, 1102.15.4</b> Charging Stations	140
■ <b>704.2</b> Wheelchair Accessible Telephones	113	■ <b>907</b> Gaming Machines and Tables	141
■ <b>704.7</b> Visual Relay Service Booth	115	<b>Chapter 10. Recreational Facilities</b>	
■ <b>705.6</b> Depth and Width of Detectable Warning Surfaces	117	■ <b>Chapters 10 and 11</b> Recreational Facilities and Dwelling Units and Sleeping Units	142
■ <b>705.7</b> Placement of Detectable Warnings	119	(1001.2.1 Item 11) <b>1010.3, 1001.2.1 Item 11</b> Shooting Facilities with Firing Positions	See page 145
<b>Chapter 8. Special Rooms and Spaces</b>		■ <b>1006.2</b> Accessible Routes for Golf Facilities	143
■ <b>802.4, 802.5.1</b> Depth of Wheelchair Space in Assembly Areas	122	■ <b>1010.3, 1001.2.1 Item 11</b> Shooting Facilities with Firing Positions	145

**Chapter 11.  
Dwelling Units and Sleeping Units**

(Chapter 11) Chapters 10 and 11  
Recreational Facilities and Dwelling  
Units and Sleeping Units See page 142

- **1102.5, 1103.5**  
Doors and Doorways 147
- (1102.9) 309.1, 1102.9, 1103.9  
Operable Parts See page 17
- (1102.9, 1102.13) 506, 1102.9, 1102.13, 1103.9,  
1103.13  
Windows See page 81
- **1102.15.2**  
Beds 149
- (1102.15.4) 906, 802.10.3.1, 1102.15.4  
Charging Stations See page 140
- (1103.5) 1102.5, 1103.5  
Doors and Doorways See page 147
- (1103.9) 309.1, 1102.9, 1103.9  
Operable Parts See page 17
- (1103.9) 506, 1102.9, 1102.13, 1103.9, 1103.13  
Windows See page 81
- (1103.12.1.2) 804.2, 1103.12.1.2, 1104.12.1.2  
Kitchen Clearance See page 129
- **1103.12.3, 1103.12.4**  
Work Surface and Kitchen  
Sink - Type A Units 151
- (1103.13) 506, 1102.9, 1102.13, 1103.9, 1103.13  
Windows See page 81
- **1104**  
Type B Units 153
- **1104.1.1**  
Clear Floor Space 155
- **1104.1.2**  
Mailboxes 157
- **1104.5.2**  
User Passage Doorways 159
- **1104.9**  
Operable Parts 160

- **1104.10.1**  
Clear Floor Space at Laundry Equipment 162
- **1104.11.3.1.3.3**  
Shower Compartment 163
- (1104.12.1.2) 804.2, 1103.12.1.2, 1104.12.1.2  
Kitchen Clearance See page 129
- **1104.12.2.5**  
Refrigerator/Freezer Clear Floor Space 165
- **1106.5.1**  
Notification 167
- Index** 169

# Preface

The purpose of *Significant Changes to the A117.1 Standard* is to familiarize code officials, plans examiners, inspectors, design professionals, contractors, and others in the construction industry with many of the important changes in the 2017 A117.1 standard. This publication is designed to assist all users of the standard with identifying the specific code changes that have occurred and, more important, understanding the reasons behind the changes and how they will affect accessibility. It is also a valuable resource for jurisdictions in their adopting process.

Only a portion of the total number of changes to the A117.1 standard are discussed in this book. The changes selected were identified for a number of reasons, including their frequency of application, special significance, or change in application. However, the importance of those changes not included is not to be diminished.

This book is organized to follow the general layout of the standard, including code sections and section number format. The table of contents, in addition to providing guidance in use of this publication, allows for quick identification of those significant changes that occur in the 2017A117.1 standard.

Throughout the book, each change is accompanied by a photograph or an illustration to assist and enhance the reader's understanding of the specific change. A summary and a discussion of the significance of the changes are also provided. Each code change is identified by type, be it an addition, modification, clarification, or deletion.

The change to the text of the standard itself is presented in a format similar to the style utilized for submitting and reviewing proposed changes. Text deleted from the standard is shown with a strike-through, whereas new text that is added is indicated by underlining. As a result, the actual text of the 2017 standard is provided as well as a comparison with the 2009 language, so the user can easily determine changes to the specific text.

As with any code-change document, *Significant Changes to the A117.1 Standard* is best used as a study companion to the *ICC A117.1-2017* standard. Because only a limited discussion of each change is provided, the standard itself should always be referenced in order to gain a



more comprehensive understanding of a specific change and its application.

The commentary and opinions set forth in this text are those of the author and do not necessarily represent the official position of the ICC and are not to be considered as the opinion of the A117.1 Accredited Standards Committee. In addition, they may not represent the views of any enforcement agency, as such agencies have the sole authority to provide a review and approval process. In many cases, the explanatory material is derived from the reasoning expressed by the proponent of the change or by the A117.1 committee during its evaluation of the proposal.

Comments concerning this publication are encouraged and may be directed to the ICC at [significantchanges@iccsafe.org](mailto:significantchanges@iccsafe.org).

## About the A117.1 Standard

Building officials, design professionals, and others involved with building construction and accessibility recognize the need for a modern, easy-to-understand, up-to-date standard addressing the design and construction of elements that serve or are used by building occupants. The A117.1 standard, in the 2017 edition, is intended to meet these needs by providing the technical details to ensure that the buildings and facilities are accessible and usable. The A117.1 standard is kept up to date through an open development process that meets the requirements of the American National Standards Institute (ANSI) so that it can be recognized as an American National Standard (ANS). The provisions of the 2009 edition, along with those changes approved through the current development cycle, make up the 2017 edition.

The 1961 edition of the A117.1 standard presented the first criteria for accessibility to be approved as an ANS and was the result of research conducted by the University of Illinois under a grant from the Easter Seal Research Foundation. The National Easter Seal Society and the President's Committee on Employment of People with Disabilities began serving as the Secretariat, and the 1961 edition was reaffirmed in 1971.

In 1974, the U.S. Department of Housing and Urban Development joined the Secretariat and sponsored needed research, which resulted in the 1980 edition. After further revision that included a special effort to remove application criteria (scoping requirements), the 1986 edition was published. In 1987 the committee requested that the Council of American Building Officials (CABO) assume the role of the Secretariat. Central to the intent of the change in the Secretariat was the development of a standard that, when adopted as part of a building code, would be compatible with the building code and its enforcement. The 1998 edition of the A117.1 standard largely achieved that goal. The 2017 edition of the standard is the latest example of the A117.1 committee's effort to continue developing a standard that is compatible with the building code. In 1998 CABO became the International Code Council.

The ICC, the current Secretariat and publisher of the A117.1, was established as a nonprofit organization dedicated to developing, maintaining, and supporting a single set of comprehensive and coordinated national



model building construction codes. Its mission is to provide the highest quality codes, standards, products, and services for all concerned with the safety and performance of the built environment.

The A117.1 is one of 8 standards and 14 international codes being developed and published by the ICC. This comprehensive standard establishes minimum requirements to ensure that buildings and facilities are accessible and usable. The A117.1 is available for adoption and use by jurisdictions internationally. Its use within a governmental jurisdiction is intended to be accomplished through adoption by reference, in accordance with proceedings establishing the jurisdiction's laws.

New to the 2017 edition are enhanced dimensions for clear floor spaces and turning spaces. These increases were in response to technical data regarding the space needed by persons using larger wheeled mobility devices (e.g., manual or powered wheelchairs and scooters). Other changes include exterior routes, curb cuts, blended transitions, clarity for detectable warnings, passenger drop offs and parking requirements coordinated with the proposed federal Public Rights of Way Guidelines, providing an accessible design standard for electrical vehicle charging stations and enhanced safety for accessible routes crossing parking lots. Also introduced are acoustic standards for classrooms, features allowing for better communication for persons using sign language, provisions addressing the recharging of wheelchairs in assembly venues and hotels, access to gaming machines and tables, and provisions for water bottle filling stations. These revisions show the committee's continued effort to improve people's lives and address a variety of disabilities and solutions.

## Acknowledgments

A special thank you is extended to Kim Paarlberg, Senior Staff Architect in the ICC's Codes and Standards Development department, and to Kermit C. Robinson, Senior Technical Staff, who among many other tasks, serves as the Secretariat for the ICC A117.1 Accessibility Standard. Kim and Kermit's efforts to read, review and explain to me the background of some items as well as their assistance in finding photos or illustrations truly helped to improve this publication. I would also like to thank Marsha Mazz, as well as other committee members who helped explain the new requirements to me. The entire A117.1 committee should be recognized for their effort and dedication in developing the new provisions and maintaining the standard. Their efforts truly do impact and improve people's lives.

## About the Author

Jay Woodward  
International Code Council

Jay is a senior staff architect with the ICC's Business and Product Development department and works out of the Lenexa, Kansas, Distribution Center. His current responsibilities include instructing ICC seminars, updating existing ICC products and assisting in the development of new ICC publications.

With more than 35 years of experience in building design, construction, code enforcement, and instruction, Jay's experience provides him with the ability to address issues of code application and design for code enforcement personnel as well as architects, designers, and contractors. Jay has previously served as the Secretariat for the ICC's A117.1 standard committee, the *International Energy Conservation Code* and the *International Building Code's* Fire Safety Code Development committee.

A graduate of the University of Kansas and a registered architect, Jay has also worked as an architect for the Leo A. Daly Company in Omaha, Nebraska; as a building Plans Examiner for the City of Wichita, Kansas; and as a Senior Staff Architect for the International Conference of Building Officials (ICBO) prior to working for the ICC.

## About the ICC

The International Code Council is a member-focused association. It is dedicated to developing model codes and standards used in the design, build and compliance process to construct safe, sustainable, affordable and resilient structures. Most U.S. communities and many global markets choose the International Codes. ICC Evaluation Service® (ICC-ES®) is the industry leader in performing technical evaluations for code compliance fostering safe and sustainable design and construction.

**500 New Jersey Avenue, NW,  
6th Floor,  
Washington, DC 20001**

**Regional Offices: Birmingham, AL;  
Chicago, IL; Los Angeles, CA  
1-888-422-7233 (ICC-SAFE)  
[www.iccsafe.org](http://www.iccsafe.org)**