

**Significant Changes to the
California Residential Code
2022 Edition**

Dave Walls
Brad Wungluck
Stephen A. Van Note
Sandra Hyde

International Code Council 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,
Products and Services:
Doug Thornburg

Senior Marketing Specialist:
Dianna Hallmark

Manager of Product Development:
Mary Lou Luif

Publications Manager:
Anne F. Kerr

Manager of Publications Production:
Jen Fitzsimmons

Project Editor:
Sharon Gordy

Production Technician:
Dianna Logan

Cover Design:
Stephanie Hess

CALBO Staff:

Executive Director:
Matthew Wheeler, DPPD

Deputy Director:
Lauren Herman

Director of Membership:
Susie Bombard

Public Affairs Manager:
Brady Guertin

Project Coordinator:
Anne Jungwirth

COPYRIGHT © 2022
by INTERNATIONAL CODE COUNCIL, INC.

ALL RIGHTS RESERVED.



ISBN: 978-1-957212-52-4 (soft-cover edition)
ISBN: 978-1-957212-53-1 (PDF download)

This publication is a copyrighted work owned by the International Code Council, Inc. ("ICC"). Without separate written permission from the ICC, no part of this publication 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 and/or retrieval system). For information on use rights and permissions, please contact: ICC Publications, 4051 Flossmoor Road, Country Club Hills, Illinois 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 publication should not be considered by the user as 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," the "International Code Council" logo, "ICC," the "ICC" logo, "International Residential Code," "IRC" and other names and trademarks appearing in this publication are registered trademarks of the International Code Council, Inc., and/or its licensors (as applicable), and may not be used without permission.

Errata on various ICC publications may be available at www.iccsafe.org/errata.

First Printing: July 2022

PRINTED IN THE USA

Contents



PART 1

Administration

Chapters 1 and 2

■ R102.7.1	Additions, Alterations or Repairs	2
■ R202	Definition of Child Care	4
■ R202	Definition of Day-Care	5
■ R202	Definition of Emergency Escape and Rescue Opening	6
■ R202	Definition of Entry Level	8
■ R202	Definition of Exterior Wall Assembly	9
■ R202	Definition of Exterior Wall Covering	11
■ R202	Definition of Inflatable Amusement Device	12
■ R202	Definition of Photovoltaic (PV) System, Ground-Mounted	13
■ R202	Definition of Photovoltaic (PV) Support Structure, Elevated	14

■ R202	Definition of Toddler	15
■ R202	Definition of Townhouse	16

PART 2

Building Planning

Chapter 3

19

■ R301.1.4	Intermodal Shipping Containers	21
■ R301.2	Wind Speeds	23
■ Table R301.2.1(1)	Component and Cladding Wind Pressures	25
■ R301.2.1.1	Special Wind Regions	28
■ R301.2.2.6	Irregular Buildings in Seismic Areas	30
■ R301.3	Story Height	34
■ R302.2	Townhouses	37
■ R302.3	Two-Family Dwelling Separation	40
■ R302.4	Dwelling Unit Rated Penetrations	42

■ R302.5 Dwelling-Garage Opening Protection	44	■ R328.4 ESS Located in an Attached Garage	92
■ R303.1 Mechanical Ventilation	46	■ R328.8.1, R328.2, R328.3 Vehicle Impact Protection for ESS within Garages	93
■ R305.1 Ceiling Height	48	■ R337.2 Fire-Resistant Vegetation	96
■ R308.4.5 Glazing and Wet Surfaces	50	■ R337.10.4 Fire Ratings of Accessory Buildings' Roofs	98
■ R308.6 Skylight Glass Retention Screens	52		
■ R310.1 Emergency Escape and Rescue Opening Required	55	PART 3	
■ R310.2 Emergency Escape and Rescue Openings	58	Building Construction	
■ R310.3, R310.4 Area Wells for Emergency Escape and Rescue Openings	60	Chapters 4 through 10	99
■ R310.5, R310.6, R310.7 Emergency Escape and Rescue Openings in Existing Buildings	64	■ Table R403.1(1) Footings Below Light-Frame Construction	101
■ R311.7, R311.8 Stairways and Ramps	67	■ R406.2 Foundation Waterproofing	106
■ R311.7.7 Stairway and Landing Walking Surface	69	■ R408.8 Vapor Retarder in Crawlspace	108
■ R312.2 Window Fall Protection	70	■ R506.2.3 Vapor Retarders Under Concrete Slabs	110
■ R315.2.2 Carbon Monoxide Alarms	72	■ R507 Deck Loads	112
■ R317.1 Protection of Wood Against Decay	74	■ R507.3 Deck Footings	114
■ R323 Storm Shelters	78	■ R507.4 Deck Posts	116
■ R324.3 Photovoltaic Systems	80	■ R507.5 Deck Beams	119
■ R324.8, R324.8.1, R324.8.2 Elevated Photovoltaic (PV) Support Structures	83	■ R507.6 Deck Joists	124
■ R326 Habitable Attics	85	■ R507.7 Decking	127
■ R327.1, R327.1.1, R327.1.2, R327.1.3 Aging-in-Place Design and Fall Prevention	89	■ R507.10 Exterior Guards	129
		■ Table R602.3(1) Fasteners – Roof and Wall	131
		■ Table R602.3(1) Fasteners – Roof Sheathing	133
		■ Table R602.3(2) Alternate Attachments	135

■ R602.9 Cripple Walls	137	■ R802 Wood Roof Framing	168
■ R602.10.1.2 Location of Braced Wall Lines	139	■ Table R802.5.2(1) Heel Joint Connections	170
■ R602.10.2.2 Location of Braced Wall Panels (BWPs)	142	■ R802.6 Rafter and Ceiling Joist Bearing	173
■ R602.10.3(1) Bracing for Winds	144	■ Table R804.3 CFS Roof Framing Fasteners	175
■ Table R602.10.3(3) Seismic Wall Bracing	146	■ R806.1.1 Vents in the Wildland-Urban Interface (WUI)	178
■ Table R602.10.3(4) Adjustment Factors – Seismic	148	■ R905.4.4.1 Metal Roof Shingle Wind Resistance	179
■ R602.10.6.5 Stone and Masonry Veneer	151		
■ R609.4.1 Garage Doors	154	PART 4	
■ R703.2, R703.7.3 Water-Resistive Barriers	156	Appendices	
■ Table R703.8.4(1) Veneer Attachment	159	Appendices AA through AW	181
■ R703.11.2 Vinyl Siding Installation Over Foam Plastic Sheathing	161	■ AF104 Radon Testing	182
■ R704 Soffits	163	■ Appendix AU Cob Construction	185
		■ Appendix AW 3D Printed Buildings	188

Preface

The purpose of *Significant Changes to the California Residential Code, 2022 Edition*, is to familiarize building officials, fire officials, plans examiners, inspectors, design professionals, contractors and others in the building construction industry with many of the important changes in the 2022 *California Residential Code* (CRC). This publication is designed to assist code users in identifying the specific code changes that have occurred and understanding the reasons behind the changes. It is also a valuable resource for jurisdictions in their code-adoption process.

Only a portion of the code changes to the CRC 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 the changes not included is not to be diminished. Further information on all code changes can be found in the Complete Revision History to the 2021 I-Codes, available from the International Code Council® (ICC®) online store. This resource provides the published documentation for each successful code change contained in the 2021 IRC since the 2018 edition of IRC, which is the base model code for the CRC.

Significant Changes to the California Residential Code, 2022 Edition, is organized into four parts, each representing a distinct grouping of code topics. It is arranged to follow the general layout of the CRC, including code sections and section number format. The table of contents, in addition to providing guidance in the use of this publication, allows for a quick identification of those significant code changes that occur in the 2022 CRC.

Throughout the book, each change is accompanied by a photograph, an application example 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 change are also provided. Each code change is identified by type, be it an addition, modification, clarification or deletion.

The code change itself is presented in a legislative format similar to the style utilized for code-change proposals. Deleted code language is shown with a strikethrough, and new code text is indicated by underlining. As a result, the actual 2022 code language is provided, as well as

a comparison with the 2019 language, so the user can easily determine changes to the specific code text.

As with any code-change text, *Significant Changes to the California Residential Code, 2022 Edition*, is best used as a companion to the 2022 CRC. Because only a limited discussion of each change is provided, the code itself should always be referenced in order to gain a more comprehensive understanding of the code change and its application.

The commentary and opinions set forth in this text are those of the authors and do not necessarily represent the official position of ICC. In addition, they may not represent the views of any enforcing agency, as such agencies have the sole authority to render interpretations of the CRC. In many cases, the explanatory material is derived from the reasoning expressed by code-change proponents.

Comments concerning this publication are encouraged and may be directed to ICC at significantchanges@iccsafe.org.

About the California Residential Code

Building officials, design professionals, contractors and others involved in the field of residential building construction recognize the need for a modern, up-to-date residential code addressing the design and installation of building systems through both prescriptive and performance requirements. The 2022 *California Residential Code* (CRC), is intended to meet these needs through code regulations that safeguard the public health and safety in all communities, large and small. The 2022 CRC utilizes the 2021 *International Residential Code*[®] (IRC[®]) as its basis and is kept up to date through California's code adoption process. The effective date of the 2022 CRC is January 1, 2023.

The *California Residential Code* is Part 2.5 of thirteen parts of the official triennial compilation and publication of the adoptions, amendments and repeal of administrative regulations to the *California Code of Regulations, Title 24*, also referred to as the *California Building Standards Code*. This comprehensive residential code establishes minimum regulations for residential building systems by means of prescriptive- and performance-related provisions. It is founded on broad-based principles that make possible the use of new materials and new building designs. The *California Building Standards Code* is published in its entirety every 3 years. The California Building Standards Commission is responsible for the administration of each code adoption cycle. Supplements and errata are issued throughout the 3-year cycle.

The CRC is applicable throughout the state. However, a city, county, or city and county may establish more restrictive building standards reasonably necessary because of local climatic, geological or topographical conditions. Findings of the local condition(s) and the adopted local building standard(s) amendments must be filed with the California Building Standards Commission to become effective. Only the state's significant change amendments are included as part of this publication.

Acknowledgments

Grateful appreciation is due to many ICC staff members, including those in Product Development, Publishing, Marketing and Technical Services, for their generous assistance in the preparation of this publication. John “Buddy” Showalter, P.E., ICC Senior Staff Engineer, reviewed the structural provisions giving helpful insight and suggestions. All contributed to the accuracy and quality of the finished product.

About the Authors

Stephen A. Van Note, CBO
International Code Council
Managing Director, Product Development

Stephen A. Van Note was the Managing Director of Product Development for the International Code Council (ICC), where he was responsible for developing technical resource materials in support of the International Codes. His role also included the management, review and technical editing of publications developed by ICC staff members and other expert authors. He has authored a number of ICC support publications, including *Residential Code Essentials and Inspector Skills*. In addition, Steve developed and presented *International Residential Code* seminars nationally. He has over 50 years of experience in the construction and building code arena. Prior to joining ICC in 2006, Steve was a building official for Linn County, Iowa. Prior to his 15 years at Linn County, he was a carpenter and construction project manager for residential, commercial and industrial buildings. A certified building official and plans examiner, Steve also holds certifications in several inspection categories.

Sandra Hyde, P.E.
International Code Council
Senior Staff Engineer, Product Development

Sandra Hyde is the Managing Director at the International Code Council (ICC), where, as part of the Product Development team, she develops technical resource materials in support of the structural provisions of the *International Residential Code*, *International Building Code* and *International Existing Building Code*. Her role also includes review and technical editing of publications authored by ICC and engineering associations, and the presentation of technical seminars on the IRC and IBC structural provisions. She has authored and reviewed support publications, including *Significant Changes to the International Building Code*, *Special Inspection Manual* and, in conjunction with APA, *Guide to the IRC Wall Bracing Provisions*. Prior to joining ICC in 2010, Sandra worked in manufacturing and research of engineered wood products. She is a Registered Civil Engineer in Idaho and California.

Brad Wungluck, MPA, MCP, CBO
California Building Officials
First Vice President

With more than 15 years of building safety management experience, Brad currently serves on the Executive Board for California Building Officials (CALBO) as the First Vice President. In addition, he teaches regularly for CALBO, has developed a number of CALBO training courses, and serves on the committee responsible for all training and education, the CALBO Training Institute.

In addition, Brad serves the City of Manteca as a Deputy Director for Development Services and is responsible for all Building Safety functions. Serving as the Chief Building Official for the City, he manages building plan review, counter assistance and inspection services.

Brad earned his BS in Political Science from Loyola University Chicago and his Masters in Public Administration from San Diego State University. Brad has participated on various local, state-wide and national committees, including the California Building Standards Code Advisory Committees on Accessibility; California Building Standards Code Advisory Committee on Plumbing, Electrical, Mechanical and Energy; the CALBO State Code Committee; the CALBO Energy Committee; and the ICC Plumbing, Mechanical and Fuel Gas Code Action Committee.

Brad is also a certified Master Code Professional, Building Official and Plans Examiner, holding certifications in several inspection categories.

Dave Walls
International Code Council
Vice President of Business Support Initiatives

David Walls is the Vice President of Business Support Initiatives for the International Code Council (ICC). His responsibilities include both domestic and international business development activities. Prior to joining ICC, Dave was appointed as the Executive Director of the California Building Standards Commission (BSC). In this capacity, he successfully directed the development and publication of CALGreen. Prior to joining the State of California, he served as a code official in the building safety division for two local jurisdictions in California. Dave is a California Licensed General Contractor and also served as an adjunct professor in the construction management program at the University of California Davis. Dave is certified in several ICC fields, including Building, Residential, Accessibility, Electrical and Energy. He has served as a Commissioner on the California Seismic Safety Commission and as a Board Member of the California Hospital Building Safety Board.

About California Building Officials

California Building Officials (CALBO) is a non-profit corporation dedicated to promoting public health and safety in building construction through responsible legislation, education and building code development. CALBO was founded in 1962 to promote and further the profession of the local California Building Official. With time and achievement, the organization has become the advocate and representative of not only the local California Building Official, but of local building departments, local government entities, and public safety and code enforcement officials.

About the International Code Council®

The International Code Council is the leading global source of model codes and standards and building safety solutions that include product evaluation, accreditation, technology, codification, training and certification. The Code Council's codes, standards and solutions are used to ensure safe, affordable and sustainable communities and buildings worldwide. The International Code Council family of solutions includes the ICC Evaluation Service, the International Accreditation Service, General Code, S. K. Ghosh Associates, NTA Inc., Progressive Engineering Inc., ICC Community Development Solutions and the Alliance for National & Community Resilience. The Code Council is the largest international association of building safety professionals and is the trusted source of model codes and standards, establishing the baseline for building safety globally and creating a level playing field for designers, builders and manufacturers.

Washington DC Headquarters:

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

Regional Offices:

Eastern Regional Office (BIR)
Central Regional Office (CH)
Western Regional Office (LA)

Distribution Center (Lenexa, KS)

888-ICC-SAFE (888-422-7233)

www.iccsafe.org

Family of Solutions:

