

2024 IPC® Code and Commentary

First Printing: September 2024

ISBN: 978-1-963845-27-3 (soft-cover edition)
ISBN: 978-1-963845-28-0 (PDF download)

COPYRIGHT © 2024
by
INTERNATIONAL CODE COUNCIL, INC.

ALL RIGHTS RESERVED. This 2024 *IPC® Code and Commentary* 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; 1-888-ICC-SAFE (422-7233); <https://www.iccsafe.org/about/periodicals-and-newsroom/icc-logo-license/>.

The display of the Plumbing-Heating-Cooling Contractors—National Association (PHCC) logo in this publication indicates PHCC’s support through committee participation of ICC’s open governmental consensus process used to develop the International Codes. This support does not imply any ownership to the copyright to the *International Plumbing Code®*, which is held solely by the International Code Council, Inc.

Plumbing-Heating-Cooling Contractors—National Association (PHCC): 180 S. Washington Street – Suite 100, Falls Church, VA 22046; Phone: (703) 237-8100, (800) 533-7694, www.phccweb.org.

Trademarks: “International Code Council,” the “International Code Council” logo, “ICC,” the “ICC” logo, “International Plumbing Code,” “IPC” 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.

PREFACE

Significant changes in the plumbing industry, as well as in manufacturing technology, had become so commanding that a radically new approach to the design and installation of plumbing systems seemed an imperative. The reply to that imperative was the *International Plumbing Code*[®], a document emphasizing prescriptive and performance-related provisions.

As a follow-up to the *International Plumbing Code*, we offer a companion document, the *IPC*[®] *Code and Commentary*. The basic appeal of the Commentary is thus: it provides in a small package and at reasonable cost thorough coverage of many issues likely to be dealt with when using the *International Plumbing Code*—and then supplements that coverage with historical and technical background. Reference lists, information sources and bibliographies are also included.

Throughout all of this, effort has been made to keep the vast quantity of material accessible and its method of presentation useful. With a comprehensive yet concise summary of each section, the Commentary provides a convenient reference for plumbing regulations. In the chapters that follow, discussions focus on the full meaning and implications of the code text. Guidelines suggest the most effective method of application and the consequences of not adhering to the code text. Illustrations are provided to aid understanding; they do not necessarily illustrate the only methods of achieving code compliance.

The format of the Commentary includes the full text of each section, table and figure in the code, followed immediately by the commentary applicable to that text. Each section's narrative includes a statement of its objective and intent, and usually includes a discussion about why the requirement commands the conditions set forth. Code text and commentary text are easily distinguished from each other. All commentary is indented below the code text, accompanied by a "C" icon and vertical line.

Readers should note that the Commentary is to be used in conjunction with the *International Plumbing Code* and not as a substitute for the code. The Commentary is advisory only; the code official alone possesses the authority and responsibility for interpreting the code.

Comments and recommendations are encouraged, for through your input we can improve future editions. Please direct your comments to customersuccess@iccsafe.org.

The International Code Council would like to extend its thanks to the following individuals for their contributions to the technical content of this commentary:

Bob Scott

For the complete errata history of this code, please visit: <https://www.iccsafe.org/errata-central/>

TABLE OF CONTENTS

CHAPTER 1	SCOPE AND ADMINISTRATION	1-1 – 1-26
CHAPTER 2	DEFINITIONS	2-1 – 2-36
CHAPTER 3	GENERAL REGULATIONS	3-1 – 3-62
CHAPTER 4	FIXTURES, FAUCETS AND FIXTURE FITTINGS	4-1 – 4-78
CHAPTER 5	WATER HEATERS	5-1 – 5-24
CHAPTER 6	WATER SUPPLY AND DISTRIBUTION	6-1 – 6-124
CHAPTER 7	SANITARY DRAINAGE	7-1 – 7-78
CHAPTER 8	INDIRECT/SPECIAL WASTE	8-1 – 8-16
CHAPTER 9	VENTS	9-1 – 9-76
CHAPTER 10	TRAPS, INTERCEPTORS AND SEPARATORS	10-1 – 10-28
CHAPTER 11	STORM DRAINAGE	11-1 – 11-24
CHAPTER 12	SPECIAL PIPING AND STORAGE SYSTEMS	12-1 – 12-4
CHAPTER 13	NONPOTABLE WATER SYSTEMS	13-1 – 13-18
CHAPTER 14	SUBSURFACE GRAYWATER SOIL ABSORPTION SYSTEMS	14-1 – 14-6
CHAPTER 15	REFERENCED STANDARDS	15-1 – 15-18
APPENDIX A	PLUMBING PERMIT FEE SCHEDULE	A-1 – A-2
APPENDIX B	RATES OF RAINFALL FOR VARIOUS CITIES	B-1 – B-6
APPENDIX C	STRUCTURAL SAFETY	C-1 – C-2
APPENDIX D	DEGREE DAY AND DESIGN TEMPERATURES	D-1 – D-6
APPENDIX E	SIZING OF WATER PIPING SYSTEM	E-1 – E-22
[A] APPENDIX F	BOARD OF APPEALS	F-1 – F-4
INDEX	INDEX-1 – INDEX-8	

TABLE OF CONTENTS

RESOURCE A

PLUMBING PROVISIONS EXCERPTED FROM: ICC A117.1—2017 WITH SUPPLEMENT 1:

STANDARD FOR ACCESSIBLE AND USABLE BUILDINGS AND FACILITIESRESOURCE A-1 – A-6

CHAPTER 1 APPLICATION AND ADMINISTRATIONRESOURCE A-7 – A-24

CHAPTER 3 BUILDING BLOCKS.....RESOURCE A-25 – A-58

CHAPTER 6 PLUMBING ELEMENTS AND FACILITIESRESOURCE A-59 – A-124

CHAPTER 8 SPECIAL ROOMS AND SPACES.....RESOURCE A-125 – A-134

CHAPTER 11 DWELLING UNITS AND SLEEPING UNITS.....RESOURCE A-135 – A-218

SUPPLEMENT 1RESOURCE A-219 – A-224

RESOURCE B

**ANSI/RESNET/ICC 850–2020 STANDARD FOR THE CALCULATION
AND LABELING OF THE WATER USE PERFORMANCE OF ONE- AND
TWO-FAMILY DWELLINGS USING THE WATER RATING INDEX.....**

RESOURCE B-1 – B-2