PREFACE

Introduction

The *Virginia Uniform Statewide Building Code* (USBC) is a state regulation promulgated by the Virginia Board of Housing and Community Development, a Governor-appointed board, for the purpose of establishing minimum regulations to govern the construction and maintenance of buildings and structures.

The provisions of the USBC are based on nationally recognized model building and fire codes published by the International Code Council, Inc. The model codes are made part of the USBC through a regulatory process known as incorporation by reference. The USBC also contains administrative provisions governing the use of the model codes and establishing requirements for the enforcement of the code by the local building departments and other code enforcement agencies.

In keeping with the designations of the USBC used previously, since the 2021 editions of the International Codes are incorporated by reference into this version of the USBC, it is known as the 2021 edition of the USBC.

Arrangement

The USBC is part of the *Virginia Administrative Code* (VAC), the official compilation of state regulations published under the authority and guidance of the Virginia Code Commission. Due to the difference in the section numbering system between the VAC and the model codes incorporated by reference into the USBC, the USBC utilizes a dual section numbering system. In the USBC, the VAC section numbers are listed first, followed by a section number matching the model code system. In this printing of the USBC, the VAC section numbers are omitted and only the model code numbering system is utilized. The version of the USBC containing both the VAC section numbers and the model code numbering can be accessed through Virginia’s Legislative Information System (LIS) here: https://law.lis.virginia.gov/admincode/title13/agency5/.

Overview

The USBC is divided into three stand-alone parts. Part I contains regulations specific to the construction of new buildings and structures and is known as the *Virginia Construction Code*. Part II contains regulations specific to the rehabilitation of existing buildings, including repair, alterations, additions and change of occupancy in existing buildings and structures, and is known as the *Virginia Existing Building Code*. Part III of the USBC contains the regulations for the maintenance of existing structures which is enforced at the option of the local governments. It is known as the *Virginia Maintenance Code*.

Codes Purchased from ICC

The 2021 edition of the USBC is being made available in pamphlet form as in past editions of the USBC. In addition to the pamphlet form of the USBC published by DHCD, the International Code Council (ICC) publishes versions of the *Virginia Construction Code*, *Virginia Existing Building Code*, *Virginia Maintenance Code* and a series of Virginia specific trade codes.
Marginal Markings

In the ICC published versions, marginal markings are provided to distinguish between text which is part of the International Codes and text which is part of the state regulations. Double vertical lines in the margins within the body of the codes indicate state amendments to the International Codes. As in the standard printings of the International Codes, a single vertical line in the margins within the body of the code indicates a technical change from the previous edition of the International Codes.

Deletions from the previous editions of the International Codes are indicated in the form of an arrow (蕙) in the margin where an entire section, paragraph, exception or table has been deleted or an item in a list of items or a table has been deleted. Deletions to the Virginia Code are indicated with an open caret (> ) in the margin.

Technical Assistance

The local building departments and enforcing agencies may be contacted for further information concerning the USBC. Contact information for the State Building Codes Office is below.

DHCD, Division of Building and Fire Regulation
State Building Codes Office
600 East Main Street, Suite 300
Richmond, Virginia 23219
Phone: (804) 371-7150 – Email: sbco@dhcd.virginia.gov
Website: www.dhcd.virginia.gov/codes
PREVIOUS ADOPTIONS and AMENDMENTS of the USBC and SFPC

The Virginia Uniform Statewide Building Code (USBC) was first adopted in 1973 by the State Board of Housing. Responsibility for the USBC passed to the State Board of Housing and Community Development on July 1, 1978. The Virginia Statewide Fire Prevention Code was first adopted by the Board of Housing and Community Development on March 1, 1988. The initial adoption and subsequent amendments by these Boards are indicated below:

1973 Edition
Effective date: September 1, 1973
Title: Virginia Uniform Statewide Building Code, Administrative Amendments, 1973 Edition
Major reference standards:
- BOCA Basic Mechanical Code/1971
- CABO One- and Two-Family Dwelling Code/1971
- NFPA National Electrical Code/1971

1974 Accumulative Supplement
Effective date: April 1, 1974
Title: 1974 Accumulative Supplement to Virginia Uniform Statewide Building Code
Major reference standards:
- BOCA Basic Mechanical Code/1971
- NFPA National Electrical Code/1971

1975 Accumulative Supplement
Effective date: February 7, 1976
Title: 1975 Accumulative Supplement to Virginia Uniform Statewide Building Code
Major reference standards:
- BOCA Basic Building Code/1975
- BOCA Basic Mechanical Code/1975
- BOCA Basic Plumbing Code/1975
- CABO One- and Two-Family Dwelling Code/1975
- NFPA National Electrical Code/1975

1978 Accumulative Supplement (First Amendment)
Effective date: January 1, 1981
NOTE: The 1978 Accumulative Supplement to the Virginia Uniform Statewide Building Code was continued, but with a few changes to the previously referenced BOCA Basic Building Code/1978.

1981 Edition
Effective date: July 16, 1982
Title: Virginia Uniform Statewide Building Code, 1981 Edition
Major reference standards:
- BOCA Basic Building Code/1981
- BOCA Basic Mechanical Code/1981
- BOCA Basic Plumbing Code/1981
- CABO One- and Two-Family Dwelling Code/1979 with 1980 Amendments
- NFPA National Electrical Code/1981

1981 Edition (First Amendment)
Effective date: June 20, 1984
Title: Sections 515.4 and 515.5 of Article 5 of the 1981 Edition, Virginia Uniform Statewide Building Code

1984 Edition
Effective date: April 1, 1986
Title: Virginia Uniform Statewide Building Code, Volume I—New Construction Code, 1984 Edition
Major reference standards:
- BOCA Basic Building Code/1984
- BOCA Basic Mechanical Code/1984
- BOCA Basic Plumbing Code/1984
- CABO One- and Two-Family Dwelling Code/1983 with 1984 Amendments
- NFPA National Electrical Code/1984

1987 Edition
Effective date: March 1, 1988
Major reference standards:
- BOCA Basic Building Code/1987
- BOCA Basic Mechanical Code/1987
- BOCA Basic Plumbing Code/1987
- CABO One- and Two-Family Dwelling Code/1986 with 1987 Amendments
- NFPA National Electrical Code/1987
Title: Virginia Statewide Fire Prevention Code, 1987 Edition
Major reference standard:
1987 Edition (First Amendment)
Effective date: March 1, 1989
Major reference standards:
Same as 1987 Edition

1987 Edition (Second Amendment)
Effective date: March 1, 1990
Major reference standards:
Same as 1987 Edition

1987 Edition (Third Amendment)
Effective date: October 1, 1990
Major reference standards:
Same as 1987 Edition

1990 Edition
Effective date: March 1, 1991
Major reference standards:
BOCA National Mechanical Code/1990
BOCA National Plumbing Code/1990
CABO One- and Two-Family Dwelling Code/1989 with 1990 Amendments
NFPA National Electrical Code/1990

Title: Virginia Statewide Fire Prevention Code, 1990 Edition
Major reference standard:

1990 Edition (First Amendment)
Effective date: November 1, 1991
Major reference standards:
BOCA National Mechanical Code/1990
BOCA National Plumbing Code/1990
CABO One- and Two-Family Dwelling Code/1989 with 1990 Amendments
NFPA National Electrical Code/1990

Title: Virginia Statewide Fire Prevention Code, 1990 Edition
Major reference standard:

1990 Edition (Third Amendment)
Effective date: March 1, 1993
Major reference standards:
Same as 1990 Edition

1993 Edition
Effective date: April 1, 1994
Major reference standards:
BOCA National Building Code/1993
BOCA National Fire Prevention Code/1993
BOCA National Mechanical Code/1993
BOCA National Plumbing Code/1993
CABO One- and Two-Family Dwelling Code/1992 with 1993 Amendments
NFPA National Electrical Code/1993

Title: Virginia Statewide Fire Prevention Code, 1993 Edition
Major reference standard:
BOCA National Fire Prevention Code/1993

1996 Edition
Effective date: April 15, 1997 with minor revision August 20, 1997
Title: Virginia Uniform Statewide Building Code, 1996 Edition
Major reference standards:
BOCA National Building Code/1996
CABO One- and Two-Family Dwelling Code/1995
ICC International Mechanical Code/1996
NFPA National Electrical Code/1996

Title: Virginia Statewide Fire Prevention Code, 1996 Edition
Major reference standard:

1996 Edition w/2000 Amendments
Effective date: September 15, 2000
Major reference standards:

2000 Edition
Effective date: October 1, 2003
Major reference standards:
ICC International Code Council (ICC)
ICC International Building Code 2000
ICC International Fuel Gas Code 2000
ICC International Mechanical Code 2000
ICC International Plumbing Code 2000
ICC International Residential Code 2000
NFPA National Electrical Code 1999

NOTE: An amendment addressing the fire separation distance between dwellings under the IRC became effective on September 9, 2004.
Title: Virginia Statewide Fire Prevention Code, 2000 Edition
Major reference standard:
ICC International Fire Code 2000
2003 Edition
Effective date: November 16, 2005
Title: Virginia Uniform Statewide Building Code
(2003 Edition)
Major referenced standards:
- International Code Council (ICC)
- ICC International Building Code 2003
- ICC International Mechanical Code 2003
- ICC International Plumbing Code 2003
- ICC International Residential Code 2003
- NFPA National Electrical Code 2005
Title: Virginia Statewide Fire Prevention Code, 2003 Edition
Major reference standard:
- ICC International Fire Code 2003

2006 Edition
Effective date: May 1, 2008
Title: Virginia Uniform Statewide Building Code
(2006 Edition)
Major referenced standards:
- ICC International Mechanical Code 2006
- ICC International Plumbing Code 2006
- ICC International Residential Code 2006
- NFPA National Electrical Code 2005
Title: Virginia Statewide Fire Prevention Code, 2006 Edition
Major reference standard:
- ICC International Fire Code 2006

2009 Edition
Effective Date: March 1, 2011
Title: Virginia Uniform Statewide Building Code
(2009 Edition)
Major referenced standards:
- ICC International Building Code 2009
- ICC International Fuel Gas Code 2009
- ICC International Mechanical Code 2009
- ICC International Plumbing Code 2009
- ICC International Residential Code 2009
- NFPA National Electrical Code 2008
Title: Virginia Statewide Fire Prevention Code, 2009 Edition
Major reference standard:
- ICC International Fire Code 2009

2012 Edition
Effective Date: July 14, 2014
Title: Virginia Uniform Statewide Building Code
(2012 Edition)
Major referenced standards:
- ICC International Building Code 2012
- ICC International Mechanical Code 2012
- ICC International Plumbing Code 2012
- ICC International Residential Code 2012
- NFPA National Electrical Code 2011
Title: Virginia Statewide Fire Prevention Code, 2012 Edition
Major reference standard:
- ICC International Fire Code 2012

2015 Edition
Effective Date: September 4, 2018
Title: Virginia Uniform Statewide Building Code
(2015 Edition)
Major referenced standards:
- ICC International Building Code 2015
- ICC International Mechanical Code 2015
- ICC International Plumbing Code 2015
- ICC International Residential Code 2015
- NFPA National Electrical Code 2014
Title: Virginia Statewide Fire Prevention Code, 2015 Edition
Major reference standard:
- ICC International Fire Code 2015

2018 Edition
Effective Date: July 1, 2021
Title: Virginia Uniform Statewide Building Code
(2018 Edition)
Major referenced standards:
- ICC International Building Code 2018
- ICC International Energy Conservation Code 2018
- ICC International Fuel Gas Code 2018
- ICC International Mechanical Code 2018
- ICC International Plumbing Code 2018
- ICC International Residential Code 2018
- NFPA National Electrical Code 2017
Title: Virginia Statewide Fire Prevention Code, 2018 Edition
Major reference standard:
- ICC International Fire Code 2018
# TABLE OF CONTENTS

**CHAPTER 1  ADMINISTRATION  ..........  1-1**
- 101 General  .................  1-1
- 102 Purpose and Scope  .................  1-2
- 103 Application of Code .................  1-3

**CHAPTER 2  DEFINITIONS  ..........  2-1**
- 201 General  .................  2-1
- 202 General Definitions .................  2-1

**CHAPTER 3  GENERAL PROVISIONS AND SPECIAL DETAILED REQUIREMENTS ..........  3-1**
- 301 General  .................  3-1
- 302 Building Materials and Systems .................  3-1
- 303 Fire Escapes .................  3-1
- 304 Glass Replacement and Replacement Windows .................  3-2
- 305 Seismic Force-Resisting Systems .................  3-2
- 306 Higher Education Laboratories .................  3-3

**CHAPTER 4  ACCESSIBILITY  ..........  4-1**
- 401 General  .................  4-1
- 402 Change of Occupancy .................  4-1
- 403 Additions .................  4-1
- 404 Alterations .................  4-1
- 405 Historic Buildings .................  4-3

**CHAPTER 5  REPAIRS  ..........  5-1**
- 501 General  .................  5-1
- 502 Structural .................  5-1
- 503 Flood Hazard Areas .................  5-2
- 504 Electrical .................  5-2
- 505 Mechanical .................  5-2
- 506 Plumbing .................  5-3
- 507 Energy Conservation .................  5-3

**CHAPTER 6  ALTERATIONS  ..........  6-1**
- 601 General  .................  6-1
- 602 Alteration—Level 1 .................  6-2
- 603 Alteration—Level 2 .................  6-4

**CHAPTER 7  CHANGE OF OCCUPANCY  ..........  7-1**
- 701 General  .................  7-1
- 702 Special Use and Occupancy .................  7-1
- 703 Building Elements and Materials .................  7-1
- 704 Fire Protection .................  7-1
- 705 Means of Egress .................  7-2
- 706 Heights and Areas .................  7-4
- 707 Exterior Wall Fire-Resistance Ratings .................  7-4
- 708 Electrical and Lighting .................  7-5
- 709 Mechanical and Ventilation .................  7-5
- 710 Plumbing .................  7-5
- 711 Structural .................  7-5
- 712 Accessibility .................  7-6

**CHAPTER 8  ADDITIONS  ..........  8-1**
- 801 General  .................  8-1
- 802 Heights and Areas .................  8-1
- 803 Structural .................  8-1
- 804 Flood Hazard Areas .................  8-2
- 805 Energy Conservation .................  8-2

**CHAPTER 9  HISTORIC BUILDINGS  ..........  9-1**
- 901 General  .................  9-1
- 902 Flood Hazard Areas .................  9-1
- 903 Repairs .................  9-1
- 904 (Reserved) .................  9-1
- 905 Alterations .................  9-1
- 906 Change of Occupancy .................  9-2
- 907 Structural .................  9-2
TABLE OF CONTENTS

CHAPTER A4 EARTHQUAKE RISK
REDUCTION IN WOOD-FRAME
RESIDENTIAL BUILDINGS
WITH SOFT, WEAK OR OPEN
FRONT WALLS . . . . . . . . . APPENDIX A-37

Section
A401 General . . . . . . . . . APPENDIX A-37
A402 Definitions . . . . . . APPENDIX A-37
A403 Analysis and Design . . . APPENDIX A-37

A404 Prescriptive Measures
for Weak Story APPENDIX A-39
A405 Materials of Construction APPENDIX A-40
A406 Construction Documents APPENDIX A-40
A407 Quality Control APPENDIX A-41

CHAPTER A5 REFERENCED
STANDARDS . . . . APPENDIX A-43

Section
A501 Referenced Standards APPENDIX A-43

APPENDIX B SUPPLEMENTARY
ACCESSIBILITY REQUIREMENTS
FOR EXISTING BUILDINGS
AND FACILITIES . . . APPENDIX B-1

Section
B101 Qualified Historic Buildings
and Facilities APPENDIX B-1
B102 Fixed Transportation Facilities
and Stations APPENDIX B-1
B103 Dwelling Units and Sleeping
Units APPENDIX B-2
B104 Referenced Standards APPENDIX B-2

APPENDIX C GUIDELINES FOR THE WIND
RETROFIT OF EXISTING
BUILDINGS . . . . . APPENDIX C-1

CHAPTER C1 GABLE END RETROFIT
FOR HIGH-WIND
AREAS . . . . . . . . APPENDIX C-1

Section
C101 General APPENDIX C-1
C102 Definitions APPENDIX C-1
C103 Materials of Construction APPENDIX C-2
C104 Retrofitting Gable End Walls to
Enhance Wind Resistance APPENDIX C-4

CHAPTER C2 ROOF DECK FASTENING
FOR HIGH-WIND
AREAS . . . . APPENDIX C-21

Section
C201 General . . . . . . . . APPENDIX C-21
C202 Roof Deck Attachment
for Wood Roofs APPENDIX C-21

CHAPTER C3 REFERENCED
STANDARDS . . . APPENDIX C-23

Section
C301 Referenced Standards APPENDIX C-23

APPENDIX D BOARD OF
APPEALS
(DELETED). . . . APPENDIX D-1

RESOURCE A GUIDELINES ON FIRE
RATINGS OF ARCHAIC
MATERIALS AND
ASSEMBLIES . . . . . . . RESOURCE A-1

Section
1 Fire-Related Performance of Archaic
Materials and Assemblies . RESOURCE A-2
2 Building Evaluation . . . . . . . RESOURCE A-3
3 Final Evaluation and Design
Solution . . . . . . . . . . . . RESOURCE A-6
4 Summary . . . . . . . . . . . . RESOURCE A-13
Appendix . . . . . . . . . . . . . RESOURCE A-15
Resource A Table of Contents . RESOURCE A-15
Bibliography . . . . . . . . . . . . RESOURCE A-134