



2012 Code Change Training Series

Companion Guide

2nd edition



2012



Printed Edition II – July 2014

Welcome!

Welcome to the 2012 Code Change Update Training series, presented by the Jack A. Proctor Virginia Building Code Academy! This mandatory training for all Board of Housing and Community Development issued certificate holders is designed to make you, the experienced code official, aware of significant changes to the building and fire code as well as all related codes on both the state and national levels. In addition the training includes administrative changes.

Through these training modules, we will highlight the most sweeping and significant changes to building codes as they pertain to the state of Virginia. This training series and its companion guide are not inclusive of all changes to the codes, and are not meant to serve as substitutes for the actual code books. Certificate holders are encouraged to review the changes that may not have been included in this series.

Whether you chose classroom learning, online, or both you will find this training companion guide as a useful resource while attending training as well as following training.

Thank you for joining us, and we hope you enjoy your training experience!

About This Guide

This guide is designed to make it easy for you to track, follow, note, and follow up on code changes presented in the 2012 Code Change Training series. We hope you will explore the tools and features contained in this guide just for you.

- ❑ This training series and its companion guide are not inclusive of all changes to the codes, and are not meant to serve as substitutes for the actual code books. Certificate holders are encouraged to review the changes that may not have been included in this series.

- ❑ Quick Reference Guide: Keep track of the courses that you plan to take as well as the dates of those courses, by using this consolidated table.

- ❑ Code Tracker: We know that different codes are more important to some people than to others. This section includes a checklist of each code change presented in each training module. Every list is color coded, and corresponds to the same section later in this book. Use these checklists to note the code changes most important to you. This way they are all in one place for quick and easy reference!

- ❑ Course Companion: This section contains a brief summary of each slide and code change presented in the 2012 Code Change Training series, and is color coded to match both the corresponding ICC code book cover and Code Tracker section.

2012 Code Change Training
Companion Guide

Table of Contents

2012 Code Change Update Training Matrix.....	2
Quick Reference Guide.....	4
Code Checklist.....	5
2012 Code Change Training.....	22
 Administrative and Related Codes.....	23
 Property Maintenance.....	32
 Building (2012 IBC & 2012 VCC).....	35
 Residential (2012 IRC & 2012 VCC).....	57
 Mechanical (2012 IMC & 2012 USBC).....	65
 Fuel Gas (2012 IFGC & 2012 USBC).....	76
 Electrical (2011 NEC & 2012 IRC).....	80
 Plumbing (2012 IPC & 2012 IRC).....	94
 Energy (2012 IECC, 2012 IRC & 2012 USBC).....	109
 Rehabilitation (2012 VRC).....	120
 Fire Prevention (2012 IFC & 2012 SFPC).....	129
Thank You	139

2012 Code Change Update Training Matrix

Training Requirements	Building Official	Building Maintenance Official	Fire Official	Building Maintenance Inspector	Residential Building Inspector	Residential Plans Examiner	Commercial Building Inspector	Commercial Plan Examiner	Residential Electrical Inspector	Commercial Electrical Inspector	Electrical Plans Examiner	Residential Mechanical Inspector	Commercial Mechanical Inspector	Mechanical Plans Examiner
Training Requirements														
Administrative (Chapter 1, IBSR, VCS, ADI, ELEVATOR)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fire	✓		✓											
Mechanical/Fuel Gas												✓	✓	✓
Electrical									✓	✓	✓			
Plumbing														
Building	✓		✓				✓	✓						
Residential	✓				✓	✓								
Property Maintenance		✓	**	✓										
Energy	✓				✓	✓	✓	✓						
IEBC/Rehabilitation	✓				✓	✓	✓	✓						

**Suggested but not required

2012 Code Change Update Training Matrix

Residential Plumbing Inspector	Commercial Plumbing Inspector	Plumbing Plans Inspector	Combination Residential Inspector	Combination Commercial Inspector	Fire Prevention Inspector	Fire Protection Inspector	Fire Protection Plans Examiner	Elevator Inspector	Amusement Device Inspector	Permit Technician	Residential Energy Inspector	Residential Energy Plan Examiner	Commercial Energy Inspector	Commercial Energy Plan Examiner	Training Requirements
															Training Requirements
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Administrative (Chapter 1, IBSR, VCS, ADI, ELEVATOR)
					✓										Fire
			✓	✓											Mechanical/Fuel Gas
			✓	✓											Electrical
✓	✓	✓	✓	✓											Plumbing
				✓	**	✓	✓	**		**			✓	✓	Building
			✓							**	✓	✓			Residential
															Property Maintenance
											✓	✓	✓	✓	Energy
															IEBC/Rehabilitation

**Suggested but not required

QUICK REFERENCE GUIDE

Course Tracker			
Course	Date	Course	Date
<input type="checkbox"/> Administrative and all related codes		<input type="checkbox"/> Mechanical/ Fuel Gas	
<input type="checkbox"/> Residential		<input type="checkbox"/> Energy	
<input type="checkbox"/> Building		<input type="checkbox"/> Property Maintenance	
<input type="checkbox"/> Electrical		<input type="checkbox"/> Plumbing	
<input type="checkbox"/> Fire		<input type="checkbox"/> Existing Building/ Rehabilitation	

Here you can record the trainings that you have completed, or those you plan to take. DHCD staff will keep track of your official records, which you can also track through your online profile at the JPVBCA Online System.

The following Code Tracker section gives you the opportunity to note the code sections mentioned in training that you wish to review later. Code changes are grouped by code family, and are additionally highlighted in the margin according to the color of the corresponding code book cover. This way it is easy to find a section in a quick glance!

Administrative and All Related Codes

- [101.6](#) Order of Precedence
- [102.3](#) Exemptions
- [103.3](#) Change of Use
- [103.4](#) Additions
- [103.5](#) Reconstruction, alteration or repair in Group R-5 occupancies
- [103.6](#) Reconstruction, alteration or repair in all other use groups
- [103.7](#) Retrofit requirements
- [104.1](#) Scope of enforcement
- [108.2](#) Exemptions from Permit
- [112.1](#) General
- [112.5](#) Defective Material
- [113.6](#) Notice of defective work
- [113.8](#) Final Inspection
- [116.2](#) Content of certificate of occupancy.
- [117.1.1](#) Temporary uses within existing buildings and structures
- [118.1](#) Unsafe Buildings or Structures
- [119.1](#) Establishment of appeals board
- [119.6](#) Meetings and postponements
- [202](#) Definitions Unsafe Building or Structure

Certification Standards (2012 VCS)

- [13 VAC 5-21-10](#) VCS Definitions
- [13 VAC 5-21-31](#) Qualification and Examination Requirements
- [13 VAC 5-21-41](#) Certification categories and training requirements
- [13 VAC 5-21-45](#) Alternatives to training requirements
- [13 VAC 5-21-51](#) Issuance and maintenance of certificates
- [13 VAC 5-21-61](#) Sanctions

Amusement Device (2012 VADR)

- VADR Definitions
- VADR Devices Covered and Exempt
- VADR Devices Exempt
- VADR Fees
- VADR Small Mechanical and Inflatables
- VADR Violations & State-Owned Property
- VADR Inflatables and Zip Lines

Industrialized Building Safety Regulations (IBSR)

- IBSR Definitions
- 13 VAC 5-91-20 Application and Compliance
- 13 VAC 5-91-120 Unregistered Industrialized Buildings
- 13 VAC 5-91-150 Modifications
- 13 VAC 5-91-160 Use and Model Codes and Standards
- 13 VAC 5-91-260 Registration Seal and Industrialized Buildings

Elevator (ASME A17.1 – 2010& 2012 IBC)

- New Codes Incorporated By Reference
- A17.1-2.18.5 Governor Ropes
- A17.1-5.3.1.18.2.2 Monitoring of the Car Door or Gate Switch Electric Contacts
- A17.1-8.6.1.2.1 General Maintenance Requirements
- A17.1-8.6.1.4 Maintenance Records
- A17.1 Code and Data Plate 8.9.1 Required information
- A17.1 Code and Data Plate 8.9.2 Location
- IBC 3006.4 Exception 1 – Deleted

Property Maintenance Code

2012 PMC

- 101.6 Precedence
- 104.1 Enforcement
- 104.5 Powers and Duty
- 105.9 Emergency Action
- 106.1 and 106.2 Appeals Board
- 106.6 LBBCA Meetings
- 201.3 Terms
- 304 Exterior Structures
- 311.1 Above Ground ALFST
- 404 Occupancy
- 602 Heating
- 604 Cooling
- 605 Electrical
- ISPSC: 302.8 Maintenance

Building

2012 IBC & 2012 VCC

- Chapter 2: Definitions
- 303.1.3 Assembly rooms associated with Group E Occupancies
- 303.3 and 306.2 Commercial kitchens
- 307.1 and Table 307.1(1) Combustible dusts
- 303.6 Use group A-5
- 307.1(1) Consumer fireworks and permissible fireworks
- 308.3 Use group I-1
- 308.3.2 Use Group I-1 Condition 1
- 308.3.2 Use Group I-1 Condition 2 Licensed
- 308.4 Use Group I-2
- 310.6 Use Group R-4
- 402.1 Open Mall Buildings
- 402.4.3 and 402.5 Open Mall Buildings
- 403.6.1 High Rise Buildings (over 120 ft)
- 412.4.6.2 Hangar Fire Area Calculations
- 419 Live/Work Units
- 424 Children's Play Structures
- 408.9 (I-3) Smoke Controls in Windowless Buildings
- 414.6.2 Other Regulations (tanks)
- 420 Groups I-1, R-1, R-2, R-3, R-4
- 420.4 Smoke Barriers in Group I-1 Condition 2
- 420.4.1 Refuge Areas
- 427.1 Short Term Holding Areas
- 501.2 Addressing Multiple Buildings in a Complex
- 504.2 Automatic Sprinkler System Increase
- 505.2.2 (Formerly 505.3) Mezzanines and Platforms, Means of Egress
- 507.1 Unlimited Area Buildings – Accessory Occupancies
- 508.2.3 Accessory Occupancies
- 509 Incidental Uses
- 701.2 Multiple Use Fire Assemblies
- 703.7 Fire Resistance Assembly Marking
- 705.2 Projections
- 705.2.3 Projections
- State exemptions to 705.2
- Horizontal Projections Elements – State exception to 706.5.2

2012 Code Change Training Companion Guide

- [706.6.2](#) Buildings with Sloped Roofs
- [709.5](#) Openings I-1 Condition 2
- [714.4.1.1.2](#) Through-Penetration Firestop System
- [714.4.1.2](#) Membrane Penetrations
- [715.4](#) Exterior Curtain Wall/Floor Intersection
- [716.3](#) Marking Fire-Rated Glazing Assemblies
- [715.5.4](#) ('09) Wired Glass deletion
- [716.5.3.1](#) Smoke and Draft Controls
- [716.5.7.1.1](#) Light Kits, Louvers, and Components
- [806.1.2](#) Combustible Decorative Material
- [901.8](#) Pump Riser Room Size
- [902.2.2](#) Ambulatory Care Facilities
- [903.2.4](#) Group F-1
- [903.2.6](#) Group I Sprinkler
- [903.2.6](#) Group I-4 Sprinkler
- [903.2.8](#) Group R
- [905.3.8](#) Rooftop Gardens and Landscaped Roofs
- [907.2.9.3](#) Group R-2 College and University Buildings
- [907.5.2.2.4](#) Emergency Voice/Alarm Communication
- [908.7](#) Carbon Monoxide Alarms
- [911](#) Fire Command Center
- [1001.4](#) Fire Safety Evacuation Plan (Deleted)
- [1004.1.2](#) and [Table 1004.1.2](#) Floor Area Per Occupant
- [1008.1.2](#) Door Swing
- [1009.3](#) Exit Access Stairways
- [1012.3.1](#) Type 1 Handrail
- [1016.2.2](#) Group F-1 and S-1 Increase (2015 IBC)
- [1021.1](#) Number of Exits
- [1022](#) Interior Exit Stairs
- [ICC A117.1](#) (2009)
- [1104.3.1](#) Employee Work Area Circulation Path Exception 1
- Tables [1106.1\(1\)](#) and [1106.1\(2\)](#)
- [1109.16](#) and [1109.16.1](#) Dwellings Containing Universal Design Features
- [1109.2](#) Toilet Facilities and [1109.5](#) Drinking Fountains (Children)
- IBC Scoping to Coordinate with ADA, ABA
- [1203.6](#) Smoking Areas in Restaurants (New Section)
- 2012 IECC and 2012 IBC Chapter 13
- [1404.12](#) Polypropylene Siding (New Section)

2012 Code Change Training Companion Guide

- [1405.18](#) Polypropylene Siding (New Section)
- [1502.1](#) Definitions
- [1505.8](#) Photovoltaic Systems
- [1507.16](#) Roof Gardens and Landscaped Roofs
- [1510.3](#) Recovering Versus Replacement
- Table [1604.5](#) Risk Category of Buildings and Other Structures
- Figures 1609 A-C Wind Loads (Wind Speed Maps 1609 A-C)
- [1704.2.3](#) Statement of Special Inspections
- [1704.3.3](#) Wind Requirements in the Statement of Special Inspections
- [2205.2](#) and 2210.2 Seismic Requirements for Structural Steel
- [2303.1.1.2](#) End-Jointed Lumber
- [2306](#) Allowable Stress Design
- [2308.2](#) Limitations (to Conventional Light-Framed Construction)
- Tables [2308.8\(1\)](#) and [2308.1\(2\)](#) Allowable Floor Joist Spans
- Tables [2308.10.2\(1\)](#) and [2308.10.2\(2\)](#) Allowable Ceiling Joist Spans
- Tables [2308.10 \(1-6\)](#) Allowable rafter spans
- [2603.5.5](#) Vertical and Lateral Flame Propagation
- [2603.4](#) Thermal Barrier
- [2603.7](#) Interior Finish in Plenums
- [3109.1](#) General
- IBC Chapter 34: Existing Structures
- IBC Chapter 35: Referenced Standards

Residential

2012 IRC & 2012 VCC

- [R202](#) Definitions
- [R301.2.1](#) Wind Design Criteria
- [R302.2.2](#) Parapet exception
- [R303.4](#) Mechanical Ventilation
- [R308.4.6](#) Glazing Adjacent Stairs & Ramps
- [R308.4.7](#) Glazing Adjacent to the Bottom Stair Landing
- [R308.6.1](#) Tubular Daylighting Device (Definition)
- [R310.2.2](#) Drainage
- [R311.2.1](#) Interior Passage
- [R311.3.1](#) Floor Elevation at the Required Egress Door
- [R311.7.6](#) Landing for Stairways

2012 Code Change Training Companion Guide

- [R314.1](#) Smoke Detection and Notification
- [R315.2](#) Carbon Monoxide Detection Systems
- [R316.4](#) Thermal Barrier
- [R316.5.3](#) Attics # 3.7
- [R317.3.1](#) - [R317.3.4](#) Fasteners for Preservative Treated Wood
- [R317.4.1](#) Labeling
- [R405.1](#) Concrete or Masonry Foundation Drains
- [R501.3](#) Fire Protection of Floors
- [R502.1.3](#) End Jointed Lumber
- [Tables R502.3.1\(1\)](#) and [R502.3.1\(2\)](#)
- [R502.6](#) Bearing
- [R506.2.3](#) Vapor retarder Exception # 1
- [R507](#) Decks
- [Table R602.3\(1\)](#) Fastener Schedule for Structural Members
- [R602.7](#) Single Member Headers
- [R602.7.4](#) King Studs
- [R602.12](#) Practical Wall Bracing
- [R602.12](#) Simplified Wall Bracing
- [R703.7.3.2](#) Masonry Veneer Lintels
- [R703.7.4](#) Masonry Veneer Anchorage
- [Chapter 8](#) Span Tables – Roof-Ceiling Construction
- [R802.11](#) Roof Uplift Resistance
- [R806.5](#) Unvented Enclosed Rafter Assemblies
- [R903.2.1](#) & [R905.2.8.3](#) Sidewall Flashing
- [R325](#) Swimming Pool and Spa Code

Mechanical

2012 IMC, 2012 IRC & 2012 USBC

- IMC Chapter 2 Definitions
- 301.3/M1301.2 Identification
- 301.4/M1301.4 Plastic Pipe, Fittings And Components
- 301.5/M1301.5 Third-Party Testing And Certification
- 301.9/M1303.1 Label Information
- 301.16/M1301.1.1 Flood Hazard
- 304.3/M1307.3 Elevation of Ignition Source
- 306.5 Equipment and Appliances on Roofs or Elevated Structures
- IRC M1401.2 Access
- 308.5 Labeled Assemblies
- 401.4 Intake Opening Location
- 403.3 Outdoor Airflow Rate
- 404.1 Enclosed Parking Garages
- USBC M1401.3 Equipment and Appliance Sizing
- USBC M1501.2 Transfer Air
- USBC M1503.4 Makeup Air Required
- USBC M1503.4.1 Location
- 501.2 Independent System Required
- 501.3.2 Exhaust Opening Protection
- 504.8 Common Exhaust Systems for Clothes Dryers Located in Multistory Structures
- USBC 505.1 Domestic Systems
- USBC 505.3 Other than Group R
- 506.3.7.1 Grease Reservoirs
- 506.3.8 Grease Duct Cleanouts and Other Openings
- 506.3.9 Grease Duct Horizontal Cleanouts
- 506.3.10 Underground Grease Duct Installation
- 507.2 Where Required
- 507.2.1 Type I Hoods
- 507.2.1.2 Exhaust Flow Rate Label
- 507.2.2 Type II Hoods
- USBC 507.2.3 Domestic Cooking Appliances Used for Commercial Purposes
- 507.10 Hoods Penetrating a Ceiling
- 507.11 Grease Filters
- 510.7 Suppression Required
- 514 Energy Recovery Ventilation Systems

2012 Code Change Training Companion Guide

- [514.4](#) Recirculated Air
- [601.4](#) Contamination Prevention
- [602.2.1](#) Materials Within Plenums
- [603.7](#) Rigid Duct Penetrations
- [603.9/M1601.4.1](#) Joints, Seams, and Connections
- [603.17](#) Air Dispersion Systems
- [804.3](#) Mechanical Draft Systems
- [805.3](#) Factory-Built Chimney Offsets
- [901.4](#) Fireplace Accessories
- [903.2](#) Hearth Extensions
- [USBC 908.5](#) Water Supply
- [927](#) (New) Radiant Heating Systems
- [928](#) Evaporative Cooling Equipment
- [928.1](#) General
- [1105.6.3](#) Ventilation Rate

Fuel Gas

2012 IFGC, 2012 IRC & 2012 USBC

- Chapter 2 Definitions (IFGC & IRC)**
- [301.11](#) Flood Hazard
- [306.5](#) Equipment and Appliances on Roofs or Elevated Structures
- [308.1/G2409.1](#) Scope
- [308.3.4/G2409.3.4](#) Clearance From Supply Ducts
- [310.1.1/G2411.1.1](#) CSST
- [401.9/G2412.9](#) Identification
- [401.10/G2412.10](#) Third-Party Testing and Certification
- [404.1/G2415.1](#) Installation of Materials
- [404.2/G2415.2](#) CSST
- [404.18/G2415.18](#) Prohibited Devices
- [406.1.6/G2417.1.6](#) Pipe Clearing
- [406.7/G2417.7](#) Purging
- [408.4/G2419.4](#) Sediment Trap
- [410.4/G2421.4](#) Excess Flow Valves
- [410.5/G2421.5](#) Flashback Arrestor Check Valve
- [503.2.5](#) Incinerators
- [504.2.9/G2428.2.9](#)
- [Figures 503.6.4](#) and [G2427.6.3](#)
- [636](#) Outdoor Decorative Appliances

Electrical

2011 NEC, 2012 IRC & 2012 USBC

- [NEC 90.3](#) Code Arrangement
- [NEC 90.5\(D\)](#) Informational Annex
- [NEC 110.16](#) Arc Flash Hazard Warning
- [NEC 110.24](#) Available Fault Current
- [NEC 110.26\(A\)\(3\)](#) & [IRC E3405.2](#) Working Clearances
- [NEC 110.26\(D\)](#) & [IRC E3405.6](#) Illumination
- [NEC 210.8\(A\)\(7\)](#) Sinks
- [NEC 210.8\(B\) 6&7](#) GFI Protection
- [NEC 210.8 \(B\)\(8\)](#) Garage GFCI Protection
- [NEC 210.12\(A\)](#) and [IRC E 3902.12](#) Arc Fault Circuit Interrupters
- [NEC 210\(B\)](#) & [IRC E3902.12](#) Arc Fault in Dwelling Units
- [NEC 210.52\(C\)\(5\)](#)& [IRC E3901.4.5](#) Countertop Receptacles
- [NEC 210.52\(E\)\(3\)](#) & [IRC E3901.7](#) Balconies, Decks, and Porches
- [NEC 210.52\(G\)](#) & [IRC E3901.9](#) Accessory Buildings
- [NEC 210.52\(I\)](#) & [IRC E3901.11](#) Foyers
- [NEC 225.27](#) & [IRC E3803.6](#) Raceway Seals
- [NEC 225.30](#) Number of Supplies
- [NEC 240.24\(E\)](#) Overcurrent Devices
- [NEC 250.2](#) Definition - Supply Side Bonding Jumper
- [NEC 250.30\(C\)](#) Outdoors Source
- [NEC 250.52\(A\)\(2\)](#) Building Steel
- [NEC 250.52\(A\)\(3\)](#) & [IRC E3608.1.2](#) Concrete Encased Electrode
- [NEC 250.53\(A\)](#) & [IRC E3608.4](#) Rod, Pipe or Plate Electrodes
- [NEC 250.68\(C\)](#) & [IRC E3608.1.1.1](#) Bonding Jumper Connections
- [NEC 250.92\(B\)](#) & [IRC E3609.4](#) Service Bonding
- [NEC 250.121](#) & [IRC E3610.4](#) Equipment Grounding Conductors
- [NEC 250.122](#) & [IRC E3908.12](#) Equipment Grounding Conductors- Tables
- [NEC 300.4 E](#) Boxes Installed Under Roof Decking
- [NEC 300.4 H](#)
- [NEC 300.5 C](#) & [IRC E3803.11](#) Raceways Under Buildings
- [NEC 300.11\(A\)\(2\)](#) Non-fire Rated Assemblies
- [NEC 310 \(Tables\)](#) Table Restructuring
- [NEC 310.15\(B\)\(3\)\(a\)](#) Adjustment Factors
- [NEC 310\(B\) \(3\)\(c\)](#) Conductors Above Rooftops
- [NEC 314.27\(C\)](#) & [IRC 3905.8](#) Ceiling Fan Outlets

2012 Code Change Training Companion Guide

- [NEC 334.10\(1\)](#) & [IRC E3801.4 \(Table\)](#) Type NM Cable in Garages
- [NEC 338.10\(B\)\(4\)\(a\)](#) & [IRC E3705.4.4](#) Type SE Cable
- [NEC 404.2\(C\)](#) & [IRC E4001.15](#) Switches for Lighting Loads
- [NEC 404.9\(B\)](#) & [IRC E4001.11.1](#) Grounding of Switches
- [NEC 406.4\(D\)\(4\)](#) Replacement Receptacle AFCI
- [NEC 406.4\(D\)\(5\)](#) Receptacle Replacement
- [NEC 404.6\(D\)\(6\)](#) Weather Resistant Receptacle
- [NEC 406.9\(B\)\(1\)](#) Wet Location Covers
- [NEC 406.12](#) & [IRC 4002.14](#) Tamper Resistant Receptacles
- [NEC 406.13](#) Guest Room and Suite Receptacles
- [NEC 406.14](#) Child Care Facility
- [NEC 408.4\(B\)](#) Panel Identification
- [NEC 410.16](#) & [IRC 4003.12](#) Clothes Closet Luminaires
- [NEC 410.64](#) Luminaires as a Raceway
- [NEC 422.30](#) & [IRC E4101.5](#) Appliance Disconnecting Means
- [NEC 450.14](#) Transformer Disconnecting Means
- [NEC 503.10\(A\)\(3\)](#) Flexible Wiring Methods
- [NEC 514.11](#) Motor Fuel Dispensing Disconnects
- [NEC 517.13\(B\)](#) Grounding of Metal Boxes
- [NEC 517.16](#) Isolated Ground Receptacles
- [NEC 517.18](#) General Care Areas
- [NEC 517.18\(B\)](#) Patient Bed Receptacles
- [NEC 525.5\(B\)\(2\)](#) Conductor Clearances
- [NEC 590.4\(D\)](#) Temporary Installations
- [NEC 680.2](#) Low Voltage Contact Limit
- [NEC 680.10\(Table\)](#) Conduit Burial Depths
- [NEC 680.21\(C\)](#) GFCI Motor Protection
- [NEC 680.26\(B\)\(7\)](#) Fixed Metal Part Grounding
- [NEC 680.43 Ex. #2](#) Indoor Spas and Hot Tubs
- [NEC 680.73](#) Receptacle Accessibility
- [NEC 694](#) Small Wind Electric Systems
- [NEC 700.10\(D\)\(1\)](#) Emergency Systems
- [NEC 700.12\(F\) Ex. #2](#) Emergency Systems
- [NEC 701.6](#) Legally Required Standby Systems
- [NEC 760.41](#) NPLFA Power Source

Plumbing

2012 IPC, 2012 IRC & 2012 USBC

- IPC Definition Hydromechanical Grease Interceptor
- IPC Definition: Gravity Grease Interceptor
- IPC Definition: Plumbing Appliance
- IPC and IRC Definition: Plumbing Fixture
- 303.4 and P2609 Third-party certification
- 304.4 Openings for Pipes
- 305.3 and P2603.4 Pipes Through Foundation Walls
- 312.2 and P2503.5.1 Drainage and Vent Air Test
- 315.1 and P2501.1 Sealing of Annular Spaces
- Table 403.1 Minimum Number of Required Fixtures
- 403.1.3 Marina Fixtures
- 403.1.3 Marina Fixtures - Exception
- Table 403.1.3 Minimum Number of Required Plumbing Fixtures for Marinas
- 403.2 Separate Facilities
- 403.2.1 Family or Assisted - Use Toilet Serving as Separate Facilities
- 403.3 Required Public Toilet Facilities
- 403.3.2 Toilet Room Location
- 403.3.3 Location of Toilet Facilities in Occupancies Other Than Malls
- 403.3.4 Location of Toilet Facilities in Malls
- 403.6 Door Locking
- 403.5 Drinking Fountain Location
- 405.3.1 Water Closets, Urinals, Lavatories and Bidets
- 405.3.2 Public Lavatories
- 406.2 Automatic Clothes Waste Connection
- 407.2 and P2713.1 Bathtub Waste Outlets and Overflows
- 410.2 Minimum Number of Drinking Fountains
- 410.3 Drinking Fountains Substitution
- 410.4 Prohibited Locations (Drinking Fountains)
- 416.5 Tempered Water for Public Hand-Washing Facilities
- 424.9 and P2722.5 Water Closet Personnel Hygiene Devices
- 504.7 and P2801.5 Required Pan
- P2801.6 Water Heaters Installed in Garages
- 605.25 and P2905.19 Polyethylene of Raised Temperature Plastic
- 607.1.1 Temperature Limiting Means
- 607.2 Hot or Tempered Water Supply to Fixtures

2012 Code Change Training Companion Guide

- {E}607.5 Pipe Insulation
- 608.8 and P2901.1 Identification of Non-Potable Water
- 608.13.8 and P2902.3 Spill-Resistant Pressure Vacuum Breakers
- 608.14 Location of Backflow Preventers
- 608.16.6 Connections Subject to Back-Pressure
- 608.16.10 Coffees Machines and Noncarbonated Beverage Dispensers
- 706.2 and P3002.3.1 Obstructions
- Table 709.1 Drainage Fixture Units for Fixtures and Groups
- 712.3.3 and P30007.3.3 Sumps and Ejectors Discharge Pipe and Fittings
- 712.3.3.2 and P3007.3.5 Ratings
- 712.3.5 and IRC 3007.3.5 Pump Connection to the Drainage System
- 802.1.8 Food Utensils, Dishes, Pots and Pans Sinks
- 1003.3.4 Grease Interceptor and Automatic Grease Removal Devices
- 802.2 Installation
- 802.2 Installation-Exception
- 802.3 and P2706.1 Waste Receptors
- P2706.1 Waste Receptors Exception 2
- 901.3 Chemical Waste Vent Systems
- 903.5 and P3103.5.1 Location of Vent Terminal
- 915 Combination Waste and Vent System
- 917 Single Stack System
- 1003.1 Interceptors and Separators Where Required
- 1003.3.1 Grease Interceptors and Automatic Grease Removal Devices Required
- 1107 Siphonic Roof Drainage Systems
- 1108 Secondary Roof Drains
- Chapter 13 Non-Potable Water Systems
- Non-Potable Water Systems
- Reclaimed Water Definition
- Rainwater Definition
- Gray Water Definition
- Definition: Non-Potable Fixtures and Outlets
- Definition: Storm Water
- IPC 301.3-Exception
- IPC 602.2.1 Non-Potable Fixtures and Outlets
- IPC 1101.2 Exception
- ICC/A117.1-2009 Chapter 6 Plumbing Elements and Facilities-Drinking Fountains
- ICC/A117.1-2009 Toilet and Bathing Rooms
- ICC/ANSI -2009 Swing-Up Grab Bars

2012 Code Change Training Companion Guide

- ICC/A117.1-2009 Urinals
- ICC/A117.1-2009 Bathtubs
- ICC/A117.1-2009 Grab Bars at Bathtubs
- ICC/A117.1-2009 Bathtub Hand Shower
- ICC/A117.1-2009 Standard Roll-in Type Shower Seats
- ICC/A117.1 Grab Bars in Standard Roll In Showers
- ICC/A117.1-2009 Controls & Hand Showers for Standard Roll-In Showers
- ICC/A117.1 2009 Shower Hand Showers
- ICC/A117.1 2009 Hand Showers Exception to 608.5

Energy

2012 IECC, 2012 IRC & 2012 USBC

- IECC C303.1.3(3) Dynamic Glazing
- IECC C401.2 Application
- IECC C401.2.1 Existing Buildings
- IECC C402.2 R-Values
- IECC C402.3 U-Factor
- IECC C402.3.1 Fenestration Max Area
- IECC C402.3.3.1 SHGC Adjustment
- IECC C402.4.1 Air Barriers
- IECC C402.1.2.3 Building Test
- IECC C402.4.4 Doors and Access Openings
- IECC C402.4.7 Vestibules
- IECC C403.2.3 HVAC Equipment Performance (Efficiency Tables)
- IECC C403.2.4.3.3 Automatic Start Capabilities
- IECC C403.2.5.1 Demand Control Ventilation
- IECC C403.2.6 Energy Recovery Ventilation
- IECC C403.2.87, 403.2.8.1 Piping Insulation
- IECC C403.3.1 Economizers
- IECC C404.7 Pools and In-Ground Permanently Installed Spas
- IECC C405.1 Lighting in Commercial Dwelling Units
- IECC C405.2.2 Additional Lighting Controls
- IECC C405.2.2.1 & C405.2.2.2 Automatic Lighting Controls, Timed Switched Devices or Occupancy Sensors
- C405.2.2.3 Daylight Zone Controls
- IECC C405.2.3 Specific Application Controls

2012 Code Change Training Companion Guide

- IECC C405.5.2(2) Interior Lighting
- IECC C406.1 Additional Efficiency Package Options
- IECC C406.2 Efficient HVAC Performance (Option #1)
- IECC C406.3 Efficient Lighting System (Option #2)
- IECC C406.4 On-Site Renewable Energy (Option #3)
- IECC C407.3 Performance Based Compliance
- 2012 IECC and 2012 IRC Chapter 11
- IECC R402.1.1/IRC Table N1102.1.1 and IECC R402.1.3/IRC Table N1102.1.3 R-Value Changes in Climate Zone 4
- IECC R402.1.1/IRC Table N1102.1.1
- IECC R402.2.1/IRC N1102.2.1 Ceilings With Attic Spaces
- IECC R402.2.3/IRC 1102.2.3 Eave Baffle
- IECC R402.2.4/IRC N1102.2.4 Access Hatches and Doors
- IECC R402.2.6/IRC Table N1102.2.6
- IECC R402.2.12/IRC N1102.2.12 Sunrooms
- IECC R402.3.5/IRC N1102.3.5 Sunroom U-Factor
- IECC R402.4/IRC N1102.4 Air Leakage
- IECC R402.4.1.2.2/IRC N1102.4.1.2.2 Testing
- IECC R402.4.1.3/IRC N1102.4.1.3 Leakage Rate
- IRC R403.1.1/IRC N1103.1.1 Programmable Thermostat
- IECC R403.2.2/IRC 1103.2.2 Sealing
- IECC R403.2.2.1/IRC N1103.2.2.1 Testing Option
- IECC R403.2.2.1/IRC N1103.2.2.1
- IECC R403.3.1/IRC N1103.3.1
- IECC R403.4.2/IRC N1103.4.2
- IECC R403.6/IRC N1103.6
- IECC R404.1/IRC N1104.1
- IECC R404.1.1/IRC N1104.1.1
- IECC R405.5.2(1)/IRC Table N1105.5.2(1)

Existing Buildings

Virginia Rehabilitation Code (VRC)

- 2012 VRC Overview
- 202 Definitions
- Chapter 3 Compliance Methods
- 401.2
- 401.3
- 403.6
- 404.2
- 404.3.1
- 404.4
- 407.4 Structural Seismic Requirements
- 410.4
- 410.4.2 Complete Change of Occupancy
- 410.6 Alterations
- 410.8.8 Type A Dwelling or Sleeping Units
- 410.8.9 Type B Dwelling or Sleeping Units
- 410.9 Historic Buildings
- 606.2.2 Substantial Structural Damage to Vertical Elements of the Lateral Force-Resisting System
- 606.2.2.1 Evaluation
- 705.1 General
- 705.2 Alterations Affecting an Area Containing a Primary Function (Accessibility)
- 706.3.2 Roof Diaphragms Resisting Wind Loads in High-Wind Regions
- 804.2.2 Groups A, B, E, F-1, H, I, M, R-1, R-2, R-4, S-1, and S-2
- 804.4.3 Smoke Alarms
- 807.5 Existing Structural Elements Resisting Lateral Loads
- 906.2 Type B Dwelling or Sleeping Units
- 907.4 Existing Structural Elements Resisting Lateral Loads
- 907.4.2 Substantial Structural Alteration
- 907.4.3 Limited Structural Alteration
- 907.4.4 Wall Anchors for Concrete and Masonry Buildings
- 907.4.5 Bracing for Unreinforced Masonry Parapets
- 1002.1 Compliance with the Building Code
- 1007.2 Snow and Wind Loads
- 1012.5.1.1 Fire Wall Alternative
- 1012.8 Accessibility

2012 Code Change Training Companion Guide

- [1012.8.1](#) Partial Change in Occupancy
- [1012.8.2](#) Compliance Change of Occupancy
- [1105.1](#) Minimum Requirements
- [1106.1](#) Minimum Requirements
- [1201.2](#) Report
- [1202.1](#) General
- [1202.2](#) Unsafe Conditions
- [Chapter 5 Compliance](#) (Deleted)
- [1202.4](#) Replacement
- [1204.1](#) Accessibility Requirements
- [1206.2](#) Dangerous Conditions
- [1401.6.2.1](#) Allowable Area Formula
- [\[B\] 1401.6.14.1](#) Categories (Elevator)
- [1401.6.19](#) Incidental Uses
- [1501.5](#) Fire Safety During Construction

Fire Prevention

2012 IFC & 2012 SFPC

- SFPC Chapter 1
- [103.2](#) Amendments
- Table [107.2](#) Operational Permit Requirements
- [107.12](#) And [107.14](#) Fees
- [108.3.7](#) Information on the Permit (Operational Permits)
- [111.1.1](#) Right of Appeal
- [IFC 112.9](#) Appeals
- [IFC 202](#) Definitions
- [IFC 307.1.1](#) Prohibited Open Buring
- [311.5.6](#) Removal of Placards
- [IFC 317](#) Roof Gardens & Landscaped Roofs
- [Chapter 4](#) Emergency Planning and Preparedness
- [403.9.4](#) Group R-3 and R-5 Lodging Facilities
- [403.11](#) Special Requirements for Public Safety
- [508.1.5\(#13\)](#) Fire Command Center Required Features
- [506](#) Key Boxes and Elevator Service Keys
- [605.11](#) Solar Photovoltaic Power Systems
- [506.1](#) and [607](#) Part I and Part II

2012 Code Change Training Companion Guide

- [609.3.3.3.1](#) Tags
- [610](#) Commercial Kitchen Cooking Oil Storage
- [703.1](#) Maintenance
- [704](#) Floor Openings and Shafts
- Interior Finish, Decorative Materials and Furnishings [803.1.2](#), [803.5.2](#), [804.3](#)
- [806.2](#) Artificial Vegetation
- [808.2](#) Waste Containers Over 20Gal in Group R-2 College Dorms
- [808.4](#) Combustible Lockers
- [906.1](#) Portable Fire Extinguishers – Where Required
- IFC Chapter 7-10
- [1029.4](#) Operational Constraints to Emergency Escape and Rescue Openings
- [2106.2](#) Dry Cleaning – Spotting and Pretreating
- [2306.8.1](#) Listed
- [2306.8.1](#) and [2306.8.6](#) Alcohol-Blended Fuel-Dispensing Operations
- [3208.3](#) Rack Storage and Flue Space Protection
- [3406.1](#) Fire Department Required Access
- [5003.1.1\(1\)](#) Maximum Allowable Quantity per Control Area
- [5003.10](#) Handling and Transportation in Quarters or Enclosures of Carts Not Exceeding 5gal
- [5003.12](#) Outdoor Control Areas
- [5601.2.4.1](#) Liability Insurance for Blasting
- [5601.2.4.2](#) Fireworks Display
- [5603.4](#) Accidents
- [5607.16](#) Blast (shot) Record
- [5608.4.1](#) Non-Splitting, Non-Bursting Comets and Mines; and [5608.4.2](#) Special Distance Requirements
- [5701.1.1.1](#) and [5704.2.13.1.3](#) Flammable and Combustible Liquids
- [5705.4.1](#) Unit with Capacity of 60 Gallons or Less
- [5705.5](#) Alcohol Hand Rubbing Dispensers (Condition 5)
- [6104.3.2](#) Container Locations
- 6109.1.15 Storage of Portable LP-Gas Containers Awaiting Use or Resale

2012 Code Change Training

Jack A. Proctor Virginia Building Code Academy

The following section will serve to guide you through each training module developed through the JPVBCA. It has been designed with features that allow you to easily note certain code sections that you wish to learn more about outside of the training sessions.

Use this checkbox to mark the code sections that are most relevant to you, or that you would like to follow up on later

USBC changes will be marked with this symbol.

This section contains the slide title. Typically this will be the code section being discussed.

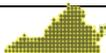
<input type="checkbox"/>	303.3 Assembly group A-2 Casinos (gaming areas) <ul style="list-style-type: none">Formerly A-3 use group	
--------------------------	--	--

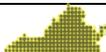
Contained here will be the main points of each slide presented in the training. Feel free to add your own notes!

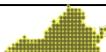
Graphics included on the slide will be presented here.

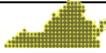
Page margins will include a color-coded bar indicating the training module being shown. Use this feature to quickly find a section for reference.

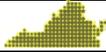
ADMINISTRATIVE AND ALL RELATED CODES

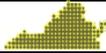
<input type="checkbox"/>	<u>101.6 Order of Precedence</u> 	
	<ul style="list-style-type: none"> • Revision provides clarity • Chapter 1 • State Amendments • Chapters 2-35 	

<input type="checkbox"/>	<u>102.3 Exemptions</u> 	
	<ul style="list-style-type: none"> • Freight, moving, and storage containers used for storage • Automotive lifts 	

<input type="checkbox"/>	<u>103.3 Change of Use</u> 	
	<ul style="list-style-type: none"> • I-2 and I-3 remain in the VCC • All other use groups use VRC • No longer optional • Chapter 34 deleted • Must comply with VRC 1012.8 for accessibility 	

<input type="checkbox"/>	<u>103.4 Additions</u> 	
	<ul style="list-style-type: none"> • VCC new construction requirements or VRC • Chapter 34 deleted • Must meet IBC Chapters 5 and 9 • Gravity loads may utilize VRC 1105 	

<input type="checkbox"/>	<u>103.5 Reconstruction, alteration or repair in Group R-5 occupancies</u> 	
	<ul style="list-style-type: none"> • Continue to use VCC Section 103.5 provisions • VRC is an alternative to VCC • Discretion of the owner or owner's agent 	

<input type="checkbox"/>	<u>103.6 Reconstruction, alteration or repair in all other use groups</u> 	
	<ul style="list-style-type: none"> • Chapter 34 deleted • VRC applicable code for reconstruction, alteration or repair 	

<input type="checkbox"/>	<u>103.7</u> Retrofit requirements	
	<ul style="list-style-type: none"> Retrofit requirements moved to Section 1701 of VRC 	<p>SECTION 3413 RETROFIT REQUIREMENTS</p> <p>3413.1 Scope. In accordance with Section 103.7 and as set out herein, the following buildings are required to be provided with certain fire protection equipment or systems or other retrofitted components.</p>

<input type="checkbox"/>	<u>104.1</u> Scope of enforcement	
	<ul style="list-style-type: none"> Recognizes a magistrate can issue search warrants Escalators and related conveyances added to mandated elevator inspection requirements 	

<input type="checkbox"/>	<u>108.2</u> Exemptions from Permit	
	<ul style="list-style-type: none"> Numerous exemptions listed: See Code Book 	

<input type="checkbox"/>	<u>112.1</u> General	
	<ul style="list-style-type: none"> Damage to regulated building components 	

<input type="checkbox"/>	<u>112.5</u> Defective Material	
	<ul style="list-style-type: none"> Defective drywall!!! 	

☐	<u>113.6</u> Notice of defective work	
	<ul style="list-style-type: none"> • Allows correction notices communicated electronically • Reasonably calculated to get to the permit holder. 	

☐	<u>113.8</u> Final Inspection	
	<ul style="list-style-type: none"> • Allows building official to require electrical power 	

☐	<u>116.2</u> Content of certificate of occupancy	
	<ul style="list-style-type: none"> • Section R320.2 of the IRC • Optional Universal Design • Notation of compliance on the Certificate of Occupancy 	

☐	<u>117.1.1</u> Temporary uses within existing buildings and structures	
	<ul style="list-style-type: none"> • Flexibility to Building Official for temporary uses • Hypothermia and hyperthermia shelters • Spirit and functional intent achieved • Authority to terminate approval • Notification to fire official or fire chief 	

☐	<u>118.1</u> Unsafe Buildings or Structures	
	<ul style="list-style-type: none"> • Section rewritten • Similar language as VMC • New definition in 202 • Notice and placarding requirements 	

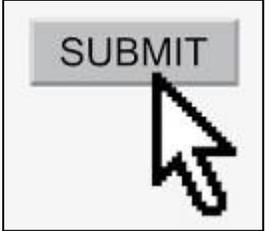
<input type="checkbox"/>	<u>202</u> Definitions: Unsafe Building or Structure	
	<ul style="list-style-type: none"> • New Unsafe Building Definition 	

<input type="checkbox"/>	<u>119.1</u> Establishment of appeals board	
	<ul style="list-style-type: none"> • Out with the annual meeting to select officers and train • Meet as necessary • Responsibility to locality for competent, trained members 	

<input type="checkbox"/>	<u>119.6</u> Meetings and postponements	
	<ul style="list-style-type: none"> • 30 days unless • 45 days for regularly scheduled meetings 	

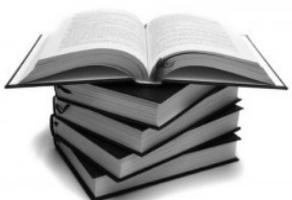
Certification Standards (2012 VCS)

<input type="checkbox"/>	<u>5-21-10</u> VCS Definitions	
	<ul style="list-style-type: none"> • <u>Nongovernmental employee:</u> Any person not employed by a locality who is collecting and transmitting the fee levy to the department. 	

<input type="checkbox"/>	<u>5-21-31</u> Qualification and Examination Requirements	
	<ul style="list-style-type: none"> • Electronic submission of the certification application • Applications must be submitted within six (6) years of passing required exam. 	

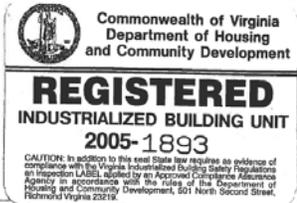
☐	5-21-41 Certification categories and training requirements	
	<ul style="list-style-type: none"> • Applications must be submitted within six (6) years of completing training. • Language is modified to clarify Core as the prerequisite. • Now references all training requirements to the matrix. 	

☐	5-21-45 Alternatives to training requirements	
	<ul style="list-style-type: none"> • Eliminates the option for alternative examinations. • Alternatives to training will now be ‘considered’ rather than ‘permitted’ 	

☐	5-21-51 Issuance and maintenance of certificates	
	<ul style="list-style-type: none"> • Language consistent with that of the USBC to include the continuing education requirement. • Adds ‘lapsed certification’ status – failing to comply with all maintenance requirements. • Provision for issuance of noncompliance notices 	

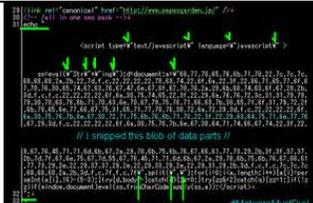
☐	5-21-61 Sanctions	
	<ul style="list-style-type: none"> • Issuance of a provisional certificate when in lapsed status: medical or military leave 	

Industrialized Building Safety Regulations (IBSR)

<input type="checkbox"/>	<p>IBSR Definitions</p> <ul style="list-style-type: none"> • “Label”, “certification label”, or “compliance assurance agency certification label” • “Seal”, “registration seal”, or “Virginia registration seal” 	
--------------------------	---	---

<input type="checkbox"/>	<p>5-91-20 Application and Compliance</p> <ul style="list-style-type: none"> • Intermodal freight and personal temporary storage containers are not covered by the IBSR 	
--------------------------	---	---

<input type="checkbox"/>	<p>5-31-120 Unregistered Industrialized Buildings</p> <ul style="list-style-type: none"> • Removed: requirement for a warning sign on unregistered industrialized buildings 	
--------------------------	---	--

<input type="checkbox"/>	<p>5-91-150 Modifications</p> <ul style="list-style-type: none"> • Removes section allowing building officials the opportunity to present recommendations before a modification is issued by the administrator (DHCD) 	
--------------------------	---	---

<input type="checkbox"/>	<p>5-91-160 Use and Model Codes and Standards</p> <ul style="list-style-type: none"> • Increased the grace period from 90 days to one year for manufacturers to comply with the editions of the codes referenced by the IBSR 	
--------------------------	--	---

<input type="checkbox"/>	<p>5-91-260 Registration Seal and Industrialized Buildings</p> <ul style="list-style-type: none"> • Clarifies that only compliance assurance agencies (CAA) can order Virginia Seals • CAAs are responsible for the seals even when they authorize manufacturers to apply for them 	
--------------------------	---	---

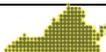
Amusement Device Regulations (2012 VADR)

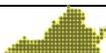
<input type="checkbox"/>	<p>VADR Definitions</p> <p>“Open to the public”</p> <ul style="list-style-type: none"> • Falls under the Amusement Device Definition • Provides clarity for the user <p>“Kiddie ride” has been removed</p> <ul style="list-style-type: none"> • Replaced with “Small mechanical ride” • Does not include inflatables 	
--------------------------	---	--

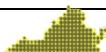
<input type="checkbox"/>	<p>VADR Devices Covered and Exempt</p> <p>Devices that are open to the public and covered by chapter 13VAC5-31-30 include:</p> <ul style="list-style-type: none"> • Inflatable Amusement Devices; and • Zip Lines 	
--------------------------	--	---

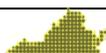
<input type="checkbox"/>	<p>VADR Devices Exempt</p> <p>Devices not covered under the VADR include:</p> <ul style="list-style-type: none"> • Mechanical Bulls or similar devices • Mall trains by any name • Water walking balls, Euro bubbles or similar devices 	
--------------------------	---	---

2012 Code Change Training Companion Guide

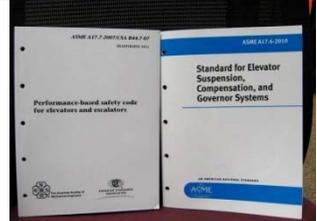
<input type="checkbox"/>	VADR Fees	
	<ul style="list-style-type: none"> • Fees have increased • New generator fee • Building department may increase fee 50% for weekend or after hours inspection 	

<input type="checkbox"/>	VADR Small Mechanical and Inflatables	
	<ul style="list-style-type: none"> • Inflatables now only require a once a year inspection. Local building department may inspect for a \$50.00 fee per event. • Small Mechanical rides require an inspection every 6 months. 	

<input type="checkbox"/>	VADR Violations & State-Owned Property	
	<ul style="list-style-type: none"> • Procedures for violations of the VADR shall be as prescribed in the USBC • Devices on State-owned property are under the supervision of the Department of General Services 	

<input type="checkbox"/>	VADR Inflatables and Zip Lines	
	<ul style="list-style-type: none"> • The 150 square feet exception for inflatables has been eliminated • A new section for “Zip Lines” has been added 	

Elevator (ASME A17.1 – 2010 & 2012 IBC)

<input type="checkbox"/>	New Codes Incorporated By Reference	
	<ul style="list-style-type: none"> • A17.6 Standard for Elevator Suspension Means • A17.7 Performance Based Safety Code 	

<input type="checkbox"/>	<u>A17.1-2.18.5</u> Governor Ropes	
	<ul style="list-style-type: none"> • 2.18.5.1 Material and Factor of Safety • Governor ropes shall not be less than 6mm(0.25in) in diameter and have a factor of safety not less than 8 	

<input type="checkbox"/>	<u>A17.1-5.3.1.18.2.2</u> Monitoring of the Car Door or Gate Switch Electric Contacts	
	<ul style="list-style-type: none"> • Car may not respond to a call when the car stops at a floor and electric contacts fail to open • Car door/gate switch electric contact(s) must cycle before car may answer call 	

<input type="checkbox"/>	<u>A17.1-8.6.1.2.1</u> General Maintenance Requirements	
	<ul style="list-style-type: none"> • Written Maintenance Control Program shall be in place • MCP must maintain equipment in compliance with section 8.6 	

<input type="checkbox"/>	<u>A17.1-8.6.1.4</u> Maintenance Records	
	<p>Maintenance records shall:</p> <ul style="list-style-type: none"> • Document compliance with section 8.6 • Include records on activities 	

<input type="checkbox"/>	<u>A17.1</u> Code and Data Plate <u>8.9.1</u> Required information	
	<ul style="list-style-type: none"> • A data plate shall be provided and maintained for each unit. <p>The data plate shall include:</p> <ul style="list-style-type: none"> • code in effect at the time of installation • code to be used for inspection/test and the • code in effect at the time of any alterations. 	

<input type="checkbox"/>	<p><u>A17.1 Code and Data Plate</u> <u>8.9.2 Location</u></p> <ul style="list-style-type: none"> • Data plate shall be in plain view, securely attached to each main line disconnect or controller • Data plate may be located in the controller if in plain view with the controller door open • Additional data plate is required near a starting switch on exterior of escalator or moving walk
--------------------------	--

<input type="checkbox"/>	<p><u>IBC 3006.4 Exception 1 – Deleted</u></p> <p>IBC section deleted in USBC</p> <ul style="list-style-type: none"> • Machine rooms • Machine spaces • Control rooms • Control spaces
--------------------------	---

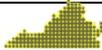
PROPERTY MAINTENANCE CODE

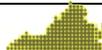
<input type="checkbox"/>	<p><u>101.6 Precedence</u></p> <ul style="list-style-type: none"> • Chapter 1 > all provisions • Chapter 1 > all references • State Amendments > all Chapters 2-8 • State Amendments > references • Chapters 2-8 > all references
--------------------------	--

<input type="checkbox"/>	<p><u>104.1 Enforcement</u></p> <ul style="list-style-type: none"> • Added: “or Occupants” to those that can be impacted <p style="text-align: center;">Changed: residential dwelling unit and dwelling to “building or structure”</p>
--------------------------	--

<input type="checkbox"/>	<p><u>104.5 Powers and Duty</u></p> <ul style="list-style-type: none"> • 104.5.3 (1-4) INSPECTIONS • Report observed violations • Acceptance of reports • Written policy • Qualifications
--------------------------	---

<input type="checkbox"/>	<p><u>105.9</u> Emergency Action</p> <p>Additional language to Note:</p> <ul style="list-style-type: none"> Alerts Official to authority granted to local historic review boards to prevent demolition in accordance with 15.2-2306 Code of VA 	
<input type="checkbox"/>	<p><u>106.1</u> and <u>106.2</u> Appeals Board</p> <ul style="list-style-type: none"> Clarifies responsibility of locality for establishment of LBBCA Deleted the annual meeting requirement and replaced with “as necessary” 	
<input type="checkbox"/>	<p><u>106.6</u> LBBCA Meetings</p> <p>Allows for a 45 day period (instead of 30) to hear cases if regular meetings are scheduled</p>	
<input type="checkbox"/>	<p><u>201.3</u> Terms</p> <ul style="list-style-type: none"> Changed ICC Electrical Code to NFPA 70 Added: IEBC, IRC, IZC and IFGC 	
<input type="checkbox"/>	<p><u>304</u> Exterior Structures</p> <ul style="list-style-type: none"> 304.15 Doors- Added provisions for “operator systems” to be maintained 304.19 Gates- Added provisions for “gates” to be maintained 	
<input type="checkbox"/>	<p><u>311.1</u> Above Ground ALFST</p> <ul style="list-style-type: none"> Transferred compliance requirements for existing installations to the VRC section 1701.1 	
<input type="checkbox"/>	<p><u>404</u> Occupancy</p> <ul style="list-style-type: none"> 404.6.1 Added provisions for a 1 occupant efficiency unit 	

<input type="checkbox"/>	602 Heating	
	<ul style="list-style-type: none">• Scopes the heating requirement to R-2 apartments and other residential dwelling units• 14 day flexibility for unusual weather• 602.2 Prohibits cooking appliance and portable unvented space heaters from satisfying heating requirements	

<input type="checkbox"/>	604 Cooling	
	<ul style="list-style-type: none">• 14 day flexibility for unusual weather	

<input type="checkbox"/>	605 Electrical	
	<ul style="list-style-type: none">• 605.2 Addresses appropriate faceplate covers• 605.3 Addresses pool and spa luminaires over 15 V to be GFCI protected• 605.4 Prohibits flexible cords to be used as permanent wiring or running through assemblies / adjoining spaces	

<input type="checkbox"/>	ISPSC: 302.8 Maintenance	
	<ul style="list-style-type: none">• Aquatic vessels shall be maintained in a clean and sanitary condition, and in good repair	

BUILDING
2012 IBC & 2012 VCC

<input type="checkbox"/>	Chapter 2: Definitions – New terms added	
	<ul style="list-style-type: none">• Marina• Slip	

<input type="checkbox"/>	Chapter 2: Definitions – New terms added	
	<ul style="list-style-type: none">• Permissible fireworks	

<input type="checkbox"/>	Chapter 2: Definitions – New terms added	
	<ul style="list-style-type: none">• Short term holding area	

<input type="checkbox"/>	Chapter 2: Definitions – New terms added	
	<ul style="list-style-type: none">• Unsafe building or structure	

<input type="checkbox"/>	Chapter 2: Definitions – New terms added	
	<ul style="list-style-type: none">• 24 Hour Basis	

☐	Chapter 2: Definitions – New terms added	
	<ul style="list-style-type: none"> Swimming Pool 	

☐	303.1.3 Assembly Rooms Associated with Group E Occupancies	
	<ul style="list-style-type: none"> A Use Groups contained within Group E Occupancies are considered the same as accessory areas to religious worship 	

☐	303.3 and 306.2 Commercial Kitchens	
	<ul style="list-style-type: none"> Further expanded to clarify some differences that make commercial kitchens capable of two different Use Groups. 	

☐	Table 1604.5 Risk category of buildings and other structures																									
	<ul style="list-style-type: none"> “Occupancy category” changed to “Risk category” 	<table border="1"> <thead> <tr> <th rowspan="2">MATERIAL</th> <th rowspan="2">CLASS</th> <th rowspan="2">GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED</th> <th colspan="3">STORAGE^b</th> </tr> <tr> <th>Solid pounds (cubic feet)</th> <th>Liquid gallons (pounds)</th> <th>Gas (cubic feet at NTP)</th> </tr> </thead> <tbody> <tr> <td>Combustible dust</td> <td>N/A</td> <td>H-2</td> <td>Note q</td> <td>N/A</td> <td>N/A</td> </tr> <tr> <td>Combustible liquids</td> <td>II IIIA</td> <td>H-2 or H-3 H-2 or H-3</td> <td>N/A</td> <td>120^{d,*} 330^{d,*}</td> <td>N/A</td> </tr> </tbody> </table>	MATERIAL	CLASS	GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED	STORAGE ^b			Solid pounds (cubic feet)	Liquid gallons (pounds)	Gas (cubic feet at NTP)	Combustible dust	N/A	H-2	Note q	N/A	N/A	Combustible liquids	II IIIA	H-2 or H-3 H-2 or H-3	N/A	120 ^{d,*} 330 ^{d,*}	N/A			
MATERIAL	CLASS	GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED				STORAGE ^b																				
			Solid pounds (cubic feet)	Liquid gallons (pounds)	Gas (cubic feet at NTP)																					
Combustible dust	N/A	H-2	Note q	N/A	N/A																					
Combustible liquids	II IIIA	H-2 or H-3 H-2 or H-3	N/A	120 ^{d,*} 330 ^{d,*}	N/A																					

☐	303.6 Use Group A-5	
	<ul style="list-style-type: none"> Swimming pools now included in group 	

<input type="checkbox"/>	<p>Table 307.1(1) Consumer Fireworks and Permissible Fireworks</p>	
	<ul style="list-style-type: none"> • Permissible fireworks brought into VCC from VSFC • Sprinkler quantity increase removed for 1.4G and retained for permissible 	

<input type="checkbox"/>	<p>308.3 Use Group I-1</p>	
	<ul style="list-style-type: none"> • Now has Condition 1 and 2 	

<input type="checkbox"/>	<p>308.3 Use Group I-1 Condition 1</p>	
	<ul style="list-style-type: none"> • Social Service non-licensed or licensed • Care recipients can self-evacuate • Up to 5 people needing assistance on level of discharge 	

<input type="checkbox"/>	<p>308.3.2 Use Group I-1 Condition 2 Licensed</p>	
	<ul style="list-style-type: none"> • DSS licensing required • Only one staff member allowed to assist a resident during evacuation • Up to 5 may need assistance in evacuation 	

<input type="checkbox"/>	<p>308.4 Use Group I-2</p>	
	<ul style="list-style-type: none"> • 24 hour basis taken out of facility definitions and placed in code text • “Child” care replaced with “Foster” care • More than 5 people need assistance in evacuation 	

☐	<u>310.6 Use Group R-4</u>	
	<ul style="list-style-type: none"> • Group R-4 now incorporates Condition 1 and Condition 2 • Similar to new I-1 conditions • 5-16 occupants (I-1 over 16) 	

☐	<u>402.1 Open Mall Buildings</u>	
	<ul style="list-style-type: none"> • “Open mall” added to more sections and reorganized • 402.1.2 Open mall building perimeter “line” added to define the area of the open mall 	

☐	<u>402.4.3 , 402.5 Open Mall Buildings</u>	
	<ul style="list-style-type: none"> • Added opening minimums for roof and floors • Added sprinkler protection under circulation balconies 	

☐	<u>403.6.1: High Rise Buildings (over 120 ft)</u>	
	<p>Fire service access elevator required</p> <ul style="list-style-type: none"> • Increased from 1 to 2 elevators • Elevator capacity \geq 3,500 lbs 	

☐	<u>412.4.6.2 Hangar Fire Area Calculations</u>	
	<ul style="list-style-type: none"> • Now allow ancillary use within same area without being included in area calculations of Section 706 • Must be separated with 1-hour fire barrier per Section 707 	

☐	<u>419 Live/Work Units</u>	
	<ul style="list-style-type: none"> • Redefined in 2012 • Clarifies egress requirements are based on occupancy • Clarifies work space plumbing requirements 	

☐	<u>424 Children’s Play Structures</u>	
	<ul style="list-style-type: none"> • Now stand alone section • Applies to all occupancies • 5 foot egress path required • NFPA 289 added 	

☐	<u>408.9 I-3 Smoke Controls (in windowless buildings)</u>	
	<ul style="list-style-type: none"> • Renamed Smoke Control • Compartments with operable or breakable windows exempt • Added specific locations • Added performance criteria 	

☐	<u>414.6.2 Other Regulations (tanks)</u>	
	<ul style="list-style-type: none"> • Provides hierarchy of regulations as it pertains to storage tanks subject to Virginia State Water Control Board 	

☐	<u>420 Groups I-1, R-1, R-2, R-3, R-4</u>	
	<ul style="list-style-type: none"> • VA added R-4 and I-1 condition 2 to section • Smoke barrier requirement added for I-1 condition 2 • Refuge area added for I-1 condition 2 • Partially 2015 IBC changes 	

<input type="checkbox"/>	<p>501.2 Addressing Multiple Buildings in a Complex</p> <ul style="list-style-type: none"> Code official must require additional address numbers in additional locations 	
--------------------------	--	---

<input type="checkbox"/>	<p>504.2 Automatic Sprinkler System Increase</p> <p>I-1 condition 2 continued:</p> <ul style="list-style-type: none"> Sprinkler increase for building height is not permitted for I-1 condition 2 	
--------------------------	---	---

<input type="checkbox"/>	<p>505.2.2 (formerly 505.3) Mezzanines and Platforms, Means of Egress</p> <ul style="list-style-type: none"> 505.3 has been changed to 505.2.2 Means of Egress has been consolidated in Chapter 10 	
--------------------------	---	--

<input type="checkbox"/>	<p>507.1 Unlimited Area Buildings – Accessory Occupancies</p> <ul style="list-style-type: none"> Accessory occupancies now allowed in unlimited area buildings 	
--------------------------	--	---

<input type="checkbox"/>	<p>508.2.3 Accessory Occupancies</p> <ul style="list-style-type: none"> Accessory occupancies are no longer limited to the story restriction (2015 IBC) 	
--------------------------	---	---

☐	509 Incidental Uses		
	<ul style="list-style-type: none"> Incidental uses are now unique “ancillary” functions Table 509 protection mandatory Not a standard occupancy, cannot be treated as mixed use 10% area limit 		

☐	701.2 Multiple Use Fire Assemblies		
	<ul style="list-style-type: none"> Fire rated assemblies serving more than one function must meet requirements for all functions served 		

☐	703.7 Fire Resistance Assembly Marking		
	<ul style="list-style-type: none"> Only required when there is concealed floor, roof or ceiling space Also required whenever protected openings or penetrations are required 		

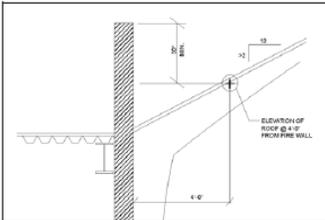
☐	705.2 Projections		
	<ul style="list-style-type: none"> State amendment rescinded ICC language used 	FIRE SEPARATION DISTANCE (FSD)	MINIMUM DISTANCE FROM LINE USED TO DETERMINE FSD
0 feet to less than 2 feet		Projections not permitted	
2 feet to less than 5 feet		24 inches	
	5 feet or greater	40 inches	

☐	705.2.3 Combustible Projections	
	<p>Combustible Projections Rate 1 hour</p> <ul style="list-style-type: none"> Within 5’ of fire separation line If protected openings are required If no openings permitted 	

☐	State exception to <u>705.2</u>	
	<ul style="list-style-type: none"> Decks or open porches exempt from projection limitation for groups R-3 and R-4 	

☐	State exception to <u>706.5.2</u>	
	<ul style="list-style-type: none"> Decks or open porches exempt from projection limitation for groups R-3 and R-4 	

☐	<u>705.6 Structural Stability</u>																				
	<ul style="list-style-type: none"> Added fire resistance requirements for structural elements that brace walls >30' 	<table border="1"> <thead> <tr> <th colspan="2">FIRE-RESISTANCE RATING REQUIREMENT</th> </tr> <tr> <th>BUILDING ELEMENT</th> <th>TYPICAL</th> </tr> </thead> <tbody> <tr> <td>Primary structural frame^a (see Section 202)</td> <td>A</td> </tr> <tr> <td>Bearing walls</td> <td>3^b</td> </tr> <tr> <td>Exterior^c</td> <td>3</td> </tr> <tr> <td>Interior</td> <td>3^b</td> </tr> <tr> <td>Nonbearing walls and partitions</td> <td></td> </tr> <tr> <td>Exterior</td> <td></td> </tr> <tr> <td>Nonbearing walls and partitions</td> <td>0</td> </tr> <tr> <td>Interior</td> <td></td> </tr> </tbody> </table>	FIRE-RESISTANCE RATING REQUIREMENT		BUILDING ELEMENT	TYPICAL	Primary structural frame ^a (see Section 202)	A	Bearing walls	3 ^b	Exterior ^c	3	Interior	3 ^b	Nonbearing walls and partitions		Exterior		Nonbearing walls and partitions	0	Interior
FIRE-RESISTANCE RATING REQUIREMENT																					
BUILDING ELEMENT	TYPICAL																				
Primary structural frame ^a (see Section 202)	A																				
Bearing walls	3 ^b																				
Exterior ^c	3																				
Interior	3 ^b																				
Nonbearing walls and partitions																					
Exterior																					
Nonbearing walls and partitions	0																				
Interior																					

☐	<u>706.6.2 Buildings with Sloped Roofs</u>	
	<ul style="list-style-type: none"> Adds requirements for vertical continuity for certain interior walls 	

☐	<u>709.5 (I-1 condition 2)</u>	
	<ul style="list-style-type: none"> I-1 condition 2 continued Cross corridor door in smoke barrier center mullion exemptions expanded to I-1 con. 2 	

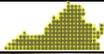
□	<p><u>714.4.1.1.2</u> Through-Penetration Firestop System</p> <ul style="list-style-type: none"> Added exception for tub/shower drain floor only penetrations from having a T (temperature) rating 	

□	<p><u>714.4.1.2</u> Membrane Penetrations</p> <p>Added exceptions:</p> <ul style="list-style-type: none"> 6 - allows noncombustible items cast into concrete building elements in certain cases 7 - allows the ceiling membrane of 1 & 2 hour fire resistance-rated horizontal assemblies to be interrupted with certain provisions

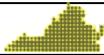
□	<p><u>715.4</u> Exterior Curtain Wall/Floor Intersection</p> <ul style="list-style-type: none"> Exception to allow E 119 tested material in addition to E 2307 for glass curtain walls void protection 	

□	<p><u>716.3</u> Marking Fire-Rated Glazing Assemblies</p> <ul style="list-style-type: none"> Marking added to opening protection table 716.5 Marking added to fire window table 716.6 New marking definition table 716.3 added 	

□	<p><u>715.5.4</u> ('09) Wired Glass deletion</p> <ul style="list-style-type: none"> Wired glass no longer exempt from NFPA 257 testing, consistent with NFPA 80 	

716.5.3.1 Smoke and Draft Control		
<input type="checkbox"/>	Smoke rated S Label doors	
	<ul style="list-style-type: none"> No longer required for rated corridors Required for smoke barriers only 	

716.5.7.1.1 Light Kits, Louvers and Components		
<input type="checkbox"/>	Added section providing for the approval of 3 rd party listed instructions for installation of:	
	<ul style="list-style-type: none"> light kits louvers components 	

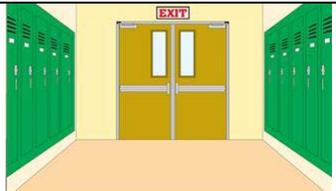
806.1.2 Combustible Decorative Material		
<input type="checkbox"/>	<ul style="list-style-type: none"> New 10 % exemption #2 Allows NFPA 701 compliant hangings up to 75% of wall Ceiling suspended material Same basic exemption as #1 Hung 12" maximum from wall 	

901.8 Pump Riser and Room Size		
<input type="checkbox"/>	Added section addresses room design	
	<ul style="list-style-type: none"> Working clearances Remove largest piece of equipment 	

903.2.2 Ambulatory Care Facilities		
<input type="checkbox"/>	If care provided on floor above Level of exit discharge	
	<ul style="list-style-type: none"> Sprinkle entire floor Sprinkle all floors below Fire areas don't matter 	

☐	903.2.4 Group F-1	
	<ul style="list-style-type: none"> Added requirements for areas >2,500 sqft used to manufacture upholstered furniture or mattresses 	

☐	903.2.6 Group I	
	<p>13D Exception modified to require:</p> <ul style="list-style-type: none"> Hydraulic design info sign on riser The system must be supervised and monitored The system must be maintained/inspected per 13R in NFPA 25 	

☐	903.2.6 Group I	
	<p>Day care sprinkler Exceptions added:</p> <ul style="list-style-type: none"> #3 sprinkler exemption for day care at level of exit discharge with exit doors from each care room 	

☐	903.2.6 Group I	
	<p>If care provided on floor above Level of exit discharge</p> <ul style="list-style-type: none"> Sprinkle entire floor Sprinkle all floors below Fire areas don't matter 	

☐	903.2.8 Group R	
	<p>13D Sprinkler now allowed for:</p> <ul style="list-style-type: none"> All R-3 R-4 condition 1 Any care facility with 5 or fewer in a single family dwelling 	

<input type="checkbox"/>	<p>903.2.8 Group R</p> <p>13R Sprinkler allowed for R-4 cond. 2 if:</p> <ul style="list-style-type: none"> • Attics sprinkler if used for living, storage, fuel fired equipment • If attics not used for above protect with FRT, Non-combustible construction, or heat detection 	
<input type="checkbox"/>	<p>905.3.8 Rooftop Gardens and Landscaped Roofs</p> <ul style="list-style-type: none"> • Standpipe shall extend to rooftop gardens 	
<input type="checkbox"/>	<p>907.2.9.3 Group R-2 College and University Buildings</p> <ul style="list-style-type: none"> • Fire alarm system shall now include smoke detection in college dorms • Exempt if all units exit to exterior or an exit 	
<input type="checkbox"/>	<p>907.2.9.3 Group R-2 College and University Buildings</p> <ul style="list-style-type: none"> • Common spaces outside of units • Laundry, mechanical, storage rooms • Interior corridors serving units 	
<input type="checkbox"/>	<p>907.5.2.2.4 Emergency Voice/Alarm Communication</p> <ul style="list-style-type: none"> • Voice/alarm in stadiums, arenas and grandstands must be captioned per chapter 11 when 15,000 or more seats are provided 	

<input type="checkbox"/>	<p><u>908.7 Carbon Monoxide Alarms</u></p> <p>Now includes Groups E and I Group E</p> <ul style="list-style-type: none"> In classrooms with fuel fire appliances, garage or engine shop 	
<input type="checkbox"/>	<p><u>908.7 Carbon Monoxide Alarms</u></p> <p>Group E exempt from rooms:</p> <ul style="list-style-type: none"> 100 feet from CO source, or 2 stories away from CO source <ul style="list-style-type: none"> Neither case connected by duct work to source 	
<input type="checkbox"/>	<p><u>911 Fire Command Center</u></p> <ul style="list-style-type: none"> Requirement for approved building information card USBC CHANGE - Larger fire command center may be needed based on building size -Determined by building official 	
<input type="checkbox"/>	<p><u>1001.4 Fire Safety Evacuation Plan (Change removed)</u></p> <ul style="list-style-type: none"> VA deleted 2012 addition requiring fire safety and evacuation review Still in VSFC 	
<input type="checkbox"/>	<p><u>1004.1.2 and Table 1004.1.2</u></p> <ul style="list-style-type: none"> “Exhibit gallery and museum” added to table Mall added to table with reference back to 402.8.3 	

☐	<u>1008.1.2 Door Swing</u>	
	<ul style="list-style-type: none"> • Language “serving a room or area containing” added 	

☐	<u>1008.1.9.9 Sensor Release of Locked Egress Doors</u>	
	<ul style="list-style-type: none"> • New section added for sensor released doors • Manual release unlocks with direct power interruption • Listed per UL294 • Loss of power unlocks • Fire alarm/sprinkler unlocks 	

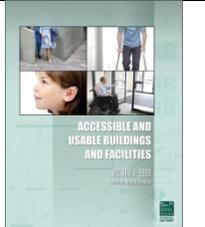
☐	<u>1009.3 Exit Access Stairways</u>	
	<ul style="list-style-type: none"> • All unenclosed stairways are now exit access stairways per 1009.3 • All exceptions that allow unenclosed stairways located in 1009.3 • Enclosure of exit access stairs per 1009.3.1 	

☐	<u>1012.3.1 Type 1 Handrail Graspability</u>	
	<ul style="list-style-type: none"> • Min cross-section dimension limited to 1” 	

☐	<u>1016.2.2 Group F-1 and S-1 Increase (2015 USBC)</u>	
	<p>New section added allows 400 foot travel</p> <ul style="list-style-type: none"> • 1 story group F-1 and S-1 • 24 foot minimum to bottom of roof/ceiling • NFPA 13 sprinkler 	

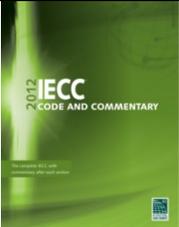
<input type="checkbox"/>	<u>1021.1</u> Number of exits	
	<ul style="list-style-type: none"> • 1021 further refined to establish when exits verses exit access components are required from a story • 	

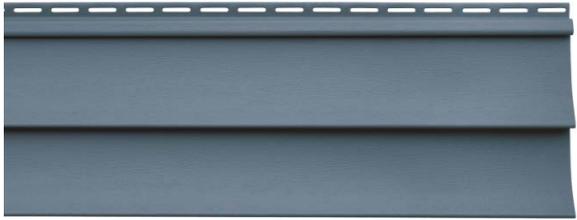
<input type="checkbox"/>	<u>1022</u> Interior exit stairs	
	<ul style="list-style-type: none"> • All interior exit stairs are now required to be enclosed. No exemptions from enclosure 	

<input type="checkbox"/>	<u>ICC A117.1 (2009)</u>	
	<ul style="list-style-type: none"> • Ensure latest version of reference is used (2009) 	

<input type="checkbox"/>	<u>1104.3.1</u> Employee work area circulation path Exception 1	
	<ul style="list-style-type: none"> • Minimum work area exception threshold increased from 300 sf to 1,000 sf 	

<input type="checkbox"/>	<u>Tables 1106.1(1) and 1106.1(2)</u>	
	<ul style="list-style-type: none"> • Increase the number of parking spaces • Groups A, B, E, M, R-1, R-2, and I • Plus 1 starting at 125 spaces 	

<input type="checkbox"/>	<p><u>1109.16 and 1109.16.1</u> Dwellings containing Universal design features</p> <p>“Residential Universal design added</p> <ul style="list-style-type: none"> • Optional • A117.1 type C • 5 state A117.1 amendments added to 1109.16.1 	
<input type="checkbox"/>	<p><u>1109.2 and 1109.5</u> Toilet Facilities and Drinking Fountains (Children)</p> <p>Children's' toilets, lavatories and drinking fountains</p> <ul style="list-style-type: none"> • May comply with children's A117 provisions • This includes required fixtures 	
<input type="checkbox"/>	<p>IBC Scoping to coordinate with ADA</p> <p>Increased scoping to include:</p> <ul style="list-style-type: none"> • Saunas • Steam rooms • Variable message signs in transportation facilities and emergency shelters 	
<input type="checkbox"/>	<p><u>1203.6</u> Smoking Areas in Restaurants (new section)</p> <p>The previous MOA for smoking areas in restaurants has been codified</p> <ul style="list-style-type: none"> • Structural separation • Separate ventilation • See Virginia Indoor Clean Air Act 	
<input type="checkbox"/>	<p>2012 IECC and 2012 IBC Chapter 13</p> <ul style="list-style-type: none"> • New for 2012: • Commercial Energy provisions are only located in IECC Chapter 4 [CE] 	

<input type="checkbox"/>	1404.12 Polypropylene Siding	
	<p>Section adds requirements for installation and use of polypropylene siding</p> <ul style="list-style-type: none">• 10 foot minimum fire separation distance required	

<input type="checkbox"/>	1405.18 Polypropylene Siding	
	<ul style="list-style-type: none">• Section adds detailed requirements for installation and use of Polypropylene siding	

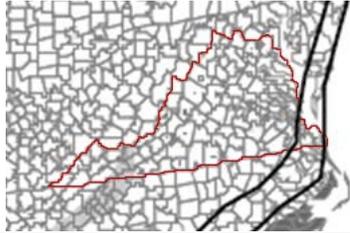
<input type="checkbox"/>	1502.1 Definitions	
	<p>Added term:</p> <ul style="list-style-type: none">• Photovoltaic Modules/Shingles	

<input type="checkbox"/>	1505.8 Photovoltaic Systems	
	<ul style="list-style-type: none">• Added section addresses installed photovoltaic systems when adhered or attached to roof coverings	

<input type="checkbox"/>	1507.16 Roof Gardens and Landscaped Roofs	
	<ul style="list-style-type: none">• Adds requirement for fire resistance in accordance with Table 601	

☐	1510.3 Recovering Versus Replacement	
	<ul style="list-style-type: none"> • Adds exception to allow existing ice barrier to remain and be covered if in good condition 	

☐	Table 1604.5 Risk Category of Buildings and Other Structures				
	<ul style="list-style-type: none"> • “Occupancy Category” changed to “Risk Category” 	<table border="1"> <thead> <tr> <th style="border: 2px solid red;">RISK CATEGORY</th> <th>NATURE</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">I</td> <td> Buildings and other structures that represent a low hazard <ul style="list-style-type: none"> • Agricultural facilities. • Certain temporary facilities. • Minor storage facilities </td> </tr> </tbody> </table>	RISK CATEGORY	NATURE	I
RISK CATEGORY	NATURE				
I	Buildings and other structures that represent a low hazard <ul style="list-style-type: none"> • Agricultural facilities. • Certain temporary facilities. • Minor storage facilities 				

☐	Figures 1609 Wind Loads (Wind Speed Maps 1609 A-C)	
	<ul style="list-style-type: none"> • Maps now incorporate importance factors of Categories I-IV • Design winds speed changed from Basic wind speed to Ultimate design wind speed Vult and Nominal design wind speed Vasd • Vult and Vasd are required to be provided on the plans 	

☐	Figures 1609 Wind Loads (Wind Speed Maps 1609 A-C)	
	<p>Values have changed</p> <ul style="list-style-type: none"> • Richmond risk 1 was 90 MPH now 105 Vult and 81 MPH Vasd • Vult is for strength design method • Vasd is for Allowable stress design method • Load combinations per 1605 also changed 	

☐	1704.2.3 Statement of Special Inspections	
	<p>Exception added for:</p> <ul style="list-style-type: none"> • cold-formed steel light frame construction built per 2211.7 (prescriptive design) 	

<input type="checkbox"/>	<p><u>1704.3.3</u> Wind Requirements in the Statement of Special Inspections</p>
	<p>In high wind regions identified in 1705.10, statement of special inspections shall identify:</p> <ul style="list-style-type: none"> • Main windforce resisting system • Wind-reinforcing components

<input type="checkbox"/>	<p><u>2205.2</u> and <u>2210.2</u> Seismic requirements for structural steel structures</p>
	<p>Deleted seismic requirements for Seismic Design Category “A” Steel Structures</p>

<input type="checkbox"/>	<p><u>2303.1.1.2</u> End-jointed lumber</p> <ul style="list-style-type: none"> • End-jointed lumber used in assemblies required to have a fire-resistance rating shall be marked “Heat resistant adhesive” or HRA 	
--------------------------	---	--

<input type="checkbox"/>	<p><u>2306</u> Allowable Stress Design</p> <ul style="list-style-type: none"> • Nail pattern for wood diaphragm and shear walls now only contained in NDS 	
--------------------------	---	---

<input type="checkbox"/>	<p><u>2308.2</u> Limitations (to conventional light-framed construction)</p> <p>Limits for use based on 40 PSF Floor Live load limit not applicable to slab on grade</p> <ul style="list-style-type: none"> • Allows for prescriptive wood design of any 1 story slab on grade commercial building • No longer limited to group R by 40 psf load 	
--------------------------	---	---

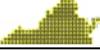
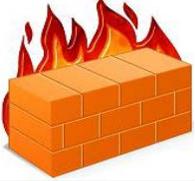
☐	Tables <u>2308.8(1)</u> and <u>2308.8(2)</u> Allowable floor joist spans 	
	<ul style="list-style-type: none"> Revised maximum spans for Southern Pine due to reduced allowable design values 	<p>Example: 40psf LL, 20psf DL, Max Deflection = L/360, #2 S.P., 2x10 @ 16" OC</p> <ul style="list-style-type: none"> Old Span = 16' 1" New Span = 14' 0"

☐	Tables <u>2308.10.2(1)</u> and <u>2308.10.2(2)</u> Allowable Ceiling Joist Spans 	
	<ul style="list-style-type: none"> Revised maximum spans for Southern Pine due to reduced allowable design values 	<p><u>Example</u>: Uninhab. Attic, 20psf LL, 10psf DL, Max deflection = L/240, #2 S.P., 2x8 @ 16" OC</p> <ul style="list-style-type: none"> Old Span = 17' 5" New Span = 15' 3"

☐	Tables <u>2308.10 (1-6)</u> Allowable rafter spans 	
	<ul style="list-style-type: none"> Revised maximum spans for southern pine due to reduced allowable design values 	<p><u>Example</u>: 20psf LL, 20psf DL, no ceiling (Max. Deflection = L/180), #2 S.P., 2x10 @ 19.2" OC</p> <ul style="list-style-type: none"> Old Span = 18' 4" New Span = 16' 0"

☐	<u>2603.5.5</u> Vertical and Lateral Fire Propagation (foam wall insulation) 	
	<ul style="list-style-type: none"> New state exception for the NFPA 285 fire propagation test requirement Applies to the existing flammability test requirement for exterior walls with foam plastic insulation or other plastic elements Applies to construction types I-IV (not V) and 2 stories or greater 	

☐	<u>2603.5.5</u> Vertical and Lateral Fire Propagation (foam wall insulation) 	
	<p>Multiple NFPA 285 tests are not required when:</p> <ul style="list-style-type: none"> Wall assemblies have variable non-combustible components <ul style="list-style-type: none"> Example: CMU changes to pre-cast Wall assemblies have variable non-plastic combustible components permitted by code <ul style="list-style-type: none"> Example: wood blocking in windows 	

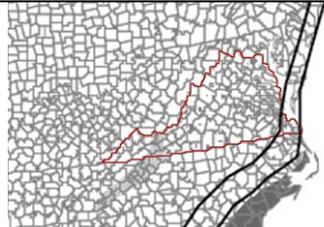
<input type="checkbox"/>	<p><u>2603.5.5 Vertical and Lateral Fire Propagation (foam wall insulation)</u></p>	
	<ul style="list-style-type: none"> • NFPA 285 fire propagation test exemptions: • Sprinklered buildings • 1" concrete covering insulation each face with no air space; or, 1" concrete covering each face with 1" air space and E84 flame index of 25 or less 	
<input type="checkbox"/>	<p><u>2603.4 Thermal Barrier</u></p>	
	<p>Thermal barriers for foam plastic</p> <ul style="list-style-type: none"> • 1/2" gypsum still acceptable • For other materials the E119 material test method changed to the NFPA 275 assembly test 	
<input type="checkbox"/>	<p><u>2603.7 Interior Finish in Plenums</u></p>	
	<ul style="list-style-type: none"> • Updated requirements for foam plastic insulation installed in plenums 	
<input type="checkbox"/>	<p><u>2603.7 Interior Finish in Plenums</u></p>	
	<ul style="list-style-type: none"> • Option 1: Foam FS<=75, SD<=450, thermal barrier • Option 2: Foam FS<=25, SD<=50, foam tested per IBC 803.1.2 (NFPA 286 room corner test), no thermal barrier required • Option 3: Foam FS<=75, SD<=450, .016 inch thick steel 	
<input type="checkbox"/>	<p><u>3109.1 General</u></p>	
	<ul style="list-style-type: none"> • Refers to ISPSC for swimming pools, pool enclosures, and aquatic recreational facilities 	

<input type="checkbox"/>	Chapter 34: Existing Structures		
	<ul style="list-style-type: none"> Entire chapter deleted from USBC All provisions referenced to VRC 		

<input type="checkbox"/>	Chapter 35: Referenced Standards		
	<ul style="list-style-type: none"> ADDED ASTM E329-02 for special inspection testing agencies Revised ASME A17.1/BSA44 elevator standards to the 2010 edition Revised ASME A18.1 lift standards to the 2011 edition 		

RESIDENTIAL
2012 IRC & 2012 VCC

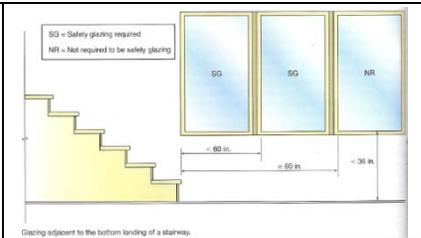
<input type="checkbox"/>	<u>R202</u> Definitions			
	<ul style="list-style-type: none"> <input type="checkbox"/> Basement <input type="checkbox"/> Story above grade plane <input type="checkbox"/> Exterior Wall Covering <input type="checkbox"/> Gray Water <input type="checkbox"/> Local exhaust 	<ul style="list-style-type: none"> <input type="checkbox"/> Structural composite lumber <input type="checkbox"/> Nonpotable fixtures and outlets <input type="checkbox"/> Nonpotable water systems <input type="checkbox"/> Rainwater 	<ul style="list-style-type: none"> <input type="checkbox"/> Stormwater <input type="checkbox"/> Guestroom <input type="checkbox"/> Lodging house <input type="checkbox"/> Nosings 	

<input type="checkbox"/>	<u>R301.2.1</u> Wind Design Criteria		
	<ul style="list-style-type: none"> Wind speeds now correlate with 2010 ASCE 7 		

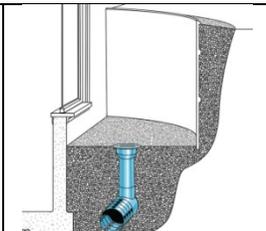
<input type="checkbox"/>	<u>R302.2.2</u> Parapet exception		
	<ul style="list-style-type: none"> No openings or penetrations in the roof within 4 feet (1219 mm) of the common walls 		

<input type="checkbox"/>	<p>R303.4 Mechanical Ventilation</p>
	<p>If the air infiltration rate of a dwelling is less than 5 air changes per hour:</p> <ul style="list-style-type: none"> • The dwelling must be provided with whole house mechanical ventilation installed per M1507.3

<input type="checkbox"/>	<p>R308.4.6 Glazing Adjacent Stairs & Ramps</p>
	<ul style="list-style-type: none"> • Landing at top of stairs no longer a hazardous location. • Intermediate stair landings follow the hazardous location criteria for stairs. • Changed hazardous location height from “less than 60 inches above...the adjacent walking surface” to “where the bottom edge of the...glazing is less than 36 inches above the adjacent walking surface”.

<input type="checkbox"/>	<p>R308.4.7 Glazing Adjacent to the Bottom Stair Landing</p>	
	<ul style="list-style-type: none"> • Hazardous location extends 60 inches from bottom tread (no longer says in any direction). • Changed hazardous location height from “less than 60 inches above the nose of the tread” to “where the glazing is less than 36 inches above the landing...”. 	

<input type="checkbox"/>	<p>R308.6.1 Tubular Daylighting Device (Definition)</p>	
	<ul style="list-style-type: none"> • A nonoperable fenestration unit primarily designed to transmit daylight from a roof surface to an interior ceiling via a tubular conduit. 	

<input type="checkbox"/>	<p>R310.2.2 Drainage</p>	
	<p>Window wells shall be designed for:</p> <ul style="list-style-type: none"> • Proper drainage by connecting to the building’s foundation drainage system • or by an approved alternative method. 	

<input type="checkbox"/>	<u>R311.2.1 Interior Passage</u>
	<p>If the dwelling unit has a kitchen and a living or entertainment area on the same level as the egress door:</p> <ul style="list-style-type: none">• Interior passage must be provided to certain areas.

<input type="checkbox"/>	<u>R311.2.1 Interior Passage Exceptions</u>
	<p>Exceptions:</p> <ul style="list-style-type: none">• A door or cased opening at the end of and facing a hallway,• Closet and pantry doors,• Doors to bathrooms accessed from a bedroom not on the interior passage

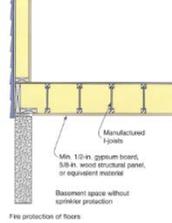
<input type="checkbox"/>	<u>R311.3.1 Floor Elevation at the Required Egress Door</u>
	<p>Exception:</p> <ul style="list-style-type: none">• The exterior landing or floor shall not be more than 8 1/4 inches (196 mm) below the top of the threshold.

<input type="checkbox"/>	<u>R311.7.6 Landing for Stairways</u>
	<ul style="list-style-type: none">• The minimum width perpendicular to the direction of travel shall be no less than the width of the flight served• Landings of shapes other than square or rectangular shall be permitted 

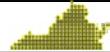
<input type="checkbox"/>	<u>R314.1 Smoke Detection and Notification</u>
	<ul style="list-style-type: none">• Physical interconnection of smoke alarms is not required when there is a wireless interconnection. 

<input type="checkbox"/>	<p><u>R315.2 Carbon Monoxide Detection Systems</u></p> <ul style="list-style-type: none">• A household CO detection system is now allowed	
<input type="checkbox"/>	<p><u>R316.4 Thermal Barrier</u></p> <ul style="list-style-type: none">• Foam plastic requires separation from the interior of the building with a minimum ½" gypsum wallboard or other materials as allowed by NFPA 275.	
<input type="checkbox"/>	<p><u>R316.5.3 Attics # 3.7</u></p> <ul style="list-style-type: none">• 1 ½" thick cellulose insulation has been added to the list of ignition barriers	
<input type="checkbox"/>	<p><u>R317.3.1 - R317.3.4 Fasteners for Preservative Treated Wood</u></p> <ul style="list-style-type: none">• Nuts and Washers now required to be approved for contact with treated wood, wood foundations, and fire retardant treated wood.	
<input type="checkbox"/>	<p><u>R317.4.1 Labeling</u></p> <ul style="list-style-type: none">• Wood/plastic composite deck boards and stair treads, and Handrails and guardrail systems shall comply to ASTM D 7032 and include the allowable load and maximum allowable span.	

<input type="checkbox"/>	<p>R405.1 Concrete or Masonry Foundation Drains</p>	
	<ul style="list-style-type: none"> Perforated drains shall be surrounded with an approved filter membrane or the filter membrane shall cover the washed gravel or crushed rock covering the drain 	

<input type="checkbox"/>	<p>R501.3 Fire Protection of Floors</p>	
	<ul style="list-style-type: none"> Unless the floor system is fire resistance rated, the underside must be provided with a 1/2" gypsum wallboard membrane, 5/8" wood structural panel membrane or equivalent 	

<input type="checkbox"/>	<p>R502.1.3 End Jointed Lumber</p>	
	<ul style="list-style-type: none"> End-jointed lumber used in an assembly required elsewhere in this code to have a fire-resistance rating shall have the designation "Heat Resistant Adhesive" or "HRA" included in its grade mark. 	

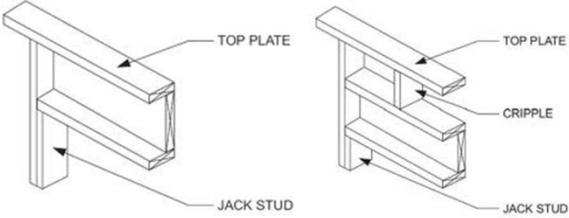
<input type="checkbox"/>	<p>Tables R502.3.1(1) and R502.3.1(2)</p>	
	<ul style="list-style-type: none"> Spans for Southern Pine floor joists have been reduced. 	

<input type="checkbox"/>	<p>R502.6 Bearing</p>	
	<ul style="list-style-type: none"> Joist, beam, or girder bearing on masonry or concrete shall be direct, or a sill plate of 2-inch-minimum (51 mm) nominal thickness shall be provided under the joist, beam or girder. The sill plate shall provide a minimum nominal bearing area of 48 square inches (30 865 square mm). 	

☐	R506.2.3 Vapor retarder Exception # 1	
	<ul style="list-style-type: none"> Vapor retarder may be omitted from all garages. 	

☐	R507 Decks	
	<ul style="list-style-type: none"> Section has been relocated from R502 – numerous changes and additions Spans for deck joists and beams have been reduced to reflect wet service. 	

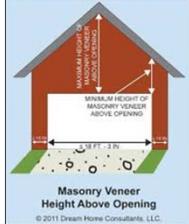
☐	Table R602.3(1) Fastener Schedule for Structural Members	
	<ul style="list-style-type: none"> This table has been modified to reflect some new fastener spacing and location requirements. 	

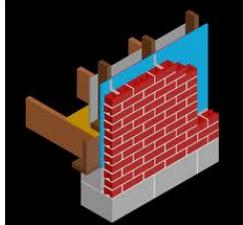
☐	R602.7 Single Member Headers	
	<ul style="list-style-type: none"> See Table 602.7.1 for Max. Spans 	

☐	R602.7.4 King Studs	
	<ul style="list-style-type: none"> Fasten each King stud to Header with 4-12d nails 	

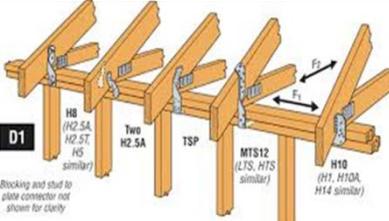
☐	R602.12 Practical Wall Bracing	
	<ul style="list-style-type: none"> • “Circumscribed Rectangle” 	

☐	R602.12 Simplified Wall Bracing	
	<p>Allowed per approval of Building Official</p> <p>-Second floor analysis is not required if:</p> <ul style="list-style-type: none"> • Second floor ceiling height \leq first floor height • Second floor windows area \leq first floor windows area 	

☐	R703.7.3.2 Masonry Veneer Lintels	
	<ul style="list-style-type: none"> • This new table was added to give the minimum and maximum veneer heights above the opening. 	

☐	R703.7.4 Masonry Veneer Anchorage	
	<ul style="list-style-type: none"> • Table was changed to reflect revised spacing for veneer ties 	

☐	Chapter 8 Span Tables – Roof-Ceiling Construction	
	<ul style="list-style-type: none"> • Changes made to ceiling joist and rafter span tables to reflect revisions to Southern Pine strength values. 	

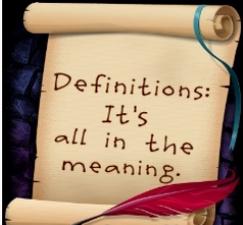
<input type="checkbox"/>	<p>R802.11 Roof Uplift Resistance</p>	 <p>D1 HB (HZ-SA, HZ-ST, HS similar) Two HZ-SA TSP MTS12 (LTS, HTS similar) H10 (H1, H10A, H14 similar)</p> <p><i>Blocking and stud to plate connector not shown for clarity.</i></p>
	<ul style="list-style-type: none"> Option to use nails if conditions are met 	

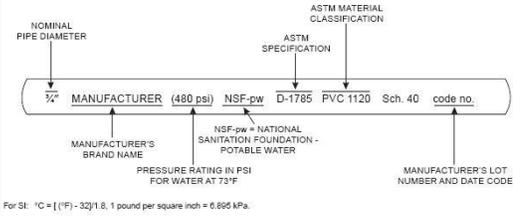
<input type="checkbox"/>	<p>R806.5 Unvented Enclosed Rafter Assemblies</p>	
	<ul style="list-style-type: none"> This section has been modified to allow unvented, enclosed rafter assemblies that have the ceiling applied directly to the rafters. (See Conditions) 	

<input type="checkbox"/>	<p>R903.2.1 & R905.2.8.3 Sidewall Flashing</p>	
	<ul style="list-style-type: none"> Flashing shall divert water away from the vertical sidewall at the eave. 	

<input type="checkbox"/>	<p>R325 Swimming Pool and Spa Code</p>	
	<ul style="list-style-type: none"> ISPSC, the International Swimming Pool and Spa Code, is now the referenced document for all swimming pool and spa requirements 	

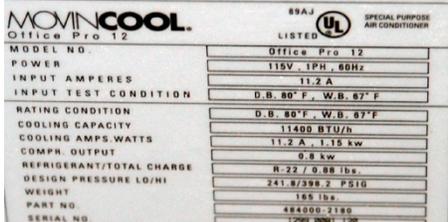
MECHANICAL
2012 IMC & 2012 VCC

☐	<p>IMC Chapter 2 Definitions</p> <ul style="list-style-type: none"> • Environmental Air • Press Joint • Third-Party Certification Agency • Third-Party Certified • Third-Party Tested 	
---	---	---

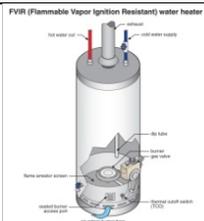
☐	<p>301.3/M1301.2 Identification</p> <p>Added in 2012</p> <ul style="list-style-type: none"> • All pipe, tubing and fittings shall bear the identification of the manufacturer. 	
---	--	--

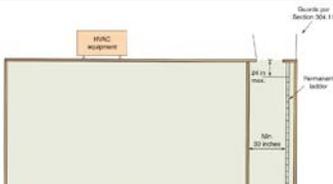
☐	<p>301.4/M1301.4 Plastic Pipe, Fittings And Components</p> <p>Added in 2012</p> <ul style="list-style-type: none"> • Plastic pipe, fittings and components shall be third-party certified as conforming to NSF 14. 	
---	--	--

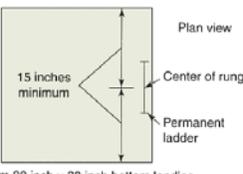
☐	<p>301.5/M1301.5 Third-Party Testing And Certification</p> <p>Added in 2012</p> <ul style="list-style-type: none"> • Piping, tubing and fittings shall comply with the applicable referenced standards, specifications and performance criteria of this code and shall be identified in accordance with Section 301.3. 	
---	--	--

☐	<p>301.9/M1303.1 Label Information</p> <ul style="list-style-type: none"> • Added #4: Electric comfort heating appliances: 	
---	--	--

<input type="checkbox"/>	<p><u>301.16/M1301.1.1 Flood Hazard</u></p> <ul style="list-style-type: none"> For structures located in flood hazard areas, mechanical systems, equipment and appliances shall be located at or above the elevation required by Section 1612 of the International Building Code. 	
--------------------------	---	---

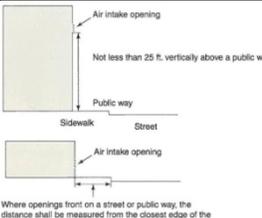
<input type="checkbox"/>	<p><u>304.3/M1307.3 Elevation of Ignition Source</u></p> <ul style="list-style-type: none"> Exception added: Elevation of the ignition source is not required for appliances that are listed as flammable vapor ignition resistant. 	
--------------------------	---	---

<input type="checkbox"/>	<p><u>306.5 Equipment and Appliances on Roofs or Elevated Structures</u></p> <ul style="list-style-type: none"> 2. Amended: Top rung max 24" below upper edge of the roof hatch, roof or parapet, as applicable 7. Added: Climbing clearance - Min 30" clearance perpendicular to, and 15" horizontally from, rung midline 	
--------------------------	---	--

<input type="checkbox"/>	<p><u>306.5 Equipment and Appliances on Roofs or Elevated Structures</u></p> <ul style="list-style-type: none"> 8. Added: 30"x30" clear landing area required 10. Added: Access to ladders shall be provided at all times 	
--------------------------	--	---

<input type="checkbox"/>	<p><u>IRC M1401.2 Access</u></p> <ul style="list-style-type: none"> Heating and cooling <i>equipment and appliances</i> shall be located with respect to building construction and other <i>equipment and appliances to permit maintenance, servicing and replacement.</i> 	
--------------------------	--	---

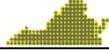
<input type="checkbox"/>	<p><u>308.5</u> Labeled Assemblies</p>	
	<ul style="list-style-type: none"> Added language: “that is listed and labeled in accordance with UL 1618” 	

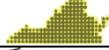
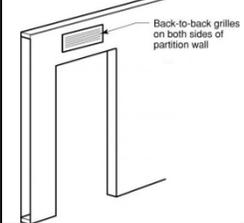
<input type="checkbox"/>	<p><u>401.4</u> Intake Opening Location</p>	
	<p>Added:</p> <ul style="list-style-type: none"> Outdoor air intake openings may be located less than 10 feet horizontally from streets, alleys, parking lots and loading docks if located at least 25 feet vertically above such locations. 	

<input type="checkbox"/>	<p><u>403.3</u> Outdoor Airflow Rate</p>
	<ul style="list-style-type: none"> Note e revised: Rates per water closet/urinal <ul style="list-style-type: none"> higher rate provided for intermittent exhaust system lower rate permitted only for continuous exhaust system Note f revised: Lower rate is permitted only for continuous exhaust system

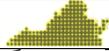
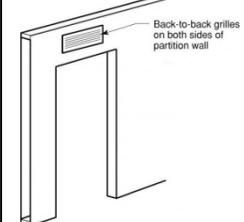
<input type="checkbox"/>	<p><u>403.3</u> Outdoor Airflow Rate</p>	
	<p>Note h :</p> <ul style="list-style-type: none"> Each nail station must have a source capture system capable of exhausting at least 50 cfm per station 	

<input type="checkbox"/>	<p><u>404.1</u> Enclosed Parking Garages</p>	
	<ul style="list-style-type: none"> 2) The system shall be arranged to operate automatically by means of carbon monoxide detectors applied in conjunction with nitrogen detectors... 	

<input type="checkbox"/>	<p><u>USBC M1401.3</u> Equipment and Appliance Sizing</p>	
	<ul style="list-style-type: none"> Equipment/appliances shall be sized according to ACCA Manual S or by other approved methodologies <p>Exception:</p> <ul style="list-style-type: none"> Equipment/appliance sizing is not limited to above capacities under certain conditions 	

<input type="checkbox"/>	<p><u>USBC M1501.2</u> Transfer Air</p>	
	<ul style="list-style-type: none"> Air transferred from occupiable spaces other than kitchens, baths and toilet rooms may serve as makeup air for exhaust systems 	 <p>Back-to-back grilles on both sides of partition wall</p>

<input type="checkbox"/>	<p><u>USBC M1503.4</u> Makeup Air Required</p>	
	<p>Exception Added:</p> <ul style="list-style-type: none"> Intentional openings for makeup air are not required for kitchen exhaust systems capable of exhausting not greater than 600 cubic feet per minute (0.28 m³/s) provided that one of the following conditions is met: (See Code Book for details) 	

<input type="checkbox"/>	<p><u>USBC M1503.4.1</u> Location</p>	
	<ul style="list-style-type: none"> Kitchen exhaust makeup air shall be provided in the same room as the exhaust system or in a room or duct system communicating through one or more permanent openings with the room in which such exhaust system is located 	 <p>Back-to-back grilles on both sides of partition wall</p>

<input type="checkbox"/>	<p><u>501.2</u> Independent System Required</p>
	<ul style="list-style-type: none"> Requirements addressing individual exhaust systems have been relocated from other sections of the IMC and placed here.

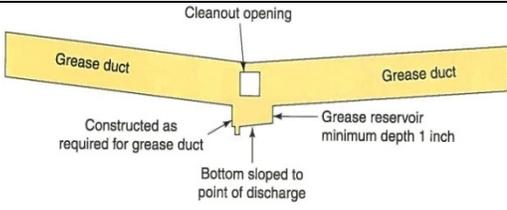
<input type="checkbox"/>	<p><u>501.3.2 Exhaust Opening Protection</u></p>	
	<p>Added requirement</p> <ul style="list-style-type: none"> Louvers that protect exhaust openings in structures located in hurricane-prone regions shall comply with AMCA Standard 550 	

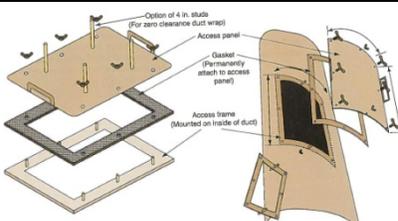
<input type="checkbox"/>	<p><u>504.8 Common Exhaust Systems for Clothes Dryers Located in Multistory Structures</u></p>	
	<p>Added #12: Common multistory duct system shall serve only clothes dryers and shall be independent of other exhaust systems</p>	

<input type="checkbox"/>	<p><u>USBC 505.1 Domestic Systems</u></p>	
	<p>Amended :</p> <ul style="list-style-type: none"> Where domestic range hoods and domestic appliances equipped with downdraft exhaust are <u>provided</u>, such hoods and appliances shall discharge to the outdoors through sheet metal ducts constructed of galvanized steel, stainless steel, aluminum or copper. Such ducts shall have smooth inner walls, shall be air tight, shall be equipped with a back draft damper, and shall be independent of all other exhaust systems. 	

<input type="checkbox"/>	<p><u>USBC 505.1 Domestic Systems</u></p>	
	<p>Exception #1 is changed to read: "In Group R buildings, where installed in accordance with the manufacturer's installation instructions and where mechanical or natural ventilation is otherwise provided in accordance with Chapter 4, listed and labeled ductless range hoods shall not be required to discharge to the outdoors."</p>	

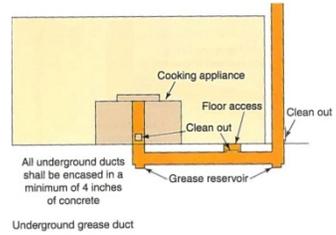
<input type="checkbox"/>	<p><u>USBC 505.3 Other than Group R</u></p> <p>Section added:</p> <ul style="list-style-type: none"> • Electric domestic cooking appliances utilized for domestic purposes shall be provided with range hoods <ul style="list-style-type: none"> ○ Fuel-fired range hood per 507.2
--------------------------	--

<input type="checkbox"/>	<p><u>506.3.7.1 Grease Reservoirs</u></p> <ul style="list-style-type: none"> • New section provides criteria for construction of a grease reservoir in a grease duct system where the reservoir is not a manufactured product. 	 <p>Cleanout opening</p> <p>Grease duct</p> <p>Grease duct</p> <p>Constructed as required for grease duct</p> <p>Grease reservoir minimum depth 1 inch</p> <p>Bottom sloped to point of discharge</p> <p>Grease reservoir</p>
--------------------------	--	---

<input type="checkbox"/>	<p><u>506.3.8 Grease Duct Cleanouts and Other Openings</u></p> <ul style="list-style-type: none"> • Section reformatted • Added requirements: <ul style="list-style-type: none"> ○ Cleanout doors to be liquid tight ○ Gasket and sealing materials on cleanout doors to be rated minimum 1,500 F° 	 <p>Flange</p> <p>Access frame (Mounted on inside of duct)</p> <p>Gasket (Permanently attach to access panel)</p> <p>Access panel</p> <p>Curved</p> <p>Flat</p> <p>Option of 4 in. seal (For zero clearance duct wrap)</p>
--------------------------	--	--

<input type="checkbox"/>	<p><u>506.3.9 Grease Duct Horizontal Cleanouts</u></p> <ul style="list-style-type: none"> • Section rearranged for ease of use and clarification • Several technical provisions added or modified 	
--------------------------	--	---

<input type="checkbox"/>	<p><u>506.3.10 Underground Grease Duct Installation</u></p> <ul style="list-style-type: none"> • Section has been moved and rearranged with additional requirements 	
--------------------------	---	---

☐	506.3.10 Underground Grease Duct Installation	
	<ul style="list-style-type: none"> Updated requirements include: Permissible construction materials Testing Encasement in concrete Slope toward reservoirs Cleanout requirements 	 <p>All underground ducts shall be encased in a minimum of 4 inches of concrete</p> <p>Underground grease duct</p>

☐	507.2 Where Required	
	<ul style="list-style-type: none"> Exception added: Approved cooking appliances equipped with integral down-draft exhaust systems do not require hood above 	

☐	507.2.1 Type I Hoods	
	<ul style="list-style-type: none"> Type I hood not required for electric cooking appliances if cooking process does not produce grease beyond prescribed threshold 	

☐	507.2.1.2 Exhaust Flow Rate Label		
	<ul style="list-style-type: none"> Manufacturers of listed Type I commercial cooking hoods are now required to provide information on a label attached to the hood specifying the listed minimum exhaust air flow for the hood based upon the cooking appliance duty classification. 	<table border="1" style="width: 100%;"> <thead> <tr> <th style="text-align: center;">LISTING DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">TESTED, LISTED, AND APPROVED TO EXHAUST A MINIMUM OF 200 CFM PER LINEAR FOOT OVER 600-DEGREE COOKING EQUIPMENT</td> </tr> </tbody> </table> <p style="text-align: center; font-size: small;">Type I hood label</p>	LISTING DESCRIPTION
LISTING DESCRIPTION			
TESTED, LISTED, AND APPROVED TO EXHAUST A MINIMUM OF 200 CFM PER LINEAR FOOT OVER 600-DEGREE COOKING EQUIPMENT			

☐	507.2.2 Type II Hoods	
	<ul style="list-style-type: none"> Type II hood required above appliances that produce heat or moisture, but not grease or smoke. Exact exhaust rate is specified for areas where a cooking appliance is used but a Type II hood is not required 	

<input type="checkbox"/>	<p><u>USBC 507.2.3 Domestic Cooking Appliances Used for Commercial Purposes</u></p> <ul style="list-style-type: none"> Domestic cooking appliances utilized for domestic purposes shall comply with Section 505.
--------------------------	--

<input type="checkbox"/>	<p><u>507.10 Hoods Penetrating a Ceiling</u></p> <ul style="list-style-type: none"> Field-applied grease duct enclosure systems are now specifically prohibited from being used as enclosures over the top of Type I hoods 	
--------------------------	--	--

<input type="checkbox"/>	<p><u>507.11 Grease Filters</u></p> <ul style="list-style-type: none"> Listed and labeled in accordance with <u>UL 1046</u> 	
--------------------------	---	--

<input type="checkbox"/>	<p><u>510.7 Suppression Required</u></p> <ul style="list-style-type: none"> Added exception #2: Automatic fire suppression systems are no longer required in exhaust ducts in semiconductor fabrication facilities.
--------------------------	--

<input type="checkbox"/>	<p><u>514 Energy Recovery Ventilation Systems</u></p> <ul style="list-style-type: none"> Section Modified: Ducted heat recovery ventilators shall be listed and labeled in accordance with UL 1812. <u>Non-ducted heat recovery ventilators</u> shall be listed and labeled in accordance with <u>UL 1815</u>.
--------------------------	---

<input type="checkbox"/>	<p><u>514.4 Recirculated Air</u></p> <ul style="list-style-type: none"> Air conveyed within energy recovery systems shall not be considered as recirculated air where the energy recovery ventilation system is constructed to limit cross-leakage between air streams to less than <u>10 percent</u> of the total airflow design capacity.
--------------------------	---

<input type="checkbox"/>	<p><u>601.4</u> Contamination Prevention</p>
	<ul style="list-style-type: none"> • 2nd exception added: • Chimneys and vents are now permitted to pass through a plenum under certain conditions • Conditions provide means to prevent seepage between flue gas and return air • 2.2. The venting system shall be installed such that fittings and joints between sections are not installed in the above ceiling space. • 2.3. The venting system shall be installed in a conduit or enclosure with sealed joints separating the interior of the conduit or enclosure from the ceiling.

<input type="checkbox"/>	<p><u>602.2.1</u> Materials Within Plenums</p>
	<ul style="list-style-type: none"> • Clarification: • Any material or assembly that encloses a combustible material in a plenum must be noncombustible, gypsum board, or listed and labeled as part of a tested assembly or system.

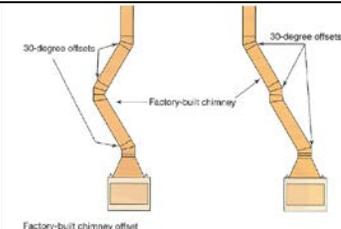
<input type="checkbox"/>	<p><u>603.7</u> Rigid Duct Penetrations</p>
	<ul style="list-style-type: none"> • In relationship to the required garage/dwelling separation, only those ducts that penetrate a wall or ceiling between the dwelling and the adjacent garage need comply with Section 603.7. • (Ducts are not required to be <u>26 gauge</u> when serving only the garage)

<input type="checkbox"/>	<p><u>603.9/M1601.4.1</u> Joints, Seams, and Connections</p>	
	<ul style="list-style-type: none"> • Unlisted duct tape is no longer permitted as a sealant on any duct. 	

<input type="checkbox"/>	<p><u>603.17</u> Air Dispersion Systems</p>	
	<ul style="list-style-type: none"> • Air dispersion systems as defined in Section 202 and recognized in UL 2518 are now permitted to be installed. 	

<input type="checkbox"/>	804.3 Mechanical Draft Systems
	<ul style="list-style-type: none">Section modified to add "<u>listed and labeled in accordance with UL378</u>"

<input type="checkbox"/>	805.3 Factory-Built Chimney Offsets
	<ul style="list-style-type: none">The maximum offset in a factory built chimney is now specified and the number of offsets has been limited



The diagram shows two factory-built chimneys. The left one has two 30-degree offsets, and the right one has one 30-degree offset. Labels include '30-degree offsets', 'Factory-built chimney', and 'Factory-built chimney offset'.

<input type="checkbox"/>	901.4 Fireplace Accessories
	<ul style="list-style-type: none">Fireplace accessories must now comply with UL 907



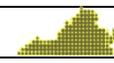
The image shows a long, cylindrical metal fireplace accessory. It has a 'Hood' at one end and a 'Door' at the other.

<input type="checkbox"/>	903.2 Hearth Extensions
	<ul style="list-style-type: none">This section has been modified for factory built fireplaces to include "<u>shall comply with UL1618</u>".

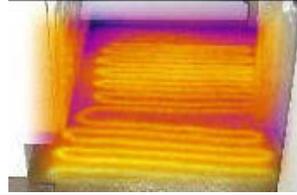


The image shows a dark, rectangular mat placed on a wooden floor in front of a fireplace. A kettle is on the hearth.

<input type="checkbox"/>	USBC 908.5 Water Supply
	<ul style="list-style-type: none">Cooling towers, evaporative coolers, and fluid coolers shall be provided with an approved water supply and sized for peak demand



A small map of the United States is located in the top right corner of the table.

☐	<u>927 (New) Radiant Heating Systems</u>	
	<ul style="list-style-type: none"> • 927.1 General • 927.2 Clearances • 927.3 Installation on wood or steel framing • 927.4 Installation in concrete or masonry • 927.5 Finish surfaces 	

☐	<u>928 Evaporative Cooling Equipment</u>	
	<ul style="list-style-type: none"> • Requirements for the installation of evaporative coolers have been introduced into the IMC. 	

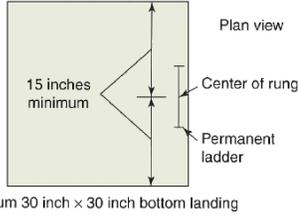
☐	<u>928.1 General.</u> Evaporative cooling equipment shall:	
	<ul style="list-style-type: none"> • 1. Be installed in accordance with the manufacturer’s instructions. • 2. Be installed on level platforms in accordance with Section 304.10. • 3. Have openings in exterior walls or roofs flashed in accordance with the <i>International Building Code</i>. • 4. Be provided with an approved water supply and sized for peak demand. The quality of the water shall be provided in accordance the equipment manufacturer’s recommendations. The piping system and protection of the potable water supply shall be installed as required by the IPC. <i>(USBC amendment)</i> • 5. Have air intake opening locations in accordance with Section 401.4. 	

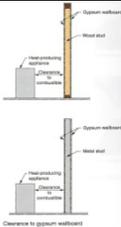
☐	<u>1105.6.3 Ventilation Rate</u>	
	<ul style="list-style-type: none"> • Min. ventilation rates in an ammonia machinery room must now be in accordance with IAR2 	

FUEL GAS
2012 IFGC & 2012 VCC

☐	<p>Chapter 2 Definitions (IFGC & IRC)</p> <ul style="list-style-type: none"> • Excessive Flow Valve • Flashback Arrestor Check Valve • Point of Delivery • Regulator, Service Pressure • Third-Party Certification Agency • Third-Party Certified • Third-Party Tested
---	--

☐	<p>301.11 Flood Hazard</p> <ul style="list-style-type: none"> • Refers to IBC 1612 for location and installation of systems/equipment in buildings in flood hazard areas 	
---	--	--

☐	<p>306.5 Equipment and Appliances on Roofs or Elevated Structures</p> <ul style="list-style-type: none"> • Added exception #8 Landing required. • Added exception #10 Access to ladders shall be provided at all times. 	
---	--	---

☐	<p>308.1/G2409.1 Scope</p> <ul style="list-style-type: none"> • Gypsum board is considered to be a combustible material regardless of the studs (metal or wood) the board is fastened to 	
---	--	---

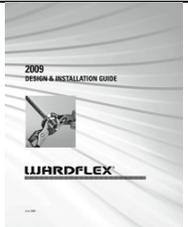
<input type="checkbox"/>	<p><u>308.3.4/G2409.3.4 Clearance From Supply Ducts</u></p> <ul style="list-style-type: none"> Supply air ducts connecting to listed central heating furnaces shall have the same minimum clearance to combustibles as required for the furnace supply plenum for a distance of not less than 3 feet (914 mm) from the supply plenum. Clearance is not required beyond the 3-foot (914 mm) distance.
--------------------------	--

<input type="checkbox"/>	<p><u>310.1.1/G2411.1.1 CSST</u></p> <ul style="list-style-type: none"> This change clarifies where the bonding jumper is to connect to the CSST 	
--------------------------	--	---

<input type="checkbox"/>	<p><u>401.9/G2412.9 Identification</u></p> <ul style="list-style-type: none"> Each length of pipe and tubing and each pipe fitting, utilized in a fuel gas system, shall bear the identification of the manufacturer. 	
--------------------------	---	--

<input type="checkbox"/>	<p><u>401.10/G2412.10 Third-Party Testing and Certification</u></p> <ul style="list-style-type: none"> All piping, tubing and fittings shall comply with the applicable referenced standards, specs and performance criteria of this code.
--------------------------	--

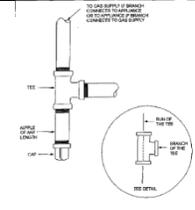
<input type="checkbox"/>	<p><u>404.1/G2415.1 Installation of Materials</u></p> <ul style="list-style-type: none"> All materials shall be installed in accordance with the standards under which they were accepted and approved. In the absence of such procedures, the manufacturer's installation instructions shall be followed.
--------------------------	--

<input type="checkbox"/>	<p><u>404.2/G2415.2 CSST</u></p> <ul style="list-style-type: none"> CSST piping systems shall be installed per the terms of their approval, listing conditions, manufacturer's installation instructions and this code. 	
--------------------------	---	---

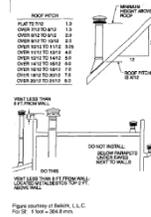
<input type="checkbox"/>	<p><u>404.18/G2415.18 Prohibited Devices</u></p>	
	<ul style="list-style-type: none"> A 2nd exception has been added allowing a fitting or device where the system has been sized to accommodate the pressure drop. 	

<input type="checkbox"/>	<p><u>406.1.6/G2417.1.6 Pipe Clearing</u></p>
	<ul style="list-style-type: none"> New section added requiring the clearing of all foreign material prior to testing.

<input type="checkbox"/>	<p><u>406.7/G2417.7 Purging</u></p>
	<ul style="list-style-type: none"> The purging of piping shall be in accordance with Sections 406.7.1 through 406.7.3 of the IFGC. The purging of piping shall be in accordance with Sections G2417.7 through G2417.7.3 of the IRC.

<input type="checkbox"/>	<p><u>408.4/G2419.4 Sediment Trap</u></p>	
	<ul style="list-style-type: none"> Text remains the same, however due to misunderstandings as to the construction of a sediment trap, an illustration has been added. 	

<input type="checkbox"/>	<p><u>410.4/G2421.4 Excess Flow Valves</u></p>
	

<input type="checkbox"/>	<p><u>410.5/G2421.5 Flashback Arrestor Check Valve</u></p> <ul style="list-style-type: none"> Fuel gas systems that are used with oxygen are now required to have a combination flashback arrestor and backflow check valve on both the fuel gas supply and oxygen supply lines. 	
<input type="checkbox"/>	<p><u>503.2.5 Incinerators</u></p> <ul style="list-style-type: none"> Commercial-industrial type incinerators shall be vented in accordance with NFPA 82-09 	
<input type="checkbox"/>	<p><u>504.2.9/G2428.2.9</u></p> <ul style="list-style-type: none"> Adds an additional requirement for a B Vent that exceeds the required height by 5 feet or more above the roof per figures 503.6.4 and G2427.6.3 	
<input type="checkbox"/>	<p><u>636 Outdoor Decorative Appliances</u></p> <ul style="list-style-type: none"> Permanently fixed-in-place outdoor decorative appliances must be tested to ANSI Z21.97 and be installed per manufacturer's instructions. 	

ELECTRICAL
2011 NEC, 2012 IRC & 2012 VRC

<input type="checkbox"/>	<p><u>NEC 90.3 Code Arrangement</u></p> <ul style="list-style-type: none"> • Divided into nine chapters • Chapters 1-4 apply generally installations • Chapters 5-7 special situations, these chapters modify the general rules of chapters 1-4 • Chapter 8 is communication • Chapter 9 contains tables
--------------------------	--

<input type="checkbox"/>	<p><u>NEC 90.5(D) Informational Annex</u></p> <ul style="list-style-type: none"> • Fine Print Notes have been replaced with the term “Informational Annex” • Further clarification is made to explain that these are not enforceable
--------------------------	---

<input type="checkbox"/>	<p><u>NEC 110.16 Arc Flash Hazard Warning</u></p> <ul style="list-style-type: none"> • Requires a field applied identification that an electrical safety hazard exists • Required on any switchboard, panelboard, etc that requires examination or service • Does not apply to dwelling units 	
--------------------------	---	--

<input type="checkbox"/>	<p><u>NEC 110.24 Available Fault Current</u></p> <ul style="list-style-type: none"> • Field applied sticker with the available Fault Current and the date that the Fault Current was calculated • Changes to existing equipment will require an application of a new sticker • Does not apply to dwelling units 	
--------------------------	---	---

<input type="checkbox"/>	<p><u>NEC 110.26(A)(3) & IRC E3405.2 Working Clearances</u></p> <ul style="list-style-type: none"> • 2 new exceptions added for locations of electrical equipment • Existing dwelling units head clearance • Glass meters only extending no more than 6” 	
--------------------------	--	---

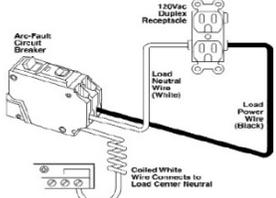
<input type="checkbox"/>	<p><u>NEC 110.26(D)IRC E3405.6 Illumination</u></p>	
	<ul style="list-style-type: none"> • Requires a light at indoor working spaces for service equipment, panels, etc • Cannot be controlled by Automatic means only 	

<input type="checkbox"/>	<p><u>NEC 210.8 (A) (7) Sinks</u></p>	
	<ul style="list-style-type: none"> • Clarifies that a receptacle within 6' of the outside edge of any sink shall have GFCI protection. • Kitchen sinks are covered in 210.8(A)(6) 	

<input type="checkbox"/>	<p><u>NEC 210.8(B) 6&7 GFI Protection</u></p>	
	<ul style="list-style-type: none"> • 210.8 (B) (6)-Indoor wet locations have been added (such as a carwash) • 210.8 (B) (7)-Locker rooms <u>with</u> associated showering facilities 	

<input type="checkbox"/>	<p><u>NEC 210.8 (B) (8) Garage GFCI Protection</u></p>	
	<ul style="list-style-type: none"> • All garages, service bays and similar area receptacles shall be GFCI Protected • This requirement is in addition to the requirements of NEC article 511 	

<input type="checkbox"/>	<p><u>NEC 210.12(A) and IRC E 3902.12 Arc Fault Circuit Interrupters</u></p>	
	<ul style="list-style-type: none"> • Applies to dwellings under 4 stories • Also applies to apartments, condos, guest rooms and guest suites that have permanent provisions for cooking 	

<input type="checkbox"/>	<p><u>NEC 210(B) & IRC E3902.12 Arc Fault in Dwelling Units</u></p>	
	<ul style="list-style-type: none"> • USBC amendment deletes expansion for rooms other than bedrooms for 1 and 2 family only 	

<input type="checkbox"/>	<p><u>NEC 210.52(C) (5) & IRC E3901.4.5 Countertop Receptacles</u></p>	
	<ul style="list-style-type: none"> • Listed receptacle assemblies may be installed in the counter top • Gives designers and architects an avenue to achieve code compliance 	

<input type="checkbox"/>	<p><u>NEC 210.52 (E) (3) & IRC E3901.7 Balconies, Decks, and Porches</u></p>	
	<ul style="list-style-type: none"> • Receptacles for all Balconies, decks and porches • Receptacle shall be located within the Balcony, deck or porch • Receptacle placement to be no higher than 6 foot 6 inches 	

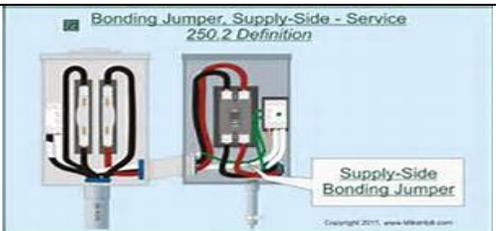
<input type="checkbox"/>	<p><u>NEC 210.52(G) & IRC E3901.9 Accessory Buildings</u></p>	
	<ul style="list-style-type: none"> • Accessory Buildings with power shall require a receptacle • This receptacle shall be GFCI protected 	

<input type="checkbox"/>	<p><u>NEC 210.52(I) & IRC E3901.11 Foyers</u></p>	
	<ul style="list-style-type: none"> • Foyers not part of a hallway • Greater than 60 square feet • Wall spaces 3 foot or more in width • Wall spacing rules do not apply to foyers 	

<input type="checkbox"/>	<u>NEC 225.27 & IRC E3803.6 Raceway Seals</u>	
	<ul style="list-style-type: none"> • Raceway seals required at outside underground raceways entering a building • Sealed with compound like Duct Seal 	

<input type="checkbox"/>	<u>NEC 225.30 Number of Supplies</u>	
	<ul style="list-style-type: none"> • Only one branch circuit or feeder shall be allowed to supply power back to the original building • Typically applies to emergency power conditions when generator is in a separate building 	

<input type="checkbox"/>	<u>NEC 240.24(E) Overcurrent Devices</u>	
	<ul style="list-style-type: none"> • Overcurrent devices shall not be located in <u>dormitory</u> bathrooms 	

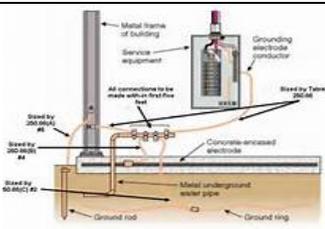
<input type="checkbox"/>	<u>NEC 250.2 Definition - Supply Side Bonding Jumper</u>	
		

<input type="checkbox"/>	<u>NEC 250.30(C) Outdoors Source</u>	
	<ul style="list-style-type: none"> • Separately derived systems located outside the building or structure supplied • Grounding electrode system shall be tied into the buildings grounding electrode system 	

<input type="checkbox"/>	<p><u>NEC 250.52(A) (2) Building Steel</u></p>	
	<ul style="list-style-type: none"> Anchor bolts connected to the rebar in the footing by the “usual means” At least 10 foot of structural steel is in direct contact with earth 	

<input type="checkbox"/>	<p><u>NEC 250.52 (A) (3) & IRC E3608.1.2 Concrete Encased Electrode</u></p>	
	<ul style="list-style-type: none"> Clarification for Concrete Encased Electrode If vapor barrier is installed then the concrete encased electrode is not considered in “direct Contact” 	

<input type="checkbox"/>	<p><u>NEC 250.53(A) & IRC E3608.4 Rod, Pipe Or Plate Electrodes</u></p>	
	<ul style="list-style-type: none"> Supplemental electrodes now required for Rod, Pipe or Plate electrodes Exception for 25 ohms or less 	

<input type="checkbox"/>	<p><u>NEC 250.68(C) & IRC E 3608.1.1.1 Bonding Jumper Connections</u></p>	
	<ul style="list-style-type: none"> New section Clarifies what can be used to make a bonding jumper (building steel, rebar conductor etc.) that connects to the grounding electrode(s) 	

<input type="checkbox"/>	<p><u>NEC 250.92 (B) & IRC E3609.4 Service Bonding</u></p>	
	<ul style="list-style-type: none"> Bonding jumpers required when concentric, eccentric, reducing washers are used 	

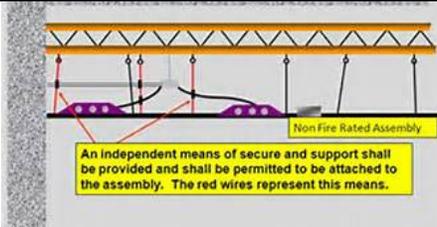
<input type="checkbox"/>	<p>NEC 250.121 & IRC E3610.4 Equipment Grounding Conductors</p>	
	<ul style="list-style-type: none"> Equipment grounding conductor is not allowed to be used as a Grounding Electrode Conductor GEC is located between the service point and the service disconnecting means 	

<input type="checkbox"/>	<p>NEC 250.122 & IRC E3908.12 Equipment Grounding Conductors- Tables</p>	<table border="1"> <thead> <tr> <th rowspan="2">Minimum Number of Automatic Overcurrent Devices or Circuit Breakers of Equipment Conductors (Amperes)</th> <th colspan="2">Size (AWG or kcmil)</th> </tr> <tr> <th>Copper</th> <th>Aluminum or Copper-Clad Aluminum</th> </tr> </thead> <tbody> <tr> <td>15</td> <td>14</td> <td>12</td> </tr> <tr> <td>20</td> <td>12</td> <td>10</td> </tr> <tr> <td>30</td> <td>10</td> <td>8</td> </tr> <tr> <td>40</td> <td>8</td> <td>6</td> </tr> <tr> <td>50</td> <td>6</td> <td>4</td> </tr> <tr> <td>60</td> <td>4</td> <td>2</td> </tr> <tr> <td>75</td> <td>3</td> <td>2</td> </tr> <tr> <td>100</td> <td>2</td> <td>1-1/2</td> </tr> <tr> <td>150</td> <td>1-1/2</td> <td>1-1/8</td> </tr> <tr> <td>200</td> <td>1-1/8</td> <td>1-1/4</td> </tr> <tr> <td>300</td> <td>1-1/4</td> <td>1-1/2</td> </tr> <tr> <td>400</td> <td>1-1/2</td> <td>2-1/8</td> </tr> <tr> <td>500</td> <td>1-1/2</td> <td>2-1/2</td> </tr> <tr> <td>600</td> <td>2-1/8</td> <td>3-1/8</td> </tr> <tr> <td>750</td> <td>2-1/8</td> <td>3-1/2</td> </tr> <tr> <td>1000</td> <td>2-1/2</td> <td>4-1/4</td> </tr> <tr> <td>1250</td> <td>2-1/2</td> <td>4-1/2</td> </tr> <tr> <td>1500</td> <td>2-1/2</td> <td>4-1/2</td> </tr> <tr> <td>2000</td> <td>2-1/2</td> <td>4-1/2</td> </tr> <tr> <td>2500</td> <td>2-1/2</td> <td>4-1/2</td> </tr> <tr> <td>3000</td> <td>2-1/2</td> <td>4-1/2</td> </tr> <tr> <td>4000</td> <td>2-1/2</td> <td>4-1/2</td> </tr> <tr> <td>5000</td> <td>2-1/2</td> <td>4-1/2</td> </tr> </tbody> </table>	Minimum Number of Automatic Overcurrent Devices or Circuit Breakers of Equipment Conductors (Amperes)	Size (AWG or kcmil)		Copper	Aluminum or Copper-Clad Aluminum	15	14	12	20	12	10	30	10	8	40	8	6	50	6	4	60	4	2	75	3	2	100	2	1-1/2	150	1-1/2	1-1/8	200	1-1/8	1-1/4	300	1-1/4	1-1/2	400	1-1/2	2-1/8	500	1-1/2	2-1/2	600	2-1/8	3-1/8	750	2-1/8	3-1/2	1000	2-1/2	4-1/4	1250	2-1/2	4-1/2	1500	2-1/2	4-1/2	2000	2-1/2	4-1/2	2500	2-1/2	4-1/2	3000	2-1/2	4-1/2	4000	2-1/2	4-1/2	5000	2-1/2	4-1/2
	Minimum Number of Automatic Overcurrent Devices or Circuit Breakers of Equipment Conductors (Amperes)			Size (AWG or kcmil)																																																																								
Copper		Aluminum or Copper-Clad Aluminum																																																																										
15	14	12																																																																										
20	12	10																																																																										
30	10	8																																																																										
40	8	6																																																																										
50	6	4																																																																										
60	4	2																																																																										
75	3	2																																																																										
100	2	1-1/2																																																																										
150	1-1/2	1-1/8																																																																										
200	1-1/8	1-1/4																																																																										
300	1-1/4	1-1/2																																																																										
400	1-1/2	2-1/8																																																																										
500	1-1/2	2-1/2																																																																										
600	2-1/8	3-1/8																																																																										
750	2-1/8	3-1/2																																																																										
1000	2-1/2	4-1/4																																																																										
1250	2-1/2	4-1/2																																																																										
1500	2-1/2	4-1/2																																																																										
2000	2-1/2	4-1/2																																																																										
2500	2-1/2	4-1/2																																																																										
3000	2-1/2	4-1/2																																																																										
4000	2-1/2	4-1/2																																																																										
5000	2-1/2	4-1/2																																																																										
<ul style="list-style-type: none"> Conductor sizes for 30 and 40 amp circuits have been removed. Follow 60 amp requirements 4000 amp reduced to a 750 kcmil conductor 																																																																												

<input type="checkbox"/>	<p>NEC 300.4 E Boxes Installed Under Roof Decking</p>	
	<ul style="list-style-type: none"> Boxes now require 1 1/2" below the lowest level of the roof decking Follows in line with the cable, tubing and conduit rules 	

<input type="checkbox"/>	<p>NEC 300.4 H</p>	
	<ul style="list-style-type: none"> New section for structural joints intended for expansion, deflection or contraction Used in buildings, bridges, parking garages or other structures 	

<input type="checkbox"/>	<p>NEC 300.5 C & IRC E3803.11 Raceways Under Buildings</p>	
	<ul style="list-style-type: none"> MI cable and MC cable to be installed under a building Type MC cable shall be the direct burial type and listed for the purpose Type MI shall be suitably protected from physical damage 	

<input type="checkbox"/>	<p><u>NEC 300.11 (A) (2) Non-fire Rated Assemblies</u></p>	 <p>An independent means of secure and support shall be provided and shall be permitted to be attached to the assembly. The red wires represent this means.</p>
	<ul style="list-style-type: none"> • Non fire rated assemblies require supporting methods to be distinguishable • Identified by color, tagging or other effective means 	

<input type="checkbox"/>	<p><u>NEC 310 (Tables) Table Restructuring</u></p>
	<ul style="list-style-type: none"> • Complete re-numbering of all Tables in the NEC • An example would be: Table 310.16 is now 310.15 (B) (16)

<input type="checkbox"/>	<p><u>NEC 310.15(B)(3)(a) Adjustment Factors</u></p>
	<ul style="list-style-type: none"> • “Current Carrying” has been removed from the NEC language • IRC remains unchanged • Adjustments based on number of conductors in raceway (excluding Ground) and 310.15 (B)(5) and (6)

<input type="checkbox"/>	<p><u>NEC 310.(B) (3)(c) Conductors Above Rooftops</u></p> <ul style="list-style-type: none"> • Circular Raceways replaced the term conduit • Table values have been left unchanged 	
--------------------------	--	---

<input type="checkbox"/>	<p><u>NEC 314.27(C) & IRC 3905.8 Ceiling Fan Outlets</u></p> <ul style="list-style-type: none"> • Listed Ceiling Fan box required when a spare separately switched conductor is present in the box 	
--------------------------	--	---

<input type="checkbox"/>	<u>NEC 334.10(1) & IRC E3801.4 (Table) Type NM Cable in Garages</u>	
	<ul style="list-style-type: none"> • Attached and detached garages and storage buildings • These cables can be run exposed where not exposed to physical damage • Accessory structures such as play houses would still require NM cable to be concealed 	

<input type="checkbox"/>	<u>NEC 338.10(B)(4)(a) & IRC E3705.4.4 Type SE Cable</u>	
	<ul style="list-style-type: none"> • Follow 60 Degree column when installed in thermal insulation • De-rating by maximum cable rating or 60 degree column • Defer to 310.15(A)(2) exception for short runs in thermal insulation 	

<input type="checkbox"/>	<u>NEC 404.2(C) & IRC E4001.15 Switches for Lighting Loads</u>	
	<ul style="list-style-type: none"> • Switch boxes shall have a neutral conductor in each box • Exceptions are: unfinished wall on back side of box or box is fed by a raceway 	

<input type="checkbox"/>	<u>NEC 404.9(B) & IRC E4001.11.1 Grounding of Switches</u>	
	<ul style="list-style-type: none"> • New exceptions for grounding connection • Switch has a integral nonmetallic enclosure • Switch is part of a listed non-metallic assembly 	

<input type="checkbox"/>	<u>NEC 406.4(D)(4) Replacement Receptacle AFCI</u>	
	<ul style="list-style-type: none"> • USBC administrative provisions apply 	

<input type="checkbox"/>	<u>NEC 406.4(D) (5) Receptacle Replacement</u>	
	<ul style="list-style-type: none"> USBC administrative provisions apply for replacement 	

<input type="checkbox"/>	<u>NEC 404.6(D)(6) Weather Resistant Receptacle</u>	
	<ul style="list-style-type: none"> Replacement Receptacles installed outdoors will now require the use of a Listed Weather Resistant receptacle Look for “WR” on the face of receptacle 	

<input type="checkbox"/>	<u>NEC 406.9(B)(1) Wet Location Covers</u>	
	<ul style="list-style-type: none"> For commercial applications, <u>Grade Supported</u> boxes require in-use covers to be rated “Extra Duty” 	

<input type="checkbox"/>	<u>NEC 406.12 & IRC 4002.14 Tamper Resistant Receptacles</u>	
	<ul style="list-style-type: none"> Tamper Resistant Receptacles not required in the following areas: <ul style="list-style-type: none"> Above 5’6” from floor Receptacles part of a luminaire Single receptacle for an appliance or duplex for two appliances For replacement non-grounding receptacles 	

<input type="checkbox"/>	<u>NEC 406.13 Guest Room and Suite Receptacles</u>	
	<ul style="list-style-type: none"> Tamper Resistant Receptacles required 	

<input type="checkbox"/>	<u>NEC 406.14</u> Child Care Facility
	<ul style="list-style-type: none">• Child Care Facilities require Tamper Resistant Receptacles• Child Care Facility- Definition• Schools, Churches and Daycare all apply!

<input type="checkbox"/>	<u>NEC 408.4(B)</u> Panel Identification
	<ul style="list-style-type: none">• Panel boards and switchboards fed with a feeder shall have power source location identified• Not required for one and two family dwelling units• Label affixed to the panel cover]

<input type="checkbox"/>	<u>NEC 410.16 & IRC 4003.12</u> Clothes Closet Luminaires
	<ul style="list-style-type: none">• LED lighting may be installed in a closet• LED follows the same spacing rules as incandescent lighting 

<input type="checkbox"/>	<u>NEC 410.64</u> Luminaires as a Raceway
	<ul style="list-style-type: none">• When used as a raceway, Luminaires shall be listed for through-wiring 

<input type="checkbox"/>	<u>NEC 422.30 & IRC E4101.5</u> Appliance Disconnecting Means
	<ul style="list-style-type: none">• Disconnecting means for appliances shall be grouped and identified 

<input type="checkbox"/>	<u>NEC 450.14 Transformer Disconnecting Means</u>	
	<ul style="list-style-type: none">Transformers disconnecting means shall be within sight of the transformerDisconnect not within sight of the transformer will be marked for locationBreaker lock permitted	

<input type="checkbox"/>	<u>NEC 503.10(A)(3) Flexible Wiring Methods</u>	
	<ul style="list-style-type: none">Interlocked armor, polymeric coated Type MC cable is permitted in Class III division I locationsMust be installed with dust tight fittings	

<input type="checkbox"/>	<u>NEC 514.11 Motor Fuel Dispensing Disconnects</u>	
	<ul style="list-style-type: none">All power, data, video and communication circuits shall be simultaneously disconnected from their sources of supply	

<input type="checkbox"/>	<u>NEC 517.13(B) Grounding of Metal Boxes</u>	
	<ul style="list-style-type: none">Metal boxes shall be connected to the insulated equipment grounding conductor	

<input type="checkbox"/>	<u>NEC 517.16 Isolated Ground Receptacles</u>	
	<ul style="list-style-type: none">Isolated Ground Receptacles are no longer allowed in Patient Care Areas	

<input type="checkbox"/>	<u>NEC 517.18</u> General Care Areas	
	<ul style="list-style-type: none">The required circuits shall not be fed from a multiwire branch circuit	

<input type="checkbox"/>	<u>NEC 517.18(B)</u> Patient Bed Receptacles	
	<ul style="list-style-type: none">Quadraplex receptacles listed Hospital Grade now allowed for Patient Bed Locations	

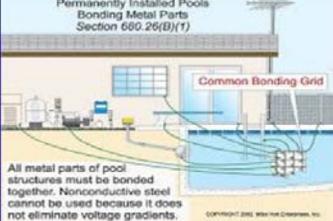
<input type="checkbox"/>	<u>NEC 525.5(B)(2)</u> Conductor Clearances	
	<ul style="list-style-type: none">Portable structures shall not be placed within 15 feet horizontally and vertically of conductors over 600 volts to ground	

<input type="checkbox"/>	<u>NEC 590.4(D)</u> Temporary Installations	
	<ul style="list-style-type: none">Temporary power receptacles installed in a wet location shall be "Extra-Duty" typeIncludes 125 and 250 volt receptacles	

<input type="checkbox"/>	<u>NEC 680.2</u>Definitions - Low Voltage Contact Limit	
	<ul style="list-style-type: none">New definitionA voltage not exceeding the following:<ul style="list-style-type: none">15 volts for sinusoidal ac21.2 volts for non-sinusoidal ac30 volts for continuous dc12.4 volts for dc that is interrupted at a rate of 10 to 200 Hz	

☐	NEC 680.10(Table) Conduit Burial Depths	
	<ul style="list-style-type: none"> • Nonmetallic raceways can be installed 4" deep under concrete slab and can extend 6" from edge of slab • 6" deep if not covered with concrete • Allowed from pool edge to a distance of 5' • Where space limitations apply 	

☐	NEC 680.21(C) GFCI Motor Protection	
	<ul style="list-style-type: none"> • 120 volt through 240 volt outlets supplying pool pump motors must be GFCI protection • Applies to permanent installations • 	

☐	NEC 680.26(B)(7) Fixed Metal Part Grounding	
	<ul style="list-style-type: none"> • All fixed metal parts within 5' of pool edge to be bonded 	 <p>Permanently Installed Pools Bonding Metal Parts Section 680.26(B)(7)</p> <p>Common Bonding Grid</p> <p>All metal parts of pool structures must be bonded together. Nonconductive steel cannot be used because it does not eliminate voltage gradients.</p> <p><small>COPYRIGHT 2005, Wiley-Interscience, Inc.</small></p>

☐	NEC 680.43 Ex. #2 Indoor Spas and Hot Tubs	
	<ul style="list-style-type: none"> • New exception for indoor spas and hot tubs on a finished floor • Equipotential bonding not required 	

☐	NEC 680.73 Receptacle Accessibility	
	<ul style="list-style-type: none"> • Receptacle face in direct view of opening and located not farther back than 12" • GFCI protection device required to be readily accessible 	

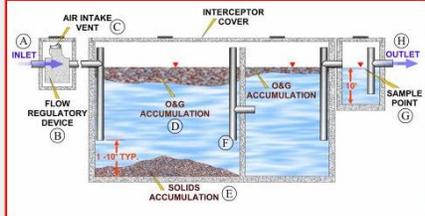
<input type="checkbox"/>	NEC 694 Small Wind Electric Systems	
	<ul style="list-style-type: none"> • New Article 	

<input type="checkbox"/>	NEC 700.10(D)(1) Emergency Systems	
	<ul style="list-style-type: none"> • Fire rating required to be 2 hour minimum for Buildings greater than 75 Ft. or occupancy of 1000 and greater • USBC Amendment - Exception No. 2: Exterior Unit equipment permitted to be power by the same branch circuit or powered by the same feeder or Service powering the normal exterior lighting 	

<input type="checkbox"/>	NEC 701.6 Legally Required Standby Systems	
	<ul style="list-style-type: none"> • Ground fault indication is now required for legally required standby systems 	

<input type="checkbox"/>	NEC 760.41 NPLFA Power Source	
	<ul style="list-style-type: none"> • NPLFA power source(disconnect) now required to be marked • NPLFA shall be on a dedicated circuit 	

PLUMBING
2012 IPC, 2012 IRC & 2012 VRC

<input type="checkbox"/>	<p><u>IPC Definition</u> Hydromechanical Grease Interceptor</p> <ul style="list-style-type: none"> Plumbing appurtenances installed to intercept fats, oils, and greases by air entrapment, buoyancy, and interior baffling 	
<input type="checkbox"/>	<p><u>IPC Definition:</u> Gravity Grease Interceptor</p> <ul style="list-style-type: none"> Plumbing appurtenance not less than 500 gallons and separation of fats, oils, and greases by gravity during a retention time of less than 30 minutes 	
<input type="checkbox"/>	<p><u>IPC Definition:</u> Plumbing Appliance</p> <ul style="list-style-type: none"> Clarifies that a fixture is not an appliance. Examples of appliances include water heaters, hot water dispensers, garbage disposals, dishwashers, clothes washers, and water softeners 	
<input type="checkbox"/>	<p><u>IPC and IRC Definition</u> Plumbing Fixture</p> <ul style="list-style-type: none"> Clarifies that a fixture is a receptacle or device that is connected to a water supply system or discharges to a drainage system or both <p>Examples:</p> <ul style="list-style-type: none"> water closets bathtubs 	

<input type="checkbox"/>	<u>303.4</u> and <u>P2609</u> Third-party certification	
	<ul style="list-style-type: none">All plumbing products and materials shall be listed and labeled by third-party certification agency as complying with the referenced standards.	

<input type="checkbox"/>	<u>304.4</u> Openings for Pipes	
	<ul style="list-style-type: none">IPC removes requirement for metal collars. Adds "shall be sealed with caulking materials or gasketing systems compatible with the materials and locations"Removes requirement for fastening collars to structure	

<input type="checkbox"/>	<u>305.3</u> and <u>P2603.4</u> Pipes Through Foundation Walls	
	<ul style="list-style-type: none">IPC and IRC delete requirements for a relieving arch or a pipe sleeve under a footingBreakage section deleted from IPC	

<input type="checkbox"/>	<u>312.2</u> and <u>P2503.5.1</u> Drainage and Vent Air Test	
	<ul style="list-style-type: none">IPC and IRC add plastic piping shall not be tested using air	

<input type="checkbox"/>	<u>315.1</u> and <u>P2501.1</u> Sealing of Annular Spaces	
	<ul style="list-style-type: none">Was in IPC and IRC sleeve sections. Adds caulking material shall be compatible with the pipe, sleeve, and building materials in contact with the sealing materials	

☐	Table 403.1 Minimum Number of Required Fixtures	
	<ul style="list-style-type: none"> • Business and mercantile occupancies service sink footnote “g” • Occupant load of 15 or fewer shall not be required to have a service sink • Virginia amendment to add footnote “h” 	

☐	403.1.3 Marina Fixtures	
	<ul style="list-style-type: none"> • VUSBC amendment adds: Notwithstanding any provision to the contrary, plumbing fixtures shall be provided for marinas in the minimum number shown in Table 403.1.3. 	

☐	Table 403.1.3 Minimum Number of Required Plumbing Fixtures for Marinas	
	<ul style="list-style-type: none"> • Separate facilities are not required where the number of slips is less than 25. • Urinals may be substituted for up to 50% of water closets. 	

☐	403.2 Separate Facilities	
	<ul style="list-style-type: none"> • Exception 3 • Separate facilities in mercantile occupancies are not required in which the maximum occupant load is 100 or fewer. 	

☐	403.2.1 Family or Assisted - Use Toilet Serving as Separate Facilities	
	<ul style="list-style-type: none"> • New section allows 2-family/assisted –use toilet facilities to serve as separate facilities in a building where separate facilities are required to have one water closet for each sex. 	

<input type="checkbox"/>	<p>403.3 Required Public Toilet Facilities</p>	
	<ul style="list-style-type: none"> • Exception: Public facilities are not required in open or enclosed parking garages. • Toilet facilities are not required in parking garages where there are no attendants. 	

<input type="checkbox"/>	<p>403.3.2 Toilet Room Location</p> <ul style="list-style-type: none"> • IPC adds language from Building Code: toilet rooms shall not open directly into a room used for preparation of food service to the public. 	
--------------------------	---	---

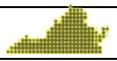
<input type="checkbox"/>	<p>403.3.3 Location of Toilet Facilities in Occupancies Other Than Malls</p> <ul style="list-style-type: none"> • Adds <i>open</i> so there is no distinction of just covered malls. <p><u>VUSBC exception:</u></p> <ul style="list-style-type: none"> • Some exceptions for cemeteries, provided certain conditions are met 	
--------------------------	---	--

<input type="checkbox"/>	<p>403.3.4 Location of Toilet Facilities in Malls</p> <ul style="list-style-type: none"> • Adds <i>open</i> so there is no distinction between just covered malls 	
--------------------------	---	---

<input type="checkbox"/>	<p>403.6 Door Locking</p> <ul style="list-style-type: none"> • New section adds where a toilet room is provided for the use of multiple occupants, the egress door for the room shall not be lockable from inside the room. 	
--------------------------	---	---

<input type="checkbox"/>	<p><u>403.5</u> Drinking Fountain Location</p> <ul style="list-style-type: none"> • New section. • Drinking fountains shall not be required in individual spaces provided public drinking fountains are located within 500 feet (300 feet in malls) of the most remote location in the tenant space and not more than one story above or below the tenant space. Drinking fountains shall be on an accessible route.
--------------------------	---

<input type="checkbox"/>	<p><u>405.3.1</u> Water Closets, Urinals, Lavatories and Bidets</p> <ul style="list-style-type: none"> • Water closet compartments shall not be less than 60 inches in depth for floor-mounted water closets and 56 inches for wall hung closets. 	
--------------------------	---	---

<input type="checkbox"/>	<p><u>405.3.2</u> Public Lavatories</p> <ul style="list-style-type: none"> • VUSBC exception: In educational use occupancies, the required lavatory shall be permitted to be located adjacent to the room or space containing the water closet provided that not more than one operational door is between the water closet and the lavatory. 	
--------------------------	---	---

<input type="checkbox"/>	<p><u>406.2</u> Automatic Clothes Waste Connection</p> <ul style="list-style-type: none"> • The fixture drain for a standpipe for an automatic clothes washer shall connect to a 3" <i>fixture branch</i> or stack.
--------------------------	---

<input type="checkbox"/>	<p><u>407.2</u> and <u>P2713.1</u> Bathtub Waste Outlets and Overflows</p> <ul style="list-style-type: none"> • IPC and IRC add: • Bathtubs shall have an <i>overflow outlet</i> and a <i>water-tight stopper</i>. 	
--------------------------	---	---

<input type="checkbox"/>	<p><u>410.2</u> Minimum Number of Drinking Fountains</p> <ul style="list-style-type: none"> • IPC adds the requirements from the IBC to require a drinking fountain for wheelchair use and standing persons 	
--------------------------	---	---

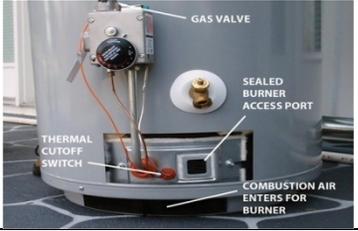
<input type="checkbox"/>	410.3 Drinking Fountains Substitution	
	<ul style="list-style-type: none">Where restaurants provide drinking water in a container free of charge, drinking fountains shall not be required	

<input type="checkbox"/>	410.4 Prohibited Locations (Drinking Fountains)	
	<ul style="list-style-type: none">In the IPC water coolers and bottled water dispensers are included with drinking fountains as being prohibited in public restrooms.	

<input type="checkbox"/>	416.5 Tempered Water for Public Hand-Washing Facilities	
	<ul style="list-style-type: none">Group wash fixtures are added as needing tempered water	

<input type="checkbox"/>	424.9 and P2722.5 Water Closet Personal Hygiene Devices	
	<ul style="list-style-type: none">IPC and IRC add new section that requires conformance to the requirements of ASME A112.4.2	

<input type="checkbox"/>	504.7 and P2801.5 Required Pan	
	<ul style="list-style-type: none">The IPC and IRC clarify that only storage tank type water heaters require a pan	

<input type="checkbox"/>	<u>P2801.6</u> Water Heaters Installed in Garages	
	<ul style="list-style-type: none">• IRC exception: Elevation of the ignition source is not required for appliances that are listed as flammable vapor ignition – resistant	

<input type="checkbox"/>	<u>605.25</u> and <u>P2905.19</u> Polyethylene of Raised Temperature Plastic	
	<ul style="list-style-type: none">• The IPC and IRC add the new material for water service and water distribution piping	

<input type="checkbox"/>	<u>607.1.1</u> Temperature Limiting Means	
	<ul style="list-style-type: none">• New section prohibits using the thermostat of a water heater serving as the temperature limiting means to comply with the maximum allowable hot or tempered water requirements	

<input type="checkbox"/>	<u>607.2</u> Hot or Tempered Water Supply to Fixtures	
	<ul style="list-style-type: none">• The hot or tempered water developed length has been reduced from 100 feet to 50 feet where the water supply shall have a recirculating system or heat-traced piping	

<input type="checkbox"/>	<u>{E}607.5</u> Pipe Insulation	
	<ul style="list-style-type: none">• The IPC details the International Energy Conservation Code requirements for automatic hot water temperature maintenance systems (circulated loop or heat traced).• Not less than 1 inch thick pipe insulation	

<input type="checkbox"/>	<p><u>608.8</u> and <u>P2901.1</u> Identification of Non-Potable Water</p> <ul style="list-style-type: none"> • Deletes <i>in buildings</i>. • Identification of non-potable water required whether it is inside or outside 	
<input type="checkbox"/>	<p><u>608.13.8</u> and <u>P2902.3</u> Spill-Resistant Pressure Vacuum Breakers</p> <ul style="list-style-type: none"> • IPC and IRC change from spill-proof to spill-resistant and adds CSA B64.1.3 standard 	
<input type="checkbox"/>	<p><u>608.14</u> Location of Backflow Preventers</p> <ul style="list-style-type: none"> • Editorial change to as specified by the manufacturer's instructions not approved manufacturer 	
<input type="checkbox"/>	<p><u>608.16.6</u> Connections Subject to Back-Pressure</p> <ul style="list-style-type: none"> • Adds <i>high hazard</i> as the back-pressure that needs protection by a reduced pressure principle backflow preventer assembly 	
<input type="checkbox"/>	<p><u>608.16.10</u> Coffees Machines and Noncarbonated Beverage Dispensers</p> <ul style="list-style-type: none"> • In addition to protection by ASSE 1022 or by an air gap, the VUSBC adds ASSE 1024 	

☐	<u>706.2 and P3002.3.1 Obstructions</u>	
	<ul style="list-style-type: none"> • IPC and IRC add: • Tubular waste fittings used to convey vertical flow upstream of the trap seal liquid level of a fixture trap shall not be considered an obstruction. • 	

☐	<u>Table 709.1 Drainage Fixture Units for Fixtures and Groups</u>	
	<ul style="list-style-type: none"> • Footnote f has <i>in dwelling units</i> deleted. • Additional fixtures to a bathroom group can have the drainage fixture value unit added to any bathroom group not just dwelling units 	

☐	<u>712.3.3 and P30007.3.3 Sumps and Ejectors Discharge Pipe and Fittings</u>	
	<ul style="list-style-type: none"> • The IPC and IRC add the materials suitable for pressurized sewage discharge. • Brass, Copper, CPVC, Ductile Iron, PE or PVC. 	

☐	<u>712.3.3.2 and P3007.3.5 Ratings</u>	
	<ul style="list-style-type: none"> • IPC and IRC add Pipe and fittings shall be rated for the maximum system operating pressure and temperature. 	

☐	<u>802.1.8 Food Utensils, Dishes, Pots and Pans Sinks</u>	
	<ul style="list-style-type: none"> • The IPC deletes <i>directly connected</i> as an option for connecting food preparation sinks in commercial kitchens. 	

<input type="checkbox"/>	<p><u>1003.3.4 Grease Interceptor and Automatic Grease Removal Devices</u></p>	
	<ul style="list-style-type: none"> The IPC in the exception does not require the PDI or ASME standards for interceptors with a volume not less than 500 gallons and are located outdoors 	
<input type="checkbox"/>	<p><u>802.2 Installation</u></p> <ul style="list-style-type: none"> IPC increases from 24" to 30" horizontally or from 4 feet to 54 inches in total developed length the requirement for trapping indirect waste piping. 	
<input type="checkbox"/>	<p><u>802.2 Installation-Exception</u></p> <ul style="list-style-type: none"> Waste receptors receiving only clear water waste and not directly connected to a sanitary drainage system, shall not require a trap 	
<input type="checkbox"/>	<p><u>802.3 and P2706.1 Waste Receptors</u></p> <ul style="list-style-type: none"> IPC and IRC add plenums, crawl spaces, interstitial spaces above ceilings and below floors as locations where waste receptors shall not be installed. 	
<input type="checkbox"/>	<p><u>P2706.1 Waste Receptors Exception 2</u></p>	
	<ul style="list-style-type: none"> The IRC adds clothes washer standpipes shall not be prohibited in bathrooms. 	
<input type="checkbox"/>	<p><u>901.3 Chemical Waste Vent Systems</u></p> <ul style="list-style-type: none"> IPC adds shall terminate outdoors or to an air admittance valve that complies with ASSE 1049 tested for chemical resistance in accordance with ASTM F1412. 	
		

<input type="checkbox"/>	<u>903.5 and P3103.5.1</u> Location of Vent Terminal	
	<ul style="list-style-type: none"> • IPC and IRC change from 2 feet to 3 feet of an opening from other openings unless above the top of such opening. 	
<input type="checkbox"/>	<u>915</u> Combination Waste and Vent System	
	<ul style="list-style-type: none"> • Editorial change from Combination <i>Drain</i> and Vent 	
<input type="checkbox"/>	<u>917</u> Single Stack System	
	<ul style="list-style-type: none"> • System where drainage stack and vertical drains are oversized to allow air for venting. 	
<input type="checkbox"/>	<u>1003.1</u> Interceptors and Separators Where Required	
	<ul style="list-style-type: none"> • Changes from preventing discharges to the building drainage system to discharges to the public sewer. 	
<input type="checkbox"/>	<u>1003.3.1</u> Grease Interceptors and Automatic Grease Removal Devices Required	
	<ul style="list-style-type: none"> • IPC adds one or more grease interceptors shall be permitted to be installed on or above the floor and upstream of an existing grease interceptor 	
<input type="checkbox"/>	<u>1107</u> Siphonic Roof Drainage Systems	
	<ul style="list-style-type: none"> • IPC adds this unconventional roof drainage system. 	

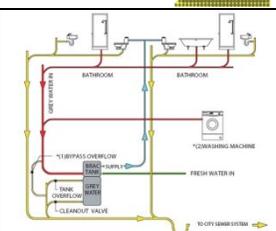
☐	<p>1108 Secondary Roof Drains</p> <ul style="list-style-type: none"> • IPC adds: Where roof drains are required.
---	--

☐	<p>Chapter 13 Non-Potable Water Systems</p> <p>New chapter separates:</p> <ul style="list-style-type: none"> • Gray Water Systems • Rainwater Water Systems • Reclaimed Water Systems
---	---

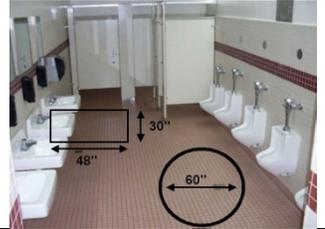
☐	<p>Non-Potable Water Systems</p> <ul style="list-style-type: none"> • Water systems for collection, treatment, storage, distribution and reuse of non-potable water. • Non-potable systems include reclaimed water, rainwater, and gray water systems.
---	---

☐	<p>Reclaimed Water Definition</p> <ul style="list-style-type: none"> • Water resulting from the treatment of domestic, municipal or industrial wastewater that is suitable for a water reuse that is suitable for a water reuse that would otherwise occur. "Gray water" is excluded from definition 	
---	--	--

☐	<p>Rainwater Definition</p> <ul style="list-style-type: none"> • Natural precipitation, including snow melt, from roof surfaces only.
---	---

☐	<p>Gray Water Definition</p> <ul style="list-style-type: none"> • Water discharged from lavatories, bathtubs, showers, clothes washers and laundry trays. 	
---	---	---

<input type="checkbox"/>	<p>Definition: Non-Potable Fixtures and Outlets</p> <p>Fixtures and outlets that are not dependent on potable water for the safe operation to perform their intended use. Such fixtures and may include , but not limited to:</p> <ul style="list-style-type: none"> • Water closets • Urinals • Irrigation • Mechanical equipment • Hose connections to perform operations such as vehicle washing and lawn maintenance
<input type="checkbox"/>	<p>Definition: Storm Water</p> <ul style="list-style-type: none"> • Precipitation that is discharged across the land surface or through conveyances to one or more waterways and that may include storm water runoff, snow melt, runoff, and surface runoff and drainage.
<input type="checkbox"/>	<p><u>IPC 301.3</u> - Exception</p> <ul style="list-style-type: none"> • Bathtubs, showers, lavatories, clothes washers and laundry trays shall not be required to discharge to the sanitary drainage systems where such fixtures discharge to an approved non potable gray water system in accordance with Chapter 13.
<input type="checkbox"/>	<p><u>IPC 602.2.1</u> Non-Potable Fixtures and Outlets</p> <ul style="list-style-type: none"> • New section: • Non-potable water shall be permitted to serve non-potable type fixtures and outlets in accordance with Chapter 13.
<input type="checkbox"/>	<p><u>IPC 1101.2</u> - Exception</p> <ul style="list-style-type: none"> • Rainwater non-potable water systems shall be permitted in accordance with Chapter 13.
<input type="checkbox"/>	<p><u>ICC/A117.1-2009 Chapter 6 Plumbing Elements and Facilities-Drinking Fountains</u></p> <ul style="list-style-type: none"> • 602.2 Exceptions 3 & 4 have been deleted. • In existing buildings, parallel approaches are not permitted to drinking fountains. 

❑	<u>ICC/A117.1-2009 Toilet and Bathing Rooms</u>	
	<ul style="list-style-type: none"> 603.2.1 Turning Space adds the required turning space shall not be provided within a toilet compartment. 	

❑	<u>ICC/ANSI -2009 Swing-Up Grab Bars</u>	
	<ul style="list-style-type: none"> 604.5.3 Swing-up grab bars are deleted from this section. Swing-up grab bars are permitted as required only in Type B units. 	

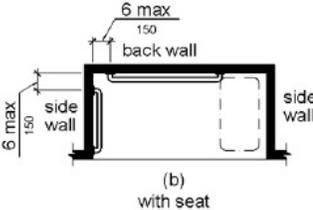
❑	<u>ICC/A117.1-2009 Urinals</u>	
	<ul style="list-style-type: none"> 605.2 Height and depth adds dimensions for stall type urinals. 13 ½ inches minimum in depth measured from the outer face of the urinal rim to the wall. 	

❑	<u>ICC/A117.1-2009 Bathtubs</u>	
	<p>607.5 Controls.</p> <ul style="list-style-type: none"> Clarifies that the controls shall be between the open side of the bathtub and the centerline of the width of the bathtub. 	

❑	<u>ICC/A117.1-2009 Grab Bars at Bathtubs</u>	
	<ul style="list-style-type: none"> Horizontal back wall grab bar can be between 8 inches minimum and 10 inches maximum above the rim of the bathtub. This was a specific height of 9 inches in 2003. 	

☐	ICC/A117.1-2009 Bathtub Hand Shower	
	<ul style="list-style-type: none"> 607.6 Hand Shower adds <i>where provided</i> the adjustable hand shower mounted on a vertical bar shall be installed so as to not obstruct the use of the grab bars. 	

☐	ICC/A117.1-2009 Standard Roll-in Type Shower Seats	
	608.2.2.3 Seat. <ul style="list-style-type: none"> A folding seat shall be provided on an end wall. Exception: A fixed seat shall be permitted where the seat does not overlap the minimum clear inside dimension required in Section 608.2.2.1 	

☐	ICC/A117.1 Grab Bars in Standard Roll In Showers	
	608.3.2 Grab bar required on back wall beginning at edge of seat <ul style="list-style-type: none"> No grab bar above seat. Back wall grab extends length of wall not required more than 48 inches. Opposite side wall of seat if within 72 inches shall extend length of wall but not more than 30 inches. 	

☐	ICC/A117.1-2009 Controls & Hand Showers for Standard Roll-In Showers	
	<ul style="list-style-type: none"> 608.4.2 requires the controls and hand shower to be located on the back wall above the grab bar, 48 inches maximum from the floor and 16 inches minimum and 27 inches maximum from the end wall behind the seat. 	

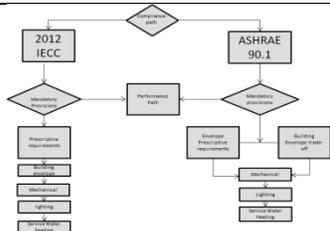
☐	ICC/A117.1 2009 Shower Hand Showers	
	<ul style="list-style-type: none"> 608.5 Hand Showers. Adds <i>where provided</i> the adjustable hand shower mounted on a vertical bar shall be installed so as to not obstruct the use of the grab bars. 	

<input type="checkbox"/>	<p>ICC/A117.1 2009 Hand Showers Exception to 608.5</p>	
	<ul style="list-style-type: none"> In other than Accessible units and Type A units, a fixed shower head located 48 inches maximum above the shower floor shall be permitted in lieu of a hand shower. 	

ENERGY
2012 IECC, 2012 IRC & 2012 USBC

<input type="checkbox"/>	<p>2012 IECC and 2012 IRC Chapter 11</p>	
	<p>New for 2012:</p> <ul style="list-style-type: none"> Residential Energy provisions are located in IRC Chapter 11 and IECC Chapter 4 [RE] Sections in IRC Chapter 11 are subsequently numbered with the corresponding IECC section Commercial Energy provisions are only located in IECC Chapter 4 [CE] 	

<input type="checkbox"/>	<p>IECC C303</p>	
	<ul style="list-style-type: none"> C303.1.3(3) Dynamic Glazing 	

<input type="checkbox"/>	<p>IECC C401</p>	
	<ul style="list-style-type: none"> C401.2 Application 	

☐	IECC C401	
	<ul style="list-style-type: none"> C401.2.1 Existing Buildings 	

☐	IECC C402																																																				
	<ul style="list-style-type: none"> Table C402.2 R-Values 	<table border="1"> <thead> <tr> <th>CLIMATE ZONE</th> <th colspan="2">4 EXCEPT MARINE</th> <th>5 AND MARINE 4</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center;">Roofs</td> </tr> <tr> <td>Insulation per se only</td> <td>R-25</td> <td>R-25</td> <td>R-25</td> </tr> <tr> <td>Insulation above Deck</td> <td>R-25</td> <td>R-25</td> <td>R-25</td> </tr> <tr> <td>Roofing</td> <td>R-1</td> <td>R-1</td> <td>R-1</td> </tr> <tr> <td>Roofing with R-5 Thermal Breakdown</td> <td>R-19 + R-22 LS</td> <td>R-19 + R-11 LS</td> <td>R-11 LS</td> </tr> <tr> <td>APIC and other</td> <td>R-38</td> <td>R-38</td> <td>R-38</td> </tr> <tr> <td colspan="4" style="text-align: center;">Walls Above Grade</td> </tr> <tr> <td>Mass</td> <td>R-9</td> <td>R-11</td> <td>R-11</td> </tr> <tr> <td>Roofing</td> <td>R-1</td> <td>R-1</td> <td>R-1</td> </tr> <tr> <td>Roofing with R-5 Thermal Breakdown</td> <td>R-19 + R-22 LS</td> <td>R-19 + R-11 LS</td> <td>R-11 LS</td> </tr> <tr> <td>Roofing</td> <td>R-7.5</td> <td>R-7.5</td> <td>R-7.5</td> </tr> <tr> <td>Wood framed and other</td> <td>R-13 + R-3.5</td> <td>R-13 + R-3.5</td> <td>R-13 + R-3.5</td> </tr> </tbody> </table>	CLIMATE ZONE	4 EXCEPT MARINE		5 AND MARINE 4	Roofs				Insulation per se only	R-25	R-25	R-25	Insulation above Deck	R-25	R-25	R-25	Roofing	R-1	R-1	R-1	Roofing with R-5 Thermal Breakdown	R-19 + R-22 LS	R-19 + R-11 LS	R-11 LS	APIC and other	R-38	R-38	R-38	Walls Above Grade				Mass	R-9	R-11	R-11	Roofing	R-1	R-1	R-1	Roofing with R-5 Thermal Breakdown	R-19 + R-22 LS	R-19 + R-11 LS	R-11 LS	Roofing	R-7.5	R-7.5	R-7.5	Wood framed and other	R-13 + R-3.5	R-13 + R-3.5
CLIMATE ZONE	4 EXCEPT MARINE		5 AND MARINE 4																																																		
Roofs																																																					
Insulation per se only	R-25	R-25	R-25																																																		
Insulation above Deck	R-25	R-25	R-25																																																		
Roofing	R-1	R-1	R-1																																																		
Roofing with R-5 Thermal Breakdown	R-19 + R-22 LS	R-19 + R-11 LS	R-11 LS																																																		
APIC and other	R-38	R-38	R-38																																																		
Walls Above Grade																																																					
Mass	R-9	R-11	R-11																																																		
Roofing	R-1	R-1	R-1																																																		
Roofing with R-5 Thermal Breakdown	R-19 + R-22 LS	R-19 + R-11 LS	R-11 LS																																																		
Roofing	R-7.5	R-7.5	R-7.5																																																		
Wood framed and other	R-13 + R-3.5	R-13 + R-3.5	R-13 + R-3.5																																																		

☐	IECC C402																																	
	<ul style="list-style-type: none"> Table C402.3 U-Factor 	<table border="1"> <thead> <tr> <th>CLIMATE ZONE</th> <th>4 EXCEPT MARINE</th> <th>5 AND MARINE 4</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="text-align: center;">Vertical fenestration</td> </tr> <tr> <td colspan="3">U-factor</td> </tr> <tr> <td>Fixed fenestration</td> <td>0.38</td> <td>0.38</td> </tr> <tr> <td>Operable fenestration</td> <td>0.45</td> <td>0.45</td> </tr> <tr> <td>Entrance doors</td> <td>0.77</td> <td>0.77</td> </tr> <tr> <td colspan="3">SHGC</td> </tr> <tr> <td></td> <td>0.40</td> <td>0.40</td> </tr> <tr> <td colspan="3" style="text-align: center;">Skylights</td> </tr> <tr> <td>U-factor</td> <td>0.50</td> <td>0.50</td> </tr> <tr> <td>SHGC</td> <td>0.40</td> <td>0.40</td> </tr> </tbody> </table>	CLIMATE ZONE	4 EXCEPT MARINE	5 AND MARINE 4	Vertical fenestration			U-factor			Fixed fenestration	0.38	0.38	Operable fenestration	0.45	0.45	Entrance doors	0.77	0.77	SHGC				0.40	0.40	Skylights			U-factor	0.50	0.50	SHGC	0.40
CLIMATE ZONE	4 EXCEPT MARINE	5 AND MARINE 4																																
Vertical fenestration																																		
U-factor																																		
Fixed fenestration	0.38	0.38																																
Operable fenestration	0.45	0.45																																
Entrance doors	0.77	0.77																																
SHGC																																		
	0.40	0.40																																
Skylights																																		
U-factor	0.50	0.50																																
SHGC	0.40	0.40																																

☐	IECC C402	
	<ul style="list-style-type: none"> C402.3.1 Fenestration Max Area 	

☐	IECC C402			
	<ul style="list-style-type: none"> Table C402.3.3.1 SHGC Adjustment 	PROJECTION FACTOR	ORIENTED WITHIN 45 DEGREES OF TRUE NORTH	ALL OTHER ORIENTATION
		$0.2 \leq PF < 0.5$	1.1	1.2
		$PF \leq 0.5$	1.2	1.6

☐	IECC C402	
	<ul style="list-style-type: none"> C402.4.1 Air Barriers 	

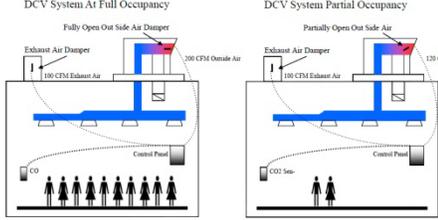
☐	IECC C402	
	<ul style="list-style-type: none"> C402.4.1.2.3 Building Test 	

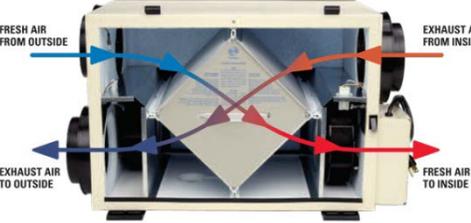
☐	IECC C402	
	<ul style="list-style-type: none"> C402.4.4 Doors and Access Openings 	

☐	IECC C402	
	<ul style="list-style-type: none"> C402.4.7 Vestibules 	

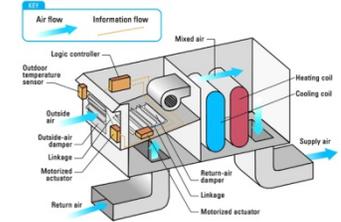
☐	IECC C403																			
	<ul style="list-style-type: none"> C403.2.3 HVAC Equipment Performance (Efficiency Tables) 	<table border="1"> <caption>TABLE C403.2.3(1) MINIMUM EFFICIENCY REQUIREMENTS: ELECTRICALLY OPERATED UNITARY AIR CONDITIONERS AND CONDENSING UNITS</caption> <thead> <tr> <th>EQUIPMENT TYPE</th> <th>SIZE CATEGORY</th> <th>HEATING SECTION TYPE</th> <th>SUBCATEGORY RATING COR.</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Air conditioners, air cooled</td> <td rowspan="2">< 65,000 Btu/h^a</td> <td rowspan="2">All</td> <td>Split System</td> </tr> <tr> <td>Single Package</td> </tr> <tr> <td rowspan="2">Through-the-wall (air cooled)</td> <td rowspan="2">≤ 30,000 Btu/h^a</td> <td rowspan="2">All</td> <td>Split system</td> </tr> <tr> <td>Single Package</td> </tr> <tr> <td rowspan="2">Small-duct high-velocity (air cooled)</td> <td rowspan="2">< 65,000 Btu/h^a</td> <td rowspan="2">All</td> <td>Split System</td> </tr> <tr> <td>Electric Resistance (or None)</td> </tr> </tbody> </table>	EQUIPMENT TYPE	SIZE CATEGORY	HEATING SECTION TYPE	SUBCATEGORY RATING COR.	Air conditioners, air cooled	< 65,000 Btu/h ^a	All	Split System	Single Package	Through-the-wall (air cooled)	≤ 30,000 Btu/h ^a	All	Split system	Single Package	Small-duct high-velocity (air cooled)	< 65,000 Btu/h ^a	All	Split System
EQUIPMENT TYPE	SIZE CATEGORY	HEATING SECTION TYPE	SUBCATEGORY RATING COR.																	
Air conditioners, air cooled	< 65,000 Btu/h ^a	All	Split System																	
			Single Package																	
Through-the-wall (air cooled)	≤ 30,000 Btu/h ^a	All	Split system																	
			Single Package																	
Small-duct high-velocity (air cooled)	< 65,000 Btu/h ^a	All	Split System																	
			Electric Resistance (or None)																	

<input type="checkbox"/>	<p>IECC C403</p>	
	<ul style="list-style-type: none"> • C403.2.4.3.3 Automatic Start Capabilities 	

<input type="checkbox"/>	<p>IECC C403</p> <ul style="list-style-type: none"> • C403.2.5.1 Demand Control Ventilation 	
--------------------------	---	--

<input type="checkbox"/>	<p>IECC C403</p> <ul style="list-style-type: none"> • C403.2.6 Energy Recovery Ventilation 	
--------------------------	--	---

<input type="checkbox"/>	<p>IECC C403</p> <ul style="list-style-type: none"> • C 403.2.8, 403.2.8.1 Piping Insulation 	
--------------------------	--	---

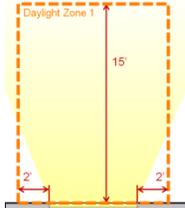
<input type="checkbox"/>	<p>IECC C403</p> <ul style="list-style-type: none"> • Content/slide text 	
--------------------------	--	---

☐	IECC C404	
	<ul style="list-style-type: none"> • C 404.7 Pools and In-Ground Permanently Installed Spas 	

☐	IECC C405	
	<ul style="list-style-type: none"> • C405.1 Lighting in Commercial Dwelling Units 75% of all Fixtures fitted with High Efficacy Lamps 	

☐	IECC C405	
	<ul style="list-style-type: none"> • C405.2.2 Additional Lighting Controls 	

☐	IECC C405	
	<ul style="list-style-type: none"> • C405.2.2.1 & .2 Automatic Lighting Controls, Timed Switched Devices or Occupancy Sensors 	

☐	IECC C405	
	<ul style="list-style-type: none"> • C405.2.2.3 Daylight Zone Controls 	

<input type="checkbox"/>	IECC C405	
	<ul style="list-style-type: none"> C405.2.3 Specific Application Controls 	

<input type="checkbox"/>	IECC C405																										
	<ul style="list-style-type: none"> C405.5.2 (2) Interior Lighting 	<table border="1"> <thead> <tr> <th>Common Space-by-Space Types</th> <th>LPD (w/ft²)</th> </tr> </thead> <tbody> <tr> <td>Atrium – First 40 feet in height</td> <td>0.03 per ft. ht.</td> </tr> <tr> <td>Atrium – Above 40 feet in height</td> <td>0.02 per ft. ht.</td> </tr> <tr> <td>Audience/seating area – permanent</td> <td></td> </tr> <tr> <td> For auditorium</td> <td>0.9</td> </tr> <tr> <td> For performing arts theater</td> <td>2.6</td> </tr> <tr> <td> For motion picture theater</td> <td>1.2</td> </tr> <tr> <td>Classroom/lecture/training</td> <td>1.30</td> </tr> <tr> <td>Conference/meeting/multipurpose</td> <td>1.2</td> </tr> <tr> <td>Corridor/transition</td> <td>0.7</td> </tr> <tr> <td>Dining area</td> <td></td> </tr> <tr> <td> Bar/lounge/leisure dining</td> <td>1.40</td> </tr> <tr> <td> Family dining area</td> <td>1.40</td> </tr> </tbody> </table>	Common Space-by-Space Types	LPD (w/ft ²)	Atrium – First 40 feet in height	0.03 per ft. ht.	Atrium – Above 40 feet in height	0.02 per ft. ht.	Audience/seating area – permanent		For auditorium	0.9	For performing arts theater	2.6	For motion picture theater	1.2	Classroom/lecture/training	1.30	Conference/meeting/multipurpose	1.2	Corridor/transition	0.7	Dining area		Bar/lounge/leisure dining	1.40	Family dining area
Common Space-by-Space Types	LPD (w/ft ²)																										
Atrium – First 40 feet in height	0.03 per ft. ht.																										
Atrium – Above 40 feet in height	0.02 per ft. ht.																										
Audience/seating area – permanent																											
For auditorium	0.9																										
For performing arts theater	2.6																										
For motion picture theater	1.2																										
Classroom/lecture/training	1.30																										
Conference/meeting/multipurpose	1.2																										
Corridor/transition	0.7																										
Dining area																											
Bar/lounge/leisure dining	1.40																										
Family dining area	1.40																										

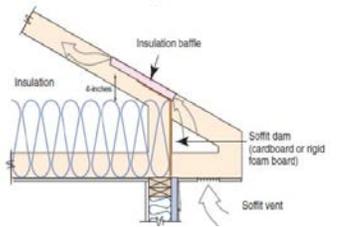
<input type="checkbox"/>	IECC C406	
	<ul style="list-style-type: none"> C 406.1 Additional Efficiency Package Options 	<p>Pick One:</p> <div style="border: 1px solid green; padding: 5px; text-align: center; margin-bottom: 5px;"> C406.2 – Eff. HVAC Performance </div> <p style="text-align: center;">OR</p> <div style="border: 1px solid green; padding: 5px; text-align: center; margin-bottom: 5px;"> C406.3 – Eff. Lighting Systems </div> <p style="text-align: center;">OR</p> <div style="border: 1px solid green; padding: 5px; text-align: center;"> C406.4 – On-site Renewable Energy </div>

<input type="checkbox"/>	IECC C406	
	<p>C406.2 Efficient HVAC Performance (Option #1)</p> <ul style="list-style-type: none"> Tables C406.2(1) through C406.2(7) Greater efficiencies than those in C403.2.3 	

<input type="checkbox"/>	IECC C406	
	<p>C406.3 Efficient Lighting System (Option #2)</p> <ul style="list-style-type: none"> Reduced lighting power density per Table C406.3 Applies to the whole building (not space by space) 	

<input type="checkbox"/>	<p>IECC C406</p> <p>C406.4 On-Site Renewable Energy (Option #3)</p> <ul style="list-style-type: none"> • Provide ≥ 1.75 Btu or not less than 0.50 watts per square foot of conditioned floor area OR • Provide $\geq 3\%$ of energy used for mechanical and service water heating equipment and lighting 	
<input type="checkbox"/>	<p>IECC C407</p> <ul style="list-style-type: none"> • C407.3 Performance Based Compliance 	<p> Building energy cost to be $\leq 85\%$ of standard reference design building</p>
<input type="checkbox"/>	<p>2012 IECC and 2012 IRC Chapter 11</p> <p>New for 2012:</p> <ul style="list-style-type: none"> • <u>Residential</u> Energy provisions are located in IRC Chapter 11 and IECC Chapter 4 [RE] • Sections in IRC Chapter 11 are subsequently numbered with the corresponding IECC section • <u>Commercial</u> Energy provisions are only located in IECC Chapter 4 [CE] 	
<input type="checkbox"/>	<p>IRC N1102/IECC R402</p> <p>Table N1102.1.1 (R402.1.1) and Table N1102.1.3 (402.1.3) R-Value changes Climate Zone 4</p> <ul style="list-style-type: none"> • Wood-framed walls – R 15 or 13 + 1 • Ceilings – R 38 • Mass Walls – 8/13 • Ceiling U-factor – 0.030 • Frame Wall U-factor – 0.079 	

☐	IRC N1102/IECC R402	
	Table N1102.1.1 (R402.1.1) USBC Amendment <ul style="list-style-type: none"> • Climate Zone 4 Skylight U Factor – 0.55 • Solar Heat Gain Coefficient (SHGC) – 0.40 	

☐	IRC N1102/IECC R402	
	N1102.2.1 (R402.2.1) Ceilings with attic spaces - <ul style="list-style-type: none"> • This section allows for reduced R values of ceiling insulation when a raised-heel (energy) truss is used. • USBC amended ceiling R-values to require R-38 and R-30 with Energy Truss 	Energy Truss with full height insulation (recommended) 

☐	IRC N1102/IECC R402	
	N1102.2.3 (R402.2.3) Eave Baffle – Required in attics when air-permeable insulation is used.	

☐	IRC N1102/IECC R402	
	N1102.2.4 (R402.2.4) Access hatches and doors – Virginia amended entire section <ul style="list-style-type: none"> • In addition to weather-stripping, certain doors and hatches, such as hinged vertical doors, pull down, and hatches and scuttle covers must be insulated per this section 	

☐	IRC N1102/IECC R402	
	Table N1102.2.6 (R402.2.6) Changes to insulation R-Value requirements for steel framed walls	

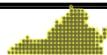
☐	IRC N1102/IECC R402	
	<p>N1102.2.12 (R402.2.12) Sunrooms -</p> <ul style="list-style-type: none"> • Energy Code requires all walls separating sunrooms from conditioned space to meet current R – Value requirements for insulation. 	

☐	IRC N1102/IECC R402	
	<p>N1102.3.5 (R 402.3.5) Sunroom <i>U</i>-Factor – New <i>U</i>-Factor requirements for sunrooms</p> <ul style="list-style-type: none"> • Maximum fenestration <i>U</i>-Factor of .45 and maximum skylight <i>U</i>-Factor of .70 • Exceptions for thermally isolated sunrooms 	

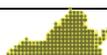
☐	IRC N1104/IECC R402	
	<p>N1102.4 (R402.4) Air leakage – Virginia has amended the following criteria in Table N1102.1.1.1 (402.1.1.1)</p> <ul style="list-style-type: none"> • Walls-corners and headers shall be completely filled with R 3 • Shower/Tub on exterior wall-air barrier installed on interior side of wall • Fireplace-gasketed doors <u>or</u> tight-fitting flue dampers required <p>Two notes added to table</p>	

☐	IRC N1102/IECC R402	
	<ul style="list-style-type: none"> • N1102.4.1.2.2 /R402.4.1.2.2 Testing – Virginia amended this section to add Visual Option back in. • Envelope tightness acceptable when all items in Table N1102.4.1.1 (R402.4.1.1) are field verified. 	

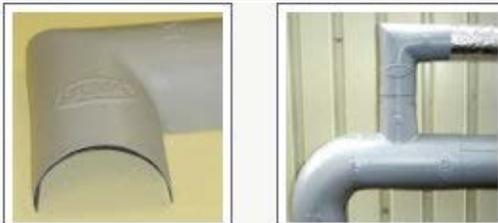
☐	IRC N1102/IECC R402	
	<ul style="list-style-type: none"> • N1102.4.1.3 (R402.4.1.3) Leakage Rate – The building or dwelling shall not have a leakage rate exceeding 5 Air Changes per hour (ACH) • Note: new section in IRC, R303.4 Mechanical Ventilation • Requires whole-house mechanical ventilation when <u>less than</u> 5 ACH is obtained as verified by <u>Blower Door Testing</u> 	

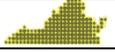
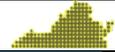
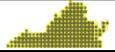
<input type="checkbox"/>	IRC N1103/IECC R403	
	<ul style="list-style-type: none"> • N1103.1.1 (R403.1.1) Programmable Thermostat – Amended by Virginia • The thermostat controlling the <u>primary heating and cooling system</u> must meet the requirements of this section 	

<input type="checkbox"/>	IRC N1103/IECC R403	
	<ul style="list-style-type: none"> • N1103.2.2 (R403.2.2) Sealing - All ducts, air handlers and filter boxes shall be sealed IAW IMC to minimize leakage. <p>Three new exceptions:</p> <ul style="list-style-type: none"> • Air impermeable spray foam permitted • Partially inaccessible duct connections shall have 3 screws equally spaced used on exposed portion of joint • Continuously welded or locking-type longitudinal joints and seams for systems of 2 inches of wc or less 	

<input type="checkbox"/>	IRC N1103/IECC R403	
	<p>N1103.2.2.1 (R403.2.2.1) Testing option</p> <ul style="list-style-type: none"> • Post Construction testing – Total leakage shall be less than or equal to <u>6</u> cfm/100 sq. ft. of conditioned floor area • Rough-in testing – Total leakage shall be less than or equal to <u>5</u> cfm/100 sq. ft. of conditioned floor area • USBC amendment Visual Option allowed 	

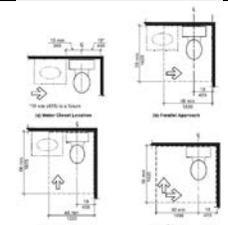
<input type="checkbox"/>	IRC N1103/IECC R403	
	<ul style="list-style-type: none"> • N1103.2.2.1 (R403.2.2.1) Air handlers shall include manufacturer’s designation for an air leakage of no more than 2 percent of the design air flow rate IAW ASHRAE 193. 	

<input type="checkbox"/>	IRC N1103/IECC R403	
	<ul style="list-style-type: none"> • N1103.3.1 (R403.3.1) Piping insulation shall be protected from damage when exposed to weather, including sunlight, moisture, equipment maintenance, wind, and solar radiation. • Tape cannot be used. 	

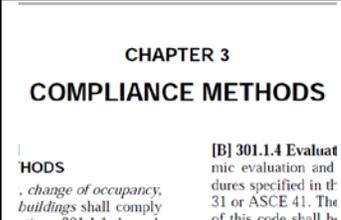
<input type="checkbox"/>	IRC N1103/IECC R403 	
	<ul style="list-style-type: none"> • N1103.4.2 (R403.4.2) Piping for service water heating shall be insulated to R-3. Va. USBC Amendment. <p>Deleted Table N1103.4.2 (R403.4.2) and added the following criteria:</p> <ul style="list-style-type: none"> • 1. Larger than ¾" nominal diameter • 2. Piping serving for than one dwelling unit • 3. Located outside the conditioned space • 4. From the water heater to a distribution manifold • 5. Located under floor slab or Buried piping • 6. All Piping in recirculating systems 	
<input type="checkbox"/>	IRC N1103/IECC R403	
	<ul style="list-style-type: none"> • N1103.6 (R403.6) Mechanical equipment shall be sized IAW ACCA Manual S and building loads calculated IAW ACCA Manual J <u>or other <i>approved</i> heating and cooling calculation methods.</u> 	
<input type="checkbox"/>	IRC N1104/IECC R404 	
	<ul style="list-style-type: none"> • N1104.1 (R404.1) A minimum of 50% of the lamps in permanently installed lighting fixtures shall be high-efficacy. • Amended by Virginia to remain at 50% vs. 75%. 	
<input type="checkbox"/>	IRC N1104/IECC R404	
	<ul style="list-style-type: none"> • N1104.1.1 (R404.1.1) Fuel gas lighting systems shall not have continuously burning pilots. 	
<input type="checkbox"/>	IRC N1105/IECC R405 	
	<ul style="list-style-type: none"> • Table N1105.5.2(1) (R405.5.2(1)) Changes to table for Air Exchange Rate, Heating Systems, Cooling Systems and Thermal Distribution Systems so Standard Reference Design Table is compatible with Virginia changes. • Standard Reference Design only to be used as a baseline for comparing Performance-Based Design. 	

**Virginia Rehabilitation Code
(2012 VRC)**

☐	2012 VRC Overview	
	<ul style="list-style-type: none"> • Now a mandatory document for rehabilitation, reconstruction, alteration, repair, and change of occupancy of existing buildings <ul style="list-style-type: none"> ○ Except R5 – Optional ○ I2 and I3 must follow VCC • Admin provisions previously found in the VCC now located in VRC 	

☐	2012 VRC Overview	
	<ul style="list-style-type: none"> • Retrofit requirements previously in IBC Chapter 34 now in VRC Chapter 17 • Numerous changes regarding the application of Type B Dwelling Units • Considerable work to seismic and structural requirements 	

☐	202 Definitions	
	<ul style="list-style-type: none"> • Dangerous – new addition to definition • Substantial Structural Damage – revised definition 	

☐	Chapter 3 Compliance Methods	
	<ul style="list-style-type: none"> • Changed from Prescriptive Compliance Method which is now Chapter 4 <ul style="list-style-type: none"> ○ Now list all compliance methods ○ Combines common requirements previously found in each of the three compliance methods 	

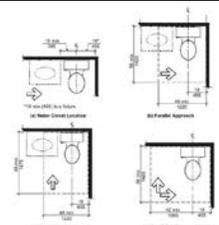
☐	Chapter 4 Prescriptive Compliance Method	
	<ul style="list-style-type: none"> • 401.2 – Adds building systems to scope • 401.3 – Building Official authority to order elimination of <i>dangerous</i> conditions 	

☐	Additions	
	<ul style="list-style-type: none"> • 402.2 – Removes the term “substantial damage” from the exemption to comply with flood design • 402.5 – Smoke detectors in existing buildings with additions Group R and I-1 	

☐	Alterations	
	<ul style="list-style-type: none"> • 403.6 - Smoke detectors in existing buildings with additions Group R and I-1 <ul style="list-style-type: none"> ○ Previous 403.6, Means of egress capacity factors has been deleted 	

☐	Repairs	
	<ul style="list-style-type: none"> • 404.2 Substantial structural damage • 404.3.1 Lateral force-resisting elements Seismic Exceptions • 404.4 Less than substantial structural damage 	

☐	Change of Occupancy	
	<ul style="list-style-type: none"> • 407.4 Structural Seismic requirements <ul style="list-style-type: none"> ○ New use must meet new building requirements unless it is already compliant ○ Exempts Risk Category I and II to III in some instances from compliance 	

☐	Change of Occupancy – Historic Buildings	
	<ul style="list-style-type: none"> • 410.4 Type B units required when work area is greater than 50% of the aggregate building area • 410.4.2 – Accessible features not required to accessible route to type B units 	

☐	Change of Occupancy – Accessibility for Existing Structures	
	<ul style="list-style-type: none"> • 410.4.2 Complete change of occupancy <ul style="list-style-type: none"> ○ Exception: The accessible features listed are not required for an accessible route to Type B units 	

☐	Alterations	
	<ul style="list-style-type: none"> • 410.6 Alterations <ul style="list-style-type: none"> ○ New guidance for individually owned R2 dwelling units 	

☐	Accessibility for Existing Structures	
	<ul style="list-style-type: none"> • 410.8.8 Type A dwelling or sleeping units <ul style="list-style-type: none"> ○ Where more than 20 Group R-2 dwelling or sleeping units are being altered or added ○ Number of Type A units apply only to the quantity of the spaces being altered or added 	

☐	Accessibility for Existing Structures	
	<ul style="list-style-type: none"> • 410.8.9 Type B dwelling or sleeping units <ul style="list-style-type: none"> ○ Group I-1, I-2, R-1, R-2, R-3 or R-4 dwelling or sleeping units are being altered; and ○ Work area is greater than 50 percent of the aggregate area of the building, <ul style="list-style-type: none"> ▪ Type B units apply only to the quantity being altered 	

☐		
	<ul style="list-style-type: none"> • 410.9 Historic buildings <ul style="list-style-type: none"> ○ <i>Facilities</i> designated as historic structures that undergo <i>alterations</i> or a <i>change of occupancy</i>, unless <i>technically infeasible</i> <ul style="list-style-type: none"> ▪ New Exception 	

<input type="checkbox"/>	<p>Repairs</p>
	<ul style="list-style-type: none"> • 606.2.2 Substantial Structural Damage to Vertical Elements Of The Lateral Force-Resisting System <ul style="list-style-type: none"> ○ Exceptions: <ul style="list-style-type: none"> ▪ New Exceptions from Seismic requirements ▪ One- and two-family dwellings not to be evaluated or rehabilitated for load combinations that include earthquake effects

<input type="checkbox"/>	<p>Repairs</p>	
	<ul style="list-style-type: none"> • 606.2.2.1 Evaluation <ul style="list-style-type: none"> ○ New provisions for load combinations that include wind or earthquake 	

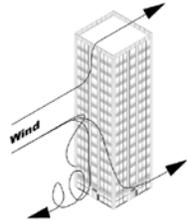
<input type="checkbox"/>	<p>Accessibility</p>
	<ul style="list-style-type: none"> • 705.1 General <ul style="list-style-type: none"> ○ Exceptions <ul style="list-style-type: none"> ▪ Type B dwelling not required to be provided in existing <i>facilities</i> undergoing less than a Level 3 alteration ▪ The alteration to Type A individually owned dwelling units within a Group R-2 occupancy shall meet the provisions for Type B dwelling units

<input type="checkbox"/>	<p>Accessibility</p>
	<ul style="list-style-type: none"> • 705.2 Alterations Affecting an Area Containing a Primary Function <ul style="list-style-type: none"> ○ New Exception <ul style="list-style-type: none"> ▪ 5. This provision does not apply to altered areas limited to Type B dwelling and sleeping units

<input type="checkbox"/>	<p>Structural</p>
	<ul style="list-style-type: none"> • 706.3.2 Roof Diaphragms Resisting Wind Loads in High-Wind Regions • Important requirement for our costal and special wind areas with 90 MPH or higher wind design requirements • If more than 50% of the roof covering is being removed, then the roof diaphragm connections must be evaluated. If the evaluation reveals that they are not capable of resisting at least 75% of the designed wind pressure, they must be replaced or strengthened.

☐	Fire Protection	
	<ul style="list-style-type: none"> • 804.2.2 Groups A, B, E, F-1, H, I, M, R-1, R-2, R-4, S-1 and S-2 <ul style="list-style-type: none"> ○ New exceptions to fire protection 	

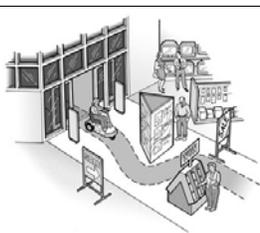
☐	Fire Protection	
	<ul style="list-style-type: none"> • 804.4.3 Smoke alarms <ul style="list-style-type: none"> ○ Requires use R and I-1 to be provided with interconnected smoke detection. However, the interconnection is not required to detectors outside of the work area. 	

☐	Structural	
	<ul style="list-style-type: none"> • 807.5 Existing Structural Elements Resisting Lateral Loads <ul style="list-style-type: none"> ○ Provides for alterations affecting lateral loads in a Level II alteration to be evaluated. In addition, if they are found to be greater than 10% deficient, there are new compliance requirements 	

☐	Fire Protection	
	<ul style="list-style-type: none"> • 906.2 Type B Dwelling or Sleeping Units <ul style="list-style-type: none"> ○ Where four or more units in I-1, I-2, R-1, R-2, R-3 or R-4 are being altered or added, Type B units altered/added shall have visible alarms 	

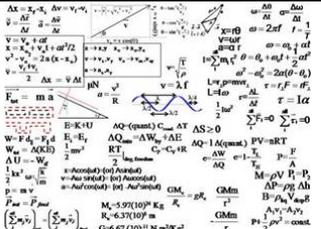
☐	Structural	
	<ul style="list-style-type: none"> • 907.4 Existing Structural Elements Resisting Lateral Loads <ul style="list-style-type: none"> ○ Removes reference to Level I and Level II Alterations • 907.4.2 Substantial Structural Alteration <ul style="list-style-type: none"> ○ Change from 1 year to 5 years current or proposed structural modifications for application of this section 	

<input type="checkbox"/>	<p>Structural</p>	
	<ul style="list-style-type: none"> • 907.4.3 Limited Structural Alteration <ul style="list-style-type: none"> ○ Section significantly simplified • 907.4.4 Wall Anchors for Concrete and Masonry Buildings <ul style="list-style-type: none"> ○ New wall anchoring requirements in Seismic Design Category D, E or F • 907.4.5 Bracing for Unreinforced Masonry Parapets <ul style="list-style-type: none"> ○ New bracing requirements for unreinforced masonry in Seismic Design Category D, E or F 	
<input type="checkbox"/>	<p>Special Use and Occupancy</p>	
	<ul style="list-style-type: none"> • 1002.1 Compliance with the Building Code <ul style="list-style-type: none"> ○ 10. Ambulatory care facilities added 	
<input type="checkbox"/>	<p>Structural</p>	
	<ul style="list-style-type: none"> • 1007.2 Snow and wind loads <ul style="list-style-type: none"> ○ "Occupancy Category" changed to "Risk Category" 	
<input type="checkbox"/>	<p>General Change of Occupancy Provisions</p>	
	<ul style="list-style-type: none"> • 1012.5.1.1 Fire wall alternative <ul style="list-style-type: none"> ○ In other than Groups H, F-1 and S-1 ○ Fire barriers and horizontal assemblies are permitted to be used in lieu of fire walls to comply with the area limitation ○ Additional criteria must be met 	

<input type="checkbox"/>	<p>General Change of Occupancy Provisions</p>	
	<ul style="list-style-type: none"> • 1012.8 Accessibility <ul style="list-style-type: none"> ○ Exception: Type B dwelling/sleeping units required by the IBC are not required in existing buildings and facilities undergoing a <i>change of occupancy</i> in conjunction with less than a Level 3 alteration 	
<input type="checkbox"/>	<p>General Change of Occupancy Provisions</p>	
	<ul style="list-style-type: none"> • 1012.8.1 Partial change in occupancy <ul style="list-style-type: none"> ○ Adds Section 906 to provisions that must be complied with for partial change of occupancy 	
<input type="checkbox"/>	<p>General Change of Occupancy Provisions</p>	
	<ul style="list-style-type: none"> • 1012.8.2 Complete change of occupancy <ul style="list-style-type: none"> ○ New exception: <ul style="list-style-type: none"> ▪ The accessible features listed in this section are not required for an accessible route to Type B units 	
<input type="checkbox"/>	<p>Additions</p>	
	<ul style="list-style-type: none"> • Accessibility <ul style="list-style-type: none"> ○ 1105.1 Minimum requirements <ul style="list-style-type: none"> ▪ Adds Section 906 to requirements 	
<input type="checkbox"/>	<p>Additional Energy Conservation</p>	
	<ul style="list-style-type: none"> • 1106.1 Minimum requirements <ul style="list-style-type: none"> ○ <i>Additions to existing buildings</i> shall comply with requirements for new construction 	

<input type="checkbox"/>	<p>Structrual</p> <ul style="list-style-type: none"> • 1201.2 Report <ul style="list-style-type: none"> ○ A historic building undergoing repair, alteration, or change of occupancy <ul style="list-style-type: none"> ▪ At a minimum, the vertical and horizontal elements of the lateral force-resisting system shall be evaluated 	
<input type="checkbox"/>	<p>Repairs</p> <ul style="list-style-type: none"> • 1202.1 General <ul style="list-style-type: none"> ○ Limits the use of hazardous material to only where permitted in the new construction code. 1202.2 Unsafe conditions • 1202.2 Unsafe conditions <ul style="list-style-type: none"> ○ Gives the code official the authority to order repairs to unsafe conditions in historic buildings 	
<input type="checkbox"/>	<p>Repairs</p> <ul style="list-style-type: none"> • Chapter 5 compliance deleted • 1202.4 Replacement <ul style="list-style-type: none"> ○ Same for Same replacements permitted ○ Replacement glazing in hazardous locations shall comply with new glass requirements <ul style="list-style-type: none"> ▪ Exception: Glass block walls, louvered windows, and jalousies repaired with like materials 	
<input type="checkbox"/>	<p>Alterations</p> <ul style="list-style-type: none"> • 1204.1 Accessibility requirements • Adds Section 906 to sections to be complied with 	
<input type="checkbox"/>	<p>Accessibility</p> <ul style="list-style-type: none"> • Type B dwelling/sleeping units are not required to be provided in historical buildings • 	

<input type="checkbox"/>	<p>Structural</p>	
	<ul style="list-style-type: none"> • 1206.2 Dangerous conditions <ul style="list-style-type: none"> ○ Building Official authority to order elimination of <i>dangerous</i> conditions 	

<input type="checkbox"/>	<p>Performance Compliance Method</p>	
	<ul style="list-style-type: none"> • 1401.6.2.1 Allowable area formula <ul style="list-style-type: none"> ○ New formula for allowable area scoring 	

<input type="checkbox"/>	<p>Performance Compliance Method</p>	
	<ul style="list-style-type: none"> • [B] 1401.6.14.1 Categories (elevator) <ul style="list-style-type: none"> ○ Corrected terminology for evaluating and scoring elevator safety 	

<input type="checkbox"/>	<p>Performance Compliance Method</p>	
	<ul style="list-style-type: none"> • 1401.6.19 Incidental uses <ul style="list-style-type: none"> ○ New criteria for evaluating and scoring fire protection and life safety in incidental uses 	

<input type="checkbox"/>	<p>Chapter 15 – Safeguards Against Construction</p>	
	<ul style="list-style-type: none"> • 1501.5 Fire safety during construction <ul style="list-style-type: none"> ○ Fire safety during construction shall comply with the applicable requirements of the <i>IBC and IFC</i> 	

FIRE
2012 IFC & 2012 VA SFPC

<input type="checkbox"/>	SFPC Chapter 1 <ul style="list-style-type: none">• Changes to the numbering throughout the entire chapter• Code Officials should review Chapter 1 and make necessary updates.
<input type="checkbox"/>	103.2 Amendments <ul style="list-style-type: none">• All requirements of the reference codes and standards that relate to fees, non-operational permits, unsafe notices, disputes, condemnation, inspections, scope of enforcement and all other procedural, and administrative matters are deleted and replaced by provisions of Chapter 1 of the SFPC
<input type="checkbox"/>	Table 107.2 Operational Permit Requirements <ul style="list-style-type: none">• Multiple editorial changes to the table• Operational permit requirements now direct to 5601 for explosives• Operational permit required to remove paint with torch or use open flame in wildfire hazard area
<input type="checkbox"/>	107.12 And 107.14 Fees <ul style="list-style-type: none">• Lots of new fees for state fire marshal• Fee for bonfires on state property• Fee for replacement certificate 
<input type="checkbox"/>	108.3.7 Information on the Permit <ul style="list-style-type: none">• Fire officials may use electronic signature – consistent with USBC 

<input type="checkbox"/>	<u>111.1.1</u> – Right of Appeal
	<ul style="list-style-type: none"> • Notices of violation must include right of appeal, except when summons, and inspection reports, are issued • Exceptions: <ul style="list-style-type: none"> ○ Summons issued in lieu of notice of violation ○ Documents reflecting uncorrected violations in subsequent inspections to verify compliance

<input type="checkbox"/>	<u>IFC 112.9</u> Appeals
	<ul style="list-style-type: none"> • Appeals from local fire code violation go to state appeals board if no local board exists

<input type="checkbox"/>	<u>IFC 202</u> Definitions	
	<ul style="list-style-type: none"> • Existing definitions consolidated to Ch. 2 • Definition of “sky lantern” added to Ch. 3 	

<input type="checkbox"/>	<u>307.1.1</u> Appeals	
	<ul style="list-style-type: none"> • Open burning shall be prohibited when atmospheric conditions or local circumstances make such fires hazardous 	

<input type="checkbox"/>	<u>311.5.6</u> Removal of Placards	
	<ul style="list-style-type: none"> • Placards may not be removed without permission of fire official 	

<input type="checkbox"/>	IFC 317 Roof Gardens & Landscaped Roofs	
	<ul style="list-style-type: none">• Rooftop gardens and landscaped roofs shall be installed and maintained in accordance with this code and IBC Sections 1505 and 1507.16• Maintenance of this code refer to IFC 317.1 – 317.5	

<input type="checkbox"/>	Chapter 4 Emergency Planning and Preparedness	
	<ul style="list-style-type: none">• Major rewrite of Chapter 4	

<input type="checkbox"/>	403.9.4 Group R-3 and R-5 Lodging Facilities	
	<ul style="list-style-type: none">• Fire plan required for Bed and Breakfasts	

<input type="checkbox"/>	403.11 Special Requirements for Public Safety	
	<ul style="list-style-type: none">• Special requirements for public safety shall be as required in section 403.11.1 through 403.11.3.3	

<input type="checkbox"/>	IFC 508.1.5(#13) Fire Command Center Required Features	
	<ul style="list-style-type: none">• New building information card requirements for buildings with high-rise buildings• Refer to code section for requirements	

<input type="checkbox"/>	<u>506</u> Key Boxes and Elevator Service Keys	
	<ul style="list-style-type: none"> Removed from state language Now refer to national language (IFC) 	

<input type="checkbox"/>	<u>IFC 605.11</u> Solar Photovoltaic Power Systems	
	<ul style="list-style-type: none"> New sections added Includes requirements for materials, locations of DC conductors, access and pathways New IFC provision but carries new construction requirements as well 	

<input type="checkbox"/>	<u>IFC 506.1 & 607 Part I and Part II</u>	
	<ul style="list-style-type: none"> There have been several changes to sections 503.1 and 607 which regulate Fire Service Key Boxes and Elevator Keys. 	

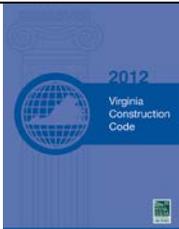
<input type="checkbox"/>	<u>609.3.3.3.1</u> Tags	
	<ul style="list-style-type: none"> Cleaning of commercial hood/duct systems may keep on-site records in lieu of being tagged. 	

<input type="checkbox"/>	<u>610</u> Commercial Kitchen Cooking Oil Storage	
	<ul style="list-style-type: none"> New standard for kitchen cooking oil storage 	

<input type="checkbox"/>	<u>703.1</u> Maintenance <ul style="list-style-type: none">• Changes to Chapter 1 still do not require an owner to perform inspections	
<input type="checkbox"/>	<u>704</u> Floor Openings and Shafts <ul style="list-style-type: none">• Deleted reference to IFC for new elevators and correlating requirements for existing elevators with maintenance code	
<input type="checkbox"/>	Interior Finish, Decorative Materials and Furnishings <u>803.1.2</u>, <u>803.5.2</u>, <u>804.3</u> <ul style="list-style-type: none">• New testing requirements for textile floor, wall and ceiling coverings	
<input type="checkbox"/>	<u>806.2</u> Artificial Vegetation <ul style="list-style-type: none">• New optional NFPA standard	
<input type="checkbox"/>	<u>808.2</u> Waste Containers Over 20Gal in Group R-2 College Dorms <ul style="list-style-type: none">• Must be constructed of non-combustible materials or those meeting peak release rate• Portable containers over 30 gal must be stored in a designated waste/laundry collection room	

☐	IFC 808.4 Combustible Lockers	
	<ul style="list-style-type: none"> • Considered an interior finish component and must comply with Chapter 8 regulations • Exception for lockers constructed entirely of wood and noncombustible materials 	

☐	906.1 Portable Fire Extinguishers – Where Required	
	<ul style="list-style-type: none"> • Fire extinguisher requirements now consistent with building code 	

☐	IFC Chapter 7-10	
	<ul style="list-style-type: none"> • Mostly changes to building code 	

☐	1029.4 Operational Constraints to Emergency Escape and Rescue Openings	
	<ul style="list-style-type: none"> • Any constraints to EEROs not approved during construction must be approved by building official 	

☐	IFC 2106.2 Dry Cleaning – Spotting and Prespotting	
	<ul style="list-style-type: none"> • Updated storage limits for class 1 cleaning solvents 	

<input type="checkbox"/>	<u>2306.8.1</u> Listed	
	<ul style="list-style-type: none">• New standard for E85 fuel dispensers	

<input type="checkbox"/>	<u>2306.8.1</u> and <u>2306.8.6</u> Alcohol-Blended Fuel-Dispensing Operations	
	<ul style="list-style-type: none">• Identify all components of E85 dispensing system	

<input type="checkbox"/>	<u>3208.3</u> Rack Storage and Flue Space Protection	
	<ul style="list-style-type: none">• 3208.3.1 lists approved devices for separation of rack storage	

<input type="checkbox"/>	<u>3406.1</u> Fire Department Required Access	
	<ul style="list-style-type: none">• Tire storage yards shall be provided with fire apparatus access roads• Removed reference to chapter 11	

<input type="checkbox"/>	<u>5003.1.1(1)</u> Maximum Allowable Quantity per Control Area	
	<ul style="list-style-type: none">• VA amendment retains status quo for permissible firework retail	

<input type="checkbox"/>	<u>5003.10</u> Handling and Transportation in Quarters or Enclosures of Carts Not Exceeding 5gal	
	<ul style="list-style-type: none">Expanded requirements to include all corridors and exits	

<input type="checkbox"/>	<u>IFC 5003.12</u> Outdoor Control Areas	
	<ul style="list-style-type: none">Language revised to include exceptions	

<input type="checkbox"/>	<u>5601.2.4.1</u> Liability Insurance for Blasting	
	<ul style="list-style-type: none">Liability insurance raised from \$500k to \$1mil	

<input type="checkbox"/>	<u>5601.2.4.2</u> Fireworks Display	
	<ul style="list-style-type: none">Liability insurance raised from \$500k to \$1mil	

<input type="checkbox"/>	<u>5603.4</u> Accidents	
	<ul style="list-style-type: none">Accidents for explosives and fireworks resulting in injury or property damage shall be reported to both local jurisdiction and state	

<input type="checkbox"/>	<u>5607.16 Blast (shot) Record</u>	
	<ul style="list-style-type: none"> New blaster form for recording info 	

<input type="checkbox"/>	<u>5608.4.1 Non-Splitting, Non-Bursting Comets and Mines; and 5608.4.2 Special Distance Requirements</u>	
	<ul style="list-style-type: none"> For comets and mines, special separation distances from spectator areas and buildings are established 	

<input type="checkbox"/>	<u>IFC 5701.1.1.1 Flammable and Combustible Liquid Storage Tanks</u>	
	<ul style="list-style-type: none"> The 2012 edition of the IFC clarifies the AHJ for Flammable and Combustible Storage Tanks. Where differences occur between the State Water Control Board, the IBC and this code the provisions of the State Water Control Board shall apply. 	

<input type="checkbox"/>	<u>5705.4.1 Unit with Capacity of 60 Gallons or Less</u>	
	<ul style="list-style-type: none"> Previously 5705.4.1 Solvent distillation units in dry cleaning plants and (non-research) laboratories must meet UL2008 	

<input type="checkbox"/>	<u>5705.5 Alcohol Hand Rubbing Dispensers (Condition 5)</u>	
	<ul style="list-style-type: none"> Dispensers must be tested after refilling Must operate in a way that prevents accidental or malicious activation 	

<input type="checkbox"/>	<u>IFC 6104.3.2</u> Container Locations	
	<ul style="list-style-type: none">• LP-gas containers used in stationary installations not allowed on roofs	

<input type="checkbox"/>	<u>IFC 6109.1.15</u> Storage of Portable LP-Gas Resale or Exchange	
	<ul style="list-style-type: none">• Changes to resale section and new language on automated exchange systems.	

Thank You!

We would like to thank the organizations and localities who contributed to the development of the 2012 Code Change Training through their time, effort, and dedication to the Jack A. Proctor Virginia Building Code Academy.

Virginia Building and Code Official Association

Virginia Plumbing and Mechanical Inspectors Association

Virginia Chapter of the International Association of Electrical Inspectors

Virginia Elevator Safety Association

Virginia Fire Protection Association

NOTES

NOTES

NOTES

NOTES



Virginia Department of Housing and Community Development

Jack A. Proctor Virginia Building Code Academy

600 East Main Street, Suite 1100

Richmond, VA 23219

Phone (804) 371-7180 Fax (804) 371-7092 Page | 144

Website: www.dhcd.virginia.gov

Follow our blog at dhcdcodeconnection.wordpress.com