

Date: December 27, 2012

**DHCD Workgroups 3 and 4 Meeting
2012 USBC IRC, IPC, IMC, IFGC, NEC, State agencies related
regulations and MOA's update overview final approval of code changes
Henrico County Training Center 9:30 to 3:30
January 10, 2013**

**Lunch provided, but must contact Janice Firestone by January 4, 2013
Email: janice.firestone@dhcd.virginia.gov or at 804-371-7150**

Agenda:

- R311.2 Interior doors mandates 313/4 inches (3 proposals) **(Handout p. 1)**
 - R320.2 UD option **(Handout p. 5)**
 - ER404.1 reduce 75 to 50% luminaries **(Handout p. 7)**
 - R3902 NEC 210.8 GFCI garages garage doors and freezer circuits
 - ER403.1.1 Programmable thermostats **(Handout p. 8)**
 - R403.1 Footings for accessory structures **(Handout p. 10)**
 - RE3802 MN cable (2 proposals) **(Handout p. 12)**
 - RE3902.11 AFCI exception delete (2 proposals) **(Handout p. 15)**
 - R202 Habitable attic **(Handout p. 18)**
 - R202 building thermal envelope **(Handout p. 20)**
 - RT1102.1.1 R-19 to R13 **(Handout p. 22)**
 - RN1102.2.2. Ceiling insulation **(Handout p. 23)**
 - RT1105.5.2(1) Tradeoffs **(Handout p. 24)**
 - RN1103.2.2 Duct testing **(Handout p. 25)**
 - RR402.4.1.1 insulating headers **(Handout p. 26)**
 - RT507.2 Deck attachment **(Handout p. 28)**
 - R507.2.3 Deck hold down devices **(Handout p. 29)**
 - RN1103.2.1 Duct insulation **(Handout p. 31)**
 - R502.5 King studs **(Handout p. 33)**
1. Review 2012 and 2015 ICC code changes carryover from WG 4 August 23, 2012 meeting including subgroup marinas and WG 1 December 13th
- IPC Marinas plumbing fixtures **(Handout p. 37)**
 - IPC 403.3.2 Cemetery plumbing fixtures **(Handout p. 39)**
 - IPC 405.3.2 Lavatories in schools **(Handout p. 41)**
 - IPC 2902.1.1 portable toilets **(Handout p. 43)**
 - IPC Lawn irrigation system annual testing to 3 years
 - IPC grease interceptor-2015
 - IBC 908.7 CO detectors **(Handout p. 46)**
 - IMC 507.2.3 Type I hoods (2 proposals) **Handout p. 48)**

- IMC 908.5 Cooling towers (**Handout p. 53**)
 - RG2411.1 CSST (**Handout p. 55**)
 - IFGC retrofit propane large over 4,000
2. MOA's DPOR related laws, DOLI boilers, DEQ and VDH septic systems/on-site sewage systems, VDH smoking lounges review and comments
 3. New Business
 - SFPC TRB decision R-5 townhomes grills on decks (**Handout p. 57**)
 - SFPC 308.1.4 prohibits grills R-5 within 10 feet lot line (**Handout p. 58**)
 - Discuss/review major 2012 code changes for IRC, IMC, IFGC, IPC.
 4. Next meeting March 12th
 5. Adjournment

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Skip Harper

Representing: Louisa County

Mailing Address: 1 Woolfolk Ave Louisa, VA 23093

Email Address: sharper@louisa.org

Telephone Number: 540-967-3414

Proposal Information

Code(s) and Section(s): R311.2 Egress door.

Proposed Change (including all relevant section numbers, if multiple sections):

At least one egress door shall be provided for each dwelling unit. The egress door shall be side-hinged, and shall provide a minimum clear width of 32 3/8 inches (813 mm) when measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). The minimum clear height of the door opening shall not be less than 78 inches (1981 mm) in height measured from the top of the threshold to the bottom of the stop. Other doors shall not be required to comply with these minimum dimensions. Egress doors shall be readily openable from inside the dwelling without the use of a key or special knowledge or effort.

Supporting Statement (including intent, need, and impact of the proposal):

Requiring a 3' main egress door will assist with getting people with disabilities into a home. Most builders are using a 3' door already so I see no impact whatsoever. When you price a standard door at the local hardware stores these doors are actually the same price as a 32" door.

Submittal Information

Date Submitted: 10/1/12

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
600 East Main Street
Suite 300
Richmond, VA 23219

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150



VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: 2011 HJR 648 Workgroup

Representing: _____

Mailing Address: _____

Email Address: _____

Telephone Number: _____

Proposal Information

Code(s) and Section(s): USBC, Virginia Construction Code Section 310.6 (IRC Section R311.2.1)

Proposed Change (including all relevant section numbers, if multiple sections):

Add new Section R311.2.1 to the International Residential Code to read as follows:

R311.2.1 Interior doors. All interior doors to habitable spaces, bathrooms and toilet rooms which are located on the level of the dwelling containing the egress door required by Section R311.2 shall have doorways that have a clear opening of 31¼ inches (805 mm) minimum. The clear opening of such doorways having swinging doors shall be measured between the face of the door and stop, with the door open 90 degrees. Where the egress door required by Section R311.2 is located on a split level, bi-level or tri-level entryway, or does not otherwise open to the main level of the dwelling, the level of the dwelling to have interior doors conforming to this section shall be the main level of the dwelling.

Supporting Statement (including intent, need, and impact of the proposal):

This proposal is to have all interior doors used for maneuvering through the main level of new dwellings to have a clear opening of 31¼ inches to facilitate the movement of wheelchair users on that level without having to later modify the doors. The opening dimension specified permits the use of a standard 2'-8" door, which is already common practice in multi-family dwelling construction and is not significantly more expensive than the standard 2'-6" (30") doors, which some builders are currently using for powder room and bedroom doors. This requirement would not apply to closet or pantry doors or any similar doors not serving a room of the dwelling.

Submittal Information

Date Submitted: _____

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
The Jackson Center
501 N. 2nd Street
Richmond, VA 23219-1321

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VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Skip Harper

Representing: Louisa County

Mailing Address: 1 Woolfolk Ave Louisa, VA 23093

Email Address: sharper@louisa.org

Telephone Number: 540-967-3414

Proposal Information

Code(s) and Section(s): Add New: R311.2.1

Proposed Change (including all relevant section numbers, if multiple sections):

All other doors within the dwelling shall be a minimum 32" wide.
Exception: pantry and closet doors.

Supporting Statement (including intent, need, and impact of the proposal):

This will assist people with disabilities as well as all others in general to simply get into a room. A 32" door is very standard in new construction and the cost may be 3-5 dollars more.

Submittal Information

Date Submitted: 10/1/12

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
600 East Main Street
Suite 300
Richmond, VA 23219

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VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): Individual Government Entity Company

Name: 2011 HJR 648 Workgroup Representing: _____

Email Address: _____ Telephone Number: _____

Proposal Information

Code(s) and Section(s): USBC, Virginia Construction Code Sections 310.6 (IRC Section R320.2) and 1109.16

Proposed Change (including all relevant section numbers, if multiple sections):

Add new Section R320.2 to the International Residential Code to read as follows:

R320.2 Universal design features for accessibility in dwellings. Dwellings constructed under the International Residential Code not subject to Section R320.1 may comply with Section 1109.16 of Part I of the Uniform Statewide Building Code (13 VAC 5-63) and be approved by the local building department as dwellings containing universal design features for accessibility.

Add new Section 1109.16 to the Virginia Construction Code to read as follows:

1109.16 Dwellings containing universal design features for accessibility. Group R-5 occupancies not subject to Section R320.1 of the IRC and Group R-3 occupancies not subject to Section 1107.6.3 may comply with this section and be approved by the local building department as dwellings containing universal design features for accessibility.

1109.16.1 Standards for dwellings containing universal design features for accessibility. When the following requirements are met, approval shall be issued by the local building department indicating that a dwelling has been constructed in accordance with these standards and is deemed to be a dwelling containing universal design features for accessibility.

1. The dwelling must comply with the requirements for Type C units under Section 1005 of ICC A117.1 with the following changes to the those requirements.

1.1. That at least one bedroom be added to the interior spaces required by Section 1005.4 of ICC A117.1.

1.2. In the toilet room or bathroom required by Section 1005 of ICC A117.1, in addition to the lavatory and water closet, a shower or bathtub complying with Section 1004.11.3.2.3 of ICC A117.1 shall be provided and shall include reinforcement for future installation of grab bars in accordance with Section 1004.11.1 of ICC A117.1.

1.3. That the exception to Section 1005.4 of ICC A117.1 is not applicable.

1.4. That there be a food preparation area complying with Section 1005.7 of ICC A117.1 on the entrance level.

1.5. That any thermostat for heating or cooling on the entrance level comply with Section 1005.8 of ICC A117.1.

Supporting Statement (including intent, need, and impact of the proposal):

This proposal is to establish an optional standard for accessible dwellings in recognition that such features are not required in single 5

family dwelling construction, but that there needs to be a consistent standard when such features are desired. The proposal utilizes new Type C dwelling unit requirements developed for the ICC A117.1 standard through the International Code Council's code development process and also incorporates features from the Virginia EasyLiving Home program, for which tax credits are available. In addition, specifications consistent with the federal HUD guidelines for bathtub and showers are used.

Submittal Information

Date Submitted: _____

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Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)

The Jackson Center

501 N. 2nd Street

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DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: VAMMHA

Representing: _____

Mailing Address: _____

Email Address: _____

Telephone Number: _____

Proposal Information

Code(s) and Section(s): Virginia Energy Conservation Code

Proposed Change (including all relevant section numbers, if multiple sections):

R 404.1 Lighting Equipment (Mandatory). A minimum of ~~75~~ 50 percent of the lamps in permanently installed ~~lighting fixtures~~ luminaries shall be high-efficiency lamps or a minimum of ~~75~~ 50 percent of the permanently installed ~~lighting fixtures~~ luminaries shall contain only high-efficiency lamps.

Supporting Statement (including intent, need, and cost impact of the proposal):

This leaves the mandate for the high efficiency luminaries at 50 percent, the same as it was in the 2009 code. It also makes wording consistent with the NEC.

Submittal Information

Date Submitted: October 16, 2012

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR SBCO (State Building Codes Office)
600 East Main Street
Suite 300
Richmond, VA 23219

Email Address: Vernon.hodge@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7150



VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Stephen Turchen

Representing: Virginia Building & Code Officials Association

Mailing Address: Suite 316 / 12055 Government Center Parkway, Fairfax, VA 22035

Email Address: Stephen.turchen@Fairfaxcounty.gov

Telephone Number: 703-324-1653

Proposal Information

Code(s) and Section(s): 2012 IECC R403.1.1

Proposed Change (including all relevant section numbers, if multiple sections):

R403.1.1 Programmable thermostat. ~~Where the primary heating system is a forced air furnace, at least one thermostat per~~ The thermostat controlling the primary heating or cooling system of the dwelling unit shall be capable of controlling the heating and cooling system on a daily schedule to maintain different temperature set points at different times of the day. [Remainder of paragraph unchanged.]

Supporting Statement (including intent, need, and impact of the proposal):

This suggested change recognizes that forced air heating and air conditioning systems are not the only systems that may benefit from programmable thermostats. Hydronic, radiant electric, and solar thermal systems could also be programmed for night or "unoccupied" setback periods. The proposal concurrently clarifies that the primary heating or cooling system, at minimum, is the system that should receive the programmable thermostat. This clarification is necessary for those residential dwelling units that have multiple systems; e.g., first floor / second floor forced air systems, or radiant electric systems with thermostats in each room. Which system must have a programmable thermostat? It is the "primary" system, typically the one serving the largest area of the dwelling, but subject to reasonable interpretation by the Building Official. Impact of this proposal may be to reduce installation of unnecessary programmable thermostats in multiple H/AC systems.

Submittal Information

Date Submitted: _____

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VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Bryan Deem

Representing: Stafford County

Mailing Address: 359 Laurel Drive, Aylett, Virginia 23009

Email Address: bdeem@co.stafford.va.us

Telephone Number: 540-658-4504

Proposal Information

Code(s) and Section(s): USBC R403.1

Proposed Change (including all relevant section numbers, if multiple sections):

R403.1 General. All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, wood foundations, or other approved structural systems which shall be of sufficient design to accommodate all loads according to Section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil. Footings shall be supported on undisturbed natural soils or engineered fill.

Exception: ~~One story detached accessory structures used as tool and storage sheds, playhouses and similar uses, not exceeding 256 square feet (23.7824 m²) of building area, provided all of the following conditions are met:~~

- ~~1. The building eave height is 10 feet or less.~~
- ~~2. The maximum height from the finished floor level to grade does not exceed 18 inches.~~
- ~~3. The supporting structural elements in direct contact with the ground shall be placed level on firm soil and when such elements are wood they shall be approved pressure preservative treated suitable for ground contact use.~~
- ~~4. The structure is anchored to withstand wind loads as required by this code.~~
- ~~5. The structure shall be of light frame construction whose vertical and horizontal structural elements are primarily formed by a system of repetitive wood or light gauge steel framing members, with walls and roof of light weight material, not slate, tile, brick or masonry.~~

To be replaced by:

Exception: One story detached accessory structures 200 square feet or less which are exempt from application of permit in accordance with section R108.2.

Supporting Statement (including intent, need, and impact of the proposal):

Under the current provision there is an unusual accommodation for tool sheds between 200 square feet and 256 square feet. While a 200 square foot shed does not require an application for permit, those between 200 and 256 need not have a footing designed "to accommodate all loads according to Section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil." It would be unusual to press for other code requirements to be met when the foundation system is not required to meet any standard. The current provision requires partial code compliance for a shed that is 14'x14'; strangely, a shed that is 16'x16' must be fully compliant.

It seems more logical to align both USBC R403.1 and USBC R108.2 so that detached structures 200 square foot or less avoid regulation altogether.

Submittal Information

Date Submitted: 6-13-12

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
600 East Main Street
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Richmond, VA 23219

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VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): Individual Government Entity Company

Name: Haywood Kines Representing: IAEI Va. Chapter

Mailing Address: 5 County Complex Ct. Woodbridge Va. 22192 Suite #120

Email Address: hkines@pwcgov.org Telephone Number: (703) 792-7064

Proposal Information

Code(s) and Section(s): 2012 IRC Chapter 39 Section E3802.4

Proposed Change (including all relevant section numbers, if multiple sections):

~~Admen U.S.B.C. E3802.4 **In-unfinished Basements.** Where type SE or MN cable is run at right angles with joists in unfinished basements, cable assemblies containing two or more conductors of sizes 6AWG and larger shall not require additional protection where attached directly to the bottom of the joists. Smaller cables shall be run either through bored holes in joists or on running boards. NM cables installed on the wall of an unfinished shall be permitted to be installed in a listed conduit or tubing or shall be protected in accordance with table E3802.1. Conduit or tubing shall be provided with a suitable insulating bushing or adapter at the point where the cable enters the raceway. The NM or SE cable sheath shall extend through the conduit or tubing and into the outlet or device box not less than ¼ inches (6.4mm). The cable shall be secured within 12 inches (305mm) of the point where the cable enters the conduit or tubing. Metal conduit, tubing, and metal outlet boxes shall be connected to an equipment grounding conductor.~~

REPLACE WITH

E3802.4 In unfinished Basements and Crawl Spaces. Where type SE or MN cable is run at right angles with joists in unfinished basements and crawl spaces, cable assemblies containing two or more conductors of sizes 6AWG and larger shall not require additional protection where attached directly to the bottom of the joists. Smaller cables shall be run either through bored holes in joists or on running boards. NM cables installed on the wall of an unfinished shall be permitted to be installed in a listed conduit or tubing or shall be protected in accordance with table E3802.1. Conduit or tubing shall be provided with a suitable insulating bushing or adapter at the point where the cable enters the raceway. The NM or SE cable sheath shall extend through the conduit or tubing and into the outlet or device box not less than ¼ inches (6.4mm). The cable shall be secured within 12 inches (305mm) of the point where the cable enters the conduit or tubing. Metal conduit, tubing, and metal outlet boxes shall be connected to an equipment grounding conductor.

Supporting Statement (including intent, need, and impact of the proposal):

The intent of the change to add Crawl Spaces into the code section was to require protection for all nm cables exposed and subject to physical damage in crawl spaces. The U.L. listing for this product prevents this product from being installed in any area where it is exposed and subject to physical damage. Crawl Spaces contain mechanical

equipment requiring servicing and they are generally used for storage, cables exposed below the joists can be damaged or cut creating potential hazards for fire or personnel injury from being shocked from exposed conductors. Installing the cables in the joist cavities or providing running boards will prevent personnel entering the crawl space or working on equipment located in the crawl spaces from damaging the cables and preventing potential safety hazards to personnel in crawl spaces.

Submittal Information

Date Submitted: _____

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
600 East Main Street
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Richmond, VA 23219

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VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Association

Name: Paul W. Abernathy

Representing: National Electrical Manufacturers Association

Mailing Address: 1300 North 17th Street, Rosslyn, Virginia 22209

Email Address: Paul.Abernathy@nema.org

Telephone Number: 703-825-5235

Proposal Information

Code(s) and Section(s): Virginia Construction Code, Part I - Section E3802.4

Proposed Change (including all relevant section numbers, if multiple sections):

Delete the entire amendment to Section E3802.4 as written in the 2009 Virginia Construction Code.

Supporting Statement (including intent, need, and impact of the proposal):

The intent is to remove the amendment to section E3802.4 and restore it back to the original intent of the language as it is written in the 2012 International Residential Code. The removal of "Crawl Spaces" in the original requirement only serves to create a potential hazard to construction workers and homeowners alike. The installation of SE and NM Cables in crawl spaces has no less of a potential of physical damage than in an unfinished basement. The code development process of the International Residential Code confirmed this with the adoption of section E3802.4 as written. The impact is zero to the contractors or homeowners since routing of cables are a design choice only. As an electrician for over 22 years I can cost effectively install SE or NM Cables in compliance with the original intent of the IRC E3802.4 without any additional cost impact. Installing NM Cable on running boards or through bored holes is standard installation practices.

Submittal Information

Date Submitted: 11/26/2012

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

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Suite 300
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VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Association

Name: Paul Wilson Abernathy

Representing: National Electrical Manufacturers Association

Mailing Address: 1300 North 17th Street, Rosslyn, Virginia 22209

Email Address: Paul.Abernathy@nema.org

Telephone Number: 703-825-5235

Proposal Information

Code(s) and Section(s): Virginia Construction Code, Part I - Section E3902.11

Proposed Change (including all relevant section numbers, if multiple sections):

Delete the entire amendment to Section E3902.11 as written in the 2009 Virginia Construction Code.

Supporting Statement (including intent, need, and impact of the proposal):

The intent of this proposal is to restore the requirements of section E3902.11 as it is stated in the 2009 International Residential Code and 2012 International Residential Code. The need is reflective on the reduced safety due to an arc-fault condition that could result in a fire, loss of life and loss of property. Detailed studies have been posted on www.AFCISAFETY.ORG and recent notices posted by the Consumer Product Safety Commission are factual statistics and results showing the importance of this technical advancement. The impact is minimal in terms of economic costs but high on establishing a safer one and two family dwelling. The average cost of an AFCI Device is \$ 42.00, subtract the \$ 6.00 for a standard circuit breaker and you are left with a cost of \$36.00 per device. The average home will need between 8-10 AFCI Devices to comply with the code standards. The added cost to the consumer is \$360.00, less than 1/2 of 1 percent of the cost of a typical \$250,000.00 home. Virginia is well behind on removing this amendment as the vast majority of states have adopted the full use of Arc Fault Circuit Interrupters without amendment.

Documentation, Studies and Fire Reports will be provided with this proposal for review and consideration

Submittal Information

Date Submitted: 11/25/2012

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

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Suite 300
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VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
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Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Haywood Kines

Representing: IAEI Va. Chapter

Mailing Address: 5 County Complex Ct. Woodbridge Va. 22192 Suite #120

Email Address: hkines@pwcgov.org

Telephone Number: (703) 792-7064

Proposal Information

Code(s) and Section(s): 2012 IRC Chapter 39 Section E3902.11

Proposed Change (including all relevant section numbers, if multiple sections):

Delete U.S.B.C. Amendment to E3902.11 for ~~Arc-Fault Protection of Bedroom Outlets~~.

Adopt the 2012 IRC Code requirements Section E3902.11 as written.

E3902.11 **Arc-Fault circuit-interrupter protection.** All branch circuits that supply 120 volt, single phase 15-and20-ampere outlets installed in family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways and similar rooms shall be protected by a combination type arc-fault interrupter installed to provide protection of the branch circuit.

Supporting Statement (including intent, need, and impact of the proposal):

The additional Life Safety provided and protection from unnecessary fires provided by the Arc-Fault devices needs to be adopted by Virginia as written and adopted by International Code Council. These devices provide an additional level of protection for the Branch circuits and equipment connected to the circuits (Lamps, appliances, computers, etc.) for both series and parallel arc-faults that standard breakers cannot detect. This Code change will save lives, save families from loss of properties and prevent our Fire and rescue personnel from having to risk their lives to fight unnecessary fires that could have been prevented by these devices.

Arc Fault Circuit Interrupters (AFCI)

AFCIs Prevent Home Fires

Over the last thirty years, our homes have been dramatically transformed by electrical devices; however, these same devices have also contributed to the shocking number of electrical fires this country suffers every year. Many existing homes are simply overwhelmed by today's electrical demands, putting them at greater risk of arc faults and arc induced fires.

An arc fault is a dangerous electrical problem caused by damaged, overheated, or stressed electrical wiring or devices. Arc faults can occur when older wires become frayed or cracked, when a nail or screw damages a wire behind a wall, or when outlets or circuits are overburdened.

In the United States, arcing faults cause more than 30,000 home fires each year, resulting in hundreds of deaths and injuries and more than \$750 million in property damage. The solution to this problem is a combination arc fault circuit interrupter, or AFCI. The CPSC estimates that AFCIs could prevent more than 50 percent of the electrical fires that occur every year.

Safety by Design

Arc fault circuit interrupters, or AFCIs, are devices that replace standard circuit breakers in your home's electrical service panel. Combination AFCIs provide a higher level of protection by detecting hazardous arcing conditions and shutting down the electricity before a fire can start. AFCIs offer greater protection than traditional breakers because they are equipped with advanced internal electronics that detect arc fault hazards traditional breakers were not designed to recognize.

While AFCIs were previously only required to protect bedroom circuits, the new code requires this technology to be installed in additional areas of the home, including dining rooms and living rooms.

Though the new safety requirements are limited to new home construction, AFCIs can provide increased protection in existing homes as well. Since the probability of electrical fires increases with the age of the home, older homes with aging and deteriorating wiring systems can especially benefit from the added protection offered by these devices.

These devices can be purchased at any local electrical distributor, hardware store, and home improvement center across the country for approximately \$35 each.

Depending on the size of a given home, the cost impact for installing the additional AFCI protection for rooms other than bedrooms is \$100 - \$150. This is based on the required circuits for general lighting per the 2011 NEC.

Currently, 28 states have voted to adopt the 2011 NEC in its entirety, expanding or maintaining existing requirements for AFCI installation.

Submittal Information

Date Submitted: _____

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

600 East Main Street
Suite 300
Richmond, VA 23219

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150



From: [Hodge, Vernon \(DHCD\)](#)
To: [Hodge, Vernon \(DHCD\)](#);
Subject: FW: Addition to Workgroup #3 Agenda- Habitable attic definition change
Date: Saturday, December 22, 2012 4:01:16 PM

From: Thomas Harrison [<mailto:tharrison@arlingtonva.us>]
Sent: Friday, May 25, 2012 5:12 PM
To: Rodgers, Emory (DHCD)
Cc: Elizabeth Wells; Shahriar Amiri; Ellis McKinney; Bajnai, Charles
Subject: Addition to Workgroup #3 Agenda- Habitable attic definition change

Dear Emory,

Following are proposals for code changes that I would like included on the Workgroup #3 agenda for vetting at the June 14 meeting, regarding the elimination of the habitable attic as an unintended exception to the Va Res Code's Scope of 'not more than three stories above grade plane in height'.

ATTIC, HABITABLE

The 2012 IRC Definition, without change:

ATTIC, HABITABLE. A finished or unfinished area, not considered a story, complying with all of the following requirements:

1. The occupiable floor area is at least 70 square feet (17 m²), in accordance with Section [R304](#),
2. The occupiable floor area has a ceiling height in accordance with Section [R305](#), and
3. The occupiable space is enclosed by the roof assembly above, knee walls (if applicable) on the sides and the floor-ceiling assembly below

Proposal #1 for a USBC change that simply makes a habitable attic a story:

ATTIC, HABITABLE. A finished or unfinished area, (*delete "not"*) considered a story, complying with all of the following requirements:

1. The occupiable floor area is at least 70 square feet (17 m²), in accordance with Section [R304](#),
2. The occupiable floor area has a ceiling height in accordance with Section [R305](#), and
3. The occupiable space is enclosed by the roof assembly above, knee walls (if applicable) on the sides and the floor-ceiling assembly below

Proposal #2 for a USBC change leaves the 'not a story' intact, but when the construction results in three stories plus the 4th not-a-story-level, adds a sprinkler requirement (using the 2-head 13D system instead of the 13R system required by the IBC for 4 story R-3 houses) for the entire house, whether a new house or an addition or alteration to existing buildings that

are not already provided with an automatic residential sprinkler system:

ATTIC, HABITABLE. A finished or unfinished area, not considered a story, *but where located above the third story shall require an automatic residential fire sprinkler system per R313 as required equipment throughout, without exception for existing buildings*, complying with all of the following requirements:

1. The occupiable floor area is at least 70 square feet (17 m²), in accordance with Section R304,
2. The occupiable floor area has a ceiling height in accordance with Section R305, and
3. The occupiable space is enclosed by the roof assembly above, knee walls (if applicable) on the sides and the floor-ceiling assembly below.

Thank you,

Tom Harrison
Construction Plans Examiner
Arlington County Inspection Services Division
(703) 228-3950

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Stephen Turchen

Representing: Virginia Building and Code Officials Assoc.

Mailing Address: Suite 316, 12055 Government Center Parkway, Fairfax, VA 22035

Email Address: stephen.turchen@fairfaxcounty.gov

Telephone Number: 703-324-1653

Proposal Information

Code(s) and Section(s): 2012 International Energy Conservation Code; Section R202

Proposed Change (including all relevant section numbers, if multiple sections):

BUILDING THERMAL ENVELOPE. The basement walls, exterior walls, floor, roof, and any other building elements that enclose conditioned space or provide a boundary between conditioned space and exempt or unconditioned space.

ADD AT END: An unconditioned space shall include those buildings or spaces, adjacent to a conditioned space, that are not heated or cooled due to periods of non-occupancy, such as an adjacent townhouse.

Supporting Statement (including intent, need, and impact of the proposal):

The proposed change is intended to ensure that the thermal envelope boundary will include the separation between a conditioned space and those spaces which have a reasonable expectation of being unoccupied (and therefore unconditioned) for a significant albeit temporary period of time. Typical residential building example is an occupied townhouse that is adjacent to an unoccupied townhouse. If the common wall between the townhouses is uninsulated, there will be unnecessary heat transfer across that boundary. The proposal will prevent this situation from developing.

There may be cost impacts of this proposal, but they are difficult to gauge. Townhouses required "rated" separations which may include insulating materials that could also satisfy the wall R-value requirement. Common townhouse construction practice is to build a stud wall on the inside of the rated wall, which could be filled with materials with the required R-value.

Submittal Information

Date Submitted: _____

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)

Main Street Center
600 E. Main St., Suite 300
Richmond, VA 23219

Email Address: tsu@dhcd.virginia.gov

Fax Number: (804) 371-7092

Phone Numbers: (804) 371-7140 or (804) 371-7150



Recommended Amendments to the 2012 International Residential Code (IRC)

Issue: Wood Frame Wall Insulation

2012 IRC Section: Table N1102.1.1 and Table N1102.1.3

Recommended Amendment:

Modify the Tables as shown below: (Delete data, add new data)

**TABLE N1102.1.1
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT^a**

CLIMATE ZONE	FENESTRATION U-FACTOR ^a	SKYLIGHT ^b U-FACTOR	GLAZED FENESTRATION SHGC ^{b,c}	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE ^d	FLOOR R-VALUE	BASEMENT ^e WALL R-VALUE	SLAB ^f R-VALUE & DEPTH	CRAWL SPACE ^g WALL R-VALUE
1	NR	0.75	0.25	30	13	3/4	13	0	0	0
2	0.40	0.65	0.25	38	13	4/6	13	0	0	0
3	0.35	0.55	0.25	38	20 or 13+5 ^h 13	8/13	19	5/13 ⁱ	0	5/13
4 except Marine	0.35	0.55	0.40	49	*20 or 13+5 ^h 13	8/13	19	10/13	10, 2ft	10/13
5 and Marine 4	0.32	0.55	NR	49	20 19 or 13+5 ^h	13/17	30 ^g	15/19	10, 2ft	15/19
6	0.32	0.55	NR	49	20 19 or 13+5 ^h	15/20	30 ^g	15/19	10, 4ft	15/19
7 and 8	0.32	0.55	NR	49	20 19+5 or 13+10 ^h	19/21	38 ^g	15/19	10, 4ft	15/19

All footnotes shall remain

**TABLE N1102.1.3
EQUIVALENT U-FACTORS^a**

Climate Zone	Fenestration U-Factor	Skylight U-Factor	Ceiling U-Factor	Frame Wall U-Factor	Mass Wall U-Factor ^b	Floor U-Factor	Basement Wall U-Factor	Crawl Space Wall U-Factor
1	0.50	0.75	0.035	0.082	0.197	0.064	0.360	0.477
2	0.40	0.65	0.030	0.082	0.165	0.064	0.360	0.477
3	0.35	0.55	0.030	0.057 0.082	0.098	0.047	0.091 ^c	0.136
4 except Marine	0.35	0.55	0.026	0.057 0.082	0.098	0.047	0.059	0.065
5 and Marine 4	0.32	0.55	0.026	0.057 0.060	0.082	0.033	0.059	0.055
6	0.32	0.55	0.026	0.048 0.060	0.060	0.033	0.050	0.055
7 and 8	0.32	0.55	0.026	0.048 0.057	0.057	0.028	0.050	0.055

All Footnotes remain unchanged

Recommended Amendments to the 2012 International Residential Code (IRC)

Issue: Ceilings without Attic Spaces

2012 IRC Section: N1102.2.2

Recommended Amendment:

Modify the Section as shown below (Delete text):

N1102.2.2 Ceilings without attic spaces. Where Section N1102.1.1 would require insulation levels above R-30 and the design of the roof/ceiling assembly does not allow sufficient space for the required insulation, the minimum required insulation for such roof/ceiling assemblies shall be R-30. This reduction of insulation from the requirements of Section N1102.1.1 shall be limited to 500 square feet (46 m²) or 20% of the total insulated ceiling area, which ever is less. This reduction shall not apply to the U-factor alternative approach in Section N1102.1.3 and the total UA alternative in Section N1102.1.4

Recommended Amendments to the 2012 International Residential Code (IRC)

Issue: Restoring Equipment Trade-offs ✳

2012 IRC Section: Table N1105.5.2(1)

Recommended Amendment:

Modify the Table as shown below (Delete text, add New Text)

**TABLE N1105.5.2(1)
SPECIFICATIONS FOR THE STANDARD REFERENCE AND PROPOSED DESIGNS**

BUILDING COMPONENT	STANDARD REFERENCE DESIGN	PROPOSED DESIGN
Heating systems ^{f, g} ,	<p>As proposed for other than electric heating without a heat pump. Where the proposed design utilizes electric heating without a heat pump the standard reference design shall be an air source heat pump meeting the requirements of Section R403 of the IECC-Commercial Provisions.</p> <p><u>Fuel type: same as proposed design</u></p> <p><u>Efficiencies:</u></p> <p><u>Electric: air-source heat pump with prevailing federal minimum efficiency</u></p> <p><u>Nonelectric furnaces: natural gas furnace with prevailing federal minimum efficiency</u></p> <p><u>Nonelectric boilers: natural gas boiler with prevailing federal minimum efficiency</u></p> <p>Capacity: sized in accordance with Section R403,6</p>	As proposed
Cooling system ^{g, i} ,	<p>As proposed</p> <p>Fuel type: Electric</p> <p>Efficiency: in accordance with prevailing federal minimum standards</p> <p>Capacity: sized in accordance with Section R403,6</p>	As proposed
Service Water Heating ^{g, i, j, k}	<p>As proposed</p> <p><u>Fuel type: same as proposed design</u></p> <p><u>Efficiency: in accordance with prevailing Federal minimum standards</u></p> <p><u>Use: gal/day = 30 + 10 × Nbr</u></p> <p><u>Tank temperature: 120°F</u></p> <p><u>Use: same as proposed design</u></p>	<p>As proposed</p> <p><u>Same as standard reference</u> <u>gal/day = 30 + 10 × Nbr</u></p>

(Remainder of Table remains unchanged)

Recommended Amendments to the 2012 International Residential Code (IRC)

Issue: Duct Sealing

2012 IRC Section: N1103.2.2

Recommended Amendment:

Modify the Section as shown below (Delete text):

N1103.2.2 (R403.2.2) Sealing (Mandatory). Ducts, air handlers, and filter boxes shall be sealed. Joints and seams shall comply with Section M1601.4.1 of this code.

Exceptions:

1. Air-impermeable spray foam products shall be permitted to be applied without additional joint seals.
2. Where a duct connection is made that is partially inaccessible, three screws or rivets shall be equally spaced on the exposed portion of the joint so as to prevent a hinge effect.
3. Continuously welded and locking-type longitudinal joints and seams in ducts operating at static pressures less than 2 inches of water column (500 Pa) pressure classification shall not require additional closure systems.

Duct tightness shall be verified by either of the following:

~~1. Postconstruction test: Total leakage shall be less than or equal to 4 cfm (113.3 L/min) per 100 square feet (9.29 m²) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.~~

~~2.~~ 1. Rough-in test: Total leakage shall be less than or equal to 4 cfm (113.3 L/min) per 100 ft² (9.29 m²) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure. All registers shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 3 cfm (85 L/min) per 100 square feet (9.29 m²) of conditioned floor area.

Exception: The total leakage test is not required for ducts and air handlers located entirely within the building thermal envelope.

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Stephen Turchen

Representing: Virginia Building & Code Officials Association

Mailing Address: Suite 316 / 12055 Government Center Parkway, Fairfax, VA 22035

Email Address: Stephen.turchen@Fairfaxcounty.gov

Telephone Number: 703-324-1653

Proposal Information

Code(s) and Section(s): 2012 IECC Table R402.4.1.1

Proposed Change (including all relevant section numbers, if multiple sections):

For the Component "Walls," change Criteria to read:

Cavities within corners and headers shall be insulated by completely filling the cavity with a material having a thermal resistance of R3 per inch minimum. ~~and~~ The junction of the foundation and sill plate shall be sealed.

Supporting Statement (including intent, need, and impact of the proposal):

The current text says, "Corners and headers shall be insulated ..." All headers and corners? All the time? Insulated to what level? This provision is a carryover of the 2009 IECC requirement. Varying answers to these questions have already lead to varying interpretations of the code requirements, uneven enforcement, and confusion in the regulated community. This proposal intends to allay some of that confusion by specifying that headers and corners must be insulated when there is an available cavity (e.g., a two-ply 2x header in a 2x4 wall leaves no cavity to fill) and by providing a practical definition of what *insulated* means in this context. Typical insulating materials like fiberglass and rigid foam can easily achieve R3 per inch.

Submittal Information

Date Submitted: _____

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)

600 East Main Street

Suite 300

Email Address: taso@dhcd.virginia.gov

Fax Number: (804) 371-7092



VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Bryan Deem

Representing: Stafford County

Mailing Address: 359 Laurel Drive, Aylett, Virginia 23009

Email Address: bdeem@co.stafford.va.us

Telephone Number: 540-658-4504

Proposal Information

Code(s) and Section(s): IRC table R507.2.

Proposed Change (including all relevant section numbers, if multiple sections):

I propose to replace table R507.2 in the IRC with Table 5 from the DCA 6.

Supporting Statement (including intent, need, and impact of the proposal):

Table R507.2 in the International Residential Code is restrictive to the extent that it does not apply to many existing installations. While the IRC limits ledger attachment to either solid sawn or LVL band joists, a majority of existing homes use rim board or other engineered wood products (EWP's) for band joist material.

The Design for Code Acceptance for Decks (version 6) incorporates a table that permits ledger attachment to EWP with some conditional restraints. This table would grant more flexibility for contractors to achieve a sound ledger attachment prescriptively.

Submittal Information

Date Submitted: 6/13/12

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
600 East Main Street
Suite 300
Richmond, VA 23219

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150



VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: John S. Trenary, CBO Representing: Region III VBCOA / Frederick County

Mailing Address: Frederick County Inspections Department, 107 N. Kent Street, Winchester VA 22601

Email Address: jtrenary@co.frederick.va.us Telephone Number: (540)665-5650

Proposal Information

Code(s) and Section(s): IRC 2012 Section R507.2.3 Deck lateral load connection

Proposed Change (including all relevant section numbers, if multiple sections):

R507.2.3 Deck lateral load connection. The lateral load connection required by Section R507.1 shall be permitted to be in accordance with Figure R507.2.3. Where the lateral load connection is provided in accordance with Figure 507.2.3, hold-down tension devices shall be installed in not less than two locations per deck, _____ each device shall **be spaced so one is located in each end of the deck attachment at a minimum distance apart of one third of the horizontal length** and have an allowable stress design capacity of not less than 1500 pounds (6672N).

Supporting Statement (including intent, need, and impact of the proposal):
This code change would clarify the intent of the code for the proper spacing of the tension devices when they are utilized. The current language would not prevent the installation of the two devices at a single location.

Cost Impact: This code change should not increase the cost of construction.

Submittal Information

Date Submitted: June 13, 2012

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
600 East Main Street
Suite 300
Richmond, VA 23219

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150 **29**



VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Bryan Deem

Representing: Stafford County

Mailing Address: 359 Laurel Drive, Aylett, Virginia 23009

Email Address: bdeem@co.stafford.va.us

Telephone Number: 540-658-4504

Proposal Information

Code(s) and Section(s): Change section N1103.2.1 accordingly:

Proposed Change (including all relevant section numbers, if multiple sections):

N1103.2.1 (R403.2.1) Insulation (Prescriptive). Supply ducts in attics shall be insulated to a minimum of R-8. All other ducts shall be insulated to a minimum of R-6.

Exceptions:

1. Ducts or portions thereof located completely inside the *building thermal envelope*.

Add exception #2 to say:

2. Joist spaces used as combustion air ducts in accordance with IRC G 2407.11 shall not be used in floor required to be insulated according to R 1102.1.1.

Supporting Statement (including intent, need, and impact of the proposal):

A joist space used for a combustion air duct would certainly create a void in the building thermal envelope if used in an insulated floor assembly. With other options available for conveyance of both indoor and outdoor combustion air, there would be little compromise avoiding this type of application when it compromises the building thermal envelope.

Submittal Information

Date Submitted: 6/13/12

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)

600 East Main Street

Suite 300

Richmond, VA 23219

Email Address: taso@dhcd.virginia.gov

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VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): Individual Government Entity Company

Name: Chuck Bajnai, Chesterfield County Representing: VBCOA –IRC committee
Bryan Deem, Stafford County

Mailing Address: 9800 Government Center Parkway, Chesterfield, VA 23832

Email Address: bajnaic@chesterfield.gov Telephone Number: 804-717-6428

Proposal Information

Code(s) and Section(s): R502.5 and R602.7.4

Proposed Change (including all relevant section numbers, if multiple sections):

1. Add new section as follows:

R502.5 Allowable girder spans. The allowable spans of girders fabricated of dimension lumber shall not exceed the values set forth in Tables R502.5(1) and R502.5(2). Girders shall be supported laterally at the ends to prevent rotation.

2. Modify Table R502.5(1), footnote d as follows:

TABLE R502.5(1)—continued
GIRDER SPANS^a AND HEADER SPANS^a FOR EXTERIOR BEARING WALLS
(Maximum spans for Douglas fir-larch, hem-fir, southern pine and spruce-pine-fir^b and required number of jack studs)

GIRDERS AND HEADERS SUPPORTING	SIZE	GROUND SNOW LOAD (psf) ^a																	
		30						50						70					
		Building width ^c (feet)																	
		20		28		36		20		28		36		20		28		36	
Span	NJ ^d	Span	NJ ^d	Span	NJ ^d	Span	NJ ^d	Span	NJ ^d	Span	NJ ^d	Span	NJ ^d	Span	NJ ^d	Span	NJ ^d		
Roof, ceiling, and two clear span floors	2-2 x 10	4-9	2	4-1	3	3-8	3	4-8	2	4-0	3	3-7	3	4-7	3	4-0	3	3-6	3
	2-2 x 12	5-6	3	4-9	3	4-3	3	5-5	3	4-8	3	4-2	3	5-4	3	4-7	3	4-1	4
	3-2 x 8	4-10	2	4-2	2	3-9	2	4-9	2	4-1	2	3-8	2	4-8	2	4-1	2	3-8	2
	3-2 x 10	5-11	2	5-1	2	4-7	3	5-10	2	5-0	2	4-6	3	5-9	2	4-11	2	4-5	3
	3-2 x 12	6-10	2	5-11	3	5-4	3	6-9	2	5-10	3	5-3	3	6-8	2	5-9	3	5-2	3
	4-2 x 8	5-7	2	4-10	2	4-4	2	5-6	2	4-9	2	4-3	2	5-5	2	4-8	2	4-2	2
	4-2 x 10	6-10	2	5-11	2	5-3	2	6-9	2	5-10	2	5-2	2	6-7	2	5-9	2	5-1	2
4-2 x 12	7-11	2	6-10	2	6-2	3	7-9	2	6-9	2	6-0	3	7-8	2	6-8	2	5-11	3	

For SI: 1 inch = 25.4 mm, 1 pound per square foot = 0.0479 kPa.

- a. Spans are given in feet and inches.
- b. Tabulated values assume #2 grade lumber.
- c. Building width is measured perpendicular to the ridge. For widths between those shown, spans are permitted to be interpolated.
- d. NJ – Number of jack studs required to support each end. A king stud shall be required adjacent to the jack stud on each side, and nailed to the header with (4) 16d nails on each side. Where the number of required jack studs equals one, the header is permitted to be supported by an approved framing anchor attached to the full-height wall stud and to between the king stud and the header.
- e. Use 30 psf ground snow load for cases in which ground snow load is less than 30 psf and the roof live load is equal to or less than 20 psf.

3. Modify Table R502.5(2), footnote d as follows

TABLE R502.5(2)
GIRDER SPANS^a AND HEADER SPANS^a FOR INTERIOR BEARING WALLS
 (Maximum spans for Douglas fir-larch, hem-fir, southern pine and spruce-pine-fir^b and required number of jack studs)

HEADERS AND GIRDERS SUPPORTING	SIZE	BUILDING Width ^c (feet)					
		20		28		36	
		Span	NJ ^d	Span	NJ ^d	Span	NJ ^d
One floor only	2-2 x 4	3-1	1	2-8	1	2-5	1
	2-2 x 6	4-0	1	3-11	1	3-6	1
	2-2 x 8	5-0	1	5-0	2	4-5	2
	2-2 x 10	7-0	2	6-1	2	5-5	2
	2-2 x 12	8-1	2	7-0	2	6-3	2
	3-2 x 8	7-2	1	6-3	1	5-7	2
	3-2 x 10	8-9	1	7-7	2	6-9	2
	3-2 x 12	10-2	2	8-10	2	7-10	2
	4-2 x 8	9-0	1	7-8	1	6-9	1
	4-2 x 10	10-1	1	8-9	1	7-10	2
4-2 x 12	11-0	1	10-2	2	9-1	2	
Two floors	2-2 x 4	2-2	1	1-10	1	1-7	1
	2-2 x 6	3-2	2	2-0	2	2-5	2
	2-2 x 8	4-1	2	3-6	2	3-2	2
	2-2 x 10	4-11	2	4-3	2	3-10	3
	2-2 x 12	5-9	2	5-0	3	4-5	3
	3-2 x 8	5-1	2	4-5	2	3-11	2
	3-2 x 10	6-2	2	5-4	2	4-10	2
	3-2 x 12	7-2	2	6-3	2	5-7	3
	4-2 x 8	6-1	1	5-3	2	4-8	2
	4-2 x 10	7-2	2	6-2	2	5-6	2
4-2 x 12	8-4	2	7-2	2	6-5	2	

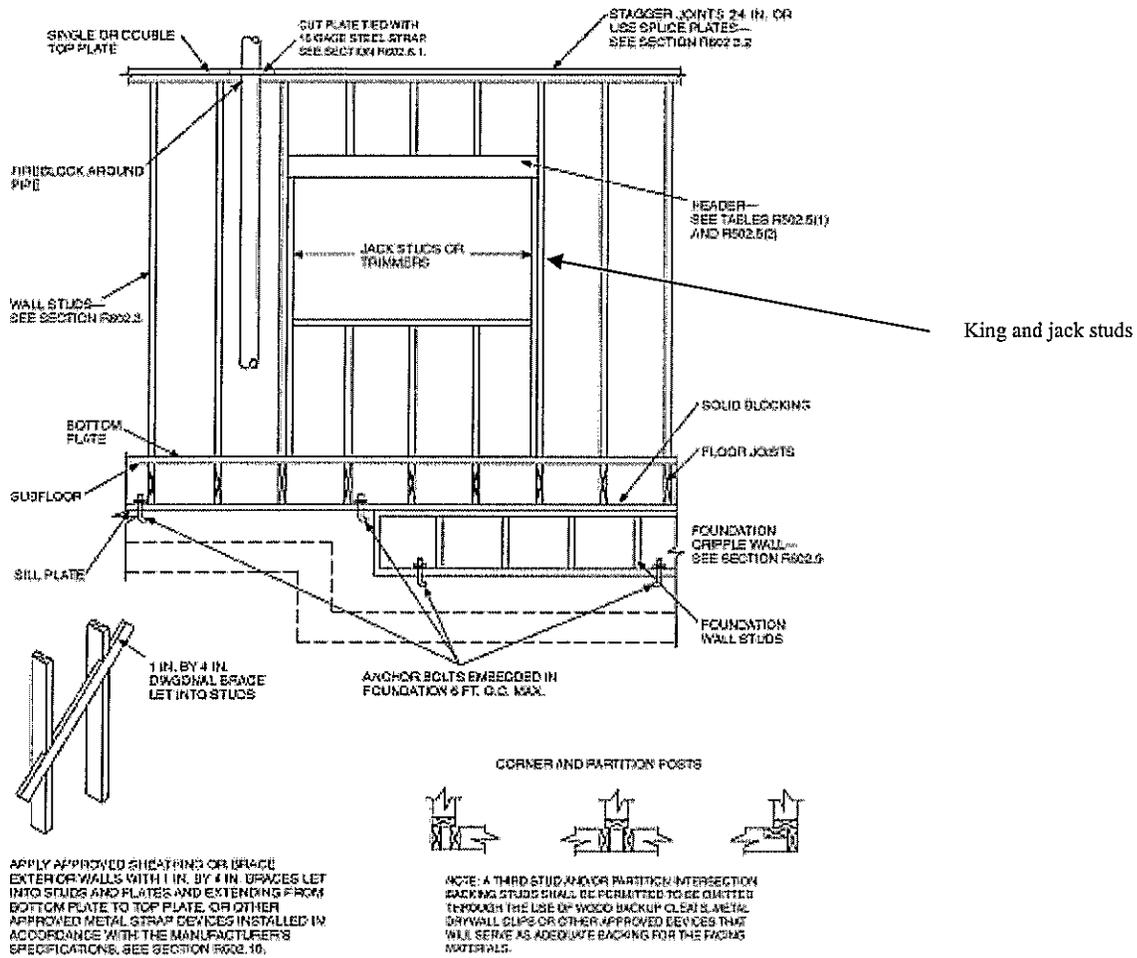
For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

- Spans are given in feet and inches.
- Tabulated values assume #2 grade lumber.
- Building width is measured perpendicular to the ridge. For widths between those shown, spans are permitted to be interpolated.
- NJ – Number of jack studs required to support each end. A king stud shall be required adjacent to the jack stud on each side, and nailed to the header with (4) 16d nails on each side. Where the number of required jack studs equals one, the header is permitted to be supported by an approved framing anchor attached to the full-height wall stud and to between the king stud and the header.

4. Add new section as follows:

R602.7.4 Supports for headers. Headers shall be supported on each end with a jack stud in accordance with Table R502.5 (1) or Table R502.5(2). A king stud as shown in Figure R602.3(2) shall be adjacent to the jack stud(s) on each side and nailed to each end of the header with (4) 16d nails .

5. Modify Figure R602.3(2) as follows:



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

FIGURE R602.3(2)
FRAMING DETAILS

Supporting Statement (including intent, need, and impact of the proposal):

Reason:

The code is tacit about how headers should be supported. To prevent top chord buckling, the king stud should be used to stabilize the header by nails on each end. This code section puts the requirement into the code.

Submittal Information

Date Submitted: 9-5-2012

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR SBCO (State Building Codes Office)
600 East Main Street
Suite 300
Richmond, VA 23219

Email Address: Vernon.hodge@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7150



Definitions-to be added to Virginia Plumbing Code chapter 2 and Virginia Construction Code

Marina. Means any installation operating under public or private ownership which provides dockage or moorage for boats, other than paddle or rowboats and provides through sale, rental, fee, or free basis any equipment, supply, or service, including fuel, electricity, or water for the convenience of the public or the lessee, renters, or users of the facilities. .

Other places where boats are moored. Means any installation operating under public or private ownership, which provides dockage, or moorage for boats, other than paddle or rowboats either on a free, rental or fee basis or for the convenience of the boater.

Slip. Means a berth or space where a boat may be secured to a fixed or floating structure, including a dock, finger pier, boat lift, or mooring buoy.

Add Table 403.1(1) to VPC and Table 2902.1(1) to VCC

Dry Storage Facilities, marinas, and other places where boats are moored Table 403.1(1)

Number of Slips	Plumbing Fixtures					
	Water Closets (Urinals see section 419.2)		Lavatories		Showers	
	Male	Female	Male	Female	Male	Female
1-24	1 (unisex restroom)		1		1	
25 - 49	2	2	2	2	1	1
50 - 99	3	3	2	2	1	1
100 - 149	4	4	3	3	2	2
150 - 199	5	5	4	4	2	2
200 - 249	6	6	5	5	3	3

- a) When the number of slips exceeds those prescribed by Table 1, the owner shall provide additional fixtures. The owner shall provide one water closet, lavatory and shower for each gender for each 100 additional slips.
- b) Owners shall conveniently locate their plumbing fixtures within 500 feet walking distance from the

shore end of any dock they are intended to serve. On a case by case basis The Building Official may grant a modification with VDH concurrence to allow a greater distance if unusual circumstances such as topography or resource protection areas prevent compliance with this requirement.

- c) For dry storage facilities see The Commonwealth of Virginia Sanitary Regulations for Marinas and Boat Moorings or its successor regulation.

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Mike Doherty

Representing: Virginia Cemetery Association

Mailing Address: P.O. Box 74428, N. Chesterfield, Virginia 23236

Email Address: mikedoherty@att.net

Telephone Number: (804) 675.7502

Proposal Information

Code(s) and Section(s): VPC Section 403.3.2

Proposed Change (including all relevant section numbers, if multiple sections):

Add new text into existing exception.

Section 403.3.2 Section to remain unchanged but Add new number to existing Exception as #1 and add new exception #2 with text as follows.

403.3.2 Location of public toilet facilities in occupancies other than covered malls. In occupancies other than covered mall buildings, the required public and employee toilet facilities shall be located not more than one story above or below the space required to be provided with toilet facilities, and the path of travel to such facilities shall not exceed a distance of 500 feet.

Exception:

1. The location and maximum travel distances to the required employee facilities in factory and industrial occupancies are permitted to exceed that required by this section, provided that the location and maximum travel distance are approved.
2. The location and maximum travel distances to the required public facilities located on cemetery property are permitted to exceed that required by this section, provided that the location and maximum travel distance are located on the same property and approved.

Supporting Statement (including intent, need, and impact of the proposal):

Current Virginia Plumbing Code (VPC) does not fully address the unique concept of assembly gatherings on a large property for brief interment services. The proposed concept is to have restroom facilities available somewhere on the cemetery property. The constraints of current VPC require that toilet facilities must be located within 500 feet of these type occupancies no matter how large they are or where they happen to be situated on the property. This is viewed as overly restrictive by some for this application based on the short term duration someone may spend attending a memorial service in a remotely located structure located on cemetery property. It is common practice in federally owned cemeteries here in the Commonwealth to direct the visitors near the restroom facilities upon entering and exiting so that they can be utilized as needed.

The newly proposed exception is based on a current exception in the VPC which allows distances for employee facilities located in factories and industrial type occupancies to be extended "where approved" (approved by the code official). The suggested proposal incorporates the same "where approved" language but also adds that the toilet facilities must be located within the same cemetery property. Lastly, it is understood that that existing toilet facilities on property serving a new structure would have to fully comply with the current code to which the new structure is permitted and constructed under, including accessibility features. The on-site facilities are a required component of the new structure, no different than if they were located within the same footprint.

Submittal Information

Date Submitted: December 10, 2012

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
The Jackson Center
501 N. 2nd Street
Richmond, VA 23219-1321

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150



VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): Individual Government Entity Organization

Name: J. Kenneth Payne, Jr., AIA

Representing: VSAIA

Mailing Address: 3200 Norfolk Street, Richmond, VA 23230

Email Address: kpayne@moseleyarchitects.com

Telephone Number: 804.794.7555

Proposal Information

Code(s) and Section(s): **2012 IPC, Section 405.3.2**

Proposed Change (including all relevant section numbers, if multiple sections):

405.3.2 Public lavatories. In employee and public toilet rooms, the required lavatory shall be located in the same room as the water closet.

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.

Supporting Statement (including intent, need, and impact of the proposal):

This code change proposal was "Approved as Submitted" by the Plumbing Code Committee at the 2012 ICC Code Development Hearing in Dallas. The reasoning is repeated below:

This has been a long standing practice in school construction. It is geared towards helping educate children on the importance of personal hygiene. This arrangement also allows for group wash fixtures to be located adjacent to core toilet rooms. This allows the instructors to wait outside and assure the children wash their hands upon exit of the toilet room. More commonly, it permits the installation of the lavatory to be located within the classroom when water closets are installed in the classroom itself. So when a child uses the facilities they walk through a single door (no different in concept to exiting a typical toilet stall) into the classroom where the instructor can assure hands are washed.

This will almost always result in cost savings. Currently, in situations where a toilet room with a lavatory is provided within a classroom (as is required for grades PK-1 in Virginia, and oftentimes is also provided for other grades and Special Education classrooms), a sink must also be provided within the classroom itself for training and other general functions and purposes – thus requiring two lavs/sinks per classroom/space. By allowing the lavatory to be within the classroom, the sink could be omitted, thus saving costs multiplied by the number of classrooms/spaces requiring such lavs/sinks.

Submittal Information

Date Submitted: August 3, 2012

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
600 East Main Street
Suite 300
Richmond, VA 23219

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150



VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): Individual Government Entity Organization

Name: J. Kenneth Payne, Jr., AIA Representing: VSAIA

Mailing Address: 3200 Norfolk Street, Richmond, VA 23230

Email Address: kpayne@moseleyarchitects.com Telephone Number: 804.794.7555

Proposal Information

Code(s) and Section(s): **2012 IBC [P] Table 2902.1 and equivalent Table in the 2012 IPC**

Proposed Change (including all relevant section numbers, if multiple sections):

Add Footnote 'h' to Table 2902.1 as follows:

A-5 ^h	Stadiums, amusement parks, bleachers and grandstands for outdoor sporting events and activities	1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500	1 per 40 for the first 1,520 and 1 per 60 for the remainder exceeding 1,520	1 per 200	1 per 150	-	1 per 1,000	1 service sink
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h. See Section 2902.1.1 for allowable reduction in minimum number of required water closets and lavatories for Group E buildings and structures.

Revise 2902.1.1 and add subsection 2902.1.1 as follows:

[P] 2902.1.1 Fixture calculations. To determine the *occupant load* of each sex, the total *occupant load* shall be divided in half. To determine the required number of fixtures, the fixture ratio or ratios for each fixture type shall be applied to the *occupant load* of each sex in accordance with Table 2902.1. Fractional numbers resulting from applying the fixture ratios of Table 2902.1 shall be rounded up to the next whole number. For calculations involving multiple occupancies, such fractional numbers for each occupancy shall first be summed and then rounded up to the next whole number.

Exceptions:

1. The total *occupant load* shall not be required to be divided in half where *approved* statistical data indicate a distribution of the sexes of other than 50 percent of each sex.
2. For outdoor sporting events and activities at Group E buildings or structures, the minimum number of required water closets and lavatories may be reduced by no more than 50% provided all of the following are met:
 - a. Approval is granted by the building official.
 - b. Approved statistical data indicating an occupant load less than the occupant load determined by this code.
 - c. The remaining minimum number of required water closets, based on the anticipated actual occupant load in attendance at the time of the event or activity, shall be provided by portable toilets equipped with hand sanitizers or hand-washing capabilities.

Supporting Statement (including intent, need, and impact of the proposal):

This code change proposal addresses those situations where a high, middle, or elementary school has provided spectator seating (e.g., bleachers), but having to provide the minimum number of plumbing fixtures becomes cost prohibitive and becomes a burdensome task – especially in localities where the water must be supplied by a well and/or pump.

Historically, the fixed seating facilities are at capacity no more than a handful of times per year; yet, the minimum plumbing fixtures factors result in a vast number of plumbing fixtures that remain unused for 6 months or more out of a year. Oftentimes, draining of the water lines is required to avoid freezing, or traps must be continually primed, or the heat must be run in an unoccupied building to avoid the freezing of pipes, or a combination of all of the above and other maintenance related procedures.

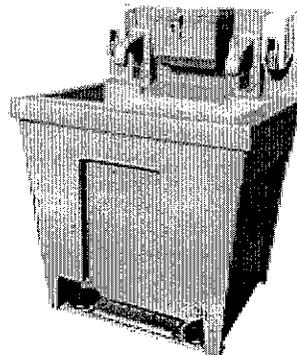
On those occasions where the occupant load does exceed the number of plumbing fixtures provided, portable toilets would be allowed to make up the difference – but for no more than 50%. For example, say a high school would like to provide bleacher seating for 3,000 people, per Table 2902.1 (A-5) the following minimum number of plumbing fixtures must be provided:

- Per Section 2902.1.1, divide occupant load by half = 1,500 male and 1,500 female
 - 1,500 male: 20 water closets + 8 lavatories
 - 1,500 female: 38 water closets + 10 lavatories
- Per the proposed code change, allow for up to a 50% reduction in water closets and lavatories
 - Male: 10 water closets + 4 lavatories
 - Female: 19 water closets + 5 lavatories
 - Portable toilets would need to make up the difference in water closets *only* (hand washing would be handled by sanitizers or washing stations)
 - 29 portable toilets would be required when the occupant load reaches 3,000 occupants
 - If more than 3,000 people attended the outdoor event, then more portable toilets would be required to make up the difference.
 - Conversely, if only 2,000 people attended, then only 10 portable toilets would be required
 - 1,000 male: 14 water closets + 5 lavatories
 - 1,000 female: 25 water closets + 7 lavatories

Portable toilets are allowed for numerous outdoor events and activities. It seems only reasonable that similar accommodations could be allowed for schools. The cost savings could be substantial in both initial and life cycle (maintenance) costs.



Portable toilets



Hand washing station

Submittal Information

Date Submitted: August 3, 2012

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
600 East Main Street
Suite 300
Richmond, VA 23219

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150



VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Organization

Name: J. Kenneth Payne, Jr., AIA

Representing: VSAIA

Mailing Address: 3200 Norfolk Street, Richmond, VA 23230

Email Address: kpayne@moseleyarchitects.com

Telephone Number: 804.794.7555

Proposal Information

Code(s) and Section(s): **2012 VCC, Section 908.7**

Proposed Change (including all relevant section numbers, if multiple sections):

Add Sections 908.7, 908.7.1 and 908.7.2 to the IBC to read:

~~908.7 Carbon monoxide alarms. Carbon monoxide alarms shall be provided in new buildings and structures in accordance with this section.~~

~~908.7.1 Alarm requirements. Carbon monoxide alarms shall be single station, hard-wired, plug-in or battery type, listed as complying with UL 2034, and shall be installed in accordance with this code and the manufacturer's installation instructions.~~

~~908.7.2 Where required. Carbon monoxide alarms shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in dwelling units and outside of, but in the immediate vicinity of, each sleeping unit in all Group R occupancies located within buildings containing fuel-fired appliances or where a dwelling unit or sleeping unit in a Group R occupancy is attached to a Group U private garage.~~

Supporting Statement (including intent, need, and impact of the proposal):

This proposal would delete the state amendment for carbon monoxide alarms in the IBC to permit the use of the 2012 IBC provisions. When this state amendment was approved, the 2012 IBC had not been finalized. The 2012 IBC provisions are essentially the same as the state amendment however, the 2012 IBC language provides for the use of a common building alarm in lieu of alarms in dwelling units where no fuel-burning appliances or garages are located within one floor of the dwelling unit and there is no interconnecting ductwork.

Submittal Information

Date Submitted: November 13, 2012

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
600 East Main Street
Suite 300
Richmond, VA 23219

Email Address: taso@dhcd.virginia.gov

Fax Number: (804) 371-7092

Phone Numbers: (804) 371-7140 or (804) 371-7150



VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Organization

Name: J. Kenneth Payne, Jr., AIA

Representing: VSAIA

Mailing Address: 3200 Norfolk Street, Richmond, VA 23230

Email Address: kpayne@moseleyarchitects.com

Telephone Number: 804.794.7555

Proposal Information

Code(s) and Section(s): **2009 IMC, Section 507**

Proposed Change (including all relevant section numbers, if multiple sections):

Add Exception 4 to IMC 507.1 as follows:

507.1 General. Commercial kitchen exhaust hoods shall comply with the requirements of this section. Hoods shall be Type I or II and shall be designed to capture and confine cooking vapors and residues. Commercial kitchen exhaust hood systems shall operate during the cooking operation.

Exceptions:

1-3 [unchanged]

4. Residential labeled, and listed hood can be provided in lieu of Type I or Type II hood when all of the following conditions are met:
 1. Appliance under the hood shall be residential labeled, and listed.
 2. Appliance under the hood shall be a single light-duty cooking appliance.
 3. Appliance under the hood shall be electric.
 4. Appliance under the hood shall have no more than six burners for any one appliance within any one room or space.
 5. Hood shall be ducted and exhausted directly to the exterior of the building, and cannot recirculate within the room, space, or building.
 6. Heat and moisture loads shall be incorporated into the HVAC system design or separate removal system.
 7. Room or space in which the hood is located shall be sprinklered in accordance with Section 903.3.
 8. Room or space in which the hood is located shall be equipped with a Class K-rated portable fire extinguisher within 30 feet of travel distance from the appliance under the hood.
 9. Room or space in which the hood is located shall be equipped with a manual fire alarm system in accordance with Section 907.
 10. Room or space in which the hood is located shall be equipped with an automatic smoke detection system in accordance with Section 907.
 11. Hood shall not penetrate the finished ceiling.

Supporting Statement (including intent, need, and impact of the proposal):

Currently, the interpretation and application of when a Type I or II hood is required for "residential" type appliances in different occupancy classifications is inconsistent. This has created numerous issues with designers and owners designing to meet the *intended* function of the cooking appliance, only to be required to provide a Type I or II hood, or request a code modification to avoid having to provide a Type I or II hood. Oftentimes, a "residential" cooking appliance within a "commercial" facility is classified by the building official or fire official as a "commercial" cooking appliance – thus typically requiring a Type I or II hood – where a "residential" hood should otherwise be sufficient.

Selected excerpts from the 2009 IBC Commentary are repeated below:

The following are examples of kitchens serving occupancies that, depending on the nature of the cooking and the code official's interpretation of this section, might require only a Type II hood, a residential-type hood or no hood at all for the cooking appliances: church assembly halls; child care facilities; office or factory lunch rooms; employee break rooms; police and fire stations; bed-and-breakfast lodgings; VFW and similar halls; domestic-type kitchens in institutional occupancies; cooking classrooms; cooking demonstration displays and charity soup kitchens.

Some common scenarios that come up are the type of hoods that are required in a life science classroom in a high school (i.e., a classroom used to teach, among other things, cooking to students) and the type of hood required over a cooking appliance(s) in a fire station. In both cases, the type of cooking is the deciding factor on the type of hood required.

Typically, students in a life science class are learning to prepare meals that are the same as those that are prepared for a family in a residential dwelling unit. In most cases, residential-type range/ovens are installed in the classroom. As such, the same byproducts that are produced in a kitchen in a dwelling unit would be produced in the classroom. Based on the residential style of cooking that is being taught, it would seem appropriate that the same type of hood installed in a residential dwelling could be installed over the residential range/ovens used in a classroom. Therefore, a Type I or II hood would not be required and residential kitchen hoods that are ducted to the outdoors could be installed.

In the case of a kitchen located in a fire station, once again it depends on the type of cooking and the intended use of the facility. Meals prepared in a kitchen in a fire station that has a residential-type range/oven that is only intended to be used to prepare meals for the fire fighters on that particular shift is similar, if not the same, as those prepared in a home environment. As such, the same byproducts that are produced in a kitchen in a dwelling unit would be produced in the kitchen in the fire station. Based on the residential style of cooking that is being performed, it would seem appropriate that the same type of hood installed in a residential dwelling could be installed or, in a case where the space meets its ventilation requirements in Chapter 4 of the code, no hood at all.

It is important to note that cooking appliances installed in commercial occupancies do not necessarily require the installation of a Type I or II hood. There are a number of installations in a commercial occupancy where residential-type cooking occurs that would not require a commercial kitchen hood. Lunchrooms and breakrooms in commercial businesses often have residential ranges/ovens installed. In addition, many multiple-family residential buildings (e.g., condominiums and townhomes) have a clubhouse or community room that the residents can reserve for special functions. Typically these are seldom used, and when they are, it is to warm food or bake frozen food like pizza, lasagna or premade appetizers. Based on the residential style of cooking that is performed on these appliances, it would seem appropriate that the same type of hood installed in a residential dwelling could be installed or there may be no hood at all.

The proposed code change attempts to take into account the highlighted context of the Code Commentary along with concerns expressed previously by building and/or fire officials to find a means by which a "residential-type" hood could be installed over a "residential-type" cooking appliance within a "commercial" facility – by requiring a multitude of conditions to be met.

Submittal Information

Date Submitted: ~~August 3, 2012~~ August 9, 2012

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
600 East Main Street
Suite 300
Richmond, VA 23219

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150



VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Skip Harper

Representing: VPMIA/VBCOA PMG Committee

Mailing Address: PO Box 160 Louisa, Va. 23093

Email Address: skipharper@vpmia.org

Telephone Number: 540-967-3414

Proposal Information

Code(s) and Section(s): 2012 VMC 507.2.3

Proposed Change (including all relevant section numbers, if multiple sections):

507.2.3 Domestic cooking appliances used for commercial purposes.

Domestic cooking appliances utilized for commercial purposes shall be provided with Type I or Type II hoods as required for the type of appliances and processes in accordance with Sections 507.2, 507.2.1 and 507.2.2.

Exception: A single four burner electric residential cooking appliance equipped with or without an oven shall be permitted to be installed in places of religious assembly (A-3) in accordance with the following:

1. Such appliance shall be placed under a residential type hood and exhausted to the outdoors.
2. The use of such appliances shall not be in conjunction with service for day care centers, education, or shelters.

Supporting Statement (including intent, need, and impact of the proposal):

The intent is to eliminate a Type I exhaust systems for a single range that will have less use then the average single family dwelling on a daily basis. Please note this is intended for one appliance only and limited to four burners, which may include an oven, for the simple fact that most residential ranges are four burners. Places of worship come in all sizes with different numbers of members across the state however these type appliances are generally used in conjunction with re-heating previously cooked foods or just warming foods, not cooking. Places of worship that provide other services such as day care, education or shelters must utilize commercial kitchens that would not qualify for this exception.

Submittal Information

Date Submitted: 8/10/12

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
600 East Main Street
Suite 300
Richmond, VA 23219

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150



M164-12
908.5

Proponent: Guy Tomberlin, Fairfax County Virginia, representing Fairfax County Virginia
(guy.tomberlin@fairfaxcounty.gov)

Revise as follows:

908.5 Water supply. Cooling towers, evaporative coolers and fluid coolers shall be provided with an approved water supply, sized for peak demand. The quality of water shall be provided in accordance with the equipment manufacturer's recommendations. ~~Water supplies~~ The piping system and protection of the potable water supply system shall be installed as required by the *International Plumbing Code*.

Reason: Various water resources are being utilized across the nation in many different ways. This is being done for many various reasons. Some are because of water shortages, others are in effort to simply conserve our precious resources and others are being done to constructively utilize rain water and properly treated re-use water. Technology provides us with the options for many different water reuses such as reclaimed and rainwater. This proposal clarifies that if the quality of water can be achieved then alternate sources shall be permitted. In addition if an interconnection or back up is provided with the potable system then proper cross connection contamination prevention shall be provided in accordance with the International Plumbing Code. Lastly, the piping system shall be installed according to the International Plumbing Code.

Cost Impact: reduces the cost below current requirements for the initial installation and throughout the life of the structure.

M164-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

908.5-M-TOMBERLIN.DOC

M168-12

928.1

Proponent: Guy Tomberlin, Fairfax County VA, representing Fairfax County Virginia
(guy.tomberlin@fairfaxcounty.gov)

Revise as follows:

928.1 General. Evaporative coolers equipment shall:

1. Be installed in accordance with the manufactures instructions.
2. Be installed on a level platform in accordance with section 304.10.
3. Have openings in exterior walls or roofs flashed in accordance with the *International Building Code*.
4. ~~Be provided with potable water backflow protection in accordance with section 608 of the *International Plumbing Code*.~~ Be provided with an approved water supply, sized for peak demand. The quality of water shall be provided in accordance with the equipment manufacturer's recommendations. The piping system and protection of the potable water supply system shall be installed as required by the *International Plumbing Code*.
5. Have air intake opening locations in accordance with Section 401.4.

Reason: This is consistent action in accordance with the proposal submitted to Section 908 for cooling towers. Various water resources are being utilized across the nation in many different ways. This is being done for many various reasons. Some are because of water shortages, others are in effort to simply conserve our precious resources and others are being done to constructively utilize rain water and properly treated re-use water. Technology provides us with the options for many different water reuses such as reclaimed and rainwater. This proposal clarifies that if the quality of water can be achieved then alternate sources shall be permitted. In addition if an interconnection or back up is provided with the potable system then proper cross connection contamination prevention shall be provided in accordance with the International Plumbing Code. Lastly, the piping system shall be installed according to the International Plumbing Code.

Cost Impact: reduces the cost below current requirements for the initial installation and throughout the life of the structure.

M168-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

928.1-M-TOMBERLIN.DOC

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Robert Torbin

Representing: Omega Flex, Inc

Mailing Address: 213 Court Street Suite 1001 Middletown, CT 06457

Email Address: bob.torbin@omegaflex.net

Telephone Number: (413) 388-2390

Proposal Information

Code(s) and Section(s): USBC G2411.1

Proposed Change (including all relevant section numbers, if multiple sections):

ADD THE FOLLOWING NEW TEXT TO SECTION G2411.1:

CSST with an arc-resistant jacket listed by an approved agency for installation without the direct bonding, as prescribed in this section, shall be installed in accordance with its listing and the manufacturer's installation instructions.

Supporting Statement (including intent, need, and impact of the proposal):

See attached Supporting Statement.

Submittal Information

Date Submitted: 6 August 2012

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR SBCO (State Building Codes Office)
600 East Main Street
Suite 300
Richmond, VA 23219

Email Address: Vernon.hodge@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7150



Supporting Statement

The use of a CSST product with a protective, arc-resistant jacket is an alternate method of protection against electrical arcing damage caused by high voltage transient events such as a nearby lightning strike. An arc-resistant jacket does not rely on direct bonding to the grounding electrode system to reduce or eliminate damage from electrical arcing. Instead, the protective jacket acts as a resistor and is designed to locally absorb and dissipate the arcing energy over a short length of the jacket. The jacket, in essence, disrupts the focus of the arc and reduces the energy level below the threshold value that can cause a perforation of the tubing wall. This dynamic action is equally effective compared to the current CSST bonding method regardless of the bonding conductor size or length. The protection against arcing is provided uniformly throughout the piping system, and is not affected by close proximity to other metallic systems that may not be similarly bonded.

The ICC Evaluation Service has developed listing criteria for arc-resistant jackets to verify that this design approach will provide an ability to resist damage from transient arcing currents under a wide range of conditions. A copy of the PMG Listing Criteria (LC1024) is included with this proposal. Currently, three CSST products are listed to PMG LC1024. The listing criteria defines the experimental means to determine whether the protective jacket provides resistance to damage from indirect lightning strikes without the need for additional bonding as prescribed currently in Section G2411.1 of the VA Uniform Statewide Building Code. A proposal to include performance requirements for an arc-resistant jacket based on the PMG LC1024 Listing Criteria is presently under consideration by the ANSI LC-1 TAG.

Extensive testing has been performed by Lightning Technologies Inc. (Pittsfield, MA) to demonstrate that the protective, arc-resistant jacket can resist in excess of 4.5 coulombs without a perforation of the tubing wall. A copy of a pertinent LTI test report is attached. By comparison, experimental testing has determined that energy levels around 0.15 coulombs are sufficient to perforate uncoated CSST. While no product or system is immune to damage from a direct lightning strike, lightning experts agree that a level of approximately 2 coulombs is the upper end of the energy level induced in metallic systems (inside the building) from a nearby/indirect lightning strike. A recent IEEE paper by Dr. Michael Stringfellow (attached) on lightning damage confirms that the proposed energy value (2 coulombs and lower) appears consistent with lightning damage observed in the field, and the acceptance level (4.5 coulombs) represents an appropriate safety threshold for this type of lightning protection.

The cost impact to the consumer of allowing the use of arc-resistant jacket CSST as an alternate method of bonding CSST should be minimal if not zero. The small extra cost per foot of arc-resistant jacket is more than offset by the elimination of the two bonding connections, the 6 AWG conductor wire, and the labor time for the electrician to install.

CSST with arc-resistant jacket has been commercially installed since 2004, and at the present time, three different (black-jacketed) products are commercially available. Field experience has been very favorable with no known cases of indirect lightning damage to CSST piping systems using these arc-resistant jackets. Currently, at least 10 states permit the installation of the arc-resistant CSST without the need for additional bonding. Given that both conventional (yellow) and advanced (black) CSST products will continue to be commercially available, both methods of electrical protection of CSST systems should be recognized and permitted within the Code.

REQUEST FOR INTERPRETATION

TO: OFFICE OF THE STATE BUILDING CODE TECHNICAL REVIEW BOARD
VIRGINIA DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT
Main Street Centre
600 East Main Street
Richmond, Virginia 23219
Tel: (804) 371-7150 Fax: (804) 371-7092

FROM: Henry D. Rosenbaum
Fire Marshal, Henrico County Division of Fire

Phone: Office 804 501 4914 Cell 804 971 0704

Code: 2009 Virginia Statewide Fire Prevention Code

Section(s): 308.1.4 Open-flame cooking devices: and Exceptions:

Submitted by (signature): Henry D. Rosenbaum Date: October 25, 2012

QUESTION(S): Does Section 308.1.4 Exception 1: *One- and two-family dwellings* include "Townhouses"?

Thank you in advance for your time and consideration in this interpretation.

Henry Rosenbaum
Fire Marshal
County of Henrico
Division of Fire

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2012 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): Individualxxx Government Entity Company

Name: Andrea H. Pitts Representing: self

Mailing Address: P.O. Box 926, Fredericksburg, VA 22404

Email Address: pitts.andrea@gmail.com Telephone Number: 703-518-4473

Proposal Information

Code(s) and Section(s): 2009 SFPC, subsection 308.1.4

Modify Exception 1 of subsection 308.1.4 of the 2009 SFPC (incorporating by reference the 2009 IFC) to read:

"1. One- and two-family dwellings, but no open-flame cooking device shall be operated within 10 feet of combustible construction that is located on an adjacent lot."

OR

"1. One- and two-family dwellings, but no open-flame cooking device shall be operated within 10 feet of combustible construction that is not located on the same lot as is the one- or two-family dwelling."

Supporting Statement (including intent, need, and cost impact of the proposal):

This is a supplement to the (corrected) proposal, dated November 11, 2012, to amend subsection 308.1.4 of the 2009 Virginia State Fire Prevention Code (SFPC) (incorporating by reference subsection 308.1.4 of the International Fire Code (IFC)).

Subsection 308.1.4 ("Open flame cooking devices") sets out a general prohibition: "Charcoal burners and other open-flame cooking devices shall not be operated on combustible balconies or within 10 feet (3048 mm) of combustible construction."

The proposed language amends Exception 1 of subsection 308.1.4 to show that the exception for "[o]ne- and two-family dwellings" to the general prohibition against operating an open-flame cooking device within 10 feet of combustible construction applies only to the one- or two-family dwelling on the lot where the device is being used and not to combustible construction on any adjacent lot. Subsection 308.1.4 recognizes by its general prohibition that open-flame cooking conducted at a distance of 10 feet or less from combustible construction is not safe. The proposed language highlights and preserves the protection of the safe-distance rule (i.e., more than 10 feet) for neighboring combustible construction. As is noted in the November 11, 2012 proposal (corrected) to amend subsection 308.1.4 of the 2009 SFPC, the exception for one- and two-family dwellings to the safe-distance requirement (i.e., more than 10 feet) of that subsection was not intended to place combustible construction on neighboring lots at risk.

Most residential lots have yards (most often, back yards) that are sufficiently wide and deep to allow the occupant to operate an open-flame cooking device at a distance of more than 10 feet from neighboring combustible construction. (It **58**

would be an extremely rare case in which the largest yard available under zoning or other local laws for open-flame cooking on a lot containing a one- or two-family dwelling was too shallow or too narrow to allow the activity to take place more than 10 feet from neighboring combustible construction.) But the modification of Exception 1 of subsection 308.1.4 should not focus, or hinge, on the size of the excepted one- or two-family dwelling's lot or the distance from the excepted dwelling to the lot line. Those factors do not always provide de facto enforcement of the safe-distance rule (i.e., more than 10 feet). In many instances, the occupant of the lot on which the excepted dwelling sits could operate the open-flame cooking device close enough to the lot line to be within 10 feet of combustible construction situated on a neighboring lot. Thus, for example, Exception 1 should not be modified to read: "One- and two-family dwellings where the dwelling is at least 10 feet from the lot line."

Two versions of the amended language are offered. The second may be preferable because it is more inclusive: there could be situations in which neighboring combustible construction that could potentially be within 10 feet of open-flame cooking conducted on another lot was not strictly "adjacent" combustible construction.

Submittal Information

Date Submitted: November 23, 2012

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR SBCO (State Building Codes Office)
600 East Main Street
Suite 300
Richmond, VA 23219

Email Address: Vernon.hodge@dhcd.virginia.gov
Fax Number: (804) 371-7092
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