



Permitting & Inspections Newsletter

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20 East Gay Street Harrisonburg, VA 22802

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2012 Code Update

The **2012 Virginia Uniform Statewide Building Code** officially replaced the 2009 code in July. There are many changes. Listed below are three of the most significant changes in the residential code.

Wall Insulation

The new code requires exterior walls to be insulated to R-15 or R-13+1 *continuous insulation*. What does this mean? The first value is cavity insulation, the second is continuous insulation or insulated siding, so “13 + 1” means R-13 cavity insulation plus R-1 continuous insulation or insulated siding. There are several ways to achieve compliance. First, if 2x6 walls are used, an R-19 batt can be used. The second way is to install a high density R-15 batt insulation in the standard 2x4 wall cavity. The third way is to use foam sheathing over the entire exterior wall surface. There is also a new house wrap which achieves an additional R-value of 5.



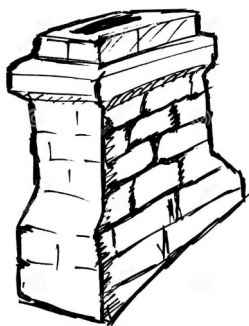
Lumber Spans

The spans for **Southern Yellow Pine #2**, which is one of the most widely used species in residential construction, have been reduced overall by about 2 feet. This affects floor joists, ceiling joists, and rafters. For instance, a 2x10 floor joist which used to span 16 feet now spans only 14 feet. Be sure to check your plans to make sure your design meets the new criteria.

Interior Passage (R311.2.1)

“Where a dwelling unit has both a kitchen and a living or entertainment area *on the same level as the egress door* required by Section R311.2, an **interior passage route** shall be provided from such egress door to the kitchen and the living or entertainment area and to **at least one bedroom and at least one bathroom** containing a water closet, lavatory and bathtub or shower, where such rooms are provided on that same level. Any cased openings shall provide a minimum 34-inch clear width. Doors shall be, at a minimum, nominal 34-inch doors.”

The code section does not specify which bedroom or bathroom doors have to meet the requirement.



Wood Burning Fireplaces:

Tis the Season... Remember that factory built and masonry fireplaces shall be equipped with an exterior air supply to assure proper fuel combustion. In addition, if you are building a masonry fireplace, we need to inspect the inside and outside of the firebox before it is concealed. This includes the backside of the firebrick.

Featured Topic:

Wall Cavities Used as Plenums or Ducts

A common practice among Heating and Air contractors is to use wall cavities for return air. Although this practice was already prohibited in earlier versions of the Energy Code, the Mechanical Code allowed it. The 2012 Energy Code Section **N1103.2.3** makes it **mandatory** that building framing cavities shall not be used as ducts or plenums.

Reminder: *Building Cards should be posted in a conspicuous place visible from the street so the inspectors can locate your job. This includes remodels, additions, and decks. Remember also to have the approved plans on site for your inspections.*

HELPFUL TIP: You can view the new State of Virginia Building Codes at: <http://codes.iccsafe.org/Virginia.html>



NI 101.12.1 ENERGY CERTIFICATE The insulation installers shall provide a certification listing the type, manufacturer and R-value of insulation installed in each element of the *building thermal envelope*. **The insulation installer shall sign, date and post the certification label in the electrical panel.**

NI 103.2.2 DUCT SEALING Ducts, air handlers, and filter boxes shall be sealed. All joints, longitudinal and transverse seams, and connections in ductwork shall be securely fastened and sealed with welds, gaskets, mastics (adhesives), mastic-plus-embedded-fabric systems or tapes. Closure systems used to seal flexible air ducts and flexible air connectors shall comply with UL 181B and shall be marked “181 B-FX” for pressure-sensitive tape or “181 B-M” for mastic. Duct connections to flanges of air distribution system equipment shall be sealed and mechanically fastened. Mechanical fasteners for use with flexible non-metallic air ducts shall comply with UL 181B and shall be marked 181B-C. Crimp joints for round metallic ducts shall have a contact lap of not less than 1 inch (25.4 mm) and shall be mechanically fastened by means of not less than three sheet-metal screws or rivets equally spaced around the joint.

Verification of compliance with this section shall be in accordance with either the **Testing Option or Visual Inspection Option**.

The visual inspection option is the most used method to verify compliance. Remember to leave all sealed connections visible at the mechanical rough in inspection.

NI 104.1 (R404.1) LIGHTING EQUIPMENT (Mandatory)

A minimum of 50 percent of the lamps in permanently installed luminaires shall be high-efficacy lamps or a minimum of 50 percent of the permanently installed luminaires shall contain only high-efficacy lamps.

Exception: Low-voltage lighting shall not be required to utilize high-efficiency lamps.



P2903.5 WATER HAMMER

The flow velocity of the water distribution system shall be controlled to reduce the possibility of water hammer. A **water-hammer arrestor** shall be installed where quick-closing valves are utilized, unless otherwise approved. **This includes icemaker, dishwasher, and washer boxes.**

E4001.15 SWITCHES CONTROLLING LIGHT LOADS

Where switches control lighting loads supplied by a grounded general purpose branch circuit, the **grounded (neutral) circuit conductor** for the controlled lighting circuit shall be provided at the switch location.

Exception: The grounded circuit conductor is not required to be provided at the switch enclosure where either of the following conditions apply:

1. The conductors enter the box through a raceway. The raceway shall have sufficient cross-sectional area to accommodate the extension of the grounded circuit conductor of the lighting circuit to the switch location whether or not the conductors in the raceway are required to be increased in size to comply with Section E3705.3.
2. Cable assemblies enter the box through a framing cavity that is open at the top or bottom on the same floor level, or through a wall, floor, or ceiling that is unfinished on one side.



Effective 11/16/2015, when a **residential footing inspection** is scheduled, an **erosion and sediment inspection** will automatically be scheduled at the same time. The E & S inspection also requires a **concrete washout container** to be on the job site. The container must be leak proof and large enough to hold the concrete washout water. Examples include kiddie pools or a pit lined with plastic.

Please contact Lisa Perry at 564-6095 if you have questions.

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