



**Sussex County, Virginia**  
**Building Department**

# ***Memo***

**To:** Builders, Contractors, and Homeowners  
**From:** Travis Luter  
Building Official  
**Date:** December 10, 2008  
**Re:** Helpful Hints

---

Builders, Contractors, Home owners,

Attached you will find a list of "Helpful Hints" and details for planning your next project. This list in no way represents all applicable codes that will pertain to your project. This list represents the most common mistakes found during inspections.

Thank you,

Travis Luter, Building Official

Michael McHale, Inspector

1. Mechanical exhaust fans required in bathroom, water closet compartment and other similar areas R303.3
2. Other openings (garage to residence); 1 3/8" solid wood doors, 20-minute fire-rated doors (R309.1)
3. Garage-dwelling separation; 1/2" gypsum board on garage side, except 5/8" Type X required below habitable rooms (Room over garage)
4. (R309.2)
5. Sleeping room window for emergency escape: opening 5.7 sq. ft. (24" net clear height, 20" net clear width); grade floor 5 sq. ft. (R310.1 – 310.4 & USBC 310.1)
6. Window sill height maximum is 44". For all windows over 72" above grade (second floor windows) the minimum sill height is 18". IRC & USBC 613.1 & 2
7. Landings for all exterior doors minimum 3 X 3. (R311.4.3)
8. Risers shall be vertical or sloped from the underside of the leading edge of the tread above at an angle not more than 30 degrees (0.51 rad) from the vertical. Open risers are permitted, provided that the opening between treads does not permit the passage of a 4-inch diameter (102mm) sphere.
9. **Exceptions:** The opening between adjacent treads is not limited on stairs with a total rise of 30 inches (762mm) or less. (R311.5.3.3)
10. Stair Handrails; required on 1 side, height 34"-38" (R311.5.6)
9. Illumination. All stairs shall be provided with illumination in accordance with Section R303.6. (R311.5.7)
11. Guards: required for porches, balconies, ramps, or raised floor surfaces greater than 30" above floor or below grade 36" minimum guard height (R312.1)
12. Guards: open sides of stairs minimum guard height 34" (R312.1)
13. Guardrail opening limitations are: 6" in the triangular area at the tread, riser, and bottom of the guard system on the steps; less than 4" spacing on the pickets; less than 4" from the top of the decking board to the bottom of the guard system (R312.2)
14. Ramp landing, minimum 3' X 3' (R311.6.2)
15. Ramp handrails; one required if slope greater than 1:12 (R311.6.3)
16. Smoke detectors must be installed in each sleeping area; immediately outside each sleeping area; one on each level including unfinished attics and basements; (R313.2)
17. When more than one smoke alarm is required to be installed within an individual dwelling unit the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. (R313.2)
18. All wood framing members that rest on concrete or masonry exterior foundations walls must be at least 8" above grade. (R319.1)
19. Wood siding and sheathing on the exterior of a building must be at least 6" from grade. (IRC 319.1)
20. Minimum concrete compressive strength is 2,500 psf (R402.2)

21. Minimum footing width is 12", but the actual footing width for each job will be determined by the foundation to be used and the projection needed. (Table R403.1)
22. The minimum footing depth needed is 8" for a one story and 10" for a two story structure.
23. Footing trench depth = 18" minimum (R403.1.4, R403.1.4.1 and R403.1.4.2)
24. Sill plate bolting in concrete/masonry = 1/2" diameter bolts at 6' o.c. and within 12" but not less than 7 bolt diameters from corners and sill plate ends; 7" embedment (R403.1.6)
25. Columns must have positive anchorage at the top and the bottom. (R407.3 & 502.7)
26. Minimum crawlspace access is 16" X 24" (R408.4)
25. Floor systems. Joists framing from opposite sides over a bearing support shall lap a minimum of 3 inches (76 mm) and shall be nailed together with a minimum three 10d face nails. A wood or metal splice with strength equal to or greater than that provided by the nailed lap is permitted. (R502.6.1)
27. Masonry bonding-metal ties shall be 3/16" minimum diameter corrosion-resistant ties @ 36" maximum horizontal spacing and 24" maximum vertical spacing. (R608)
28. The minimum size of an attic access is 22" X 30". (R807.1)
29. Insulation values are: Ceiling R-38, Floor R-19, Walls R-13 Basement Wall R-8, Slab Perimeter and Depth (R-5 & 2 ft.), Crawlspace Walls R-10. (IRC Table 1102.1 & 1102.1.2)

### **ADDITIONS**

1. Bedrooms shall not constitute the only means of access to other bedrooms or habitable spaces and shall not serve as the only means of egress from other habitable spaces. (IPMC 404.4.2)
2. When alterations, repairs or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings; the smoke alarms shall be interconnected and hard wired. (R313.2.1)