



Typical Residential Construction Specifications

Version 2021-08-12

1. All construction shall comply with:

- a. The Virginia Uniform Statewide Building Code;
- b. The International Residential Code - One and Two Family Dwellings;
- c. The International Energy Conservation Code; and
- d. All subsequent amendments.

Please see the [VUSBC webpage](#) for more information on codes and code years applicable to your project.

2. Those articles or materials specified by proprietary name or by name of vendor or manufacturer are expected to be furnished. Revisions for materials/construction are allowed provided Building Plan Review Section approves of these revisions.

3. Minimum design loads:

- a. Roof----- 30 psf (live) + 17 psf (dead)
- b. Floors----- 40 psf (live) + 10 psf (dead)
- c. Floors (sleeping areas) ----- 30 psf (live) + 10 psf (dead)
- d. Decks----- 40 psf (live) + 10 psf (dead)
- e. Balconies----- 40 psf (live) + 10 (dead)
- f. Attic (limited storage) ----- 20 psf (live) + 10 (dead)
- g. Design Wind Speed----- 90 mph / 3 second gust

4. Fire separations:

- a. Garage partitions and attics (common to house) --1/2" drywall
- b. Garage ceiling (under habitable space) ----- 5/8" type "x" drywall
- c. Dry wall to be installed on the garage side

5. Presumptive soil bearing capacity is 1,500 psf on undisturbed soil.

6. Minimum footer depth 24" or until solid bearing soil is reached.

7. Provide 4" continuous foundation drain tile around perimeter of foundations for habitable or useable spaces below grade per section.

8. Concrete not exposed to weather shall have a minimum compressive strength of 2,500 psi at 28 days.

9. Exposed exterior concrete shall be air entrained and have a minimum compressive strength of 3,500.

10. Slabs on grade shall be 4" thick with 10 mil polyethylene vapor barrier. Provide 4" wash stone/gravel below slab.

11. All wood exposed to weather or within 18" of finish grade or bearing directly on concrete or masonry shall be pressure treated wood.

12. Anchor bolts shall be spaced 1'0" from corners and every 6'0" there after. Anchor bolts shall be 1/2" minimum and extend 7" into concrete or masonry less than 8" from grade.

13. Roof sheathing shall be a minimum of 1/2" exterior plywood, 7/16" or better.

14. Provide roofing materials, asphalt shingles, #15 felt and ice damming from the eave's edge to a minimum of 2'-0" past line of interior wall.

15. Flashing: Corrosion resistive flashing shall be provided on exterior window and door openings. Similar flashing shall be installed at the intersection of chimney or other masonry construction with frame walls, under and at the ends of masonry, wood or metal copings and sills, continuously above all projecting wood trim, at wall and roof intersections, at junctions of chimneys and roofs, at all roof valleys and at all roof openings.
16. Doors between house and garage shall be 1 3/8" solid wood or fire rated for 20 minutes.
17. All bathrooms, excluding those with openable operable windows, shall be mechanically vented to the exterior (minimum 50 cfm exhaust fan).
18. All fixtures and accessories installed outdoors and exposed to the weather shall be weatherproof.
19. Insulation values per International Energy Conservation Code:

	2018 Code year**	2021 Code year**
a. Ceiling/roof	R-49	R-60
b. Walls	R-13+1 or R-15	R-13+1 or R-15
c. Floor exposed to outside	R-19	R-19
d. Basement walls	R-10 Continuous R-13 Cavity	R-10 Continuous R-13 Cavity

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20. Smoke detectors shall be installed in each bedroom, outside each bedroom in the immediate vicinity, and on each level of the house. Smoke detectors shall be hard wired and interconnected to each other and have battery back-up.
21. Crawl spaces will have vents located within 3'0" of corners and have an access crawl opening hole that is at least 18" x 24" in floors and 16" x 24" through perimeter walls above grade.
22. Attic access size and location shall be clearly marked on plans and have a minimum opening of 22" x 30".
23. Basement areas shall have emergency egress by a window or door in the room leading directly to the outside. Egress windows shall have a net clear opening of 5.7 square feet. The minimum net clear opening height shall be 24" by a net clear opening width of 20". Sill height shall not exceed 44" from the finished floor.
24. Glazing is required in doors and enclosures for hot tubs, whirlpools, saunas, steam rooms, bathtubs, and showers. Glazing in any part of a building wall enclosing these compartments where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) measured vertically above any standing or walking surface shall be tempered or safety glass.