Residential Building Plans

The 2009 edition of the Uniform Statewide Building Code (USBC) became effective March 1, 2011. In accordance with USBC Section 103.2, building plans and applications submitted on and after 3/01/12 shall comply with the 2009 USBC, referencing the 2009 edition of the International Residential Code (IRC). All previously approved models will need to be amended and resubmitted for review. Due to the number of plans currently submitted, please allow 20-24 working days for new submittals and 5-7 working days for resubmittals review. To eliminate confusion, any plans submitted prior to 2/29/12 will be reviewed and permitted in accordance with the 2006 USBC; however, should the plans not be approved, resubmittals must be received within 10 calendar days of the date of the review letter or will have to comply with the 2009 USBC.

As a reminder, application and plan submittal need to incorporate the following:

The footprint on the site plan must match the building plan, including all cantilevered construction, decks, and concrete. The height of the building must scale to meet all zoning requirements or the permit will not be issued. Lots shall be graded as to drain surface water away from the foundation while complying with the City’s Site Plan Ordinance. USBC 103.11, 109.2, & R401.3

In preparation for electronic submittal, building plans submitted for review need to be one set is to be full size to scale and one half-size that we will keep. A plan submittal shall include floor and foundation plans, with room use and wall bracing designations; elevations; wall sections; truss details; notes, including door and window schedule; and energy calculations. USBC 109.4 and 109.5

Virginia Beach is located in a 110-120 mph wind zone. Building plans shall reflect compliance with applicable wind loads. Plans for residential construction 35’ or less in height not adjacent to a coastline may comply with applicable provisions in the USBC/IRC. Please note this will affect not only the structural elements and roof coverings (R905) but also windows, skylights, and exterior doors (including garage doors) per Tables R301.2(2), R301.2(3), & R613.2.

All construction plans for residential structures located in a coastal high hazard zone are required to be sealed by a RDP, and comply with the Section R323, flood-resistant construction. A permit will not be issued without a current FEMA elevation certificate.
Some significant changes to the 2009 USBC/IRC -

USBC R302.2 – 1 hour fire separation for townhouses sprinklered per R313

IRC R305.1 – Minimum 6’8” center clearance required for ceilings slope in bathrooms

IRC R312.1 – 36” guardrail required for open-sided walking surfaces, including stairs, porches, balconies, and landings 30” above grade measured 36” horizontally.

IRC R313 – where installed sprinklers must comply with P2904 or NFPA 13D.

USBC R315.3 – Carbon Monoxide Alarms required

IRC R319 – Address numbers and letters are to be 4” high and ½” width

USBC Table R602.3 (1) – amendments to fastener schedules

IRC Table R602.3 (5) – Framing table address “habitable attic”

USBC R602.10 – adopted IRC 2012 lateral bracing requirements – should be easier

USBC R612.2 – Operable windows more than 72” above grade, the lowest part of the operable shall be 18” above the floor in room where window is located

R613 – Structural Insulated Panels

R704 & R704 – performance requirements for wind resistance for exterior walls

IRC R806.4 – Unvented Attic Assemblies

USBC/IRC Chapter 11 – Energy

  Ceilings R-38 insulation: Windows U-0.35
  Air leakage and air sealing methods increased N1103.2.2
  Blower door test required N1103.2.2.1
  Duct tightness test required if located outside conditioned space
  Programmable thermostats N1103.1.1

USBC M1502.4.4.1 – Maximum length dryer exhaust duct 35’

USBC G2415.4 – Underground gas line not allowed to penetrate into building

IRC P3005.2.6 – Cleanout required at base of each sanitary drainage stack

IRC E3609.3 – Bonding terminations bar required for cable communications

USBC E3902.11 – Arc Fault Circuit Interrupters required for bathroom outlets

IRC E4002.14 – Tamper resistant receptacles required throughout residence