

## Checklist for single family dwelling drawings

(Be sure the following information is included on both sets of permit drawings.)

- A. DESIGN CRITERIA - Minimum scale of 1/4" to 1' for all drawings
- \* Type of framing to be used - Platform, Balloon or other
    - Platform - Studs are one story high, floor joist for each story rests on the top plates of the story
    - Balloon - All vertical structural elements of the exterior walls consist of single studs which extend the full height of the frame, from the sole plat to the roof plate
    - Other than platform or balloon framing, engineered designs provided
- B. LOCATION ON LOT
- Distances to other structures on the property within 10'
  - Indicate if located in flood zone - indicate zone classification
  - Indicate if located in an area of geo-technical concern
- C. FLOOR PLANS
- Entire floor plan of dwelling
  - Indicate garage - if applicable
  - Show uses of all rooms and their dimensions
  - Indicate the locations and sizes of all doors and windows
    - I. Location of all stairwells
      - Provide tread depths - Minimum 9"
      - Provide riser heights - Maximum 8 1/4"
      - Provide stair widths - Minimum 36"
      - Provide handrail dimensions
- D. FRAMING INFORMATION
- \* Indicate type of foundation to be used - conventional or monolithic pour
  - \* Footing Details
    - Depth of footing from finished grade to bottom of footing - minimum 24"
    - Depth of footing from finished grade to bottom of footing if located in area of geo-technical concern - minimum 48"
    - Thickness of concrete footing - minimum 8"
    - Width of footing - minimum 16"
    - Size, spacing and location of isolated footings for support piers
  - \* Foundation Walls - Indicate basement, crawl space or slab on grade
    - Type of wall - poured concrete, CMU wall, etc.
    - Thickness of wall - minimum 6"
    - Height of wall
    - Height of unbalanced fill against the wall

- Size and location of reinforcement required
- Size, spacing and location of isolated footing for support piers
- Provided basement wall type form is completed and signed
- Type of waterproofing method to be used on foundation walls
- Location and size of ventilation openings - if crawl space
- Crawl space access opening location and size
- Type of vents provided if location in a flood plain
- Type of foundation anchorage - sill plate anchors

\* Floor Framing

\* Type of floor system to be used

1. Steel framed floor system

- Provide the identification requirements from IRC - section R505.2.2
- Size and spans for floor joist
- Location and type of joist bridging

2. Wood framed floor system

- Provide the species and grade of the lumber to be used
- Size and material of support beams
- Spans of support beams
- Depth of beam pockets
- Size and material of any support posts
- Size and material of any ledger attachments
- Size of floor joists
- Spans of floor joists
- Spacing for floor joists
- Location and spans of any cantilevers
- Layout for engineered lumber floor systems
- Location and size of any required joist bridging

3. Concrete floors at grade

- Thickness of concrete - Minimum 3 1/2"
- Thickness of base under slab
- Size and design of grade beams if on backfill
- Indication of required vapor barrier - Minimum of 6 mil poly

\* Wall Construction

\* Type of wall system to be used

1. Steel framed wall construction

- Provide the identification requirements from IRC - section R603.2.2
- Height and spacing of metal studs
- Indicate size of fasteners to be used

- Indicate stud placement
- Indicate the type of wall to foundation connection
- Size and detail for all openings, i.e.: doors and windows
- 2. Wood framed wall construction
  - Provide the species and grade of the lumber to be used
  - Height and spacing of the studs
  - Provide a wall layout that indicates opening locations
  - Indicate type of exterior sheathing to be used
  - Indicate type of exterior veneer to be used
  - Indicate type of water resistive barrier to be provided
  - Indicate size of all headers
- 3. Masonry wall system
  - Provide wall height
  - Provide the height of the unbalanced fill against wall
  - Provide the size and spacing of reinforcement to be used
  - Provide the size of lintels to be used above any opening in the wall
- 4. Insulating concrete form wall construction
  - Provide wall type and normal size
  - Provide maximum wall height
  - Provide minimum width of vertical core
  - Provide minimum thickness of vertical core
  - Provide maximum spacing of vertical cores
  - Provide spacing for horizontal cores
  - Provide minimum web thickness
- 5. Conventional concrete wall system
  - Provide thickness of the wall
  - Provide the wall height
  - Provide the size and spacing of vertical reinforcement
  - Provide the size and spacing of horizontal reinforcement
  - Provide detail for reinforcement placement at wall openings

\* Roof Construction

\* Indicate type of roof to be used

- Gable roof
- Hip roof
- Gambrel roof
- Provide roof pitch
- Flat roof
- Indicate degree of slope
- Indicate type of covering
- Indicate the type of roof construction to be used

1. Pre-manufactured truss roof
  - Provide manufacturer's layout to indicate placement of support beams with permit drawings
2. Field framed roof system - Indicating grade and species of lumber to be used
  - Provide rafter size
  - Provide rafter spacing
  - Provide rafter spans
  - Provide ceiling joist size
  - Provide ceiling joist spacing
  - Provide ceiling joist spans
  - Provide size and material of ridge beam
  - Provide details for ridge beam support
  - Indicate dormer locations
  - Framing information that is required for dormers mirrors that for framed roof and wall systems
  - Indicate type and amount of ventilation that is to be provided for the attic space
  - Type of exterior sheathing to be provided
  - Type of roof covering to be provided
- \* Insulation - Charles County is a climate zone 4 - Reference section N1102 of 2006 IRC
- \* Provide 'R -value' or 'U-factor' ratings for indicated building elements - (Values given are minimum's)
  1. R-values
    - Attic - R-38
    - Wood framed wall - R-13
    - Mass wall (concrete or masonry) - R-5
    - Floor - R-19
    - Basement wall - R-10, R-13
    - Concrete slab - R-10 for minimum 2ft
    - Crawl space - R-10, R-13
  2. U-factors
    - Attic - 0.030
    - Wood framed wall - 0.082
    - Mass wall (concrete or masonry) - 0.141
    - Floor - 0.047
    - Basement wall - 0.059
    - Crawl space wall - 0.065
    - Provide 'U-factors' for all windows and doors
    - Fenestration (windows) - 0.40

- Skylights - 0.60
- \* Chimney's and fireplaces
- \* Pre-manufactured fireplaces
  - Provide installation instructions
- \* Pre-manufactured chimneys
  - Provide installation instructions
  - Indicate the location of flue terminations
- \* Masonry fireplaces
  - Footing and foundation details
  - Provide hearth slab thickness
  - Provide hearth extension detail
  - Provide hearth reinforcement
  - Provide the thickness of the firebox
  - Provide the distance from the top of opening to throat
  - Provide smoke wall thickness
  - Provide size and material of fireplace lintel
  - Provide the thickness of the chimney walls with a flue lining
  - Provide the distances between adjacent flues
  - Provide roof termination clearances
- \* Bathroom and Kitchen layouts
  - Provide specific fixture layouts - distances to adjacent permanent fixtures
- \* Interior finishes
  - Type of floor coverings
  - Type of wall coverings
  - Type of ceiling coverings
- \* Location of these major electrical components
  - Electrical Panels and Meter
  - HVAC equipment
  - Smoke detectors
  - Carbon Monoxide detectors
  - Water heaters
  - Hot tubs
  - Jacuzzi tubs
  - Clothes washer
  - Clothes dryer
  - Dishwasher
  - Range
  - Garbage disposal
  - Refrigerator

- Permanent space heaters
- \* Location of these major fuel burning appliances
  - HVAC equipment
  - Clothes dryers
  - Water heater
  - Range
  - Boilers
- \* Location of these major plumbing fixtures
  - Water heater
  - Laundry tub
  - Ejector/Sewage pump
  - Boilers
  - Radiant heat