Residential Plan Review 101

Spotsylvania County Building Safety Department

August 16, 2017

Overview

- Intake Forms
- Specific Forms
- Other Documents
- Checklists
- Top 25
- Electronic Plan Review
- Odds and Ends
- Questions

FORMS

All Forms can be found

www.spotsylvania.va.us

Departments

- Building
- Permit Center

Single Family Electronic Checklist

RESIDENTIAL SINGLE FAMILY/MODULAR HOME PERMIT ELECTRONIC CHECKLIST

You must submit an electronic copy along with a paper copy

Note: This checklist is required and is considered part of the application.

- ☐ 1. Complete the Residential Application Form.
  - ☐ Legal Landowner Signature, Limited Power of Attorney, or a Copy of Signed Contract
  - ☐ Landowner Representative Affidavit (if applicable)
- ☐ 2. Notify Technician of any previous Erosion Permits.
- ☐ 3. Provide the following required Virginia State Contractor's License:
  - ☐ Contractor Class A/B/C License
  - ☐ Plumbing License-A/B/C
  - ☐ Plumbing Tradesman License and Statement
  - ☐ Electrical License-A/B/C
  - ☐ Electrical Tradesman License and Statement
  - ☐ HVAC (Mechanical) License-A/B/C
  - ☐ HVAC Tradesman License and Statement
  - ☐ Tradesman License LP Gas and Tank Statement-if applicable
  - ☐ Landownership Affidavit if landowner is performing any of the work him or herself
- ☐ 4. One (1) Complete Set of Building Plans (See attached sheet for plan requirements)

***Please indicate number of electrical meters that will be on the house_____**

***IS THIS A FAST TRACK APPLICATION?** ☐ Yes ☐ No If yes, all plans must be per policy.

- ☐ 5. One (1) Complete set of Sealed Engineered Truss Plans; or Applicant Indicates Framed Roof on application form (built on site/rafters).
- ☐ 5. One (1) Residential Energy Compliance Worksheet
- ☐ 7. One (1) HVAC System Design Worksheet
- ☐ 8. One (1) Set of Engineered Floor Plans; or Applicant Indicates Framed Floor on application form (non-engineered).
- ☐ 9. One (1) Set of Beam Specs, Engineered; or Applicant indicates non-engineered beams on application form (girders & headers).
- ☐ 10. One (1) Complete Foundation Report.
- ☐ 11. One (1) Additional Floor Plans **needed for Zoning Approval**
- ☐ 12. One (1) copy of the Approved Health Construction Permit; or Applicant is requesting Simultaneous Review and has filled out a request form.
- ☐ 13. Two (2) Engineered Site Plans (folded with site information to the front)

Must delineate all future road improvement projects as identified on the Six (6) year Comprehensive Plan, Spotsylvania County Road Improvement Projects, and VDOT Road Improvement Projects. If your project is outside of any identified improvement areas it must be stated on the site plan by your engineer under "General Notes".

Applicant Signature **Date**

****An Erosion Bond will be required to be secured prior to the issuance of the building permit, the amount of the erosion bond is based upon the total square feet of land disturbance****

Please circle one of the following:

¼ acre or less-$1500
¼ acre to ½ acres-$2500
½ acre to 1 acre lot-$3000
Townhouses-$1000

For land disturbance greater than one (1) acre, **Please indicate total area of land disturbance taking place: _____ sq ft.**

3 Options for the Erosion Bond:

1. **Surety Bonds**: must be of a minimum bond of **$7,000** and in the **Land Owners name**. Approved Format Only.
2. **Letter of Credit** - Approved Format Only and Bank must be in the state of Virginia.
3. **Cash Bond**: Check Format Only (Personal Or Business Check)

Applicant Signature **Date**

To accommodate the public for specific time frame situations on Single-family construction, there exists the ability to split the application package at the initial time of submittal only. This procedure entails the submittal of two (2) application packages for the same parcel. One of the application packages will be for the Land Disturbance (Erosion) Permit *only*. The second application package is required for the Building and Zoning Permits for the associated structures. After the Land Disturbance Permit is obtained, clearing / grading on the site can be performed while the review process is completed for the Building / Zoning Permit. Additionally, the Land Disturbance Permit is valid during the construction process of the structure as long as the site is under construction and all applicable codes, ordinances, regulations and laws are in compliance. **If you choose this option, you must notify the Technician when you come to submit your applications. If you wait until after your application has been submitted to split your application package there will be a Post-App Modification Fee due at the time of your request.**

Single Family Electronic Checklist

Plan Review Checklist

- **This checklist is part of the application and needs to be completed. Please check what is applicable and mark N/A to what does not apply.**
- **APPLICANT TO PROVIDE THE FOLLOWING INFORMATION IN THE ORIGINAL SUBMITTAL PACKAGE. ALL PLANS SHALL BE PREPARED TO SCALE AND MUST BE LEGIBLE. NOTE: THIS LIST MAY VARY FOR RESIDENTIAL ADDITIONS.**
- **All items listed below must be shown on plans in order for your permit to be approved by the Building Office.**

- ☐ Va. Design professional seal and signature is required when structural elements do not conform to this code (example: steel I-beams)
- ☐ One (1) set of all building plans and (1) set of construction documents required (*see below)
- ☐ Footing size, depth and location of rebar (include all grade beams and piers)
- ☐ Foundation wall thickness, location and size of rebar and foundation design for backfill over 4 feet
- ☐ Must have Original Soil test report with county cover sheet and design (if required)
- ☐ Floor joist size, grade, species and spacing
- ☐ Girder beam/ header size and location
- ☐ Ceiling joist size and spacing
- ☐ Rafter size and spacing
- ☐ Rafter tie size, location and spacing
- ☐ Ridge beam size
- ☐ Support locations for hips and valleys
- ☐ Location, use, and dimensions of all rooms and areas including storage areas and closets (A bonus room must be identified for intended use.)
- ☐ Window/door location and sizes
- ☐ Location of all bearing walls
- ☐ Smoke detector locations
- ☐ Location and size of all decks, porches, etc.
- ☐ ***All engineered wood products must have a layout with shop drawings and <u>must be submitted at the time of application.</u>.**
- ☐ ***All engineered trusses must have a layout with sealed drawings from the Registered Design Professional responsible for the truss design shall be submitted at time of application.**

I have read the above and understand, by not submitting the above information and that on the checklist; it will delay the processing of my permit application.

Applicant Signature **Date**

Definitions

Truss Specs: Graphic depiction of an individual truss, which describes the design and physical characteristics.

Engineered Floor Plans & Beam Specs: Graphic depiction provided by your floor system provider.

Framed Floor: Need to know species, grade, size and spacing.

Licenses:
Class A: Project value is up to $120,000.00 and or more.
Class B: Project value not to exceed $120,000.00
Class C: Project value is over $1,000.00, but less than $10,000.00

Note: The tradesman affidavit **must** be filled out by the **master trade cardholder.**

Landowner Affidavit: This affidavit is used when the landowner is performing the work him/herself and **not** hiring a contractor.

Shrink Swell Soil Report: A written report of the Soil Investigation, performed by a Virginia Licensed Professional Engineer or a Virginia Certified Soil Scientist, as required by the County Residential Foundations policy. (This is not the *same as a perk test for the Health Dept.)*

Engineered Site Plans: A plan drawn up by an Engineer with his/her seal and number. A site plan must Include the following:

1. ***Driveway location and/or entrance culvert size***
2. ***Structure location (include offsets to property lines)***
3. ***Drainage patterns (indicated by labeled contours)***
4. ***Type and location of erosion controls***
5. ***Location of drain field***
6. ***First floor and garage floor elevations***
7. ***Driveway spot elevations***
8. ***Various spot elevations around structure (corners)***
9. ***RLD (Responsible Land Disturber) certification***
10. ***Flood plain status***
11. ***Total disturbed area***
12. ***RPA (Resource Protection Area) and wetland areas identified***
13. ***ALL buildings/accessory structures indicated w/setbacks (i.e. decks, sheds)***
14. ***Determine all overlay districts (if any)***
15. ***CBPO Impervious Surface ratio***

Health Permit: Construction permit issued by the Health Department determining the location of the drain field and the well. This document stipulates the number of bedrooms allowed in the dwelling. Staff will check the expiration date of the health permit.

Simultaneous Review: A Simultaneous Review is when an application will be accepted for processing and review without the Health Department approval. The applicant must put the request for simultaneous review in writing. It is the responsibility of the applicant to furnish Code Compliance with the Health Department's approval. A permit cannot be issued without the proper approval. If the Health Department approval does not correspond with the application and building plans as submitted, resubmission of the application will be required. Re-review fees will apply.

Single Family Electronic Checklist

Fast Track Permitting:

Fast Track Plan is:

1. A house design that is going to be built repeatedly. Minimum of 4 times a calendar year.
2. A Fast Track plan contains ALL of the options that will be offered for a particular house plan. The applicant then specifies which options will be built on each house. Options to be built are from the approved list of options and are in the same location as shown on the Fast Track plan.
3. Structural features do not change except the addition/subtraction of options.
4. A house design must be re-reviewed at the beginning of each Code cycle to incorporate any changes in the Building Code.
5. The Fast Track program does not take effect until the particular house type has been reviewed (including all offered options), and is on file with the Building Office.
6. The structural elements such as Roof Trusses and Engineered Floor Systems are to be provided by the same manufacturer whose drawings and details were reviewed. If suppliers change over time, the Fast Track plan must be amended at the County to reflect the new structural elements.

Fast Track is not:

1. A custom home to be built once only.
2. A new home design that is being structurally changed each time it is built.
3. A new home design to be structurally changed after fast tract approval in order to avoid the standard plans review process.

Fast Track plans are not submitted with an application for a specific site. (Not to be done simultaneously with a specific lot/job)

Fast Track permits will be ready for pickup 10 working days from date of submittal, unless there is a problem with information submitted. (Examples: zoning setbacks, erosion issues, shrink/swell report submittal, etc.)

Dwelling- Manufactured Home Definition: *Dwelling, manufactured home,* means a structure subject to federal regulation, which is transportable in one (1) or more sections; is eight (8) body feet or more in width and forty (40) body feet or more in length in the traveling mode, or is three hundred twenty (320) or more square feet when erected on-site; is built on a permanent chassis; is designed to be used as a single-family dwelling, with or without a permanent foundation, when connected to the required utilities; and includes the plumbing, heating, air-conditioning, and electrical systems contained in the structure.

Dwelling-Modular Unit Definition: *Dwelling, modular unit*, means a factory-fabricated transportable building designed to be used by itself or to be incorporated with similar units at a building site into a modular structure that will be a finished building in a fixed location on a permanent foundation. The term is intended to apply to major assemblies, and does not include prefabricated panels, trusses, plumbing trees, and other prefabricated supplements incorporated into a structure at the site. For the purpose of this chapter, a modular unit shall be deemed a *single*-family *dwelling* and shall not be deemed a *manufactured home*.

****Please note that these are just brief definitions, if you have further questions, please contact The Code Compliance office at *540-507-7222.* Information is also available on our County Website at http://www.spotsylvania.va.us/departments/codecomp/**

Residential Permit Application

Approving Departments:
- € Zoning
- € Building
- € Erosion
- € Ches Bay

County of Spotsylvania
RESIDENTIAL PERMIT APPLICATION
Community Development Division
9019 Old Battlefield Blvd. 3rd Floor
Spotsylvania, VA 22553
Phone (540)507-7222 Fax (540) 507-7282

App/Permit # Assigned: _____

APPLICATIONS WILL NOT BE ACCEPTED UNLESS FILLED OUT COMPLETELY- PLEASE PUT N/A, IF IT DOES NOT APPLY TO YOUR PROJECT.

Prior to Permit Issuance the following items are required if marked: FILLED OUT BY STAFF
- € Copy of VA State Contractor's License Copy of Spotsylvania Business License
- € Tradesman Statements for Elec Plumb Gas HVAC Tank Affidavit
- € Proof of Ownership LPA Commercial Affidavit Landowner Affidavit
- € Other

Project Description_____

Applicant

Name: _____ Address: _____

Phone #: _____ Fax #: _____ Email Address: _____

General Contractor

Name: _____ Address: _____

Phone #: _____ Fax #: _____ Email Address: _____

Landowner

Name: _____ Address: _____

Phone #: _____ Fax #: _____ Email Address: _____

Mechanic's Lien Agent

Name: _____ Address: _____

Phone #: _____ Fax #: _____ Email Address: _____

Electrician

Name: _____ Address: _____

Phone #: _____ Fax #: _____ Email Address: _____

Plumber

Name: _____ Address: _____

Phone #: _____ Fax #: _____ Email Address: _____

HVAC Contractor

Name: _____ Address: _____

Phone #: _____ Fax #: _____ Email Address: _____

LP Tank Contractor

Name: _____ Address: _____

Phone #: _____ Fax #: _____ Email Address: _____

Updated on 1/12/2017 Page 1 of 4

Job Site Information

Tax Map _____ Dbl. Circle _____ Block _____ Lot/Parcel _____ Voting District _____

Physical Address: _____ Subdivision _____

Is this a Gated Community? ☐ Yes ☐ No If yes, please note Gate Code for Inspections : _____

Project Description: : _____

New Manufactured Home
Single Wide Double Wide Triple Wide
Length _____ Width _____
Serial # _____
Year _____ Make _____

New Single Family Home
SFH Modular Townhouse/Duplex
Overall Length _____ Width _____

Other Residential Projects
Interior Reno Addition Accessory
Addition: Length _____ Width _____
Deck: Length _____ Width _____
Garage/Shed: Length _____ Width _____
Porch: Length _____ Width _____
Select One: Screened Open
Other _____
Length _____ Width _____

Project Value (Less Land Value) _____
Ext Wall _____ Foundation _____ Roof Covering _____
# of Stories _____ # Full Baths _____ # Half Baths _____
Bedrooms _____ Fuel Type _____ Air Cond. (Y/N) _____
Heat Type _____ # Fireplaces _____ # Flues _____
☐ Gas Logs ☐ Lines ☐ Tank ☐ Heater
Water Source _____ Sewer Source _____
Elec. Ser. Amps _____ Elec. Power Co. _____
Roof Type - Manuf Truss ☐ Yes ☐ No
Floor Type - Manuf Truss or Eng Product ☐ Yes ☐ No
☐ Crawl ☐ Slab ☐ Basement
Basement: ☐ Finished ☐ Unfinished - Sq. Ft. _____
Garage: ☐ Attached ☐ Detached ☐ None

List each room in house by floor:
1st Fl _____
2nd Fl _____
Basement _____

I hereby certify by my signature below that I am the owner of record of the named property or that I am authorized to act on behalf of all the owners of record of the named property to execute this application. I further certify that all information I have provided thereon is complete and accurate. I agree on behalf of myself and all owners to conform to the Zoning Ordinance, Virginia Uniform Statewide Building Code, Erosion Ordinance, Chesapeake Bay Preservation Ordinance, the Water and Sewer Construction Specifications of Spotsylvania County, and all other applicable laws and regulations of this jurisdiction. In addition, if a permit for the work described on this application is issued, I certify that the code official or the code official's authorized representative shall have the authority to enter areas covered by such permit at any reasonable hour to enforce the provisions of the laws and regulations applicable to such permit.
NOTICE: The permits must be displayed on the premises. The permits are void if construction is not started within six (6) months of permit issuance. Any application inactive for six months is subject to being voided.
Accepted Forms of Payment: Please be advised that the only forms of payment currently accepted by the Code Compliance Department are Check, Money order, *Debit, and *Credit. *If Debit/Credit is used there will be a 2.70% convenience fee added to the total amount due.

_____ Applicant's Signature Required _____ Landowner's Signature Required

_____ Applicant's Printed Name _____ Landowner's Printed Name

Updated on 1/12/2017 Page 2 of 4

Residential Permit Application

Designated Contacts

Applications will not be accepted without this information.

Review Process

The following person is the primary point of contact for all questions that may arise during the plan review process.

NAME: _____

MAILING ADDRESS: _____

_____

FAX NUMBER: _____

DAYTIME PHONE # _____

E-MAIL: _____

This person is the (circle one): Land Owner – Contractor – Design Professional

Other: _____

Inspection Process

Effective January 30, 2017 the Building Safety Office will begin providing electronic inspection results for all building inspections instead of a paper copy left on site. This will not include the issuance of a Certificate of Occupancy.

Applicants/contractors will be able to access inspection results on line http://etrakit.spotsylvania.va.us/eTrakit3/ As an added customer service measure, **ONE** email address per permit may be provided to receive the inspection results. If no email is provided, the inspection results will still be available on line

NAME: _____

E-MAIL: _____

_____ Applicant's Signature

_____ Date

Tradesman Statement

Tradesman Statement

A new statement must be completed for each project

**** All blanks below must be filled out completely and be legible in order for this statement to be considered complete. If this is not done, this form will not be accepted. ****

Application/Permit No. _____

I _____ am installing electrical/plumbing/mechanical/gas
(Print Name of Master Card Holder)

at _____. I have all licenses and certifications
(Job Location)

Required by the State of Virginia and County of Spotsylvania. I have noted my Tradesman's Information below.

_____ _____
(Master Tradesman's Signature) (Date)

(Do not sign unless all the information above is filled out)

Signed before me by _____ in the county of
Tradesman name

_____, VA on the _____ day of _____,

20 _____, In the presence of the undersigned witness.

_____ _____ _____
(Witness print) (Witness signature) (Date)

(The Tradesman must sign this document in the presence of the witness and all information must be complete at signing)

Contractor's name as it appears on
State of Virginia Contractor's License _____
* (Contractor the Tradesman will be working under)

Contractor's State License No. _____

Tradesman's name as it appears on
State of Virginia Masters Tradesman's License _____
(Tradesman that will be performing the work)

Tradesman's State License No. _____

* Contractor License must have appropriate classification

S:\Permit Technician\SOP Checklist\Tradesman Updated on 7-25-2014

Landowner Representative Affidavit

Landowner Representative Affidavit

Required if you are not the individual landowner of Record applying or submitting for permit

COMMONWEALTH OF VIRGINIA,
COUNTY OF SPOTSYLVANIA, to-wit:

I, _____ (Name of Affiant), after having been duly sworn, do hereby certify that I represent the owner/business _____ who is the owner of a certain tract or parcel of land located at: _____

_____ (Physical Address)

also described as Tax Map No. _____, and that I have applied for a building permit for the owner of said property.

I DECLARE UNDER PENALTY OF PERJURY THAT I HAVE WRITTEN AUTHORITY FROM ANY AND ALL PROPERTY OWNERS TO FILE THIS APPLICATION AND OBTAIN A PERMIT ON THEIR BEHALF. I CERTIFY THAT ALL OF THE SUBMITTED INFORMATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I UNDERSTAND THAT ANY MISREPRESENTATION OF SUBMITTED DATA MAY INVALIDATE ANY APPROVAL OF THIS APPLICATION.

_____
Signature of Affiant

_____
(Please Print Name)

Subscribed and sworn before me this _____ day of _____, 20 _____, by

_____
(Name of Affiant)

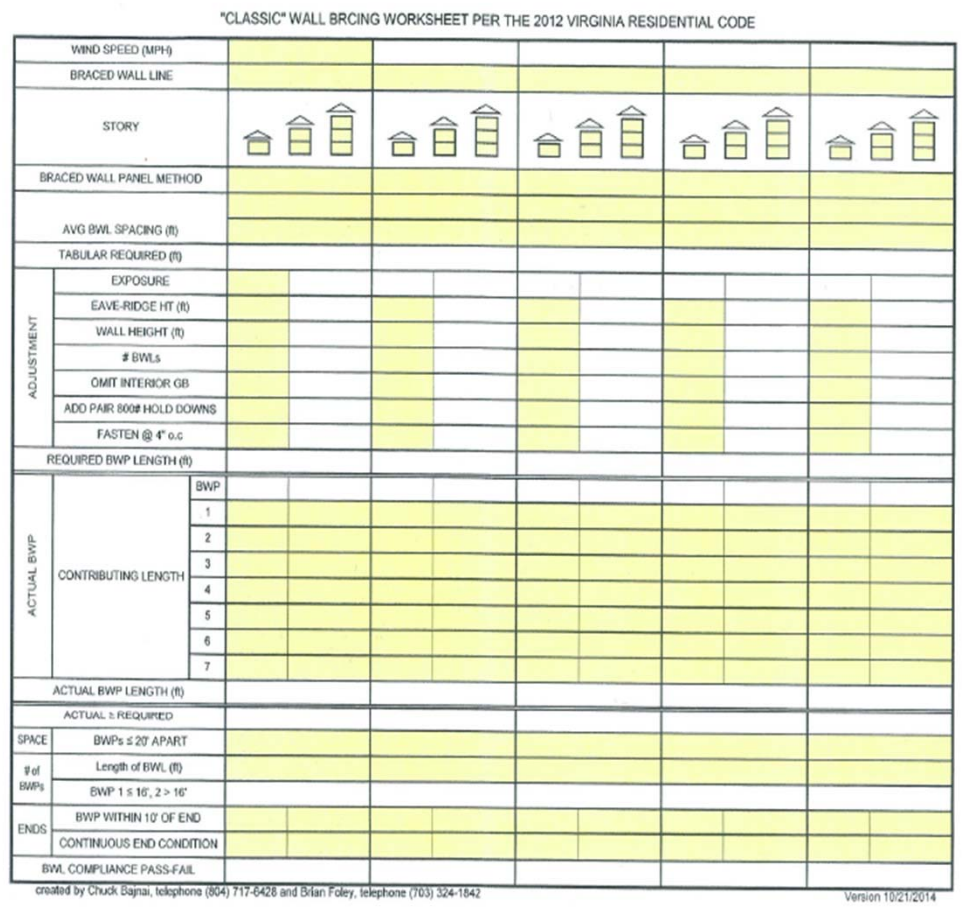
_____
Notary Public

My commission expires:

11-18-2016

Braced Wall

- Worksheets required



"CLASSIC" WALL BRCING WORKSHEET PER THE 2012 VIRGINIA RESIDENTIAL CODE

WIND SPEED (MPH)												
BRACED WALL LINE												
STORY												
BRACED WALL PANEL METHOD												
AVG BWL SPACING (ft)												
TABULAR REQUIRED (ft)												
ADJUSTMENT	EXPOSURE											
	EAVE-RIDGE HT (ft)											
	WALL HEIGHT (ft)											
	# BWLs											
	OMIT INTERIOR GB											
	ADD PAIR 800# HOLD DOWNS											
	FASTEN @ 4" o.c											
REQUIRED BWP LENGTH (ft)												
ACTUAL BWP	CONTRIBUTING LENGTH	BWP										
		1										
		2										
		3										
		4										
		5										
		6										
		7										
ACTUAL BWP LENGTH (ft)												
ACTUAL ≥ REQUIRED												
SPACE	BWPs ≤ 20' APART											
# of BWPs	Length of BWL (ft)											
	BWP 1 ≤ 16', 2 > 16'											
ENDS	BWP WITHIN 10' OF END											
	CONTINUOUS END CONDITION											
BWL COMPLIANCE PASS-FAIL												

created by Chuck Bajnai, telephone (804) 717-6428 and Brian Foley, telephone (703) 324-1842

Version 10/21/2014

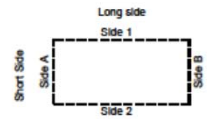
Braced Wall - Simplified

- New 2012 Code
- Alternative for Some
- Worksheet required

Permit Number / Project _____ Date _____

Prerequisites	
Max 2 story	Y - N
Wall height ≤ 10'	Y - N
Eave to ridge ≤ 15'	Y - N
GB on inside of B.U.s	Y - N
Wind ≤ 90 mph	Y - N
Exposure B	Y - N
SDC A,B,C (no C townhouses)	Y - N
Cripple walls:	
one story building	Y - N
two story building	NP
Prerequisites Pass	Y - N

Circumscribed Rectangle



Include:
- Attached garages
- Sunrooms
- Enclosed Structures

Exclude:
- Decks/porches
- Chimneys
- Carports
- Open structures

Ratio of long side to short side:

Long Side _____ ft. / Short Side _____ ft. = _____ ≤ 3.0

Required B.U. (Table R602.12.4; Interpolation prohibited)		Required B.U.s on each LONG Side						Required B.U.s on each SHORT Side					
Story Level	Eave-to-Ridge Ht.	SHORT Side Dimension (A&B) (rounded-up)						LONG Side Dimension (1&2) (rounded-up)					
		10'	20'	30'	40'	50'	60'	10'	20'	30'	40'	50'	60'
	≤10'	1	2	2	2	3	3	1	2	2	2	3	3
		2	3	3	4	5	6	2	3	3	4	5	6
	≤15'	1	2	3	3	4	4	1	2	3	3	4	4
		2	3	4	5	6	7	2	3	4	5	6	7

Actual Wall Segments	Long Side 1		Long Side 2		Short Side A		Short Side B	
	method/length(ft)	B.U.s	method/length(ft)	B.U.s	method/length(ft)	B.U.s	method/length(ft)	B.U.s
B.U. wall length equivalents: 3' fully sheathed = 1 B.U. 4' intermittent = 1 B.U. Methods B.U. equivalents: PFH = 1 B.U. PFG = 0.75 B.U. CS-G = 0.5 B.U. CS-PF = 0.5 B.U.								
Total actual B.U.s provided								
Actual B.U.s ≥ Required B.U.s	Y - N		Y - N		Y - N		Y - N	

Distribution	Long Side 1	Long Side 2	Short Side A	Short Side B
Walls >8' have at least 1 B.U.	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA
B.U. within 12' of each corner	Y - N	Y - N	Y - N	Y - N
B.U. within 20' edge to edge	Y - N - NA	Y - N - NA	Y - N - NA	Y - N - NA
PASS / FAIL	PASS FAIL	PASS FAIL	PASS FAIL	PASS FAIL

HVAC Design Worksheet

- Filled out by HVAC contractor
- Data from Manual J
- Must coordinate with builder and RECW
- Must match site plan
- Must specify testing option
- Winter Design Temp 17°F

Spotsylvania County Building Safety Department
HVAC SYSTEM DESIGN WORKSHEET

Residential Plans Examiner Review Form
For HVAC System Design (Loads, Equipment, Ducts)
Provided by Mechanical Contractor

Contractor _____
Mechanical License # _____
Site Address (street or lot #, block, subdivision)
_____
_____

REQUIRED ATTACHMENTS

- *Air Distribution worksheet must be available to inspector on mechanical Rough-in inspection of duct work*
- *Rescheck if used*

HVAC LOAD CALCULATION (IRC M1401.3)

Design Conditions

Winter Design Conditions
Outdoor Temperature _____ F
Indoor Temperature _____ F
Total Heat loss _____ Btu

Summer Design Conditions
Outdoor Temperature _____ F
Indoor Temperature _____ F
Grains difference _____ GR @ _____ % Rh
Sensible heat gain _____ Btu
Latent heat gain _____ Btu
Total heat gain _____ Btu

Building Construction Information (this information must match information provided by builder)

Building
Orientation (Front door faces) _____
North, East, West, South, Northeast, Northwest, Southeast, Southwest
Number of bedrooms _____
Conditioned floor area _____ Sq Ft
Number of occupants _____

Windows
Eave overhang depth _____ Ft
Internal Shade _____
Minds, drapes, etc.
Number of skylights _____
U-factor of Windows _____

HVAC EQUIPMENT SELECTION (IRC M1401.3)

Heating Equipment Data
Equipment type _____
Furnace, heat pump, boiler, etc.
Model _____
Heating output capacity _____ Btu
Auxiliary heat output capacity _____ Btu

Cooling Equipment Data
Equipment type _____
air conditioner, heat pump, etc.
Model _____
Sensible cooling capacity _____ Btu
Latent cooling capacity _____ Btu
Total cooling capacity _____ Btu

Blower Data
Heating CFM _____ CFM
Cooling CFM _____ CFM

DUCT INSPECTION OPTION (N1103.2.2.1)

Testing options for ductwork: Select one - (see page 2 for details)
- ☐ (1) Post construction test- Approved testing agency required
- ☐ (2) Rough-in test- Approved testing agency required
- ☐ (3) Visual test- County Inspection required

Please Check below which option you used. Remember your method and values must match the building plans submitted for review. You must coordinate with your Building designer.

☐ (Prescriptive)Thermal envelope compliance method one (Insulation and Fenestration requirements by component) R-value computation Table N1102.1 2009 IRC.

☐ (U-factor alternative)Thermal Envelope Compliance Method Two (Equivalent U-Factors) Table N1102.1.2 2009 IRC

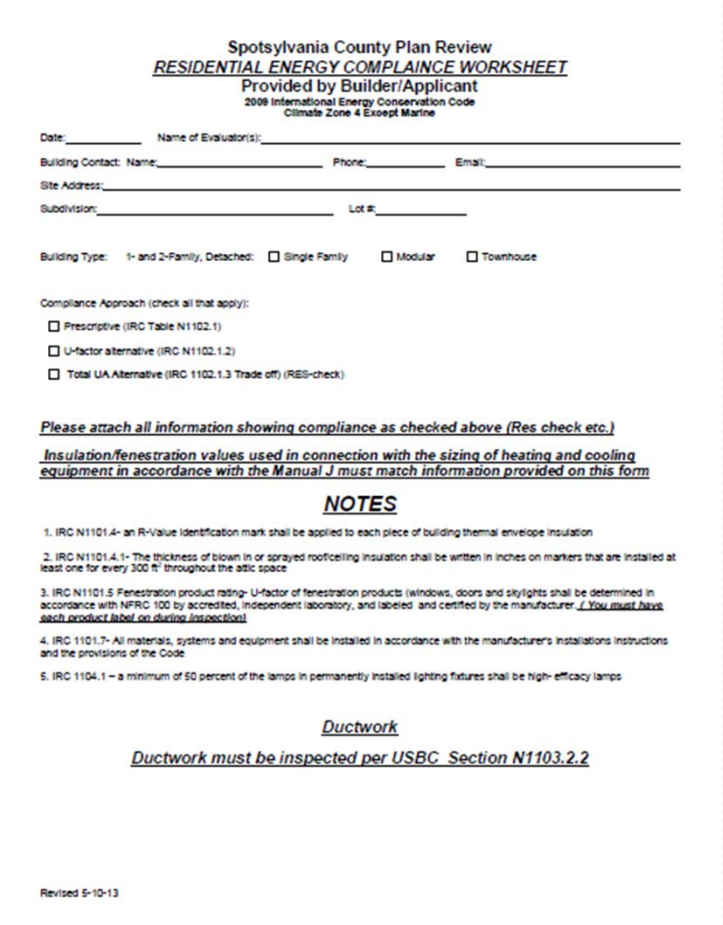
☐ (Res-check) Thermal Envelope Compliance method three (total UA alternative) ***Provide Document***

Based on M1401.3 2009 IRC. Heating and cooling equipment shall be sized in accordance with ACCA Manual S based on the building loads calculated in accordance with ACCA Manual J. If we should have questions please have your calculations available.

Revised 5-9-2013 Page 1

Residential Energy Compliance Worksheet

- Filled out by builder
- Compliance Choice
- U-factor requires calcs
- ResChek may not work with 2012 Va Code



Spotsylvania County Plan Review

RESIDENTIAL ENERGY COMPLAINCE WORKSHEET

Provided by Builder/Applicant

2009 International Energy Conservation Code
Climate Zone 4 Except Marine

Date:_____ Name of Evaluator(s):_____

Building Contact: Name:_____ Phone:_____ Email:_____

Site Address:_____

Subdivision:_____ Lot #:_____

Building Type: 1- and 2-Family, Detached: ☐ Single Family ☐ Modular ☐ Townhouse

Compliance Approach (check all that apply):

☐ Prescriptive (IRC Table N1102.1)

☐ U-factor alternative (IRC N1102.1.2)

☐ Total UA Alternative (IRC 1102.1.3 Trade off) (RES-check)

Please attach all information showing compliance as checked above (Res check etc.)

Insulation/fenestration values used in connection with the sizing of heating and cooling equipment in accordance with the Manual J must match information provided on this form

NOTES

1. IRC N1101.4- an R-Value identification mark shall be applied to each piece of building thermal envelope insulation

2. IRC N1101.4.1- The thickness of blown in or sprayed roof/ceiling insulation shall be written in inches on markers that are installed at least one for every 300 ft^2 throughout the attic space

3. IRC N1101.5 Fenestration product rating- U-factor of fenestration products (windows, doors and skylights shall be determined in accordance with NFRC 100 by accredited, independent laboratory, and labeled and certified by the manufacturer. (You must have each product label on during inspection)

4. IRC 1101.7- All materials, systems and equipment shall be installed in accordance with the manufacturer's installations instructions and the provisions of the Code

5. IRC 1104.1 – a minimum of 50 percent of the lamps in permanently installed lighting fixtures shall be high- efficacy lamps

Ductwork

Ductwork must be inspected per USBC Section N1103.2.2

Revised 5-10-13

Residential Foundation Form

- Three parts
- Part 1 by Builder
- Part 2 by Soils Professional
- Part 3 if required by Part 2
- Soils policy borings
- Fill on site

SPOTSYLVANIA COUNTY RESIDENTIAL FOUNDATION FORM

Effective: February 1, 2007

THIS FORM MUST BE COMPLETELY FILLED OUT IN ORDER TO PROCESS

PART 1

APPLICANT

To be filled out by applicant

Name of owner/builder: _____ RES ___ - _____

Site address: _____

Subdivision: _____ Lot Number: _____

Type of construction (new dwelling, addition, etc.): _____

Please provide the following information regarding the proposed project:

Foundation drain shall discharge by: ___ Gravity ___ Sump crock
Areaway drain shall discharge by: ___ Gravity ___ Sump crock ___ N/A
Rough-in plumbing to be installed into sewage ejector crock: ___ Yes ___ N/A
Step footings required: ___ Yes, location _____
___ N/A
Recessed brick ledge in wall: ___ Yes, attach design if exceeds 24 inches
___ N/A

All four sheets of this form are to be submitted together, along with all supplemental information, as one document

Applicant signature: _____ Date: _____

Residential Foundation Form - Pt2

Name of owner/builder: _____ Date: _____ Application #: _____
Site address: _____
Subdivision: _____ Tax Map & Lot Number: _____

PART 2

SOIL TEST RESULTS

To be filled out by soil professional only if a soil test was performed

Part 2 Soil test results ___ Applies (soil report attached) ___ N/A

Subsurface conditions (based on hand auger boring):

Fill encountered: ___ Yes _____Depth ___ No

Groundwater encountered: ___ Yes ____Depth ___ No

Soil found at the above referenced site is:
___ High, ___ Medium, ___ Low, or ___ Non-shrink swell soil.

The soil tested has a classification of: _____, based on the Unified Soil Classification System

Based on the soil conditions found at the site (check as appropriate):

___ A foundation design is required by a Va. licensed professional engineer or architect, or
___ A foundation based upon the minimum requirements of the building code is Adequate

Design load-bearing capacity of soil: _____ Soil swell pressure: _____
Minimum footing depth:_____ Lateral pressure of soil on wall _____*

Additional Notes:
* Unless reduced by the Foundation Design Engineer by replacement of backfill material or use of isolation Material

The undersigned design professional hereby certifies that all samples and tests were performed in accordance with the Spotsylvania County Soil Testing Policy for Residential Projects and that he/she performed or supervised the soil sampling, conducted or supervised the laboratory testing and evaluations, and prepared or supervised the preparation of the report.

Design Professional's Seal & Signature and date

Rev. 2/09 2006 VUSBC

Residential Foundation Form – Pt3

Name of owner/builder: _____ Date: _____ Application #: _____
Site address: _____
Subdivision: _____ Tax Map & Lot Number: _____

PART 3

FOUNDATION DESIGN

To be filled out by design professional only if a foundation design was required

Part 3 Foundation design ___ Applies (drawings attached) ___ N/A

Design based upon: ___ Expansive soil, ___ High water table, ___ Existing fill,
___ Other, please specify _____

Design load-bearing capacity of soil: _____ Soil swell pressure: _____

Designed for lateral pressure of _____ pounds per square foot/foot of depth on:
___ Footing, ___ Wall, ___ Piers

Minimum footing depth: _____ Minimum footing width: _____

Minimum footing thickness: _____ Minimum wall thickness: _____

Minimum pier size: _____ Minimum pier depth: _____

Minimum slab thickness: _____

Rebar required for: ___ Footing, ___ Wall, ___ Pier, ___ Slab, ___ N/A

Designed for garage surcharge load of _____ pounds per square foot

Designed for uplift on: ___ Footing, ___ Wall, ___ Slab, ___ Piers, ___ N/A

Type of soil to be used as backfill material: _____

Existing soil to be used as backfill material: ___ Yes ___ No
Expansive soils shall not be re-used as backfill material. See section 11 of the Residential Foundations Policy.

Special slab drainage required: ___ Yes (design attached) ___ No
discharge by: ___ Gravity ___ Sump crock ___ N/A

Isolation from expansive soil required at: ___ Footing, ___ Wall, ___ Slab, ___ Pier,
___ N/A
Dimension of req'd isolation: ___ Footing, ___ Wall, ___ Slab, ___ Pier,
___ N/A
Type of isolation material: _____

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Name of owner/builder: _____ Date: _____ Application #: _____
Site address: _____
Subdivision: _____ Tax Map & Lot Number: _____

FOUNDATION DESIGN (cont.)

Removal of existing soil required at: ___Footing, ___Wall, ___Slab, ___Pier, ___N/A

Extent of required removal: _____

Roof drainage requirements of IBC R801.3 apply: ___ Yes, ___ No

Additional Notes:
_____
_____
_____
_____

The undersigned design professional hereby certifies that the above referenced foundation design was based upon sound engineering practice and the recommendations provided within the soil report for the above referenced project.

Design Professional's Seal & Signature and date

Rev. 2/09 2006 VUSBC

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Other Documents

- Engineered Roof Truss Diagrams and Layout
- Engineered Floor Layout
- Engineered Beam Calculation sheets
- VDH Construction permit
- RDP Sheets

Checklists

- With application
- At Plan Review

Spotsylvania County **Residential Plan Checklist**

Subdivision _____ Lot # _____ RES ____ - _____

OK	N/A	CORRECT REQUIRED		
			GENERAL REQUIREMENTS	
			1. Foundation and Soil report	Lot _____ agrees with the property description
			2. Structural Coordinator	Name & phone number provided on cover page
			3. Residential Energy Compliance Worksheet	
			4. HVAC worksheet	
			5. Model name	Not required for custom homes
			6. Sheets numbered	
			7. Non-structural details eliminated	Electrical cabinetry, stair, soffit, etc.
			8. Unused options eliminated	X-out all unused options
			9. Drawings to architectural scale	1/4, 3/16, or 1/8 and legible, neat clear
			10. Drawings in same orientation	
			11. Site plan	Well and drainfield construction permit / Affidavit Required
			12. VDH construction permit (Well and Drainfield)	Bedrooms on application / Bedrooms on construction permit
			FOOTING & FOUNDATION	
			13. Foundation plan	Dimensions
			14. Crawl space	Continuous footings
			15. Conditioned crawl space	Yes / No
			16. Girder	Identified / Sized correctly
			17. Vents and access	Vents within 3' of corner
			18. Basement plan	Identify room names and use
			19. Basement beams	Identified / Sized correctly
			20. Basement walls	Provide section with dimensions, wall composition, backfill material & ht., reinforcing, (or irc table)
			21. Floor joists for 1st floor	2X sizes, spacing and species or I-joists layout required or Floor Truss Layout & Diagrams
			22. Footings	Sized correctly
			23. Piers and thickened slabs	Sized per soils bearing capacity and sized for beam and point load reactions
			24. Steel beams & support	Sized by RDP
			25. Wall bracing (Wood Framed Walls)	Wall bracing lines and worksheet
			1ST FLOOR PLAN	
			26. Floor plan	Dimensions and room names
			27. Garage slab	3500 PSI concrete; slope indicated
			28. Wall bracing	Wall bracing lines and worksheet
			29. Interior load bearing walls	Identified
			30. Two story walls	Sealed engineers design (elevation)
			31. Toilet under stair	Requires 6'-8" headroom in front of fixtures
			32. Decks	Structural information (footings, joists, beams, columns, guardrail)
			33. Tempered glass	Identified
			34. Floor joists for 2nd floor	2X Sizes, spacing and species or I-joists layout required or Floor Truss Layout & Diagrams
			35. Headers	Identified / Sized correctly
			36. Garage door header	Identified / Sized correctly
			37. Beams	Identified / Sized correctly Engineered wood beam calculations required
			38. Posts	Identify all columns/posts carrying more than 4000#
			39. 5' Fire separation distance	Provide 1 hour rated fire assembly

Top 25

- No Foundation Report
- No VDH Construction permit
- Number of bedrooms exceed Health permit
- Supporting Documents - Missing or Incomplete
- Options not marked or selected
- Rooms not identified
- Plans not to ¼ inch scale – or to any scale
- Braced wall calcs not provided

Top 25 (continued)

- Application does not match plans
- Site plan does not match house plans
- Truss layout does not match house plan or is Reversed from house plans
- Truss details not sealed
- Manufacturers floor system does not match house plans or is Reversed from house plans
- ResChek does not match house plans

Top 25 (continued)

- Orientation of house different on site plan and HVAC worksheet
- Number of B/R differ on plans and HVAC worksheet
- 2 story wall does not have an engineer's design
- Columns supporting loads in excess of 4000# not called out on plans
- Basement bearing walls have no footings

Top 25 (continued)

- Framing layout from RDP and Manufacturer differ
- Posts under girder trusses and beams not specified
- Plans call 2000 psf soils – Foundation report says 1500
- Plans do not specify wall heights or header sizes
- Engineered designs not supported by calculations
- Exterior wall finish not specified
- BONUS #26- Repetition of mistakes, plans not changed

Plan Review GOAL

- It is a GOAL
- It is not a GUARANTEE
- It varies with volume and quality of plans submitted
- Our GOAL is to have SFD reviewed in fifteen (15) business days

Electronic Plan Review

- Truss plans that can not be stamped
- Electronic and paper not the same
- Missing documents
- Pages not combined into one file

Odds and Ends

- Plan Review Notes Page
- Extra Pages Not Required
- Building Safety Roundtable Meetings
  - 1st Tuesday of even numbered months 11:30 to 1pm

QUESTIONS

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