



Residential Construction Minimum Required Inspections

The permit which you have been issued gives authority for work to commence. The stamped, approved plans must be printed from your electronic permit account https://comdev.jamecitycountyva.gov/EnerGov_Prod/SelfService and shall be retained at the job site and be available for inspectors on request. It shall be the applicant's responsibility to perform all work in accordance with the Virginia Uniform Statewide Building Code, and within the scope of what was authorized by the plans submitted and approved. Changes to these plans must be approved by this office. Please post your permit placard in a prominent location.

Inspections at various stages of work are required by this office, under provisions of the Virginia Uniform Statewide Building Code. The required inspections for buildings are listed below. James City County, Division of Building Safety and Permits, operates an automated 24-hours a day, 7 days a week web-based inspection request system https://comdev.jamecitycountyva.gov/EnerGov_Prod/SelfService to schedule inspections. The cutoff time for inspections is 11 p.m. the night before the inspection is desired. In some instances, we may not get to all inspections on the day it is requested but will make every effort to conduct the inspection within 48 hours from the request date. If work is not complete and open for inspection, it may be subject to disapproval and require re-inspection. When work is disapproved by an inspector, a \$52.50 re-inspection fee will be billed and must be paid before the next inspection.

Separate permits are required for building, mechanical, electrical, gas, gas fireplace, and residential sprinkler work. No requested inspection is performed unless a valid permit exists for that work. Work performed without a permit, when permit is required, is a violation of the law! If you have a question whether a permit is required, or if work is within the scope of any permit issued, call the Division of Building Safety and Permits at 757-253-6620.

If you feel that it is necessary to speak directly to an inspector, their office hours are 7:00-8:00 a.m. and 3:00-3:30 p.m. only. Please do not call them to request an inspection.

BUILDING INSPECTIONS REQUIRED: (ALL STAMPED APPROVED PLANS/DOCUMENTS MUST BE ON SITE FOR INSPECTIONS.)

- A. **STRIP FOOTINGS AND PIER PADS** – To be made after basement or footing trenches are excavated and forms, where applicable, are erected. All reinforcement steel, when necessary, must be in place and anchored. “Wet setting” rebar is not permitted. This inspection must be made prior to pouring concrete.
- B. **CONCRETE ENCASED ELECTRODE** – Structures with reinforcing steel that is ½-inch or larger and 20-feet or longer must have a grounding electrode system installed per National Electrical Code 250.50 (3). This should be requested at the same time as the footing inspection.
- C. **DECK FOOTINGS** – Deck footings may be requested at the time of the house footing **or** may be requested anytime during the construction process but before the Final Building inspection.
- D. **FOUNDATION WALLS AND PIERS** – The foundation block must be completed to the level of the finish grade, and be continuous over any steps or grade changes. Piers must be complete to the level of finish grade and any brick or other veneer must also be in place. All bonding or other lateral support of intersection walls must be complete and visible. All form boards or step boards must be removed and the foundation trench ready for backfilling. The top of the footings must be clean and clearly visible. For “Cast in Place” concrete walls, all forms and reinforcing steel must be in place and ready for inspection prior to pouring concrete. “Wet Setting” rebar is not permitted. If “Foundation Survey Required” is noted on your approved plans, this must be uploaded to your permit as an attachment and approved before you request a floor joist inspection. Please allow three business days to review and process the survey.

- E. **FLOOR FRAMING** – To be made after load-bearing walls to the first floor sill height have been erected, beams and floor-joists have been installed, and grading within the perimeter walls has been completed. Sub-flooring **shall not** be installed before this inspection has been approved. In basements, the first floor system (box) shall have all approved (on plans) supports (posts, columns) for beams and girders in place and secured.

NOTE: If you are in a flood zone, an FEMA flood elevation certificate must be uploaded to your permit as an attachment prior to this inspection. The “Building Under Construction” box on line C1 of the Elevation Certificate must be checked.

- F. **CONCRETE SLAB INSPECTION** – To be made prior to pouring a concrete slab. All reinforcing steel, vapor barriers, fill material if required, perimeter insulation, etc. must be in place and ready to inspect before scheduling this inspection. A compaction certification is required where fill material exceeds 24 inches in depth (including but not limited to garages, porches and stoops).
- G. **WATERPROOF/DAMPROOF INSPECTION** – Basements must be inspected for water-proofing method, drains, gravel, and filter cloth before being backfilled.
- H. **SHEATHING INSPECTION** – To be made after the exterior sheathing/plywood is installed and all fasteners are completely in place and spaced per the VA Residential Code. This inspection must be approved BEFORE concealing with house wrap, siding, brick etc.
- I. **FRAMING INSPECTION** – To be made after the roof, all framing firestopping, blocking and bracing is in place, and the sub-flooring has been installed. Do not install insulation before the framing inspection is approved. The building should be “weathered in” including windows, doors, and roof shingles for this inspection. All trade rough-in inspections must be approved **before** requesting a Framing inspection.
- J. **FIREPLACE INSPECTION** – Where there is to be a fireplace(s) installed in a building, this inspection must take place while combustible clearances can be inspected. This must be before the interior is insulated and sheetrocked, but may be after the fireplace is finished. This includes all types of fireplaces; masonry, prefab, and ventless. **NOTE:** A separate mechanical permit is required for gas fireplace appliances.

K. **AIR BARRIER**

***VISUAL AIR BARRIER INSPECTION IS NO LONGER AN OPTION PERMITTED BY THE 2018 VIRGINIA RESIDENTIAL CODE.**

The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding 5 air changes per hour. Test methods shall comply with the methods referenced in article 1102.4.1.2 of the 2018 Virginia Residential Code. A written report of the test results shall be signed by the certified party conducting the test and uploaded to permit. Testing shall be conducted by a Virginia licensed general contractor, a Virginia licensed HVAC contractor, a Virginia licensed home inspector, a Virginia registered design professional, a certified BPI Envelope Professional, a certified HERS rater, or a certified duct and envelope tightness rater. The party conducting the test shall have been trained on the equipment used to perform the test. The state license and documentation showing the party conducting the test has been trained or certified in the proper methods and use of the equipment used will be required as part of the submittal documents. This can be uploaded at any time but will be required prior to the approval of the air barrier inspection. Approved test results shall be required prior to a building final inspection with no exception. There are provisions to obtain a temporary Certificate of Occupancy in the case of a test result that doesn't meet the minimum of less than 5 air changes per hour. This should not be considered a standard operating procedure but will be considered on a case-by-case basis.

- L. **INSULATION INSPECTION** – To be made when all required insulation and appropriate air sealing elements have been installed. In the event that the contractor intends to use blown insulation in the ceilings, that portion of

this inspection may be delayed until and during the final inspection. A permanent certificate shall be completed by the builder or other approved party and posted on a wall in the space where the furnace is located, a utility room, or an approved location inside the building. The certificate shall indicate the predominant R-values of insulation installed in or on ceilings, roofs, walls, or foundation components such as slabs, basement walls, crawl space walls, and floors and ducts outside conditioned spaces.

- M. **BUILDING FINAL INSPECTION** – To be made after the building has been completed and ready for occupancy. This inspection will not be made until all required electrical, plumbing, gas, fireplace, and mechanical final inspections have been made and the work approved.

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- O. **SITE GRADING & STABILIZATION INSPECTION** – Inspection must be requested online. Disturbed yard, slope, and lawn areas on the lot must be properly stabilized*; or alternatively, properly installed and approved erosion and sediment control measures must be in place and functional to handle runoff associated with the land disturbing activity and be in satisfactory condition as determined by the VESCP/VSMP Authority. Site grading and drainage must match the approved site plan.

*Properly stabilized means disturbed yard, slope, and lawn areas for the residential lot are stabilized with temporary or permanent vegetation that is uniform, mature enough to survive, and will inhibit erosion as determined by the VESCP/VSMP authority. This includes proper testing, preparation and treatment of the soil, the establishment of temporary or permanent seeding or cool/warm season turf grass by other allowable methods such as sprigs, plugs or sod, and mulching in accordance with Minimum Standards of the Virginia Erosion and Sediment Control Regulations, Minimum Standards & Specifications of the Virginia Erosion and Sediment Control Handbook (VESCH) and state/local Virginia Erosion and Sediment Control Program (VESCP), Virginia Stormwater Management Program (VSMP), VPDES construction general permit (VAR10), and County MS4 permit requirements, including special provisions surface waters identified as impaired or for which a TMDL wasteload allocation has been established. Seeding mixtures or sod types selected must be Virginia Crop Improvement Association (VCIA) certified and adaptable to the coastal plain region of Virginia and specific soil, climate and rainfall conditions of James City County.

- P. **JCSA INSPECTION** – Inspection must be requested online and approved prior to obtaining a Certificate of Occupancy on dwelling units serviced by the James City Service Authority.

A Certificate of Use and Occupancy is issued only after the final inspection is approved and the yard has been stabilized. The structure may not be used or occupied in whole or part until issuance of a Certificate of Occupancy.

NOTE: If you are in a flood zone, a FEMA flood elevation certificate must be uploaded to your permit as an attachment prior to requesting this inspection. The “Finished Construction” box on line C1 of the Elevation Certificate must be checked.

Q. **PLUMBING INSPECTIONS REQUIRED:**

- a) **WATER AND SEWER** – To be made after all water and sewer lines are installed from the water and sewer mains (or wells and septic tanks) to the structure. Trench must be open and all lines accessible to the inspector. This includes Geothermal Piping System horizontal trenches.
- b) **UNDERSLAB INSPECTION** – Under-slab inspection to be made prior to pouring concrete.
- c) **ROUGH-IN INSPECTION** – Rough-in inspection after all interior piping (water and sewer) has been installed and tested, and prior to concealment.
- d) **SHOWER PAN LINER INSPECTION** – To be performed if a ceramic tile or other field installed shower receptor covering is being used. This can be a separate inspection in addition to the regular plumbing rough in if necessary and must be scheduled and approved prior to the installation of tile or other materials. The inspection includes a leak test of the liner, and requires a minimum of two inches of water measured at the threshold. This inspection is also required for Schluter Systems.

- e) FINAL INSPECTION – To be made after all plumbing work has been done and all appliances and fixtures involving water and/or sewer connections have been installed. Grinder pumps need to be operational

R. ELECTRICAL INSPECTIONS REQUIRED:

- a) ROUGH-IN INSPECTION – Under-slab inspection required prior to pouring concrete. Rough-in inspection to be made after all interior wiring and electrical equipment has been installed, but prior to covering or concealment and prior to installation of any insulation.
- b) METER RELEASE INSPECTION –
All electrical contractors will have the option to have the electrical meter release inspection for one and two-family residences performed on the same day as the electrical rough-in inspection. The following requirements must be in place at this release/rough-in electrical inspection:
 1. The service wiring and equipment, including the meter socket enclosure, shall be installed and the service wiring terminated.
 2. The grounding electrode system shall be installed and terminated.
 3. At least one receptacle outlet on a ground fault protected circuit shall be installed and the circuit wiring terminated.
 4. Service equipment covers shall be installed.
 5. The building roof covering shall be installed.
 6. Temporary electrical service equipment shall be suitable for wet locations unless the interior is dry and protected from the weather.

If all of the above-listed items are not completed at the time of the electrical rough-in inspection, the rough-in may be approved but the meter will not be released.

- c) FINAL INSPECTION – To be made after electrical work is complete and power is turned on. **JUST BECAUSE POWER IS ON, IT DOES NOT MEAN YOU CAN OCCUPY OR USE THE STRUCTURE. YOU MUST HAVE A C.O. FIRST!**

S. MECHANICAL INSPECTIONS REQUIRED:

- a) MECHANICAL ROUGH-IN INSPECTION – Under-slab inspection (if necessary) to be made prior to pouring concrete. Rough-in inspection to be made after the installation of all duct work, fuel storage tanks, etc., and prior to covering or concealment.
- b) MECHANICAL FINAL INSPECTION – To be made after all heating, ventilating, and air conditioning installations have been completed and tested. A **Duct Blaster Test must be performed** for all new dwelling units. The results of this test must be submitted to the building department prior to the final mechanical inspection.
- c) GAS ROUGHIN INSPECTION – Rough-in inspection required after installation of all lines and after pressure test is complete (but before concealment of any lines or fittings).
- d) GAS FINAL INSPECTION- Final inspection required after hookup of all gas appliances. Gas service will not be released to the utility company for connection until these inspections are approved. If service is interrupted, new pressure tests and inspections may be required prior to release to the utility company.

In addition to these required inspections, the USBC states that structures may be inspected at any time during construction. Occasionally, inspectors will visit jobs unannounced and when not requested. It is the permit holder's responsibility to furnish a ladder if one is needed for a requested inspection.

Nonresidential structures may have other inspection obligations. Fire separation walls, fire walls, and party walls in apartments, condominiums, town houses, and commercial structures may require separate inspections. Please consult the Building Safety and Permits Office if your permit(s) involve(s) such fire-rated walls.

Drawings required to be submitted may vary depending on the complexity of the work and requirements of the Building.