

# Residential Final Inspection Guideline

This guideline is not to be considered an all-inclusive list of required items

## Based on the 2018 International Residential Code

Building must be complete and ready for inspection. All life safety items must be in place. **WARNING: Buildings may not be occupied prior to final inspection being passed and a Certificate of Occupancy being issued.** The building inspector does not inspect cosmetic items or generate a punchlist. After the final inspection has been completed and passed, a Certificate of Occupancy will be issued

It is the permit holder's responsibility to ensure the permit reflects the structure built. Structural changes must be properly permitted and inspected (R106.4)

Address numbers must be permanently posted. Numbers shall be minimum 4" high. Numbers shall be easily visible from the road (R319)

The grade must fall a minimum of 6 inches away from the foundation in the first ten feet (R401.3) Where warranted by soil conditions, a roof water collection/drainage system shall be provided (R801.3)

The exterior must be weatherproof and rodent proof

The garage shall be separated from the residence and attic area by minimum ½" gypsum board on the garage side. Minimum 5/8" Type X gypsum board or equivalent shall be installed on ceilings of garages located below usable space. Doors into the residence shall be metal or minimum 1-3/8" thick solid wood (R302.6)

Garage floors shall be sloped to facilitate the flow of liquid out of the garage (R309.1)

Egress doors shall be openable from inside the dwelling unit without keys (R311.2)

A 3' x 3' landing shall be provided at the outside of each exterior door. The door from the residence into the garage is an interior door. At exterior doors other than the egress door, a landing is not required where a stair of two risers or less is located on the exterior side of the door, provided the door does not swing over the stair (R311)

Stairs with four or more risers require a handrail. Handrail height is minimum 34" and maximum 38" to the top of the rail. Handrail must be graspable. (R311.7)

Guards shall be provided on the open side of stairs, porches, decks, ramps, landings that are more than 30" above the floor or any grade within 36" horizontally. Guards shall be minimum 36" high (R312) Guard in-fill components (pickets, etc.) shall withstand a horizontal load of 50 PSF. Guards shall withstand a minimum 200 PSF in any direction at the top. Guards cannot allow the passage of a sphere 4" in diameter (R312)

A crawl space shall have all debris and vegetation removed (R408.5) All penetrations must be sealed

All porches, decks and balconies must be complete (R109.1.6)

Enclosed accessible areas below stairs, including in unfinished basements, must have gypsum wallboard installed at walls, soffits and under stair surfaces (R302.7)

Chimney termination must be minimum 3 feet above the roof and minimum 2 feet above any portion of the building within 10 feet (R1003.9)

# Residential Final Electrical Inspection Guideline

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**PLEASE NOTE:** Final approval is contingent upon permanent power being energized

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Test receptacles for proper wiring configuration and GFCI operation

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Smoke and Carbon Monoxide alarms shall be installed and operable per R314 and R315 of the 2018 IRC and NFPA 72. In new dwellings, alarms are to be hardwired, interconnected with battery backup, or an approved wireless system. In renovations and additions, battery operated alarms are acceptable

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Ground Fault Circuit Interrupter Protection (GFCI) required in all damp locations and: Bathrooms, garages, kitchens countertops, garages, unfinished basements, dwelling exterior and within 6 feet of a sink (E3902)

All 120 volt 15 and 20 amp branch circuits supplying family rooms, dining rooms, living rooms, bedrooms, dens, hallways, recreation rooms, laundry areas and any kitchen circuit are to be Arc Fault Circuit Interrupter Protected (AFCI) (E3902)

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All switches, receptacles and junction boxes shall have wall plates or covers installed. Luminaires shall have operable lamps installed

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The panel directory shall legibly identify each circuit. Unused openings in the panel must be closed. Each disconnect shall be legibly labeled to indicate the purpose. All identification shall be permanent (E3706.2) (E3404.6) (E3404.13)

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Circuit breakers shall have a rating not exceeding the ampacity of the conductors (E3705)

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Hydro massage tub motors and GFCI receptacles must be accessible (E4209)

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Disconnects for dishwasher, waste disposer and trash compactor are allowed to be cord-and-plug (E4101.3)

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Disconnects for water heater and HVAC equipment shall be at the unit (E4101.5)

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"In Use Covers" shall be provided at receptacles installed in wet locations (E4002.9) (E4002.10)

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A receptacle is required at the exterior front and rear of each dwelling unit, within 6'6" of grade (E3901.7)

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A switch controlled lighting outlet is required in every habitable room, bath, hallway, stair, attached garage, storage room, basement, attics and under-floor storage areas (E3901.3)

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Bathtub and shower spaces shall not have switches, receptacles, pendant fixtures or ceiling fans (E4001.7) (E4002.11)

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In unfinished basements, cables with conductors size 8 AWG and larger can be attached directly to the bottom of the ceiling joists. Smaller cables shall be installed in bored holes or on running boards (E3802.4)

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# Residential Final Mechanical Inspection Guideline

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## Based on the 2018 International Residential Code

All utilities shall be connected, tested and operational. Exception: gas grilles

Gas fireplaces shall have a gas shut off valve outside the firebox, within 6 feet and within the same room (G2420.5.1)

For other than steel pipe, exposed piping shall be identified with yellow labels (G2412.5)

Sediment traps (dirt legs) shall be provided in accordance with G2419.4

Fuel burning appliances shall be provided with make-up air (G2407)

Fuel burning appliances and water heaters located in garages shall be elevated and protected from damage by vehicles (M1307)

Appliances shall be installed per the manufacturer's instructions. Operation and installation instructions shall remain with the appliance (M1307)

Clearance from combustibles shall be per the manufacturer's instructions and M1306

Drain pans and condensate removal must be installed. Drain pans clear of debris (M1411)

Appliances installed in attics and crawl spaces shall have a clear and unobstructed passageway no longer than 20 feet. Clear working space shall be provided (M1305)

Ducts must be properly supported and insulated. Ducts in attics must be raised above ceiling joists. Ducts in crawl spaces must be minimum 4" above the floor. Ducts in garages shall be metal and comply with R302.5.2. Duct tape is not permitted (M1601)

Appliances installed at grade shall be supported on a level slab or other approved pad extending 3 inches above grade, or shall be elevated minimum 6 inches above grade (G2408.4)

Vent terminations for a mechanical draft system shall not be mounted directly above or within 3 feet horizontally from an oil tank, vent or gas meter and shall not be closer than 3 feet to an interior corner formed by two walls perpendicular to each other

# Residential Final Plumbing Inspection Guideline

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## Based on the 2018 International Residential Code

A main shut off valve and a shut off valve at the water heater cold water supply shall be provided (P2903.9)

Water heater temperature pressure relief valve must safely discharge (P2804.6)

Water piping in attics, garages and unconditioned spaces must be protected from freezing (P2603.5)

Provide backflow protection per P2902.2

Thermal expansion tank and/or pressure reducing valve might be required (P2903.3 and P2903.4)

Cleanouts to be accessible and have proper clearance (P3005.2)

Minimum one main vent must go to the outside (P3102) Air admittance valves shall be installed per manufacturer instructions and P3114

# Residential Energy Inspection Guideline

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## Based on the 2018 International Residential Code

Verify Climate Zone per Table N1101.7 4A, 5A or 6A

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Energy efficiency shall be attained using one of the following methods:

2018 IRC Chapter 11 (based on the 2018 IECC)

The Energy Rating Index Compliance Alternative (ERI). The ERI analysis (commonly called Recheck) shall be provided to the code official (2015 IRC N1106.3)

The 2018 PA Alternative Residential Energy Provisions. This is available at the PA Housing Research Center at Penn State University ([phrc.psu.edu](http://phrc.psu.edu)) The design showing compliance shall be provided to the code official

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Generally, insulation shall be R49 attic, R21 walls, R30 basement ceiling or R15 continuous/R19 cavity at basement walls, R10/2 ft at slab-on-grade. Floors with radiant heat require more insulation. Depth markers to be placed in attics with blown-in insulation (Table N1102.1.2)

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Sunroom insulation shall comply with N1102.2.13

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Vapor barrier shall be installed at the interior side of frame walls (R702.7 N1102.1.1)

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Air barriers shall be installed at exterior walls, crawl spaces, garage/residence walls, at exterior walls between tubs/showers and walls and other locations per Table N1102.4.1.1

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Window U Factor not to exceed 0.30 (Table N1102.1.2)

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Ducts outside the thermal envelope to be insulated to R8 in attics and R6 elsewhere  
Mechanical system piping to be insulated R3 minimum. This includes PEX tubing  
Duct air leakage testing to be performed; test documentation to be provided to the code official (This is not the whole house air leakage rate test) (N1103.3)

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Energy certificate to be posted near the heating equipment or on the front cover of the electrical panel (N1101.14)

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Not less than 90% of the permanently installed lighting shall contain only high efficacy lamps (N1104)

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A whole house leakage rate test (blower door test) is to be performed; test documentation to be provided to the code official (N1102.4.1.2)