Residential Requirements at a Glance (2017 NEC)

2017 NEC Requirements - Commonly Overlooked Items

New York Electrical Inspection Agency

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1) Arc-Fault Circuit Interrupters (AFCI) are required in all residential dwelling units.

When installing a new circuit or extending an existing circuit more than 6', or changing an existing circuit or outlet on a 120-volt, single phase, 15- and 20-ampere in **family rooms, kitchens, dining rooms, laundry rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, or similar rooms or areas** the circuit or outlet must be AFCI protected. All AFCI devices must be in a readily accessible area (210.12 (A) and 406.4(D)(4)) (*Outlets means all receptacles, switches, light fixtures, and hardwired smoke and Carbon Monoxide detectors.)

2) Ground Fault Circuit Interrupters (GFCI) are required in all residential dwelling units.

When installing new or changing an existing 125-volt, single phase, 15- or 20-ampere receptacle in **bathrooms**, garages, outdoors, rooftops, crawlspaces at or below grade, unfinished basements, kitchen countertops, laundry areas, and within 6' of all sink areas, GFCI protection must be installed. (210.8 (A) and 406.4(D)(3)) All GFCI devices must be in a readily accessible area.

3) Tamper-Resistant (TR) Receptacles are required in all Residential Dwellings Units.

Listed Tamper-Resistant (TR) receptacles must be installed when installing new or changing an existing 125- and 250-volt nonlocking, single phase, 15- and 20-ampere receptacles in all areas of a Residential Dwelling Unit (406.4(D)(5) and 406.12)

4) Weather-Resistant Receptacles are required in all Residential Dwelling Units.

Weather-Resistant (WR) type receptacles must be installed when installing new or changing an existing 125- and 250-volt nonlocking, single phase, 15- and 20- ampere receptacles in all areas of a Residential Dwelling Unit must be installed in all exterior areas of a Residential Dwelling Unit (406.4(D)(6) and 406.9(A)&(B)). An outlet box hood (bubble cover) installed in wet locations must be listed as "Extra Duty" (406.9(B)(1))

5) Exposed Work in Unfinished Basements and Crawlspaces Non-metallic (NM) sheathed cable installed on the walls of an unfinished basement must be protected with a listed conduit or tubing (334.15 (B)&(C))

6) Required Receptacle Outlets in New Construction or Remodeling Where Walls are Exposed

In every kitchen, family room, dining room, living room, parlor, library, den, sunroom, bedroom, recreation room, or similar room or area of dwelling units, receptacle outlets shall be installed in accordance with the following: (210.52(A))

- a. **Finished Living Areas -** Any wall space 2 feet or more in width within any finished living area, must have an electrical receptacle (outlet) no more than 6 feet from any obstruction or break in the wall (such as a doorway) and no more than 12 feet from the previous electrical receptacle (outlet). (210.52(A)(1)&(2))
- b. **Kitchens** A minimum of two (2) 20 amp Small-Appliance branch circuits are required. Also, any countertop peninsula extending 2 feet or more and permanently installed islands must have a receptacle. (210.11(C)(1))
- c. **Bathrooms** At least one 20-ampere branch circuit receptacle outlet shall be provided to supply the bathroom. Such circuits shall have no other outlets. *Exception: Where the 20-ampere circuit supplies a single bathroom, outlets for other equipment within the same bathroom shall be permitted to be supplied in accordance with the NEC.* (210.11(C)(3))
- d. **Laundry Areas** At least one 20-ampere branch circuit receptacle outlet shall be provided to supply the laundry area. Such circuits shall have no other outlets. (210.11(C)(2))
- e. Foyers Foyers larger than 60 sf must have receptacles on walls 3ft or greater (210.52(I)).

Are you ready for a Rough Electrical Inspection?

- 1) Building Permits are required. Secure a Building Permit from your municipality prior to beginning work.
- 2) All new circuits are wired, grounding wires are in place, and the raceways and boxes are installed properly.
- 3) If needed, any necessary nail plates are installed.
- 4) The electrical work cannot be covered with insulation, drywall, fixtures, etc. until an inspector has approved it.
- 5) All grounding wires are connected at the outlets.
- 6) Wires do not need to be installed in the panel box for the rough inspection.

Are you ready for a Final Electrical Inspection?

- 1) All the electric must be finished prior to scheduling the final electrical inspection.
- 2) All circuits must be clearly and properly labeled at the panelboard (circuit breaker box).
- 3) All electrical equipment, receptacles, fixtures, switches, and built-in appliances are properly installed, grounded, and energized.

Additional fees will be assessed if work is not completed on the final inspection and additional trips are needed

PLEASE CONTACT YOUR LOCAL INSPECTOR IF YOU HAVE ANY QUESTIONS New York Electrical Inspection Agency

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