

Residential Electrical Update Guidelines

	New Service Only	New Panel Only	New Service & Panel
Ground Rods	Required	Required	Required
Metal Water Pipe Bonding	Required	Required	Required
CSST Gas line Bonding	Required	Required	Required
Visible Fire/Life Safety Hazards Corrected	Required	Required	Required
Smoke and CO Detectors	Not Required	Required	Required
GFCI's at required locations	Not Required	Required	Required
Two Kitchen Circuits	Not Required	Not Required	2 - 20 amp circuits required
Required Dedicated Circuits	Not Required	Not Required	Laundry, Bathrooms, Central Heating
Required Minimum Receptacles	Not Required	Not Required	2 per habitable room minimum
New Meter & Mast	Required	Not Required	Required

Smoke and CO Detector Update Requirements

- Dual sensor smoke detectors shall be installed in every bedroom, in close proximity to the bedroom(s) and on each floor level of the dwelling
- If existing wall and ceiling coverings are not removed then battery operated units are acceptable
- If new construction or existing wall and ceiling finishes are removed then hard-wired smoke detectors are required
- Carbon monoxide alarms shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms (required if attached garage or fuel fired appliances within the dwelling)

Ground Fault Circuit Interrupter Protection Update Requirements

- Kitchen and Bathroom receptacles shall be GFCI protected
- Unfinished basement and attached garage receptacles shall be GFCI protected

Arc Fault Circuit Interrupter Requirement

- New bedroom addition(s) receptacles or receptacles in a room(s) converted to a bedroom(s) shall be AFCI protected.

CSST gas piping

- Corrugated stainless steel tubing (CSST) gas piping systems to be bonded to the electrical service grounding electrode system at the point where the gas service enters the building. The bonding jumper shall be not smaller than 6 AWG copper wire or equivalent.

Residential Update

- Service update may be required for additions and alterations. Load calculations may be required.
- Service update shall be done only by Electrical Contractors licensed by the State of Iowa.
- 100 amp minimum for updated panel – larger as required
- 2 ground rods required – 6' apart and outside the drip line of eave
- Water service ground, if available, with jumper wire
- Federal Pacific panels must be replaced if altered or additional load(s) imposed

Corrections to Visible Fire/Life Safety Hazards might include, but are not limited to the following: incorrect breaker size, missing connectors in boxes, open splices, broken devices, missing cover plates, missing breakers in panel, damaged wiring, use of extension cords in place of permanent wiring, improper installation of electrical equipment.

TEMP POLES: All outlets to be GFCI protected including 220V, Two ground rods required and address label visible from the street. Call for inspection when completed. 515-850-2980

For more information contact Veenstra & Kimm Inc. at 515-850-2980 or email at buildinginspection@v-k.net

