

City of O'Fallon Electrical Code

This is a condensed working document created from portions of Ordinances #3302, #3336, and #3398 that pertain to the City of O'Fallon Electrical Code. This will provide the reader with the City of O'Fallon changes to the adopted 2003 National Electric Code (NEC) in easy to read format. For actual ordinances, refer to the Ordinances listed above.

The City of O'Fallon has adopted the "2002 National Electrical Code" published by the National Fire Protection Association, Inc. The Electrical Code is hereby amended as follows:

(1) The following additional regulations and standards are hereby adopted as supplementary and in addition to the requirements of the Electrical Code and are hereby incorporated as if fully set forth therein.

(i) No other electrical conductor other than copper shall be used in the City other than by the utility company in its service supply lines.

(ii) Branch circuits shall be at least Number 12 gauge wire, except as follows:

(a) Control wire, as permitted by the National Electrical Code, NFPA 70; provided that this exception shall not be construed to include switch circuits or legs exceeding fifty (50) volts.

(iii) Raceways and/or conduits housing, or intended to house conductors shall be fastened in place with approved mounting brackets; tie-wire shall not be permitted except when such conduits are buried in earth or when installed in poured concrete.

(iv) Conductors placed within or beneath poured concrete and inaccessible, shall be housed in all metallic or polyvinyl chloride (PVC) conduit; and if placed within concrete, conduits shall have concrete-tight fittings. All electrical metallic tubing shall be installed above the vapor barrier.

(v) Electrical conductors installed underground or in concrete and which serve as circuits to signs, swimming pools, and

billboards shall be installed in either rigid metal or polyvinyl chloride (PVC) conduits.

(vi) All power and branch circuits carrying three hundred (300) volts and greater above ground potential shall meet the following requirements:

- A. Such circuits shall be placed in threaded rigid metal conduit; or
- B. Shall be placed in rigid non-metallic conduit that is encased in a minimum three-inch (3") thick concrete cement envelope; or
- C. In engineered custom design instances, shall have prior approval of the protection design method (s) granted by the inspecting authority.

(vii) Electrical metal tubing shall not be used in locations with direct exposure to weathering from moisture or excessive humidity.

(viii) Automatic fire detection systems shall be installed at locations and in the manner prescribed by the Building Code and Residential Code. Notwithstanding the foregoing, but in addition thereto, smoke detectors shall be located and installed in accordance with the applicable provisions of the Illinois Smoke Detector Act. Smoke detectors installed in new construction, reconstruction, or substantial remodeled construction shall have a battery power auxiliary operation.

(xiv) All swimming pool underwater lighting fixtures shall be installed for operation at maximum of 25 volts between conductors and ground.

(x) Use of circuit breakers commonly known and referred to as "space saver circuit breakers" shall be prohibited in new construction. It may be allowed in panelboard replacement in existing services and in upgrading of existing services, with the approval of the code official. The minimum width of any service panelboard circuit breaker shall be $\frac{3}{4}$ inch. All such circuit breakers shall be of "unit-pole" design and operation, having one over current protection device per set of terminals; the use of twin, tandem or similar circuit breakers which feature or allow two or more over current protection devices on a single set of terminals shall not be permitted. For the purpose of this code, a "unit pole" circuit breaker is a single over current protection device which exclusively, without another, makes use of one line-side terminal and its opposite load center bus-bar terminal.

(xi) All dwelling unit service board panels must have a single disconnect device or breaker.

(xii) A maximum of 42 circuits per panel shall be allowed on a 200 amp service panel and 24 circuits on a 125 amp service panel. Breaker panels and/or fuse panels shall be clearly marked within the panel designating circuit numbers and the corresponding area(s) and/or equipment or features they service. All service panels shall contain a 3-pole space for future expansion.

(xiii) Ground fault protection devices shall be located as close as is practicable to the equipment or feature they are intended to serve and protect and shall be reasonably accessible from such equipment or feature. Ground fault and arc fault testing schedule chart with testing and resetting instructions shall be affixed to the inside of the breaker panel door.

(xiv) Ground fault interrupter receptacles and standard receptacles wired on the load side of a ground fault protection device shall be clearly labeled (at their location) that such receptacles are ground fault protected.

(xv) Use of “crimp-splice” mechanical connections (such as Buchanan crimp splices) is prohibited and shall be disapproved.