

National Electrical Code (2011)



went into effect on
July 3rd, 2012

MAJOR CHANGES IN 2011 NEC AFFECTING COMMERCIAL PLAN REVIEW

- 1) Article 100 – Definitions – Revised definition of “bathroom” adding plumbing fixtures not previously considered (bidet, urinal, etc).
- 2) Article 110.24 – Available fault current – In other than dwelling units must be legibly marked in the field.
- 3) Article 110.26(D) – Illumination about electrical equipment – Lighting source must not be controlled by automatic means only.
- 4) Article 110.31(A) – Electrical vaults – Added requirements (doors, locks, transformers).
- 5) Article 210.8(B)(5) – Exception No. 2 to 5 – GFCI required at sinks of dentists or doctor offices and clinics.
- 6) Article 210.8(B) -- Added GFCI locations 6, 7 and 8.
- 7) Article 240.24(E) – Location of overcurrent devices not in bathrooms – Added dormitories.
- 8) Article 240.91 – New Article – Protection of conductors.
- 9) Article 250.21(C) – New Article – Marking of ungrounded systems at the source or first disconnect.
- 10) Article 250.24(C) – Grounded conductor brought to service – Grounded conductor to be routed with ungrounded conductor.
- 11) Article 250.30(C) – New Article – Grounding of separately derived systems located outside the building or structure supplied.
- 12) Article 406.14 – New Article – All child care facilities – All non-locking type 125 volt 15 and 20 amp receptacles shall be tamper resistant type.
- 13) Article 408.3(F)(2) – New Article – Requirement for permanent marking of switchboard or panelboard containing ungrounded electrical system.
- 14) Article 408.4(B) – New Article – All non-dwelling panelboards or switchboards supplied by a feeder are required to be marked to indicate power source location.
- 15) Article 409.110(3) – New Article – Industrial control panels required to be marked if supplied with multiple power sources.
- 16) Article 690 – Photovoltaic Systems – multiple changes – some code language and some new sections.
- 17) Article 695 – Fire Pumps – Code language changes and some clarifications of requirements.

MAJOR CHANGES IN 2011 NEC AFFECTING FIELD INSPECTIONS

- 1) Article 110.26(D) - Light sources for working spaces about electrical equipment cannot be controlled by automatic means only.
- 2) Article 200.4 - Will not allow a neutral conductor to be used for more than one branch circuit or feeder.
- 3) Article 210.8 - All GFCI devices are required to be installed in a readily accessible location.
- 4) Article 210.8(A)(7)- A GFCI is now required for all 125 volt single phase 15 and 20 amp receptacles installed within 6 feet of the outside edge of a dwelling sink. (not just laundry utility and wet bar)
- 5) Article 210.8(B)(5) EX.#2 - GFCI for receptacles are now required at doctor and dentist offices where located within 6 feet of sinks.
- 6) Article 210.8(B)(6) - Receptacles installed at, other than dwelling unit, indoor wet locations now require GFCI protection. Example (car washes)
- 7) Article 210.8(B)(7) - Receptacles installed in locker rooms now require GFCI protection.
- 8) Article 210.8(B)(8) - GFCI protection required at all types of non dwelling unit garages.
- 9) Article 210.52(G) - Now requires at least one receptacle to be installed in accessory buildings with electric power.
- 10) Article 210.52(l) - Foyers that are not part of a hallway and are greater than 60 square feet now require outlets on each wall with 3 or more feet in width.
- 11) Article 225.27 - Raceway seals required at outside underground branch circuits and feeders entering buildings.
- 12) Article 225.30 - No more than one feeder or branch circuit is allowed to supply a building or structure no matter which building or structure it originates from.
- 13) Article 300.4(E) - Boxes have now been added to require a 1 ½" spacing down from corrugated roof decking.
- 14) Article 300.11(A)(2) - Now requires all support wires for wiring method support be identified in all ceilings fire rated or not.
- 15) Table 310.15(B)(3)(a) - Column heading now reads "number of conductors" (not current carrying conductors)
- 16) Article 314.27(C) - Ceiling mounted boxes in single and multifamily dwellings with spare switch legs require listed fan boxes to be installed.
- 17) Article 348.42 - Angle connectors cannot be install where the connector itself is concealed.
- 18) Article 392.18(H) - Warning labels required on cable trays with conductors rated over 600 volts.
- 19) Article 404.2(C) - A grounded conductor required at most switch locations.
- 20) Article 406.4(D)(4) - AFCI protection is now required for replacement receptacles that require AFCI elsewhere in the code.
- 21) Article 406.4(D)(5) - Tamper-resistant receptacles now required for replacement receptacles that require tamper-resistance elsewhere in the code.

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- 22) Article 406.4(D)(6) - Weather resistance receptacles now required for replacement receptacles that require weather resistance elsewhere in the code.
- 23) Article 406.12 - Outlets located more than 5 ½ feet above the floor are not required to be tamper-resistance.
- 24) Article 406.13 - Tamper-resistance receptacles have been added to include guest rooms or guest suites in hotels and motels.
- 25) Article 406.14 - Tamper-resistance receptacles have been added to include child care facilities.
- 26) Article 408.3(F) - Switchboards and panel boards with ungrounded systems are required to be marked.
- 27) Article 408.4(B) - Switchboards and panel boards supplied by a feeder (other than one and two family dwellings) are to be marked where their supply source is located.
- 28) Article 410.16(A) - Allows LED type fixtures in clothes closets.
- 29) Article 410.130(G)(1) - A disconnect means is required to be added to existing fluorescent fixtures when the ballast is replaced.
- 30) Article 424.44(G)- Kitchens was added for GFCI protection for floor heating cables.
- 31) Article 426.28 - Fixed outdoor snow melting or deicing equipment requires Ground Fault Protection on all wiring methods. (no exceptions)
- 32) Article 517.16 - Isolated grounding type receptacles in patient care areas of health care facilities are prohibited.
- 33) Article 517.18 - Branch circuits serving patient bed locations of general care and critical care areas are prohibited from being part of a multi-wire branch circuit.
- 34) Article 518.3(B) - Except for the GFCI requirements for temporary wiring, all GFCI requirements of the code apply to temporary display booths at assembly occupancies and must meet the GFCI requirements for portable installations.
- 35) Article 547.5(G) - All 125 volt single phase 15 and 20 amp receptacles installed agricultural buildings must have GFCI protection.
- 36) Article 690.4(B) - New separation and marking requirements now for PV circuits installed in buildings or structures.
- 37) Article 690.4(F) - Requires roof markings of certain PV circuits where added.
- 38) Article 690.10(E) - Requires back fed breakers to be secured in place.
- 39) Article 690.11 - AFCI required on PV systems on or penetrating a building when operating at 80 volts or greater.
- 40) Article 694 - This is a new article for small wind electrical systems.