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## IRC 2006 Code Requirements for Electrical Alteration Projects

The following information is provided to assist permit applicants with the requirements of performing electrical alterations to a dwelling. These items are not inclusive and if there are questions regarding the code applicability to a specific project, a preliminary inspection with a construction code official should be scheduled with our office.

### **SECTION E3301 GENERAL**

**E3301.1 Applicability.** The provisions of Chapters 33 through 42 shall establish the general scope of the electrical system and equipment requirements of this code. Chapters 33 through 42 cover those wiring methods and materials most commonly encountered in the construction of one- and two-family dwellings and structures regulated by this code. Other wiring methods, materials and subject matter covered in the NFPA 70 are also allowed by this code.

**E3301.2 Scope.** Chapters 33 through 42 shall cover the installation of electrical systems, equipment and components indoors and outdoors that are within the scope of this code, including services, power distribution systems, fixtures, appliances, devices and appurtenances. Services within the scope of this code shall be limited to 120/240-volt, 0- to 400-ampere, single-phase systems. These chapters specifically cover the equipment, fixtures, appliances, wiring methods and materials that are most commonly used in the construction or alteration of one- and two-family dwellings and accessory structures regulated by this code. The omission from these chapters of any material or method of construction provided for in the referenced standard NFPA 70 shall not be construed as prohibiting the use of such material or method of construction.

Electrical systems, equipment or components not specifically covered in these chapters shall comply with the applicable provisions of the NFPA 70.

**E3301.3 Not covered.** Chapters 33 through 42 do not cover the following:

1. Installations, including associated lighting, under the exclusive control of communications utilities and electric utilities.
2. Services over 400 amperes.

**E3301.4 Additions and alterations.** Any addition or alteration to an existing electrical system shall be made in conformity with the provisions of Chapters 33 through 42. Where additions subject portions of existing systems to loads exceeding those permitted herein, such portions shall be made to comply with Chapters 33 through 42.



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### SECTION E3302 BUILDING STRUCTURE PROTECTION

**E3302.1 Drilling and notching.** Wood-framed structural members shall not be drilled, notched or altered in any manner except as provided for in this code.

**E3302.2 Penetrations of fire-resistance-rated assemblies.** Electrical installations in hollow spaces, vertical shafts, and ventilation or air-handling ducts shall be made so that the possible spread of fire or products of combustion will not be substantially increased. Electrical penetrations through fire-resistance-rated walls, partitions, floors or ceilings shall be protected by approved methods to maintain the fire-resistance rating of the element penetrated. Penetrations of fire-resistance-rated walls shall be limited as specified in Section R317.3.

**E3302.3 Penetrations of firestops and draftstops.** Penetrations through fire blocking and draftstopping shall be protected in an approved manner to maintain the integrity of the element penetrated.

### SECTION E3303 INSPECTION AND APPROVAL

**E3303.1 Approval.** Electrical materials, components and equipment shall be approved.

**E3303.2 Inspection required.** New electrical work and parts of existing systems affected by new work or alterations shall be inspected by the building official to ensure compliance with the requirements of Chapters 33 through 42.

**E3303.3 Listing and labeling.** Electrical materials, components, devices, fixtures and equipment shall be listed for the application, shall bear the label of an approved agency and shall be installed, and used, or both, in accordance with the manufacturer's installation instructions.

### **E3802 Ground-fault and Arc-fault circuit-interrupter protection**

GFCI & AFCI protection shall be provided in accordance with Section E3802 (E3802.1 through E3802.12)