

## [EB] APPENDIX J

# EXISTING BUILDINGS AND STRUCTURES

### SECTION AJ101 PURPOSE AND INTENT

**AJ101.1 General.** The purpose of these provisions is to encourage the continued use or reuse of legally existing buildings and structures. These provisions are intended to permit work in existing buildings that is consistent with the purpose of the *International Residential Code*. Compliance with these provisions shall be deemed to meet the requirements of the *International Residential Code*.

**AJ101.2 Classification of work.** For purposes of this appendix, all work in existing buildings shall be classified into the categories of repair, renovation, alteration and reconstruction. Specific requirements are established for each category of work in these provisions.

**AJ101.3 Multiple categories of work.** Work of more than one category may be part of a single work project. All related work permitted within a 12-month period shall be considered a single work project. Where a project includes one category of work in one building area and another category of work in a separate and unrelated area of the building, each project area shall comply with the requirements of the respective category of work. Where a project with more than one category of work is performed in the same area or in related areas of the building, the project shall comply with the requirements of the more stringent category of work.

### SECTION AJ102 COMPLIANCE

**AJ102.1 General.** Regardless of the category of work being performed, the work shall not cause the structure to become unsafe or adversely affect the performance of the building; shall not cause an existing electrical, mechanical or plumbing system to become unsafe, hazardous, insanitary or overloaded; and unless expressly permitted by these provisions, shall not make the building any less conforming to this code or to any previously approved alternative arrangements than it was before the work was undertaken.

**AJ102.2 Requirements by category of work.** Repairs shall conform to the requirements of Section AJ301. Renovations shall conform to the requirements of Section AJ401. Alterations shall conform to the requirements of Section AJ501 and the requirements for renovations. Reconstructions shall conform to the requirements of Section AJ601 and the requirements for alterations and renovations.

**AJ102.3 Smoke detectors.** Regardless of the category of work, smoke detectors shall be provided where required by Section R313.1.1.

**AJ102.4 Replacement windows.** Regardless of the category of work, when an entire existing window, including frame, sash and glazed portion is replaced, the replacement window shall comply with the requirements of Section N1102.4.

**AJ102.5 Flood Hazard areas.** Work performed in existing buildings located in a flood hazard area as established by Table R301.2(1) shall be subject to the provisions of R105.3.1.1.

**AJ102.6 Equivalent alternatives.** These provisions are not intended to prevent the use of any alternate material, alternate design or alternate method of construction not specifically prescribed herein, provided any alternate has been deemed to be equivalent and its use authorized by the building official.

**AJ102.7 Other alternatives.** Where compliance with these provisions or with this code as required by these provisions is technically infeasible or would impose disproportionate costs because of structural, construction or dimensional difficulties, other alternatives may be accepted by the building official. These alternatives may include materials, design features and/or operational features.

**AJ102.8 More restrictive requirements.** Buildings or systems in compliance with the requirements of this code for new construction shall not be required to comply with any more restrictive requirement of these provisions.

**AJ102.9 Features exceeding *International Residential Code* requirements.** Elements, components and systems of existing buildings with features that exceed the requirements of this code for new construction, and are not otherwise required as part of approved alternative arrangements or deemed by the building official to be required to balance other building elements not complying with this code for new construction, shall not be prevented by these provisions from being modified as long as they remain in compliance with the applicable requirements for new construction.

### SECTION AJ103 PRELIMINARY MEETING

**AJ103.1 General.** If a building permit is required at the request of the prospective permit applicant, the building official or his designee shall meet with the prospective applicant to discuss plans for any proposed work under these provisions prior to the application for the permit. The purpose of this preliminary meeting is for the building official to gain an understanding of the prospective applicant's intentions for the proposed work, and to determine, together with the prospective applicant, the specific applicability of these provisions.

### SECTION AJ104 EVALUATION OF AN EXISTING BUILDING

**AJ104.1 General.** The building official may require an existing building to be investigated and evaluated by a registered design professional in the case of proposed reconstruction of any portion of a building. The evaluation shall determine the existence of any potential nonconformities with these provisions, and shall provide a basis for determining the impact of the pro-

posed changes on the performance of the building. The evaluation shall utilize the following sources of information, as applicable:

1. Available documentation of the existing building.
  - 1.1. Field surveys.
  - 1.2. Tests (nondestructive and destructive).
  - 1.3. Laboratory analysis.

**Exception:** Detached one- or two-family dwellings that are not irregular buildings under Section R301.2.2.6 and are not undergoing an extensive reconstruction shall not be required to be evaluated.

### SECTION AJ105 PERMIT

**AJ105.1 Identification of work area.** The work area shall be clearly identified on all permits issued under these provisions.

### SECTION AJ201 DEFINITIONS

**AJ201.1 General.** For purposes of this appendix, the terms used shall be defined as follows.

**ALTERATION.** The reconfiguration of any space, the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment.

**CATEGORIES OF WORK.** The nature and extent of construction work undertaken in an existing building. The categories of work covered in this Appendix, listed in increasing order of stringency of requirements, are repair, renovation, alteration and reconstruction.

**DANGEROUS.** Where the stresses in any member; the condition of the building, or any of its components or elements or attachments; or other condition that results in an overload exceeding 150 percent of the stress allowed for the member or material in this code.

**EQUIPMENT OR FIXTURE.** Any plumbing, heating, electrical, ventilating, air conditioning, refrigerating and fire protection equipment, and elevators, dumb waiters, boilers, pressure vessels, and other mechanical facilities or installations that are related to building services.

**LOAD-BEARING ELEMENT.** Any column, girder, beam, joist, truss, rafter, wall, floor or roof sheathing that supports any vertical load in addition to its own weight, and/or any lateral load.

**MATERIALS AND METHODS REQUIREMENTS.** Those requirements in this code that specify material standards, details of installation and connection, joints, penetrations, and continuity of any element, component or system in the building. The required quantity, fire resistance, flame spread, acoustic or thermal performance, or other performance attribute is specifically excluded from materials and methods requirements.

**RECONSTRUCTION.** The reconfiguration of a space that affects an exit, a renovation and/or alteration when the work

area is not permitted to be occupied because existing means of egress and fire protection systems, or their equivalent, are not in place or continuously maintained; and/or there are extensive alterations as defined in Section AJ501.3.

**REHABILITATION.** Any repair, renovation, alteration or reconstruction work undertaken in an existing building.

**RENOVATION.** The change, strengthening or addition of load-bearing elements; and/or the refinishing, replacement, bracing, strengthening, upgrading or extensive repair of existing materials, elements, components, equipment and/or fixtures. Renovation involves no reconfiguration of spaces. Interior and exterior painting are not considered refinishing for purposes of this definition, and are not renovation.

**REPAIR.** The patching, restoration and/or minor replacement of materials, elements, components, equipment and/or fixtures for the purposes of maintaining such materials, elements, components, equipment and/or fixtures in good or sound condition.

**WORK AREA.** That portion of a building affected by any renovation, alteration or reconstruction work as initially intended by the owner and indicated as such in the permit. Work area excludes other portions of the building where incidental work entailed by the intended work must be performed, and portions of the building where work not initially intended by the owner is specifically required by these provisions for a renovation, alteration or reconstruction.

### SECTION AJ301 REPAIRS

**AJ301.1 Materials.** Except as otherwise required herein, work shall be done using like materials or materials permitted by this code for new construction.

**AJ301.1.1 Hazardous materials.** Hazardous materials no longer permitted, such as asbestos and lead-based paint, shall not be used.

**AJ301.1.2 Plumbing materials and supplies.** The following plumbing materials and supplies shall not be used:

1. All-purpose solvent cement, unless listed for the specific application;
2. Flexible traps and tailpieces, unless listed for the specific application; and
3. Solder having more than 0.2 percent lead in the repair of potable water systems.

**AJ301.2 Water closets.** When any water closet is replaced with a newly manufactured water closet, the replacement water closet shall comply with the requirements of Section P2903.2.

**AJ301.3 Safety glazing.** Replacement glazing in hazardous locations shall comply with the safety glazing requirements of Section R308.1.

**AJ301.4 Electrical.** Existing electrical wiring and equipment undergoing repair shall be permitted to be repaired or replaced with like material.

#### Exceptions:

1. Replacement of electrical receptacles shall comply with the requirements of the *National Electric Code*. ||

2. Plug fuses of the Edison-base type shall be used for replacements only where there is no evidence of overfusing or tampering per the applicable requirements of the *National Electric Code*.
3. For replacement of nongrounding-type receptacles with grounding-type receptacles and for branch circuits that do not have an equipment grounding conductor in the branch circuitry, the grounding conductor of a grounding type receptacle outlet shall be permitted to be grounded to any accessible point on the grounding electrode system, or to any accessible point on the grounding electrode conductor, as allowed and described in the *National Electric Code*.

### SECTION AJ401 RENOVATIONS

**AJ401.1 Materials and methods.** The work shall comply with the materials and methods requirements of this code.

**AJ401.2 Door and window dimensions.** Minor reductions in the clear opening dimensions of replacement doors and windows that result from the use of different materials shall be allowed, whether or not they are permitted by this code.

**Exception:** Emergency escape and rescue openings.

If existing clear opening dimensions exceed the light and ventilation requirements of Section R303 and for emergency escape and rescue openings in Section R310, the reduction in dimensions shall not make the windows noncompliant with these sections.

**AJ401.3 Interior finish.** Wood paneling and textile wall coverings used as an interior finish shall comply with the flame spread requirements of Section R315.

**AJ401.4 Structural.** Unreinforced masonry buildings located in Seismic Design Categories D<sub>2</sub> or E shall have parapet bracing and wall anchors installed at the roofline whenever a reroofing permit is issued. Such parapet bracing and wall anchors shall be of an approved design.

### SECTION AJ501 ALTERATIONS

**AJ501.1 Newly constructed elements.** All newly constructed elements, components and systems shall comply with the requirements of this code.

**Exceptions:**

1. Openable windows may be added without requiring compliance with the light and ventilation requirements of Section R303.
2. Newly installed electrical equipment shall comply with the requirements of Section AJ501.5.

**AJ501.2 Nonconformities.** The work shall not increase the extent of noncompliance with the requirements of Section AJ601, or create nonconformity with those requirements which did not previously exist.

**AJ501.3 Extensive alterations.** When the total area of all the work areas included in an alteration exceeds 50 percent of the

area of the dwelling unit, the work shall be considered as a reconstruction and shall comply with the requirements of these provisions for reconstruction work.

**Exception:** Work areas in which the alteration work is exclusively plumbing, mechanical or electrical shall not be included in the computation of total area of all work areas.

**AJ501.4 Structural.** The minimum design loads for the structure shall be the loads applicable at the time the building was constructed, provided that no dangerous condition is created. Structural elements that are uncovered during the course of the alteration and that are found to be unsound or dangerous shall be made to comply with the applicable requirements of this code.

### AJ501.5 Electrical equipment and wiring.

**AJ501.5.1 Materials and methods.** All newly installed electrical equipment and wiring relating to work done in any work area shall comply with the materials and methods requirements of the *National Electric Code*.

**Exception:** Electrical equipment and wiring in newly installed partitions and ceilings shall comply with all applicable requirements of the *National Electric Code*.

**AJ501.5.2 Electrical service replacement or upgrade.** Service to the one-family dwelling unit shall be a minimum of 100 ampere, three-wire capacity and service equipment shall be dead front having no live parts exposed whereby accidental contact could be made.

**Exception:** Existing service of 60 ampere, three-wire capacity, and feeders of 30 ampere or larger two- or three-wire capacity shall be accepted if adequate for the electrical load being served.

**AJ501.5.3 Additional electrical requirements.** When the work area includes any of the following areas within a dwelling unit, the requirements of Sections AJ501.5.3.1 through AJ501.5.3.5 shall apply.

**AJ501.5.3.1 Enclosed areas.** All enclosed areas other than closets, kitchens, basements, garages, hallways, laundry areas and bathrooms shall have a minimum of two duplex receptacle outlets, or one duplex receptacle outlet and one ceiling or wall type lighting outlet.

**AJ501.5.3.2 Kitchen and laundry areas.** Kitchen areas shall have a minimum of two duplex receptacle outlets. Laundry areas shall have a minimum of one duplex receptacle outlet located near the laundry equipment and installed on an independent circuit.

**AJ501.5.3.3 Ground-fault circuit-interruption.** Ground fault circuit interruption shall be provided on newly installed receptacle outlets if required by the *National Electric Code*.

**AJ501.5.3.4 Lighting outlets.** At least one lighting outlet shall be provided in every bathroom, hallway, stairway, attached garage and detached garage with electric power to illuminate outdoor entrances and exits, and in utility rooms and basements where these spaces are used for storage or contain equipment requiring service.

**AJ501.5.3.5 Clearance.** Clearance for electrical service equipment shall be provided in accordance with the *National Electric Code*.

**AJ501.6 Ventilation.** All reconfigured spaces intended for occupancy and all spaces converted to habitable or occupiable space in any work area shall be provided with ventilation in accordance with Section R303.

## SECTION AJ601 RECONSTRUCTION

### AJ601.1 Stairways, handrails and guards.

**AJ601.1.1 Stairways.** Stairways within the work area shall be provided with illumination in accordance with Section R303.6.

**AJ601.1.2 Handrails.** Every required exit stairway that has three or more risers; is part of the means of egress for any work area; and is not provided with at least one handrail, or in which the existing handrails are judged to be in danger of collapsing, shall be provided with handrails designed and installed in accordance with Section R311 for the full length of the run of steps on at least one side.

**AJ601.1.3 Guards.** Every open portion of a stair, landing or balcony that is more than 30 inches (762 mm) above the floor or grade below; is part of the egress path for any work area; and is not provided with guards or in which the existing guards are judged to be in danger of collapsing, shall be provided with guards designed and installed in accordance with Section R312.

**AJ601.2 Wall and ceiling finish.** The interior finish of walls and ceilings in any work area shall comply with the requirements of Section R315. All existing interior finish materials that do not comply with those requirements shall be removed or shall be treated with an approved fire retardant coating in accordance with the manufacturer's instructions to secure compliance with the requirements of this section.

**AJ601.3 Separation walls.** Where the work area is in an attached dwelling unit, all walls separating dwelling units that are not continuous from the foundation to the underside of the roof sheathing shall be constructed to provide a continuous fire separation using construction materials consistent with the existing wall or complying with the requirements for new structures. Work shall only be required to be performed on the side of the wall of the dwelling unit that is part of the work area.