

# CTC MEETING #25

## CHILD WINDOW SAFETY REPORT

The Child Window Safety SG has not met following the 2012 Final Action Hearing. Group B activities did not necessitate SG meetings as the activity will be limited to coordination proposals for Group B codes based on 2012 Group A code change action. The following is a staff report on possible Group B activities:

- IRC – Revise section R312.2.1 to be consistent with approved IBC code change E109-12
- IRC Appendix J - Add provisions in the IRC for existing buildings based on approved IBC code changes G225 and G227 – 12
- IEBC - Add provisions in the IEBC based on approved IBC code changes G225 and G227 – 12

### INTERNATIONAL RESIDENTIAL CODE – NEW CONSTRUCTION

#### CHAPTER 3 BUILDING PLANNING

#### R312 GUARDS AND WINDOW FALL PROTECTION

**R312.2 Window fall protection.** Window fall protection shall be provided in accordance with Sections R312.2.1 and R312.2.2.

**R312.2.1 Window sills.** ~~In dwelling units, where the opening of an operable window is located more than 72 inches (1829 mm) above the finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches (610 mm) above the finished floor of the room in which the window is located. Operable sections of windows shall not permit openings that allow passage of a 4-inch-diameter (102 mm) sphere where such openings are located within 24 inches (610 mm) of the finished floor.~~ the top of the sill of an operable window opening is located less than 24 inches above the finished floor and greater than 72 inches (1829 mm) above the finished grade or other surface below on the exterior of the building, shall comply with one of the following:

#### **Exceptions:**

1. Operable windows whose openings will not allow a 4- inch-diameter (102 mm) sphere to pass through the opening when the opening is in its largest opened position.
2. Operable windows Openings that are provided with window fall prevention devices that comply with ASTM F 2090.
3. Operable windows that are provided with window opening control devices that comply with Section R312.2.2.

**R312.2.2 Window opening control devices.** Window opening control devices shall comply with ASTM F 2090. The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the minimum net clear opening area of the window unit to less than the area required by Section R310.1.1.

*For reference, 2015 IBC text based on approved code change E109-12 (AS):*

**IBC 1013.8 Window openings.** *All windows in Groups R-2 and R-3 buildings including dwellings units, where the top of the sill of an operable window opening is located less than 36 inches above the finished floor and greater than 72 inches (1829 mm) above the finished grade or other surface below on the exterior of the building, shall comply with one of the following:*

1. *Operable windows where the top of the sill of the opening is located more than 75 feet (22 860 mm) above the finished grade or other surface below and that are provided with window fall prevention devices that comply with ASTM F 2006.*
2. *Operable windows whose openings will not allow a 4-inch-diameter (102 mm) sphere to pass through the opening when the window is in its largest opened position.*
3. *Operable windows whose openings that are provided with window fall prevention devices that comply with ASTM F 2090.*
4. *Operable windows that are provided with window opening control devices that comply with Section 1013.8.1.*

**1013.8.1 Window opening control devices.** *Window opening control devices shall comply with ASTM F 2090. The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the minimum net clear opening area of the window unit to less than the area required by Section 1029.2.*

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**INTERNATIONAL RESIDENTIAL CODE – EXISTING CONSTRUCTION**  
**APPENDIX J**

**APPENDIX J**

**EXISTING BUILDINGS AND STRUCTURES**

*(The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.)*

**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 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 compliant with 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 R314.3.1.

**AJ102.4 Replacement windows.** Regardless of the category of work, ~~when an existing window, including the sash and glazed portion, is replaced, the replacement window shall comply with the requirements of Chapter 11.~~ the installation or replacement of glass shall be as required for new installations, including the energy requirements of Chapter 11. Replacement window opening control devices shall be installed where required by Section AJ501.9.

**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.

**Exception:** Replacement windows shall be in accordance with Section AJ102.4.

**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.

**AJ401.3 Replacement windows.** The installation or replacement of glass shall be as required in Section AJ102.4. Replacement window opening control devices shall be installed where required by Section AJ501.9.

~~**AJ401.3**~~ **AJ 401.4 Interior finish.** Wood paneling and textile wall coverings used as an interior finish shall comply with the flame spread requirements of Section R302.9.

~~**AJ401.4**~~ **AJ401.5 Structural.** Unreinforced masonry buildings located in Seismic Design Category D.....*remainder not shown*

**SECTION AJ501  
ALTERATIONS**

**AJ501.1 Newly constructed elements.** 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.

3. Replacement window opening control devices shall be installed where required by Section AJ501.9

**AJ501.2 Nonconformities.** The work shall not increase the extent of noncompliance with the requirements of Section AJ601, or create nonconformity to 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 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 the 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.**

**AJ501.5.2 Electrical service.**

**AJ501.5.3 Additional electrical requirements.**

**AJ501.5.3.1 Enclosed areas.**

**AJ501.5.3.2 Kitchen and laundry areas.**

**AJ501.5.3.3 Ground-fault circuit-interruption.**

**AJ501.5.3.4 Lighting outlets.**

**AJ501.5.3.5 Clearance.**

**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.

**AJ501.7 Ceiling height.** *Habitable spaces* created in existing *basements* shall have ceiling heights of not less than 6 feet, 8 inches (2032 mm). Obstructions may project to within 6 feet, 4 inches (1930 mm) of the *basement* floor. Existing finished ceiling heights in nonhabitable spaces in *basements* shall not be reduced.

**AJ501.8 Stairs.**

**AJ501.8.1 Stair width.** Existing *basement* stairs and handrails not otherwise being altered or modified shall be permitted to maintain their current clear width at, above and below existing handrails.

**AJ501.8.2 Stair headroom.** Headroom height on existing *basement* stairs being altered or modified shall not be reduced below the existing stairway finished headroom. Existing *basement* stairs not otherwise being altered shall be permitted to maintain the current finished headroom.

**AJ501.8.3 Stair landing.** Landings serving existing *basement* stairs being altered or modified shall not be reduced below the existing stairway landing depth and width. Existing *basement* stairs not otherwise being altered shall be permitted to maintain the current landing depth and width.

**AJ501.9 Replacement Window Opening Control Devices.** *Window opening control devices complying with ASTM F2090 shall be installed where an existing window is replaced and where all the following apply to the replacement window:*

1. The window is operable;
2. The window replacement includes replacement of the sash and the frame;
3. The top of the sill of the window opening is at a height less than 24 inches (915 mm) above the finished floor;
4. The window will permit openings that will allow passage of a 4-inch diameter (102 mm) sphere when the window is in its largest opened position; and
5. The vertical distance from the top of the sill of the window opening to the finished grade or other surface below, on the exterior of the building, is greater than 72 inches (1829 mm).

The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the minimum net clear opening area of the window unit to less than the area required by Section R310.

**Exception:**

1. Operable windows with openings that are provided with window fall prevention devices that comply with ASTM F2090.

**AJ501.10 Replacement Window Emergency Escape and Rescue Openings.** Where windows are required to provide emergency escape and rescue openings, replacement windows shall be exempt from the following:

1. The minimum sill height requirement of Section R310.1
2. The requirements of Sections R310.1.1, R310.1.2, and R310.1.3
3. The requirements of Section R310.2

The exemption noted in items 1 – 3 above is only applicable where:

1. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.

2. The replacement of the window is not part of a change of occupancy.

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## INTERNATIONAL EXISTING BUILDING CODE

### CHAPTER 6 REPAIRS

#### 602 BUILDING ELEMENTS AND MATERIALS

**602.1 Existing building materials.** Materials already in use in a building in compliance with requirements or approvals in effect at the time of their erection or installation shall be permitted to remain in use unless determined by the *code official* to render the building or structure unsafe or *dangerous* as defined in Chapter 2.

**602.2 New and replacement materials.** Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for *repairs* and *alterations*, provided no *dangerous* or *unsafe* condition, as defined in Chapter 2, is created. Hazardous materials, such as asbestos and lead-based paint, shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

**602.3 Glazing in hazardous locations.** Replacement glazing shall be as required for new installations. Replacement glazing in hazardous locations shall comply with the safety glazing requirements of the *International Building Code* or *International Residential Code* as applicable.

**Exception:** Glass block walls, louvered windows, and jalousies repaired with like materials.

### CHAPTER 7 ALTERATIONS - LEVEL 1

#### 702 BUILDING ELEMENTS AND MATERIALS

**702.1 Interior finishes.** All newly installed interior wall and ceiling finishes shall comply with Chapter 8 of the *International Building Code*.

**702.2 Interior floor finish.** New interior floor finish, including new carpeting used as an interior floor finish material, shall comply with Section 804 of the *International Building Code*.

**702.3 Interior trim.** All newly installed interior trim materials shall comply with Section 806 of the *International Building Code*.

**702.4 Window opening control devices.** In Group R-2 or R-3 buildings containing dwelling units, window opening control devices complying with ASTM F2090 shall be installed where an existing window is replaced and where all the following apply to the replacement window:

1. The window is operable;
2. The window replacement includes replacement of the sash and the frame;
3. The top of the sill of the window opening is at a height less than 36 inches (915 mm) above the finished floor;
4. The window will permit openings that will allow passage of a 4-inch diameter (102 mm) sphere when the window is in its largest opened position; and
5. The vertical distance from the top of the sill of the window opening to the finished grade or other surface below, on the exterior of the building, is greater than 72 inches (1829 mm).

The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the minimum net clear opening area of the window unit to less than the area required by the International Building Code.

#### **Exceptions:**

1. Operable windows where the top of the sill of the window opening is located more than 75 feet (22.86 m) above the finished grade or other surface below, on the exterior of the room, space or building, and that are provided with window fall prevention devices that comply with ASTM F 2006.
2. Operable windows with openings that are provided with window fall prevention devices that comply with ASTM F2090.

**702.5 Emergency Escape and Rescue Openings.** Where windows are required to provide emergency escape and rescue openings in Group R-2 and R-3 occupancies, replacement windows shall be exempt from the requirements of Sections 1029.2, 1029.3 and 1029.5 of the International Building Code provided the replacement window meets the following conditions:

1. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.
2. The replacement of the window is not part of a change of occupancy.

**702.4 702.6 Materials and methods.** All new work shall comply with the materials and methods requirements in the *International Building Code, International Energy Conservation Code, International Mechanical Code, and International Plumbing Code*, as applicable, that specify material standards, detail of installation and connection, joints, penetrations, and continuity of any element, component, or system in the building.

**[FG] 702.4.1 International Fuel Gas Code.** *text not affected*

*For reference, 2015 IBC text based on approved code changes G225-12 (3407.1 and 3407.2 - AMPC) and G227-12 (3407.3 - AMPC). These provisions will also be duplicated in Chapter 4 of the IEBC:*

### **IBC SECTION 3407 GLASS REPLACEMENT AND REPLACEMENT WINDOWS**

**3407.1 Replacement glass.** *The installation or replacement of glass shall be as required for new installations.*

**3407.2 Replacement Window Opening Control Devices.** *In Group R-2 or R-3 buildings containing dwelling units, window opening control devices complying with ASTM F2090 shall be installed where an existing window is replaced and where all the following apply to the replacement window:*

1. *The window is operable;*
2. *The window replacement includes replacement of the sash and the frame;*
3. *The top of the sill of the window opening is at a height less than 36 inches (915 mm) above the finished floor;*
4. *The window will permit openings that will allow passage of a 4-inch diameter (102 mm) sphere when the window is in its largest opened position; and*
5. *The vertical distance from the top of the sill of the window opening to the finished grade or other surface below, on the exterior of the building, is greater than 72 inches (1829 mm).*

*The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the minimum net clear opening area of the window unit to less than the area required by Section 1029.2.*

#### **Exceptions:**

1. *Operable windows where the top of the sill of the window opening is located more than 75 feet (22.86 m) above the finished grade or other surface below, on the exterior of the room, space or building, and that are provided with window fall prevention devices that comply with ASTM F 2006.*
2. *Operable windows with openings that are provided with window fall prevention devices that comply with ASTM F2090.*

**3407.3 Replacement Window Emergency Escape and Rescue Openings.** *Where windows are required to provide emergency escape and rescue openings in Group R-2 and R-3 occupancies, replacement windows shall be exempt from the requirements of Sections 1029.2, 1029.3 and 1029.5 provided the replacement window meets the following conditions:*

1. *The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.*
2. *The replacement of the window is not part of a change of occupancy.*