

## RESIDENTIAL WINDOW REPLACEMENT

A building permit is not required for retrofit windows installed in the same configuration and where existing manufactured window frames remain unchanged. Retrofit windows of this type do not disrupt any existing weather protection at exterior wall surfaces, and do not require any repair work to stucco, siding, or drywall.

A building permit is required for all other window replacements, including any changes to the existing window frames, locations, sizes, headers, or changes to the height or width of any window openings.

All window replacement installations must comply with the following:

### **Installation Standards** (CBC 104.9 and CRC R104.9)

All windows shall be installed in accordance with the manufacturer's requirements (including new flashing).

### **Efficiency Standards** (CA Energy Standards 150.2(b))

When replacing no more than 75 square feet of windows, the newly installed windows shall have a maximum U-factor of 0.40 and a maximum Solar Heat Gain Coefficient (SHGC) of 0.35. If more than 75 square feet of window area is replaced, the newly installed windows shall be a maximum U-factor of 0.30 and a maximum Solar Heat Gain Coefficient (SHGC) of 0.23.

### **Emergency Escape (Egress) Windows** (CBC 1030 and CRC R310)

Windows replaced in bedrooms shall meet all the following egress requirements (at least one window in each bedroom is required to meet these requirements):

- Minimum net 5.7 square feet of openable area (minimum of 5.0 net square feet required for grade level bedrooms; i.e. first floor)
- Minimum net 20" clear width when open
- Minimum net 24" clear height when open
- Maximum height of 44" from the finished floor to the bottom of the clear opening

### **Natural Light and Ventilation** (CBC 1205.2, 1203.5, and CRC R303.1)

Each habitable room (excludes hallways, bathrooms, and laundry rooms) is required to have natural light (windows or skylights) sized to a minimum of 8% of the floor area of the room and ventilation (openable portion of window or skylight) sized to a minimum of 4% of the floor area. (For example, a 100 square foot habitable room is required to have a minimum of 8 square feet of natural light and 4 square feet of ventilation.)

**Tempered Glass / Safety Glazing (CBC 2406 and CRC 308.1, CRC 308.4)** Tempered glass is required in the following locations:

- Within 24 inches of either side of the door, with door in the closed position.
- On a wall perpendicular to a door in a closed position and within 24 inches of the hinge side of the door and on the in-swinging side.
- Adjacent to a bottom stair landing where glazing is less than 36 inches above the landing and within 60 inches horizontally of the landing.
- Adjacent to stairs where less than 36 inches above the adjacent walking surface.
- Within a portion of wall enclosing a tub/shower where the bottom, exposed edge is less than 60 inches above the standing surface and drain inlet.
- Within 60 inches of a tub/shower where less than 60 inches above the walking surface.
- Any glazing meeting all the following conditions:
  - Exposed area of an individual pane greater than 9 square feet
  - Exposed bottom edge is less than 18 inches above the finished floor
  - Exposed top edge is greater than 36 inches above the finished floor
  - Where a walking surface is within 36 inches horizontally of the glazing

A manufacturer marking that is permanently applied and cannot be removed without being destroyed shall permanently identify tempered glass (except tempered spandrel glass) (e.g. sand blasted, acid etched, ceramic fired, laser etched, or embossed). Stickers attached to the window are not sufficient.

**Fall Protection (CBC 1015.1 and CRC R312.2)**

A fall prevention device is required where any window opening (measured at the windowsill) is located more than 72 inches above the exterior finished grade, and less than 24 inches above the finished floor.

**Verification of compliant smoke and carbon monoxide detectors is required before a window replacement permit can receive final inspection approval.**

**Smoke and Carbon Monoxide Alarms (CBC 907.2, CRC 314 and 315)**

Smoke alarms shall be installed on the ceiling or wall between 4" to 12" from the ceiling in all sleeping rooms, each area/hallway adjacent to sleeping rooms, each story of the building, and in any basement. Smoke alarms shall be replaced 10 years after the date of manufacture listed on the alarm (if no date is listed the alarm shall be replaced). Newly installed smoke alarms shall have a 10-year battery.

Carbon monoxide (CO) alarms shall be installed on the ceiling or wall (above the door header) in each area/hallway adjacent to sleeping rooms at each occupiable story, and within a bedroom if the bedroom or an attached bathroom contains a fuel-burning appliance.