



**Building Division**  
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**Residential Building Codes Enforced:**  
 2016 California Residential Code (CRC)  
 2016 California Electrical Code (CEC)  
 2016 California Mechanical Code (CMC)  
 2016 California Plumbing Code (CPC)  
 2016 California CAgreen Code (CAGC)  
 2016 California Energy Code (CEnc)

**REPLACEMENT RETROFIT WINDOWS (Page 1 of 2)**  
**For Over-The-Counter Permit Approval,**  
**Shall Comply With ALL Of The Following Conditional Requirements**

**GENERAL CONDITIONS**

- Manufactured windows that are inserted into an existing window frame and fit tightly inside an existing window frame.
- The existing perimeter of the older window assembly must not be removed (shall remain in-place & unaltered), and the new window size shall be maximized within the existing frame of the old window.
- The replacement of retrofit windows will require conforming to the requirements of the new code, and any work that will increase the non-conformity of any building or structure shall be corrected. [CRC R102.7.1]
- Cutting away of any wall, partition or part thereof is NOT permitted under this type of over-the-counter permit. However, is permissible under another type of over-the-counter permit...See handout "Replacement Construction Windows and/or Doors".
- Existing exterior siding materials will not be removed, and do not require patching or resealing.
- Existing conditions at exterior siding materials and flashing do not require resealing to prevent moisture infiltration.
- Building permit fees for this type of work is based upon the number of inspection site visits required to obtain permit final. If you fully comply with the conditional requirements of this permit type, then you have only paid for two (2) inspection site visits. If additional site visits will be required for access or to comply with the applicable code requirements, a \$127 fee (FY July 2017 thru June 2018) or current fiscal year re-inspection fee rate shall be required for each additional site visit and must be paid prior to scheduling your next inspection. Additionally, if the inspector finds that construction documents shall be required for submittal to the building department offices, then code plan review fees will also be required. Please read this handout very carefully and become familiar with all of the conditional requirements, prior to calling for inspection.
- Should you require supplementary information please reference the applicable code requirements, and if you have additional questions do not hesitate to call our permit center to speak with an inspector or code plans examiner.
- The purpose of this general guide is to clarify some of the more common minimum code requirements. Each project is unique and additional requirements may be enforced as deemed appropriate.

**EMERGENCY ESCAPE AND RESCUE**

- Each bedroom/sleeping room window sill height shall have the bottom of the clear opening not greater than 44 inches measured from the floor.
- Each bedroom and other sleeping room window shall have a minimum net-free-unobstructed-size (this is the openable portion of the window) complying with the following, and as otherwise required per 2016 CRC section 310:
  - 1<sup>st</sup> story bedrooms/sleeping rooms = (5.0 sq. ft.) + (24 inches height) + (20 inches width)
  - 2<sup>nd</sup> story bedrooms/sleeping rooms = (5.7 sq. ft.) + (24 inches height) + (20 inches width).
- Modifying the lower non-bearing wall rough framing members for the purpose of replacing window(s) is NOT considered permissible under this permit type. However, is permissible under another type of over-the-counter permit. Please refer to the following handout "Replacement Construction Windows and/or Doors".

**NATURAL LIGHT AND VENTILATION**

For the purpose of providing natural light and ventilation, the original size of window shall not be significantly reduced in width or height, and the new window size shall be maximized within the existing frame of the old window. FYI: Typically glazing area should be not less than 8 percent of the floor area of such rooms. The openable area to outdoors shall not be less than 4 percent of the floor area being ventilated. [2016 CRC 303]

**SAFETY GLAZING**

Many windows, doors and glazed areas present a safety hazard if a safety type glass is not utilized when required. In a number of locations this may apply to single glazing and each pane in multiple glazing. For example hazardous locations will typically include: Glass in doors; Glazing adjacent to doors (within 24" arch); Glass within tub and shower enclosures (if less than 60" above a standing surface); Glass adjacent to tubs (60 inches, measured horizontally and in a straight line, from the water's edge); Glass where the bottom edge is less than 18" above the floor; Glass adjacent to stairways, landings and ramps when glass is less than 60" above the adjacent walking surface; Glazing near hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs, showers and indoor or outdoor swimming pools; For more specific information and other required locations, please refer to CRC Sec. 308.

**ENERGY CODE REQUIREMENTS:**

**Labeling Warning.** As per mandatory requirements of the 2016 CA Energy Code (CEnc) - section 110.6(a)5A for Windows and Doors "Fenestration products shall: Have a temporary label for manufactured fenestration products..... The temporary label shall not be removed before inspection by the enforcement agency.." Therefore, please do not remove any energy code required manufactured label prior to being approved in writing on the city permit card. If the labels are missing or are not available at the time of inspection, then additional construction documents shall be submitted to the building department office, along with added plan review & inspection fees. It is important to note that we are unable to provide permit final approval without proof of compliance.



**Air leakage = 0.3 or less.** [Mandatory Requirements for Fenestration Products and Exterior Doors 110.6(a)1]

**If more than 75 sq. ft.** replacement of windows, where existing window fenestration area (Fenestration area is the glass plus the frame) in an existing wall is replaced with new manufactured fenestration product, then the following prescriptive requirements for fenestration must comply:

- **U-Factor = 0.32 or lower** (area-weighted average) [Section 150.2(b)B, Component Package-A & 150.1(c)3A]
- **SHGC = 0.25 or lower** (area-weighted average) [Section 150.2(b)B, Component Package-A & 150.1(c)3A]

**-OR- If 75 sq. ft. or less,**

- **U-Factor = 0.40 or lower.** [ Exception 1 to Section 150.2(b)1B ]
- **SHGC = 0.35 or lower.** [ Exception 1 to Section 150.2(b)1B ]
- **However, if Chromogenic glazing:** Maximum U-factor of 0.32 and Max. SHGC of 0.25 shall apply. [ Exception 3 to Section 150.1(c)3A ]

**Other Installation Requirements.** [Mandatory Requirements to Limit Air Leakage 110.7]

- The fenestration product manufacturer's installation specifications shall be followed.
- The space between the fenestration product and rough opening shall be completely filled with insulation.
- All joints, penetrations and other openings in the building envelope that are potential sources of air leakage shall be caulked, gasketed, weather stripped, or otherwise sealed to limit infiltration and exfiltration.

**If prescriptive requirements for Air Leakage, U-Factor and SGHC (as noted above) do not comply with the minimum requirements, then this is NOT an over-the-counter permit, and additional construction documents must be submitted to the building department for code plan review. For example, such as but not limited to the following:**

- ✓ If the fenestration has qualifying exterior shading (e.g., a permanent awning) the SHGC may be calculated taking that shading into consideration. If you use exterior shading to meet the SHGC requirement, you must submit a CF1R-ENV-03-E: "Solar Heat Gain Coefficient (SHGC) Worksheet."
- ✓ If the project does not meet the prescriptive requirements:
  - Purchase more energy efficient windows.
  - **OR** Use the Performance approach – This requires using approved energy modeling software.

**Smoke Detectors and Carbon Monoxide Alarms****Carbon Monoxide Alarms:**

The Carbon Monoxide Poisoning Prevention Act (Senate Bill- SB 183) requires all single-family homes with an attached garage or a fossil fuel source to install carbon monoxide alarms within the home. Carbon Monoxide is a colorless, odorless gas that is produced from heaters, fireplaces, furnaces, and many types of appliances and cooking devices. It can also be produced from vehicles that are idling.

- CO devices shall be installed outside each sleeping areas of the home and including each story and the basement. The manufacturer's installation instruction should also be followed.

**Smoke Detectors are to be located:**

- In each bedroom / sleeping room, and outside each sleeping area in the immediate vicinity of the bedrooms / sleeping room.
- On each story, including basements (but not crawl spaces) and habitable attics.
- Where stairs lead to other occupied levels, place a smoke detector on the ceiling of the upper level in close proximity to the stairway, located so that rising smoke is not prevented from reaching the alarm by a door or obstruction
- On coffered ceilings, place on top level or within 12 inches of top level on sloped side.
- Place a minimum of: 20 feet away from cooking appliances; 3 feet away from bathrooms with tubs or showers; 3 feet away from air supply registers; 3 feet away from ceiling fans with paddles.

**NUMBER & TYPE OF INSPECTIONS REQUIRED: One (1) inspection site visit is needed.**

**Please request the following type of inspections:**

- ✓ **Final Inspection:** A final inspection is required after all work has been completed.
- ✓ **Smoke Detectors & Carbon Monoxide Alarms:** Residential smoke & carbon monoxide detectors/alarms must be in place at time of final inspection.