

Residential Window Installation Information

A building permit is required for the installation of windows. The five (5) main building and energy code items to address for a residential window installation are:

1. Light and ventilation requirements for habitable areas.
2. Sleeping room (bedroom) emergency egress requirements.
3. Windows in locations that are required to be "safety glazing" (tempered or laminate glass).
4. Exterior wall width between windows and doors for lateral load resistance.
5. State of California Title 24 energy compliance requirements for an alteration.

The following information is intended to clarify some of the typical residential window assembly replacement and/or new installation questions (see bullet items below).

- A building permit is required for window assembly replacement (either "retrofit" or nail-on flange style). Replacement of "glass only" does not require a building permit.
- Existing windows that conform to the current light, ventilation, egress, etc. requirements of the 2016 California Residential Code shall not be replaced with windows that do not comply.
- If the existing sill height for emergency egress windows is higher than 44", it will be allowed to remain. However, if any alterations or repairs are made to the "framed opening" a finished sill height of 44" maximum will be required.
- Safety glazing is required if the window glazing is located within a 24" arc of the vertical edge of a door in the Closed position and the glazing bottom edge is less than 60" above the walking surface. Glass areas greater than 9 square feet, less than 18" above the floor, exposed top edge greater than 36" above the floor and within 36" of a walking surface needs to be safety glazing.
- For dwellings of "Conventional Light-Frame Construction", the locations of existing window or door openings are allowed to remain. However, if existing window or door openings are to be widened or if new window or door openings are proposed in the exterior wall(s) a 4'-0" minimum wall width is required to start within 8'-0" of ends of exterior wall lines per the 2019 California Building Code, Section 2308
- There are two (2) minimum residential Title 24 Energy Code requirements for glazing in windows, skylights, sliding glass doors, etc. The two (2) minimum requirements are a maximum glazing U-Factor of 0.57 and a maximum Solar Heat Gain coefficient (SHGC) of 0.40.

Residential Egress Window Installation Requirements

The 2019 California Residential Code requires minimum opening dimensions and areas for bedroom windows (if the bedroom does not have a door to the exterior) for emergency egress.

1. If the bedroom in question does not have a door to the exterior, one window opening in the room shall meet the following minimum building code dimensions and areas when a new window assembly is installed.
 - a. Minimum opening width: 20 inches (508 mm)
 - b. Minimum opening height: 24 inches (610 mm)
 - c. Minimum opening area: 5.7 square feet (0.530 m²) (Width and/or height must exceed the minimum)

If a "new window opening" is created in a wall of the bedroom and this window is to be used for the required egress, in addition to the minimum dimensions and areas indicated above, a maximum finished sill height of 44" (1118 mm) above the floor level will be required.

2. If the existing window opening(s) does not meet the above minimum dimensions and areas, the new window opening(s) configuration shall be as close as possible to the above dimensions and **shall not reduce the existing opening dimensions and areas.**

Note: Existing window conditions not capable of meeting the above requirements will need to be resolved on an individual basis prior to installation of the new window assembly.