



**Building and Safety
Permit Service Center**

All plans must be submitted in electronic format as an unsecured, flattened PDF with embedded fonts. Minimum 11"x17" sheet size.

This checklist is intended to provide information and improve consistency in local application and enforcement of the California Building Code requirements as they may apply to this project.

Numbers in parenthesis refer to code sections of the 2016 edition of the California Residential Code (CRC), California Electrical Code (CEC), California Mechanical Code (CMC), California Plumbing Code (CPC), California Energy Code (CEnC) and California Green Building Standards Code (CGBSC).

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Code Compliance Checklist

WINDOWS AND DOORS

Project Information

Project Address:

Permit Number:

Permit Submittal Requirements

Schematic Site Plan showing building footprint with distances to property lines and indicating locations of all exterior windows and doors to be replaced/relocated/added/ altered. The site plan shall also contain project information (i.e., project address, owner's information, scope of work statement).

Schematic Floor Plan(s) showing the size and use of all rooms and areas. Identify plan location of each window/door which is to be replaced/relocated/added/altered. Note: site and floor plan information can be combined if clarity is maintained.

Window Schedule or notes on the plans indicating each window size, type (e.g. fixed, casement, sliding, single/double hung, awning, etc.), window sill height, etc.

- Specify locations of all windows requiring safety glazing as set forth in CRC §R308.4. See Code Requirements below for additional guidance.
- Specify locations of all windows required to meet emergency escape and rescue requirements of CRC §R310.1. See Code Requirements for additional guidance.
- Specify U-factor. See Code Requirements for additional guidance.

Exterior Elevations for all affected sides of the structure where window/door sizes are being altered or new windows/doors are being added. (This may not be necessary in individual cases)

Code Requirements

Title 24 Energy Requirements: Specify new and replacement fenestrations (i.e. windows, skylights and exterior doors with a glazed area of more than one-half of the door area) shall have a U-factor of 0.32 or less. (BEES Section 150.1(c)3A, 150.2(b)1B and Table 150.1-A)

Exceptions:

- Replacement of vertical fenestration no greater than 75 square feet with a U-factor no greater than 0.40.
- Replacement skylights must meet a U-factor no greater than 0.55, and a Solar Heat Gain Coefficient value no greater than 0.30.

Smoke Detectors: When a permit is required, smoke detectors shall be installed: (a) in each sleeping room, (b) outside each separate sleeping area in the immediate vicinity of the bedrooms, (c) on each story of the dwelling, including basements and habitable attics but not including crawl spaces and uninhabitable attics. (CRC §R314)

Carbon Monoxide Alarms: When a permit is required for alterations, repairs or additions exceeding \$1,000, existing dwellings that have attached garages or fuel burning appliances shall be provided with a carbon monoxide alarm in the following locations: (a) outside of the dwelling unit sleeping area in the immediate vicinity of the bedroom(s); (b) on every level of a dwelling unit including basements. (CRC §R315)

Emergency Escape and Rescue: Basements, habitable attics and every sleeping room are required to have at least one operable emergency

escape and rescue opening that meets all of the following requirements (CRC §R310.1):

- 9.1. A minimum net clear openable area of not less than 5.7 square feet. (An openable area of 5.0 square feet is allowed for openings located within 44 inches of the exterior grade.)
- 9.2. A minimum net clear opening height of 24 inches.
- 9.3. A minimum net clear opening of 20 inches.
- 9.4. Sill height not more than 44 inches above the floor.

Note: Please account for the size of the sash members when specifying the net size of the opening. The net clear opening dimensions shall be the result of normal operation of the opening from the inside of the room.

Exception: Basements used only to house mechanical equipment and not exceeding total floor area of 200 sq ft.

Window Sills: Where the opening of an operable window is located more than 72 inches (6 feet) above finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches 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 sphere where such openings are located within 24 inches of the finished floor. (CRC §R312.2.1)

Exceptions:

- Windows whose openings will not allow a four-inch-diameter sphere to pass through the opening when the opening is in its largest open position.
- Openings that are provided with fall prevention devices that comply with ASTM F 2090.
- Windows that are provided with opening control devices that comply with CRC §R312.2.2.

Hazardous Locations: The following is a partial list of the most common locations requiring safety glazing per CRC §R308.4:

11.1. Glazing in all fixed and operable panels of swinging, sliding and bi-fold doors

Exceptions:

- Glazed openings of a size through which a 3-inch diameter sphere is unable to pass.
- Decorative glazing.

11.2. Glazing in an individual fixed or operable panel adjacent to a door where the nearest vertical edge is within a 24-inch arc of either vertical edge of the door in a closed position and whose bottom edge is less than 60 inches above the floor or walking surface.

Exceptions:

- Decorative glazing.
- When there is an intervening wall or other permanent barrier between the door and the glazing.
- Glazing in the walls on the latch side of and perpendicular to the plane of the door in the closed position.
- Glazing adjacent to a door where access through the door is to a closet or storage area 3 feet or less in depth.
- Glazing that is adjacent to the fixed panel of patio doors.

11.3. Glazing in an individual fixed or operable panel that meets all of the following conditions:

11.3.1. The exposed area of an individual pane is larger than 9 square feet; and

11.3.2. The bottom edge of the glazing is less than 18 inches above the floor; and **11.3.3.** The top edge of the glazing is more than 36 inches above the floor; and

11.3.4. One or more walking surfaces are within 36 inches, measured horizontally and in a straight line, of the glazing.

Exceptions:

- Decorative glazing.
- When a horizontal rail is installed on the accessible side(s) of the glazing 34 to 38 inches above the walking surface. The rail shall be capable of withstanding a horizontal load of 50 pounds per linear foot without contacting the glass and be a minimum of 1½ inches in cross sectional height.
- Outboard panes in insulating glass units and other multiple glazed panels when the bottom edge of the glass is 25 feet or more above grade, a roof, walking surfaces or other horizontal (within 45 degrees of horizontal) surface adjacent to the glass exterior.

11.4. All glazing and railings, including structural baluster panels and nonstructural infill panels, regardless of area or height above a walking surface.

11.5. Glazing in walls or enclosures facing hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs and showers where the bottom exposed edge of the glazing is less than 60 inches measured vertically above any standing or walking surface.

Exception: Glazing that is more than 60 inches measured horizontally and in a straight line, from the water's edge of a hot tub, whirlpool or bathtub.

11.6. Glazing where the bottom exposed edge of the glazing is less than 36 inches above the plane of the adjacent walking surface of stairways, landings between flights of stairs and ramps.

Exceptions:

- When a rail is installed on the accessible side(s) of the glazing 34 to 38 inches above the walking surface. The rail shall be capable of withstanding a horizontal load of 50 pounds per linear foot without contacting the glass and be a minimum of 1½ inches in cross sectional height.
- Glazing 36 inches or more measured horizontally from the walking surface.

11.7. Glazing adjacent to the landing at the bottom of a stairway where the glazing is less than 36 inches above the landing and within 60 inches horizontally of the bottom tread.

Exception: The glazing is protected by a guard complying with Section R312 and the plane of the glass is more than 18 inches from the guard.

Fire Zone Requirements: The following is required for projects located in the City of Berkeley Hillside Fire Zone 2 or Fire Zone 3, per CRC §R327.8.2.1 and §R327.8.3:

12.1. Replacement exterior windows and exterior glazed door assemblies shall comply with one of the following requirements:

- Be constructed of multi-pane glazing with a minimum of one tempered pane meeting the requirements of Section R308 Safety Glazing, or
- Be constructed of glass block units, or
- Have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 257, or
- Be tested to meet the performance requirements of SFM Standard 12-7A-2.

12.2. Replacement exterior doors shall comply with one of the following:

- The exterior surface or cladding shall be of noncombustible or ignition-resistant material, or
- Shall be constructed of solid core wood that comply with the following requirements:
 - a. Stiles and rails shall not be less than 1¾ inches thick
 - b. Raised panels shall not be less than 1¼ inches thick, except for the exterior perimeter of the raised panel that may taper to a tongue not less than 3/8 inch thick.
- Have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 252, or
- Be tested to meet the performance requirements of SFM Standard 12-7A-1.

Additional:

I certify that I have read and acknowledged all of the Code Requirements noted above. I accept full responsibility for complying with all of the above requirements, as applicable to my project. I further agree that if I fail to comply with the code requirements, due to error or omission, I will correct all deficiencies prior to final inspection.

Name

Signature

Date

Check One: Contractor Owner Owner's Agent