



PERMIT SERVICE CENTER

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WINDOW CHECKLIST



Requirements for Permit Submittal:

Before approval and issuance of a building permit for window replacement, applicant shall submit three (3) sets of plans (minimum size 11"x17"), which are drawn to scale (or at the very minimum fully dimensioned), readable, legible, and include the following:

1. **Cover Sheet** including the following: (a) project address; (b) owner's name, address, phone number; (c) name, address and phone number of the person preparing the plans, (d) scope of work statement; (e) sheet index indicating each sheet title and number, (f) legend for symbols, abbreviations and notations used in the drawings. (All requirements are based on the 2007 California Code, based on the 2006 International Building Code)
2. Provide a complete plot plan showing building footprint, lot dimensions, property lines, yard setbacks, street name(s) and north arrow. Show locations of all exterior porches, decks and stairs and identify locations of windows and doors to be replaced.
3. Provide a fully dimensioned floor plan showing the size and use of all rooms and areas within the space where windows are being replaced/alterd and include all door, window, stair and closet locations, and for bathrooms, any tub/shower/spa locations. Identify each window/door as new or existing. (Clearly identify on plans the locations of any **added** windows or doors). *Replaced windows, including where sashes are replaced, must meet all current code requirements.*
4. Where window or door sizes are being altered, provide existing and proposed elevation plans for all sides of the structure affected.
5. Provide window/door schedule indicating the size and type of window/door(s) being installed (i.e., double hung, slider, casement, etc.), and provide u-value of all windows. Windows shall have a **maximum u-value of .40, AND must be NFRC rated and labeled**, per State Energy Code, if the actual u-value is unknown.
6. Identify on the plans one egress window for each bedroom that meets **all** of the following requirements:
 - 6.1. A net clear openable area of not less than 5.7* sq. ft. *(5.0 sq ft allowed for grade floor openings)
 - 6.2. A minimum clear opening height of 24 inches
 - 6.3. A minimum clear opening of 20 inches
 - 6.4. Bottom of clear opening not greater than 44 inches above the floor (2007 CBC § 1026)Specify on the plans the **clear, net** opening size. 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, and require no special knowledge or tools.
7. **Window sills.** In one and two-family and multiple family dwellings, window sills located more than 6 feet above grade are required to have a sill 24 inches above the floor level inside or glazing shall be fixed or have openings such that a 4-inch diameter sphere cannot pass through, or be provided with a 42" high window guard such that a 4-inch diameter sphere cannot pass. (2007 CBC section 1405.12 .2)

8. Specify locations of all doors and windows requiring safety glazing (2007 CBC Sec.2406.3) (below is only a *partial* list of the most common locations where required):
 - 8.1. Glazing in all swinging doors, except jalousies. (2406.3,1)
 - 8.2. Glazing in fixed and sliding panels of sliding door assemblies, and bi-fold closet door assemblies. (2406.3, 2)
 - 8.3. Glazing in storm doors. (2406.3, 3)
 - 8.4. Glazing in fixed or operable panels adjacent to a door where the nearest exposed edge of the glazing is within a 24-inch arc of either vertical edge of the door in a closed position and where the bottom exposed edge of the glazing is less than 60 inches above the walking surface. (2406.3, 6)
Exceptions:
 1. Panels where there is an intervening wall or other permanent barrier between the door and glazing.
 2. Where access through the door is to a closet or storage area 3 feet or less in depth. Glazing shall comply with 2406.3,7

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3. Glazing in walls perpendicular to the plane of the door in a closed position, other than the wall towards which the door swings when opened, in one-and two-family dwellings or within dwelling units in Group R-2
 - 8.5. Glazing in doors and enclosures for hot tubs, whirlpools, saunas, steam rooms, bathtubs and showers. Glazing in any portion of a building wall enclosing these compartments where the bottom exposed edge of the glazing is less than 60 inches above a standing surface. (2406.3, 5)
 - 8.6. Glazing where exposed area of an individual pane is greater than 9 square feet, Exposed bottom edge is less than 18 inches above the floor, Exposed top edge is greater than 36 inches above the floor, **and** there is one or more walking surfaces within 36 inches horizontally of the plane of the glazing. (2406.3, 7)
 - 8.7. Glazing adjacent to stairways, landings and ramps within 36 inches horizontally of a walking surface; when the exposed surface of the glass is less than 60 inches above the plane of the adjacent walking surface. (2406.3, 10)
 - 8.8. Glazing adjacent to stairways within 60 inches horizontally of the bottom tread of a stairway in any direction when the exposed surface of the glass is less than 60 inches above the nose of the tread. (2406.3, 11)
Exception: Safety glazing for items 6.7 or 6.8 is not required for the following installations where:
 1. The side of a stairway, landing or ramp which has a guardrail or handrail, including balusters or in-fill panels, complying with the provisions of Sections 1013 and 1607.7; **and**
 2. The plane of the glass is greater than 18 inches from the railing.
9. If this property is located in the City of Berkeley "Fire Zone 2", revise plans to show compliance with the following requirements as set forth in Berkeley Building Code Chapter 7A, Berkeley Municipal Code Chapter 19.28.050:
 - 704A.3.2.2 Exterior Glazing and window walls. Exterior windows, window walls, glazed doors, and glazed openings within exterior doors shall be insulating-glass units with a minimum of one tempered pane, or glass block units, or have a fire resistance rating of not less than 20 minutes, when tested according to ASTM E 2010, or conform to the performance requirements of SFM 12-7A-2.
10. **City of Berkeley Form CF1R-Alt-Fenestration must be completed and submitted for ALL window/sash replacements.**



Prescriptive Certificate of Compliance: Residential windows and skylights		CF-1R-ALT-Fenestration
Project Address:	# of Stories:	Climate Zone 3
Permit #:	Building Type <input type="checkbox"/> Single Family <input type="checkbox"/> Multi Family	Date:

FENESTRATION PROPOSED AREAS

- Replacing window alone** – Replacement windows shall meet the U-Factor and SHGC Value requirements of Component Package D in Table 151-C. The Total Fenestration and West-facing Area requirements are not applicable.
- Adding 50ft² or less of window area** – Newly installed windows shall meet the U-Factor and SHGC Value requirements of Component Package D in Table 151-C.
- Adding more than 50ft² of window area** – Newly installed windows shall meet the U-Factor and SHGC Value and the Fenestration Area requirements of Component Package D in Table 151-C. Complete the Altered Fenestration Allowed Area Table on Page 2 of the CF-1R-ALT

Fenestration Type and Frame (Window, Glass Door or Skylight)	Orientation (North, East, South, West)	Proposed Area ¹ (ft ²)	Maximum U-factor ^{2, 3}	Maximum SHGC ^{2, 3, 4}	NFRC or Default Value ⁵

1. Fenestration area is the area of total glazed product (i.e. glass plus frame). Exception: When a door is less than 50% glass, the fenestration area may be the glass area plus a "2 inch frame" around the glass.
2. Enter value from Component Package D Requirements in Table 151-C.
3. Actual fenestration products installed and as indicated in CF-6R-ENV Form shall be equivalent to or have a lower U-factor and/or a lower SHGC value than that specified on the CF-1R ALT Form.
4. Submit a completed WS-3R Form if a reduced SHGC is calculated with exterior shading.
5. If applicable at this stage enter "NFRC" for NFRC Certified windows or are CEC "Default" values found in Table 116-A or B.

ALTERED FENESTRATION ALLOWED AREAS (Complete if more than 50ft² of fenestration is added)

	A	B	C	D	E	F		G
	CFA of Entire Dwelling	Allowed % of CFA	Existing Fenestration Area	Fenestration Area Removed	Fenestration Area Added	Total Area Allowed (A x B)		Proposed Area ² (E-D) + C
Total Fenestration Area (ft ²)		.20					≥	
West Fenestration Area ¹ (Required In CZ's 2, 4 & 7 -15)		.05					≥	

1. West Fenestration Area includes west-sloping skylights and any skylights with a pitch less than 1:12.
2. West facing glazing area removed cannot be "counted" twice." In order to distribute the west glazing area removed to the other orientations, input the west glazing area removed in the Total Fenestration Area row, column D.
3. Include the Proposed Area of the West facing fenestration in both Area columns above.
4. To meet compliance, the Proposed Area must be less than or equal to the Total Allowed Area for BOTH the Total and West Fenestration Areas.

Declaration Statement

• I certify under penalty of perjury, under the laws of the State of California, the information provided on this form is accurate and complete.

Name:	Signature:
Company:	Date:
Address:	License:
City/State/Zip:	Phone:

See reverse for Responsible Designers Declaration

[Type text]

Responsible Building Designer's Declaration Statement

- I am eligible under Division 3 of the California Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
- I certify that the energy features and performance specifications for the building design identified on this Certificate of Compliance conform to the requirements of Title 24, Parts 1 and 6 of the California Code of Regulations.
- The building design features identified on this Certificate of Compliance are consistent with the information provided to document this building design on the other applicable compliance forms, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Name:	Signature:
Company:	Date:
Address:	License:
City/State/Zip:	Phone:

For assistance or questions regarding the Energy Standards, contact the Energy Hotline at: 1-800-772-3300.

TABLE 151-C COMPONENT PACKAGE D

		Climate Zone															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Insulation minimums ¹	Ceilings	R38	R30	R30	R30	R30	R30	R30	R30	R30	R30	R38	R38	R38	R38	R38	R38
	Walls	R21	R13	R13	R13	R13	R13	R13	R13	R13	R13	R19	R19	R19	R21	R21	R21
Radiant Barrier	Wood-frame walls	R4.76	R2.44	R2.44	R2.44	R2.44	R2.44	R2.44	R2.44	R2.44	R2.44	R4.76	R4.76	R4.76	R4.76	R4.76	R4.76
	Heavy mass walls	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Light mass walls	R0	R0	R0	R0	R0	R0	R0	R0	R0	R0	R0	R0	R0	R0	R0	R0
	Below-grade walls	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Floors	Slab floor perim.	R19	R19	R19	R19	R19	R19	R19	R19	R19	R19	R19	R19	R19	R19	R19	R19
	Raised floors	R8	R8	R0	R0	R0	R0	R0	R0	R0	R0	R8	R8	R8	R8	R8	R8
Roofing Products	Concrete raised floors	NR	REQ	NR	NR	NR	NR	NR	NR	NR	NR	REQ	REQ	REQ	REQ	REQ	NR
	Low-sloped	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Aged Solar Reflectance	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Thermal Emittance	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Steep Sloped (less than 5 lb/ft ²)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Aged Solar Reflectance	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Fenestration	Steep Sloped (5 lb/ft ² or more)	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
	Thermal Emittance	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
	Maximum U-factor ²	NR	0.40	NR	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
	Maximum Solar Heat Gain Coefficient (SHGC) ³	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
THERMAL MASS ⁴	Maximum Total Area	NR	5%	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Maximum West Facing Area	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Electric-resistant allowed	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	If gas, AFUE –	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN
SPACE-HEATING ^{5, 10}	If heat pump, HSPF ⁶ –	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN
	SEER –	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN
	If split system, Refrigerant charge measurement or charge indicator display	NR	REQ	NR	NR	NR	NR	NR	NR	NR	NR	REQ	REQ	REQ	REQ	REQ	NR
Central Forced Air Handlers	Cooling Airflow and Watt Draw	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Central Fan Integrated Ventilation System Watt Draw	REQ	REQ	REQ ²	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ
DUCTS	Duct sealing	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ	REQ
	Duct Insulation	R-6	R-6	R-6	R-6	R-6	R-4.2	R-4.2	R-4.2	R-6	R-6	R-6	R-6	R-6	R-8	R-8	R-8
WATER-HEATING		System shall meet Section 151(F)8 or Section 151(b)1															