



## CITY OF OAKLEY BUILDING PERMIT APPLICATION

JOB ADDRESS: \_\_\_\_\_ SUBDIV # \_\_\_\_\_ LOT # \_\_\_\_\_

PROJECT DESCRIPTION \_\_\_\_\_

PROJECT VALUATION: \$ \_\_\_\_\_ SEPTIC SYSTEM: YES  NO

PERMIT TYPE: BUILDING  MECHANICAL  ELECTRICAL  PLUMBING  SIGN   
SOLAR  PANEL UPGRADE Y/N DEMO  REROOF  POOL/SPA  -- Re-locate A/C Y/N

PATIO COVER: \_\_\_\_\_  
LIVING AREA SQ FT: \_\_\_\_\_ DECK/PORCHES SQ FT: \_\_\_\_\_ GARAGE SQ FT: \_\_\_\_\_

PROPERTY OWNER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_ PHONE #: \_\_\_\_\_

EMAIL: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_ STATE LIC #: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_ PHONE # \_\_\_\_\_

EMAIL: \_\_\_\_\_

ARCH/ENGR: \_\_\_\_\_ LIC # \_\_\_\_\_ PHONE # \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PROJECT MANAGER: \_\_\_\_\_ PHONE #: \_\_\_\_\_

### Permitted work hours:

Operate or perform construction or repair (which creates noise) within or adjacent to a residential land use district except during the following hours:

1. Monday through Friday: 7:30 am to 7:00 pm
2. Saturdays, Sundays & holidays: 9:00 am to 7:00 pm

Initial: \_\_\_\_\_

**ALL PERMITS REQUIRE A FINAL INSPECTION**

**ALL PERMITS HAVE AN EXPIRATION DATE, 365 DAYS FROM LAST VALID INSPECTION**



## CITY OF OAKLEY BUILDING PERMIT APPLICATION

### LICENSED CONTRACTORS DECLARATION

I hereby affirm that I am licensed under the provisions of Chapter 9 (commencing with section 7000) of the Business & Professions Code, & my license is in full force & effective. Initial: \_\_\_\_\_

### WORKMAN'S COMPENSATION

I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (sec. 3800 lab C) Initial: \_\_\_\_\_

### EXEMPTION FROM WORKER'S COMPENSATION INC

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Comp Laws of California Initial: \_\_\_\_\_

**NOTICE TO THE APPLICANT: *If after making this Certificate of Exemption, you should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked.***

### OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec7031.5), Business & Professions Code: Any City or County which requires a permit to construct, altar, improve, demolish or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9(commencing with Section 7000) of Division 3 of the Business & Professions Code) or that he is exempt there from & the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars(\$500).

- I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business & Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, &who does such work himself or through his own employees. Provided that such improvements are not intended or offered for sale. If, however, the building improvement is sold within one year of completion, the owner/builder will have the burden of proving that he did not build or improve for the purpose of sale)
- I, as the owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec 7044 Business & Professions Code: The Contractor's License Law does not apply to an owner of property who builds/improves thereon, & who contracts for such project with a contactor(s) licensed pursuant to the Contractor's License Law)
- I am exempt under Sec. \_\_\_\_\_ Business & Professions Code for this reason.  
Applicant:\_\_\_\_\_

**NOTICE TO APPLICANT** I certify that I have read this application & state that the information on the permit is correct. I agree to comply with all City and County ordinances and state laws relating to building construction and hereby authorize representatives of this city to enter upon the above mentioned property for inspection purposes.

### **SECTION 106.4.4 UNIFORM BUILDING CODE**

Expiration: Every permit issued by the Building Official under the provisions of this code shall expire by limitation and become null & void, if the building or work authorized by such permit is not commenced with 180 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days.

APPLICANT/AGENT \_\_\_\_\_

DATE: \_\_\_\_\_



City of Oakley – Simplified CF1R-ALT-01-E form for Window Replacement

Permit Number \_\_\_\_\_ Address \_\_\_\_\_

***This form shall be filled out and signed by the installing contractor. Submit this form along with the permit application to obtain a permit. The original copy is retained by the Building Department. Keep the other copy with your permit.***

***Fill out the requested information in the applicable areas.***

***Fill out the Declaration Statement section completely including signature and date.***

***QUESTIONS? REQUEST ASSISTANCE FROM THE PERMIT TECH.***

**Fenestration Proposed Areas**

- Replacing Window Alone** – Replacement windows shall meet the U-Factor 0.32 or lower and SHGC value 0.25 or lower requirements of Component Package A table 150.1-A The TOTAL fenestration and WEST- facing area requirements are not applicable.
- Adding more than 75 ft<sup>2</sup>** to the buildings fenestration area, the new fenestration must meet requirements for TOTAL fenestration and WEST- facing fenestration as well as the U-factor of 0.32 or lower and the SHGC of 0.25 or lower.
- Replacing Skylights** – Maximum U-factor of 0.55 or lower and a SGHC of 0.30 or lower. The TOTAL fenestration and WEST- facing area requirements are not applicable.

Item	Fenestration Type and Frame (window, glass door or skylight)	Orientation North, East, South West	Proposed Area <sup>1</sup> (ft <sup>2</sup> )	Maximum U-factor 0.32	Maximum SHGC 0.25	NFRC or Default Value <sup>2</sup>
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

1. Fenestration area is the total glazed product (i.e., glass plus frame). 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. If applicable at this stage enter "NFRC" for NFRC Certified windows or CEC Default Values

**Altered Fenestration Allowed Areas (Complete if more than 75ft<sup>2</sup> of fenestration is added.)**

	A	B	C	D	E	F	G
	CFA of entire building	Allowed % of CFA	Existing Fenestration Area	Fenestration area removed	Fenestration area added	Total Area allowed (A x B)	Proposed Area (E-D) + C
Total fenestration area		.20					
West Fenestration Area		.05					

- I certify under penalty of perjury, under laws of the State of California, the information provided on this form is accurate and complete.
- I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Parts 1 and 6 of the California code of Regulations.

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

**FENESTRATION INSTALLATION**

CEC-CF2R-ENV-01-E (Revised 01/20)

**CERTIFICATE OF INSTALLATION**

CF2R-ENV-01-E

**Fenestration Installation - For Non-HERS Registered Projects**

Page 1 of 2

Project Name:	Enforcement Agency:	Permit Number:
Dwelling Address:	City:	Zip Code:

*If more than one person has responsibility for installation of the items on this certificate, each person shall prepare and sign a certificate applicable to the portion of construction for which they are responsible. Alternatively, the person with chief responsibility for construction shall prepare and sign this certificate for the entire construction. The signer agrees that all applicable Mandatory Measures were met. Temporary labels are not to be removed before verification by the building inspector.*

**A. Fenestration/Glazing**

Includes all Windows, Skylights, Greenhouse/Bay Windows, and Glazed Doors.

Note: If meeting Exception 1 to 150.1(c)3A, Installing  $\leq 3\text{ft}^2$  glass in door, it is assumed to meet the minimum required U-factor (0.30) & SHGC (0.23).

If meeting Exception 1 to 150.1(c)3A, Installing  $\leq 3\text{ft}^2$  tubular skylight, it is assumed to meet the minimum required U-factor (0.55) & SHGC (0.30).

Doors with greater than or equal to 25 percent glazing area are considered glazed doors and are treated as fenestration products.

01	02	03	04	05	06	07	08	09	10	11	12
Tag/ID	Manufacturer/ Brand	Fenestration Area (ft <sup>2</sup> )	Orientation	Chromgenic	U-factor	Source	SHGC	Source	Fenestration Type	Exterior Shading Devices (Describe)	Comments/Special Features
Add Row		Delete Row									

**B. Fenestration Installation**

01	The U-factor of the installed windows for new construction and existing buildings must be equal to or less than those listed on the CF1R.
02	The SHGC of the installed windows for new construction and existing buildings must be equal to or less than those listed on the CF1R in climate zones 2, 4 and 8-15. For climate zones 1, 3, 5 and 16 there is no SHGC requirement.
03	Temporary labels should not be removed until verified by the building inspector.
04	The fenestration product manufacturer's installation specifications shall be followed when installing these products. The space between the fenestration product and rough opening shall be completely filled with insulation. If batt insulation is used, it is cut to size and placed properly around the fenestration product.
<b>The responsible person's signature on this compliance document affirms that all applicable requirements in this table have been met.</b>	

**FENESTRATION INSTALLATION**

CEC-CF2R-ENV-01-E (Revised 01/20)

**CERTIFICATE OF INSTALLATION**

CF2R-ENV-01-E

**Fenestration Installation - For Non-HERS Registered Projects**

Page 2 of 2

Project Name:	Enforcement Agency:	Permit Number:
Dwelling Address:	City:	Zip Code:

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

1. I certify that this Certificate of Installation documentation is accurate and complete.

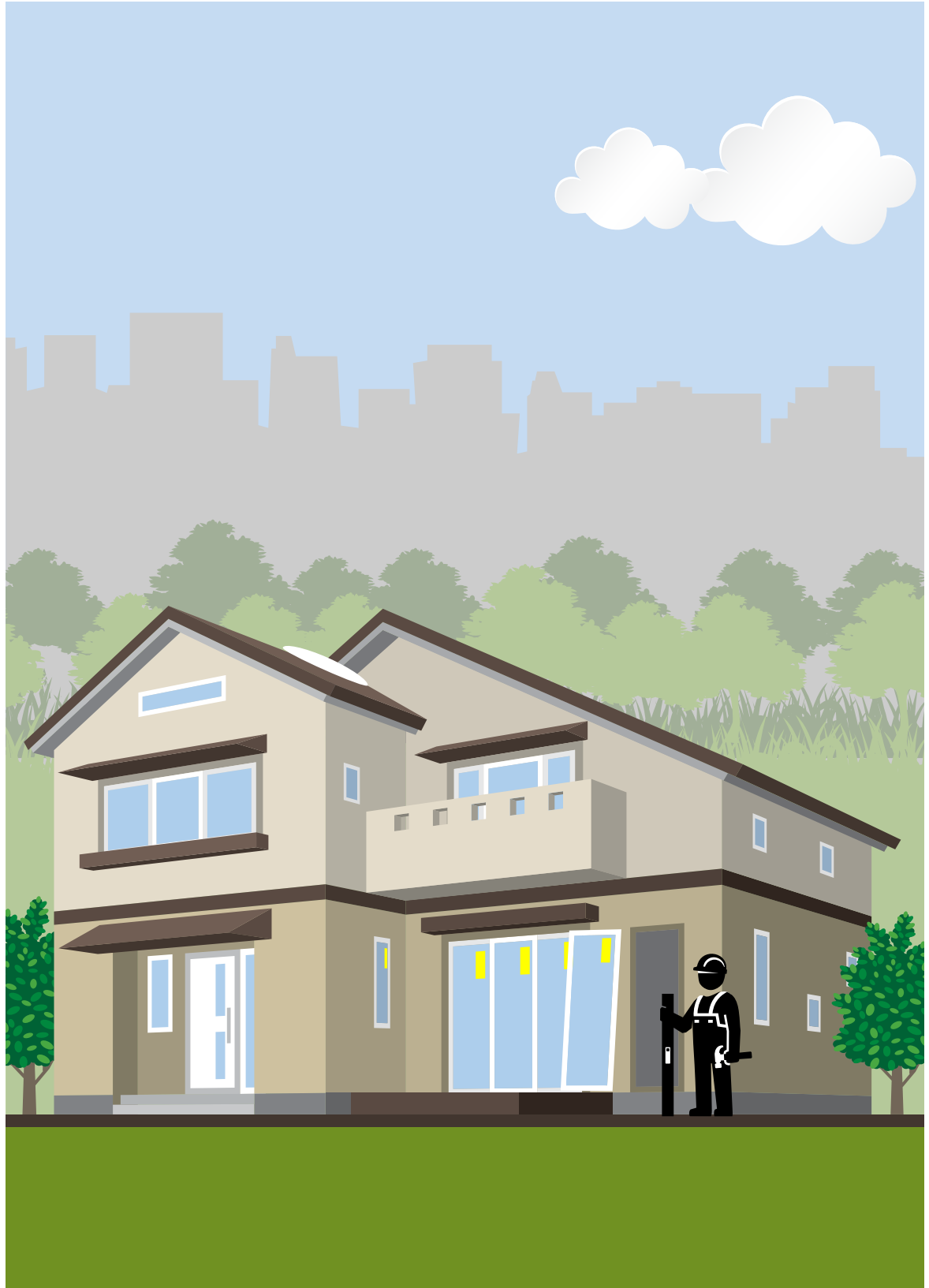
Documentation Author Name:	Documentation Author Signature:
Documentation Author Company Name:	Date Signed:
Address:	CEA/HERS Certification Identification (If applicable):
City/State/Zip:	Phone:

**RESPONSIBLE PERSON'S DECLARATION STATEMENT**

I certify the following under penalty of perjury, under the laws of the State of California:

- The information provided on this Certificate of Installation is true and correct.
- I am either: a) a responsible person eligible under Division 3 of the Business and Professions Code in the applicable classification to accept responsibility for the system design, construction, or installation of features, materials, components, or manufactured devices for the scope of work identified on this Certificate of Installation, and attest to the declarations in this statement, or b) I am an authorized representative of the responsible person and attest to the declarations in this statement on the responsible person's behalf.
- The constructed or installed features, materials, components or manufactured devices (the installation) identified on this Certificate of Installation conforms to all applicable codes and regulations and the installation conforms to the requirements given on the Certificate of Compliance, plans, and specifications approved by the enforcement agency.
- I will ensure that a registered copy of this Certificate of Installation shall be posted or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a registered copy of this Certificate of Installation is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Builder/Installer Name:	Responsible Builder/Installer Signature:	
Company Name: (Installing Subcontractor or General Contractor or Builder/Owner)	Position With Company (Title):	
Address:	CSLB License:	
City/State/Zip:	Phone:	Date Signed:



# What Are Fenestration Alterations?

The 2019 California Building Energy Efficiency Standards (Energy Code), Title 24, Part 6 include requirements for alterations and additions affecting fenestration, including windows, skylights and doors with more than 3 ft<sup>2</sup> of glass. When the construction type is classified as an alteration, fenestration may be replaced (altered) or increased (added). Fenestration products installed in construction projects classified as additions trigger the new construction requirements for fenestration performance and U-factor requirements. This fact sheet focuses on fenestration that is replaced or increased.

## Why?

Windows, glazed doors, dynamic glazing, window films and skylights have a significant impact on energy use in a home. Energy-efficient fenestration can greatly reduce heating and cooling loads. The size, orientation and types of fenestration products can dramatically affect the overall energy performance of a house. Glazing type, orientation and shading play a major role in a home's energy use by affecting how much HVAC systems have to heat and cool the house.



### Relevant Code Sections

2019 California Building Energy Efficiency Standards, Title 24, Part 6:

- [Section 10-111](#) – Certification and labeling of fenestration product U-factors, SHGC, VT, and Leakage
- [Section 110.6](#) – Mandatory Requirements for Fenestration Products and Exterior Doors
- [Section 110.7](#) – Mandatory Requirements to Limit Air Leakage
- [Section 150.0\(q\)](#) – Mandatory Features and Devices - Fenestration Products
- [Section 150.1\(c\)](#) – Performance and Prescriptive Compliance Approaches for Low-Rise Residential Buildings - Fenestration & Shading
- [Section 150.2\(b\)1A](#) – Additions and Alterations to Existing Low-Rise Residential Buildings - Alterations Prescriptive Approach - Fenestration
- [Section 150.2\(b\)1B](#) – Additions and Alterations to Existing Low-Rise Residential Buildings - Alterations Prescriptive Approach - Replacement Fenestration

### Relevant Compliance Forms

- [CF1R-ALT-01-E](#): Prescriptive Residential Alterations (when HERS is triggered)
- [CF1R-ENV-02-E](#): Area Weighted Average Calculation Worksheet (if necessary)
- [CF1R-ENV-03-E](#): Solar Heat Gain Coefficient (SHGC) Worksheet (if necessary)
- [CF2R-ENV-01-E](#): Fenestration Installation
- [CF2R-ALT-05-E](#): Certificate of Compliance – Prescriptive Alterations (Simple projects that do not trigger HERS)
- [CF3R-EXC-20-H](#): Verification of Existing Conditions for Alterations

## Compliance Requirements: Prescriptive (vs) Performance

There are both Prescriptive and Performance compliance approaches for altering or adding residential fenestration to an existing building. A Prescriptive approach follows code requirements that clearly state what applies, while a Performance-based one provides more design flexibility but requires energy simulations to estimate tradeoffs between systems. Requirements vary by the type and area of fenestration added or replaced in the project, as well as Climate Zone. This Fact Sheet provides information on how to assess whether your project should use the Prescriptive or Performance approach – and the code requirements for each.

# Mandatory Requirements

Whether you use the Prescriptive or Performance approach to demonstrate compliance, new or replacement fenestration must meet the following Mandatory requirements:

- Air infiltration rates for manufactured fenestration and pet doors must be  $\leq 0.3$  cfm/ft<sup>2</sup> of window area at a pressure differential of 75 Pascals
- All new fenestration that separates conditioned space from unconditioned space or outdoors must have a maximum or weighted-average U-factor of 0.58 or lower
- All fenestration products must either have their performance rated by the [National Fenestration Rating Council \(NFRC\)](#), or use default performance values for U-factor, Solar Heat Gain Coefficient (SHGC) and visible transmittance (VT) from [Tables 110.6-A](#) and [110.6-B](#) of the Energy Code
- Buildings with unrated products will not qualify for Prescriptive compliance and must use the Performance compliance approach

## Exception:

Fenestration exempt from the maximum U-factor requirement includes:

- $\leq 10$  ft<sup>2</sup> of fenestration OR
- The fenestration area is  $\leq 0.5\%$  of the total CFA (whichever is greater) OR
- The fenestration area of dual-glazed greenhouse or garden windows is  $\leq 30$  ft<sup>2</sup>

## Repairs

No fenestration energy-efficiency requirements apply if you:

- Replace a broken pane of glass, but not the entire window
- Uninstall fenestration components for maintenance or repair and re-install in the same location without increasing the pre-existing energy consumption

# Assessing Your Project

## Prescriptive vs Performance Approach

- If you add more than 75 ft<sup>2</sup> to the building's fenestration area, the new fenestration must meet requirements for TOTAL fenestration area and WEST-facing fenestration area, as well as the U-factor and SHGC for the Climate Zone
- If you add fenestration area up to 75 ft<sup>2</sup> – or if you add up to 16 ft<sup>2</sup> of new skylight area with U-factor  $\leq 0.55$  and SHGC  $\leq 0.30$  – the total/west-facing fenestration area requirements do not apply (a skylight is fenestration installed on a roof  $< 60^\circ$  from the horizontal)
- If you replace existing fenestration, the replaced fenestration must meet the area-weighted U-factor and SHGC requirements of [Table 150.1-A](#) or [B](#)
- Exceptions are:
  - Replacements of vertical fenestration up to 75 ft<sup>2</sup> will comply with a maximum U-factor of 0.40 in Climate Zones 1-16, and a maximum SHGC of 0.35 in Climate Zones 2, 4 and 6-15
  - Replaced skylights are allowed a maximum U-factor of 0.55, and a maximum SHGC of 0.30
- If the project does not meet the Prescriptive requirements:
  - Adjust your project – for example, purchase more energy-efficient windows or add less fenestration area
  - OR**
  - Use the Performance approach – this requires using approved energy modeling software
- Check with an energy consultant before removing any existing windows or other feature
- You may be able to use the energy-efficiency values from your existing features to demonstrate compliance with the Performance approach. This would require verification by a HERS Rater of the existing features before they are changed.

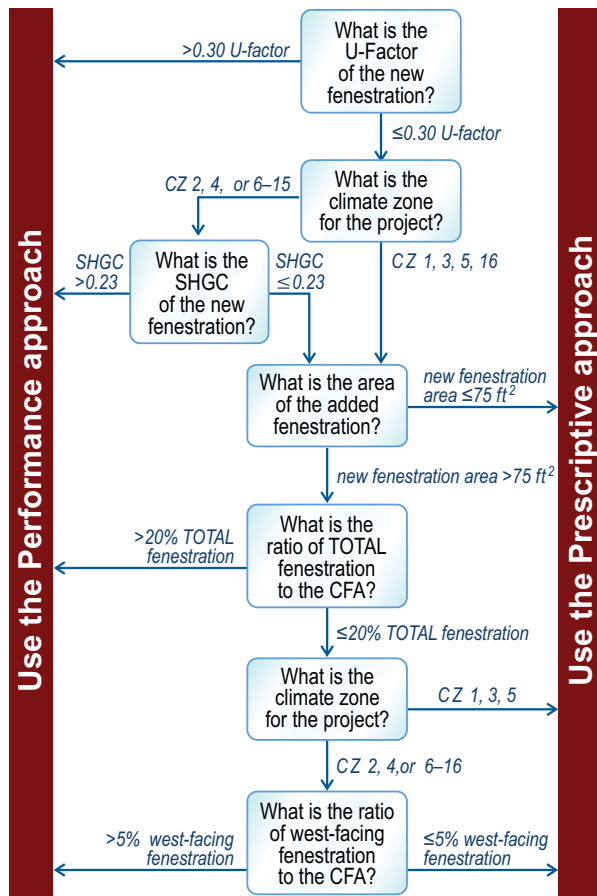


Figure 1: Prescriptive or Performance?\*

\* This flowchart depicts the most common decisions regarding fenestration alteration projects. Exceptions may apply to projects that have small glazing areas and use efficient fenestration products. For example, if the fenestration area is  $\leq 10$  ft<sup>2</sup> or 0.5% of the Conditioned Floor Area (CFA), whichever is larger, it is exempt from the maximum U-factor requirement. As another example,  $\leq 3$  ft<sup>2</sup> of new glazing area installed in doors need to meet neither the U-factor nor the SHGC maximums.



# Prescriptive Requirements

The Prescriptive requirements for fenestration vary by Climate Zone, and the type and area of the fenestration:

## More than 75 ft<sup>2</sup> additional fenestration area or more than 16 ft<sup>2</sup> of skylight area<sup>A</sup>

Climate Zones	U-Factor <sup>E</sup>	SHGC <sup>B,E</sup>	TOTAL Fenestration <sup>C</sup> Area % of CFA <sup>D</sup>	WEST-facing <sup>C</sup> Area % of CFA <sup>D</sup>
1, 3, 5, 16	0.30 or lower	na	20% or less	na
2, 4, 6-15	0.30 or lower	0.23 or lower	20% or less	5% or less

## 75 ft<sup>2</sup> or less additional fenestration area or more than 75 ft<sup>2</sup> replacement fenestration<sup>A</sup>

Climate Zones	U-Factor <sup>E</sup>	SHGC <sup>B,E</sup>
1, 3, 5, 16	0.30 or lower	na
2, 4, 6-15	0.30 or lower	0.23 or lower

## 16 ft<sup>2</sup> or less additional skylight area or replacement skylights

Climate Zones	U-Factor <sup>E</sup>	SHGC <sup>B,E</sup>
1, 3, 5, 16	0.55 or lower	na
2, 4, 6-15	0.55 or lower	0.30 or lower

## 75ft<sup>2</sup> or less replacement fenestration

Climate Zones	U-Factor <sup>E</sup>	SHGC <sup>B,E</sup>
1, 3, 5, 16	0.40 or lower	na
2, 4, 6-15	0.40 or lower	0.35 or lower



<sup>A</sup> Fenestration area is the glass plus the frame. For doors with glass area less than 50% of total door area, consider the “frame” to be two inches on all sides of the glass. For doors with glass area 50% or more of the total door area, count the entire door area as glazing.

<sup>B</sup> 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](#).

<sup>C</sup> “TOTAL fenestration” is all new fenestration plus existing fenestration that remains after the alteration. See Orientation and West-facing Fenestration (below) for a definition of west-facing fenestration.

<sup>D</sup> “CFA” is conditioned floor area; see [Section 100.1: Definitions and Rules of Construction in the Energy Code](#) for details.

<sup>E</sup> Maximum area-weighted average values.

See Exception 3 to [Section 150.1\(c\)3A](#) for fenestration containing chromogenic glazing. (Chromogenic glazing is high performance glazing that is able to vary its transmittance appropriately in response to automatic controls based on the solar intensity. This means it has the potential to improve building energy efficiency compared to standard low-e glazing.)

Table 1: Prescriptive Requirement

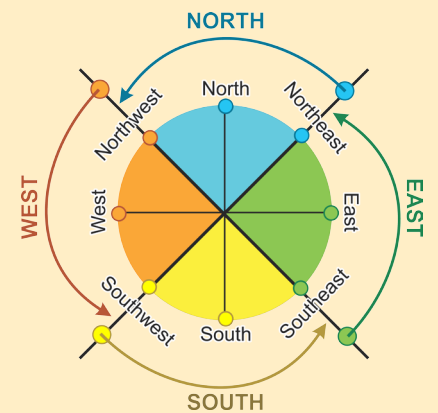
## Orientation & West-facing Fenestration

“Orientation” refers to the direction that the fenestration faces.

West-facing fenestration – a consideration in Climate Zones 2, 4 and 6 -15 – includes:

- A window (or a door with glass) that faces from  $\leq 45^\circ$  north of true west to  $< 45^\circ$  south of true west.
- Skylights tilted:
  - To the west (from  $\leq 45^\circ$  north of true west to  $< 45^\circ$  south of true west)
  - In any direction when the pitch is less than 1:12

Actual Orientation...	...Is Considered
45° east of north to 44° west of north	North-facing
45° north of west to 44° south of west	West-facing
45° west of south to 44° east of south	South-facing
45° south of east to 44° north of east	East-facing



# Forms – Which & When

In addition to a Permit, you will need the following forms applicable to your project.

## During Design:

- CF1R-ALT-01-E: Certificate of Compliance for Residential Alterations (when HERS is triggered)**
  - Completed and signed by the designer, installing contractor or homeowner
  - Submitted to the building department during permit application
- CF1R-ALT-05-E: Certificate of Compliance – Prescriptive Alterations (Simple projects that do not trigger HERS)**
  - Completed and signed by the designer, installing contractor or homeowner
  - Submitted to the building department during permit application
- CF1R-ENV-02-E: (if necessary) – Area Weighted Average Calculation Worksheet**
  - Completed and signed by the designer, installing contractor or homeowner
  - Submitted with the **CF1R-ALT-01-E** when there is more than one type of window and one or more does not meet Prescriptive compliance requirements
- CF1R-ENV-03-E: (if necessary) – Solar Heat Gain Coefficient (SHGC) Worksheet**
  - Completed and signed by the designer, installing contractor or homeowner
  - Submitted with the **CF1R-ALT-01-E** only if exterior shading devices are used to meet the SHGC requirement
- CF1R-ENV-05: (if necessary) – Alternative Default Fenestration Procedure (NA6) Worksheet**
  - Completed and signed by the designer, installing contractor or homeowner
  - Submitted with the **CF1R-ALT-01-E** only if non-rated site-built fenestration is being installed

**Why?:** To show compliance with the Energy Code for fenestration alterations

## During Construction:

- CF2R-ENV-01-E: Fenestration Installation**
  - Completed by the installing contractor
  - Made available for the Inspector when onsite
- CF2R-ALT-05-E: Prescriptive Alterations Simple Non HERS**
  - Completed by the installing contractor
  - Made available for the Inspector when onsite
- CF3R-EXC-20-H: HERS Verification of Existing Conditions for Alterations**
  - Completed and signed by HERS Rater

**Why?:** To verify the field installation meets or exceeds the Energy Code

## Product Labeling per Section 10-111

Typically, manufactured windows or exterior doors with  $\geq 25\%$  glass come with labels indicating that the NFRC has certified the performance ratings of the window. **Leave the labels on the windows and doors until the field inspection is done.**

Manufactured fenestration not certified by NFRC must:

- Use the CEC Default values found in [Table 110.6-A](#) and [Table 110.6-B](#) in the Energy Code

**OR**

- Use the equations in [Reference Appendix NA6](#)

**World's Best Window Co.**  
Series "2000"  
Casement  
Vinyl Clad Wood Frame  
Double Glazing-Argon Fill-Low E  
ABC-X-1-00001-00001

ENERGY PERFORMANCE RATINGS	
U-Factor (U.S. / I-P)	Solar Heat Gain Coefficient
<b>0.30</b>	<b>0.23</b>
ADDITIONAL PERFORMANCE RATINGS	
Visible Transmittance	Air Leakage (U.S. / I-P)
<b>0.51</b>	<b>0.2</b>

Manufacturer stipulates that these ratings conform to applicable NFRC procedures for determining whole product performance. NFRC ratings are determined for a fixed set of environmental conditions and a specific product size. NFRC does not recommend any product and does not warrant the suitability of any product for any specific use. Consult manufacturer's literature for other product performance information. [www.nfrc.org](http://www.nfrc.org)

This fenestration product has been certified to meet the air infiltration requirements of Section 110.6(a)(7) of the 2013 California Energy Standards.

# For More Information

## Primary Documents

- Energy Code Residential Compliance Manual Section 3.5 – Fenestration (Window/Skylight/Glazed Door) and Opaque Doors:  
[energycodeace.com/site/custom/public/reference-ace-2019/Documents/35insulationproducts.htm](http://energycodeace.com/site/custom/public/reference-ace-2019/Documents/35insulationproducts.htm)
- Energy Code Section 10-111 – Certification and labeling of fenestration product U-factors, SHGC, VT, and Leakage:  
[energycodeace.com/site/custom/public/reference-ace-2019/Documents/10111certificationandlabelingoffenestrationproductandexteriordoo.htm](http://energycodeace.com/site/custom/public/reference-ace-2019/Documents/10111certificationandlabelingoffenestrationproductandexteriordoo.htm)
- Energy Code Section 110.6 – Mandatory Requirements for Fenestration Products and Exterior Doors:  
[energycodeace.com/site/custom/public/reference-ace-2019/Documents/section1106mandatoryrequirementsforfenestrationproductsandexteri.htm](http://energycodeace.com/site/custom/public/reference-ace-2019/Documents/section1106mandatoryrequirementsforfenestrationproductsandexteri.htm)
- Energy Code Section 110.7 - Mandatory Requirements to Limit Air Leakage:  
[energycodeace.com/site/custom/public/reference-ace-2019/Documents/section1107mandatoryrequirements Tolimitairleakage.htm](http://energycodeace.com/site/custom/public/reference-ace-2019/Documents/section1107mandatoryrequirements Tolimitairleakage.htm)
- Energy Code Section 150.0(q) – Mandatory Features and Devices - Fenestration Products:  
[energycodeace.com/site/custom/public/reference-ace-2019/Documents/section1500mandatoryfeaturesanddevices.htm](http://energycodeace.com/site/custom/public/reference-ace-2019/Documents/section1500mandatoryfeaturesanddevices.htm)
- Energy Code Section 150.1(c) – Performance and Prescriptive Compliance Approaches for Low-Rise Residential Buildings - Fenestration & Shading:  
[energycodeace.com/site/custom/public/reference-ace-2019/Documents/section1501performanceandprescriptivecomplianceapproachesforlowr.htm](http://energycodeace.com/site/custom/public/reference-ace-2019/Documents/section1501performanceandprescriptivecomplianceapproachesforlowr.htm)
- Energy Code Sections 150.2(b)1A – Additions and Alterations to Existing Low-Rise Residential Buildings - Alterations Prescriptive Approach - Fenestration:  
[energycodeace.com/site/custom/public/reference-ace-2019/Documents/section1502energyefficiencystandardsforadditionsandalterationsto.htm](http://energycodeace.com/site/custom/public/reference-ace-2019/Documents/section1502energyefficiencystandardsforadditionsandalterationsto.htm)
- Energy Code Sections 150.2(b)1B – Additions and Alterations to Existing Low-Rise Residential Buildings - Alterations Prescriptive Approach - Replacement Fenestration:  
[energycodeace.com/site/custom/public/reference-ace-2019/Documents/section1502energyefficiencystandardsforadditionsandalterationsto.htm](http://energycodeace.com/site/custom/public/reference-ace-2019/Documents/section1502energyefficiencystandardsforadditionsandalterationsto.htm)

## Compliance Forms

- Residential Compliance Forms  
[energycodeace.com/ResidentialForms/2019](http://energycodeace.com/ResidentialForms/2019)

## California Energy Commission Information & Services

- Energy Code Hotline: 1-800-772-3300 (Free) or [Title24@energy.ca.gov](mailto:Title24@energy.ca.gov)
- Online Resource Center:  
[energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/online-resource-center](http://energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/online-resource-center)
  - The Energy Commission’s main web portal for Energy Code, including information, documents, and historical information

## Additional Resources

- National Fenestration Rating Council (NFRC):  
[nfr.org](http://nfr.org)
- [EnergyCodeAce.com](http://EnergyCodeAce.com)
  - An online “one-stop-shop” providing free resources and training to help appliance and building industry professionals decode and comply with Title 24, Part 6 and Title 20. The site is administered by California’s investor-owned utilities. Please register with the site and select an industry role for your profile in order to receive messages about all our free offerings!



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