



Residential Window/Skylights

In October 2005 the California Energy Code established minimum energy standards for replacement fenestration (area of frame and glazing of windows, skylights and doors with glazing). Permits are required when windows are replaced, enlarged, or added in order to verify the State requirements are met.

There are two methods to achieve compliance:

Prescriptive Method – To use this method complete the Window Worksheet (attached) to demonstrate one of the following conditions:

- The replacement windows have a maximum U-Factor of 0.57 and a maximum SHGC (Solar Heat Gain Coefficient) of 0.40.
- There is no more than 50 sq ft increase to glazing and the new windows have a maximum U-Factor of 0.57 and a maximum SHGC (Solar Heat Gain Coefficient) of 0.40.
- There is more than 50 sq ft increase in glazing and the total fenestration area is limited to maximum of 20% of conditioned floor area and the new windows have a maximum U-Factor of 0.57 and a maximum SHGC (Solar Heat Gain Coefficient) of 0.40.

Performance Method –When Prescriptive Method requirements cannot be met the Performance Method provides more flexibility to meet the Energy Code. This is typically done by an Energy Consultant and uses computer modeling.

If the windows to be replaced are in a sleeping room, and the old windows did not meet current egress (emergency escape) requirements, we strongly encourage you to adjust the framing and window size to meet current egress requirements. The minimum requirement is that the new egress opening area is not significantly smaller or higher than had existed. See reverse for current egress requirements.

Permit submittal requirements:

1. Building Permit Application
2. Owner-Builder form (if applicable)
3. Window Worksheet
4. Construction plans (if windows are being enlarged or added)

Inspections required:

For simple window replacement without framing changes only one inspection is required. At that time the inspector can verify that the approved windows have been installed.

If there is addition of fenestration area or changes in the framing there will be two inspections, one rough inspection to check framing, and a final to check the finish work. The U-Factor and SHGC can be checked whenever the inspector can verify that the approved windows have been installed.



Window Worksheet

Address: _____ Permit# _____

Property Owner: _____

Number of windows replaced _____

Location of windows/skylights replaced/added: _____

U-Factor of window/skylight _____ SHGC (solar heat gain coefficient) _____

Complete following section if fenestration area is to be increased by more than 50 sq ft.

Conditioned floor area of house _____

Existing area of glazing _____

Removed area (sq ft) _____

Proposed new installed _____

Total net Fenestration _____

Total % Fenestration
to floor area ratio _____

If this is over 20%, Performance Method must be used to show compliance with Energy Code.

Signature of Document Author _____ Date _____

Printed name: _____

Reviewed by (City staff): _____