

2005 ENERGY REGULATIONS
CLIMATE ZONE 9

WINDOWS REPLACED OR ADDED
RESIDENTIAL ALTERATIONS OR ADDITIONS

October 1, 2005

The 2005 Package D "Prescriptive" Energy Regulations require the following when existing windows are replaced with new windows, additional window area is added to the existing floor area, or windows are added during a room addition:

ALTERATIONS

EXISTING WINDOWS REMOVED AND REPLACED WITH NEW WINDOWS - [Sec. 152 (b) 1]

1. Alterations that replace existing window area (no new additional window area) shall have a maximum U value of 0.67 and a maximum Solar Heat Gain Coefficient (SHGC) of 0.40.
2. Complete and submit **form WS-4R**. Optional

LESS THAN 50 Sq. Ft. OF NEW WINDOW AREA ADDED TO EXISTING FLOOR AREA - [Sec. 152 (b)]

1. Alterations that replace existing window area shall have a minimum U value of 0.67 and a maximum Solar Heat Gain Coefficient (SHGC) of 0.40.
2. Complete and submit **form WS-4R**. Optional

MORE THAN 50 Sq. Ft. OF NEW WINDOW AREA ADDED TO EXISTING FLOOR AREA - [Sec. 152 (b)]

1. Alterations that replace existing window area shall have a maximum U value of 0.67 and a maximum Solar Heat Gain Coefficient (SHGC) of 0.40.
2. Maximum total window area is limited to 20% of the floor area. (If additional window area is desired, energy calculations (Performance Approach) are required).
3. Provide floor plan drawn to scale or fully dimension, showing room size, room use, window locations, and window size.
4. Complete and submit **Form WS-4R**. Optional



2005 ENERGY REGULATIONS FOR WINDOW REPLACEMENT

HELP FOR THE HOMEOWNER

CITY OF SANTA PAULA, BUILDING AND SAFETY

[Signature]

Building Official:

11/5/05

Date

Date: 11/9/05 Sheet 1 of 2

FENESTRATION – MAXIMUM ALLOWED AREA WORKSHEET WS-4R

| | |
|---------------|------|
| Project Title | Date |
|---------------|------|

FENESTRATION PRODUCTS – NEW CONSTRUCTION- NEW BUILDINGS

Use this table for new building construction to account for total building % of fenestration.

| A | B | C | D | E | F | G |
|---|-------------|--|--|---------------------------|--|---|
| #/Type/Pos. (Front, Left, Rear, Right, Skylight) | Orientation | Total Fenestration, West Facing Area (ft ²) | Total Fenestration for N, S, E Orientations Area (ft ²) | CFA (ft ²) | Total Percent of West Facing Fenestration ¹ (C/E) x 100% | Total % of Fenestration ² Including West (D/E) x 100% + F |
| | North | | | | | |
| | South | | | | | |
| | East | | | | | |
| | West | | | | | |
| | Totals | | | | | |

- 1) If west facing area exceeds 5% of CFA in climate zones 2, 4, and 7-15, the performance approach must be used.
- 2) If total percent of fenestration exceeds 20% including West facing orientations then performance approach must be used. West facing area includes skylights tilted to the west or tilted in any direction when the pitch is less than 1:12 for Package D only.

FENESTRATION PRODUCTS – NEW CONSTRUCTION- ADDITIONS

✓ Less than 100 ft², Less than or Equal to 1000 ft², Greater 1000 ft²

| A | B | C | D | E | F | G | H |
|---|---------------------------|----------------------------------|--|--|--|---|---|
| #/Type/Pos. (Front, Left, Rear, Right, Skylight) | Orientation N, S, E, W | Addition's CFA ^{1,2} | Addition's New Fenestration Area (ft ²) | Fenestration Area Removed to make way for Addition (ft ²) | Total Area Fenestration ² (D + E) | Total % of West Facing Fenestration (F/C)x100% | Total % of Fenestration ⁿ (F/C)x100 % |
| | North | | | | | | |
| | South | | | | | | |
| | East | | | | | | |
| | West ⁴ | | | | | | |
| | | | | | | | |
| | | | | | Total | | |

- 1) Additions that add less than 50ft² of fenestration area are exempt from the maximum total area limits. See Table 8-2 in RM.
- 2) If the addition has a floor area equal to or less than 1,000 ft², the maximum allowed fenestration % may be increased to by the amount of glazing removed in the wall that separates the addition from the existing house. See Table 8-2 in RM.
- 3) If the addition has a floor area greater than to 1,000 ft², must meet Package D requirements. See Table 8-2 in RM.
- 4) West facing area includes skylights tilted to the west or tilted in any direction when the pitch is less than 1:12 for Package D.

FENESTRATION PRODUCTS: ALTERATIONS

Use this table for alterations to an existing building where fenestrations products (windows) are being removed and/or added.

| A | B | C | D | E | F | G | H | I |
|-----|-------------------------|--|------------------------|---------------------------------------|--------------------------------------|---|--|--|
| CFA | Existing Orientation | Existing Area (ft ²) | Removed Orientation | Removed Area (ft ²) | Proposed Installed Orientation | Proposed Installed New Area (ft ²) | Total Net Fenestration (ft ²) (C-E+G) | Total % of Fenestration ^{1,2} H / A Max of 20% |
| | North | | North | | North | | | |
| | South | | South | | South | | | |
| | East | | East | | East | | | |
| | West | | West | | West | | | |
| | | | | | | | | |
| | Total | | Total | | Total | | | |

- 1) When 50 ft² or more of fenestration area is added to an existing building, then the fenestration must meet the requirements of Package D. The area requirement for the total fenestration area for the whole building, including the added fenestration, must not exceed 20% otherwise the Performance Approach must be used. Note: The 5% west facing limit is exempt. See Section 8.3.3 in the RM for further details.