

Window and Door Fenestration Replacement

- Replacement of fenestrations (windows and exterior doors) requires a permit.
- Replacement of glass within an existing sash does not require a permit.
- A contractor's license or homeowner affidavit is required when fenestration installation will require structural modifications to the building. Engineering may be required. See page 2 for work considered to be structural.

Submittal Checklist

- [Permit Application \(link\)](#): Include the description of work, number of fenestrations to be replaced, and proposed U-Value and SHGC of the new fenestrations. (All documents must be in PDF format)
- Stamped Structural plans or letter (if required).
- [Homeowner Affidavit \(link\)](#) or [Owner Authorization \(link\)](#) as required.
- Payment (check, cash, credit card, or echeck).

Residential like-for-like replacement fenestrations must meet the following conditions:

1. Meet the requirements of 2021 IECC section [R503.1.1.1 \(link\)](#) "Replacement Fenestration" as follows:
 - a. Meet the requirements of the amended 2021 IECC Table R402.1.2, **Maximum Assembly U-Factor = 0.28**
 - b. Meet the requirements of the amended 2021 IECC Table R402.1.2, **SHGC (Solar Heat Gain Coefficient): 0.35**
 - c. Where the proposed glazing area is more than 30% of the wall area by elevation, U-Factor = 0.25
 - d. When more than one fenestration is being replaced, an area weighted-average can be used to show compliance for U-Factor per 2021 IECC R402.3.1 or SHGC per 2021 IECC R402.3.2 or both as stated in IECC section R503.1.1.1. Provide weighted average calculations of all replacement windows and doors with submittal application.
2. Maintain all emergency escape window minimum opening sizes at bedrooms and basement per IRC R310.5.
3. Provide safety glazing where required per IRC section R308.
4. Meet the Historic Preservation requirements (see next page).

Note: A thermally isolated, enclosed, and **heated sunroom or garage** exterior vertical fenestration requires a Maximum Assembly U-Factor = .45 and skylights a Maximum U-Factor = .70 per 2021 IECC R402.3.5.

Commercial like-for-like replacement fenestrations must meet the following conditions:

1. Meet the requirements of 2021 IECC Section [C503.2.2.1 \(link\)](#) "Replacement Fenestration" as follows:
 - a. Meet the requirements of 2021 IECC Table C402.4, **Maximum Assembly U-Factor:**
Fixed Windows = 0.36, Operable Windows = 0.45, Entrance Doors = 0.63
 - b. Meet the requirements of 2021 IECC Table C402.4, **Maximum SHGC (Solar Heat Gain Coefficient):**
Projection Factor < 0.2: Fixed = 0.38, Operable = 0.33
Projection Factor 0.2 ≤ PF < 0.5: Fixed = 0.46, Operable = 0.40
Projection Factor ≥ 0.5: Fixed = 0.61, Operable = 0.53
2. Provide safety glazing where required per IBC section 2406.
3. Meet the Historic Preservation requirements (see next page).

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Engineered, stamped, and signed structural plans or letter are required to be submitted for:

1. New or modified fenestration openings where the header span or building width exceeds the limits of IRC Table [R602.7\(1\) \(link\)](#) on single-family and two-family dwellings.

Note: On an IRC single-family and two-family dwelling, headers can be sized and number of supports defined per IRC Table [R602.7\(1\) \(link\)](#) for new or modified fenestration openings.

2. New or modified fenestration openings on buildings other than single-family and two-family dwellings (IRC buildings).
3. New or modified fenestration openings in basement foundation walls including downward cuts at sill.

Note about enlarging openings:

If the replacement window is the manufacturer's largest standard size window that will fit within the existing frame (sash and glass) or existing rough opening and is of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window, modification to the rough opening is not required to meet emergency escape and rescue opening per IRC R310.5 exception. For this to be applicable, the emergency escape and rescue opening must have met minimum code requirements when it was built.

Historic Preservation – Residential and Commercial Fenestration Replacement:

For any residential and commercial properties designated as Fort Collins Landmarks and/or multifamily properties over fifty years of age, provide written approval from Historic Preservation Services that treatment meets the City's adopted preservation [standards \(link\)](#) (https://library.municode.com/co/fort_collins/codes/municipal_code?nodeId=CH14LAPR)

Questions: Contact Historic Preservation at preservation@fcgov.com or 970-416-4250

<https://www.fcgov.com/historicpreservation> (link)

Land Use Code [Sec. 3.4.7 \(link\)](#)

Inspections

Final Inspection required. NOTE: labels/stickers need to be on windows for inspection (U-value and SHGC).

<https://www.fcgov.com/building/inspections.php>

Building Services Links

<https://www.fcgov.com/building/codes>

<https://www.fcgov.com/building/residential-and-commercial-alterations>