

Retained Frame Insulated Glass Replacement JHA

Worked instructional example

Work and worksite

A qualified glazing service crew replaces a failed but intact insulated glass unit in one identified fixed picture-window frame at ground level. The frame stays in the wall. Its manufacturer permits field reglazing, and the correct replacement unit, bed seal and retaining stops are available. This fictional learning example describes planned controls; it records no actual inspection or work authorization.

- Partial IGU and repair coverage: remove and replace the sealed glass unit while retaining the building frame; no broken-glass extraction, frame removal or elevated work.
- The existing frame is sound, sealants and coatings are released for disturbance, and both window sides have controlled ground access.
- The selected manufacturer service guide governs pane support, seal release, stop removal and replacement retention; no universal reglazing sequence is assumed.

Questions before work

- What supports the old unit before the first glazing-bed cut reduces its retention?
- How were replacement dimensions, glass specification, setting materials and service-guide applicability verified?
- What prevents public contact until the new unit is retained and the required seals have cured?

Task Hazard Control

1 Verify the serviceable frame and replacement

Hazard: An unsuitable replacement or a damaged frame can leave glass inadequately supported.

Control: Identify the frame series and service instructions. Match the replacement IGU and glazing materials to the approved specification, survey frame condition and release old sealant disturbance; stop for unresolved material or structural findings.

Verification: Service lead records the frame identity, replacement specification and survey release before tools touch the glass.

Reasoning: A matching visible size does not establish edge clearance, glass suitability or compatible glazing materials.

2 Support glass and close both work faces

Hazard: An intact pane can move when the glazing seal is cut, before stops are removed.

Control: Close both sides and establish the approved handling support and receiving rack. Support the unit before cutting any bed or perimeter seal; agree commands and keep hands clear of the edge path.

Verification: Crew checks engaged support, the unobstructed transfer route and stable receiving restraint before seal release.

Reasoning: Sealant may contribute to retention; waiting until the last stop is removed can be too late.

3 Release seals and retaining stops

Hazard: Sharp tools, nails and unexpected pane movement can cut workers or break glass.

Control: Follow the actual service sequence with controlled tools and task-specific hand and eye protection. Mark reusable stops, remove sharp fasteners and maintain pane support through each seal and stop release; stop if glass cracks.

Verification: Installer verifies that the remaining retention and support match the sequence before the final release.

Reasoning: This controlled intact-unit method cannot continue unchanged after the glass becomes damaged.

Complete the work and hand over

4 Transfer the old IGU and prepare the rebate

Hazard: Exposed edges and hidden debris can injure handlers or damage the replacement glazing bed.

Control: Move the supported intact unit to its rack and secure it. Clean the retained rebate by the approved method, control chemical exposure and sharp waste, and inspect drainage, setting locations and frame deterioration.

Verification: Lead records sound rebate and approved setting surfaces; unresolved decay or drainage faults prevent replacement.

Reasoning: A clear opening is not evidence that the retained frame can accept a new sealed unit.

5 Set and retain the replacement unit

Hazard: Edge contact or premature support removal can fracture or drop the replacement IGU.

Control: Fit the specified setting materials and bed seal. Place the unit with the accepted handling system, maintain edge clearances, and install the correct retaining stops and fasteners without striking glass; keep support until retention is accepted.

Verification: Installer checks seating, stop engagement, drainage and completed retention before releasing the handling aid.

Reasoning: Glazing beads and setting supports have different functions and must both match the actual frame.

6 Finish seals and release the repaired window

Hazard: Uncured seals, sharp waste or unrecorded defects can expose occupants after departure.

Control: Complete the specified finish seals and protect the window for its required cure. Collect sharp waste, inspect glass and frame condition, and hand over restrictions, product records and any further actions before reopening access.

Verification: Service lead documents the inspection and the actual conditions for releasing the window to use.

Reasoning: Replacing the IGU does not validate an unresolved frame defect or waive the sealing cure requirement.

Pause and reassess

- Pause for unsupported glass, frame deterioration, unknown sealant hazards or a replacement that does not match the approved specification.
- Stop and replan for cracking, an unidentified retaining detail or a loss of the controlled area.
- Broken-pane removal, whole-frame replacement and work above ground need separately assessed methods.

Improve the controls

Needs improvement: Work carefully and wear PPE.

More useful: Follow the actual service sequence with controlled tools and task-specific hand and eye protection. Mark reusable stops, remove sharp fasteners and maintain pane support through each seal and stop release; stop if glass cracks.

Needs improvement: Check that everything is ready.

More useful: Identify the frame series and service instructions. Match the replacement IGU and glazing materials to the approved specification, survey frame condition and release old sealant disturbance; stop for unresolved material or structural findings.

Decisions that change the analysis

Why is this distinct from broken-glass or whole-frame removal?

The intact IGU is released from a retained serviceable frame, then the glazing bed and specified retention are rebuilt. The old damaged-pane example ends at cleared broken glass; the full-frame example removes the frame from the building.

What must the crew record for actual use?

Identify the actual equipment and work boundaries, responsible people, applicable criteria, inspection findings and open actions. Resolve changes with affected crews and obtain required project authorization before work.

Training needs

- Demonstrate the actual frame reglazing sequence, continuous pane support and safe handling of sharp stops and glazing waste.
- Verify product identification, glazing-material compatibility and the inspection and cure conditions required before owner handover.

Confirm applicable qualifications and actual training evidence for the people assigned. Related toolbox talks support discussion; they do not establish competence.

References and adaptation

Andersen retained-frame picture-window reglazing guide 0005138

<https://www.andersenwindows.com/-/media/Project/AndersenCorporation/AndersenWindows/AndersenWindows/files/technical-docs/service-guide/serviceguide-0005138.pdf>

OSHA 1926.300 Hand and power tools

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.300>

OSHA 1926.102 Eye and face protection

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.102>

OSHA 1910.1200 Hazard communication

<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1200>

References reviewed October 9, 2026. Use actual equipment and product instructions, project design and site requirements. This original draft supplies no fabricated inspection, signature or approval.