

Aluminum Storefront Frame Installation JHA

Worked instructional example

Work and worksite

A glazing crew will assemble and mechanically anchor empty aluminum storefront framing in a released ground-floor building opening. The frame is handed over for a later glazing crew; no glass or doors are installed in this sequence. This fictional learning example describes planned controls; it records no actual inspection or work authorization.

- Released shop drawings establish frame members, anchorage, support and drainage details for the actual system.
- Drilling locations and substrate conditions are accepted before anchors are placed.
- Glass setting, door hanging, structural silicone, overhead suspended framing and alteration of an occupied entrance are excluded.

Questions before work

- Which supports and anchor details apply to this opening?
- Where must sill drainage and movement remain functional?
- What keeps the unanchored assembly stable while workers fix it?

Task Hazard Control

1 Release the opening and frame system

Hazard: Wrong supports or concealed services can cause anchor failure or a drilling strike.

Control: Glazing lead compares the released opening, substrate investigation and frame schedule with current shop drawings. Identify permissible drilling positions and structural support; hold installation where the receiving condition differs.

Verification: Lead records the opening and anchorage release before unloading members.

Reasoning: A frame sized to fit is not yet a verified support system.

2 Stage and inspect frame members

Hazard: Long sections can tip or cut workers; unidentified components can create a weak assembly.

Control: Store members on stable supports outside access, protect exposed ends and verify part identity and condition. Use assessed handling aids and sharp-edge protection; segregate damaged sections rather than concealing distortion during assembly.

Verification: Material lead checks member marks, supports and the transfer route.

Reasoning: Empty aluminum framing still creates handling and edge exposures.

3 Assemble from stable access

Hazard: An unsecured assembly can rotate or trap hands at joints.

Control: Assemble the specified joints on suitable supports with the approved connectors and tools. Keep hands outside closing joints and install planned temporary restraint before raising or moving the assembly; do not use loose props as its release basis.

Verification: Assembly lead verifies connections and restraint before transfer.

Reasoning: Assembly support must remain effective as the frame changes orientation.

Complete the work and hand over

4 Position and anchor the frame

Hazard: An unrestrained frame can fall; drilling can expose workers to dust or hidden services.

Control: Position with the planned team or handling device and retain temporary support. Drill only released locations using applicable dust controls; install specified shims and anchors without inventing anchor spacing or tightening criteria.

Verification: Installer checks anchor installation against actual system and substrate requirements.

Reasoning: The frame needs support while its permanent load path is being completed.

5 Verify support and drainage

Hazard: Incomplete anchorage or blocked drainage can leave an unsafe or unsuitable glazing support.

Control: Complete the designated support, alignment and fastening checks before removing temporary restraint. Preserve sill outlets, flashing and specified movement accommodation; refer interference instead of filling every apparent gap with sealant.

Verification: Glazing lead records connection and drainage findings at the handover points.

Reasoning: Closing a gap can defeat a designed drainage or movement detail.

6 Hand over for glazing

Hazard: A following crew may load an incomplete frame or assume door access is released.

Control: Identify unfinished anchors, glazing supports and access restrictions. Remove sharp scrap and transfer the actual frame acceptance and drainage status to the glazing lead; keep the opening controlled until its next-stage release.

Verification: Receiving lead confirms frame status and remaining actions before glass delivery.

Reasoning: Frame installation and glass installation require separate handovers.

Pause and reassess

- Opening, anchorage or concealed-service information is incomplete.
- Frame movement, damaged members or unresolved connection findings.
- Drainage, movement accommodation or protected access cannot be retained.

Improve the controls

Needs improvement: Work carefully and wear PPE.

More useful: Assemble the specified joints on suitable supports with the approved connectors and tools. Keep hands outside closing joints and install planned temporary restraint before raising or moving the assembly; do not use loose props as its release basis.

Needs improvement: Check that everything is ready.

More useful: Glazing lead compares the released opening, substrate investigation and frame schedule with current shop drawings. Identify permissible drilling positions and structural support; hold installation where the receiving condition differs.

Decisions that change the analysis

Does a plumb frame mean it is ready for glass?

No. Confirm the actual anchorage, sill and glazing support, drainage details and designated handover. Alignment alone supplies no connection acceptance or permission to load the frame.

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

- Actual storefront frame assembly, substrate anchorage and temporary-restraint instruction.
- Applicable anchor-drilling dust controls and frame handling communication.

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

References and adaptation

Kawneer Storefront framing technical resources

<https://www.kawneer.com/products/storefront-framing/trifab-versaglaze-451-451t-framing-system/>

OSHA 1926.1153 Respirable crystalline silica

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.1153>

OSHA 1926.21 Safety training and education

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.21>

References reviewed October 9, 2026. Use actual equipment and product instructions, project design and site requirements. This instructional example supplies no actual inspection results, signatures or work approval.