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Method Statement: Window & Door Conservation, Replication, and Installation

IN SUPPORT OF A

Listed Building Application

AT

Penleigh Farmhouse, Penleigh, Westbury

prepared by

Atelier 17 Ltd

July 2026 - Revision 01

Method Statement: Window & Door Conservation, Replication, and Installation

Project Type: Heritage Conservation / Listed Building Maintenance

Project Location: Penleigh Farmhouse, Fairwood Road, Penleigh, Dilton Marsh BA13 4 EB

Building Type: Domestic / Grade II Listed

Date: July 2026

Scope of Works: Condition assessment, careful removal, salvage evaluation, timber repair, precise moulding replication, and final installation of matching windows and doors.

Conservation Principle: *Repair is always preferred over replacement. Replacement is a last resort, acceptable only when timber is structurally unviable or biologically dead.*

This document should be read in conjunction with the following:

Existing Drawings – A17 25 37 S1001 to S1010

Proposed Drawings – A17 25 37 P1000 to P1014

1. Glass and Frame Protection: Pre-removal.

Apply low-tack protective tape to historic glass panes to reduce the risk of shattering. Carefully remove internal timber staff beads and parting beads, then lift out the sashes or door leaves to immediately remove weight from the frame.

2. Frame Extraction: Hand tools only.

Remove fixing nails or screws carefully. If the outer frame is tightly wedged, use a fine hand saw to make relief cuts in the timber frame—**never use crowbars against historic brickwork or stone reveals**. Gently ease the frame out of the opening.

3. The Salvage Condition Test: Bench inspection.

Transport components to a secure workshop. Probe the timber with an awl to map rot depth. Classify each item:

- **Category A (Repair):** Timber sound or has minor localized rot (<30%). Preserve completely.
- **Category B (Splice/Piece-in):** Frame structurally sound but requires localized timber sections replaced.
- **Category C (Replace):** Timber completely degraded by wet/dry rot, structurally failed, and unfixable.

3. Replication of Mouldings and Profiles

Where total replacement is approved for Category C units, the new joinery must be a faithful, exact replica of the original.

- **Profile Sampling:** Take physical cross-sections of the un-degradable parts of the original frame, sash stiles, meeting rails, and glazing bars. If the wood is too soft, use profile gauges or take a negative silicone mold of the crispest remaining moulding section.
- **Timber Selection:** Use sustainably sourced, highly durable timber that matches the original characteristics or outperforms them in stability—such as premium-grade European Oak or dimensionally stable, rot-resistant acetylated wood (e.g., Accoya), if approved by the conservation officer.
- **Tooling & Machining:** Cut custom cutter knives for the workshop spindle moulder based exactly on the silicone molds or CAD drawings derived from the original profile.
- **Authentic Joinery:** Assemble all frames using traditional methods: melalui mortise and tenon joints, drawn together with through-timber dowels and waterproof wood adhesive. Modern face-planted glazing bars (stick-on bars) are strictly forbidden; glazing bars must be genuinely structural.

4. Traditional Repair of Salvaged Joinery

For Category A and B units:

- **Localized Splicing:** Cut out rotten timber back to sound wood. Piece in new, matching timber sections (grain-matched and species-matched) using neat scarf joints or half-lap joints bonded with structural adhesive.
- **Glazing Preservation:** If original historic glass is loose, gently rake out the brittle linseed oil putty by hand, clean the timber rebate, bed the glass back in on a thin layer of putty, and secure it with traditional copper sprigs before applying the final putty fronting.

5. Installation on Site

- **Opening Preparation:** Clean the stone or brick reveals of old mortar, debris, and draft-proofing. Treat the structural opening faces with a clear, breathable preservative.
- **Fixing Method:**
 - Position the new or repaired frame into the opening. Use timber shims to ensure it is perfectly plumb, level, and square.
 - Secure the frame using hidden mechanical fixings (such as long timber screws countersunk into the sash weight pockets or behind the stop beads) so no fixing heads are visible on finished faces. **Do not use expanding polyurethane foam.**

- **Perimeter Sealing:** Pack the small gap between the timber frame and the masonry reveal tightly with traditional hair-reinforced lime mortar or compressed burnt sand and linseed oil mastic. This ensures the joint remains wind-tight yet highly breathable.
- **Decoration:** Paint the joinery using a breathable micro-porous paint or traditional linseed oil paint system, applying a primer, undercoat, and a minimum of two gloss topcoats.