

REQUEST FOR AGREEMENT IN PRINCIPLE

Proposed Fire-Resistance Upgrade

Existing historic solid-timber and panelled doors up to 40 mm thick

Property	
Building Control reference	
Applicant / owner	
Prepared by	
Submission date	7 August 2026

DECISION REQUESTED: Agreement in principle to retain and sensitively upgrade the existing historic doors using the coordinated proprietary system described below, with a project target of 30 minutes fire integrity and smoke control where required. Final acceptance would remain subject to a door-by-door survey, the manufacturer's written project specification and completion evidence.

1. Purpose of this submission

This submission seeks Building Control's agreement to a conservation-led alternative to wholesale replacement of the existing historic doors. The proposal is to retain the original doors and upgrade the complete door assemblies - leaf, panels, frame junctions, perimeter gaps, ironmongery and closing action - using a tested intumescent coating and sealing system.

The doors are understood to be solid-timber or traditionally panelled leaves with a maximum overall thickness of approximately 40 mm. Their exact construction, panel thickness, timber density and dimensions will be confirmed in a pre-installation schedule.

2. Performance objective and limitations

The proposed performance objective is 30 minutes fire integrity, commonly described as an FD30-level objective, together with cold-smoke control where the approved fire strategy requires it. The final classification terminology and evidence route are to be agreed with Building Control for this existing historic fabric.

Condition / proposal	Working assessment	How it will be treated
Existing untested historic door	Unrated. Some historic panelled doors may provide less than about 20 minutes under current test conditions.	No reliance on thickness alone. Survey and assess the complete doorset.
Suitable door after full proprietary upgrade	Target: 30 minutes integrity; smoke control where required.	Apply the approved coating, panel treatment, perimeter seals, ironmongery protection and closing measures as one coordinated specification.
60-minute performance	Not proposed for leaves no more than 40 mm thick.	Envirograf states that its Product 38 route requires at least 44 mm door thickness for 60-minute protection.

Basis: Historic England, Guide to the Fire Resistance of Historic Timber Panel Doors; Envirograf Product 38 and Product 42 manufacturer information. Direct links are in Appendix A.

IMPORTANT LIMITATION: A 40 mm thickness does not, by itself, establish a 30-minute rating. Historic doors commonly fail at panel joints, the leaf-to-frame gap, thin panels, heated ironmongery or through distortion. This submission therefore proposes a complete doorset upgrade rather than paint alone.

3. Existing-door acceptance criteria

Each door will be surveyed before inclusion. A door will proceed under this proposal only when it is capable of receiving the manufacturer's system and remains structurally serviceable.

- The door is a single-leaf, solid-timber or traditionally panelled construction; hollow-core leaves are excluded.
- Overall leaf thickness, panel thickness, height, width, stile and rail dimensions are recorded.
- The door, frame and supporting wall are sound, without significant rot, delamination, open joints or unrecoverable warping.
- The head and side gaps can be brought within the manufacturer's permitted range, normally not exceeding 4 mm.
- Glazing, letterplates, locks, hinges and all other penetrations can be protected by compatible tested details.
- The door can close fully into the frame and overcome the resistance of seals and any latch.

Where a door falls outside the evidence base, it will be referred back to Building Control and the fire-risk assessor for an alternative detail, compensatory measure, fire-engineered assessment or replacement.

4. Proposed coordinated product system

The primary proposal is to use an Envirograf coordinated heritage-door upgrade system so the coating, panel treatment, seals and ironmongery protection can be specified together. Exact references and quantities will be confirmed by Envirograf's technical department against the completed door schedule.

Element	Suggested product	Proposed use	Evidence / link
Timber coating	Envirograf Product 42 HW System	Primer where required, two intumescent coats at the specified coverage and compatible protective topcoat. White HW01/F or clear HW02/E route to suit the approved finish.	Product page
Thin panels	Envirograf Product 38	Intumescent cloth with fire-protection card, veneer or plywood facing where panel thickness or door construction falls outside the coating-only route.	Product page
Surface-mounted fire/smoke seal	Envirograf Product 69	Preferred where routing historic fabric is undesirable. Continuous at the head and jambs to the manufacturer's detail.	Product page

Element	Suggested product	Proposed use	Evidence / link
Rebated fire/smoke strip	Envirograf Product 100	Alternative where a discreet routed groove is acceptable and consented. Size to match the project specification.	Product page
Hinge / lock protection	Envirograf Product 71	1 mm flexible intumescent sheet behind hinges and closers and around concealed lock components where specified.	Product page
Alternative rebated strip	Lorient LP1504, 15 x 4 mm	Possible fire-only alternative for a 3-4 mm perimeter gap. Smoke sealing would be added separately. Use only if compatibility with the full upgrade is confirmed in writing.	Product page

Product selections are subject to the manufacturer's written project-specific specification. Links open the manufacturers' current product pages.

5. Coating and panel-upgrade specification

5.1 Painted finish

For doors approved for a painted finish, the proposed system is Envirograf HW/AP adhesion primer where required, followed by two coats of Envirograf HW01/F white intumescent coating and a compatible Envirograf protective finishing system. The HW01 application data identifies a nominal coverage of 8 m² per litre per coat and requires a protective overcoat.

5.2 Clear finish

Where the historic timber is to remain visible, the proposed alternative is the Envirograf clear system: the appropriate adhesion primer, HW02/E clear intumescent coating and HW Excel clear protective topcoat, all applied strictly to the manufacturer's written specification and approved sample finish.

5.3 Thin or vulnerable panels

Envirograf states that a coating-only route may be suitable where the door edge is at least 30 mm and the panels are at least approximately 9 mm thick. Panels below this thickness will not rely on paint alone. They will be upgraded using Product 38 fire-protection card, veneer or plywood-faced intumescent material, generally to the designated fire-risk side, as directed by the manufacturer and accepted by the conservation officer.

6. Perimeter strips, smoke control and gaps

The door edge gap is a critical potential failure route. The approved seal will be fitted continuously at the head and both jambs. The default heritage-sensitive option is the surface-mounted Product 69 fire/smoke seal, avoiding removal of historic timber. Where a routed groove is acceptable, Product 100 may be used as the coordinated rebated strip.

If Building Control prefers the Lorient alternative, the LP1504 is a PVC-encased sodium-silicate seal available in 1 m and 2.1 m lengths, with heavy-duty self-adhesive backing and test evidence to BS EN 1634-1:2008 and BS 476-22:1987. The manufacturer states a 3-4 mm gap range. It is a fire-only seal; a compatible smoke seal is therefore required where smoke control forms part of the approved strategy.

- Target head and jamb gaps: within the selected product evidence and no more than 4 mm unless the accepted system expressly permits otherwise.

- Threshold gap: as small as practicable while allowing reliable closing; provide a tested threshold or drop seal where smoke leakage requirements make this necessary.
- Excessive gaps: correct by hinge adjustment or matching timber lipping bonded with heat-resistant adhesive, not by relying on paint or seal expansion alone.
- Seals: protect from paint and damage, ensure continuous contact where smoke brushes or blades are used, and replace if damaged.

7. Ironmongery, closing action and repairs

1. Repair splits, open joints and redundant holes using matching timber and compatible fire-resisting repair materials.
2. Protect hinge blades, mortice locks and concealed closer components using Product 71 where required by the approved system.
3. Confirm that glazing, letterplates or other apertures have a compatible tested fire-resisting detail; otherwise remove and reinstate appropriately.
4. Provide or adjust an appropriate self-closing device wherever required by the fire strategy. The door must close fully from any angle and overcome the latch and seals.
5. Do not plane, drill, route or alter a treated door after completion unless the altered area is reinstated to the approved detail.

8. Installation, inspection and completion evidence

The works will be completed by a contractor competent in passive fire-protection upgrades to historic timber doors. The following evidence will be retained and submitted at completion:

- Door schedule showing location, dimensions, thickness, panel construction, risk side, frame condition and agreed treatment.
- Pre-work, during-work and completion photographs for every door.
- Manufacturer's written project specification and relevant test or assessment evidence.
- Product names, quantities, batch numbers, primer and topcoat references.
- Wet-film or coverage records for every intumescent coat and confirmation of drying conditions.
- Record of seal type, size and location; ironmongery protection; timber repairs; glazing and letterplate details.
- Closing and latching test from fully open and approximately 15 degrees.
- Manufacturer's supply/application certificate where available and final inspection by a competent fire-door inspector.

STATUS OF COMPLETED DOORS: The works will produce project-assessed, upgraded historic fire-resisting door assemblies. They will not be represented as factory-certified FD30S doors unless a competent assessment or certification body expressly supports that classification for the completed configuration.

9. Heritage and consent considerations

Where the building is listed, written conservation advice will be obtained before routing the historic leaf or frame, applying a materially different finish, adding surface-mounted seals or altering historic ironmongery. A reversible, surface-mounted detail will be preferred where it offers the required performance with less loss of historic fabric.

A sample door or discreet sample area will be prepared for approval before the remaining doors are treated, particularly where a clear finish or veneered panel upgrade is proposed.

10. Matters for Building Control confirmation

1. Acceptance in principle of on-site upgrading in place of wholesale replacement, subject to the stated survey and evidence controls.
2. Acceptance of a 30-minute integrity objective for the identified doors and confirmation of where smoke control is required.
3. Acceptance of the Envirograf coordinated Product 42 / 38 / 69 or 100 / 71 system, subject to a project-specific manufacturer specification.
4. Whether surface-mounted Product 69 seals are acceptable where routing historic fabric is undesirable.
5. Whether any doors require additional fire engineering, independent assessment, enhanced detection, suppression or replacement.
6. The form of completion certificate, Regulation 38 information or other handover evidence required.

Appendix A - Direct product and guidance links

The following links are provided so Building Control can review the manufacturer information and technical basis directly. The project specification will use the current manufacturer documents available at the date of installation.

[Envirograf Product 42 - Intumescent Paint for Wood \(HW System\)](#) - product overview, certification links and application downloads

[Envirograf Product 42 HW01 application / safety data sheet](#) - coverage, coat thickness and protective-overcoat requirements

[Envirograf Product 38 - Panelled Door Fire Upgrade Kits](#) - thin-panel treatment and stated 44 mm minimum for the 60-minute route

[Envirograf Product 69 - Surface-Mounted Fire and Fire/Smoke Seals](#) - heritage-sensitive perimeter sealing without routing

[Envirograf Product 100 - Rebated Fire and Fire/Smoke Seals](#) - coordinated rebated strip alternative

[Envirograf Product 71 - Hinge, Lock and Door Closer Protection](#) - intumescent protection for metal components

[Lorient LP1004 / LP1504 / LP2004 Fire Seals](#) - alternative rebated fire-only strip data and test evidence

[Historic England - Guide to the Fire Resistance of Historic Timber Panel Doors](#) - assessment, dimensions, upgrading, gaps, strips, smoke seals and ironmongery

[Approved Document B - Fire Safety](#) - current statutory guidance for England

[Fire Safety \(England\) Regulations 2022 - Fire Door Guidance](#) - government guidance on door condition, gaps, seals and self-closing devices

Appendix B - Surveyed historic panelled doors (Floors 1 and 2)

Door	Location	Leaf size	Thickness	Construction / survey notes	Proposed treatment (subject to approval)
D01	1st Floor – Kitchen	Not stated; site measure H x W	Not stated; verify leaf and panels	Painted traditional four-panel timber door with brass lock. No defect recorded in the supplied survey.	Product 42 painted system + Product 69 fire/smoke seals; Product 71 at ironmongery where specified. Add Product 38 if panel measurements fall outside the coating-only evidence. Repair/adjust and fit closer if required.
D02	1st Floor – Bedroom	Not stated; site measure H x W	Not stated; verify leaf and panels	Painted traditional four-panel timber door with brass knob. No defect recorded in the supplied survey.	Product 42 painted system + Product 69 fire/smoke seals; Product 71 at ironmongery where specified. Add Product 38 if panel measurements fall outside the coating-only evidence. Repair/adjust and fit closer if required.
D03	1st Floor – Lounge	Not stated; site measure H x W	Not stated; verify leaf and panels	Painted traditional four-panel timber door, photographed open, leading to the lounge. No defect recorded in the supplied survey.	Product 42 painted system + Product 69 fire/smoke seals; Product 71 at ironmongery where specified. Add Product 38 if panel measurements fall outside the coating-only evidence. Repair/adjust and fit closer if required.
D04	2nd Floor – Four-panel bedroom	Not stated; site measure H x W	Reported thinner than 1st-floor doors; site measure	Painted traditional four-panel timber door with black knob. Survey item 10 is a hallway view of this same door.	Measure leaf and panels before acceptance. Product 42 painted system + Product 69 fire/smoke seals; use Product 38 where the thinner construction or panel measurements require it; Product 71 at ironmongery. Repair/adjust and fit closer if required.

Source: Property Door Survey, generated 28 July 2026. Four unique traditional four-panel doors are included. The second-floor hallway photograph is a second view of D04, not an additional door. Modern flush doors, the first-floor bathroom opening with no door, and the ground-floor laundry door are excluded. Leaf and panel measurements must be recorded on site before the manufacturer's final specification.