



Mechanical & Natural Ventilation Specification

All works to be carried out in accordance with Approved Document F (2021 edition with amendments) and manufacturers' instructions.

Natural Ventilation

- Background ventilation provided by controllable trickle ventilators integrated within window frames.
- Ventilator equivalent areas to comply with Approved Document F requirements for room type and floor area.
- Rapid ventilation provided by openable windows to habitable rooms, kitchens and bedrooms.

Mechanical Extract Ventilation - System 1

- Intermittent mechanical extract fans provided to:
 - o Kitchens
 - o Bathrooms
 - o Shower rooms
 - o Utility rooms
 - o WC compartments
- Fans ducted directly to external air via rigid or semi-rigid ductwork.

Minimum Extract Rates (Approved Document F)

- Kitchen: 30 l/s adjacent to hob, or 60 l/s elsewhere
- Bathroom: 15 l/s
- Shower room: 15 l/s
- Utility room: 30 l/s
- WC: 6 l/s

Fan Performance and Controls

- Fans to achieve required extract rates at installed conditions.
- Fans controlled via local switch, light switch with overrun timer, or humidity sensor.
- Noise levels to comply with Approved Document F guidance.

Ductwork Installation

- Ductwork sized to minimise pressure losses.
- Duct routes kept as short and straight as practicable.
- External terminals fitted with backdraught shutters and weatherproof covers.
- Duct penetrations through fire-resisting elements to be fire-stopped.

Testing, Commissioning and Handover

- Mechanical extract fans tested on completion to confirm minimum extract rates.
- Results recorded and provided to Building Control.
- User instructions provided to the homeowner.

Smoke & Heat Detection Specification

The smoke and heat detection system shall be designed and installed in accordance with BS 5839-6:2019+A1:2020.

- Smoke and heat alarm system to Category LD2 (minimum) for a new dwelling.

General Requirements

- All alarms to be permanently wired to the mains electrical supply with battery back-up.
- Alarms to be interlinked so that activation of one alarm triggers all alarms within the dwelling.
- Installation to be carried out by a competent person.

Alarm Types and Locations

- Smoke Alarms**
 - Optical smoke alarms provided:
 - o On each storey of the dwelling
 - o In circulation spaces such as hallways and landings
 - Smoke alarms positioned in accordance with BS 5839-6 guidance.

Heat Alarms

- Heat alarms provided in:
 - o Kitchens
- Heat alarms positioned in accordance with BS 5839-6 guidance and manufacturer instructions.

Siting and Installation

- Alarms ceiling-mounted unless otherwise recommended by manufacturer.
- Alarms positioned clear of walls, beams, vents, and light fittings.
- Minimum distances maintained from walls and corners as per BS 5839-6.

Power Supply and Wiring

- Alarms supplied from a dedicated circuit.
- Circuit to be clearly identified at the consumer unit.
- Battery back-up provided to ensure operation during mains power failure.

Fire Safety - Approved Document B

- Alarm coverage and interlinking to provide early warning to occupants.
- System designed to support safe means of escape in case of fire.

Testing, Commissioning and Handover

- Alarms tested on completion to confirm correct operation and interlinking.
- User instructions provided to the homeowner.
- Record of installation provided for Building Control inspection.

Internal Stud Partition Specification - Protected Stair Enclosure

General Description

Internal non-loadbearing stud partitions forming the enclosure to a protected stair within a single private dwelling, providing fire separation between the stair enclosure and adjoining rooms.

Partition Construction

- Stud framework formed using metal studs and tracks or timber studs, set out in accordance with manufacturer guidance.
- Stud depth to be minimum 70mm (or proprietary system as specified).
- Studs securely fixed to floor and ceiling structure.

Fire Resistance - Approved Document B

- Partition construction to achieve a minimum of 30 minutes fire resistance.
- Lining to each side of the stud partition to comprise:
 - o One layer of 15mm fire-rated plasterboard, or
 - o Two layers of 12.5mm plasterboard, where required by tested system.
- All joints staggered, taped and finished.
- Fire stopping provided at head, base and perimeter junctions.

Protected Stair Enclosure Requirements

- Partitions to fully enclose the stair forming a protected route to final exit.
- Openings within the enclosure to be limited and protected with FD30 fire doors where required.
- No unprotected service openings permitted within the enclosure.

Acoustic Performance - Approved Document E

- Partition construction to provide reasonable resistance to sound transmission within the dwelling. Stud voids to be filled with APR1200 mineral wool.
- Gaps and junctions sealed to reduce airborne sound transmission.

Structure - Approved Document A

- Stud partitions adequately fixed and restrained to prevent instability.
- Fixings suitable for imposed loads from doors and finishes.

Workmanship and Installation

- All works carried out in accordance with manufacturer instructions and recognised good practice.
- Partitions erected plumb and true.
- Temporary protection provided to prevent damage during construction.

Internal Fire Door Specification

Fire Door Rating

- Fire doors to achieve a minimum rating of **FD30** (30 minutes fire resistance).
- Fire performance to be supported by test evidence or third-party certification.

Doorset Construction

- Fire doors supplied as a complete, tested doorset (leaf, frame, seals, ironmongery).
- Door leaves to be solid core construction.
- Frames to be timber or proprietary fire-rated frames compatible with the doorset.
- Doorsets to be installed strictly in accordance with manufacturer instructions.

Intumescent and Smoke Seals

- Intumescent strips fitted to door leaf or frame as part of the tested doorset.
- Cold smoke seals provided where required by Approved Document B.
- Seals to be continuous around the door perimeter (except threshold where permitted).

Ironmongery

- Hinges, latches, locks and closers to be fire-rated and compatible with the tested doorset.
- Minimum of three fire-rated hinges per door leaf.
- Self-closing devices provided to fire doors protecting the stair enclosure where required.
- Door furniture fixed in accordance with manufacturer guidance.

Glazing (where applicable)

- Any glazing within fire doors to be fire-resisting and installed as part of the tested doorset.
- Glazing to be fixed using approved glazing systems and materials.

Installation and Tolerances

- Doors installed plumb and square.
- Gaps between door leaf and frame to comply with manufacturer tolerances (typically 2-4mm).
- Threshold gaps to comply with tested doorset details and accessibility requirements.

Fire Safety - Approved Document B

- Fire doors to form part of the protected escape route where required.
- Doors to be kept self-closing and not wedged open.
- Openings within protected stair enclosure limited and protected by FD30 fire doors.

Access and Safety - Approved Documents K and M

- Door widths and opening forces suitable for domestic use.
- Ironmongery positioned to allow safe and convenient operation.

Inspection and Certification

- Fire doors to be inspected on completion for correct installation.
- Certification or evidence of compliance to be made available to Building Control.

PROJECT	72 Sweetcroft Lane Hillingdon
PROPOSAL	NEW 4 BEDROOM HOUSE

SCALE: 1-50 @ A2
DRAWN: Andy Wilcock
DATE: 26th November 2025
DRAWING NUMBER 534 - 3
REV B

PROPOSED SECTIONS		
REV	DESCRIPTION	DATE



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