

Alpha House

Ventilation Statement

October 2025

PREPARED FOR

Wythenshawe Community Housing Group and Muse Places



Sketch produced by Levitt Bernstein

Utilities Statement

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1. Introduction

This Ventilation Statement has been prepared by Civic, on behalf of Wythenshawe Community Housing Group and Muse Places, in support of the full planning application for Alpha House, a new-build residential development.

1.1. Site Overview

The site is located in Rowlandsway, Wythenshawe, M22 5RG, positioned between Rowlandsway and Wavell Road. Figure 1 illustrates the site, outlined in red, within its wider context, while Figure 2 presents the proposed site layout plan.

The existing disused office building on the site will be demolished to make way for the erection of residential development (Use Class C3) comprising a part 2, part 6 storey building together with ancillary communal facilities, associated access, car and cycle parking, refuse storage, landscaping, amenity space, signage and other associated works



Figure 1. Existing Site Location Plan



Figure 2. Proposed site Layout Plan

2. Ventilation Strategy

The ventilation strategy has been designed to provide, as a minimum, the extract rates set out in the table below, in accordance with Approved Document F of the Building Regulations.

Table 1 - Minimum Extract Ventilation Rates for Continuous Extract Systems

Room	Extract Rate (l/s)
Kitchen	13
Utility Room	8
Bathroom	8

Additionally, the sum of all continuous extract ventilation within a dwelling will be equal to or higher than the rates stated in the table below for a given size of dwelling.

Table 2 - Minimum Whole Dwelling Ventilation Rates

Number of Bedrooms	Extract Rate (l/s)
1	19
2	25
3	31

2.1. Mechanical Ventilation & Heat Recovery (MVHR)

Apartments will utilise MVHR systems to support the TM59 overheating mitigation strategy and comply with local authority carbon reduction requirements. The MVHR system will provide continuous mechanical extract ventilation, removing moist stale, and contaminated air and transferring heat via a high-efficiency heat exchanger with a heat recovery efficiency of approximately 85%. This recovered heat will pre-warm incoming fresh air, which will then be supplied to living rooms and bedrooms.

To mitigate overheating during peak summer conditions, and in scenarios where windows cannot be opened due to external noise constraints (refer to Acoustic Report), the MVHR systems will be sized to provide boosted ventilation rates of up to 20 l/s per bedroom (refer to Overheating Report). Intake and exhaust ductwork will be insulated along their entire length.

The MVHR unit will be located within a dedicated utility cupboard and will incorporate a plate heat exchanger and automatic summer bypass. System controls will include timed overrun, manual boost activation from the kitchen/utility cupboard, and bathroom light-switch boost control. Supply and extract ductwork will be routed above ceilings and will terminate via weather-rated façade louvres serving the fresh air intake and exhaust discharge.

2.2. Kitchen Cooker Hoods

Kitchens will be equipped with recirculating cooker hoods as specified by the architect.

2.3. Purge Ventilation

Provision for purge ventilation is required to remove contaminants, such as indoor pollutants, excess heat, or stale air in accordance with Approved Document O requirements. This will be achieved through each apartment's MVHR unit, along with openable windows at the occupant's discretion.

2.4. Refuse Stores

Refuse storage areas will be mechanically ventilated via louvres located on the external façade. Mechanical extract ventilation will be provided at a rate of 10 air changes per hour. The location and detailing of louvres will be coordinated with the architect to ensure they are fully integrated with the building elevations. Make-up air will be provided via full-height louvered access doors serving the refuse stores.

2.5. Smoke Ventilation

Natural smoke ventilation systems will be installed to all relevant cores in accordance with the fire engineering strategy and the requirements of Approved Document B. Where corridor travel distances are compliant, smoke ventilation will be provided via natural means.

Natural smoke shafts will be designed to provide a minimum equivalent free area of 1.5 m². Each shaft will serve the associated corridors and will terminate at roof level via an automatic opening ventilator (AOV). Corridors served by the shafts will incorporate a wall-mounted smoke damper and louver arrangement.

The systems will be controlled by locally mounted smoke and heat detectors, which will also initiate the opening of the adjacent head-of-stair ventilator to support smoke clearance and maintain tenable escape conditions.

2.6. Plant Rooms

Where required plantrooms will be naturally ventilated through external louver, subject to the provision of a suitable thermal boundary/ insulated soffit around these spaces, as required.

2.7. Car Park

Part B of the Building Regulations requires permanent ventilation openings equal to at least 5% of the plan area, arranged to provide cross-ventilation, with at least half of this area distributed equally between two opposing walls. This arrangement is deemed to provide sufficient ventilation for the clearance of both smoke and vehicle exhaust fumes in a naturally ventilated car park.

The current proposal provides natural ventilation via an open façade at the car park entrance, with the remaining areas covered. In accordance with the landscape architect's drawings, 2.5% of the car park floor area will be provided as effective free area via an opening in the ceiling. This approach forms part of a hybrid ventilation strategy, which will be subject to review and confirmation through the fire engineer's assessment and associated smoke-modelling.

As part of the hybrid strategy, high-level impulse fans will be installed within the car park to enhance airflow distribution and prevent stagnant air pockets. These fans will support the requirements of both Part B (smoke clearance) and Part F (environmental ventilation), ensuring effective control of pollutants under normal operating conditions as well as enhanced smoke control performance in a fire scenario.

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