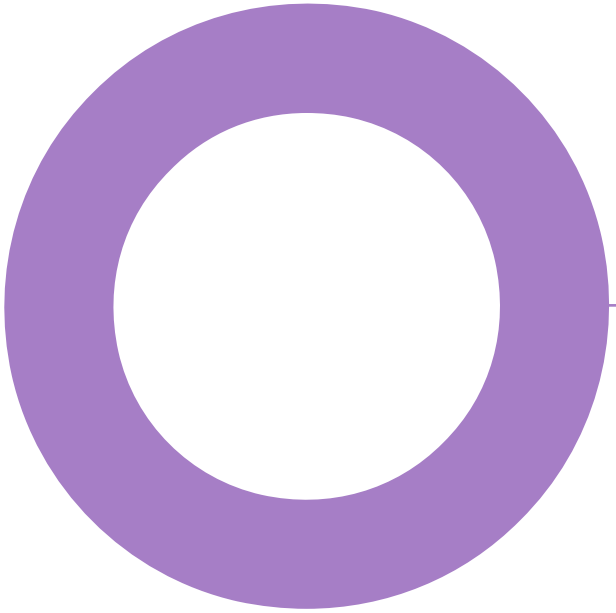
HOARE LEA

Mayfield Poulton, Manchester. Manchester.

Mayfield Poulton Limited.

MEP ENGINEERING
VENTILATION & EXTRACTION STATEMENT

REVISION P02 – 05 MARCH 2026



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Audit sheet.

Rev.	Date	Description of change / purpose of issue	Prepared	Reviewed	Authorised
P01	31/05/2023	For Review	EEG	LW	RCM
P02	12/03/2026	Stage 3 Issue	CG	LT	RCM

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1. Introduction

1.1 Background

This ventilation statement has been produced to support the planning application for Mayfield Poulton Office building, Manchester. It provides description of the supply and extract ventilation strategies employed throughout the internal areas within the proposed building, as well as the air intake and discharge strategies to external.

1.2 Development Overview

1.2.1 Existing Site

The building will be constructed on the Mayfield site located in Manchester City Centre, currently home to Mayfield Park and 'Depot'. The Poulton office will be constructed in the first phase of the wider site development. The site has been cleared of existing buildings, in preparation for development.

1.2.2 Proposed Development

The proposed development consists of a newly constructed 11-storey Class A office development, complete with rooftop amenity space.

An entrance lobby and reception are present at ground floor level. The ground floor will also accommodate two retail tenant spaces. The retail and combined reception area is designed as shell and core, for future tenant fit out of the retail area.

A mixed-use amenity space / meeting room and external terrace is provided at level 10.

Ventilation plant space has been provided within the plant enclosure at level 10 and roof level. Retail tenants are intended to locate their own ventilations plant within their demise.

2. Ventilation Strategy

2.1 Tenant Office Areas

Tenant office zones shall be provided with fresh air from central air handling units (AHU), located at roof level 10. The variable air volume (VAV) system shall provide sufficient outside air to avoid exceedance of maximum CO^2 levels within the occupied zones.

The provided AHUs will also be utilised to remove vitiated air from each office zone. Air will be distributed to and from the office floor plates via ductwork located in risers within the central cores.

Thermal wheel heat recovery devices will be present within the AHUs to allow heat recovery required to meet Building Regulations Part L requirements. Air volumes extracted from the office zones will be variable, tracking the outside air rate to allow for a balanced system, therefore maximising heat recovery between the extract and supply air streams.

All air handling units will be provided with intake, discharge, supply, and extract attenuation with anti-vibration mounts to meet the requirements of the acoustic report by Hoare Lea.

2No. AHUs will be provided at roof level, serving approximately each office floorplate levels 01-09. The floorplates will have an occupancy split of 60:40. The larger occupancy on the west wing of the Poulton building is defined as Tenant 01.

The offices will also be provided with mixed mode ventilation via manual panel openings within the façade, adjacent to the windows, each concealed behind a perforated screen. Note central plant is sized for peak required ventilation if openings are sealed.

2.2 Landlord Core Areas

1No. AHU will be provided at level 10, serving core areas across levels ground to 10.

The landlord core areas, consisting of lift lobbies, WC and adjacent circulation will be provided with a central balanced air handling system.

Vitiated air will be extracted from the WC areas and fresh air shall be provided to the lift lobby and circulation areas, satisfying the requirements of Building Regulations Part F, whilst also providing 'make-up' air to the toilets facilitating the balanced system operation.

Air will be distributed to and from the core areas via ductwork located in risers within the central cores.

The provided AHU will contain a thermal wheel heat recovery device to reduce the unit length to enable it to fit within the limited plant area at level 10. The thermal wheel will be fitted with a 'purge' section, therefore mitigating the risk of cross contamination between extract and supply air streams.

The AHU will be provided with intake, discharge, supply, and extract attenuation with anti-vibration mounts.

2.3 Landlord Ground Floor and Basement Areas

The ground floor areas, including the open plan reception areas are to be provided with full fresh air mechanical supply and extract ventilation to meet the employer's requirements and building regulations Part F, these will also be served by a dedicated local heat recovery unit.

If any kitchen extract is required by retail tenants, suitable filtration and air cleaning will need to be provided by the tenant within their demise with consideration of requirements of the Environmental Agency Officer. No kitchen riser has been provided to roof level.

The basement plant rooms/stores consisting of the following areas will be provided with general extract ventilation, with supply 'make-up' air to allow sufficient air turnover to avoid overheating/humid environments:

- Sprinkler tank plant room
- LV switchroom
- Comms intake room

The ductwork systems provided at basement level shall be capable of operating in fire conditions, providing sufficient smoke clearance ventilation for compliance with Building Regulations Part B.

2.4 Ground Floor Back of House (BoH) Areas

The utility owned substation located on the South façade will be naturally ventilated via external louvres.

Fresh air supply to the bin store will be driven by negative pressure in the space via mechanical assistance from an extract fan, employed for the control of odour. Supply of fresh air to the space will be via a permanent duct connected to the adjacent condenser plantroom external louvres.

2.5 Basement Smoke Ventilation

The basement will be provided with smoke extract and makeup air fan systems. Intake and exhaust of the common general and smoke system ventilation will be ducted at ground floor, connecting to louvres on the perimeter façade. Separation of smoke exhaust and fresh intake will be achieved by exhausting at high level, with intake of air from low level at ground floor.

Motorised smoke and fire dampers will be employed to switch from general ventilation at basement level, driven by a dedicated heat recovery unit, local to the sprinkler tank plantroom, to smoke extract and makeup supply air in the event of activation of the fire alarm.

The ductwork systems provided at basement level shall be capable of operating in fire conditions, providing sufficient smoke clearance ventilation for compliance with Building Regulations Part B.

2.6 Tenant Ground Floor/Basement Areas

Two retail units are proposed at ground floor. It is proposed that tenants will fit out their own HRUs within the space to provide ventilation. A ground floor a louvre band is provided at high level to enable flexibility for tenants to connect ventilation unit intake and exhaust on the East and West façade on the building.

2.7 Rooftop Amenity Area

The rooftop amenity area shall be provided with full fresh air mechanical supply and extract ventilation, via a local HRU, mounted at high level, to meet the employer's requirements and building regulations Part F. Separating this system from the central system will also enable it to operate more efficiently when used at different times to the office.

A plate heat exchanger will be present within the HRU to allow heat recovery required to meet Building Regulations Part L requirements. Air volumes extracted from the amenity space will be variable and HRUs will be capable of monitoring CO2 levels, tracking the fresh air rate to allow for a balanced system, therefore maximising heat recovery between the extract and supply air streams.

The heat recovery unit will be provided with intake, discharge, supply, and extract attenuation with anti-vibration hangers.

2.8 Exhaust emissions

The building will employ a diesel powered life-safety generator located on the roof which will be operated for short periods monthly to ensure correct operation of the system.

Flues will be routed to terminate 1m above roof level, with sufficient distance provided between the exhaust flue outlets and ventilation intakes to mitigate risk of exhaust fume circulation.

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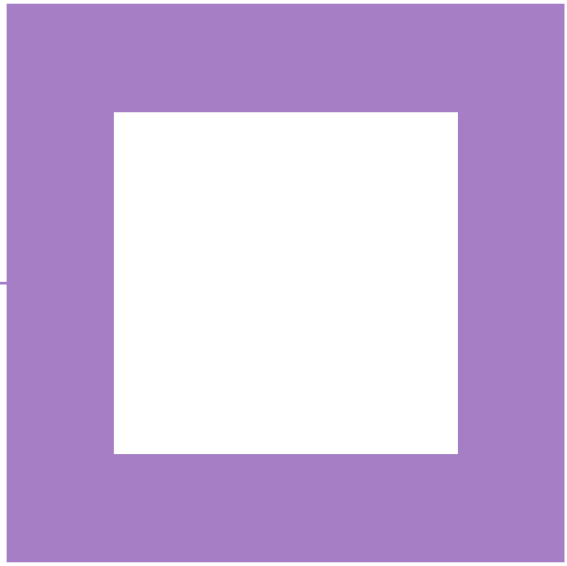
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