

Intended for
Bruntwood (Didsbury) TP

Document type
Planning Application

Date
July 2022

EVO BUILDING **VENTILATION STATEMENT**

EVO BUILDING
VENTILATION STATEMENT

Revision	P03
Date	July 2022
Made by	Stuart Moses
Checked by	Gerald Pepper
Approved by	Martin Bissell
Description	Planning Application: Ventilation Strategy

Ref

6198-RAM-D1-ZZ-RP-M-00001

CONTENTS

1.	VENTILATION	3
1.1	Ventilation for Office Areas	3
1.2	Ventilation for Gym and Changing Areas	3
1.3	Kitchen	3
1.4	Ventilation for Bin Stores and Cycle Stores	3
1.5	Ventilation for Plant Rooms	3
1.6	Car Park Ventilation	3
1.7	Smoke Control Ventilation	3
1.8	Life Safety Generator and Sprinkler Pumps	3
1.9	Summary	3

1. VENTILATION

Ventilation will be provided to all parts of the development given due consideration to the use, occupancy requirements and function of each space.

The design will be compliant with Approved Document Part F, Part L, CIBSE Guide A, British Council for Offices Guidance and relevant BS/ EN Standards.

1.1 Ventilation for Office Areas

The office and ground floor reception areas will be served by a centralised mechanical ventilation with heat recovery system. The Air Handling Units (AHUs) will be selected for low energy consumption (low SFP) and high efficiency heat recovery to provide a minimum of 12 l/s/person. CO2 sensors and Variable Air Volume demand control dampers shall be provided to allow the on-floor ventilation rates to modulate with occupancy for energy savings purposes.

All ventilation units will be covered under Part L of the Non-Domestic Compliance Guide methodology so that the performance can be captured under the energy modelling. All units shall feature a summertime bypass mode so that the heat recovery does not contribute to overheating.

All office areas shall be compliant with Approved Document Part F of the building regulations (with regards to mechanical ventilation rates) and will comply with the CIBSE guidance on thermal comfort.

Ductwork attenuation shall be provided where recommended by the acoustic engineer.

1.2 Ventilation for Gym and Changing Areas

The ground floor gym and changing areas will be served by a number of local mechanical ventilation with heat recovery (MVHR) units. The units will be selected for low energy consumption (low SFP) and high efficiency heat recovery to provide a minimum of 6 ach during operating hours.

In order to minimise SFP’s, intakes and discharges are at ground floor level with linear separation between the two. Units will be selected to ensure compliance with Part L and the Non-Domestic Building Services Compliance Guide. These areas will be designed in line with CIBSE and Part F of the Building Regulations.

1.3 Kitchen

The kitchen will be ventilated via dedicated mechanical supply and extract systems. The supply system will be designed in line with CIBSE guide A, Part L and the Non-Domestic Building Services Compliance Guide. The extract system will be designed in compliance with DW172 and the requirements of the ‘Control of Odour and Noise from Commercial Kitchen Exhaust Systems’ dated September 2018. As the kitchen type has not been finalised, the scheme is based on the provision of electro-static precipitation filter, UV technology and a discharge above roof level.

1.4 Ventilation for Bin Stores and Cycle Stores

The bin store is external to the building and slightly remote from it. As such, mechanical ventilation is not required.

The cycle store is provided as part of the external covered car park. This is in the form of a fully height security cage and mechanical ventilation is therefore not required.

1.5 Ventilation for Plant Rooms

Plant room ventilation will be compliant with Approved Document Part F of the building regulations.

Ventilation rates will also consider overheating and acoustics with respect to welfare of staff and the nuisance to adjacent properties. Where possible, plant rooms will be naturally ventilated; however, where this is not considered feasible, mechanical ventilation will be used.

1.6 Car Park Ventilation

Ventilation of the car park will be by a passive ventilation strategy, in compliance with Part F and Part B of the building regulations.

1.7 Smoke Control Ventilation

Smoke control to protected escape routes shall be provided via mechanical ventilation smoke extract and/or automatic openable vents (AOV) in line with BSEN 12101 and Approved Document B of the Building Regulations.

Where AOVs are used, the actuators shall be provided with either two independent power supplies or be of a ‘fail open’ type.

The smoke extract system shall be provided with two independent power sources. The standby power provision will be satisfied via a life safety generator. All power cabling running through the building to serve life safety equipment will be appropriately fire rated.

1.8 Life Safety Generator and Sprinkler Pumps

Fresh air intake and hot air discharge for the life safety generator will be at ground floor level. The combustion flue for the life safety generator set will terminate above roof level.

The combustion flues for the fire-suppression sprinkler system pumps will terminate above roof level.

The life-safety generator and the sprinkler pumps are intended for emergency operation only. However, they will be regularly tested in accordance with good practice.

1.9 Summary

The ventilation strategy for the building will comply with all relevant regulations and standards appropriate for the class of use and function of the space such as Approved Document Part F, Part L, CIBSE Guide A and BS/ EN Standards where required.

Where advised by the air quality consultant, filters will be provided on air intakes.

Where advised by the acoustic consultant, attenuators will be provided as required.