

**Renold Building, Manchester
Planning Submission
Ventilation Strategy Statement**

July 2024

Introduction

This statement has been prepared to provide details of the ventilation proposals for Renold Building, part of the ID Manchester estate in Manchester.

The development consists of the refurbishment of the Renold Building, comprising a total of eight floors.

- Basement will existing comprise landlord plant areas.
- Lower Ground Floor will comprise landlord reception and entrance area, bookable meeting / co-working rooms, WC facilities, and open plan office suite.
- Upper Ground Floor will comprise bookable meeting rooms, WC facilities, open plan co-working offices, kitchen, and central breakout spaces.
- Second Floor to Seventh Floor will comprise commercial offices, integrated tea points and landlord WC facilities, as well as lecture theatres at each level.
- Roof Level will house landlord plant including air Handlings units, toilet extract fan/s and future commercial office and retail tenants plant allowance

The majority of the refurbishment proposals will see the existing systems being reused. The design and installation of any new ventilation systems will be developed in line with the following:

- Current Building Regulations Approved Documents
- CIBSE Guidebooks
- Health and Safety at Work Act
- Manchester City Council planning conditions and requirements
- All relevant British Standards and Codes of Practices
- DEFRA (Department of Environmental, Food & Rural Affairs) Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems

Lecture Theatres

The existing HVAC Installations serving the lecture theatres to be reoccupied on all floors are to be retained and re-used as existing with maintenance and commissioning of the existing plant to be undertaken. No changes to the HVAC are proposed in these areas.

Lower Ground Floor Offices and Public Area

There is currently no HVAC installation on LGF to the gallery/entrance area. As they are only circulation areas there is no new ventilation intended beyond the current arrangement. It is proposed to install a new overdoor heater to heat up the space during winter.

The staff facility room relies on natural ventilation via opening windows and heating by radiators. These services to be retained.

There are existing radiators in the proposed MITH/TIC space and meeting rooms. They are to be stripped out and replaced with VRF system which will provide cooling and heating to the system. Fresh air supply is proposed to be via existing openable windows.

In the newly formed meeting rooms, it is proposed that the existing openable windows be retained as the ventilation provision. New VRF heating and cooling is proposed to be installed with plant for this system being discreetly located on the upper ground floor roof.

New extract ventilation is to be provided to serve the newly formed tea point. This system is to serve the tea point above as well. The fan will be located on the upper ground floor with exhaust on the upper ground floor roof.

The existing HVAC services for the existing WCs, are to be retained and re-used as existing with maintenance and commissioning of the existing plant to be undertaken for re-instatement. No changes to the HVAC are proposed in these areas.

There will be a newly formed boiler room inside the building at the rear. Supply and extract will be via a new louvre on the north façade at the lower ground floor. Two flues for the boilers will terminate 1.7m above the 2nd floor roof in accordance with the Clean Air Act and be suitably coloured to be inconspicuous.

Upper Ground Floor Offices and Public Areas

In the newly formed co-working and meeting rooms on the east side of the building, it is proposed that the existing ductwork is retained and modified where required to serve the newly formed zones. A new AHU is to be provided and it is to be located on the upper ground floor roof. The new AHU will be completed with heat recovery and heating and cooling coils that will temper the air. New VRF heating and cooling is proposed to condition the spaces. Plant for this system will be located on the upper ground floor roof. The system shall be designed and installed in compliance with Building Regulations Approved Document F.

In the newly formed Flex-Space area on the west side of the building, it is proposed that a new AHU is to be installed to provide fresh conditioned air to the space to meet the new internal occupancy and space conditioning requirements. The AHU is to be located on the upper ground floor roof. Main supply and extract ducts will be ducted through the existing window openings and route to the plant in a discreet manner just below the window line on the 2nd floor.

The system shall be a continuous mechanical balanced ventilation system complete with heat recovery and shall be designed and installed in compliance with Building Regulations Approved Document F.

New extract ventilation is to be provided to serve the newly formed tea point. The fan will be located at the high level upper ground floor tea point and exhaust to be located on the upper ground floor roof above the location of the tea point/riser at upper ground level.

The existing HVAC services for the existing Kitchen and WCs, are to be retained and re-used as existing with maintenance and commissioning of the existing plant to be undertaken. No changes to the HVAC are proposed in these areas.

Level 02-07

The existing HVAC installations serving the offices on these floors are to be stripped out and capped off at the riser to meet fire strategy. Fresh air supply and exhaust will be through the existing openable windows. New VRF equipment will be provided for cooling and heating at the space. . The External VRF plant for these systems is proposed to be discreetly located on the 7th floor roof, outside the existing plantroom.

Toilets on levels 04-06 are served by an existing AHU, which will be retained and recommissioned. The AHU is located in the 8th floor plantroom with intake and exhaust ducted to the external walls.

For the newly formed tea points on this levels, extract will be connected to the existing duct system.

Toilets and tea points on levels 02 and 03 will be served by a new extract system with the fan located at the high level 2nd floor. The exhaust duct will be ducted to the façade at the 2nd floor and terminate at a new louvre.

The level 07 toilets and tea point will be served by the new dedicated extract fan. The fan is to be located at the high level 7th floor and terminated at the 8th floor roof via mushroom cowl.

Other Areas

The services to all areas not mentioned in this statement are to be retained as existing with no works internally or externally to modify their routing or design parameters. Any works to these services are to be "maintenance and re-instatement" based only.

Acoustics

All new plant and equipment that is to be located externally shall be attenuated and sound proofed where required to achieve a rating level of 5dB (LAeq) below the typical background (LA90) level at the nearest noise sensitive location.