

VENTILATION STRATEGY

For

RESIDENTIAL DEVELOPMENT

40 CAVERSHAM ROAD

READING

RG1 7EB

Prepared By



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1.0 INTRODUCTION

This report has been prepared to communicate the Ventilation strategy for the apartments at the 40 Caversham Road, Reading, Residential Development.

The report describes the ventilation system and its operation and is in response to planning condition 5 and Building Regulation Part F requirements.

Planning condition 5 states:

No development shall commence on site until a detailed scheme, including a timetable for its implementation, for the provision of alternative mechanical ventilation with minimum performance equivalent to a mechanical ventilation heat recovery (MVHR) system with cool air bypass as an alternative means of cooling and ventilation has been submitted to and approved in writing by the Local Planning Authority.

Noise from the system shall not result in BS8233 internal levels being exceeded.

Thereafter, the development shall not be carried out other than in accordance with the approved scheme which shall be completed in accordance with the approved scheme and timetable and retained and maintained as such at all times thereafter.

Building Regulations Part F volume 1 Dwellings states

Extract water vapour and indoor air pollutants from areas where they are produced in significant quantities (e.g. kitchens, utility rooms and bathrooms) before they spread through the building

Supplies a minimum level of outdoor air for occupants' health, following the guidance for whole dwelling ventilation

Rapidly dilutes indoor air pollutants, and disperses water vapour when necessary in habitable rooms, following the guidance for purge ventilation

The planning condition 5 makes reference to the noise assessment report prepared by Apex dated 25th March 2025. The noise assessment report indicates that sound insulation improvements will be required to satisfy typical noise limits.

The information contained within this report is presented to discharge planning conditions 5 & Building Regulations

2.0 VENTILATION STRATEGY

To comply with the planning conditions 5 and building regulations part F volume 1 for dwellings. Both fresh air and extract air need to be considered.

There is a need for day to day ventilation for occupants and to remove odour/moisture. During warmer weather there is a need to maintain a satisfactory internal environment and this can be undertaken by opening windows or mechanical means. Finally, there is the need for rapid ventilation (purge) in the event that pollutants need disbursement.

Day to day ventilation shall be provided by acoustic trickle ventilators located within the wall as opposed to the windows of each habitable room. The trickle vents shall have acoustic properties to meet table 1 of the noise report, refer to diagram 2 for illustrations of the vents. A continuous mechanical extract system as referred to in part F 1.6 shall be sized in accordance with table 1.2 of Part F volume 1 and installed with make up air being drawn in through the acoustic background ventilators which shall be sized in accordance with clause 1.64.

Each apartment shall have a mechanical extract ventilation system (MEV) comprising outlet louvre within the building façade connecting an MEV fan unit, located in the cupboard above the hob. Extract points are provided at the kitchen through Greece filters and extract grilles in bathrooms. Refer to diagram 1 for a typical apartment layout.

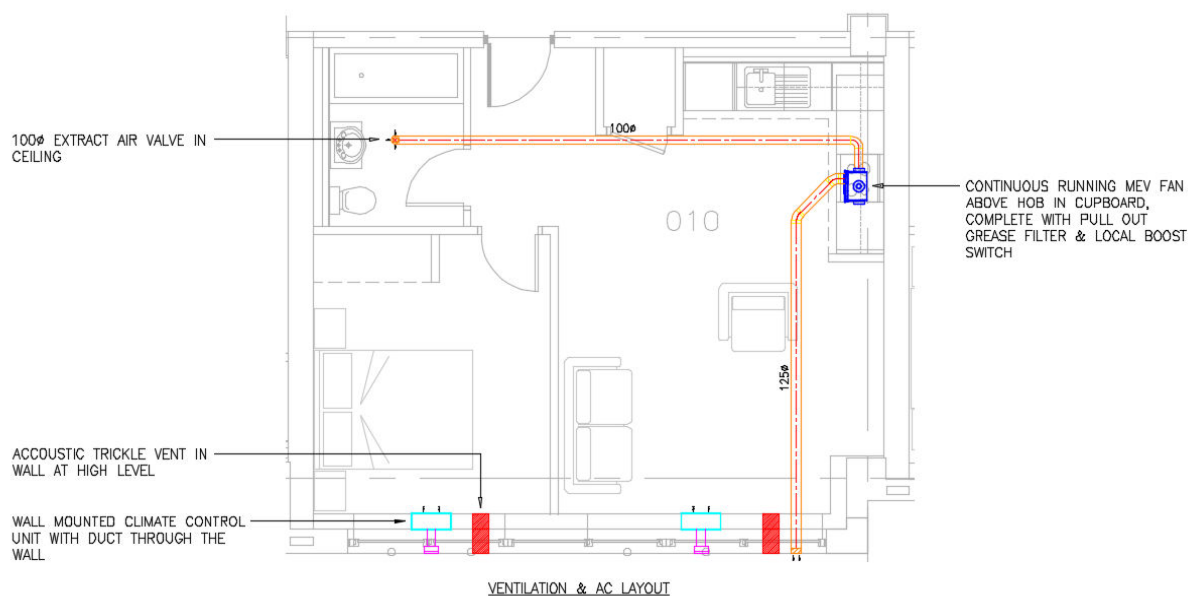


Diagram 1 Typical apartment ventilation layout

The system is designed to operate on a continuous trickle ventilation basis with the facility to boost the ventilation rate subject to occupier requirements.

The facility provides ventilation to remove condensation, heat and contaminants without the need to open windows and in accordance with planning condition 5.

The noise assessment report has stated that opening windows for summer cooling will exceed the noise conditions stated for habitable rooms. Summer cooling will therefore be provided by an environmental conditioning unit to provide both heating and cooling to the habitable spaces. See diagram 3 for details.

For Purge ventilation ProPG states:

“It should be noted that internal level guidelines are generally not applicable under “purge ventilation” conditions as defined by the building regulations approved document F, as this should only occur occasionally (e.g. to remove odours from painting and decorating or burnt food)”

Purge ventilation is therefore provided by opening windows.

The noise assessment report has stated that opening windows for summer cooling will exceed the noise conditions stated for habitable rooms. Summer cooling will therefore be provided by the environmental conditioning unit to provide both heating and cooling to the habitable spaces.

Diagram 2 Typical acoustic trickle vent details



Diagram 3 Heat Pump Environmental control unit.

