

Church House Building Services Ltd

**READING
METROPOLITAN**

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RETAIL UNIT VENTILATION SUMMARY

General

The services described in this report relate to the ventilation of the retail units and, in particular any A3 units which may be created.

The mechanical services systems within the retail units shall be designed and installed by the occupiers to suit their specific requirements.

Any mechanical services plant and equipment shall be contained within the demise of the retail units and/or on the roof in identified zones.

It will be a requirement that the installations shall be in accordance with the Building Regulations criteria and shall satisfy the Planning Authority energy strategy requirements.

It is anticipated that the following mechanical services will be installed by the occupier:

- Heating (gas fired)
- Air conditioning (possible alternative to heating)
- Cooling (cold rooms etc.)
- General ventilation (fresh air and extract)
- Toilet and wet rooms extract ventilation
- Food preparation equipment (gas and/or electric)
- Specialist ventilation systems (kitchens etc.)
- Automatic controls and metering systems

A1 Retail unit ventilation systems

The A1 retail units shall be provided with external weather louvres located in the fabric of the building to accommodate the tenant's future toilet extract ventilation and general fresh air supply and exhaust ventilation systems. The louvres shall be sized and located to satisfy the requirements of the occupiers proposed ventilation systems and the requirements of the Planning Authority. Louvres shall be located in positions which shall not allow contaminated air from other ventilation discharge systems to be drawn into occupied areas and shall be positioned to avoid recirculation of exhaust air into ventilation intake louvres or through openable windows.

The A1 retail unit ventilation systems shall be designed by the occupiers to suit their specific requirements. Any ventilation air handling plant, fans and associated equipment shall be contained within the demise of the unit and attenuated as required to satisfy the requirements of the Planning Authority.

A3 Retail unit ventilation systems

The A3 retail units shall be provided with external weather louvres located in the fabric of the building to accommodate the tenant's future toilet extract ventilation and general fresh air supply and exhaust ventilation systems. The louvres shall be sized and located to satisfy the requirements of the occupiers proposed ventilation systems and the requirements of the Planning Authority. Louvres shall be located in positions which shall not allow contaminated air from other ventilation discharge systems to be drawn into occupied areas and shall be positioned to avoid recirculation of exhaust air into ventilation intake louvres or through openable windows.

The requirements for kitchen extract ventilation from an A3 unit will vary to suit the actual operations carried out by the occupiers. The option of discharging through an external wall may be possible in the case of a tea shop, coffee shop, sandwich shop etc., however, other operations would be more onerous and since the actual ventilation requirements of the units will not be known and could change during the life of the building, it would be advisable to provide the facility to accommodate a worst case scenario which would involve discharging extracted air from kitchens at roof level.

In addition, if gas fired cooking equipment is used at a commercial level, the discharge of carbon monoxide through the ventilation system from the cookers would need to be accommodated to avoid the possibility of the air blowing into any openable windows or ventilation air intakes.

On the basis that builderswork shafts shall be provided to accommodate kitchen extract ventilation systems, the discharge positions at roof level and shall avoid the recirculation of exhaust air into any ventilation intake louvres or through openable windows and shall avoid the transfer of odours or fumes into other areas. The relevant DEFRA document states the discharge of extracted air should be not less than 1 m above the roof ridge line of any building within 20m of the building housing the commercial kitchen.

The design and installation of the A3 kitchen ventilation systems shall be carried out by the occupier to suit their specific requirements. Any ventilation air handling plant, fans, filtration and associated equipment shall be contained within the demise of the unit and attenuated as required to satisfy the requirements of the Planning Authority. The tenant shall be responsible for providing suitable filtration systems to satisfy the requirements of the Local Authority.

The following should be considered with regards to the future installation of kitchen extract ventilation ducts within builderswork shafts:

1. The extract ducts would be installed by the occupiers as part of their fitting out works and access would need to be provided to the shafts as part of the base build to facilitate the installation of the extract ducts by the A3 unit occupiers.
2. On-going and regular access would be required for cleaning the kitchen extract ducts and therefore the builderswork shafts should be accessible from the core areas at each level in order to avoid inconvenience to the occupiers of the floors above.
3. Fire dampers can not be fitted in kitchen extract ducts and therefore the builderswork shafts and access doors would be required to be suitably fire rated