VENTILATION & EXTRACTION STATEMENT

Address: 3 Queen Street West, Manchester, M20 3BQ

Date: 01/09/2025

Application Reference: COU-001 MAN

PURPOSE OF STATEMENT

The purpose of this statement is to provide full details of the proposed extraction and ventilation system to be installed at the premises. The system has been designed to ensure effective removal of heat, odour, and airborne grease associated with the preparation of hot food, while also minimising any potential impact on neighbouring properties.

This statement demonstrates compliance with DEFRA Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems (January 2005, updated 2023) and Building Regulations Approved Document F (Ventilation). It also takes account of relevant environmental health considerations to ensure the system is both safe and sustainable for long-term operation.

COOKING STYLE

The premises will operate as a hot food takeaway specialising in burgers and fries. The cooking process involves frying and grilling, which generate grease vapour, odours, and particulates that must be effectively captured.

- Cooking equipment:
  - 1 × Commercial Fryer
  - 1 × Chargrill (electric or gas)
  - 1 × Small Cooker/Hob

- Opening hours: 9:00 am – 6:00 pm daily
- Operation: Takeaway and delivery only, no on-site seating.

EXTRACTION SYSTEM PERFORMANCE

The extraction system has been designed to deliver high performance and compliance with DW/172 kitchen ventilation standards, ensuring safe and effective operation.

- Canopy Size: 1200mm × 600mm stainless steel canopy, manufactured from 430g, 1mm stainless steel.
- Primary Filtration: Two stainless steel baffle filters, designed to capture grease and particulates, removable and washable for regular weekly cleaning.
- Airflow Rate: Designed to achieve a minimum 0.5m/s face velocity across the canopy,

providing an airflow capacity of approx. 1000m^3/hr, sufficient to capture vapour and odour at source.
- Lighting & Safety: The canopy is fitted with LED lighting for safe operation and manufactured to meet fire resistance and hygiene requirements.

DUCTING & EXTRACT FAN

The ducting and fan arrangement ensures effective discharge of air above roof level, away from neighbouring receptors.

- Ducting: 200mm diameter galvanised steel spiral ductwork, routed vertically to discharge above the ridge line.
- Extract Fan: Centrifugal inline fan, integrated within the duct system for efficient airflow.
- Fan Duty: 0.45m^3/s @ 0.3 Pa (designed for continuous use during cooking hours).
- Noise Rating: 55 dB(A) measured at 1.5m from the fan unit, ensuring minimal disturbance to surrounding properties.
- Termination: 90° mesh bird cowl fitted at discharge point to prevent ingress of birds and debris.

ODOUR & NOISE CONTROL

Odour and noise have been considered as primary environmental concerns. The following measures will be implemented:

- Odour Control:
  • Stainless steel baffle filters fitted to the canopy to trap grease particles.
  • An activated carbon filter unit installed downstream of the canopy to absorb odours.
  • Regular replacement of carbon filters in line with manufacturer recommendations.

- Noise Control:
  • The fan unit selected has a low noise output, and ductwork will be acoustically treated where necessary.
  • The noise rating is within DEFRA's acceptable limits for commercial kitchen exhaust systems.
  • The vertical duct discharge ensures noise dispersal away from sensitive receptors.

- Maintenance & Cleaning:
  • Baffle filters will be removed and cleaned weekly.
  • Ductwork will be inspected and professionally cleaned at least every 6 months in accordance with TR19 guidance.
  • The carbon filter system will be replaced on a scheduled maintenance programme.

ADDITIONAL COMPLIANCE MEASURES

- The system will operate only during trading hours (9:00 am – 6:00 pm).
- Regular staff training will be provided to ensure correct operation and maintenance.
- Waste oil generated from frying will be collected and disposed of by a licensed waste contractor.
- A commissioning report will be obtained upon installation, confirming performance against design specification.

CONCLUSION

The proposed extraction and ventilation system has been designed to comply fully with DEFRA Guidance, DW/172 Kitchen Ventilation Standards, and Building Regulations. It will provide efficient removal of cooking fumes, grease, and odours, ensuring a safe and pleasant environment both inside the premises and for neighbouring properties.

By incorporating robust odour control, noise mitigation, and regular maintenance, the system will minimise environmental impact and safeguard residential amenity. The installation is therefore considered suitable and proportionate for a small-scale hot food takeaway.