ODOUR & NOISE CONTROL STATEMENT

Commercial Kitchen Extraction System
Planning Application Support Document

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1. Site Details

Site Address:
55A Mansfield Road
Alfreton
Derbyshire
DE55 7JJ

Proposal:
Change of use from office to café, including replacement of existing flat roof with pitched roof.

Drawing Reference:
Floor Plans – Elevations – Block & Location Plan (Ref: 2026-015rev1)

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2. Description of Proposed Use

The proposed development comprises a **small-scale daytime café**.

Operating hours:
08:00 – 18:00 (Monday to Saturday)

Nature of food preparation:

- Breakfast items
- Sandwiches and paninis
- Light fried foods
- Hot drinks

Equipment to be used:

- Flat-top griddle
- Small fryer
- Electric ovens
- Panini press

The level of cooking is considered **light to moderate**, with no heavy commercial or high-grease cooking operations.

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3. EMAQ Guidance Compliance

This assessment has been prepared with reference to:

"Control of Odour and Noise from Commercial Kitchen Exhaust Systems" (EMAQ, 2018)

In particular:

- Appendix 2 – Information for planning applications
- Appendix 3 – Odour risk assessment
- Appendix 4 – Noise assessment

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4. Odour Risk Assessment (EMAQ Appendix 3)

Cooking Type

Light to moderate cooking (griddle, small fryer, ovens)
→ **Medium odour potential**

Kitchen Size

Small café with approximately 10–20 covers
→ **Low risk**

Sensitive Receptors

Nearby residential properties and a nursing home
→ **High sensitivity**

Dispersion

Proposed high-level vertical discharge via flue above roof ridge
→ **Good dispersion**

Overall Risk Category: MEDIUM

Based on the EMAQ methodology, a **medium level of odour control** is required.

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5. Proposed Extraction System

5.1 Canopy

A stainless steel commercial extract canopy will be installed over all cooking equipment, designed in accordance with DW/172.

5.2 Filtration & Odour Control

The system will incorporate multi-stage filtration:

Stage 1 – Grease Filtration

- Stainless steel baffle filters
- Removable and regularly cleaned

Stage 2 – Fine Filtration

- Secondary particulate filters

Stage 3 – Activated Carbon Filtration

- Carbon filters to remove odour compounds

This level of filtration is appropriate for the identified **medium odour risk**.

5.3 Ductwork

- Sealed metal ductwork (galvanised or stainless steel)
- Installed in accordance with DW/144
- Access panels provided for cleaning
- Maintained in accordance with TR19

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6. Flue & Discharge Stack Design

The extract system will discharge vertically via a dedicated flue system designed to promote effective dispersion.

Key design parameters:

- **Discharge orientation:** Vertical upward discharge
- **Flue diameter:**
    - Nominally **300 mm circular duct**, subject to final mechanical design and airflow calculations
- **Discharge velocity:**
    - Minimum **15 m/s efflux velocity** at terminal
- **Flue height:**
    - The terminal will be positioned **at least 1 metre above the ridge of the proposed pitched roof**, where practicable

The discharge location will be selected to maximise separation from nearby windows and neighbouring properties.

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7. Noise Assessment & Control (EMAQ Appendix 4)

The primary noise sources associated with the system will be:

- Extract fan
- Air movement within ductwork
- Discharge at terminal

Noise Control Measures

- Selection of low-noise fan equipment
- Anti-vibration mounts
- Flexible connections
- Acoustic attenuation (silencer) if required
- Internal routing of ductwork where possible

Noise Performance Criteria

The system will be designed to ensure that:

- Noise from the extract system does **not cause adverse impact** at nearby sensitive receptors
- The rating level of sound complies with **BS 4142:2014+A1:2019**
- Where practicable, the system will achieve a rating level **at least 5 dB below the representative background sound level** at the nearest residential façade

As a design target:

The extract system shall be selected so that noise levels do not exceed **35 dB LAeq,15min at the nearest residential window**, or such lower level as required to ensure compliance with BS 4142.

Final manufacturer data and acoustic calculations will be provided prior to installation if required.

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8. Maintenance & Management

To ensure continued performance:

- Grease filters cleaned weekly
- Carbon filters replaced at regular intervals (typically 6–12 months)
- Ductwork cleaned in accordance with TR19
- System maintained under a service contract

9. Conclusion

The proposed kitchen extract system has been designed in accordance with **EMAQ best practice guidance** and is appropriate for the scale and nature of the proposed café use.

The system incorporates:

- Multi-stage odour filtration
- High-level discharge for effective dispersion
- Noise control measures to protect nearby residents

It is therefore considered that the development will:

- **Not give rise to unacceptable odour impacts**
- **Not result in harmful noise effects**
- **Safeguard the amenity of nearby residential properties**