

## Greenhead College- Odour Statement

This Statement sets out the approach to be taken to odour control / ventilation at the redeveloped Greenhead College. The plans propose a new 160 m<sup>2</sup> kitchen providing meals for the sixth form college. The kitchen is sited on the ground floor in the new teaching block.

1. The kitchen includes cooking, food preparation, pot wash and servery areas.
2. A total extract of 2.68 m<sup>3</sup>/s will be provided to the kitchen. The dedicated make up (supply) air systems shall deliver 85% of the peak extract flow rate, in this case 2.28 m<sup>3</sup>/s. The kitchen ventilation rates are based on electric cooking and are provided by the kitchen specialist.
3. Extraction will be via individual cooker / kitchen hoods complete with condense panels and filters. Supply air will be introduced directly into the kitchen via an integrated makeup air feature within the hoods, and also via ceiling diffusers to help achieve efficient 'flushing' of the kitchen air.
4. All kitchen exhaust air shall be ducted directly to roof level where it will be exhausted away from adjacent air intakes to mitigate risk of cross contamination of air streams. The kitchen extract duct will be topped with a jet cowl terminal to further reduce the risk of contaminated air being drawn back into the building. Fire rated extract ductwork will be provided throughout the building, including within risers which will terminate at roof level. The vertical ductwork will be located within a riser and be provided with regular access points for cleaning, typically every level. The kitchen extract fan and supply fan will be installed on the roof and are to be mounted one on top of the other due to space restrictions. A purpose-built support frame will be used to prevent the two fans and ductwork from physically touching and reduce risk of excessive vibration.
5. Attenuation shall be provided on the intake and room side of the supply fans to reduce any noise reverberation within the ductwork and to mitigate the extent of any noise breakout to the local environment, in accordance with BB93. Similarly, the extract fans shall also be provided with attenuation, with the attenuators being selected as appropriate for kitchen extract (high humidity & grease tolerant, anti-sag, lined). Attenuators will be selected to maintain the fire integrity of the ductwork system.
6. An odour risk assessment will be carried out in accordance with the Environmental Management and Air Quality (EMAQ) guidance<sup>1,2</sup> and guidance published by the Institute of Air Quality Management (IAQM)<sup>3</sup> to address the impacts on neighbouring residential properties. This will inform the design and implementation of a suitable mitigation strategy to minimise risk of adverse impacts on local amenity.
7. Based on the above approach, it is anticipated that there will be no adverse impacts on the operational College or on nearby residential properties in terms of air quality or noise.

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<sup>1</sup> EMAQ (2018). Control of Odour and Noise from Commercial Kitchen Exhaust Systems, <https://www.gov.uk/government/publications/guidance-on-the-control-of-odour-and-noise-from-commercial-kitchen-exhaust>

<sup>2</sup> The EMAQ guidance was withdrawn in 2017, but is still regularly used throughout the industry, due to the absence of a suitable replacement.

<sup>3</sup> Institute of Air Quality Management (IAQM) (2018). Guidance on the assessment of odour for planning – version 1.1, <http://www.iaqm.co.uk/text/guidance/odour-guidance-2014.pdf>