



STATEMENT ON CONTROLLING KITCHEN ODOURS

FOR

**THE DEMOLITION OF EXISTING STRUCTURES AND
REDEVELOPMENT TO FORM A CARE HOME (CLASS C2),
COMMUNAL AND ANCILLARY FACILITIES, ASSOCIATED
PARKING AND LANDSCAPING**

LOCATED AT

**199-203 HENLEY ROAD AND LAND TO THE REAR OF 205-
207 HENLEY ROAD, CAVERSHAM RG4 6LJ**

ON BEHALF OF

SIGNATURE SENIOR LIFESTYLE DEVELOPMENTS LTD

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1.0 Introduction

This statement has been prepared by Harniss Consulting Ltd on behalf of Signature Senior Lifestyle Developments Ltd to provide a summary of the proposed strategy to control odours born from the commercial kitchen within the proposed care home off Henley Road, Caversham.

The statement has been produced as part of a desktop review of the kitchen services requirements of the care home and uses recommendations and information from the, now withdrawn, *Defra Guidance on the Control of Odour and Noise from commercial Kitchen Exhaust Systems*.

The statement is to be read in conjunction with the proposed kitchen ventilation layout plan included in Appendix A.

2.0 Types of Odour

The kitchen within the new care home shall be preparing and cooking meals for its residents at least 3 times per day, 7 days a week, providing breakfast, lunch and dinner. Although it is not possible to predict exact meals, the assumption of this report is that meals will replicate that which could be found in a domestic property, albeit on a larger scale. There will also be occasional baking and other irregular cooking and preparation taking place.

3.0 Kitchen Ventilation System

In line with the requirements of DW/172 and the *Defra Guidance on the Control of Odour and Noise from commercial Kitchen Exhaust Systems*, the kitchen within the proposed care home shall be provided with a supply and extract system ducted to an extract and supply hood to ensure that any steam, vapours, and smoke are removed from the kitchen working environment. The kitchen ventilation system shall also be used to help control peak internal temperatures within the kitchen.

The kitchen canopy itself shall be positioned directly over the hob area and shall be sized to suit the calculated air volume at 20 air changes per hour, as per DW/172 guidance. Filtration shall be provided within the extract system to ensure that odours, grease and airborne waste products are not expelled to atmosphere.

The kitchen extract fan shall be located at high level within the basement car park and shall be ducted from the kitchen canopy, up the internal riser and out to atmosphere at roof level above the First Floor. Where noise from the fan, air velocity or kitchen itself shall exceed internal and external background noise levels, then attenuators shall be fitted either side of the fan to remove any risk of noise disturbance.

Although the aforementioned air filtration shall be installed within the extract system, the air exhaust shall also be expelled at high velocity (over 7m/s) to ensure that all discharge air is dissipated to atmosphere at a point where it could not be a nuisance to residents of the care home or the surrounding properties.

The supply/makeup air shall be provided at 85% of the air volume removed by the kitchen extract system. This ensures that the room operates under a negative pressure and therefore odours cannot escape through the building fabric of the room to atmosphere. The supply fan shall be ducted to

atmosphere and, like the extract system, if fan or air velocity noise is to be above background noise levels, then attenuators shall be installed before and after the fan.

4.0 Kitchen Ventilation System Maintenance Requirements

To ensure the correct operation of the kitchen ventilation system is sustained, regular maintenance is required. Failure to do so can often lead to increased pressure drop within the system, flowrates dropping and hygiene levels falling. An increased risk of fire within the ductwork system is also likely due to grease build-up.

Due to the risks mentioned above, the *Defra Guidance on the Control of Odour and Noise from commercial Kitchen Exhaust Systems* recommends that the following maintenance is provided:

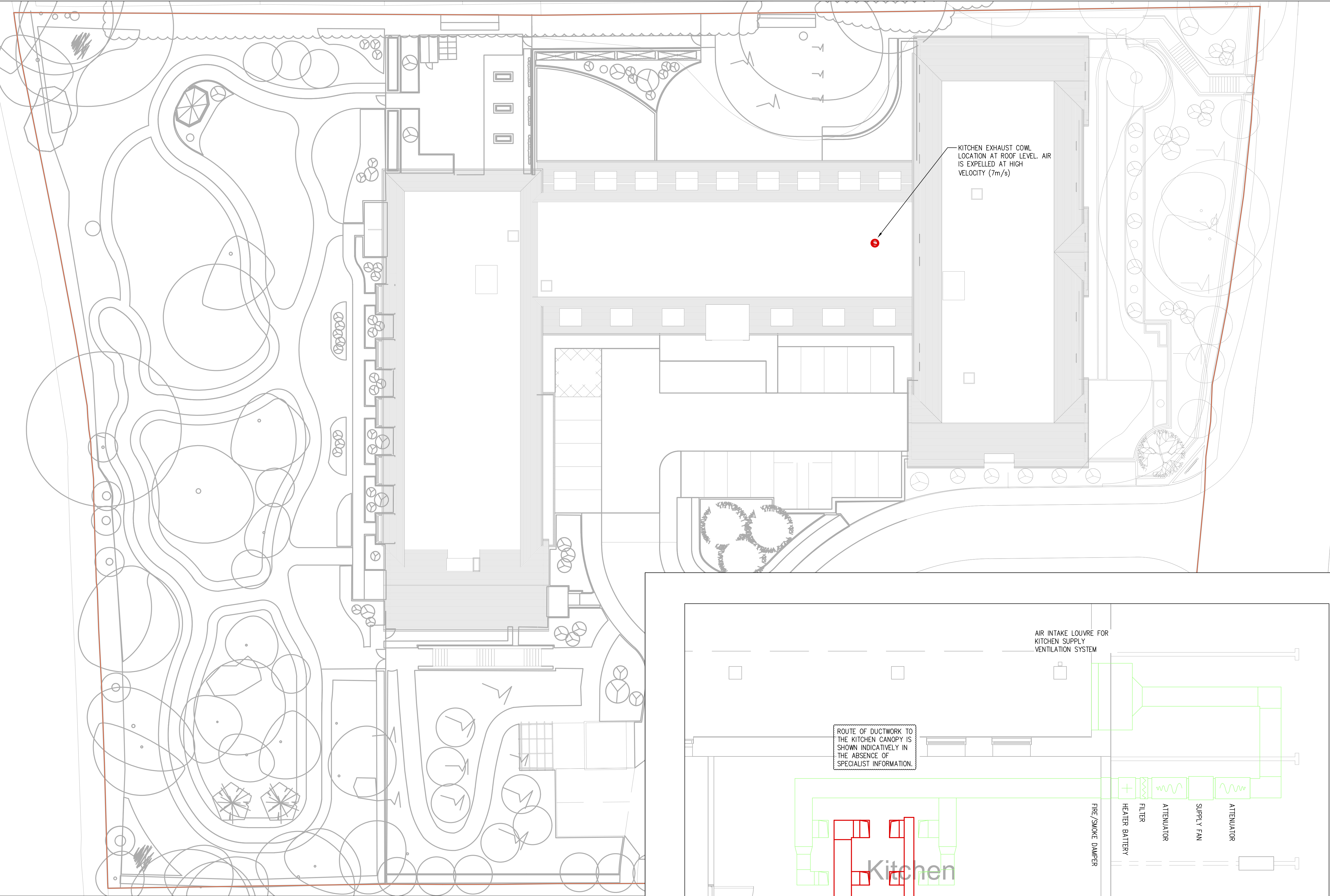
- A visual inspection of the ventilation system be carried out at least once a week. All metal surfaces should be checked to ensure that there is no accumulation of grease or dirt and that there is no surface damage;
- Cooker hoods and grease filters should be cleaned on a daily basis;
- Baffle type self-draining filters and collection drawers should be cleaned weekly as a minimum. The cleaning period for mesh filters should be at least twice a week;
- Periodic 'deep hygiene cleaning' be undertaken by a specialist contractor. All accessible main ductwork runs and branches, including fitted equipment should be inspected and cleaned. [Note: periodic will be defined by the use of equipment];
- All fans are maintained on a regular basis as recommended by the fan manufacturer;
- Ventilation grilles, where fitted have easily removable cores to facilitate cleaning;
- Change fine filters every two weeks; and
- Change carbon filters every 4 to 6 months.

The care home development team shall ensure that the above maintenance requirements are included within the buildings Operation and Maintenance manuals so that the care home management team can implement the maintenance schedule indefinitely.

5.0 Conclusion

The design and installation of the kitchen supply and extract system at the proposed care home in Caversham shall ensure that Odours and Noise are controlled using the recommendations of *Defra Guidance on the Control of Odour and Noise from commercial Kitchen Exhaust Systems*, so that neither residents of the care home, nor residents in the nearby community are adversely affected. Ongoing maintenance in line with the Defra recommendations will then ensure that the system remains as designed and installed.

6.0 Appendix A – Proposed Kitchen Ventilation Layout Plan



- NOTES:
1. BACKGROUND DRAWINGS BASED ON PRP ARCHITECTS DRAWINGS: AA7440 2003 REV --.
 2. DESIGN TO BE UNDERTAKEN IN ACCORDANCE WITH THE PERFORMANCE SPECIFICATION, ROOM DATA SHEETS & ALL APPLICABLE GUIDES & STANDARDS.
 3. DRAWING IS INDICATIVE ONLY AND DEMONSTRATES THE CONCEPTUAL DESIGN INTENT FOR FURTHER DEVELOPMENT BY THE APPOINTED SERVICES CONTRACTOR. ALL EQUIPMENT DETAILS TO BE VERIFIED BY THE DESIGN AND BUILD CONTRACTOR DURING DETAILED DESIGN.
 4. DESIGN TO BE UNDERTAKEN IN ACCORDANCE WITH BUILDINGS REGULATIONS AND DW/172 RECOMMENDATIONS..
 5. THIS DRAWING HAS BEEN PRODUCED IN THE ABSENCE OF SPECIALIST KITCHEN DETAILS AND AS SUCH, INTERNAL DUCTWORK ROUTES SHOWN ARE INDICATIVELY ONLY.

THE CONCEPTUAL DESIGN DOCUMENTATION IS BASED ON PERFORMANCE DUTIES WHICH REPRESENT AN AGREED SERVING STRATEGY AND THE MINIMUM PERFORMANCE STANDARDS TO BE ACHIEVED. THE DRAWINGS PRODUCED BY HARNISS ARE INTENDED TO STEER THE D&B CONTRACTOR TOWARDS AN APPROPRIATE SOLUTION TO MEET THE EMPLOYERS REQUIREMENTS AND THUS PROVIDE GUIDANCE AS TO THE DESIGN INTENT. ANY SIZES SHOWN ON THESE INTENT DRAWINGS ARE INDICATIVE AND ONLY FOR THE PURPOSE OF IDENTIFYING INITIAL SPATIAL COORDINATION WITH THE BUILDING ARCHITECTURE. THE DESIGN AND BUILD CONTRACTOR MUST SATISFY THEMSELVES THAT THE SOLUTIONS OFFERED BY THEM, BASED ON THE DESIGN INTENT, CAN BE ACHIEVED WITHIN THE PROJECT CONSTRAINTS. THE DESIGN AND BUILD CONTRACTOR IS REQUIRED UNDER THE CONTRACT TO SUBMIT DRAWINGS AND TECHNICAL SUBMITTALS FOR ALL ASPECTS OF THEIR DETAILED DESIGN FOR REVIEW AND COMMENT PRIOR TO COMMENCEMENT OF THE WORKS.

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PROJECT
PROPOSED CARE HOME
HENLEY ROAD, CAVERSHAM

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M&E SERVICES
KITCHEN VENTILATION SERVICES LAYOUT

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