MARTIN
ENVIRONMENTAL
SOLUTIONS LTD

Odour Assessment for Proposed conversion of the first floors to create an additional floor and four Flats at 41-43 Wellgate, Clitheroe, BB7 1LU.

Prepared for:

Peter Hitchen Architects,
Marathon House,
The Sidings Business Park,
Whalley,
BB7 9SE.

May 2026

Contents

1. Introduction

1.1. Martin Environmental Solutions has been commissioned to undertake an acoustic survey and assessment to support a planning application for the change of use to the first floor and creation of a second floor to create four flats at 41-43 Wellgate, Clitheroe, BB7 1LU.

Site Location and Context

1.2. The development site is situated to the north of Wellgate in the centre of Clitheroe. The ground floor of the site is commercial as is the rest of the terrace block which stretches along the road to the west . additional commercial units are located on the far side of the road to the south. To the east a cut through runs along the side of the building accessing a unit to the rear, north and allowing pedestrians access to the supermarket to the northeast. Adjacent to the east is the Dog and Partridge public house.

1.3. An aerial Photograph is enclosed in Figure 1, together with a proposed layout drawing in Figure 2.

1.4. The report has been produced to clarify the potential impact on the proposed development and to identify mitigation measures if required to ensure the development is appropriate in terms of odour impact.

2. Policy and Guidance

2.1. The Government sets out its policy in relation to planning in the National Planning Policy Framework (NPPF). The NPPF states that planning policies and decisions should "preventing new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability"; and "In preparing plans to meet development needs, the aim should be to minimise pollution and other adverse effects on the local and natural environment".

2.2. While Odour is not specifically mentioned in is implied by the above and the Planning Practice Guidance (PPG) note issued by the government on Air Quality states "odour and dust can also be a planning concern, for example, because of the effects on local amenity" it continues to state, "mitigation options where necessary, will depend on the proposed development and should be proportionate to the likely impact".

2.3. Before an odour can be present an adverse effect, there must be exposure to the odour and therefore a source, a pathway, and a receptor without these three links no exposure can occur. In the case of this application the source is the take-away. The pathway is the air, and the receptor are the occupants of the nearby existing dwellings.

2.4. In assessing the impact of odour on or from a development the scale of the exposure and therefore impact is determined by the parameters collectively known as the FIDO factors (Frequency, Intensity, Duration and Offensiveness) In addition the sensitivity of the receptor (location) will determine the magnitude of the exposure. Factors that influence the magnitude of a commercial odour problem include the size/volume of the cooking facility, the type of food being prepared, and the type of cooking appliances being used.

2.5. Furthermore, guidance on assessing the impact of extraction systems from commercial kitchens has been published by EMAQ *'Control of Odour and Noise from Commercial Kitchen Extraction Systems' 2018*.

2.6. This document details a methodology which should be followed to assess the potential impact from commercial kitchen extraction systems on nearby land uses and how to identify suitable control and mitigation measures as required.

2.7. Given the nature of the development some consideration to this guidance and the methodology and control measures within it is considered appropriate.

3. The Assessment

The development

3.1 The proposed development consists change to the first floor and an extension to create a second floor to the property resulting in four flats. The ground floor will be retained as a commercial shop with a kitchen and extraction fan.

3.2 Figure 2 below provides an overview of the proposed development.

Assessment

3.3 The ground floor of the property has the potential to emit odours which may impact on the development site, i.e. the first and second floor flats, suitable control measures are required to eliminate any potential adverse impact on neighbouring properties'.

3.4 The prevailing wind direction for the area is west, south-westerly, obtained from the long-term monitoring station at Lea Town & Higham, Appendix A. Taking any odours over the main road and bus stop and away from adjacent neighbours.

3.5 An assessment has been undertaken in line with the EMAQ *'Control of Odour and Noise from Commercial Kitchen Extraction Systems' 2018 guidance document.*

3.6 The extraction system is to terminate 1m above the eaves of the building, a slight increase from the current position and terminating via a jet cowl to increase the final efflux velocity and aid dispersion. Sensitive receptors locations will be within 20m of the site i.e. the new flats. The size of the development is considered to be small. The food to be served has been identified as Cantonese cuisine.

3.7 The assessment is shown below and the resulting score is 25 or high risk has been awarded.

Impact Risk	Odour Control Requirement	Significance Score*
Low to Medium	Low level odour control	Less than 20
High	High level odour control	20 to 35
Very high	Very high level odour control	more than 35

Criteria	Score	Score	Details
Dispersion	Poor	10	Discharging above the eaves, via jet cowl
Proximity to Receptors	Close	10	Closest sensitive receptor 20m away
Size of Kitchen	Small	1	Small takeaway
"Cooking type"	Low	4	Cantonese.
Total	High	**25**	

3.8 It is always better to treat and prevent odour emission rather than trying to stop them becoming a problem at the new development. In this case the whole building is owned by the same company and this approach is possible.

3.9 It is therefore recommended that in addition to lifting the extraction system to terminate above the eaves via a jet cowl the system is fitted with the following mitigation measures to reduce potential odours, in accordance to the EMAQ document.

- Baffle filters within the canopy hoods, capable of reducing 65-80% of grease loading.
- A fine filter to remove grease
- Carbon filter to remove odour, (0.2-0.4 sec residence time) a separate maintenance schedule in accordance with the manufacturers recommendations will be required once the specific unit has been identified.
- Jet cowl on the final exit from the flue to increase dispersion vertically.

3.10 The above will reduce any potential odour emissions improving the situation for all neighbouring properties, while the jet cowl will aid dispersion.

3.11 In addition to the above the accompanying acoustic assessment has identified the need to keep windows closed to provide suitable internal sound levels. This will require an alternative ventilation system to ensure the requirements of the Building Regulations are achieved with respect to Approved Document F, background and ventilation and Approved Document O overheating.

3.12 Any inlet points should be located away from the extraction system. Given the layout of the site tis could be from within the roof space or on the far side of the building.

4 Conclusion

4.1 A consideration of the potential odour emissions from the site has been undertaken and as a result it is recommended that a high degree of grease and odour control are include within the design of the extraction system.

4.2 This will include the use of;

Baffle filters
Fine Filters
Carbon filter
Jet Cowl & increased height

to remove any grease or odour within the extracted air.

4.3 The inclusion of the above mitigation measures, along with the required closed windows and alternative ventilation system to address acoustic concerns, will ensure that proposed development is not subjected to any adverse odours from the ground floor commercial kitchen.

4.4 The proposed improvements to the system will also have the benefit of reducing any odour or grease impact on neighbouring properties above the current operations, thus the development will have a positive impact on the neighbouring properties in respect of potential odour emissions.

Figure 1 – Aerial Photograph

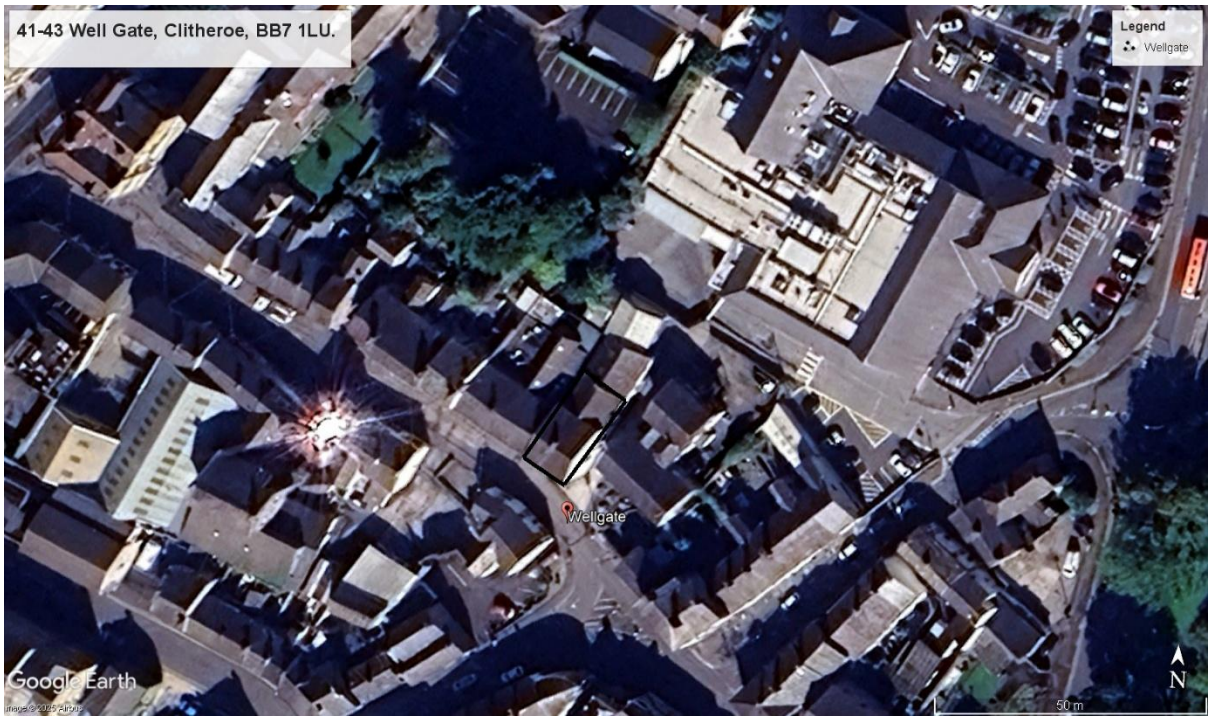


Figure 2 – Proposed Layout Plan

Appendix A – Prevailing Wind Direction

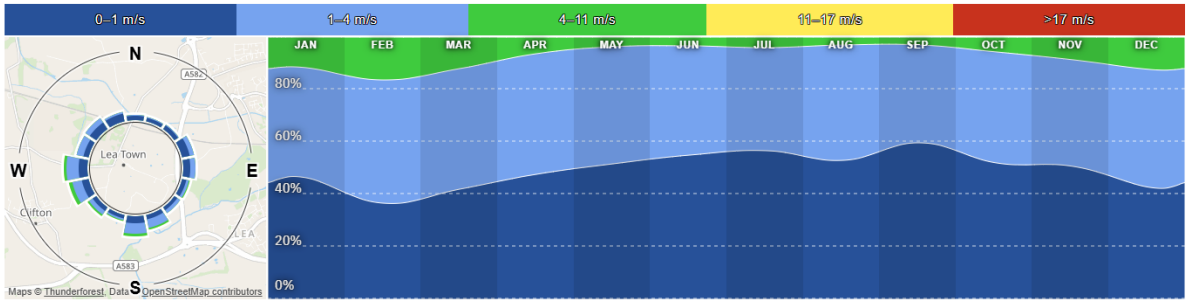
Lea Town

Monthly wind speed statistics and directions for Lea Town

Dominant wind direction

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SW	SW	SW	SSW	WSW	WSW	WSW	WSW	SW	SSW	SSW	SSW

Monthly wind direction and strength distribution



Higham

Dominant wind direction

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SW	SW	SW	ESE	SSW	SW	WSW	WSW	WSW	SSW	SW	SW

Monthly wind direction and strength distribution