



Odour Assessment

C11035

Library Parade
Crockhamwell Road
Woodley
Reading
RG5 3LX

Prepared for

Hanslink Limited
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Air Quality

Executive Summary	
Site Address	Library Parade, Crockhamwell Road, Woodley, Reading, RG5 3LX
Omnia was commissioned by Hanslink Limited to undertake an Odour Assessment in support of a mixed-use development comprising the retention of ground floor retail units and the addition of fourteen (14no.) residential apartments across the first, second and third floor at Library Parade, Crockhamwell Road, Woodley, Reading, RG5 3LX. Odour emissions from one of the existing retail units that will be retained under the scheme, which currently operates as a café, have the potential to result in impacts at the proposed residential units. As such, an Odour Assessment was undertaken in order to evaluate potential effects and determine the requirement for any mitigation to control impacts to an acceptable level. The risk of potential impact was assessed using a standard industry method. This involved consideration of a number of factors relating to the café including the scale and nature of the potential emission sources, the location of the proposed residential units and the prevailing meteorological conditions. Following consideration of the relevant factors, overall effects at the proposed residential units as a result of emissions from the café were not predicted to be significant. As such, potential impacts are not considered to represent a constraint to the proposals and it is concluded that no further mitigation is required in order to protect residential amenity.	

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1.0 INTRODUCTION

1.1 Background

Omnia was commissioned by Hanslink Limited to undertake an Odour Assessment in support of a mixed-use development comprising the retention of ground floor retail units and the addition of fourteen (14no.) residential apartments across the first, second and third floor at Library Parade, Reading, RG5 3LX.

The Odour Assessment was undertaken by Omnia's partner Redmore Environmental Ltd.

Odour emissions from one of the existing retail units that will be retained under the scheme, which currently operates as a café, have the potential to result in impacts at the proposed residential units. As such, an Odour Assessment was undertaken in order to evaluate potential effects and determine the requirement for any mitigation to control impacts to an acceptable level.

1.2 Proposed Development

The proposed development is located at Library Parade, Crockhamwell Road, Woodley, RG5 3LX, at approximate National Grid Reference (NGR): 476203, 173231. Reference should be made to Figure 1 within Appendix I for a map of the site and surrounding area.

The existing site comprises a number of retail units at ground floor level, with a music studio above. The retail units include a podiatrist, a small café and bar, and a hair salon. Reference should be made to Table 1 for a description premises that will be retained as part of the development.

Table 1 Description of Existing Retail Units

Premises Name	Opening Hours	Description of Activities
Woodley St Clinic	Monday to Thursday - 8.30am to 7pm Friday - 8.30am to 5pm Saturday - 8am to 1pm Sunday - Closed	Podiatry clinic
Crumbs Café	Monday to Thursday - 8.30am to 5pm Friday and Saturday - 8.30am to 11.30pm Sunday - 9.30am to 4pm	Café serving a limited menu of sandwiches, toasties, salads and jacket potatoes. Cooking methods include reheating and preparation of food using a tabletop oven, a standard oven for baguettes and bread, and a small microwave On Friday and Saturday evenings, the café serves cocktails alongside cold snack plates
Inspirations Hair and Beauty	Monday - 9am to 5pm Tuesday - 9am to 5.30pm Wednesday - 9am to 7.30pm Thursday - 9am to 6pm Friday - 9am to 7pm Saturday - 8.30 am to 5pm Sunday - Closed	Hairdressers and beauty salon

The proposed development comprises the creation of a mixed-use building consisting of the retention of the existing 3 no. retail units at ground floor level and the addition of fourteen (14no.) apartments on first, second and third floor levels, including the erection of three and four storey rear extensions with associated infrastructure.

1.3 Objectives

Planning permission for the development was granted by Wokingham Borough Council (WBC) in March 2023, subject to a number of conditions (reference: 230743). These include the following in relation to odour:

"14. Odour – No development shall take place until a scheme implementing best practice for protecting future occupiers of the residential flats from commercial odour, including all plant and machinery in connection with any commercial kitchen/extraction/ventilation/flues, shall be submitted to and approved in writing by the local planning authority. The mitigation measures shall be retained and maintained thereafter.

Reason: In the interests of residential amenities."

Following submission, a Section 73 application (reference: 241468) to vary condition 2 and remove condition 22 of the original planning application has been approved. It should be noted that the Section 73 application does not affect the inputs used to complete the Odour Assessment and that Condition 14 - Odour, is still required to be addressed.

As detailed in Section 1.2, the existing retail units at the site include Crumbs Café. This has the potential to result in odour emissions during normal operation and associated impacts at the proposed residential units. As such, an Odour Assessment was undertaken in order to evaluate potential effects and determine whether any mitigation is required to control impacts to an acceptable level. This is detailed in the following report.

It should be noted that Woodley St Clinic and Inspirations Hair and Beauty, the two other retail units which will be retained under the scheme, are not anticipated to result in odour emissions during normal operation and have therefore not been considered further within this assessment.

1.4 Acronyms

All acronyms used within this report are defined in the Abbreviations listings, set out in Section 7.

1.5 Confidentiality

This report has been prepared solely for the use of the Client. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from Omnia; a charge may be levied against such approval.

2.0 ODOUR BACKGROUND

2.1 Odour Definition

The Institute of Air Quality Management (IAQM) guidance¹ defines odour as:

"[...] the human olfactory response (perception followed by psychological appraisal) to one, or more often a complex mixture of, chemical species in the air."

The stated definition is considered to be relevant in the context of this assessment.

2.2 Odour Impacts

The magnitude of odour impact depends on a number of factors and the potential for complaints varies due to the subjective nature of odour perception. The FIDOL acronym, is a useful reminder of the factors that will determine the degree of odour pollution. These are described by the IAQM² as follows:

- **Frequency** - how often an individual is exposed to odour;
- **Intensity** - the individual's perception of the strength of the odour;
- **Duration** - the overall duration that individuals are exposed to an odour over time;
- **Odour unpleasantness** - odour unpleasantness describes the character of an odour as it relates to the 'hedonic tone' (which may be pleasant, neutral or unpleasant) at a given odour concentration/intensity. This can be measured in the laboratory as the hedonic tone, and when measured by the standard method and expressed on a standard nine-point scale it is termed the hedonic score; and,
- **Location** - the type of land use and nature of human activities in the vicinity of an odour source. Tolerance and expectation of the receptor. The 'Location' factor can be considered to encompass the receptor characteristics, receptor sensitivity, and socio-economic factors.

It is important to note that even infrequent emissions may cause loss of amenity if odours are perceived to be particularly intense or offensive.

The **FIDOL** factors can be further considered in relation to the following and the potential for an odour emission to cause loss of amenity, annoyance or nuisance:

- The rate of emission of the compound(s);
- The duration and frequency of emissions;
- The time of the day that this emission occurs;
- The prevailing meteorology;
- The sensitivity of receptors to the emission i.e. whether the odorous compound is more likely to cause an impact, such as the sick or elderly, who may be more sensitive;
- The odour detection capacity of individuals to the various compound(s); and,
- The individual perception of the odour (i.e. whether the odour is regarded as unpleasant). This is greatly subjective and may vary significantly from individual to individual. For example, some individuals may consider some odours as pleasant, such as petrol, paint and creosote.

2.3 Legislative Control

The main requirement with respect to odour control from premises not controlled under the Environmental Permitting (England and Wales) Regulations (2016) and subsequent amendments, such as commercial kitchens, is that provided in Section 79 of Part III of the Environmental Protection Act (1990). The Act defines nuisance as:

¹ Guidance on the Assessment of Odour for Planning v1.1, IAQM, 2018.

² Guidance on the Assessment of Odour for Planning v1.1, IAQM, 2018.

"Any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance."

Enforcement of the Act, in regard to nuisance, is currently under the jurisdiction of the local Environmental Health Department, whose officers are deemed to provide an independent evaluation of nuisance. If the Local Authority is satisfied that a statutory nuisance exists, or is likely to occur or happen again, it must serve an Abatement Notice under Part III of the Environmental Protection Act (1990). The only defence is to show that the process to which the nuisance has been attributed and its operation are being controlled according to best practicable means.

The legislative controls described above were considered as necessary throughout the undertaking of the assessment.

2.4 National Planning Policy

The revised National Planning Policy Framework³ (NPPF) was published in December 2023 and sets out the Government's planning policies for England and how these are expected to be applied.

The purpose of the planning system is to contribute to the achievement of sustainable development. In order to ensure this, the NPPF recognises three overarching objectives including the following of relevance to odour:

"c) An environmental objective - to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy."

Chapter 12 of the NPPF details objectives in relation to achieving well-designed place. It states that:

"Planning policies and decisions should ensure that developments

f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesions and resilience."

The implications of the NPPF have been considered throughout this assessment.

2.5 Local Planning Policy

The Wokingham Borough Core Strategy⁴ was adopted by WBC on 29th January 2010. A review of the document identified the following policy in relation to odour:

"CP1 - Sustainable Development

Planning Permission will be granted for development proposals that:

[...]

8) Avoid areas where pollution (including noise) may impact upon the amenity of future occupiers; [...]"

The above policy has been considered throughout the undertaking of the assessment.

³ NPPF, Ministry of Housing, Communities and Local Government, 2023.

⁴ Wokingham Borough Core Strategy, WBC, 2010.

3.0 METHODOLOGY

3.1 Introduction

The proposals have the potential to expose future residents to any odour emissions associated with cooking processes at Crumbs Café, which may lead to loss of amenity. An Odour Assessment has therefore been undertaken in order to evaluate potential effects and determine whether any mitigation is required to control impacts to an acceptable level.

The EMAQ+ and Department for Environmental, Food and Rural Affairs (DEFRA)⁵ document 'Control of Odour and Noise from Commercial Kitchen Exhaust Systems' provides an update to the 2005 guidance⁶ produced by DEFRA and specifies a methodology for assessing the risk of impact associated with emissions from commercial premises which include kitchen extract systems, in order to assist with identification of appropriate mitigation.

The Crumbs Café premises does not currently include an extraction system as it serves a small menu of sandwiches, toasties, salads and jacket potatoes and cooking methods are limited to reheating and preparation of food using a tabletop oven, a standard oven for baguettes and bread, and a small microwave. As there is no extraction currently in place at the premises, application of the EMAQ+ and DEFRA⁷ guidance is not considered appropriate as the associated odour risk scoring criteria cannot be fully applied.

As there is no extraction in place at the café, the potential odour emission source is considered to be fugitive release via any openings serving the premises, such as doorways and windows. The potential risk of adverse effects associated with these emissions has been assessed using the IAQM 'Guidance on the Assessment of Odour for Planning v1.1'⁸ document which includes methodology for assessment of impacts as a result of fugitive emissions. As such, the guidance is considered appropriate for use as part of the assessment. The relevant process is summarised in the following Sections.

3.2 Background

The basic concept of risk assessment is that the overall risk depends on the probability of an event occurring together with the likely consequences if it was to occur. For odour assessments the probability can be considered as the likelihood of exposure (impact), and the consequence can be considered to be the effect on the receptor if that exposure (impact) took place. These two facets can be summarised by the source-pathway-receptor concept.

Behind the source-pathway-receptor concept, is the fundamental relationship:

$$\text{Effect} \approx \text{Dose} \times \text{Response}$$

In the specific case of odour assessments, the dose can be considered equivalent to the odour exposure, or impact. This will be determined by FIDO of the FIDOL factors. The effect is the result of the changes on specific receptors (people in the case of odour) taking into account their sensitivities (i.e. responsiveness to odour), the L (location) in FIDOL is to categorise the sensitivity.

The IAQM guidance states that a qualitative risk-based approach is appropriate for:

- Screening of odour impacts;
- Development proposals likely to have a low risk of adverse effects;

⁵ Control of Odour and Noise from Commercial Kitchen Exhaust Systems, EMAQ+, 2022.

⁶ Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems, DEFRA, 2005.

⁷ Control of Odour and Noise from Commercial Kitchen Exhaust Systems, EMAQ+, 2022.

⁸ Guidance on the Assessment of Odour for Planning v1.1, IAQM, 2018.

- Situations where there is insufficient information to carry out detailed predictive dispersion modelling;
- Situations where the information has wide uncertainties and its use as input to a detailed predictive dispersion model would be at best a waste of time, money and effort or, worse, would lead to an illusory and false impression of accuracy and precision in the numbers generated; and,
- When the model is not able to properly represent the reality of the situation being assessed, e.g. if the odour effects are likely to be significantly influenced by accidental, unexpected, or unknown releases. In such instances a qualitative estimate may be more appropriate, on the basis that it is better to be broadly correct than precisely wrong.

It is considered that all the criteria are met for this project. As such, a qualitative assessment methodology was deemed appropriate.

3.3 Risk Assessment Procedure

The first step in the assessment is to estimate the odour generating potential of the site activities. This is termed the Source Odour Potential, which takes into account three factors:

- The scale (magnitude) of the release from the odour source, taking into account the effectiveness of any odour control or mitigation measures that are already in place. This involves judging the relative size of the release rate after mitigation and taking account of any pattern of release (e.g. intermittency);
- How inherently odorous the emission is. In some cases it may be known whether the release has a low, medium or high Odour Detection Threshold (ODT). This is the concentration at which an odour becomes detectable to the human nose. In most instances the odours released by a source will be a complex mixture of compounds and the detectability will not be known. However, for some industrial processes the odour will be due to one or a small number of known compounds and the detection thresholds will be a good indication of whether the release is highly odorous or mildly odorous; and,
- The relative pleasantness/unpleasantness of the odour.

Using the example risk ranking in Table 2, the Source Odour Potential can be categorised as **small**, **medium** or **large**.

Table 2 Source Odour Potential

Source Odour Potential	Comments
Large	Magnitude - Larger Environmentally Permitted processes of odorous nature or large Sewage Treatment Works (STWs); materials usage hundreds of thousands of tonnes/m³ per year; area sources of thousands of m². The compounds involved are very odorous (e.g. mercaptans), having very low ODTs where known Unpleasantness - processes classed as "Most offensive" in Environment Agency (EA) Guidance H4⁹; or (where known) compounds/odours having unpleasant (-2) to very unpleasant (-4) hedonic score Mitigation/control - open air operation with no containment, reliance solely on good management techniques and best practice
Medium	Magnitude - smaller Environmentally Permitted processes or small STWs; materials usage thousands of tonnes/m³ per year; area sources of hundreds of m². The compounds involved are moderately odorous Unpleasantness - processes classed in EA Guidance H4 as "Moderately offensive"; or (where known) odours having neutral (0) to unpleasant (-2) hedonic score Mitigation/control - some mitigation measures in place, but significant residual odour remains
Small	Magnitude - falls below Environmental Permit Part B threshold; materials usage

⁹ H4: Odour Management, EA, 2011.

Source Odour Potential	Comments
	hundreds of tonnes/m3 per year; area sources of tens m2. The compounds involved are only mildly odorous, having relatively high ODTs where known Unpleasantness - processes classed as "Less offensive" in EA Guidance H4; or (where known) compounds/odours having neutral (0) to very pleasant (+4) hedonic score Mitigation/control - effective, tangible mitigation measures in place leading to little or no residual odour

The next step is to estimate the effectiveness of the pollutant pathway as the transport mechanism for odour through the air to the receptor, versus the dilution/dispersion in the atmosphere. Any factor that increases dilution and dispersion of the plume as it travels from source to receptor will reduce the concentration at the end point, and hence reduce exposure. Important factors for consideration are:

- The distance between sensitive receptors and the odour source;
- Whether receptors are downwind with respect to the prevailing wind direction. Odour episodes often tend to occur during stable atmospheric conditions with low wind speed, which gives poor dispersion and dilution. Receptors close to the source in all directions can be affected under these conditions. When circumstances are not calm, it will be the downwind receptors that are affected. As such, receptors that are downwind with respect to the prevailing wind direction tend to be at higher risk of odour impact;
- The effectiveness of the point of release in promoting good dispersion e.g. releasing emissions from a high stack will increase the pathway, dilution and dispersion; and,
- The topography and terrain between the source and receptor. The presence of topographical features such as hills and valleys, or urban terrain features such as buildings, can affect air flow and therefore increase, or inhibit, dispersion and dilution.

Using the example risk ranking in Table 3, the pollutant pathway from source to receptor can be categorised as **ineffective**, **moderately effective**, or **highly effective**.

Table 3 Pathway Effectiveness

Source Odour Potential	Comments
Highly effective	Distance - receptor is adjacent to the source/site; distance well below any official set-back distances Direction - high frequency of winds from source to receptor, or, qualitatively, receptors downwind of source with respect to prevailing wind Effectiveness of dispersion/dilution - open processes with low-level releases, e.g. lagoons, uncovered effluent treatment plant, landfilling of putrescible wastes
Moderately effective	Distance - receptor is local to the source Where mitigation relies on dispersion/dilution - releases are elevated, but compromised by building effects
Ineffective	Distance - receptor is remote from the source; distance exceeds any official set-back distances Direction - low frequency of winds from source to receptor, or, qualitatively, receptors upwind of source with respect to prevailing wind Where mitigation relies on dispersion/dilution - releases are from high level (e.g. stacks, or roof vents greater than 3m above ridge height) and are not compromised by surrounding buildings

The sensitivity of the receiving receptor is defined based on the criteria shown in Table 4.

Table 4 Odour Receptor Sensitivity

Sensitivity	Percentage Odour Time (t_{124})
High	Surrounding land where: Users can reasonably expect enjoyment of a high level of amenity; and, People would reasonably be expected to be present here continuously, or at least regularly for extended periods, as part of the normal pattern of use of the land Examples may include residential dwellings, hospitals, schools/education and tourist/cultural
Medium	Surrounding land where: Users would expect to enjoy a reasonable level of amenity, but would not reasonably expect to enjoy the same level of amenity as in their home; or, People would not reasonably be expected to be present here continuously or regularly for extended periods as part of the normal pattern of use of the land Examples may include places of work, commercial/retail premises and playing/recreation fields
Low	Surrounding land where: The enjoyment of amenity would not reasonably be expected; or, There is transient exposure, where the people would reasonably be expected to present only for limited periods of time as part of the normal pattern of use of the land Examples may include industrial use, farms, footpaths and roads

The estimates of Source Odour Potential and Pathway Effectiveness are considered together to predict the risk of odour exposure (impact) at the receptor location, as shown by the matrix in Table 5.

Table 5 Risk of Odour Exposure

Pathway Effectiveness	Source Odour Potential		
	Small	Medium	Large
Highly effective	Low	Medium	High
Moderately effective	Negligible	Low	Medium
Ineffective	Negligible	Negligible	Low

The final step is to determine the significance of odour effect at the specified receptor location through the interaction between sensitivity and risk, as outlined in Table 6.

Table 6 Significance of Odour Effect

Risk of Odour Exposure	Receptor Sensitivity		
	Low	Medium	High
High	Slight	Moderate	Substantial
Medium	Negligible	Slight	Moderate
Low	Negligible	Negligible	Slight
Negligible	Negligible	Negligible	Negligible

The IAQM guidance¹⁰ states that an assessment must reach a conclusion on the likely significance of the predicted impact. Where the overall effect is **moderate** or **substantial**, the effect is likely to be considered **significant**, whilst if the effect is **slight** or **negligible**, the impact is likely to be considered **not significant**. It should be noted that this is a binary judgement of either it is **significant** or it is **not significant**. This has been considered to determine the overall significance of potential odour effects at the residential units associated with the development.

The IAQM guidance recognises that assessment of odour requires some degree of professional judgement¹¹. Qualitative methodologies such as those utilised within this report provide guidance for assessing potential impacts. However, professional judgement should be exercised in order to take account of the specific details which are unique to each development. This has been considered as necessary throughout the assessment.

¹⁰ Guidance on the Assessment of Odour for Planning v1.1, IAQM, 2018.

¹¹ Guidance on the Assessment of Odour for Planning v1.1, IAQM, 2018.

4.0 BASELINE

4.1 Introduction

Existing conditions in the vicinity of the site were identified in order to provide a baseline for assessment. These are detailed in the following Sections.

4.2 Site Description

The area surrounding the site comprises a mix of residential, retail and other uses, including a Lidl retail store on the ground floor of the building to the north on the opposite side of Library Parade, with the Woodley Centre Surgery at first floor level and apartments at second floor level. To the east is a waste recycling centre within the Council car park. To the south-east is a pedestrian access to The Ambleside Centre and Beechwood Primary School beyond which lies a single storey building containing a Citizens Advice beyond. The library building lies further to the east.

4.3 Potential Odour Sources

The Crumbs Café premises has the potential to result in fugitive odour emissions during normal operation. This is described further in Table 7.

Table 7 Potential Emission Sources

Odour Source	Potential Emissions
Crumbs Café	The café serves a limited menu of sandwiches, toasties, salads and jacket potatoes. Cooking methods include reheating and preparation of food using a tabletop oven, a standard oven for baguettes and bread, and a small microwave. On Friday and Saturday evenings, the café serves cocktails alongside cold snack plates The existing café does not include a kitchen ventilation system due to the food items served and the associated cooking methods which do not require extraction. However, there may be the potential for fugitive odour emissions from any door and windows serving the premises if they are left open

4.4 Meteorological Conditions

The potential for atmospheric emissions to impact at sensitive locations depends significantly on the meteorology, particularly wind direction, during release. In order to consider prevailing conditions at the site, review of historical weather data was undertaken. Meteorological data used in the assessment was taken from Farnborough meteorological station at NGR: 485687, 154048, which is approximately 24km south-east of the site. It is considered that conditions are likely to be reasonably similar over a distance of this magnitude and the information is a suitable source of data for an assessment of this nature.

Meteorological data was obtained from Farnborough meteorological station over the period 1st January 2019 to 31st December 2023 (inclusive). This is summarised in Table 8. Reference should be made to Figure 2 for a wind rose of the meteorological data.

Table 8 Wind Frequency Data

Wind direction (°)	Frequency of Wind (%)
345 - 15	3.89
15 - 45	5.36
45 - 75	6.77
75 - 105	4.46
105 - 135	3.67
135 - 165	5.91
165 - 195	9.26
195 - 225	17.77
225 - 255	18.93
255 - 285	9.49
285 - 315	6.33
315 - 345	4.92
Sub-Total	96.75
Calms	2.41
Missing/Incomplete	0.83

As shown in Table 8, the prevailing wind direction at the site is from the south-west. Winds from the north and east are relatively infrequent, which is indicative of conditions throughout the majority of the UK.

All meteorological data used in the assessment was provided by Atmospheric Dispersion Modelling Ltd, which is an established distributor of meteorological data within the UK.

5.0 ASSESSMENT

The odour risk at the residential units associated with the development was assessed in accordance with the IAQM methodology. The first step was to classify the Source Odour Potential of the source identified in Table 7.

The Source Odour Potential was categorised as **small** for the following reasons:

- Crumbs Café is not controlled under the Environmental Permitting (England and Wales) Regulations (2016) and subsequent amendments;
- The food types served by the café include sandwiches, toasties, jacket potatoes and salads, prepared within a tabletop Merrychef E2S, a standard oven used solely for bread products and a microwave that is infrequently used for reheating food. These food types and cooking methods are considered unlikely to result in significant odour emissions;
- Cooked food odours would be considered 'less offensive', in accordance with EA Guidance H4¹²;
- Most cooked food odours have positive hedonic scores; and,
- The premises are not continuously operational.

The pathway effectiveness was subsequently defined between the source and the residential units associated with development based on the distances between the locations and the prevailing meteorological conditions. This is summarised in Table 9.

Table 9 Odour Pathway Effectiveness

Source	Pathway Effectiveness	Justification
Crumbs Café	Highly effective	Proposed residential units are located in the immediate vicinity of the source, to the west and north-east The proposed residential units to the north-east of the café are situated downwind with respect to the prevailing wind direction at the site Potential for low level release of odours from any windows and doors serving the café

The above information has been used to assess odour risk at the proposed residential development as a result of emissions from Crumbs Café. This is summarised in Table 10.

Table 10 Odour Risk Assessment

Source	Source Odour Potential	Pathway Effectiveness	Exposure Risk	Sensitivity of Receptor	Effect Significance
Crumbs Café	Small	Moderately effective	Low	High	Slight

As shown in Table 10, the predicted odour effect significance was **slight** as a result of emissions from Crumbs Café.

The IAQM guidance states that only if the impact is **moderate** or **substantial**, the effect is considered **significant**. As such, potential impacts at the proposed residential units as a result of emissions from Crumbs Café are considered to be **not significant**, in accordance with the stated methodology.

The IAQM guidance indicates that mitigation is only likely to be required where odour effects are assessed as **significant**. The findings of the assessment indicated that potential impacts at the proposed residential units were **not significant** as a result of emissions from Crumbs Café. As such, it is concluded that no further mitigation

¹² H4: Odour Management, EA, 2011.

is required in order to protect the residential amenity of the development, in accordance with the IAQM guidance criteria.

6.0 SUMMARY

Omnia was commissioned by Hanslink Limited to undertake an Odour Assessment in support of a mixed-use development comprising the retention of ground floor retail units and the addition of fourteen (14no.) residential apartments across the first, second and third floor at Library Parade, Reading, RG5 3LX.

Odour emissions from Crumbs Café, one of the existing retail units that will be retained under the scheme, have the potential to result in impacts at the proposed residential units. As such, an Odour Assessment was undertaken in order to evaluate potential effects and determine the requirement for any mitigation to control impacts to an acceptable level.

The risk of potential impacts as a result of odour emissions was assessed using the IAQM methodology. This included consideration of the Source Odour Potential, Pathway Effectiveness and receptor sensitivity. The results of the assessment indicated the predicted effect significance was **slight** at the proposed residential units.

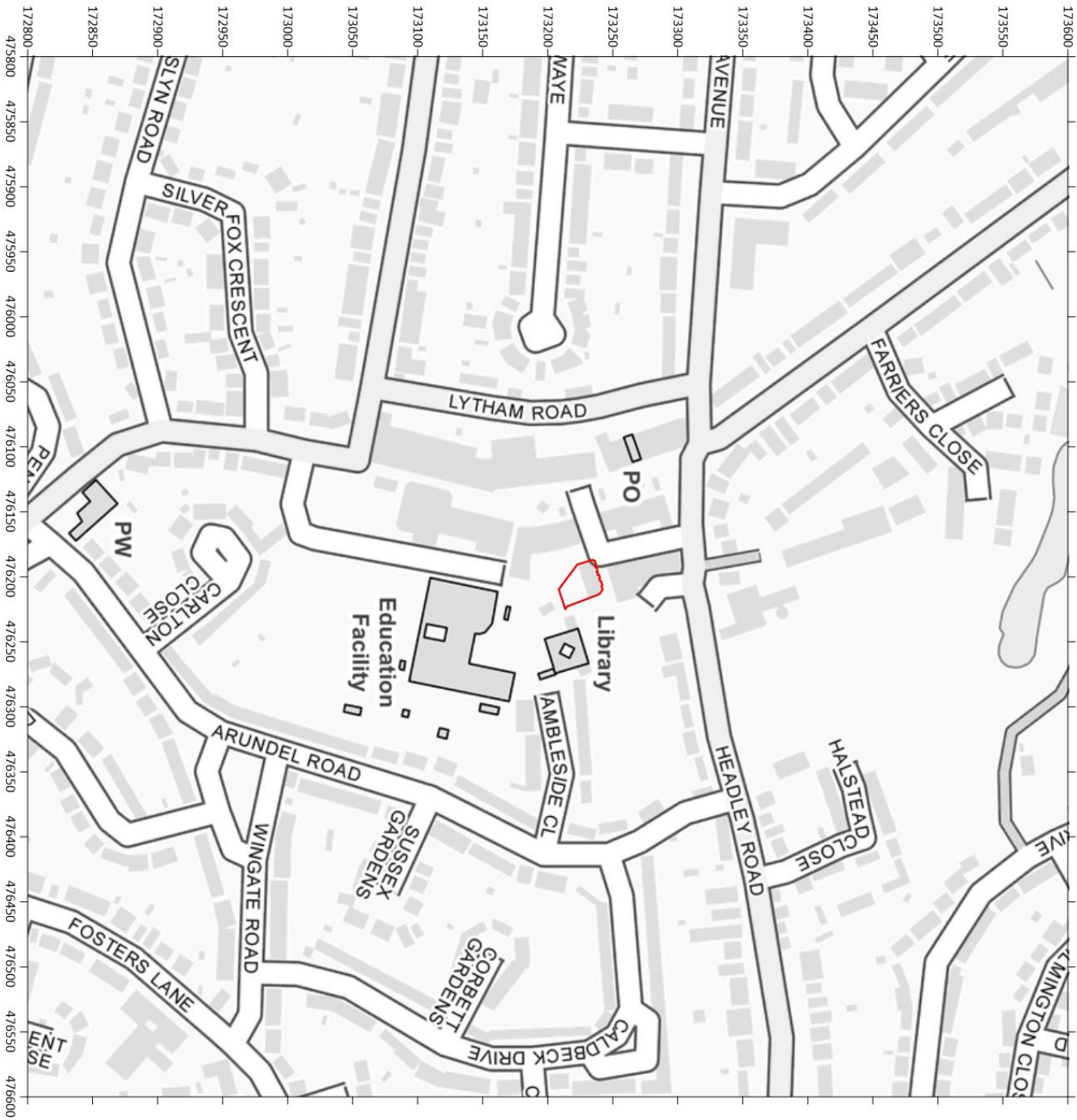
Following review of the relevant factors, overall effects as a result of emissions associated with the proposals are predicted to be **not significant** in accordance with the IAQM guidance criteria. As such, potential impacts are not considered to represent a constraint to the proposals and it is concluded that no further mitigation is required in order to protect residential amenity.

7.0 ABBREVIATIONS

DEFRA	Department for Environment, Food and Rural Affairs
IAQM	Institute of Air Quality Management
HEPA	High-Efficiency Particulate Arrestance
NGR	National Grid Reference
NPPF	National Planning Policy Framework
WBC	Wokingham Borough Council

APPENDIX I

Drawings



Legend

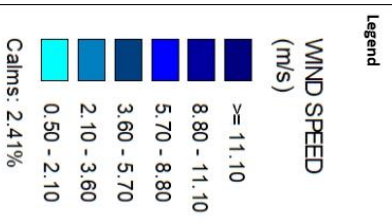
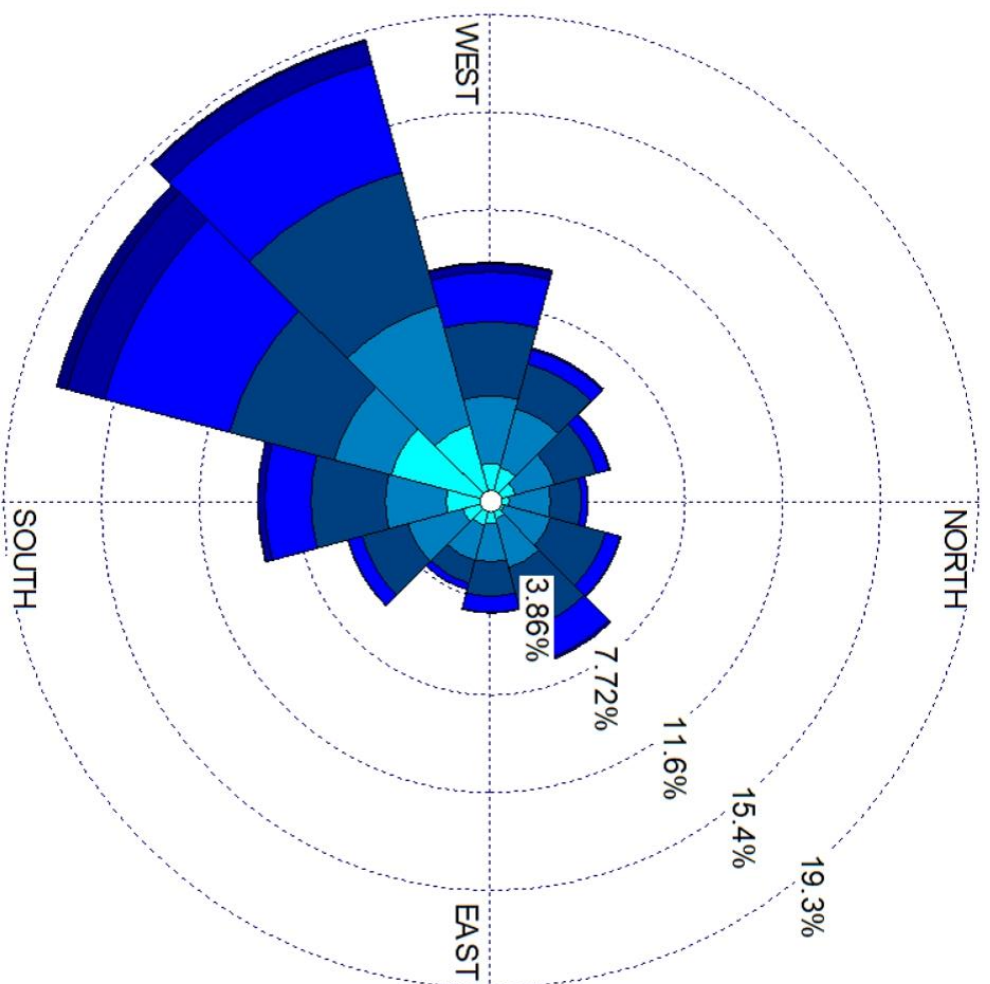


Site Boundary

Title
Figure 1 - Site Location Plan

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Title
Figure 2 - Wind Rose of 2019 to 2023
Farnborough Meteorological Data

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