

Assunnah Islamic Centre, 565A – 567A High Road,
London, N17 6SB

21 May 2026

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Executive Summary

AVAL Consulting Group Limited was commissioned to undertake an Air Quality Assessment and Dust Management Plan (AQADMP) in support of the planning application for the redevelopment of the Assunnah Islamic Centre, located at 565A-567A High Road, London, N17 6SB. This accompanies the Planning Application to the Local Authority, the London Borough of Haringey (LBH) for consent to undertake the proposed work at the site.

This report addresses potential air quality impacts associated with the proposed development from construction and earthworks in accordance with the Institute of Air Quality (IAQM) guidance on assessing impacts from demolition and construction activities. The proposed development is anticipated to generate a minimal trip change when operational; therefore, traffic related impacts associated with the proposed development are considered to be negligible.

The qualitative assessment of construction dust effects has been undertaken for the proposed scheme. The construction phase is predicted to have a 'Medium Risk' of nuisance and/or loss of amenity impacts due to dust nuisance. However, the risk of dust nuisance can be mitigated by implementing the appropriate mitigation measures listed in the Institute of Air Quality (IAQM) guidance in Appendix D.

A Dust Management Plan (DMP) has been developed to ensure on-site dust levels are routinely monitored to ensure that thresholds remain well below levels that could pose a risk to the nearby sensitive receptors. The DMP should be reviewed no more than 6 months to ensure its effectiveness is maintained.

As the proposed heating will be through Air-Source Heat Pumps (ASHP) as well as installing solar photovoltaic panels, there will be no building NO_x emissions and can therefore be considered air quality neutral. Both transport NO_x emissions and transport PM₁₀ emissions are below the transport emission benchmark; therefore, the development can be considered Air Quality Neutral.

In conclusion, the proposed development at 565A-567A High Road, London, N17 6SB is not considered to conflict with any national, regional, or local planning policy in relation to construction and operation phase dust and air quality nuisance; therefore, the development site is considered suitable for community and worship development.

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1 Introduction

1.1 Overview

AVAL Consulting Group Limited was commissioned to undertake an Air Quality Assessment (AQA) in support of the planning application at 565A-567A High Road, London, N17 6SB. This accompanies the Planning Application to the Local Authority, the London Borough of Haringey (LBH) for consent to undertake the proposed work at the site.

The proposed is for the redevelopment of the Assunnah Islamic Centre including partial demolition of later additions, retention, refurbishment, and adaptive reuse of the Locally Listed Building and construction of new buildings to improve capacity, flexibility, and community service provision.

The potential local air quality effects of the proposed development have been assessed using the latest planning guidance from the London Plan (GLA), Environmental Protection UK (EPUK), the Institute of Air Quality Management (IAQM)¹ and the Department for Environment, Food and Rural Affairs (Defra)².

This report addresses potential air quality impacts associated with the proposed development from construction and earthworks in accordance with the Institute of Air Quality (IAQM) guidance on assessing impacts from demolition and construction activities³ along with a Dust Management Plan (DMP) as per IAQM guidance⁴. Further assessment of the potential for traffic generated by the development to impact local air quality is also presented.

LBH, the local authority has one, borough wide Air Quality Management Area (AQMA) declared 2001. The application site is located within the AQMA. As such, the proposal may introduce future occupants to poor air quality and affect existing pollution levels in this sensitive area. An Air Quality Assessment was therefore undertaken in order to determine baseline conditions, consider potential effects as a result of the proposals and define any requirement for mitigation.

1.2 Objective

This report provides an assessment of the following key impacts associated with the constructional and operational phase of the proposed development:

- Nuisance, loss of amenity and health impacts associated with the construction phase of the development of sensitive receptors;
- Residential suitability of the proposed development location in terms of existing air quality;
- Changes in traffic-related pollutant concentrations associated with the operational phase of the proposed development;

¹ IAQM (2017): 'Land Use Planning and Development Control: Planning for Air Quality v1.2'.

² Defra (2022): 'Local Air Quality Management – Technical Guidance (TG22)'.

³ IAQM (2024): 'Guidance on the Assessment of Dust from Demolition and Construction v2.2'.

⁴ IAQM (2018): 'Guidance on Monitoring in the Vicinity of Demolition and Construction Sites v1.1'.

- Develop a Dust Management Plan to maintain dust impacts associated with the construction phase; and
- Air Quality Neutral Assessment associated with the proposed development.

1.3 Site Location

The National Grid Reference for the centre of the site is 533849, 190315. Figure 1.1 shows the proposed site location. The proposed development is located in an Air Quality Management Area (AQMA). There is an SSSI and a Ramsar/SPA approximately 1.2km east of the proposed development, but no Local Nature Reserves, NNR, SAC.

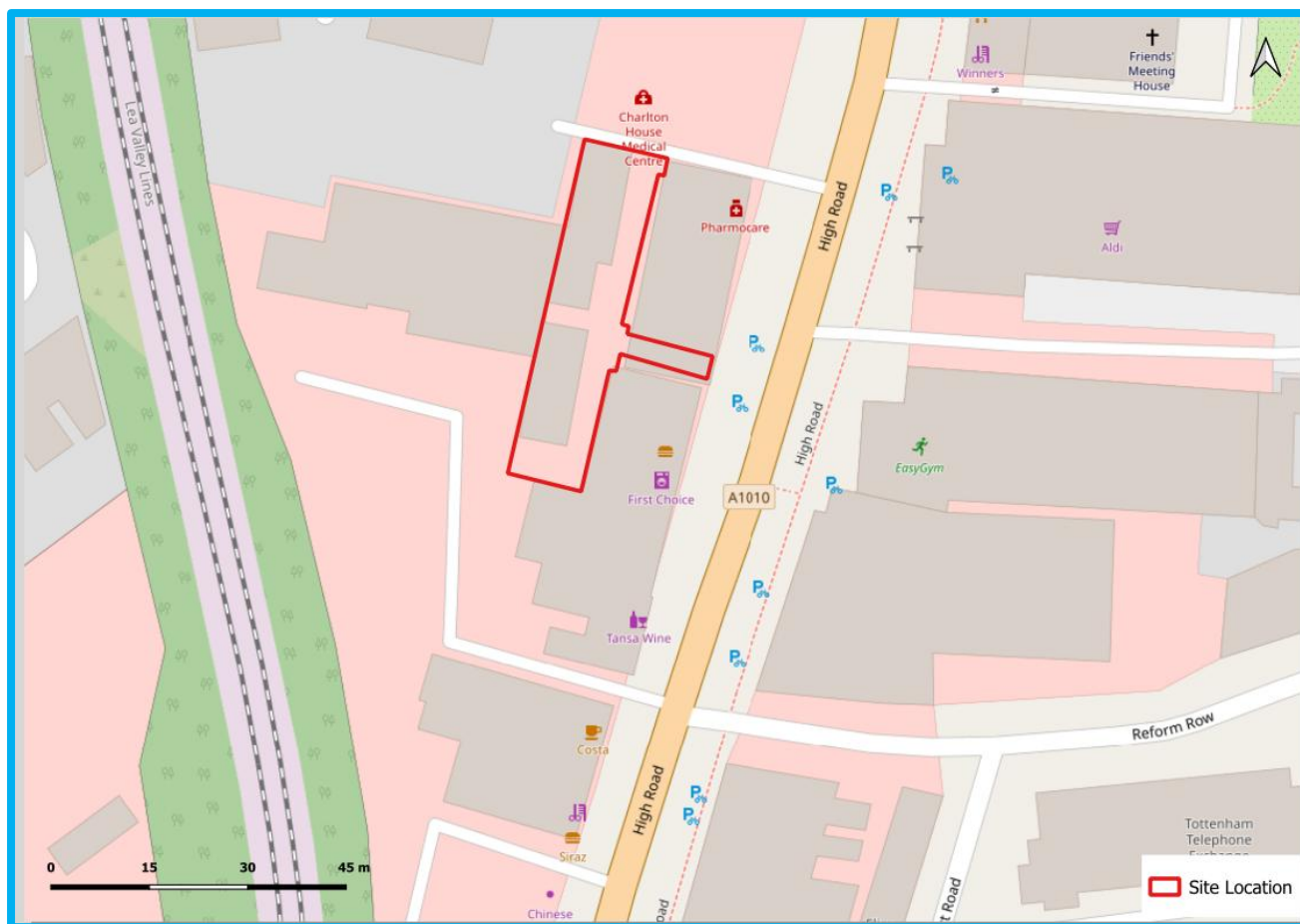


Figure 1.1: Proposed site location

1.4 Key Pollutants

The key pollutants associated with the construction phase, including operational NRMM, of the project will be 'disamenity' or 'nuisance' dust. The key pollutants associated with the operational phase of the proposed development will be road traffic emissions including nitrogen dioxide (NO₂) and particulate matter (PM₁₀ and PM_{2.5}). These pollutants are therefore considered as part of this assessment. Further details of the key pollutants are presented in Appendix A.

2 Legislation and Policy

This section summarises all legislation, policy, statutory and non-statutory guidelines relevant to the proposed development. Furthermore, the latest regional and local planning policy guidance specifically applicable to the proposed development has been reviewed.

2.1 European Union

The EU sets legally binding limit values for outdoor air pollutants to be met by EU countries by a given date. These limit values are based on the World Health Organisation (WHO) guidelines on outdoor air pollutants. These are legally binding and set out to protect human health and the environment by avoiding, preventing or reducing harmful air pollution effects.

The current air quality directive is the Directive 2008/50/EC⁵ on ambient air quality and cleaner air for Europe entered into force in June 2008. This merged most of the existing 'Daughter' Directives⁶ (apart from the fourth Daughter Directive); maintaining existing air quality objectives set out by 'Daughter' Directives for sulphur dioxide (SO₂), nitrogen dioxide (NO₂), and oxides of Nitrogen (NO_x), particulate matter (PM₁₀ and PM_{2.5}), lead (Pb), benzene (C₆ H₆), carbon monoxide (CO), ozone (O₃). It also includes related objectives, exposure concentration obligation and exposure reduction targets for PM_{2.5} (fine particles). The 'Daughter' Directives were based upon requirements set out in the first EU Ambient Air Quality Framework Directive 96/92/EEC⁷.

2.2 National Level - England

The UK government has a legal responsibility to meet the EU limit values. Part IV of the 1995 Environment Act⁸ sets guidelines for protecting air quality in the UK and forms the basis of the local air quality management. The Environment Act requires local authorities in the UK to review air quality in their area periodically and designate 'Air Quality Management Area' (AQMA) if improvements are necessary. Where an AQMA is designated, local authorities are also required to produce an 'Air Quality Action Plan' (AQAP) detailing the pollution reduction measures that need to be adopted to achieve the relevant air quality objectives within an AQMA.

As part of the Environment Act, the UK Government was required to publish a National Air Quality Strategy (NAQS) to establish the system of 'local air quality management' (LAQM) for the designation of AQMAs. This led to the introduction of the first Air Quality Strategy (AQS) in 1997⁹ which since has progressed through several revisions until it was replaced by the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007¹⁰. Each revision introduced strategies and regulations that considered measures for different pollutants by

⁵ European Union (2008): 'Ambient air quality assessment management', Framework Directive 2004/50/EC.

⁶ European Union. (1999), 'Ambient air quality assessment management', Framework Directive 1999/30/EC;

European Union. (2000), 'Ambient air quality assessment management', Framework Directive 2000/3/EC;

European Union. (2002), 'Ambient air quality assessment management', Framework Directive 2002/3/EC;

European Union. (2004), 'Ambient air quality assessment management', Framework Directive 2004/107/EC.

⁷ European Union. (1996), 'Ambient air quality assessment management', Framework Directive 96/62/EC.

⁸ Parliament of the United Kingdom. (1990), 'Environmental Protection Act', Chapter 43. Queen's Printer of Acts of Parliament.

⁹ Department for Environment Food and Rural Affairs. (1997), 'The United Kingdom National Air Quality Strategy', Cm 3587, Department for Environment Food and Rural Affairs.

¹⁰ Department for Environment Food and Rural Affairs. (2007), 'The Air Quality Strategy for England, Scotland, Wales and Northern Ireland', Cm 7169, Department for Environment Food and Rural Affairs.

tightening existing objectives and by introducing new ones to establish a common framework to protect human health and the environment by achieving ambient air quality improvements. The latest version of the AQS sets out a framework to enable local authorities to deliver for their communities and contribute to the long-term air quality goals, including the ambitious target for fine particulate matter (PM_{2.5})¹¹.

The 2008 EU ambient air quality directive 2008/50/EC was transposed to England law through the introduction of the Air Quality (Standards) Regulations in 2010 which also incorporated the fourth EU Daughter Directive (2004/107/EC) that set target values for certain toxic heavy metals and polycyclic aromatic hydrocarbons, (PAH)¹².

2.2.1 National Planning Policy Framework

The principal national planning policy guidance in respect of the proposed development is the National Planning Policy Framework (NPPF)¹³. The most recent update of the NPPF was published on 7th February 2025 by the Department for Communities and Local Government (DCLG).

The NPPF Section 110 states that:

The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.

Section 187 states:

"Planning policies and decisions should contribute to and enhance the natural and local environment by:

...preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans..."

Section 198 states:

"Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the

¹¹ Department for Environment Food and Rural Affairs. (2007), 'The Air Quality Strategy Framework for local authority delivery'.

¹² Statutory Instrument. (2010), 'The Air Quality Standards Regulations', No. 1001. Queen's Printer of Acts of Parliament.

¹³ National Planning Policy Framework. Accessible at:
https://assets.publishing.service.gov.uk/media/67aafe8f3b41f783cca46251/NPPF_December_2024.pdf

site or the wider area to impacts that could arise from the development. In doing so they should:

- a. mitigate and reduce to a minimum potential adverse impact resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;
- b. identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason; and
- c. limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes, and nature conservation.

Section 199 states that:

Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan."

2.2.2 Relevant National Planning Practice Guidance

The DCLG published a number of supporting web-based resources of Planning Practice Guidance (PPG)¹⁴ to supplement the NPPF. With respect to air quality PPG provide guidance on when air quality is relevant to a planning application. It states that:

"Concerns could arise if the development is likely to generate air quality impact in an area where air quality is known to be poor. They could also arise where the development is likely to adversely impact upon the implementation of air quality strategies and action plans and/or, in particular, lead to a breach of EU legislation (including that applicable to wildlife)."

The PPG also states that, when deciding whether air quality is relevant to a planning application, the applicant should consider whether the proposal will:

"Significantly affect traffic in the immediate vicinity of the proposed development site or further afield. Introduce new point sources of air pollution,

Expose people to existing sources of air pollutants,

Give rise to potentially unacceptable impact (such as dust) during construction for nearby sensitive locations.....,

- Affect biodiversity"

¹⁴ National Planning Practice Guidance web-based resource. Accessible at: <http://planningguidance.planningportal.gov.uk/>

2.2.3 Statutory Nuisance

It is recognised that the planning system presents a way of protecting amenity. However, in cases where planning conditions are not applicable to a development/installation, the requirements of the Environmental Protection Act 1990 still apply. Under Part III of the Environmental Protection Act 1990, local authorities have a statutory duty to investigate any complaints of:

- "Any premises in such a state as to be prejudicial to health or a nuisance
- smoke emitted from premises so as to be prejudicial to health or a nuisance
- fumes or gases emitted from premises so as to be prejudicial to health or a nuisance
- any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance
- any accumulation or deposit which is prejudicial to health or a nuisance"

Where the local authority establishes any one of these issues constitutes a statutory nuisance and believes it to be unreasonably interfering with the use or enjoyment of someone's premises and/or is prejudicial to health, an abatement notice will be served on the person responsible for the offence or the owner/occupier. Failure to comply with the notice could lead to a prosecution. However, it is considered as a defence if the best practicable means to prevent or to counteract the effects of the nuisance are employed.

2.2.4 Relevant National Air Quality Standards

A summary of the relevant Air Quality Standards/Objectives (henceforth referred to as 'AQO') and the types of receptors that are relevant to this assessment are presented in Table 2.1 and Table 2.2. The AQO listed in Table 2.1 applies only at locations with relevant exposure where a member of the public could be exposed to a level of pollution concentration for the specific averaging periods for that pollutant as stated in Table 2.2.

Table 2.1 : AQO Relevant to the Proposed Development

Pollutant	Air Quality Objectives		Concentration measured as:	Applicable to:	
	Concentration	Allowance			
Nitrogen Dioxide (NO ₂)	200 µg/m ³	18 per calendar year	1-hour mean	All authorities	local
	40 µg/m ³		Annual mean	All authorities	local
Nitrogen Oxide (NO _x)	30 µg/m ³		Annual mean	All authorities	local
Particulate Matter (PM ₁₀)	50 µg/m ³	35 per calendar year	24-hour mean	All authorities	local
	40 µg/m ³		Annual mean	All authorities	local
Particulate Matter (PM _{2.5})	10 µg/m ³ (a)		Annual	All authorities	local

Pollutant	Air Quality Objectives		Concentration measured as:	Applicable to:
	Concentration	Allowance		
Exposure reduction(a)				

Notes: (a) This is a target value set by the Interim Planning Guidance on the consideration of the Environment Act PM_{2.5} targets in planning decisions - published 4 October 2024

Source: Department for Environment Food and Rural Affairs (2022): 'Local Air Quality Management Technical Guidance' (TG.22).

Table 2.2 : Examples of Where the AQO Should Apply

Averaging period	Objectives should apply at	Objectives should not apply at
Annual	<i>All locations where members of the public might be regularly exposed. Building façades of residential properties, schools, hospitals, care homes etc.</i>	<i>Building façades of offices or other places of work where members of the public do not have regular access. Hotels, unless people live there as their permanent residence. Gardens of residential properties. Kerbside sites(as opposed to locations at the building façade), or any other location where public exposure is expected to be short-term.</i>
24 Hour	<i>All locations where the annual mean objective would apply, together with hotels. Gardens of residential properties.^(a)</i>	<i>Kerbside sites (as opposed to locations at the building façade), or any other location where public exposure is expected to be short-term.</i>
1 Hour	<i>Kerbside sites where the public would not be expected to have regular access.</i>	

Notes: (a) "Such locations should represent parts of the garden where relevant public exposure to pollutants is likely, for example where there are seating or play areas. It is unlikely that relevant public exposure to pollutants would occur at the extremities of the garden boundary, or in front gardens, although local judgement should always be applied."

Source: Department for Environment Food and Rural Affairs (2022): 'Local Air Quality Management Technical Guidance' (TG.22).

2.3 Regional (London)

2.3.1 The Mayor of London's Air Quality Strategy

The Mayor of London's Air Quality Strategy was published in December 2010 which includes transport and non-transport related policy measures. The document also includes guidance

on how regional and local planning processes will be used to enable future developments to be 'air quality neutral or better'.

Policy 15 within the Mayor's air quality strategy is committed to reporting back regularly on the progress made since the strategy has been delivered. The latest progress report was published in July 2015 and includes:

- Analysis of recent trends in air pollution in London;
- An update on the latest understanding of health impacts of air pollution in London;
- An update on the implementation of the transport and non-transport policies included in the Mayor's Air Quality Strategy, including measures announced by the Mayor in February 2013 such as the Ultra-Low Emission Zone;

Setting out what further action the Mayor will take to improve air quality.

2.3.2 London Plan

The London Plan (GLA) is the spatial development strategy for London which was first published by then-Mayor Ken Livingstone in 2004. The document has gone through a number of alterations with the most recent alterations published in 2021.

The London Local Plan sets out the overall strategic plan for London with an integrated approach for economic, environmental, transport, and social framework for the development of London over the next 20–25 years and covers a number of strategies including transport and environmental issues such as climate change and air quality.

Policy GG3 "Creating a healthy city" states:

- "To improve Londoners' health and reduce health inequalities, those involved in planning and development must... seek to improve London's air quality, reduce public exposure to poor air quality and minimise inequalities in levels of exposure to air pollution."

Policy SI 1 "Improving Air Quality" states that:

- *"Development Plans, through relevant strategic, site-specific, and area-based policies, should seek opportunities to identify and deliver further improvements to air quality and should not reduce air quality benefits that result from the Mayor's or boroughs' activities to improve air quality."*
- *"To tackle poor air quality, protect health and meet legal obligations the following criteria should be addressed:*
 - 1. Development proposals should not:*
 - a) lead to further deterioration of existing poor air quality*
 - b) create any new areas that exceed air quality limits, or delay the date at which compliance will be achieved in areas that are currently in exceedance of legal limits*
 - c) create an unacceptable risk of high levels of exposure to poor air quality.*
 - 2. In order to meet the requirements in Part 1, as a minimum:*

- a) *development proposals must be at least Air Quality Neutral*
 - b) *development proposals should use design solutions to prevent or minimise increased exposure to existing air pollution and make provisions to address local problems of air quality in preference to post-design or retro-fitted mitigation measures*
 - c) *major development proposals must be submitted with an Air Quality Assessment. Air quality assessments should show how the development will meet the requirements of B1*
 - d) *development proposals in Air Quality Focus Areas or that are likely to be used by large numbers of people particularly vulnerable to poor air quality, such as children or older people should demonstrate that design measures have been used to minimise exposure.”*
- *“Masterplans and development briefs for large-scale development proposals subject to an Environmental Impact Assessment should consider how local air quality can be improved across the area of the proposal as part of an air quality positive approach. To achieve this a statement should be submitted demonstrating:*
 - 1. how proposals have considered ways to maximise benefits to local air quality, and*
 - 2. what measures or design features will be put in place to reduce exposure to pollution, and how they will achieve this.”*
 - *“In order to reduce the impact on air quality during the construction and demolition phase development proposals must demonstrate how they plan to comply with the Non-Road Mobile Machinery Low Emission Zone and reduce emissions from the demolition and construction of buildings following best practice guidance.”*
 - *“Development proposals should ensure that where emissions need to be reduced to meet the requirements of Air Quality Neutral or to make the impact of development on local air quality acceptable, this is done on-site. Where it can be demonstrated that emissions cannot be further reduced by on-site measures, off-site measures to improve local air quality may be acceptable, provided that equivalent air quality benefits can be demonstrated within the area affected by the development.”.*

Policy T7 part G states that:

“Development proposals should facilitate safe, clean, and efficient deliveries and servicing. Provision of adequate space for servicing, storage and deliveries should be made off-street, with on-street loading bays only used where this is not possible. Construction Logistics Plans and Delivery and Servicing Plans will be required and should be developed in accordance with Transport for London guidance and in a way which reflects the scale and complexities of developments.”

The GLA has recently published a short practice note regarding the control of dust and emissions from construction and demolition. This note signposts to the Institute of Air Quality Management’s (IAQM) guidance ‘Assessment of Dust from Demolition and Construction’ which should be followed when assessing and mitigating for the impact of dust and emissions from construction and demolition of developments in London.

2.3.3 Air Quality Neutral (2023)

“In order to meet the requirements in Part 1, as a minimum:

- a) development proposals must be at least Air Quality Neutral*
- b) development proposals should use design solutions to prevent or minimise increased exposure to existing air pollution and make provision to address local problems of air quality in preference to post-design or retro-fitted mitigation measures*
- c) major development proposals must be submitted with an Air Quality Assessment. Air quality assessments should show how the development will meet the requirements of B1*
- d) development proposals in Air Quality Focus Areas or that are likely to be used by large numbers of people particularly vulnerable to poor air quality, such as children or older people should demonstrate that design measures have been used to minimise exposure”.*

2.3.4 The Mayor of London Transport Strategy (2018)

On the 21st of June 2017, the Mayor of London published the draft, The Mayors Transport Strategy setting out the Mayor’s “policies and proposals”, enabling transport in London to be reshaped over the next 25 years.

The key themes within the strategy are; healthy streets and healthy people, good public transport experiences, new homes and jobs.”

Chapter 3, section C “Improving air quality and the environment” includes policy 5 and 6 which relate to transport and air quality.”

Policy 5 states:

“The Mayor, through TfL and working with the boroughs, will take action to reduce emissions – in particular diesel emissions – from vehicles on London’s streets, to improve air quality and support London reaching compliance with UK and EU legal limits as soon as possible. Measures will include retrofitting vehicles with equipment to reduce emissions, promoting electrification, road charging, the imposition of parking charges/ levies, responsible procurement, the making of traffic restrictions/ regulations and local actions.”

Policy 6 states:

“Boroughs, and working with other transport providers, will seek to make London’s transport network zero carbon by 2050, which will also deliver further improvements in air quality, by transforming London’s streets and transport infrastructure so as to enable zero emission operation, and by supporting and accelerating the uptake of ultra-low and zero emission technologies.”

2.3.5 The Mayor of London’s PM_{2.5} Targets

On 26th of July 2022, The Mayor of London has set new targets for reducing fine particulate matter (PM_{2.5}) pollution in the city¹⁵. The goal is to bring levels of PM_{2.5} down to 10 micrograms

¹⁵ <https://www.london.gov.uk/who-we-are/what-london-assembly-does/questions-mayor/find-an-answer/pm25-targets-2>

per cubic metre ($\mu\text{g}/\text{m}^3$) by the year 2030, which is a decade ahead of the new UK legal deadline. The new targets include:

1. *“Setting a target of 10 micrograms per cubic metre($\mu\text{g}/\text{m}^3$) annual mean $\text{PM}_{2.5}$ to be met across England by 2030*
2. *A longer-term target of meeting 5 micrograms per cubic metre($\mu\text{g}/\text{m}^3$) annual mean $\text{PM}_{2.5}$ to be met across England, with the date set as soon as possible.*
3. *Finally, because the World Health Organization also recommended tighter standards for other pollutants as well, a third target for nitrogen dioxide based on meeting the 10 micrograms per cubic metre annual mean, as soon as possible.*

2.4 Local Level – London Borough of Haringey

2.4.1 Local Plan Strategic Policies 2013 - 2026 (Adoption March 2017)

The London Borough of Haringey’s Local Plan Strategic Policies, adopted in March 2017, sets the vision and objectives by 2026 for Haringey’s development. It is a legal document prepared by the council to help guide what could be built and assess planning applications for Haringey. The Local Plan highlights three policies regarding air quality.

SP4: Working Towards a Low Carbon Haringey states that:

“Over the lifetime of the Local Plan, reducing energy use in buildings and working towards a low carbon borough will be one of the key challenges facing Haringey. The Council will promote the measures outlined below to reduce carbon emissions from new and existing buildings.

1. In line with London Plan policy, the Council will promote and require all new developments to take measures to reduce energy use and carbon emissions during design, construction and occupation, by incorporating the following measures:

- a. From 2011 onwards, all new residential development will achieve a minimum 25% reduction in total (regulated) CO_2 emissions in line with Code for Sustainable Homes Level 4 energy standards, and should aim to achieve Level 6. All new residential development shall be zero carbon from 2016 onwards; and*
- b. From 2011 onwards all new non-residential development shall be built to at least BREEAM “very good” standard and should aim to achieve BREEAM “excellent” or the current nationally agreed standard. All new non-residential development shall be zero carbon from 2019.*

2. The Council will promote low- and zero-carbon energy generation through the following measures:

- a. Requiring all developments to assess, identify and implement, where viable, site-wide and area-wide decentralised energy facilities including the potential to link into a wider network;*
- b. Establishing local networks of decentralised heat and energy facilities by requiring developers to prioritise connection to existing or planned networks where feasible;*

c. Working with neighbouring boroughs and other partners to explore ways of implementing sub-regional decentralised energy networks including the potential in the Upper Lee Valley Opportunity Area; and

d. All new developments are required, where viable, to achieve a reduction in predicted carbon dioxide emissions of 20% from on site renewable energy regeneration, which can include connections to local sources of decentralised renewable energy.”

SP6: Waste and Recycling states that:

“New waste management facilities will be required to take into account and minimise pollution and nuisance issues. This is addressed in more detail in the Development Management Policies document.”

SP7: Transport states that:

“Delivering Action on Climate Change and Quality and Healthy Places

In line with the London Plan, the Council will work with its partners to promote the following travel demand management schemes to tackle climate change, improve local place shaping and public realm, and environmental and transport quality and safety by:

- Minimising congestion and addressing the environmental impacts of travel;*
- Promoting public transport, walking and cycling (including minimum cycle parking standards);*
- Promoting road safety and pedestrian movement particularly in town centres and close to local services;*
- Promoting car sharing and establishing car clubs;*
- Seeking to locate major trip generating developments in locations with good access to public transport and so better integrate transport and land use planning;*
- Adopting maximum car parking standards and car free housing wherever feasible;*
- Seeking to mitigate the impact of road based freight and promote alternatives;*
- Supporting measures to influence behavioural change such as promoting low carbon vehicles; and*
- Requiring the submission of transport assessments and travel plans for large scale proposals in line with TfL guidance.”*

2.4.2 The London Borough of Haringey Local Plan: Development Management DPD (Adopted July 2017)

The Development Management DPD sets out criteria based policies against which planning applications will be assessed. The Local Plan highlights three policies regarding air quality.

Policy DM23: Environmental Protection states that:

“Air Quality

A. All development proposals should consider air quality and be designed to:

- a) *Improve or mitigate the impact on air quality in the Borough; and*
- b) *Improve or mitigate the impact on air quality for the occupiers of the building or users of the development.*
- B. *Air quality assessments will be required for all major development and other development proposals, where appropriate.*
- C. *Where necessary, adequate mitigation must be provided.”*

2.4.3 The London Borough of Haringey Air Quality Action Plan 2019-2024 (Adopted November 2019)

This Air Quality Action Plan (AQAP) has been produced as part of the duty to London Local Air Quality Management. It outlines the action that will take to improve air quality in London Borough of Haringey (LBH) between 2019-2024. These developed actions can be considered under seven broad topics. The priorities are Monitoring and core statutory duties; Emissions from Developments and Buildings; Public Health and Awareness Raising; Delivery, Servicing and Freight; Borough Fleet; Localised Solutions and Cleaner Transport.

- **Monitoring and other core statutory duties:** maintaining monitoring networks is absolutely critical for understanding where pollution is most acute, and what measures are effective to reduce pollution. There are also a number of other very important statutory duties undertaken by boroughs, which form the basis of action to improve pollution;
- **Emissions from developments and buildings:** emissions from buildings account for about 15% of the Nox emissions across London so are important in affecting NO₂ concentrations;
- **Public health and awareness raising:** increasing awareness can drive behavioural change to lower emissions as well as to reduce exposure to air pollution;
- **Delivery servicing and freight:** vehicles delivering goods and services are usually light and heavy duty diesel-fuelled vehicles with high primary NO₂ emissions;
- **Borough fleet actions:** our fleet includes light and heavy duty diesel-fuelled vehicles such as mini buses and refuse collection vehicles with high primary NO₂ emissions. Tackling our own fleet means we will be leading by example;
- **Localised solutions:** these seek to improve the environment of neighbourhoods through a combination of measures; and
- **Cleaner transport:** road transport is the main source of air pollution in London. We need to incentivise a change to walking, cycling and ultra-low emission vehicles (such as electric) as far as possible.

3 Methodology

3.1 Overview

This section provides the details of the methodological approach taken to assess the impacts on air quality from the construction and operation of the proposed development.

Policy within the London Plan requires developments to be ‘air quality neutral’, the aim of which is to bring forward developments that are air quality neutral or better and that do not degrade air quality in areas where air quality objectives are not currently being achieved.

Guidances for undertaking the assessment are given in the following two documents:

- The Air Quality Neutral Planning Support Update 2023
- Mayor of London’s London Plan Guidance - Air Quality Neutral (February 2023)

3.2 Scope of the Assessment

3.2.1 Construction Phase

A construction dust assessment was carried out to consider impacts from ‘disamenity’ (or ‘nuisance’) dust, as discussed in Appendix A3, associated with annoyance. The development has the potential to generate dust during the construction phase of the project. Although there are no standards (such as AQO) for dust disamenity or annoyance, various ‘custom and practice’ criteria have become established.

The construction phase of the proposed development will involve a number of activities that could potentially produce polluting emissions to air. These will be emissions of dust. However, they could also include releases of odours and/or more harmful gases and particles.

The IAQM’s guidance to assess the impacts of construction on human and ecological receptors has been followed in carrying out this air quality assessment. The guidance suggests that where a receptor is located within 250m (50m for statutory ecological receptors) of a site boundary and/or 50m of a route used by construction vehicles, up to 500m from the site entrance, a dust assessment should be undertaken. High sensitivity receptors are considered particularly sensitive when located within 20m of a works area. Figure 5.1 shows receptors that could be sensitive to dust that are located within 250m of the boundaries of the site.

Review of the Multi Agency Geographic Information for the Countryside (MAGIC) website¹⁶, which incorporates Natural England’s interactive maps, has identified no statutory ecological sensitive receptor within 50m of the application site. The assessment of construction impacts on ecological receptors has not therefore been included within this assessment.

The annual mean concentrations of PM₁₀ and PM_{2.5} are well below their respective AQS, according to the UK-AIR background maps. This provides a good indication that PM₁₀ and

¹⁶ Natural England and MAGIC partnership organisations. Multi Agency Geographic Information for the Countryside. <http://www.magic.gov.uk/>

PM_{2.5} concentrations for annual mean concentrations are likely to be below the respective AQs at the application site and adjacent uses.

The IAQM guidance suggests that Demolition, Earthworks, Construction and Trackout should all be assessed individually to determine the overall significance of the construction phase.

Construction Significance

The IAQM guidance suggests that Demolition, Earthworks, Construction and Trackout should all be assessed individually to determine the overall significance of the construction phase. In the IAQM dust guidance, the first step in assessing the risk of impacts is to define the potential dust emission magnitude. This can be considered 'Negligible', 'Small', 'Medium' or 'Large' for each of the construction stages. Whilst the IAQM provides examples of criteria that may be used to assess these magnitudes, the vast number of potential variables mean that every site is different and therefore professional judgement must be applied by what the IAQM refer to as a "technically competent assessor". The construction phase assessment therefore relies on the experience of the appraiser.

As such, attempts to define precisely what constitutes a negligible, small, medium or large dust emission magnitude should be treated with caution. Factors such as the scale of the work, both in terms of size and time, the construction materials and the plant to be used must be considered.

The next step is to define the sensitivity of the area around the construction site. As stated in the IAQM guidance:

"the sensitivity of the area takes into account a number of factors:

- the specific sensitivities of receptors in the area;*
- the proximity and number of those receptors;*
- in the case of PM₁₀, the local background concentrations; and*
- site-specific factors, such as whether there are natural shelters, such as trees, to reduce the risk of wind-blown dust."*

Based on these factors, the area is categorised as being of 'Low', 'Medium' or 'High' sensitivity

After dust emission magnitudes for each stage and the sensitivity of the area have been defined, the risk of dust impacts can be determined. The IAQM provides a risk of impacts matrix for each construction stage. The overall significance for the construction phase can then be judged from the stages assessed, subject to professional judgement.

Combustion exhaust gases from diesel-powered plant and construction vehicles accessing the site will also be released. However, the volumes and periods over which these releases will occur are unlikely to result in any significant peaks in local air pollution concentrations and therefore this has been scoped out of the assessment.

3.2.2 Operational Phase

Vehicle emissions will arise from the combustion of fossil fuels in vehicle engines and their subsequent release to atmosphere via tailpipe exhausts. The most significant pollutants released by cars and other vehicles are oxides of nitrogen (NO₂/NO_x) and particulate matter

(PM₁₀ and PM_{2.5}). Releases of carbon monoxide (CO) and some volatile hydrocarbons (e.g. benzene and 1,3-butadiene) are of less significance and are not considered further in this report.

As it is elevated annual mean concentrations of NO₂ and PM₁₀ that have resulted in the declaration of most AQMAs across the UK, these are the pollutants of most concern, and they have therefore been the focus of this air quality assessment. PM_{2.5}, which is another fraction of particulate matter, has also been considered.

The latest EPUK & IAQM planning guidance provides indicative thresholds for changes in traffic flows which would require a detailed, dispersion modelling air quality assessment. These are a change in 24-hour annual average daily traffic (AADT) flows exceeding 500 light-duty vehicles (LDVs) and/or 100 heavy-duty vehicles (HDVs) on any specific road link outside of an AQMA, or 100 LDVs and/or 25 HDVs within an AQMA.

Full justification behind the screening assessment of air quality related impacts on existing sensitive receptors in the local area has been provided in Section 6 of this report.

3.2.3 Road Traffic Data

The following key facts of the road traffic data were considered:

- Traffic data has been obtained from road traffic statistics published by the government and accessible via <https://roadtraffic.dft.gov.uk>;
- The speed at junctions has been reduced as advised in Defra Technical Guidance (TG22) for a robust assessment;
- A TEMPRO factor has been applied to predict traffic flows for the year 2026;
- Where measured road speed is not available, we have used the existing road speed limit for the purpose of this assessment.

Table 3.1 shows the traffic data for the proposed development.

Table 3.1 : Relevant traffic Data for the Proposed Development

Link Name	Without 2026			With Development 2026		
	AADT	HDV%	Speed (kph)	AADT	HDV%	Speed (kph)
A10 High Road South	22,289	2.9%	32	22,309	3.0%	32
A10 High Road North	23,670	3.1%	32	23,690	3.1%	32

3.3 Air Quality Neutral

The GLA's London Plan Guidance; Air Quality Neutral (GLA, 2023) provides an approach to assessing whether a development is air quality neutral. The approach is to compare the expected emissions from the building's energy use and vehicle trips against defined benchmarks for buildings and transport in London.

The benchmarks for heating and energy plant (termed 'Building Emissions Benchmarks' or 'BEBs') are set out in Table 3.2 , while the 'Transport Emissions Benchmarks' ('TEBs') are set out in Table 3.3 .

The average trip length and average emission per vehicle are required if there is a need to calculate offset payments. The values given by GLA are set out in Table 3.4 and Table 3.5 respectively.

Table 3.2 : Building Emissions Benchmark NOx Emission Rates (gNOx/m²/annum)

Land Use	Individual Gas Boilers	Gas Boiler Network	CHP + Gas Boiler Network	Heat Pumps + Gas Boiler Network
Retail (A1)	0.53	0.97	4.31	0.97
Office (B1)	1.43	2.62	11.68	2.62
Residential (C3)	3.5	5.7	7.8	5.7
Assembly and leisure (F2b)	2.62	4.84	21.53	4.84

Table 3.3 : Benchmark Trip Rates

Land Use	Annual trips per	Benchmark Trip Rates		
		Central Activities Zone (CAZ)	Inner London (excluding CAZ)	Outer London
Retail	m ² (GIA)	39	73	216
Office	m ² (GIA)	2	1	16
Residential	dwelling	68	114	447
Assembly and leisure (F2b)	m ² (GIA)	3.6	10.5	47.2

Table 3.4 : Emission factors per vehicle-km

Pollutant	Emission factors (g/veh-km)		
	Central Activities Zone (CAZ)	Inner London ^a (excluding CAZ)	Outer London ^a
NOx	0.4224	0.37	0.353
PM _{2.5}	0.0733	0.0665	0.0606

^aInner London and Outer London as defined in the London Plan (GLA, 2021).

Table 3.5 : Average Distance Travelled by Car per Trip

Land use	Distance (km)		
	Central Activity Zone	Inner	Outer
Retail	9.2	5.5	5.4

Land use	Distance (km)		
	Central Activity Zone	Inner	Outer
Office	3.0	7.2	10.8
Residential	4.2	3.4	11.4
Assembly and leisure (F2b)	3.0	7.2	10.8

4 Baseline

The following section sets out the baseline conditions in relation to air quality for the proposed development. Baseline air quality information is available from a number of sources, including local and national monitoring data reports and websites. For the purposes of this assessment, data has been obtained from the Defra air quality resource website¹⁷ and from the most recent London Borough of Haringey Council ASR.¹⁸

4.1 UK-AIR Background Pollution

Defra provides estimated background concentrations of the UKAQS pollutants at the UK Air Information Resource (UK-AIR) website¹⁹. These estimates are from detailed modelling tools and presented as concentrations at central 1km² National Grid square locations across the UK. At the time of writing, the most recent background maps were from 2023 and 2025 based on monitoring data from 2021.

The UK-AIR data are projected to represent a uniform combination of all emissions sources within the general area of a particular grid square location. Concentrations of pollutants at various sensitive receptor locations can be calculated by modelling the emissions from nearby pollution sources, such as a busy road, and then, adding it to the appropriate UK-AIR background datum.

The predicted background pollution concentrations for NO₂, PM₁₀, and PM_{2.5} for 2021 to 2023 are presented in Table 4.1. These data were taken from the central grid square location closest to the application site (i.e. grid reference: 533500, 190500).

Table 4.1: 2021 to 2023 background concentrations of pollutants at the application site

Pollutant	Predicted background concentration (µg/m ³)			Averaging period	Air quality standard concentration (µg/m ³)
	2023	2024	2025		
NO ₂	18.9	18.0	17.3	annual mean	40
NO _x	26.5	25.1	24.0	annual mean	30
PM ₁₀	16.3	16.2	16.2	(gravimetric) annual mean	40
PM _{2.5}	8.94	8.87	8.79	(gravimetric) annual mean	10

Note: Exceedances of the annual mean AQO are shown in **bold**

The data in Table 4.1 show that annual mean background concentrations of NO₂, PM₁₀ and PM_{2.5} in the vicinity of the application site between 2023 and 2025 were predicted to be below their respective AQSS. The data show that in 2023, NO₂, PM₁₀ and PM_{2.5} concentrations were predicted to be below the AQS by 57%, 60% and 12.1%, respectively.

¹⁷ Department for Environmental Food and Rural Affairs. Accessible at: <https://uk-air.defra.gov.uk/data/laqm-background-maps?year=2015>

¹⁸ London Borough of Haringey (2025): 'Haringey Air Quality Annual Status Report 2024'

¹⁹ Defra: UK-AIR. www.uk-air.defra.gov.uk

Concentrations of all pollutants were predicted to decline each year, which is principally due to the forecast effect of cleaner vehicles being rolled out. It is noted that such improvements have not been universally realised.

4.2 Local Sources of Monitoring Data

Monitoring at background locations is considered an appropriate source of data for the purposes of describing baseline air quality.

Automatic Monitoring

LBH currently undertakes automatic (continuous) monitoring at three sites. The most recent data available from these sites are included in Table 4.2 and Table 4.3.

Table 4.2: NO₂ Data from Automatic Monitor

Monitor	Type	In AQMA?	Distance to kerb of nearest road (m)	Distance from the application site (km)	NO ₂ annual mean concentration (µg/m ³)		
					2022	2023	2024
UKA00260	R	Y	4.0	0.391	30	27	25
UKA00568	UB	Y	N/A	4.11	17	16	14
HG005	R	Y	1.0	2.61	44	48	41

Note: Exceedances of the NO₂ annual mean AQO of 40µg/m³ are shown in **bold**.

Table 4.3: PM₁₀ and PM_{2.5} Data from Automatic Monitors

Monitor	Type	PM ₁₀ annual mean concentration (µg/m ³)		
		2022	2023	2024
HG005	R	19	16	13
Monitor	Type	PM _{2.5} annual mean concentration (µg/m ³)		
		2022	2023	2024
HG005	R	12	10	9.0

Note: Exceedances of the annual mean AQO are shown in **bold**.

The data in Table 4.2 shows the annual mean NO₂ concentration at the closest monitor, UKA00260, in recent years, have been consistently below the respective AQS. Table 4.3 shows that annual mean concentrations of PM₁₀ and PM_{2.5} in recent years, have been consistently below the respective AQS. As the PM₁₀ and PM_{2.5} monitors are located over 2km away from the application site, the concentrations would not be considered to be representative of background conditions in the vicinity of the site.

Non-Automatic Monitoring

LBH operates an extensive non-automatic, NO₂ diffusion tube monitoring network across the borough. The most recently available monitoring data for diffusion tubes located within approximately 1km of the application site are included in Table 4.4. The closest monitoring site is located east from the application site.

Table 4.4: Monitoring Data from LBH's NO₂ Diffusion Tubes nearest the Application Site

Monitor	Type	Distance to kerb of nearest road (m)	Distance from the application site (km)	In AQMA ?	NO ₂ annual mean concentration (µg/m ³)		
					2022	2023	2024
HR14 a-c	R	4.0	0.39 N	Y	30.5	24.7	23.2
HR36	R	2.0	0.74 S	Y	29.3	29.8	24.5
HR48	R	0.5	0.17 E	Y	23.8	23.0	17.8
HR49	R	1.0	0.69 W	Y	27.4	20.2	19.0

Note: Exceedances of the NO₂ annual mean AQO of 40µg/m³ are shown in **bold**.

The data in Table 4.4 show that annual mean concentrations of NO₂ have been below the 40µg/m³ objective at the monitoring site since 2022. Monitoring station HR48, Mulberry Primary School, is closest to the application site, approximately 168m to the east. The recorded data in 2024 was an annual mean NO₂ concentration of 17.8µg/m³ which is well below the AQS.

The diffusion tube has recorded annual mean concentration below 60µg/m³; the indicative threshold above which exceedances of the short-term (hourly) AQS for NO₂ may be observed.

Although the diffusion tube concentrations for NO₂ represent roadside locations, the stations are at close distances to the development site that these concentrations can be considered representative of background concentrations across the development site.

Summary of Data used in Assessment

To ensure conservative predictions of pollutant concentrations, no reduction has been applied to the annual mean background NO₂, PM₁₀ and PM_{2.5} used in this assessment for future years. The NO₂ background concentration has been taken from the monitoring site, HR48, within LBH. The PM₁₀ and PM_{2.5} background concentrations have been taken from UK-AIR (2021) in the absence of any other suitable local monitoring data. The background concentrations used in the assessment are included in Table 4.5 .

Table 4.5 : Background annual mean concentrations used in this assessment

Pollutant	Concentration (µg/m ³)	Data Source
NO ₂	17.8	Diffusion tube HR48
PM ₁₀	16.2	UK-AIR (2021)
PM _{2.5}	8.79	UK-AIR (2021)

5 Construction Impacts

The construction phase of the proposed development will involve a number of activities that could produce polluting emissions to air. Predominantly, these will be emissions of dust.

The construction phase of the proposed development is yet to be decided. For the purpose of this assessment, the earliest construction year is assumed to be in 2026. The impacts from demolition, earthworks, construction and track-out have been considered. In order to assess the worst-case scenario, it has been assumed that all activities will be carried out for the duration of the construction period. Figure 5.1 shows the construction dust assessment study area based on the recommended distances by IAQM.

The estimates for the dust emission magnitude for demolition, earthworks, construction and trackout below are based on the professional experience of Aval Group's consultants, information provided by the client and Google Earth imagery.

Demolition

Demolition will involve demolition of the partial demolition of later additions of the Assunnah Islamic Centre. The total volume of building(s) being demolished across the total site will be less than 20,000m³ and at a height less than 10m which falls into the IAQM's 'Small' dust emission category. As such the overall dust emission magnitude for demolition is considered to be Small.

Earthworks

The total site has an area of less than 2,500m². This is considered 'Small' with reference to the IAQM guidance.

No earth is proposed to be moved during the construction phase with a bund height of less than four metres. This is expected to be carried out by <5 heavy earth moving vehicles. These are both considered 'Small' by IAQM.

Given the total area of the site and to ensure a worst-case assessment, the overall dust emission magnitude for the earthworks stage is considered to be Small.

Construction

Localised use of cement powder and general handling of construction materials also have the potential to generate dust emissions, as does the effect of wind-blow from stockpiles of friable materials.

The total building volume across the whole site will be less than 25,000m³ with sandblasting, but no concrete batching or piling.

Noting the total volume of the building to be constructed with potentially dusty construction material, the overall dust emission magnitude for this phase is considered to be Medium.

Trackout

Construction traffic, when travelling over soiled road surfaces, has the potential to generate dust emissions and to also add soil to the local road network. During dry weather, soiled roads can lead to dust being emitted due to physical and turbulent effects of vehicles. When

accessing the site during construction, it is anticipated that vehicles will use only existing, paved road surfaces that comprise the local road network. Construction vehicles likely to be using A10 High Road.

Conservatively, it is anticipated that less than 10 HDVs would access the application site each day throughout its development.

Therefore, considering the above, and with reference to the IAQM guidance, the dust emission magnitude for the trackout phase is considered to be Small.

Emission Magnitude Summary

A summary of the dust emission magnitude as a result of the activities of Demolition, Earthworks, Construction and Trackout as specified in the IAQM guidance, and discussed above, are listed in Table 5.1 below. Overall, the dust emission magnitude is considered to be Small.

Table 5.1 : Dust Emission Magnitude for the construction activities, based on the IAQM's guidance

Activity	Dust Emission Magnitude
Demolition	Small
Earthworks	Small
Construction	Medium
Trackout	Small

Table 5.1 presents the potential dust emission magnitude based on project-specific construction activities and is based on the criteria presented in Table C1 within Appendix C.

5.1 Sensitivity of the Area

Having established the emission magnitudes for each phase above, the sensitivity of the area must be considered to establish the significance of effects. The effect of dust emissions depends on the sensitivity of each receptor.

High sensitivity human receptors include residential dwellings, schools, and hospitals, but can also include locations such as car showrooms when considering the impacts of dust soiling.

The impacts of dust emissions from the sources discussed above have the potential to cause an annoyance to human receptors living in the local area. Within distances of 20m of the site boundary there is a high risk of dust impacts, regardless of the prevailing wind direction. Up to 100m from the construction site, there may still be a high risk, particularly if the receptor is downwind of the dust source and conditions are dry.

With the exponential decline in dust concentrations with distance from dust generating activities, it is considered that for receptors more than 250m from the site boundary, the risk is negligible. Furthermore, the risks at over 100m only have the potential to be significant in certain weather conditions (e.g. downwind of the source during dry periods).

The approximate number of high sensitivity human receptors in the vicinity of the application site is detailed in Table 5.2 below and shown in Figure 5.1.

Table 5.2 : Approximate number of High Sensitivity Human Receptors close to the application site

Distance to site (m)	Approximate number of receptors	Receptor Details
<20m	<20	Residential dwellings, Crystal Caterers Ltd., Assunnah Primary School, Fonehouse Tottenham, Cinnamon Leaf Food Hall, Hansa London, Potter's House Christian Fellowship Church, Morning Star Nursery, Pharmocare Napclan Pharmacy
<50m	<60	Residential dwellings, Crystal Caterers Ltd., Assunnah Primary School, Fonehouse Tottenham, Cinnamon Leaf Food Hall, Hansa London, The Eye Pod, EdnWorld Trainings Services, Tottenham Christ Community, Potter's House Christian Fellowship Church, Morning Star Nursery, Pharmocare Napclan Pharmacy, The Gym Group London
<100m	<100	Residential dwellings, Crystal Caterers Ltd., Assunnah Primary School, Fonehouse Tottenham, Cinnamon Leaf Food Hall, Hansa London, The Eye Pod, EdnWorld Trainings Services, Tottenham Christ Community, Potter's House Christian Fellowship Church, Morning Star Nursery, Pharmocare Napclan Pharmacy, The Gym Group London, Ekin Food Centre, Charlton House Medical Centre, Asanteman Market, Imam's Butchers
<250m	>200	Residential dwellings, Crystal Caterers Ltd., Assunnah Primary School, Fonehouse Tottenham, Cinnamon Leaf Food Hall, Hansa London, The Eye Pod, EdnWorld Trainings Services, Tottenham Christ Community, Potter's House Christian Fellowship Church, Morning Star Nursery, Pharmocare Napclan Pharmacy, The Gym Group London, Ekin Food Centre, Charlton House Medical Centre, Asanteman Market, Imam's Butchers, Bruce Grove Youth Space, Roller Nation, DRS Care Homes Ltd., Harris Lodge, The Mulberry Primary School, Dowsett Pharmacy

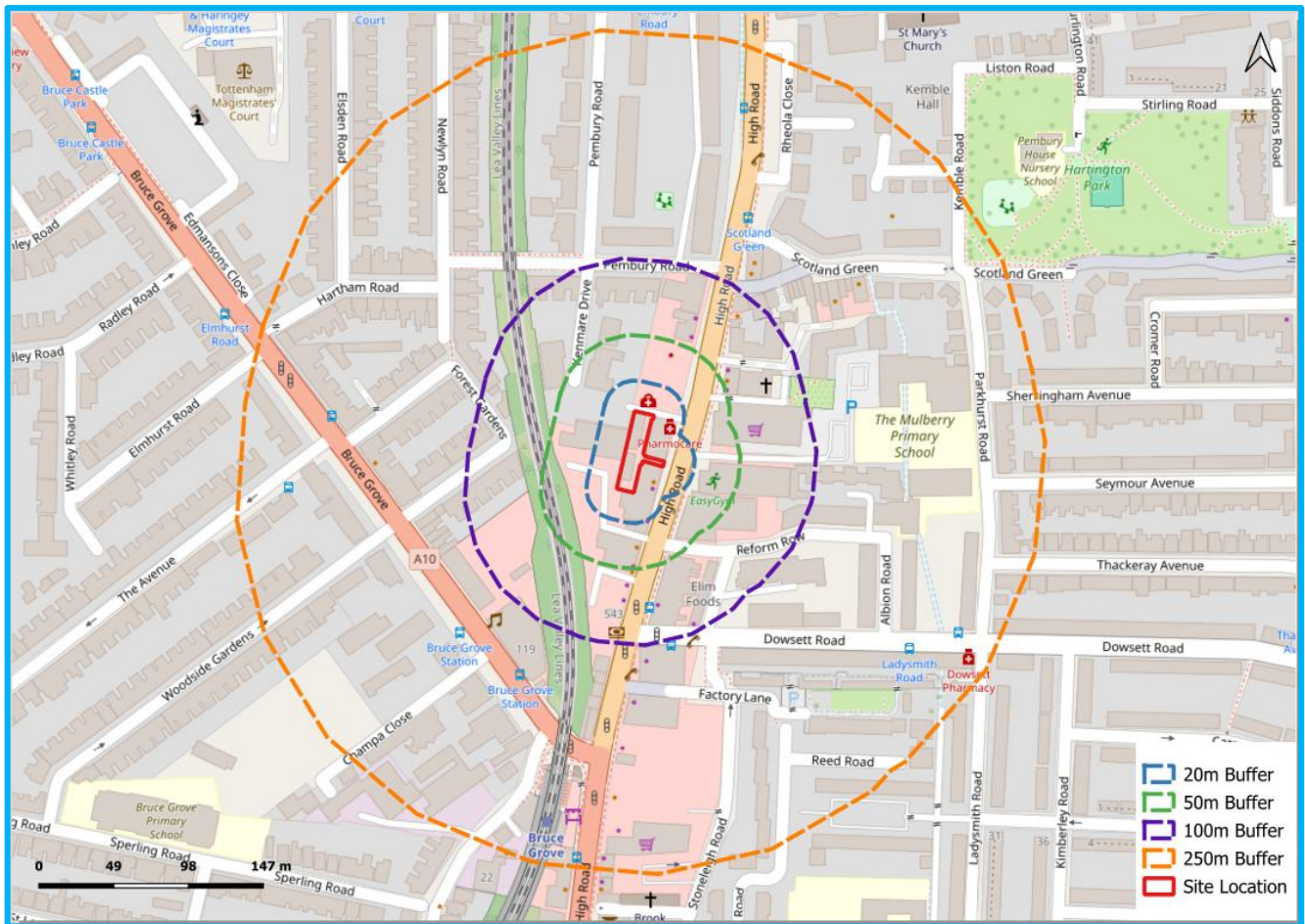


Figure 5.1: Construction assessment buffers

There is a moderate number of high sensitivity receptors (residential dwellings) within 20m of the site as such, the sensitivity of the area to dust soiling impacts can be defined as Medium with reference to the IAQM guidance.

The UK-AIR data presented in Table 4.1 indicate that annual mean concentrations of PM_{10} are likely to be well below $24\mu g/m^3$ within the vicinity of the site²⁰. Noting that there are approximately 20 highly sensitive receptors within 20m of the site boundary, the sensitivity of the area to human health impacts is defined as Medium with reference to IAQM guidance.

Review of the MAGIC website, which incorporates Natural England's interactive maps, has identified that the closest ecological receptors, Lee Valley (Ramsar/SPA) and Walthamstow Reservoirs (SSSI), is located approximately 1.3km to the northwest and 1.2km east of the application site boundary, respectively. Therefore, based on distance alone, the proposed development can be considered to have a Negligible impact on local ecological receptors, with reference to the IAQM guidance.

²⁰ The $24.0\mu g/m^3$ 'threshold' is taken from Table 3 of the IAQM's construction dust guidance. This threshold, along with the number of receptors, their sensitivity, and their distance from source (construction site), helps establish the sensitivity of an area in terms of potential human health impacts from exposure to PM_{10} . According to the guidance, baseline annual mean PM_{10} concentrations below $24.0\mu g/m^3$ indicate that the sensitivity of the area in terms of human health impacts is Low in all cases except when there are a large number (>100) of highly sensitive receptors within 20m of the construction site.

5.2 Risk of Impacts

Having established the potential dust emission magnitudes and sensitivity of the area, the risk of impacts can be determined in accordance with the IAQM guidance. These are summarised in Table 5.3, below.

Table 5.3 :Summary of Impact Risk by Construction Stage Based on the IAQM's Dust Guidance

Stage	Impact Risk		
	Nuisance Dust	PM ₁₀ Health Effects	Ecology
Demolition	Medium Risk	Low Risk	Negligible Risk
Earthworks	Medium Risk	Low Risk	Negligible Risk
Construction	Medium Risk	Low Risk	Negligible Risk
Trackout	Medium Risk	Low Risk	Negligible Risk

Overall, and for conservative purposes, the proposed development is considered to be of Medium Risk for nuisance dust soiling effects and Low Risk for PM₁₀ health effects and of Negligible Risk for impacts on nearby ecological receptors, in the absence of mitigation as presented Table C 3 to Table C 6 within Appendix C.

5.3 Site Specific Mitigation

The IAQM lists recommended mitigation measures for Low, Medium and High Dust Impact Risks. The highly recommended mitigation measures for Medium-Risk sites are included in Appendix D of this report.

Where dust generation cannot be avoided in areas close to neighbouring properties, additional mitigation measures should be put in place, such as HGV tyre washing, windbreaks, sprinklers, and/or time/weather condition limits on the operation of some items of plant or the carrying out of activities that are likely to generate a particularly significant amount of dust.

5.4 Residual Effects

After the implementation of the mitigation measures listed in Appendix D, the significance of each phase of the construction programme will be reduced and the residual significance of impact for the construction project is expected to be Negligible.

6 Operational Impacts

6.1 Impact on Local Air Quality

The latest EPUK & IAQM planning guidance provides indicative thresholds for changes in traffic flows which would require a detailed air quality assessment. These are a change in annual average daily traffic (AADT) flows of >500 LDVs and/or >100 HDVs on any specific road link, and >100 LDVs and/or >25 HDVs on roads within a declared AQMA.

The project's traffic consultant anticipates that the operation of the proposed development will result in an increase in traffic of an additional 20 trips compared to the existing use, as the site has a good level of accessibility to sustainable modes of transport which will encourage the use of alternative modes of travel. Therefore, the need to undertake a detailed dispersion modelling assessment of the development's impact on local air quality at existing sensitive receptor locations has been screened out.

As such, it can reasonably be assumed that traffic emissions associated with the operation of the proposed development would not have a significant impact on local air quality.

6.2 Site Suitability

The Defra's Technical Guidance²¹, (Tables 7.7 and 7.8), sets out the classification of monitoring locations and where these are in relation to sources of pollution. The guidance states that an urban background location is, as follows:

"An urban location distanced from sources and therefore broadly representative of city-wide background conditions, e.g. urban residential areas."

The AEA Diffusion Tube for Ambient NO₂ Monitoring: Practical Guidance²² (AEA guidance) provides further detailed definitions which help to classify urban background sites. Specifically, Section 3.2.2 states that, where a site meets the following criteria, they can be reasonably defined as being in an urban background location, away from adverse impacts associated with emissions from road sources.

- >50m from any major source of NO₂ (e.g. multi-storey car parks);
- >30m from any 'very busy' road (>30,000 vehicles per day);
- >20m from a 'busy' road (10,000 – 30,000 vehicles per day);
- >10m from any 'main' road; and
- >5m from locations where vehicles may stop with their engines idling

The main sources of air pollution in the vicinity of the application site are vehicles travelling on the nearby A10 High Road. DfT 7473 (A10 High Road south of the site) and 46188 (A10 High Road north of the site) conducted manual traffic counts on the A10 High Road (0.11km north

²¹ Defra. (2022). Local Air Quality Management, Technical Guidance LAQM. TG (22)

²² AEA Energy and Environment (2008). Diffusion Tubes for Ambient NO₂ Monitoring: Practical Guidance for Laboratories and Users

and 0.31km south to the application site boundary, respectively), with the latest data stating that in 2024, AADT flows equalled 22092 for DFT 7473 and 23461 for DFT 46188.

As sensitive uses proposed at the development site are distanced approximately 10m from the Assunnah Islamic Centre, the development site, at its closest point, with reference to the above criteria, all proposed sensitive uses can be considered to be set in a suburban background location.

Following LAQM.TG (22) guidance, it is expected that pollutant concentrations across the application site would likely be similar to other locations identified as suburban background sites within LBH's authoritative boundaries. The LBH conducts air quality monitoring at one suburban background and two roadside sites at Haringey Roadside, Haringey South (Priory Park) and Haringey Wood Green. The most representative monitor of baseline conditions at the site of the proposed development, diffusion tube HR48, recorded average annual pollutant concentrations well below the respective AQS in 2024 (by 55.5%).

Short-term AQSs largely apply when assessing the potential impact of air quality when in proximity to spaces in which members of the public would not be expected to spend more than a few hours a day, such as a workplace premises.

Annual mean thresholds of $60\mu\text{g}/\text{m}^3$ (NO_2) and $32\mu\text{g}/\text{m}^3$ (PM_{10}) are therefore considered to be an appropriate benchmark for this site suitability assessment as, according to Defra, concentrations above these thresholds are an indication of potential exceedances of the short-term AQSs for both pollutants. As there is currently no short-term AQS for $\text{PM}_{2.5}$, the respective annual mean (long-term) standard for this pollutant of concern is referred to within this report.

Table 4.2 and Table 4.3, which were derived from the LBH's most recent ASR²³, states that annual mean NO_2 concentrations recorded at Monitor UKA00260 and PM_{10} concentrations recorded at Monitor HG005 were below their respective AQS between 2022 and 2024; the indicative threshold above which exceedances of the short-term (hourly) AQS for NO_2 may be observed. In 2024, UKA00260 recorded an annual mean concentration of $25.0\mu\text{g}/\text{m}^3$ for NO_2 and HG005 recorded an annual mean concentration of $13.0\mu\text{g}/\text{m}^3$ for PM_{10} .

The London Borough of Haringey Council additionally operates four diffusion tubes within approximately 1.0km of the application site, all of which recorded annual mean NO_2 concentrations below $60\mu\text{g}/\text{m}^3$ between 2022 and 2024. In 2024, Tube HR48 recorded an annual mean NO_2 concentration of $17.8\mu\text{g}/\text{m}^3$. Located 168 metres to the east of the application site, positioned within a kerbside setting adjacent at Mulberry Primary School, this is the closest non-automatic monitor to the site.

Furthermore, UK-AIR background pollutant concentration estimates further indicate that NO_2 , PM_{10} , and $\text{PM}_{2.5}$ concentrations at the development site were all well below their relevant AQSs and are expected to decrease further in future years.

As such, local monitoring data and national mapped pollutant concentration data indicate that the site is anticipated to be suitable for the proposed development, and no further assessment of site suitability is required.

²³ London Borough of Haringey (2025): 'Haringey Air Quality Annual Status Report 2024'

6.2.1 Mitigation

The proposed heating strategy will utilise electric heating through Air Source Heat Pumps (ASHP) and no on-site combustion will be anticipated once the proposed development is operational. Also, the client has proposed the installation of photovoltaic panels on the roof.

6.3 Air Quality Neutral Assessment

Policy within the GLA's London Plan Guidance; Air Quality Neutral (GLA, 2023) requires developments to be 'air quality neutral', the aim of which is to bring forward developments that are air quality neutral or better and that do not degrade air quality in areas where air quality objectives are not currently being achieved.

Guidance for undertaking the assessment is given in the following two documents:

- The Air Quality Neutral Planning Support Update 2023
- Mayor of London Sustainable Design and Construction Supplementary Planning Guidance 2014

The Sustainable Design and Construction SPG provides typical emission rates of NO_x and PM₁₀ for transport and building emissions for each land-use class. The Transport Emission Benchmarks (TEB) are location dependant: as per the guidance typical emission rates have been applied for a development within Outer London. The Buildings Emissions Benchmark (BEB) is not location dependant.

6.3.1 Building Emissions

It is proposed that the development will utilise heating through ASHPs once the proposed development is operational. Building emissions from the development will be significantly lower than the building emission benchmark and is considered to be 'Air Quality Neutral'.

6.3.2 Transport Emissions

The assessment against the TEB has shown to be significantly lower than the transport emission benchmarks as the proposed development is anticipated to have an insignificant increase of trips generated during the operational phase and is considered to be 'Air Quality Neutral'.

7 Discussion

7.1 Construction Phase Impacts and Mitigation Measures

The construction phase of the proposed development could potentially give rise to emissions which could cause dust soiling effects on adjacent uses. Following IAQM guidance²⁴, the construction phase of the proposed development can be considered to be Medium Risk with regard to dust soiling effects and Low Risk with regard to PM₁₀ health effects and of Negligible Risk with regards to potential impacts on ecological receptors.

Following the implementation of the mitigation measures provided in Appendix D, emissions from the construction programme will be reduced and the residual significance of impact for the construction phase is expected to be Negligible, thus complying with the requirements of the NPPF.

Mitigation measures have been set out in accordance with mitigation measures set out in the IAQM guidance for construction dust to reduce the potential impacts presented in Section 5.

The risks of construction activities in relation to dust soiling were deemed 'Medium Risk', and 'Low Risk' to all risks to human health. Therefore, it is recommended that the mitigation measures appropriate to mitigate 'Medium Risk' effects, as proposed in Appendix D are applied during the construction phase.

7.2 Operational Phase Impacts and Mitigation Measures

The need for a detailed pollutant dispersion modelling assessment of the proposed development's sensitivity to local air quality has been screened out using Defra mapping and the London Borough of Haringey Council's monitoring data. This was primarily due to baseline conditions and concentrations being anticipated to be below their respective AQS' at and within the immediate vicinity of the application site.

As the proposed development is not expected to generate a significant amount of additional traffic compared to the existing use, the need to undertake a detailed dispersion modelling assessment of the proposed development's impact on local air quality at existing sensitive receptor locations has been screened out. Therefore, it can be reasonably assumed that traffic emissions associated with the operation of the proposed development would not have an impact on local air quality.

The proposed development should incorporate the following good design and best practice measure, which have been accounted for in the assessment as far as is possible:

- provision of a detailed Travel Plan setting out measures to encourage sustainable means of transport (public, cycling and walking).

²⁴ IAQM (2018): 'Guidance on Monitoring in the Vicinity of Demolition and Construction Sites v1.1'

- Moreover, as the proposed site is in an active AQMA the developer should consider fitting NO_x filters to the proposed MVHR system and use restrictions on opening windows to further mitigate air quality issues around the application site.

7.3 Air Quality Neutral

In light of the calculations of the proposed development's Buildings Emissions Benchmark (BEB) and Transport Emission Benchmarks (TEB) in Section 6.3 and no further energy or heating source being proposed, the development is deemed 'Air Quality Neutral' with regard building emissions and in relation to transport emissions, and no further mitigation measures would be required.

8 Dust Management Plan

The agreed contents of the DMP will form part of any planning permission and the details of which can be secured by way of planning condition by the London Haringey Council (LBH) prior to commencement of work. The Plan will be regularly reviewed, and any changes and/or improvements will be developed, added and agreed with the Council. The Plan will be revised and reissued as necessary.

Roles and Responsibilities

Clear definition and communication of environmental roles and responsibilities are required to facilitate effective environmental management.

The contact details for the person accountable for air quality and dust issues will be displayed at the site boundary.

Responsibilities will include:

- Stakeholder communication and community engagement before work commences on site.
- Record and respond to all dust and air quality pollutant emissions complaints.
- Keep a complaint log and make it available to the local authority when asked.
- Carry out regular site inspections to monitor compliance with air quality and dust procedures, record the results of the inspection and make an inspection log available to local authority when asked.
- Increase frequency of site inspections when activities on site have high potential to produce increased dust emissions and during prolonged dry or windy conditions.
- Record any exceptional incidents that cause dust and air quality emissions on or off site and take action to resolve the situation and record in log book.
- Make sure all required mitigation measures noted in Appendix D are implemented.

8.1 Monitoring Plan

8.1.1 Dust (PM₁₀) Monitoring

It is proposed to carry out real-time monitoring for dust (PM₁₀ and PM_{2.5}) on site to make sure the recommended mitigation measures are effective and appropriate.

The Dust (PM₁₀ and PM_{2.5}) monitors proposed to be installed shall be MCERTS compliant instruments meeting the requirements for Indicative Ambient Particulate Monitors. They will sample PM₁₀ and PM_{2.5} concentrations in air in real-time and provide average readings over 1 to 15-minute measurement periods (as required).

The proposed monitors will be housed in secure environmental enclosures. Each monitor will be fitted with a modem to allow data-streaming to an online web portal.

The monitoring system shall be configured with trigger levels that send automatic email alerts when the trigger levels are reached or exceeded at each of the monitoring positions. The site management team can then review site activities and identify any available practicable mitigation measures that can be implemented.

The dust monitors will require periodic on-site maintenance as required, typically once every 3-6 months. Noise and vibration monitoring will also be undertaken concurrently on site, as required.

8.1.2 Dust Monitors

Due to the site being in an AQMA, close to sensitive receptors and high risk for dust emissions, it is proposed that there should be a minimum of three dust monitoring locations on site.

The monitors will be installed in appropriate locations that are in-line with the prevailing wind direction (south-westerly) across the site, and close to sensitive receptors.

Figure 8.1 shows the prevailing wind direction (south-westerly) for the London City meteorological station in 2025.

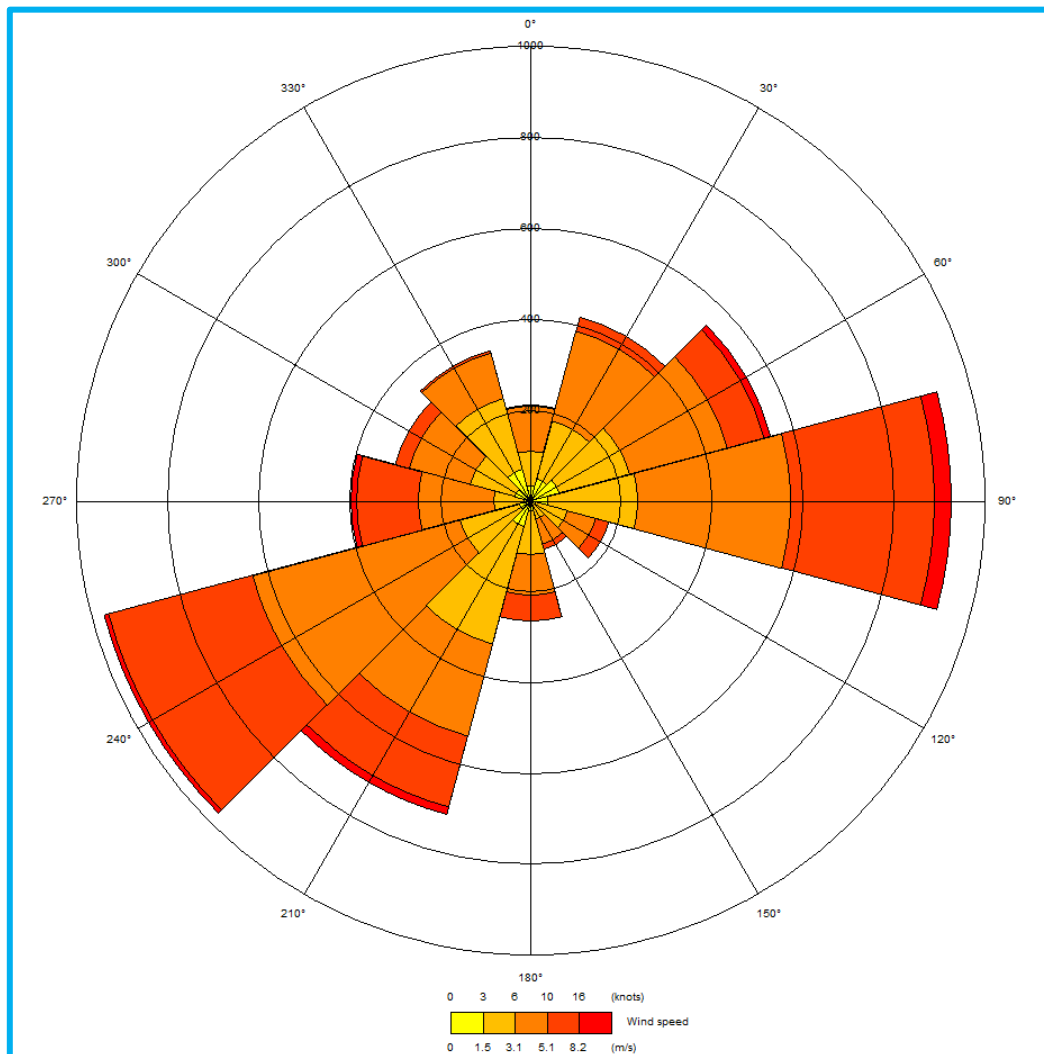


Figure 8.1: 2025 London City Windrose

8.1.3 Monitoring Locations

Where possible, monitoring positions will remain throughout the planned works. Where movements are required, these will be within 10m of the existing locations and at comparable installation heights.

As far as is reasonably practicable the dust (PM₁₀ and PM_{2.5}) monitors shall be installed in line with the IAQM Guidance on 'Air Quality Monitoring in the Vicinity of Demolition and Construction Sites'. This guidance states the following:

"Sampler inlets should be located in a clear, unobstructed position, and some metres away from any large structures (such as walls of buildings) that might interrupt airflow; immediately above should be open to the sky (free in an arc of at least 270°), with no overhanging trees or other structures. To measure airborne dust concentrations, the sampler head should ideally be located between 1.5 to 4m above ground level as suggested in the 2008 Ambient Air Quality Directive (2008/50/EC)."

8.1.4 Proposed Monitoring Locations

The proposed dust monitoring locations will be subject to an assessment on site by monitoring professionals to identify the practicality of the proposed locations. Locations have been proposed keeping in mind the prevailing wind direction, and the height, location and proximity of sensitive receptors.

The proposed locations are shown in Figure 8.2 below and identified as numbers DMP1 to DMP7.

Proposed monitoring locations were selected based on the following:

- DMP1 – Located downwind of the prevailing wind direction to the northeast of the site boundary adjacent to Morning Star Nursery.
- DMP2 – Located downwind of the prevailing wind direction to the east, on the site boundary, and close to residential receptors and in the alleyway access into the Site.
- DMP3 – Located downwind of the prevailing wind direction to the southeast, on the site boundary, and close to residential receptors.
- DMP4 – Located on the site boundary to the southwest, and close to restaurant receptors and near to access road into Site.
- DMP5 – Located northwest of the site boundary at the restored brewery of Wooldridge & Co. Ltd. Tottenham Brewery
- DMP6 and DMP7 – Located southwest of the site boundary at Monolith Studios London and the Potter's House Christian Fellowship Church

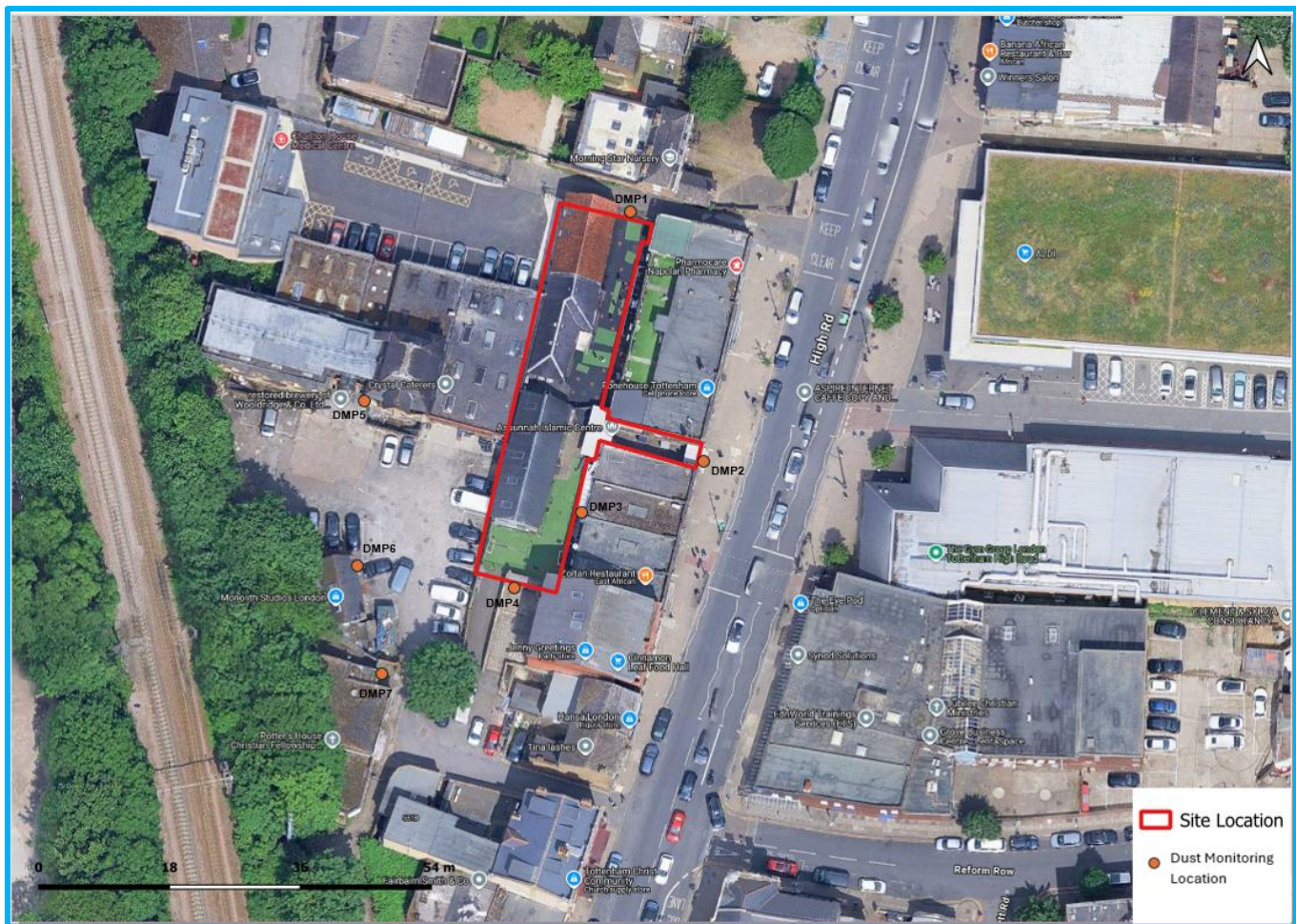


Figure 8.2: Proposed Dust Monitoring Locations

8.2 Trigger levels

The proposed action and trigger levels for PM_{10} and $PM_{2.5}$ are as those outlined in the IAQM dust monitoring guidance:

Proposed Trigger Levels:

- $150\mu g/m^3$ (PM_{10} 15-minute mean)
- $75\mu g/m^3$ ($PM_{2.5}$ 15-minute mean)

Proposed Action Levels:

- $190\mu g/m^3$ (PM_{10} 1-hour mean)
- $50\mu g/m^3$ ($PM_{2.5}$ 1-hour mean)

Should PM_{10} or $PM_{2.5}$ concentrations on site exceed the proposed trigger and action levels an automated email will be sent to designated site personnel to investigate and/or action additional mitigation measures as needed.

The proposed trigger level has been set as a warning level. If this is exceeded, site personnel will investigate the cause of the alert and implement additional mitigation measures where appropriate.

Should the proposed action levels be exceeded, site personnel should cease work and investigate the cause and assess if there are any further mitigation measures that can be implemented.

8.3 Reporting

Reports will be prepared on an agreed time basis throughout the construction phase and issued to the Local Authority and all relevant stakeholders.

These reports can present the previous months monitoring data, plus a summary of activities that have taken place on site. The report will show the measured PM₁₀ and PM_{2.5} data against the trigger and action levels and will refer to any exceedances of these alert levels.

In the event of a dust incident or complaint, the form in Appendix E : will be completed by the site team for submission to the Local Authority when requested and all relevant stakeholders.

9 Conclusion

This report provides an assessment of the following potential key impacts associated in support of the planning application at 565A-567A High Road, London, N17 6SB.

- Nuisance, loss of amenity and health impacts associated with the construction phase of the development of sensitive receptors;
- Residential suitability of the proposed development location in terms of existing air quality;
- Changes in traffic-related pollutant concentrations associated with the operational phase of the proposed development;
- Develop a Dust Management Plan to maintain dust impacts associated with the construction phase; and
- Air Quality Neutral Assessment associated with the proposed development.

A qualitative assessment of construction dust effects has been undertaken for the proposed scheme. The construction phase is predicted to have a 'Medium Risk' of nuisance and/or loss of amenity impacts due to dust nuisance. However, the risk of dust nuisance can be mitigated by implementing the appropriate mitigation measures listed in Appendix D.

The development is anticipated not to generate a significant amount of additional road traffic during the operational phase and falls below the criteria proposed by IAQM to proceed to a detailed assessment as the proposal will have no onsite parking provision.

The heating system for the proposed development will be through air sourced heat pumps. The building NO_x emissions are below the building emission benchmark and can therefore be considered air quality neutral. Both transport NO_x emissions and transport PM₁₀ emissions are below the transport emission benchmark, and the development can be considered Air Quality Neutral.

The DMP will be distributed by the Client to the Local Authority and all relevant stakeholders. It will be used for liaison with the stakeholders and other interested parties throughout the project. As information is updated and as the project develops, particular attention will be paid to the neighbours. This will ensure all stakeholders are kept informed of progress and future works on the project.

It can, therefore, be concluded that the proposed development is not considered to conflict with all national, regional, or local planning policies in relation to construction and operation phase dust and air quality nuisance. The development site can be considered suitable for community and worship development.

Appendices

Appendix A:	Key Pollutants
Appendix B:	Operational Impact Assessment Methodology
Appendix C:	Construction Dust Assessment Criteria
Appendix D:	Mitigation Measures for Construction Impacts
Appendix E:	Exceedance/ Complaint Recording Form
Appendix F:	Site Drawings

Appendix A : Key Pollutants

A1. Nitrogen Dioxide (NO₂)

Nitrogen dioxide (NO₂) and nitric oxide (NO) are collectively referred as oxides of nitrogen (NO_x). During fuel combustion, atmospheric nitrogen combines with oxygen to form nitric oxide (NO), which is not considered harmful. Through, a chemical reaction with ozone (O₃), however NO can further combine with oxygen to create NO₂ which is harmful to human health and vegetation. The foremost sources of NO₂ in the UK are from combustion sources produced mainly by road traffic and power generation.

A2. Particulate Matter

Particulate matter is a term which refers to a mixture of solid particles and liquid droplets found in the air. These particles come in many sizes and shapes and can be made up of hundreds of different chemicals. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye. Others can be so small that they can only be detected using an electron microscope. Fine dust, essentially particles up to 10 microns (µm), is commonly referred to as PM₁₀.

PM₁₀ is known to arise from a number of sources such as construction sites, road traffic movement, industrial and agricultural activities. Very fine particles (PM_{2.5} – PM_{0.1}) are known to be associated with pollutants such as oxides of nitrogen (NO_x) and sulphur dioxide (SO₂) emitted from power plants, industrial installation and road transport sources.

PM_{2.5} is generally associated with combustion and traffic sources and is more likely to be associated with the operational phase of the proposed development.

A3. 'Disamenity' Dust

'Dust' is generally regarded as particulate matter up to 75µm (micron) diameter and in an environmental context can be considered in two categories, according to size: coarser dust (essentially particles greater than 10µm) and fine particulate matter (PM₁₀ and PM_{2.5}) as set out above. Coarser dust (essentially particles greater than 10µm) is generally regarded as 'disamenity dust' and can be associated with annoyance, although there are no official standards (such as AQO) for dust annoyance. Disamenity dust is more readily described than defined as it relates to the visual impact of short-lived dust clouds and the long-term soiling of surfaces.

Although it is a widespread environmental phenomenon, dust is also generated through many human activities including industrial and materials handling sites, construction and demolition sites and roads. Dust is generally produced by mechanical action on materials and is carried by moving air when there is sufficient energy in the airstream. More energy is required for dust to become airborne than for it to remain suspended.

Appendix B : Operational Impact Assessment Methodology

The EPUK & IAQM guidance refers to the Town and Country Planning (Development Management Procedure) Order (England) 2010 [(Wales) 2012] for a definition of a 'major' development when scoping assessments required for the planning process. Based on the guidance, a 'major' development is such development where:

- The number of dwellings is 10 or above;
- The residential development is carried out of a site of more than 0.5ha where the number of dwellings is unknown;
- The provision of more than 1,000 m² commercial floorspace; or,
- Development carried out on land of 1ha or more.

It is recommended that consideration should be given to reduce impacts from any 'major' developments by considering:

- The impact of existing sources in the local area on the proposed development; and
- The impacts of the proposed development on the local area.

The assessment process involves two stages where:

Stage 1 scope out the need for an air quality assessment and **Stage 2** provide guidance of determining the level of assessment required for a project.

Table B 1 below sets out the Stage 1 criteria to determine the need to assess impacts arising from small developments and Table B 2 provides more specific guidance as to when an air quality assessment is likely to be required to assess the impacts of the proposed development on the local area.

Table B 1: Stage 1 Criteria to proceed to Stage 2

Criteria to Proceed to Stage 2	
A	If any of the following apply: • or more residential units of a site area of more than 0.5ha • More than 1,000m² of floor space for all other uses or a site area greater than 1ha
B	Coupled with any of the following: • The development has more than 10 parking spaces • The development will have a centralised energy facility or

other centralised combustion
process

Table B 2: Indicative Criteria for Requiring an Air Quality Assessment

The development will	Indicative Criteria to Proceed to an Air Quality Assessment
1. Cause a significant change in Light Duty Vehicle (LDV) traffic flows on local roads with relevant receptors. (LDV = cars and small vans <3.5t gross vehicle weight).	A change of LDV flows of: - more than 100 AADT within or adjacent to an AQMA - more than 500 AADT elsewhere.
2. Cause a significant change in Heavy Duty Vehicle (HDV) flows on local roads with relevant receptors. (HDV = goods vehicles + buses >3.5t gross vehicle weight).	A change of HDV flows of: - more than 25 AADT within or adjacent to an AQMA - more than 100 AADT elsewhere.
3. Realign roads, i.e. changing the proximity of receptors to	Where the change is 5m or more and the road is within an AQMA.
4. Introduce a new junction or remove an existing junction near to relevant receptors.	Applies to junctions that cause traffic to significantly change vehicle accelerate/decelerate, e.g. traffic lights, or roundabouts.
5. Introduce or change a bus station.	Where bus flows will change by: - more than 25 AADT within or adjacent to an AQMA - more than 100 AADT elsewhere.
6. Have an underground car park with extraction system.	The ventilation extract for the car park will be within 20 m of a relevant receptor. Coupled with the car park having more than 100 movements per day (total in and out).
7. Have one or more substantial combustion processes, where there is a risk of impacts at relevant receptors. NB. this includes combustion plant associated with standby emergency generators (typically associated with centralised energy centres) and shipping.	Typically, any combustion plant where the single or combined NOx emission rate is less than 5 mg/sec is unlikely to give rise to impacts, provided that the emissions are released from a vent or stack in a location and at a height that provides adequate dispersion. In situations where the emissions are released close to buildings with relevant receptors, or where the dispersion of the plume may be adversely affected by the size and/or height of adjacent buildings

(including situations where the stack height is lower than the receptor) then consideration will need to be given to potential impacts at much lower emission rates.

Conversely, where existing nitrogen dioxide concentrations are low, and where the dispersion conditions are favourable, a much higher emission rate may be acceptable.

Appendix C : Construction Dust Assessment Criteria

IAQM guidance framework on assessing the risk of dust proposes the construction phase should be split into phases dependent on their potential impacts, determining the risk for each individually. Therefore, this assessment has determined the risk of the four construction categories put forward by the IAQM guidance:

- Demolition;
- Earthworks;
- Construction; and
- Trackout (transport of dust and dirt onto the public road network).

The IAQM guidance framework states that the risk of dust impacts from the four categories can be defined as 'negligible', 'low risk', 'medium risk' or 'high risk' depending upon the scale and nature of the construction activity and the sensitivity and proximity of receptors to the construction site boundary. This categorisation is used to put forward appropriate mitigation measures, reducing the level of effects from the dust impacts so they are not significant.

The assessment of dust impacts using the IAQM guidance considers three separate effects from dust:

- Annoyance due to dust soiling;
- Harm to ecological receptors; and
- The risk of health effects due to significant increase in exposure to PM₁₀.

Step 1 of the assessment is set out to screen for the requirement for a more detailed assessment for the proposed development. The screening criteria states:

A 'human receptor' within:

- 250 m of the boundary of the application site; or
- 50 m of the route(s) used by construction vehicles on the public highway, up to 500 m from the site entrance(s).

An 'ecological receptor' within:

- 50 m of the boundary of the application site; or
- 50 m of the route(s) used by construction vehicles on the public highway, up to 250m from the site entrance(s).

Where there are no receptors and the level of risk is deemed 'negligible', there is no need for further assessment.

Step 2A of the assessment enables the overall dust emission magnitude (small, medium or large) from each dust source (demolition, earthworks, construction and trackout) to be identified in relation with the criteria outlined in Table C 1.

Table C 1: Dust emission magnitude

Source	Large	Medium	Small
Demolition	Total building volume >50,000 m ³ , potentially dusty construction material (e.g. concrete), on-site crushing and screening, demolition activities >20 m above ground level.	Total building volume 20,000 m ³ – 50,000 m ³ , potentially dusty construction material, demolition activities <10 – 20 m above ground level.	Total building volume <20,000 m ³ , construction material with low potential for dust release (e.g. metal cladding or timber), demolition activities <10 m above ground, demolition during wetter months.
Earthworks	Total site area >10,000 m ² , potentially dusty soil type (e.g. clay, which will be prone to suspension when dry due to small particle size), >10 heavy earth moving vehicles active at any one time, formation of bunds >8 m in height, total material moved >100,000 tonnes.	Total site area 2,500 m ² – 10,000 m ² , moderately dusty soil type (e.g. silt), 5-10 heavy earth moving vehicles active at any one time, formation of bunds 4 m – 8 m in height, total material moved 20,000 tonnes – 100,000 tonnes.	Total site area <2,500 m ² , soil type with large grain size (e.g. sand), <5 heavy earth moving vehicles active at any one time, formation of bunds <4 m in height, total material moved <20,000 tonnes, earthworks during wetter months.
Construction	Total building volume >100,000 m ³ , on site concrete batching or sandblasting.	Total building volume 25,000 m ³ – 100,000 m ³ , potentially dusty construction material (e.g. concrete), on site concrete batching.	Total building volume <25,000 m ³ , construction material with low potential for dust release (e.g. metal cladding or timber).
Track out	>50 HDV (>3.5t) outward movements ^a in any one day ^b , potentially dusty surface	10-50 HDV (>3.5t) outward movements ^a in any one day ^b , moderately dusty	<10 HDV (>3.5t) outward movements ^a in any one day ^b , surface material with low

Source	Large	Medium	Small
	material (e.g. high clay content), unpaved road length >100 m.	surface material (e.g. high clay content), unpaved road length 50 m – 100 m.	potential for dust release, unpaved road length <50 m.

Notes: ^aVehicle movement is a one-way journey. i.e. from A to B, and excludes the return journey.

^b HDV movements during a construction project vary over its lifetime, and the number of movements is the maximum not the average.

Step 2B allows for the sensitivity of the area (high, medium or low) to be assessed and takes into account a number of factors:

- The specific sensitivities of receptors in the area;
- The proximity and number of those receptors;
- In the case of PM10, the existing local background concentration; and
- Site specific factors, such as whether there are natural shelters, such as trees, to reduce the risk of wind-blown dust.

Receptor sensitivity has been based on the highest of any criteria being met thus, the assessment is considered as robust. The sensitivity of the area is further determined for dust soiling, human health and ecosystem effects by considering the criteria presented in Table C 2.

Table C 2: Magnitude of Receptor Sensitivity

Source	High	Medium	Low
Sensitivities of people to dust soiling effects	• Users can reasonably expect enjoyment of a high level of amenity; or • The appearance, aesthetics or value of their property would be diminished by soiling; and • The people or property would reasonably be expected to be present continuously, or at least regularly for extended	• Users would expect^a to enjoy a reasonable level of amenity, but would not reasonably expect^a to enjoy the same level of amenity as in their home; or • The appearance, aesthetics or value of their property could be diminished by soiling; or • The people or property wouldn't reasonably be expected^a to be	• The enjoyment of amenity would not reasonably be expected^a; or • Property would not reasonably be expected^a to be diminished in appearance, aesthetics or value by soiling; or • There is transient exposure, where the people or property would reasonably be expected to be present only for limited periods of

Source	High	Medium	Low
	periods, as part of the normal pattern of use of the land. Indicative examples include dwellings, museums and other culturally important collections, medium and long term car parks^b and car showrooms.	present here continuously or regularly for extended periods as part of the normal pattern of use of the land. Indicative examples include parks and places of work.	time as part of the normal pattern of use of the land. Indicative examples include playing fields, farmland (unless commercially-sensitive horticultural), footpaths, short term car parks^b and roads.
Sensitivities of people to health effects of PM ₁₀	- Locations where members of the public are exposed over a time period relevant to the air quality objective for PM₁₀ (in the case of the 24-hour objectives, a relevant location would be one where individuals may be exposed for eight hours or more in a day).^c - Indicative examples include residential properties. Hospitals, schools and residential care homes should also be considered as having equal sensitivity to residential areas for the purposes of this assessment.	- Locations where the people exposed are workers^d, and exposure is over a time period relevant to the air quality objective for PM₁₀ (in the case of the 24-hour objectives, a relevant location would be one where individuals may be exposed for eight hours or more in a day). - Indicative examples include office and shop workers, but will generally not include workers occupationally exposed to PM₁₀, as protection is covered by Health and Safety at Work legislation.	- Locations where human exposure is transient.^e - Indicative examples include public footpaths, playing fields, parks and shopping streets.

Source	High	Medium	Low
Sensitivities of receptors to ecological effects	- Locations with an international or national designation and the designated features may be affected by dust soiling; or - Locations where there is a community of a particularly dust sensitive species such as vascular species included in the Red Data List For Great Britain. - Indicative examples include a Special Area of Conservation (SAC) designated for acid heathlands or a local site designated for lichens adjacent to the demolition of a large site containing concrete (alkali) buildings.	- Locations where there is a particularly important plant species, where its dust sensitivity is uncertain or unknown; or - Locations with a national designation where the features may be affected by dust deposition. - Indicative example is a Site of Special Scientific Interest (SSSI) with dust sensitive features.	- Locations with a local designation where the features may be affected by dust deposition. - Indicative example is a local Nature Reserve with dust sensitive features.

Notes: ^a People's expectations will vary depending on the existing dust deposition in the area, see Section 4.2.

^b Car parks can have a range of sensitivities depending on the duration and frequency that people would be expected to park their cars there, and the level of amenity they could reasonably expect whilst doing so. Car parks associated with work place or residential parking might have a high level of sensitivity compared to car parks used less frequently and for shorter durations, such as those associated with shopping. Cases should be examined on their own merits.

^c This follows Defra guidance as set out in LAQM.TG (09).

^d Notwithstanding the fact that the air quality objectives and limit values do not apply to people in the workplace, such people can be affected to exposure of PM10. However, they are considered to be less sensitive than the general public as a whole because those most sensitive to the effects of air pollution, such as young children are not normally workers. For this reason workers have been included in the medium sensitivity category.

^e There are no standards that apply to short-term exposure, e.g. one or two hours, but there is still a risk of health impacts, albeit less certain.

^f Cheffing C. M. & Farrell L. (Editors) (2005), The Vascular Plant. Red Data List for Great Britain, Joint Nature Conservation Committee.

The final step, step 2C allows for the risk of impacts to be defined. The dust emission magnitude derived in step 2A is combined with the sensitivity of the area defined in step 2B to determine the risk of effects on:

- Annoyance due to dust soiling;
- Harm to ecological receptors; and
- The risk of health effects due to an increase in exposure to PM₁₀.

The criteria for each of the dust sources are presented in Table C 3, Table C 4, Table C 5 and Table C 6.

Table C 3: Demolition

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Medium Risk
Medium	High Risk	Medium Risk	Low Risk
Low	Medium Risk	Low Risk	Negligible

Table C 4: Earthworks

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible

Table C 5: Construction

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible

Table C 6: Track out

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Negligible
Low	Low Risk	Low Risk	Negligible

Appendix D : IAQM Highly Recommended Mitigation Measures for Sites with a Medium Risk of Dust Impacts

Please refer to the IAQM's Guidance on the Assessment of Dust from Demolition and Construction (2024) and Guidance on Air Quality Monitoring in the Vicinity of Demolition and Construction Sites (2018) for further, "desirable", mitigation measures:

Communications

- Develop and implement a stakeholder communications plan that includes community engagement before work commences on site
- Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.
- Display the head or regional office contact information.
- Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the Local Authority. The level of detail will depend on the risk and should include as a minimum the highly recommended measures in this document. The desirable measures should be included as appropriate for the site. The DMP may include monitoring of dust deposition, dust flux, real time PM₁₀ continuous monitoring and/or visual inspections.

Site Management

- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
- Make the complaints log available to the local authority when asked.
- Record any exceptional incidents that cause dust and/or air emissions, either on- or off- site, and the action taken to resolve the situation in the logbook.

Monitoring

- Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and windowsills within 100 m of site boundary, with cleaning to be provided if necessary.
- Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.
- Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
- Agree dust deposition, dust flux, or real-time PM₁₀ continuous monitoring locations with the Local Authority. Where possible commence baseline monitoring at least three

months before work commences on site or, if it a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks and construction.

Preparing and Maintaining the Site

- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
- Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.
- Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.
- Avoid site runoff of water or mud.
- Keep site fencing, barriers and scaffolding clean using wet methods.
- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.
- Cover, seed or fence stockpiles to prevent wind whipping.

Operating Vehicle/Machinery and Sustainable Travel

- Ensure all on-road vehicles comply with the requirements of the Low Emission Zone standards, where applicable
- Ensure all vehicles switch off engines when stationary - no idling vehicles.
- Avoid the use of diesel- or petrol- powered generators and use mains electricity or battery powered equipment where practicable.
- Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on un-surfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).
- Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.
- Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).

Operations

- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.

- Use enclosed chutes and conveyors and covered skips.
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
- Ensure equipment is readily available on site to clean and dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

Waste Management

- Avoid bonfires and burning of waste materials.

Demolition

- Ensure effective water suppression is used during demolition operations. Handheld sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.
- Avoid explosive blasting, using appropriate manual or mechanical alternatives.
- Bag and remove any biological debris or damp down such material before demolition.

Earthworks

- Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.
- Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.
- Only remove the cover in small areas during work and not all at once.

Construction

- Avoid scabbling (roughening of concrete surfaces) if possible.
- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
- Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.
- For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.

Trackout

- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.

- Avoid dry sweeping of large areas.
- Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
- Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.
- Record all inspections of haul routes and any subsequent action in a site logbook.
- Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.
- Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).
- Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.
- Access gates to be located at least 10 m from receptors where possible.

Appendix E : Exceedance/ Complaint Recording Form

Exceedance/ Complaints Form			
Exceedance/Complaint Reference No:		Date:	Time:
YES/NO	Dust:		
	Monitor Location:		
	Trigger Level: $\mu\text{g}/\text{m}^3$ 15 min		
	Action Level: $\mu\text{g}/\text{m}^3$ 15 min		
	Action Level $\mu\text{g}/\text{m}^3$ 1 hour		
	Level of Exceedance:		

Complaint Notification		
Contract/Project Name:		Contract/Project Number:
Date:	Time:	Received by:
Complainants Name:		Telephone Number:
Complainants Address:		Weather Conditions:

Description of Complaint:
Action Taken:

Site Assistance/Advice Requested?	(If Yes Who?)	
Is the Complaint considered:	Justified	Unsubstantiated
		Unfounded

Signed:	Print Name	Date
Copy to:	Project Director	EHO
		Client

Appendix F : Site Drawings

Please see planning portal for the most recent drawings submitted as part of the planning application.