A CAF GROUP COMPANY

ENVIRONMENT

Globe Exhibitions Ltd
Island Site
Uxbridge
Air Quality Assessment

www.bwbconsulting.com

ENVIRONMENT

Globe Exhibitions Ltd
Island Site
Uxbridge
Air Quality Assessment

Birmingham
Livery Place, 35 Livery Street, Colmore Business District
Birmingham, B3 2PB
T: 0121 233 3322

Leeds
Whitehall Waterfront, 2 Riverside Way
Leeds, LS1 4EH
T: 0113 233 8000

London
11 Borough High Street
London, SE1 9SE
T: 0207 407 3879

Manchester
11 Portland Street
Manchester, M1 3HU
T: 0161 233 4260

Nottingham
5th Floor, Waterfront House, Station Street
Nottingham, NG2 3DQ
T: 0115 924 1100

October 2024

DOCUMENT ISSUE RECORD

Document Number:	**ISU-BWB-ZZ-XX-LA-RP-0001_AQA**
BWB Reference:	244441-AQA

Revision	Date of Issue	Status	Author:	Checked:	Approved:
P01	10/10/2024	Issue	E. Tsermentseli MSc, BEng, AMIAQM, AMIEnvSc	A. Van de Sande MSc, BSc (Hons), MIAQM, MIEnvSc	C. Smith BSc (Hons), MIAQM, MIEnvSc
P02	11/10/2024	Issue	E. Tsermentseli MSc, BEng, AMIAQM, AMIEnvSc	A. Van de Sande MSc, BSc (Hons), MIAQM, MIEnvSc	C. Smith BSc (Hons), MIAQM, MIEnvSc

Notice

EXECUTIVE SUMMARY

BWB Consulting Limited was appointed by Globe Exhibitions Ltd to undertake an air quality assessment for a proposed industrial development at Island Site, Eksdale Road in Uxbridge.

The Site is located within the administrative area of London Borough of Hillingdon. The Site is located within the Hillingdon Air Quality Management Area which has been declared for potential exceedances of the current annual mean nitrogen dioxide air quality objective for England.

A qualitative construction phase dust assessment was undertaken in accordance with Institute of Air Quality Management guidance and the Greater London Authority and measures were recommended to minimise emissions during construction activities. With the implementation of these mitigation measures the impact of construction phase dust emissions was considered to be 'not significant' in accordance with Institute of Air Quality Management guidance and Greater London Authority guidance.

The proposed development trip generation was screened using the Institute of Air Quality Management and Environmental Policy Implementation Community (previously Environmental Protection UK) guidance two stage screening process, to determine whether a detailed road traffic emissions impact assessment was required. The proposed development trip generation did not exceed the relevant screening criteria and therefore detailed dispersion modelling of development-generated road traffic was not undertaken.

An Air Quality Neutral Assessment was undertaken to compare building and transport emissions from the proposed development with Greater London Authority benchmarks. Oxides of nitrogen and particulate matter emissions from the proposed buildings and additional vehicle trips generated by the proposed development were assessed to be below the benchmarked thresholds. The development was considered to be air quality neutral in terms of both building and transport emissions.

Based on the assessment results, the impact of the proposed development with regards to the current relevant air quality objectives was considered to be not significant. No mitigation is required but measures included in the development that can be considered beneficial to air quality include the provision of photovoltaic panels, electric vehicle charging points and a Travel Plan resulting in an improved and more sustainable scheme compared to the existing site premises.

CONTENTS

FIGURES

TABLES

APPENDICES

1. INTRODUCTION

1.1 BWB Consulting Limited (BWB) was instructed by Globe Exhibitions Ltd (the Client) to undertake an air quality assessment for a proposed industrial development at Island Site, Eksdale Road in Uxbridge ('the Site').

1.2 The assessment considers construction phase dust impacts and operational phase road traffic emissions. A qualitative construction phase dust assessment was undertaken in accordance with relevant guidance. An operational phase road traffic emissions screening assessment was undertaken to consider the requirement for a detailed assessment of additional vehicles generated by the proposed development. An Air Quality Neutral assessment was also undertaken to assess emissions associated with the proposed development against the benchmarked thresholds.

1.3 This report is necessarily technical in nature so to assist the reader a glossary of air quality terminology can be found in **Appendix A**.

Site Setting

1.4 The Site is located at Eksdale Road in Uxbridge and within the administrative area of London Borough of Hillingdon (LBH). The Site is located within the Hillingdon Air Quality Management Area (AQMA), which was declared by LBH for potential exceedances of the current annual mean nitrogen dioxide (NO_2) air quality objective for England.

1.5 The Site currently comprises existing warehouse units. The Site is bound in all directions by Eksdale Road with existing industrial and warehouse units located beyond to the north and an industrial estate located beyond to the west. To the south and east of the Site and beyond Eksdale Road are located more warehouse units and commercial premises. **Figure 1.1** details the location of the proposed development.

1.6 Principal air pollution sources in the vicinity of the Site are likely to comprise road traffic emissions from the local road network.

Proposed Development

1.7 The proposed development comprises the demolition of the existing structures in order to provide two smaller warehouses. The Site plan is detailed in **Appendix B**.

Figure 1.1: Site Location

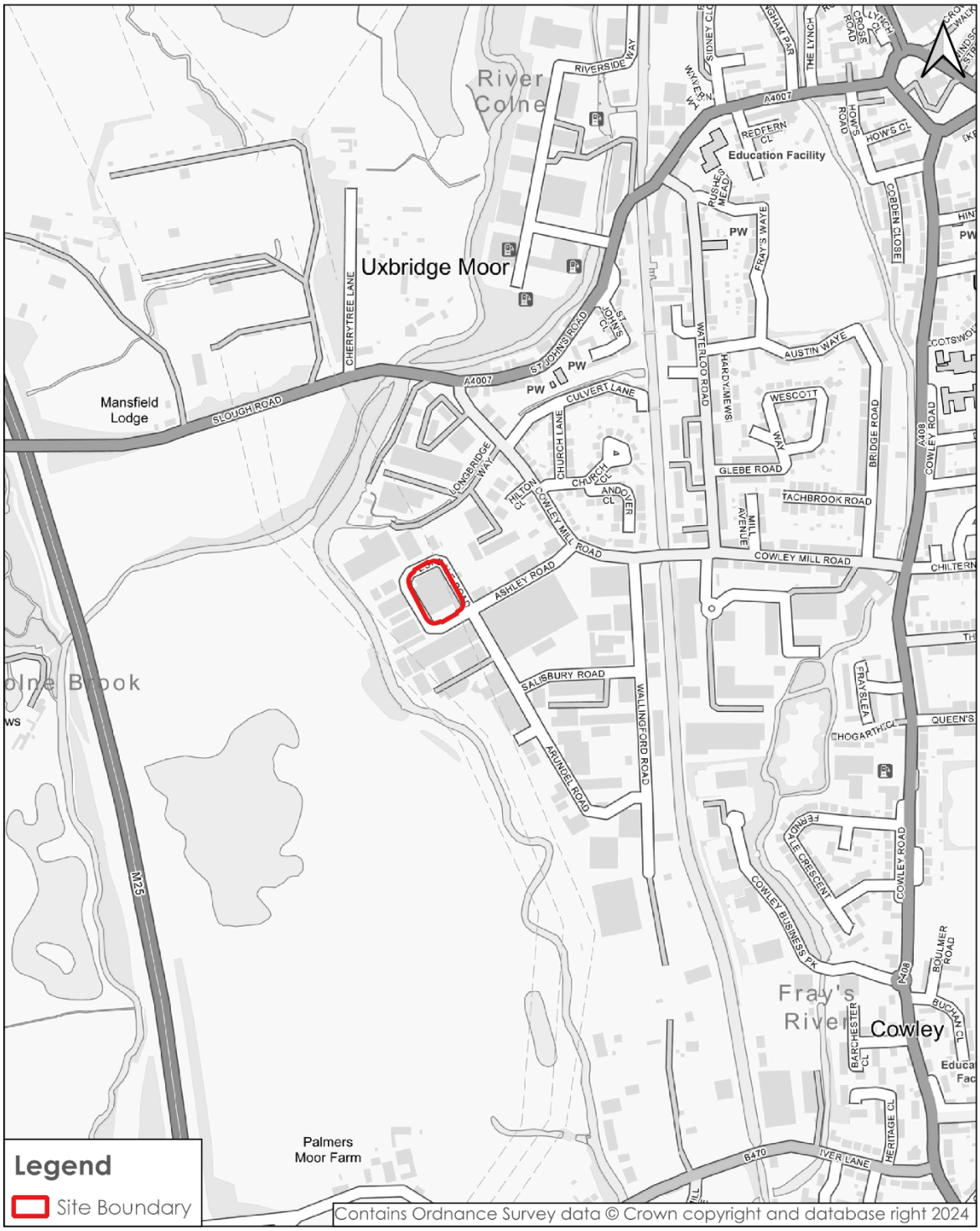


Figure 1.1: Site Location

Drawn by: ET
Date: 09/10/2024

2. LEGISLATION, PLANNING POLICY & GUIDANCE

National Legislation and Planning Policy

2.1 The following national legislation and planning policy is relevant to air quality and was considered in the undertaking of the assessment. A summary of the relevant national legislation and planning policy is provided in **Appendix C**:

- European Parliament, EU 2008 ambient Air Quality Directive (2008)[1];
- HMSO, Air Quality (England) Regulations (2000)[2];
- HMSO, Environment Act (1995)[3];
- HMSO, Environment Act (2021)[4];
- HMSO, Air Quality (England) Regulations (2002)[5];
- HMSO, Air Quality Standards Regulations (2010)[6];
- Department for Environment, Air Quality Strategy (1997)[7];
- Department for the Environment, Food and Rural Affairs, Air Quality Strategy (2007)[8];
- Department for the Environment, Food and Rural Affairs, Air Quality Strategy (2023)[9];
- Department for the Environment, Food and Rural Affairs, The Environment (Miscellaneous Amendments) (EU Exit) Regulations (2020)[10];
- HMSO, The Environmental Targets (Fine Particulate Matter) (England) Regulations (2023)[11];
- Ministry of Housing, Communities and Local Government, National Planning Policy Framework (NPPF) (2023)[12]; and
- Ministry for Housing, Communities and Local Government, Planning Practice Guidance (PPG) for air quality (2019)[13].

Regional and Local Planning Policy

2.2 The following local and regional planning policy was considered in the undertaking of the assessment and a summary is provided in **Appendix C**:

- Greater London Authority, London Plan (2021)[14];
- London Borough of Hillingdon, Local Plan: Part 1 Strategic Policies (2012)[15]; and

[1] European Parliament (2008) Council Directive 2008/50/EC on Ambient Air Quality and Cleaner Air for Europe
[2] HMSO (2000) Statutory Instrument 2000 No. 928, The Air Quality (England) Regulations 2000 (as amended), London: HMSO
[3] HMSO (1995) The Environment Act 1995, London: TSO
[4] HMSO (2021) The Environment Act 2021, London: TSO
[5] HMSO (2002) Statutory Instruments 2002 No. 3043, The Air Quality (England) (Amendment) Regulations 2002, London: HMSO
[6] HMSO (2010) Statutory Instruments 2010 No. 1001 Air Quality Standards Regulations 2010. London: HMSO
[7] Department of the Environment (DoE) (1997) The UK National Air Quality Strategy, London: HMSO
[8] Department of the Environment, Food and Rural Affairs (Defra) (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, London: HMSO
[9] Department for the Environment, Food and Rural Affairs (Defra) (2023) Air Quality Strategy: Framework for Local Authority
[10] Department of the Environment, Food and Rural Affairs (Defra) (2020) The Environment (Miscellaneous Amendments) (EU Exit) Regulations, London: HMSO
[11] HMSO (2023) Statutory Instruments 2023 No. 96 The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023
[12] Ministry of Housing, Communities & Local Government (2023) National Planning Policy Framework, HMSO London
[13] Ministry for Housing, Communities and Local Government (2019) Planning Practice Guidance Air Quality
[14] Greater London Authority (2021) The London Plan
[15] London Borough of Hillingdon (2012) Local Plan: Part 1 Strategic Policies

- London Borough of Hillingdon, Local Plan: Part 2 Development Management Policies (2020)[16].

Air Quality Assessment Guidance

2.3 The following guidance was utilised in the air quality assessment:

- Defra, Local Air Quality Management Technical Guidance (LAQM.TG(22)) (2022)[17];
- Mayor of London, London Local Air Quality Management Technical Guidance (LLAQM.TG(19))[18];
- Institute of Air Quality Management, Guidance on the Assessment of Dust from Demolition and Construction (2024)[19];
- Greater London Authority, The Control of Dust and Emissions During Construction and Demolition Supplementary Planning Guidance (2014)[20];
- Institute of Air Quality Management and Environmental Policy Implementation Community (previously Environmental Protection UK), Land-Use Planning and Development Control: Planning for Air Quality (2017)[21]; and
- Greater London Authority, Air Quality Neutral (2023)[22].

[16] London Borough of Hillingdon (2020) Local Plan: Part 2 Development Management Policies
[17] Defra (2022) Local Air Quality Management Technical Guidance LAQM.TG(22)
[18] Mayor of London (2019) London Local Air Quality Management (LLAQM) Technical Guidance (LLAQM.TG(19))
[19] Institute of Air Quality Management (2024) Guidance on the Assessment of Dust from Demolition and Construction, Institute of Air Quality Management, London
[20] Greater London Authority (2014) The Control of Dust and Emissions During Construction and Demolition Supplementary Planning Guidance.
[21] Institute of Air Quality Management and Environmental Policy Implementation Community (previously Environmental Protection UK) (2017) Land-Use Planning and Development Control: Planning for Air Quality
[22] Greater London Authorities (2023) Air Quality Neutral

3. METHODOLOGY

Consultation with London Borough of Hillingdon

3.1 Consultation was undertaken with the Environmental Health department at LBH in which the proposed assessment methodology was provided via email on 4th October 2024. A response was not received at the time of writing.

3.2 The methodology utilised in the air quality assessment is summarised below:

- Construction Phase - A construction phase dust assessment was undertaken and relevant measures to mitigate construction phase dust emissions were recommended. The assessment was undertaken in accordance with guidance provided by the Institute of Air Quality Management (IAQM)[19] and the Greater London Authority (GLA) guidance[20].
- Operational Phase – An operational phase road traffic emissions screening assessment was undertaken in accordance with IAQM and Environmental Policy Implementation Community (EPIC) (previously Environmental Protection UK (EPUK)) guidance[21].
- An Air Quality Neutral Assessment was also undertaken to compare building and transport emissions associated with the proposed development with GLA benchmarks[23].

3.3 Full details of the methodology used in the assessment, as provided to LBH, are outlined below.

Construction Phase Dust Assessment

3.4 In 2024, the GLA published a best practice note[24] advising that the IAQM guidance[19] should be used when assessing and managing the impacts from demolition and construction as it is considered best practice. It goes on to state that the GLA guidance[20] should be followed when assessing the need for a construction phase dust assessment to be undertaken based on the GLA guidance[20] referenced screening distances.

3.5 The full assessment methodology is not reproduced within this report but a summary of the assessment steps as detailed within the IAQM guidance[19] are provided below:

- Step 1 – screen the requirement for a more detailed assessment in accordance with the GLA guidance[20]. No assessment is required if there are no receptors within a certain distance of the works.
- Step 2 – assess the risk of dust impacts separately for each of the four activities considered (demolition, earthworks, construction and trackout).
    - Step 2A – determine the potential dust emission magnitude for each of the four activities;
    - Step 2B – determine the sensitivity of the area;
    - Step 2C – determine the risk of dust impacts by combining the findings of steps 2A and 2B.

[23] Air Quality Neutral Planning Support Update: GLA 80371, Air Quality Consultants and Environ, 2014.
[24] Greater London Authority (2024) Practice Note – The Control of Dust and Emissions from Construction and Demolition

- Step 3 – determine the site-specific mitigation for each of the four activities; and
- Step 4 – examine the residual effects and determine significance.

Operational Phase Road Traffic Emissions – Screening Assessment

IAQM/EPIC (previously EPUK) Guidance

3.6 Guidance published by the IAQM and EPIC (previously EPUK) in 2017[21] provides a two-stage approach to determine the level of assessment required in the consideration of the impact of development-generated road traffic emissions on local air quality.

Stage 1

3.7 The Stage 1 criteria requires that the assessment progress to Stage 2 if any of the following apply:

- The development comprises:
  - 10 or more residential units or a site area of more than 0.5ha; or
  - More than 1,000m^2 of floor space for all other uses or a site area greater than 1ha;
- Coupled with any of the following:
  - The development has more than 10 parking spaces; or
  - The development will have a centralised energy facility or other centralised combustion process.

Note: Consideration should be given to the potential impacts of neighbouring sources on the site, even if an assessment of impacts of the development on the surrounding area is screened out.

Stage 2

3.8 The IAQM and EPIC (previously EPUK) guidance[21] provides the following indicative criteria to determine whether a detailed road traffic emissions assessment is required for a proposed development.

3.9 The proposed development is located with the Hillingdon AQMA. Therefore, the Stage 2 criteria relevant to the proposed development are:

- A change in Light Duty Vehicles (LDV) flow of more than 100 vehicles as a 24 hour Annual Average Daily Traffic (AADT) flow within an AQMA; and
- A change in Heavy Duty Vehicle (HDV) flow of more than 25 vehicles as a 24 hour AADT flow within an AQMA.

Air Quality Objectives

3.10 The current relevant air quality standards and objectives for England are detailed in **Table 3.1**.

Table 3.1: Air Quality Standards and Objectives (England)

Pollutant	Averaging Period	Air Quality Objective ($\mu g.m^{-3}$)	Date to Achieve by
NO_2	Annual Mean	40	31 December 2005
	1-hour mean not to be exceeded more than 18 times per year	200	31 December 2005
PM_{10}	Annual Mean	40	31 December 2004
	24-hour mean not to be exceeded more than 35 times per year	50	31 December 2004
$PM_{2.5}$	Annual Mean	20	1 January 2020
	Annual mean interim target as detailed within the Environmental Improvement Plan[25]	*12*	*31 January 2028*
	Annual mean	*10*	*31 December 2040*

Italics notes future objective

Limitations and Assumptions

3.11 The assessment is based on traffic data provided by TTP Consulting, the Transport Consultants for the project. As such any assumptions made by the Transport Consultants will also influence the air quality assessment.

3.12 Consideration of committed local developments that may represent sensitive receptors to dust during the construction phase was undertaken through a review of the LBH planning portal. Any applications submitted following the review, or not present on the portal at the time of review, were not considered.

Air Quality Neutral Assessment

3.13 The London Plan[14] requires that all developments are 'air quality neutral' to prevent further deterioration of air quality in London, and promote sustainable development, as outlined in Policy SI 1.

3.14 In order to support this policy, the GLA published its Air Quality Neutral guidance[22] which sets out a methodology for calculating the air quality neutrality of proposed developments. The methodology provides a means of calculating the total building and transport emissions for the development which are then compared to Building Emission Benchmarks (BEB) and Transport Emission Benchmarks (TEB) generated based on the size, location and type of development proposed.

[25] Defra (2023) Environmental Improvement Plan 2023, First revision of the 25 Year Environment Plan

3.15 Developments that do not exceed these benchmarks will avoid any significant increase in NOx and $PM_{2.5}$ emissions across London as a whole and therefore be classed as 'air quality neutral'. Where a development does not meet the 'air quality neutral benchmarks, after mitigation measures for the development are implemented, developers will be required to off-set emissions off-site.

4. CONSTRUCTION PHASE DUST ASSESSMENT

4.1 The construction phase of the proposed development will involve a number of activities which have the potential to impact on local air quality.

4.2 The location of sensitive receptors in relation to construction activities will affect the potential for such construction activities to cause dust soiling, nuisance and local air quality impacts. Meteorological conditions and the use of control measures will also contribute to the effects experienced.

Step 1: Screen the Need for a Detailed Assessment

4.3 Step 1 of the GLA guidance[20] involves a screening assessment to consider whether a more detailed construction phase dust assessment is required.

4.4 In accordance with the guidance[20], a detailed assessment is required if:

- Human receptors are located within 50m of the boundary of the site or 50m of routes used by construction vehicles on the public highways, up to 500m from the site entrances; or
- Ecological receptors are located within 50m of the boundary of the site or 50m of routes used by construction vehicles on the public highways, up to 500m from the site entrances.

4.5 From a review of the Multi Agency Geographic Information for the Countryside (MAGIC) website[26], no ecological designations were identified within the above screening distance and therefore the impact on ecological designations was not considered further. However human receptors are located within the above screening distances, with the closest of these receptors located off Eksdale Road. A construction phase assessment was therefore undertaken.

Step 2: Assess the Risk of Dust Impacts

Step 2A: Define the Potential Dust Emission Magnitude

4.6 The dust emission magnitudes for the construction activities were defined using the criteria detailed in the IAQM guidance[19] as detailed in **Table 4.1**.

Table 4.1: Dust Emission Magnitude Criteria and Definition

Activity	IAQM Dust Emission Magnitude	IAQM Dust Emission Magnitude Criteria
Demolition	Large	Total building volume >75,000m^3, potentially dusty construction material (e.g. concrete), on-site crushing and screening, demolition activities >12m above ground level.
	Medium	Total building volume 12,000m^3 – 75,000m^3, potentially dusty construction material, demolition activities 6 - 12m above ground level.

[26] Defra, Multi Agency Geographic Information for the Countryside (MAGIC) [http://magic.defra.gov.uk/]

Activity	IAQM Dust Emission Magnitude	IAQM Dust Emission Magnitude Criteria
	Small	Total building volume <12,000m^3, construction material with low potential for dust release (e.g. metal cladding or timber), demolition activities <6m above ground, demolition during wetter months.
Earthworks	Large	Total site area >110,000m^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 >6 m in height.
	Medium	Total site area 18,000m^2 – 110,000m^2, moderately dusty soil type (e.g. silt), 5 - 10 heavy earth moving vehicles active at any one time, formation of bunds 3m - 6m in height.
	Small	Total site area <18,000m^2, soil type with large grain size (e.g. sand), <5 heavy earth moving vehicles active at any one time, formation of bunds <3m in height.
Construction	Large	Total building volume >75,000m^3, on site concrete batching, sandblasting.
	Medium	Total building volume 12,000m^3 – 75,000m^3, potentially dusty construction material (e.g. concrete), on site concrete batching.
	Small	Total building volume <12,000m^3, construction material with low potential for dust release (e.g. metal cladding or timber).
Trackout	Large	>50 HDV (>3.5t) outward movements in any one day, potentially dusty surface material (e.g. high clay content), unpaved road length >100m.
	Medium	20 - 50 HDV (>3.5t) outward movements in any one day, moderately dusty surface material (e.g. high clay content), unpaved road length 50m – 100m.
	Small	<20 HDV (>3.5t) outward movements in any one day, surface material with low potential for dust release, unpaved road length <50m.

4.7 The following dust emission magnitudes were defined for the proposed development:

- Demolition – The proposed development will require the partial demolition of existing warehouses within the Site. The total building volume to be demolished is between 12,000 and 75,000m^3. The dust emission magnitude for demolition was therefore defined as **Medium**.
- Earthworks – The total Site area is less than 18,000m^2. The dust emissions magnitude for earthworks was therefore defined as **Small**.
- Construction – The proposed development will require the construction of two new warehouses with a total anticipated construction volume between 12,000 and 75,000m^3. Therefore, the dust emissions magnitude for construction was defined as **Medium.**
- Trackout – Due to the size of the Site, it is likely that there will be less than 20 outward HDV movements in any one day. Therefore, the dust emissions magnitude for trackout was defined as **Small.** In accordance with IAQM guidance[19], a trackout distance of 250m was therefore used.

4.8 A summary of the defined dust emission magnitudes for the development are provided in **Table 4.2**.

Table 4.2: Summary of Project Defined Dust Emission Magnitudes

Activity	Dust Emission Magnitude
Demolition	Medium

Activity	Dust Emission Magnitude
Earthworks	Small
Construction	Medium
Trackout	Small

Step 2B: Define the Sensitivity of the Area

4.9 The assessment requires the determination of the sensitivity of the area for the purposes of dust soiling and human health. The sensitivity of the study area takes into account the specific receptors in the vicinity of the Site, the proximity and number of those receptors, the local background concentration of PM_{10} and site-specific factors. **Figure 4.1** was utilised to determine the number of receptors located within the distance bands provided in the IAQM guidance[19] for determining receptor sensitivity.

4.10 The sensitivity of the area is defined below, in accordance with IAQM criteria[19] and summarised in **Table 4.3**.

- Dust Soiling – Residential dwellings and car parking spaces are considered to be highly sensitive to dust soiling. There are between 10 and 100 highly sensitive car parking spaces located within 20m of the proposed Site boundary. The sensitivity of the area to dust soiling impacts associated with on-site activities was defined as **High.** Furthermore, there are between one and 10 highly sensitive residential dwellings and 10 and 100 highly sensitive car parking spaces within 20m of the roads to be used by construction vehicles. Therefore, the sensitivity of the area to dust soiling impacts associated with trackout activities was also defined as **High**.
- Human Health – Residential dwellings are also considered to be highly sensitive to human health effects of PM_{10}, while commercial premises are considered to be of medium sensitivity. There are between one and 10 places of work of medium sensitivity located within 20m of the proposed Site boundary. The background PM_{10} concentration is below 24µg.m^{-3}, as indicated by a review of Defra background pollutant concentration mapping[27]. The sensitivity of the area to human health impacts was therefore defined as **Low** for on-site activities. Furthermore, there are between one and 10 highly sensitive residential dwellings and between one and 10 places of work of medium sensitivity within 20m of the roads to be used by construction vehicles. Therefore, the sensitivity of the area to human health impacts is also defined as **Low** for trackout activities.

[27] Defra (2020) Background Pollutant Concentration Maps [https://uk-air.defra.gov.uk/data/laqm-background-maps?year=2018]

Table 4.3: Determination of the Sensitivity of the Area

Potential Impact	Sensitivity			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	High	High	High	High
Human Health	Low	Low	Low	Low

Figure 4.1: Construction Phase Assessment Dust Distance Buffers

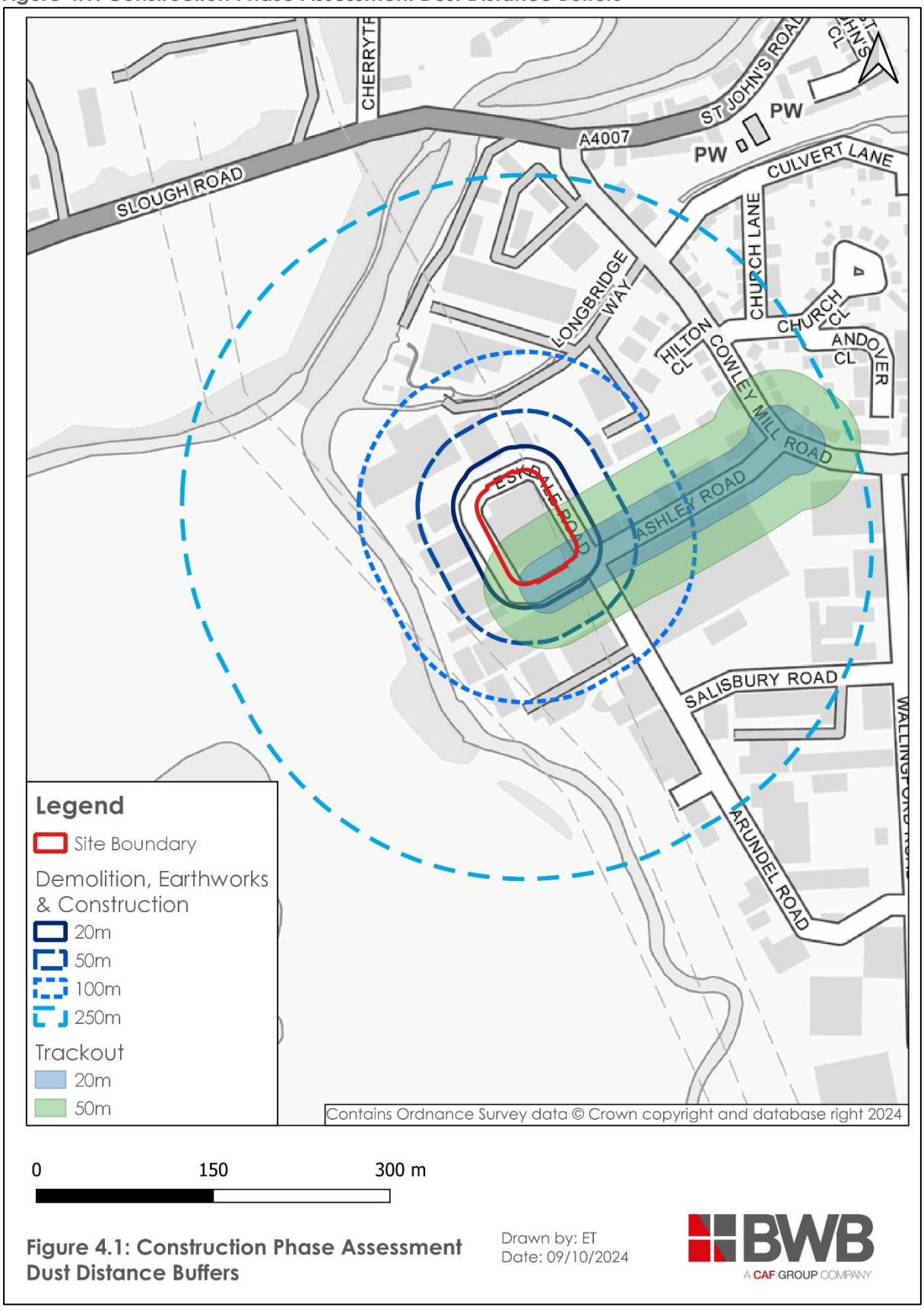


Figure 4.1: Construction Phase Assessment Dust Distance Buffers

Drawn by: ET
Date: 09/10/2024

Step 2C: Define the Risk of Impacts

4.11 The dust emission magnitude determined in Step 2A is then combined with the sensitivity of the area determined in Step 2B to define the risk of dust impacts with no mitigation applied. The results of this assessment are detailed in **Table 4.4.**

Table 4.4: Summary Dust Risk Table to Define Site Specific Risk

Activity	Step 2A: Dust Emission Magnitude	Step 2B: Sensitivity of the Area	Step 2C: Risk of Dust Impacts
Dust Soiling Effects on People and Property			
Demolition	Medium	High	Medium Risk
Earthworks	Small	High	Low Risk
Construction	Medium	High	Medium Risk
Trackout	Small	High	Low Risk
Human Health Impacts			
Demolition	Medium	Low	Low Risk
Earthworks	Small	Low	Negligible Risk
Construction	Medium	Low	Low Risk
Trackout	Small	Low	Negligible Risk

Step 3: Site-Specific Mitigation

4.12 The risk of dust impacts, defined in Step 2C of the assessment, is used to determine the mitigation measures required to minimise the emission of dust during construction phase activities. The IAQM guidance[19] provides details of highly recommended and desirable mitigation measures which are commensurate with the risk of dust impacts defined in Step 2C for demolition, construction, earthworks and trackout activities. Where the mitigation measures are general in nature, the highest risk category was applied in accordance with the guidance[19]. The highest risk category identified was '**Medium Risk'** and the recommended mitigation taken from the IAQM guidance[19] is detailed in **Table 4.5** and **Table 4.6**.

Table 4.5: Mitigation Measures for a Medium Risk Site

Category	Mitigation Measures for a Medium Risk Site	
	Highly Recommended	**Desirable**
Communication	Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.	None
	Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environmental 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.	
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.	None
	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 log book.	
Monitoring	Carry out regular site inspections to monitor compliance with the DMP, record inspections results, and make an inspection log available to the local authority when asked.	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 window sills within 100m of the site boundary, with cleaning to be provided as necessary.
	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.	
Preparing and maintaining the site	Plan the site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.	None
	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 extended period.	
	Avoid site runoff of water or mud.	

Category	Mitigation Measures for a Medium Risk Site	
	Highly Recommended	**Desirable**
	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 London Low Emission Zone and the London NRMM standards, where applicable.	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 control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).
	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.	Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).
	Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.	
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.	None
	Ensure an adequate water supply on 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.	None

Category	Mitigation Measures for a Low Risk Site	
	Highly Recommended	**Desirable**
Communication	Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environmental manager/engineer or the site manager.	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.
	Display the head or regional office contact information.	
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.	None
	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 log book.	
Monitoring	Carry out regular site inspections to monitor compliance with the DMP, record inspections results, and make an inspection log available to the local authority when asked.	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 window sills within 100m of the site boundary, with cleaning to be provided as necessary.
	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.	
Preparing and maintaining the site	Plan the site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.	Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extended period.
	Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.	Keep site fencing, barriers and scaffolding clean using wet methods.
	Avoid site runoff of water or mud.	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 vehicles switch off engines when stationary – no idling vehicles.	Impose and signpost a maximum-speed-limit of 15 mph on surfaced

Category	Mitigation Measures for a Low Risk Site	
	Highly Recommended	**Desirable**
	Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.	and 10 mph on un-surfaced haul roads and work areas.
		Ensure equipment is readily available on site to clean any dry spillages - cleaning up spillages as soon as reasonably practicable after the event using wet cleaning methods.
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.	None
	Ensure an adequate water supply on 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.	
Waste Management	Avoid bonfires and burning of waste materials.	None

Table 4.6: Mitigation Measures Specific to Demolition, Earthworks, Construction and Trackout

Category	Mitigation Measures	
	Highly Recommended	**Desirable**
Demolition (Medium Risk Site)	Ensure effective water suppression is used during demolition operations. Hand held 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.	Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).
	Avoid explosive blasting, using appropriate manual or mechanical alternatives.	
	Bag and remove any biological debris or damp down such material before demolition.	
Earthworks (Low Risk Site)	None	None
Construction (High Risk Site)	Avoid scabbling (roughening of concrete surfaces) if possible.	For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.
	Ensure sand and other aggregates are stored in bunded areas and are not	

Category	Mitigation Measures	
	Highly Recommended	**Desirable**
	allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.	
Construction (Medium Risk Site)	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.	Avoid scabbling (roughening of concrete surfaces) if possible.
		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 (Low Risk Site)	None	Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any materials 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 the sites are covered to prevent escape of materials during transport.
		Record all inspections of haul routes and any subsequent action in a site log book.
		Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).

Step 4: Determine Significant Effects

4.13 In accordance with IAQM guidance[19], with the implementation of the mitigation measures detailed in Step 3, the residual impacts from the construction phase are considered to be 'not significant'.

5. OPERATIONAL PHASE ROAD TRAFFIC EMISSIONS SCREENING ASSESSMENT

IAQM and EPIC (previously EPUK) guidance

5.1 The trip generation for the proposed development was screened using IAQM and EPIC (previously EPUK) Stage 1 and Stage 2 criteria[21] to determine whether a detailed air quality assessment was required.

Stage 1

5.2 The proposed development comprises more than 1,000m^2 of floorspace and proposes more than 10 parking spaces; it was therefore necessary to proceed to Stage 2.

Stage 2

5.3 The trip generation for the proposed development was provided by TTP Consulting, the Transport Consultants for the project.

5.4 When comparing to the existing warehouse units located on the Site, the proposed development is anticipated to result in a smaller building footprint. Therefore, as confirmed by the project Transport Consultants, when comparing to the existing use of the Site, the proposed development is anticipated to result in an overall reduction in vehicle trips on the local road network. As such, no new vehicle trips or vehicle emissions are anticipated to be introduced on the local road network, and therefore the screening criteria of 100 LDV trips and / or 25 HDV trips as a 24-hour AADT flow as outlined in paragraph 3.9 will not be exceeded.

5.5 The IAQM and EPIC (previously EPUK) guidance[21] states:

"If none of the criteria are met, then there should be no requirement to carry out an air quality assessment for the impact of the development on the local area, and the impacts can be considered as having an insignificant effect."

5.6 Therefore, in accordance with the IAQM and EPIC (previously EPUK) guidance[21], it was considered that development-generated road traffic would not significantly influence local air quality and a detailed air quality impact assessment was not required.

Development Measures

5.7 In accordance with the IAQM and EPIC (previously EPUK) guidance[21], it was considered that development-generated road traffic would not significantly influence local air quality with regards to the current relevant air quality objectives. No mitigation measures are therefore required to minimise development-generated road traffic emissions. However, the proposed development is expected to replace the existing facilities with an improved and more sustainable development, incorporating the following embedded mitigation measures:

- Provision of a Travel Plan;

- Provision of eight Electric Vehicle (EV) charging points;
- Provision of 16 no. cycle parking spaces; and
- Provision of photovoltaic (PV) panels in accordance with the Building Regulations UK Part L (BRUKL)[28] requirements.

[28] HM Government (2023) The Building Regulations 2010 Conservation of fuel and power APPROVED DOCUMENT L

6. AIR QUALITY NEUTRAL ASSESSMENT

6.1 The London Plan[14] requires that all developments are 'air quality neutral' to prevent further deterioration of air quality in London and promote sustainable development. In order to support this policy, guidance[22] was produced on behalf of the GLA which sets out a methodology for calculating the air quality neutrality of proposed developments.

6.2 The methodology provides a means of calculating the total building and transport emissions for the development which are then compared to BEBs and TEBs generated based on the size, location and type of development proposed.

6.3 Developments that do not exceed these benchmarks will not contribute to any significant increase in NOx and $PM_{2.5}$ emissions across London as a whole and therefore will be classed as 'air quality neutral'. Where a development does not meet the 'air quality neutral' benchmarks, mitigation needs to be implemented on-site to offset development emissions. If no sufficient mitigation can be implemented on-site, then off-site mitigation measures will need to be implemented to offset development emissions. In the event that appropriate on-site and off-site mitigation cannot be agreed with the local authority, an offsetting payment is then required by developers to off-set emissions.

6.4 The Air Quality Neutral Assessment for the proposed development is outlined below.

6.5 It should be noted that the development includes flexible light industrial (Class E(g)(iii)), general industrial (Class B2) and storage/distribution (Class B8) land uses. Therefore, three different potential end use scenarios were tested to allow for the assessment of the potential final land use based on the proposed development's confirmed tenant.

Building Emissions

6.6 The proposed energy strategy is anticipated to be all-electric and will, therefore, not have any associated on-site building emissions. As such, the proposed development will be 'air quality neutral' in terms of building emissions in accordance with the GLA guidance[22].

Transport Emissions

6.7 The proposed development will have trips associated with its operations and as such will have associated transport emissions. The air quality neutral calculations used the proposed Gross Floor Area (GFA) and anticipated development vehicle trip rates for the Site once operational. Input data for an Outer London area were utilised based on the Site's location within LBH.

6.8 Information on the development trip generation was provided by TTP Consulting, the Transport Consultant of the project. In accordance with the GLA guidance[22] trips associated with deliveries, servicing vehicles, taxis and HDVs should be excluded from benchmark calculations. As such, these trips were excluded from the air quality neutral calculations.

6.9 The proposed development trips for the three potential end uses were compared to the calculated benchmark trips for the development. The difference between the development trips and benchmark trips for each considered land use are detailed in **Table 6.1**.

Table 6.1: Comparison of Development Trips and Benchmark Trips

Land Use Class	GFA (m^2)	Benchmark Trip Rate (trips/m^2)	Calculated Benchmark Trips (trips/yr)	Development Annual Trips (trips/yr)	Difference between Benchmark and Development Trips (trips/yr)
Industrial Units – Storage and Distribution	2,943	6.5	19,130	16,195	**-2,935**
Office / Light Industrial		16	47,088	47,289	**+201**
Commercial Warehouse		6.5	19,130	23,733	**+4,603**

6.10 The transport trips for the development are below the calculated benchmark trips for the Industrial Units – Storage and Distribution scenario. The proposed development is therefore considered to be air quality neutral for this scenario.

6.11 However, the transport trips for the development are above the calculated benchmark trips for the Office / Light Industrial and Commercial Warehouse land use scenarios. Mitigation measures for the development will need to be implemented on-site to offset Site emissions. If no sufficient mitigation can be implemented on-site, then off-site mitigation measures will need to be implemented to offset Site emissions. In the event that suitable mitigation cannot be agreed with LBH, an offsetting payment would need to be agreed to mitigate the excess transport emissions.

6.12 In order to calculate the offsetting payment, the benchmark trips and development trips need to be converted to NO_X and $PM_{2.5}$ emissions in accordance with the GLA guidance[22]. The conversion is shown in **Table 6.2**. The calculation of the offsetting payment is presented in **Table 6.3**.

6.13 The GLA guidance[22] also requires for the offsetting payment to be over a 30-year period, with a 2 per cent annual uplift following the below calculation:

Total offsetting amount = {Annual Offsetting Amount x $[(1+0.02)^{30}-1]$}/0.02

Table 6.2: Calculation of Benchmark & Development Emissions

Land Use Class	Benchmark Trip Rate (trips/yr)	Development Trip Rate (trips/yr)	Average Distance per trip (km)*	Emissions factors (g/veh-km)*		Benchmark Emissions (kg)		Development Emissions (kg)	
				NO_X	$PM_{2.5}$	NO_X	$PM_{2.5}$	NO_X	$PM_{2.5}$
Office / Light Industrial	47,088	47,289	10.8	0.35	0.028	178.0	14.2	178.8	14.3

Land Use Class	Benchmark Trip Rate (trips/yr)	Development Trip Rate (trips/yr)	Average Distance per trip (km)*	Emissions factors (g/veh-km)*		Benchmark Emissions (kg)		Development Emissions (kg)	
				NO_X	$PM_{2.5}$	NO_X	$PM_{2.5}$	NO_X	$PM_{2.5}$
Commercial Warehouse	19,130	23,733	5.4			36.2	2.9	44.9	3.6

**As per the GLA guidance[22]*

Table 6.3: Calculation of Offsetting Payment

Land Use Class	Excess Emissions (tn/yr)		Damage Cost (£/tn)*		Annual Offsetting Amount (£)		Total Annual Offsetting Amount (£)	Total 30-year Offsetting Amount (£)
	NO_X	$PM_{2.5}$	NO_X	$PM_{2.5}$	NO_X	$PM_{2.5}$		
Office / Light Industrial	0.001	0.0001	£33,064	£246,942	£25	£15	**£40**	**£1,628**
Commercial Warehouse	0.009	0.001			£288	£172	**£460**	**£18,644**

**As per the Defra Air Quality Appraisal: Damage cost guidance[29]*

Summary

6.14 The air quality neutrality of the proposed development was assessed for the different potential end uses.

6.15 Once the tenant is confirmed, and where required, suitable on-site mitigation will need to be agreed with LBH to offset development emissions. If sufficient on-site mitigation cannot be implemented, then off-site mitigation will need to be implemented to offset development emissions. In the event that appropriate mitigation cannot be agreed with LBH appropriate payment based on the above calculations will be made.

6.16 In accordance with the GLA guidance[22] "*The details of an offsetting payment and when it should be made are subject to agreement between the local planning authority and the developer. However, it would normally be collected via section 106 agreements, expected to be paid in full prior to the occupation of the development and will contribute towards measures to reduce local emissions or concentrations*".

[29] Defra (2023) Air quality appraisal: damage cost guidance [https://www.gov.uk/government/publications/assess-the-impact-of-air-quality/air-quality-appraisal-damage-cost-guidance]

7. CONCLUSION

7.1 An air quality assessment was undertaken for the proposed industrial development at Island Site, Eksdale Road in Uxbridge.

7.2 A qualitative construction phase assessment was undertaken and measures were recommended to minimise emissions during construction activities. With the implementation of these mitigation measures the impact of construction phase dust emissions is considered to be 'not significant' in accordance with IAQM guidance[19] and GLA guidance[20].

7.3 The trip generation associated with the proposed development was screened using the two-stage screening approach detailed in the IAQM and EPIC (formerly EPUK) guidance[21]. The proposed development is anticipated to result in a net decrease of overall vehicle trips on the local road network when compared to the existing use of the Site. A detailed road traffic emissions assessment was therefore not required and the impact of the proposed development on local air quality was determined to be 'not significant', in accordance with IAQM and EPIC (former EPUK guidance)[21].

7.4 An Air Quality Neutral Assessment was undertaken to compare building and transport emissions from the proposed development with GLA benchmarks[22] for three difference potential end use scenarios. The proposed development was assessed to be air quality neutral for the Industrial Units land use scenario but was not considered to be air quality neutral for the Office / Light Industrial and Commercial Warehouse land use scenarios. Once the tenant is confirmed, suitable on-site mitigation will need to be agreed with LBH to offset development emissions, where required. If sufficient on-site mitigation cannot be implemented, then off-site mitigation will need to be implemented to offset development emissions. In the event that appropriate mitigation cannot be agreed with LBH appropriate payment based on the calculations in Section 6 will be made.

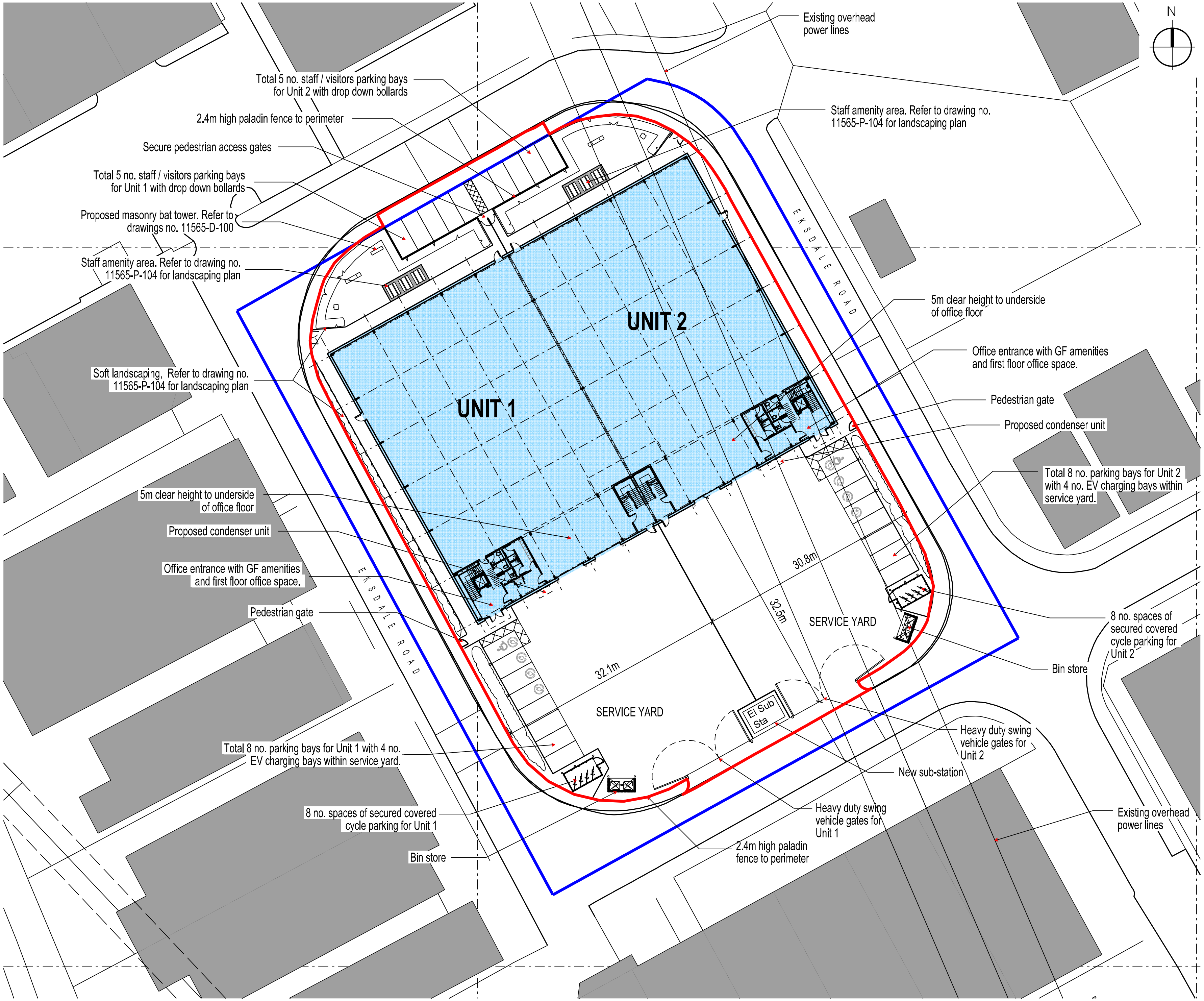
7.5 Based on the assessment results, the impact of the proposed development on local air quality with regards to the current relevant air quality objectives was considered to be not significant. No mitigation is required but measures included in the development that can be considered beneficial to air quality include the provision of photovoltaic panels, electric vehicle charging points and a resulting Travel Plan an improved and more sustainable scheme compared to the existing site premises.

APPENDICES

APPENDIX A: GLOSSARY OF TERMS

	Definition
AADT	Annual Average Daily Traffic flow.
Air quality objective	Policy target generally expressed as a maximum ambient concentration to be achieved, either without exception or with a permitted number of exceedances within a specific timescale (see also air quality standard).
Air quality standard	The concentrations of pollutants in the atmosphere which can broadly be taken to achieve a certain level of environmental quality. The standards are based on the assessment of the effects of each pollutant on human health including the effects on sensitive sub groups (see also air quality objective).
Annual mean	The average (mean) of the concentrations measured for each pollutant for one year. Usually this is for a calendar year, but some species are reported for the period April to March, known as a pollution year. This period avoids splitting winter season between two years, which is useful for pollutants that have higher concentrations during the winter months.
AQAP	Air Quality Action Plan.
AQMA	Air Quality Management Area.
AQS	Air Quality Strategy.
Defra	Department for Environment, Food and Rural Affairs.
EPIC	Environmental Policy Implementation Community (formerly EPUK)
EPUK	Environmental Protection UK.
Exceedance	A period of time where the concentrations of a pollutant is greater than, or equal to, the appropriate air quality standard.
HDV	Heavy Duty Vehicles (HGVs + buses and coaches)
HGV	Heavy Goods Vehicles.
IAQM	Institute of Air Quality Management.
LAQM	Local Air Quality Management.
LDV	Light Duty Vehicles (motorbikes, cars, vans and small trucks)
NO	Nitrogen monoxide, a.k.a. nitric oxide.
NO_2	Nitrogen dioxide.
NOx	Nitrogen oxides.
Percentile	The percentage of results below a given value.
PM_{10}	Particulate matter with an aerodynamic diameter of less than 10 micrometres.
$PM_{2.5}$	Particulate matter with an aerodynamic diameter of less than 2.5 micrometres.
micrograms per cubic metre ($\mu g.m^{-3}$)	A measure of concentration in terms of mass per unit volume. A concentration of $1\mu g.m^{-3}$ means that one cubic metre of air contains one microgram (millionth of a gram) of pollutant.

APPENDIX B: PROPOSED DEVELOPMENT SITE PLAN



OWNERSHIP BOUNDARY

APPLICATION BOUNDARY

UNIT 1 (same to Unit 2)

GF-Warehouse GIA	1,094 sqm	11,776 sqft
GF-Amenity GIA	25 sqm	269 sqft
GF-Circulation	74 sqm	797 sqft
GF-Internal Wall	5 sqm	54 sqft
Total GF GIA	**1,198 sqm**	**12,896 sqft**
1F-Office GIA	119.54 sqm	1,287 sqft
1F-Amenity GIA	18.30 sqm	197 sqft
1F-Circulation	56.9 sqm	612 sqft
1F-Internal Wall	4 sqm	43 sqft
Total 1F GIA	**198.74 sqm**	**2,139 sqft**
TOTAL UNIT 1 GIA	**1,396.74 sqm**	**15,035 sqft**
TOTAL SITE GIA (UNIT 1 & 2)	**2,850.24 sqm**	**30,680 sqft**

Car Parking Total (Unit 1 & 2)	26
Cycle Parking Total (Unit 1 & 2)	16
EV Charging Total (Unit 1 & 2)	8
Rooflights	10% of warehouse area

REV.	DATE	NOTES	INIT.
D	11.10.24	Planning Issue	DS
C	18.09.24	Minor amendments to entrance door	CF
B	03.09.24	Minor amendments to TTP comments	JT
A	30.08.24	Planning drawings issued to design teams	JT

CLIENT / PROJECT
GLOBE EXHIBITIONS LTD.
ISLAND SITE, EKSDALE ROAD
UB8 2RT, UXBRIDGE

DRAWING TITLE
PROPOSED SITE PLAN

STATUS
PLANNING

DATE	DRAWN	SCALE @ A3
22.07.2024	JT	1:500

PROJECT NUMBER	UNIT / BLOCK	CI / SFB CODE	TYPE & NUMBER	REVISION LETTER
11565		P	100	D

DRAWING NO.

Site Location Plans L · GA Plans P · Elevations E
Sections S · Details D · Prefix; Colour C

THE RATCLIFFE GROVES PARTNERSHIP
LONDON
19 BEDFORD ROW
LONDON WC1R 4EB
T. 020 7600 6666 E. london@rgp.uk.com
www.rgp.uk.com
MANCHESTER
105 MANCHESTER ROAD
BURY LANCASHIRE BL9 0TD
T. 0161 797 6000 E. manchester@rgp.uk.com
RGP architects

APPENDIX C: PLANNING POLICY AND LEGISLATION

National Legislation and Planning Policy

The UK Air Quality Strategy

C.1 European Union (EU) legislation forms the basis of air quality policy and legislation in the UK. The EU 2008 ambient Air Quality Directive[1] sets limits for ambient concentrations of air pollutants including nitrogen dioxide (NO_2) and particulate matter (PM_{10} and $PM_{2.5}$). The air quality standards and objectives are prescribed through the Air Quality (England) Regulations 2000[2], as amended, for the purpose of the Local Air Quality Management Framework. The Air Quality (England) Regulations were amended in 2002[5] and again in 2010[6], with miscellaneous amendments added in 2020[10] following the UK exit from the EU. Additionally, an updated $PM_{2.5}$ objective was published in 2023[9] with an interim target to be achieved by 2028[25].

C.2 The UK Government are required under the Environment Act 1995[3] to produce a national Air Quality Strategy (AQS). The AQS was first published in 1997[7] and was most recently reviewed and updated in 2007[8] and most recently reviewed and updated in 2023[9]. The AQS provides an overview of the Government's ambient air quality policy and sets out the air quality standards and objectives to be achieved and measures to improve air quality.

C.3 The Environment Act 2021[4] was granted Royal Assent in November 2021 and contains amendments to Part IV of the Environment Act 1995[3] with regard to the Local Air Quality Management regime. Under the Environment Act 2021[4], the Secretary of State must lay a statement before Parliament setting out progress made in meeting air quality objectives and standard in England and steps taken towards achieving the standards. The Environment Act 2021[4] also places responsibility on local authorities to co-operate with air quality partners in the preparation of Air Quality Action Plans and identification of measures which should be monitored within the Plan and dates by which they should be implemented.

C.4 Part IV of the Environment Act[3] requires local authorities in the UK to review local air quality within their administrative area and, if relevant air quality standards and objectives are likely to be exceeded, designate Air Quality Management Areas (AQMAs). Following the designation of an AQMA, local authorities are required to publish an Air Quality Action Plan (AQAP) detailing measures to be taken to improve local air quality and work towards meeting the relevant air quality standards and objectives.

National Planning Policy Framework

C.5 The National Planning Policy Framework (NPPF)[12] was amended in December 2023 and sets out the Government's planning policies for England and how these are expected to be applied.

C.6 The NPPF[12] recognises air quality within Section 15: Conserving and enhancing the natural environment, and states that:

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

[…]

e) 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;

[…]

Ground conditions and pollution

[…]

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 site or the wider area to impacts that could arise from the development.

[…]

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."

C.7 With regard to assessing cumulative effects the NPPF[12] 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 site or the wider area to impacts that could arise from the development.

[...]"

Planning Practice Guidance

C.8 The Planning Practice Guidance (PPG) for air quality[13] was updated in November 2019 and provides guiding principles on how the planning process can take account of the impacts of new development on air quality.

C.9 The PPG[13] sets out the following with regard to air quality and planning:

- *"What air quality considerations does planning need to address;*
- *What is the role of plan-making with regard to air quality;*
- *Air quality concerns relevant to neighbourhood planning;*
- *What information is available about air quality;*
- *When could air quality considerations be relevant to the development management process;*
- *What specific issues may need to be considered when assessing air quality impacts;*
- *How detailed does an air quality assessment need to be; and*
- *How can an impact on air quality be mitigated".*

C.10 The PPG[13] sets out the pollutants for which there are legally binding limits for concentrations and those which the UK also has national emissions reduction commitments.

C.11 The PPG[13] states that development plans may need to consider:

- *"what are the observed trends shown by recent air quality monitoring data and what would happen to these trends in light of proposed development and / or allocations;*
- *the impact of point sources of air pollution (pollution that originates from one place);*
- *the potential cumulative impact of a number of smaller developments on air quality as well as the effect of more substantial developments, including their implications for vehicle emissions;*
- *ways in which new development could be made appropriate in locations where air quality is or is likely to be a concern, and not give rise to unacceptable risks from pollution. This could, for example, entail identifying measures for offsetting the impact on air quality arising from new development including supporting measures in an air quality action plan or low emissions strategy where applicable; and*
- *opportunities to improve air quality or mitigate impacts, such as through traffic and travel management and green infrastructure provision and enhancement".*

C.12 The PPG[13] also states what may be considered relevant to determining a planning application and these include whether a development would:

- *"Lead to changes (including any potential reductions) in vehicle-related emissions in the immediate vicinity of the proposed development or further afield. This could be through the provision of*

electric vehicle charging infrastructure; altering the level of traffic congestion; significantly changing traffic volumes, vehicle speeds or both; or significantly altering the traffic composition on local roads. Other matters to consider include whether the proposal involves the development of a bus station, coach or lorry park; could add to turnover in a large car park; or involve construction sites that would generate large Heavy Goods Vehicle flows over a period of a year or more;

- *Introduce new point sources of air pollution. This could include furnaces which require prior notification to local authorities; biomass boilers or biomass-fuelled Combined Heat and Power plant; centralised boilers or plant burning other fuels within or close to an air quality management area or introduce relevant combustion within a Smoke Control Area; or extraction systems (including chimneys) which require approval or permits under pollution control legislation;*
- *Expose people to harmful concentrations of air pollutants, including dust. This could be by building new homes, schools, workplaces or other development in places with poor air quality;*
- *Give rise to potentially unacceptable impacts (such as dust) during construction for nearby sensitive locations;*
- *Have a potential adverse effect on biodiversity, especially where it would affect sites designated for their biodiversity value".*

C.13 The PPG[13] provides guidance regarding what should be included within an air quality assessment. Examples of potential air quality mitigation measures are also provided.

Local and Regional Planning Policy

London Plan

C.14 The London Plan[14] was adopted in March 2021 and sets out a framework for how London will develop over the next 20 – 25 years and the Mayor's visions for Good Growth. The London Plan contains several policies relating to air quality.

"Policy SI 1 Improving air quality

A) 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.

B) 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 unacceptable risk of high levels of exposure to poor air quality.*

2) *In order to meet the requirement 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 Area or that are likely to be used by large numbers of people particularly vulnerable to poor quality, such as children or older people should demonstrate that design measures have been used to minimise exposure.*

C) *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 local 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.*

D) *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 Emissions Zone and reduce emissions from the demolition and construction of buildings following best practice guidance.*

E) *Development proposals should ensure that where emissions need to be reduced to meet 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 GG3 Creating a healthy city*

To improve Londoners' health and reduce health inequalities, those involved in planning and development must:

[…]

F) 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 SD2 Collaboration in the Wider South East*

[…]

E) The Mayor will work with WSE [Wider South East] partners to find solutions to shared strategic concerns such as: barriers to housing and infrastructure delivery (including 'smart' solutions – see also paragraph 9.6.9); factors that influence economic prosperity; the need to tackle climate change (including water management and flood risk); improvements to the environment (including air quality, biodiversity and green infrastructure), waste management, and the promotion of Circular Economies; wider needs for freight, logistics and port facilities; and scope for the substitution of business and industrial capacity where mutual benefits can be achieved.

[…]"

London Borough of Hillingdon Local Plan

C.15 The LBH Local Plan comprises two parts outlining the council's strategic policies in Part 1[15] and the council's development management policies in Part 2[16]. The Part 1[15] policies relating to air quality state:

"Policy EM8 Land, Water, Air and Noise

…All development should not cause deterioration in the local air quality levels and should ensure the protection of both existing and new sensitive receptors.

All major development within the Air Quality Management Area (AQMA) should demonstrate air quality neutrality (no worsening of impacts) where appropriate; actively contribute to the promotion of sustainable transport measures such as vehicle charging points and the increased provision for vehicles with cleaner transport fuels; deliver increased planting through soft landscaping and living walls and roofs; and provide a management plan for ensuring air quality impacts can be kept to a minimum.

The Council seeks to reduce the levels of pollutants referred to in the Government's National Air Quality Strategy and will have regard to the Mayor's Air Quality Strategy. London Boroughs should also take account of the findings of the Air Quality Review and Assessments and Actions plans, in particular where Air Quality Management Areas have been designated.

The Council has a network of Air Quality Monitoring stations but recognises that this can be widened to improve understanding of air quality impacts. The Council may therefore require new major development in an AQMA to fund additional air quality monitoring stations to assist in managing air quality improvements."

"Policy B1 Built Environment

The Council will require all new development top improve and maintain the quality of the built environment in order to create successful and sustainable neighbourhoods, where people enjoy living and working and that serve the long-term needs of all residents. All new developments should

[…]

Maximise the opportunities for all new homes to contribute to

[…]

reducing emission of local air quality pollutants…"

C.16 The Part 2[16] policies relating to air quality state:

"Policy DMEI14 Air Quality

A. Development proposals should demonstrate appropriate reductions in emissions to sustain compliance with and contribute towards meeting EU limit values and national air quality objectives for pollutants.

i. be at least "air quality neutral;

ii. include sufficient mitigation to ensure there is no unacceptable risk from air pollution to sensitive receptors, both existing and new; and

iii. actively contribute towards the improvement of air quality, especially within the Air Quality Management Area"

"Policy DMT2 Managing Transport Impacts

Development proposals will be required to meet the transport needs of the development and address its transport impacts in a sustainable manner. In order for developments to be acceptable they are required to … have no significant adverse transport or associated air quality…impacts on the local and wider environment, particularly on the strategic road network."

"Policy DMT2 Highway Impacts

Development proposals must ensure that

[…]

they do not contribute to the deterioration of air quality

[…]

or local amenity

[…]

of all road users and residents"

C.17 The above policies were taken into consideration throughout the undertaking of the assessment.

BWB

A CAF GROUP COMPANY

www.bwbconsulting.com