



**AIR QUALITY SCREENING
STATEMENT**

**BARTON BUILDINGS, UXBRIDGE
INDUSTRIAL ESTATE, UXBRIDGE**

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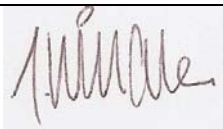
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Date: May 2020



EnviroSolution Ltd

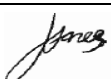
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EXECUTIVE SUMMARY

EnviroSolution were commissioned to undertake an Air Quality Statement in support of a proposed industrial development at Barton Buildings, Uxbridge Industrial Estate, Uxbridge.

The proposed development comprises of the demolition of the existing unit to form 2 industrial units with associated infrastructure and parking. An Air Quality Statement is required to determine baseline conditions at the site, assess site suitability for proposed end-use and consider associated impacts as result of the development.

Pollutant background maps showed that the existing levels at the development site are well below the relevant air quality standards. Based on the screening results, both air quality exposure and associated impacts are considered **not significant** and should not form a constraint to planning consent for the proposed development. The development is also considered to be Air Quality Neutral and Air Quality Positive in line with the draft London Plan.

Based on the assessment results the site is considered suitable for the proposed end use.

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1. INTRODUCTION

1.1 Background

EnviroSolution were commissioned to undertake an Air Quality Statement in support of a proposed industrial development, comprising 2 industrial units, with associated infrastructure and parking. Herein after referred to as the 'Proposed Development'.

1.2 Site Location and Context

The Proposed Development is located at Barton Buildings, Uxbridge Industrial Estate, Uxbridge at approximate National Grid Reference (NGR): 504700, 183040. Reference should be made to Figure 1 within Appendix I for a location plan.

The Proposed Development is located within the London Borough of Hillingdon (LBoH) Air Quality Management Area (AQMA), which has been declared for exceedances of the annual mean Air Quality Objective (AQO) for nitrogen dioxide (NO₂). Additionally, the development site is located within the vicinity to the Hillingdon Air Quality Focus Area (AQFA). Subsequently, the development has the potential to cause adverse impacts at existing sensitive receptor locations within the AQMA and AQFA as a result of pollutant emissions associated with the operational phase.

An Air Quality Statement is therefore required to determine baseline conditions at the site, assess site suitability for proposed end-use and consider associated impacts as result of the development in accordance with the requirements of the London Plan and the National Planning Policy Framework (NPPF). This is detailed in the following report.

1.3 Limitations

This report has been produced in accordance with EnviroSolution's standard terms of engagement. EnviroSolution has prepared this report solely for the use of the Client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from EnviroSolution; a charge may be levied against such approval.

2. LEGISLATION, GUIDANCE AND POLICY

- ✓ *European Union (EU) Directive 2008/50/EC;*
- ✓ *The NPPF, updated on 19th February 2019;*
- ✓ *The National Planning Practice Guidance (NPPG), relevant chapters updated on 1st November 2019;*
- ✓ *Section 82 of the Environment Act (1995) (Part IV);*
- ✓ *The Air Quality Standards (Amendment) Regulations (2016).*
- ✓ *London Local Air Quality Management Technical Guidance 2016 LLAQM.TG(16), Greater London Authority (GLA), 2016;*
- ✓ *Land-Use Planning and Development Control: Planning for Air Quality, Environmental Protection United Kingdom (EPUK) and Institute of Air Quality Management (IAQM), January 2017; and*
- ✓ *Air Quality Neutral Planning Support, GLA, 2014.*

2.1 UK Legislation

The Air Quality Standards (Amendment) Regulations (2016) came into force on 31st December 2016. These Regulations amend the Air Quality Standards Regulations 2010 and transpose the EU Directive 2008/50/EC into UK law. AQLVs were published in these regulations for 7 pollutants, as well as Target Values for an additional 6 pollutants.

Part IV of the Environment Act (1995) requires UK government to produce a national Air Quality Strategy (AQS) which contains standards, objectives and measures for improving ambient air quality. The most recent AQS was produced by the Department for Environment, Food and Rural Affairs (DEFRA) and published in July 2007¹. The AQS sets out AQOs that are maximum ambient pollutant concentrations that are not to be exceeded either without exception or with a permitted number of exceedances over a specified timescale. These are generally in line with the AQLVs, although the requirements for compliance vary slightly.

Table 1 presents the AQOs for pollutants considered within this assessment.

Table 1 **Air Quality Objectives**

Pollutant	Air Quality Objective	
	Concentration (µg/m ³)	Averaging Period
NO ₂	40	Annual mean
	200	1-hour mean; not to be exceeded more than 18 times a year
Particulate Matter with an Aerodynamic Diameter of less than 10µm (PM ₁₀)	40	Annual mean
	50	24-hour mean; not to be exceeded more than 35 times a year
Particulate Matter with an Aerodynamic Diameter of less than 2.5µm (PM _{2.5})	25	Annual mean

¹ The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, DEFRA, 2007.

Table 2 summarises the advice provided in GLA guidance LLAQM.TG(16)² on where the AQOs for pollutants considered within this report apply.

Table 2 Examples of Where the Air Quality Objectives Apply

Averaging Period	Objectives Should Apply At	Objectives Should Not Apply At
Annual mean	All locations where members of the public might be regularly exposed Building façades of residential properties, schools, hospitals, care homes etc.	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
24-hour mean	All locations where the annual mean objective would apply, together with hotels. 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
1-hour mean	All locations where the annual mean and 24-hour mean objectives apply. Kerbside sites (for example, pavements of busy shopping streets) Those parts of car parks, bus stations and railway stations etc. which are not fully enclosed, where members of the public might reasonably be expected to spend one hour or more Any outdoor locations where members of the public might reasonably be expected to spend one hour or longer	Kerbside sites where the public would not be expected to have regular access

2.2 Local Planning Policy

2.2.1 The London Plan

The Minor Alterations to The London Plan³ was published in March 2016 and sets out a fully integrated economic, environmental, transport and social framework for the development of the capital until 2031. London boroughs' local plans need to be in general conformity with the London Plan, and its policies guide decisions on planning applications by councils and the Mayor.

The London Plan policies relating to air quality are outlined below:

- ✓ ***Policy 3.2 Improving health and addressing health inequalities;***
- ✓ ***Policy 5.3 - Sustainable design and construction; and***

² Local Air Quality Management Technical Guidance 2016 LLAQM.TG(16), GLA, 2016.

³ Draft London Plan – consolidated changes version Greater London Authority, July 2019.

✓ **Policy 7.14 - Improving air quality**

These policies have been considered throughout the completion of this Air Quality Statement.

2.2.2 The Draft London Plan

The Draft New London Plan sets out the proposed development strategy for London from 2019 to 2041. The Examination in Public (EiP) on the London Plan was held between 15th January and 22nd May 2019. The Panel of Inspectors appointed by the Secretary of State issued their report and recommendations to the Mayor on 8th October 2019. The Mayor has considered the Inspectors' recommendations and, on the 9th December 2019, issued to the Secretary of State his intention to publish the London Plan".

A review of the Draft New London Plan indicated the following policy in relation to air quality:

✓ **Draft Policy SI1 Improving air quality**

This policy has been considered throughout the undertaking of this Air Quality Statement. However, it should be noted that the plan carries limited weight in the determination of this application.

2.2.3 London Borough of Hillingdon Local Plan

LBoH's Local Plan consists of two parts; Part 1: Strategic Policies, which was adopted in November 2012⁴ and Part 2, which was adopted in January 2020. Together they form a comprehensive development strategy for the Borough up to 2026.

A review of the Local Plan-Part 1 indicated the following policies in relation to air quality that are relevant to this assessment:

- ✓ **Policy E2 - Location of Employment Growth;**
- ✓ **Policy EM1 - Climate Change and Adaption and Mitigation; and**
- ✓ **Policy EM8 - Land, Water, Air and Noise**
- ✓ **Policy DME1 1: Sustainable Design Standards Living Walls and Roofs and on-site Vegetation**

A review of the Local Plan-Part 2 indicated the following policy in relation to air quality that is relevant to this assessment:

- ✓ **Policy DME1 14 - Air Quality;**
- ✓ **Policy DMT 1 - Managing Transport Impacts;**
- ✓ **Policy DMT 2: Highways Impacts; and**
- ✓ **Policy DMT 7: Freight**

Reference has been made to these policies during the undertaking of this Air Quality Statement.

⁴ Local Plan - Part 1: Strategic Policies, LBoH, 2012.

3. METHODOLOGY

There is the potential for the Proposed Development to cause impacts at sensitive locations during the operational phase. These have been assessed in accordance with the following methodology.

3.1 Road Traffic Exhaust and Combustion Emission Impacts

The development may have the potential to impact on existing air quality as a result of road traffic exhaust emissions associated with vehicles travelling to and from the site. A screening assessment was therefore undertaken using the criteria contained within EPUK and IAQM guidance⁵ to determine the potential for the development to affect local air quality.

The EPUK and IAQM guidance⁵ document states the following indicative criteria to help establish when an air quality assessment is likely to be considered necessary:

- ✓ Proposals that will cause a change in Light Duty Vehicle (LDV) flows of more than 100 AADT within or adjacent to an AQMA;
- ✓ Proposals that will cause a change in HDV flows of more than 25 AADT within or adjacent to an AQMA;
- ✓ Proposals which include either a centralised plant using biofuel, a combustion plant with single or thermal input >300KWh or a standby emergency generator associated with a centralised energy centre; and,
- ✓ Proposals which include combustion processes of any size.

Should the above criteria not be met, the EPUK and IAQM guidance⁵ considers air quality impacts associated with the scheme to be **not significant** and no further assessment is required. Conversely, should the criterion be exceeded it may be deemed necessary that further assessment is required.

3.2 Air Quality Neutral

In line with the requirements of the London Plan and Policy DMEI 14 of the Local Plan - Part 2, an Air Quality Neutral Assessment is required in order to compare benchmark emissions with the development emissions in accordance with the methodology outlined within the GLA 'Air Quality Neutral Planning Support'⁶. The methodology is outlined below:

The following potential scenarios have been considered within the assessment:

- ✓ Benchmark; and
- ✓ Development.

The benchmark scenario is representative of annual NO_x and PM₁₀ benchmark emissions, which are target emissions as defined by the GLA guidance⁶. The development scenario is representative of the annual NO_x and PM₁₀ emissions associated with operation of the Proposed Development.

The following emission source was considered during the assessment:

- ✓ **Transport Emissions** - road vehicles travelling to and from the site.

⁵ Land-Use Planning and Development Control: Planning for Air Quality, EPUK and IAQM, January 2017.

⁶ Air Quality Neutral Planning Support: GLA 80371, Air Quality Consultants Ltd in association with ENVIRON UK Ltd, 2014.

It should be noted that there is no combustion plant associated with the development. As such, building emissions have not been considered further within the Air Quality Neutral Assessment.

3.2.1 Benchmarks

The Transport Emissions Benchmark (TEB) for the development is calculated using the GLA guidance⁶ based on the land use classes associated with the Proposed Development. The TEBs for the land use class for a development within **Outer London** are provided in the GLA guidance⁶ and is summarised in Table 3.

It should be noted that the TEB for B1 (office) has been utilised for the purpose of this assessment. This is because there is no TEB stated for the B8 use and as such, the TEB for B1 has been used for both industrial units as it best represents the proposed land-use classifications. This advice is suggested within the GLA guidance^{Error! Bookmark not defined.}.

Table 3 Transport Emission Benchmarks

Land Use Category	NO _x TEB (g/m ² /year)	PM ₁₀ TEB (g/m ² /year)
B1 - Office	68.5	11.8

3.2.2 Development Emissions

The development Total Transport Emissions is compared against the development specific TEB in order to determine if the development site is considered to be Air Quality Neutral. Annual vehicle emissions for the development are calculated based on the anticipated traffic generation for the development, with the standard emission factors and the average distance travelled by car per trip for a development within **Outer London**. The emissions factors and the average distance travelled were taken from the GLA guidance⁶ and are summarised in Table 4 and Table 5, respectively.

Table 4 Air Quality Neutral Road Transport Emission Factors

Pollutant	g/vehicle-km in Outer London
NO _x	0.3530
PM ₁₀	0.0606

Table 5 Average Distance Travelled by Car per Trip

Land Use Category	Average Distance (km)
B1 -Office	10.8

4. BASELINE

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

4.1 Local Air Quality Management

As required by the Environment Act (1995), LBoH has undertaken Review and Assessment of air quality within their area of administration. This process has indicated that annual mean concentrations of NO₂ are above the AQO within their administration. As such, one AQMA has been declared and is described as:

- ✓ **Hillingdon AQMA** - *The area from the southern boundary north to the border defined by, the A40 corridor from the western borough boundary, east to the intersection with the Yeading Brook north until its intersection with the Chiltern-Marylebone railway line.*

The development site is located within the Hillingdon AQMA. As such there is the potential for the Proposed Development to cause air quality impacts during the construction and operational phases.

LBoH has concluded that concentrations of all other pollutants considered within the AQS are currently below the relevant AQOs and as such no further AQMAs have been designated.

Furthermore, LBoH has declared an AQFA⁷ within the administration area. This indicates that there are locations that not only exceed the EU annual mean limit value for NO₂ but are also locations with high human exposure.

The AQFA is located approximately 380m away from the development site and as such, the Proposed Development has the potential to cause air quality impacts during the operational phase.

4.2 Air Quality Monitoring

LBoH undertakes monitoring of pollutant concentrations using both periodic and continuous techniques throughout their area of administration. A review of the most recent Air Quality Annual Status Report⁷ indicated that the closest continuous monitor to the proposed development is the London Hillingdon analyser, which is located approximately located 5km away from the Proposed Development.

Given the distance between the analyser and the development site, and the differing surrounding context for each, it is not expected that conditions monitored by the analyser would be representative of conditions at the site. As such, these tubes are not considered further.

LBoH also monitor NO₂ concentrations across the borough using passive diffusion tubes. A review of the most recent air quality monitoring data indicated 3 diffusion tubes within the assessment extents, 2 of which are located within the AQFA. Recent data from these locations are presented in Table 6. Exceedances of the AQO are shown in **bold**.

⁷ Hillingdon Air Quality Annual Status Report 2018, Hillingdon Council, 2018

Table 6 Diffusion Tube Monitoring Results

ID	Site Name	Type	NGR (m)		Dist.to Site (m)	Annual Mean Concentration ($\mu\text{g}/\text{m}^3$)		
			X	Y		2016	2017	2018
HD52	Cowley Mill Road, Uxbridge	Roadside	505159	183232	490	30.0	34.0	35.3
HD212	59 Hillingdon Road, Uxbridge	Roadside	506035	183611	1,450	35.5	40.0	36.9
HD43	Uxbridge Day Nursery, Park Road, Uxbridge	Roadside	505996	184058	1,640	42.8	40.1	40.7

As indicated in Table 6, there were exceedances of annual mean AQO for NO₂ at both diffusion tubes locations within the AQFA (HD212, HD43) in recent years. This is to be expected due to their roadside locations within an AQMA and AQFA in London. Reference should be made to Figure 2 within Appendix I for a graphical representation of the passive monitoring locations.

4.3 Background Pollutant Concentrations

The total concentration of a pollutant is comprised of explicit local emission sources (such as roads and industrial sources) and the background component. The background component consists of indeterminate sources which are transported into an area from further away by meteorological conditions. Background pollutant concentrations are therefore the ambient level of pollution that is not affected by local sources of pollution.

In reality, it is not usually practical to obtain a true representation of background levels in urban areas due to corruption by local sources; background levels used in assessments may contain a mixture of both sources.

Predictions of background pollutant concentrations on a 1km by 1km grid basis have been produced by DEFRA for the entire of the UK to assist LAs in their Review and Assessment of air quality. The Proposed Development site is located at NGR: 504500, 183500. Data for this location was downloaded from the DEFRA website⁸. For the purpose of this assessment, background concentrations are summarised in Table 7 for the current year (2020).

Table 7 Predicted Background Pollutant Concentrations

Pollutant	2020 Predicted Background Concentration ($\mu\text{g}/\text{m}^3$)
NO _x	34.30
NO ₂	22.69
PM ₁₀	16.74
PM _{2.5}	11.32

As shown in Table 7, background pollutant concentrations do not exceed the relevant AQOs.

⁸ <http://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html>.

5. POTENTIAL IMPACTS

5.1 Road Traffic Exhaust Impacts

Based on the information provided by TTP Consulting, the appointed transport consultant, the Proposed Development is likely to generate a net decrease in traffic flows when compared to the sites former use. In this regard, the proposed floor space is less than the existing and as such, with no change in use the transport consultant has confirmed there would in theory be fewer overall trips than existing on the wider road network.

Given that the Proposed Development will result in a net decrease of traffic when compared to the sites former use, it is considered that the development will not result in a significant change of AADT flows that will exceed the criteria outlined within Section 3.1. Subsequently, potential air quality impacts associated with operational phase road vehicle exhaust emissions are predicted to be **not significant** in accordance with the EPUK and IAQM screening criteria⁵ as shown in Section 3.1.

5.2 Combustion Plant Impacts

There is no scope within the development to provide any form of combustion plant. As such, potential air quality impacts associated with operational phase combustion emissions are therefore predicted to be **not significant**.

5.3 Air Quality Neutral Assessment

The proposals comprise the development of 2 commercial units. The impact of the Proposed Development has been assessed in the following sections.

5.3.1 Benchmarks

The development specific TEB has been calculated using the GLA guidance⁶ based on the standard TEB for the proposed land use of the development, as outlined in Table 3, and the floor area of proposed land use.

The floor area was provided by the developers. The development specific TEB is detailed in Table 8.

Table 8 Development Specific Transport Emission Benchmark

Land Use Category	Floorspace (m ²)	TEB - NO _x per Land Use (kg/year)	TEB - PM ₁₀ per Land Use (kg/year)
B1- office	1,168	80.0	13.8

As indicated in Table 8, the total annual NO_x emission TEB is **80kg/year** and the total annual PM₁₀ emission TEB is **13.8kg/year**.

5.3.2 Development Emissions

The Total Transport Emissions for the Proposed Development were calculated based on the standard emission factors and the average distance travelled by car per trip as outlined in Table 4 and Table 5, respectively and utilising the traffic data provided by TTP Consulting. It should be noted that AADT

flow utilised in the assessment are not additional trips associated with the development, rather the estimated number associated with the completed development. This has ensured a robust assessment has been undertaken.

The development Total Transport Emissions are summarised in Table 9.

Table 9 Development Total Transport Emissions

Land Use Category	Net 24-hour AADT Flow	NO _x Emission (kg/year)	PM ₁₀ Emission (kg/year)
B1- office	164	228.2	39.2

The development specific TEBs was then subtracted from the development Total Transport Emissions to determine if the development transport emissions are within the benchmark. The results are summarised in Table 10.

Table 10 Comparison of Total Transport Emissions with Transport Emission Benchmarks

Scenario	NO _x Emission (kg/year)	PM ₁₀ Emission (kg/year)
Development Specific TEB	80.0	13.8
Development Total Transport Emission	228.2	39.2
Difference	148.2	25.4

As indicated in Table 10, annual NO_x and PM₁₀ road vehicle exhaust emissions associated with the development are predicted to be **above** the TEB by **148.2kg/yr** for NO_x and **25.4kg/yr** for PM₁₀.

As such, the development is not considered to be Air Quality Neutral and further action is recommended to reduce excess emissions.

5.4 Operational Phase Assessment Discussion

The latest LBoH monitoring data, as well as predicted background concentrations provided by DEFRA, were assessed. The review process indicated that the most representative monitored NO₂ concentration was monitored at 35.3ug/m³ (HD52). Predicted background pollutant concentrations provided by DEFRA are also not likely to exceed the relevant AQOs across and within the development site. As indicated in Table 7, the predicted background concentrations are below 60% of the AQO for all referenced pollutant species. Given these results it is not expected that unacceptable pollutant exposure would be present during occupation.

In alignment with Policy SI1 of the draft London Plan, all new developments are required to be at minimum Air Quality Neutral, with large scale development area seeking to be Air Quality Positive. Although, the development is not considered to be Air Quality Neutral, this assessment was based on a robust approach assessing the estimated traffic generation associated with the completed development. Based on the advice provided by the transport consultant, the Proposed Development is likely to generate a net decrease in traffic flows when compared to the sites former use and as such, no additional trips are associated with the development.

It can therefore be considered with confidence that the Proposed Development will not result in any

adverse impacts to existing sensitive receptors within the AQMA and AQFA. Additionally, in line with Policy SI1 of the draft Local Plan, the development is considered to be **Air Quality Positive**.

Although the exact routes of the development traffic are not known, it is anticipated that the majority of development trips would be to either be to / from the M4 and motorway network to the north, or associated with Heathrow to the south. As such, it is unlikely that a large number of development trips would travel through the AQFA.

Furthermore, there are a number mitigation measures to be implemented within the scheme design. A Travel Plan has been developed to undertake travel surveys within 6-months of baseline survey and subsequent surveys 3 and 5 years following the baseline survey. This will support the monitoring of the Travel Plan and will help highlight if any further actions are required. Other measures within the Travel Plan include the provision of cycle infrastructure, promotion of more sustainable modes of travel including walking, cycling and the use public transport networks and the provision of welcome packs to tenants and staff.

It should be noted that air quality is predicted to improve in the future, due to the current shift by car manufacturers and consumers towards a greater production and uptake respectively, of electric and hybrid vehicles, supported by national government targets. The future occupiers are therefore likely to adopt a vehicle fleet replacement strategy, phasing out older vehicle fleets in order to advance towards cleaner technologies. The occupiers will be encouraged to do so based on current and future legislation regarding the AQFA, London's Ultra Low Emission Zone (ULEZ), Low Emissions Zone (LEZ) and the congestion charge.

Based on the information provided above and the inclusion of relevant mitigation techniques within the development scheme, this would actively reduce offset excess emissions associated with the development and in line with the relevant legislation, the proposed development can therefore be considered **Air Quality Neutral** and **Air Quality Positive**.

6. CONCLUSION

EnviroSolution were commissioned to undertake an Air Quality Statement in support of a proposed industrial development at Barton Buildings, Uxbridge Industrial Estate, Uxbridge.

A review of local monitoring data and the DEFRA pollutant background maps indicated that the existing levels at the development site are below the relevant AQOs. When assessing the existing background levels in the vicinity of the site and distance to specific monitoring locations, it is considered that future site users would not be exposed to unacceptable air pollution concentrations.

Potential operational impacts may occur due to road traffic exhaust emissions associated with vehicles travelling to and from the site. An assessment was therefore undertaken using the EPUK and IAQM screening criteria to determine the potential for trips generated by the development to affect local air quality. This indicated that impacts are likely to be **not significant** throughout the operational phase.

Pollutant emissions associated with the anticipated traffic generated by the completed development were compared to the relevant benchmarks. This indicated that both NO_x and PM₁₀ emissions were above the benchmarks. However, this assessment was based on a robust approach as the development is likely to result in a net decrease in traffic flows when compared to the sites former use and as such, no additional trips are associated with the development. Based on the information provided above and the inclusion of relevant mitigation techniques, the Proposed Development is considered to be Air Quality Neutral and Air Quality Positive in line with the draft London Plan.

Based on the assessment results, the site is considered suitable for the proposed end use and complies with the London Plan, the LBoTH Local Plan and relevant legislation.

7. ABBREVIATIONS

AADT	Annual Average Daily Traffic
AQAP	Air Quality Action Plan
AQFA	Air Quality Focus Area
AQLV	Air Quality Limit Value
AQMA	Air Quality Management Area
AQO	Air Quality Objectives
AQS	Air Quality Strategy
DEFRA	Department for Environment, Food and Rural Affairs
EPUK	Environmental Protection UK
EU	European Union
HDV	Heavy Duty Vehicle
IAQM	Institute of Air Quality Management
LAQM	Local Air Quality Management
LDV	Light Duty Vehicle
LEZ	Low Emission Zone
LBoH	London Borough of Hillingdon
NGR	National Grid Reference
NO ₂	Nitrogen dioxide
NO _x	Oxides of nitrogen
NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance
PM _{2.5}	Particulate matter with an aerodynamic diameter of less than 2.5µm
PM ₁₀	Particulate matter with an aerodynamic diameter of less than 10µm
ULEZ	Ultra Low Emissions Zone

APPENDIX I - FIGURES



Legend

 Site Boundary

Title

Figure 1
Site Location

Project

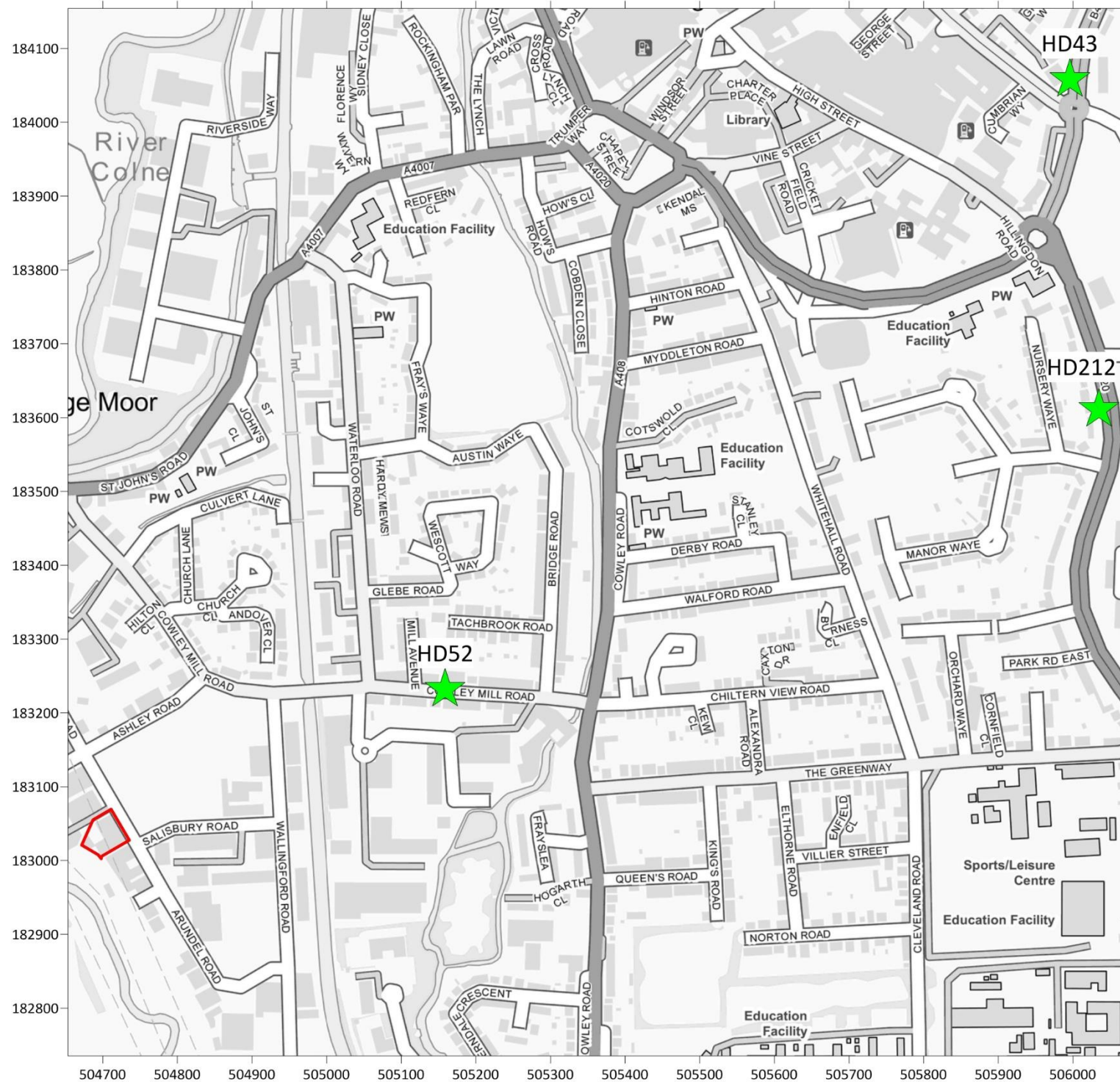
Barton Buildings, Uxbridge Industrial Estate,
Uxbridge

Project Number

AQ108885

Contains Ordnance Survey Data
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Legend

-  Site Boundary
-  Diffusion Tube Monitoring Locations

Title

Figure 2
Diffusion Tube Monitoring Locations

Project

Barton Buildings, Uxbridge Industrial Estate,
Uxbridge

Project Number

AQ108885

Contains Ordnance Survey Data
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APPENDIX II - ASSESSOR'S CURRICULUM VITAE

CONAL KEARNEY

Head of Noise and Air

BEng(Hons), MSc, MIAQM, MEnvSc

KEY EXPERIENCE:

Conal is Head of Noise and Air with specialist experience in the air quality and odour sector. His key capabilities include:

- Advanced atmospheric air dispersion modelling of road vehicle and industrial emissions using ADMS-ROADS and AIRVIRO.
- Preparation of factual and interpretative Air Quality Assessment reports and Air Quality Environmental Statement chapters in the vicinity of proposed schemes and developments in accordance with DEFRA, Environment Agency and Environmental Protection UK (EPUK) and Institute of Air Quality Management (IAQM) methodologies.
- Management and delivery of project work on key, land development and urban regeneration projects.
- Assessment of road vehicle exhaust emissions using the Design Manual for Roads and Bridges (DMRB) calculation spreadsheet.
- Assessment of dust impacts from construction sites to the Institute of Air Quality Management (IAQM) methodology.
- Dust and Odour impact assessments from minerals and waste sites
- Representing clients at public enquiries and planning hearings.

QUALIFICATIONS:

- Bachelor of Engineering
- Master of Science
- Member of Institute of Air Quality Management
- Member of the Institute of Environmental Science (IES)

SELECT PROJECTS SUMMARY:

Industrial Developments

Buck Park, Denholme - AQA and dust assessment for proposed mineral extraction and site restoration project.

Messingham Quarry, North Lincolnshire - AQA and dust impacts for proposed new sand extraction site.

Granta Park, Oxfordshire. Assessment of VOC fume emissions.

University of Birmingham. Permit application for CHP scheme.

Arbroath Road, Carnoustie. Odour and AQA for biogas CHP scheme Coopers Moss, St Helens AQA and dust assessment for materials import and site restoration.

Clayton Hall Landfill, Chorley - AQA and odour assessment for proposed landfill extension and mineral extraction.

Highways Developments

Alderley Edge Bypass, Cheshire - AQA for major new road scheme.

South Heywood – EIA for new link road and mixed use joint development

Residential Developments

Beck's Mill, Silsden – AQA and emissions calculation for proposed residential development

Bredbury Curve, Stockport - AQA assessment for proposed residential development in AQMA.

Hollin Lane, Middlewich – AQA for large scale residential development.

Friars School, Southwark, London. School development for mixed use education and residential building in AQMA.

Abbotsford House, Bearsden, Scotland – AQA and dust assessment for residential development

Kelvedon Street, Newport, South Wales – AQA for new housing development

Westcraig, Edinburgh - EIA for residential development

Public Sector

Technical advisor on Manchester Airport Consultative Committee - advise members on environmental technical matters in relation to the airport's operations.

Cheshire County Council - compile AQ chapters for Local Transport Plan

Cheshire East Council - specialist AQ advice on highways, minerals and waste projects

Local Air Quality Management

Broughton Gyratory, Chester - dispersion model for City Centre detailed assessment report

Congleton town centre - dispersion modelling assessment for detailed and further assessment reports.

Disley - dispersion modelling assessment for detailed and further assessments

Holmes Chapel - dispersion modelling assessment for detailed and further assessment reports for road and rail sources.

Crewe - town centre dispersion modelling for detailed and further assessment reports.

Commercial Developments

Granta Park Daycare Centre, Oxfordshire. AQA for new build daycare centre adjacent to major road. Curzon Cinema, Colchester. Air quality assessment for town centre new build cinema.

Newfoundland Circus, Bristol - AQA for hotel development in city centre

Salesians School, Chertsey - AQA for school extension near M25

Cathedral Street and Thistle Street, Glasgow. University energy generation emission assessments.

JOSH JONES

Air Quality Consultant

MSci (Hons)

KEY EXPERIENCE:

Josh is an Environmental Consultant with specialist experience in the air quality sector. His key capabilities include:

- Production of Air Quality Assessments to the Department for Environment, Food and Rural Affairs (DEFRA), Environment Agency and Environmental Protection UK (EPUK) methodologies for clients from the residential, retail and commercial sectors.
- Detailed dispersion modelling of road vehicle emissions using ADMS-Roads. Studies have included impact assessment of pollutant concentrations at various floor levels and assessment of suitability of development sites for proposed end-use.
- Assessment of road vehicle exhaust emissions using the Design Manual for Roads and Bridges (DMRB) calculation spreadsheet.
- Assessment of dust impacts from construction sites to the Institute of Air Quality Management (IAQM) methodology.
- Production of air quality mitigation strategies for developments throughout the UK.
- Defining baseline air quality conditions and identification of sensitive areas.

QUALIFICATIONS:

- Master of Science

SELECT PROJECTS SUMMARY:

Residential and Mixed-Use Developments:

Green Lane, Padgate, Warrington - Air Quality Assessment in support of a proposed residential development located adjacent to the Manchester/Liverpool Diesel railway line.

50 Severn Street, Birmingham - Air Quality Assessment using ADMS-Roads and ADMS 5 for a proposed mixed-use development comprising 31 residential units and two commercial units over ten storeys.

Whitchurch Road, Chester - Air Quality Assessment in support of the redevelopment of site to provide 26 bungalows and assisted living accommodation on land adjacent to the A41 and a Park and Ride.

Knowles House, Brent - Air Quality Assessment and Construction Method Statement for a residential development comprising a 97 unit Temporary Accommodation building and a 57 unit Non-Assisted Independent Living building to provide Care Home accommodation.

St Mary's Road, Nuneaton - Quantitative Odour Assessment for a residential-led development located adjacent to the St Mary's Road Terminal Pumping Station.

Citroen Site, Brentford - ES Chapter and input for a major mixed-use development in London.

Iceland Road, Fish Island - Air Quality, Qualitative Dust and Qualitative Odour Assessment in support of a residential-led development comprising residential and commercial space.

Commercial Developments:

33-38 Rushworth Street, Southwark - Air Quality Assessment using ADMS-Roads and ADMS 5 in support of the redevelopment of the site to provide commercial office space and associated infrastructure.

Quebec Street, Wakefield - Air Quality Assessment in support of a car showroom located within an Air Quality Management Area.

Industrial Developments:

Blakeney Way, Kingswood Lakeside, Cannock - Construction Environmental Management Plan in order to address a planning condition for the proposed development of two distribution warehouses.

Ma6nitide 160, Middlewich - Air Quality Assessment in support of the development of the site to provide a 160,400 sq ft industrial unit.

Bradley Business Park, Huddersfield - Air Quality and Qualitative Odour Assessments for an employed development, which manufactures PTFE hose's.

Tarmac Topblock, Alfreton - Dispersion Modelling for a proposed gas fired steam boiler at Tarmac Topblock Limited.

Wood Pellet Production Plant, Elland, Dispersion Modelling and Qualitative Dust Assessments in support of a proposed Wood Pellet Production Plant.

Inchdairnie Farm Silage Clamps - Quantitative Odour Assessment in order to assess potential odour emissions from two proposed silage clamps.

Riverside Park, Middlesbrough - Dispersion Modelling and Quantitative Odour Assessments in support of the construction and operation of an Anaerobic Digestion Plant.

Monitoring Experience

Co-ordination and management of NO₂ diffusion tube monitoring surveys in accordance with DEFRA guidance.