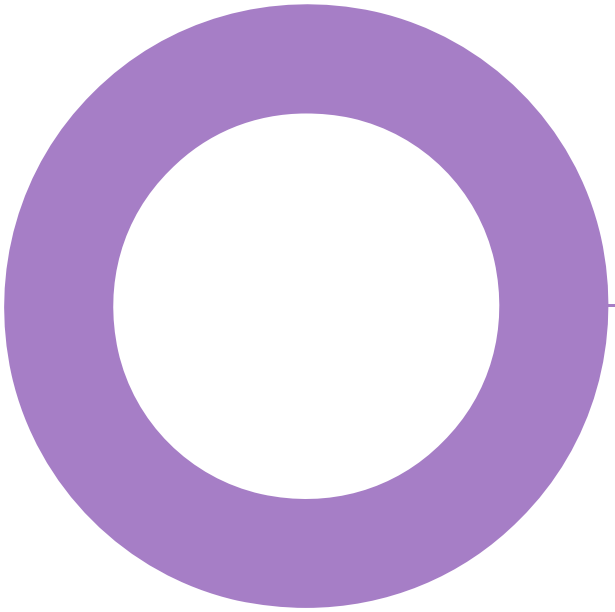
HOARE LEA

Octagon House. Manchester.
Plymouth Grove Residential LLP.

AIR QUALITY
AIR QUALITY ASSESSMENT

REVISION 04 – 24 AUGUST 2026



Audit sheet.

Rev.	Date	Description of change / purpose of issue	Prepared	Reviewed	Authorised
01	22/06/2026	First Issue	JR	AJ	LB
02	31/07/2026	Second Issue	JR	JJ	JJ
03	11/08/2026	Third Issue	JR	JJ	JJ
04	24/08/2026	Fourth Issue	AJ	JJ	JJ

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Executive summary.

Hoare Lea have been commissioned by Turley on behalf of Plymouth Grove Residential LLP to undertake an Air Quality Assessment to support the planning application for the proposed mixed-use neighbourhood off Hathersage Road, Manchester, M13 0FN (the 'Application Site').

The proposals comprise the refurbishment and extension of Octagon House and the erection of buildings of up to 11 storeys in height to accommodate a mix of uses comprising purpose built student accommodation bedrooms (205 studios and 35 apartments accommodating 255 bedrooms) (Sui Generis Use Class); key worker accommodation (Sui Generis Use Class) (211 units); residential units (16 no) (Use Class C3); 2,568 m^2 of healthcare use (including the retention of an existing healthcare facility on site) (Use Class Ee); and 394 m^2 of commercial or community uses (Use Classes Ea, Eb, Eciii, Ee, Ef, F1e, F2b, F2c) with associated site access, car and cycle parking and landscaping (the 'Proposed Development').

The baseline assessment has shown that the Proposed Development is located adjacent to the Greater Manchester Combined Authority (GMCA) Air Quality Management Area (AQMA). Monitoring data indicates compliance at the Application Site in the baseline year of 2024. This is supported by Defra predicted background concentrations at the Application Site.

The impacts of demolition and construction work on dust soiling and ambient fine particulate matter concentrations have been assessed and appropriate mitigation measures have been identified. Provided these mitigation measures are implemented and included within a Dust Management Plan, for example through a planning condition, the residual impacts are considered to be not significant.

The traffic generated by the Proposed Development has been screened against the criteria set-out in the Environmental Protection United Kingdom (EPUK) and Institute of Air Quality Management (IAQM) planning guidance to determine the need for a detailed assessment. This screening assessment has shown that the potential impact of additional road traffic on local air quality is considered insignificant and a detailed assessment is not required.

The energy strategy for the Proposed Development is primarily electric, utilising Air source Heat Pumps (ASHPs) and Water Source Heat Pumps (WSHP), both zero emission technologies. A backup generator is also located at the Application Site for life safety use only. As no combustion sources are proposed during normal operation, no local air quality impacts are anticipated and a detailed assessment of impacts of combustion emissions from the energy plant has been screened out of this assessment.

A qualitative site suitability assessment shows that pollutant concentrations are in compliance with the AQOs. Therefore, the Application Site is considered suitable for residential use without mitigation.

Based on the assessment results, the Application Site is considered suitable for the Proposed Development without the inclusion of mitigation, air quality should not be considered as a constraint to the planning consent and the Proposed Development conforms to the principles of the National Planning Policy Framework and to the relevant air quality policies within the Manchester Local Development Framework – Core Strategy 2012.

1. Introduction.

Hoare Lea have been commissioned by Turley on behalf of Plymouth Grove Residential LLP to undertake an Air Quality Assessment to support the planning application for the proposed mixed-use neighbourhood off Hathersage Road, Manchester, M13 0FN (the 'Application Site').

1.1 Proposed development.

The proposals comprise the refurbishment and extension of Octagon House and the erection of buildings of up to 11 storeys in height to accommodate a mix of uses comprising purpose built student accommodation bedrooms (205 studios and 35 apartments accommodating 255 bedrooms) (Sui Generis Use Class); key worker accommodation (Sui Generis Use Class) (211 units); residential units (16 no) (Use Class C3); 2,568 m^2 of healthcare use (including the retention of an existing healthcare facility on site) (Use Class Ee); and 394 m^2 of commercial or community uses (Use Classes Ea, Eb, Eciii, Ee, Ef, F1e, F2b, F2c) with associated site access, car and cycle parking and landscaping (the 'Proposed Development').

The proposals also include new landscaped public and communal spaces, improved pedestrian routes and streetscape works, together with community, commercial and resident amenity uses including shared social, wellbeing and meeting spaces.

The proposed energy strategy will primarily use Air Source Heat Pumps (ASHPs) on the roof and Water Source Heat Pumps (WSHPs), both zero emission technologies. Diesel generators will also be provided for life-safety and critical equipment.

As no combustion sources are proposed for the primary energy supply, no local air quality impacts are anticipated and a detailed assessment of impacts of combustion emissions from the energy plant has been screened out of this assessment.

The proposed ventilation strategy will utilise a mixed mode system, utilising openable windows supported by local Mechanical Ventilation with heat Recovery (MVHR) units.

1.2 Application site description and location.

The Application Site is located within Manchester City Council's (MCC) administrative area at the approximate National Grid Reference (NGR): X 385600 Y 395900. The Application Site is bound by associated car parking and the Longsight Primary Sub-Station to the north; Victoria Point and University of Manchester accommodation to the west; Hathersage Road to the south; and Carmoor Road to the west.

The Application Site is currently developed, occupied by the existing Octagon House and associated parking.

Figure 1 illustrates the location of the Application Site.

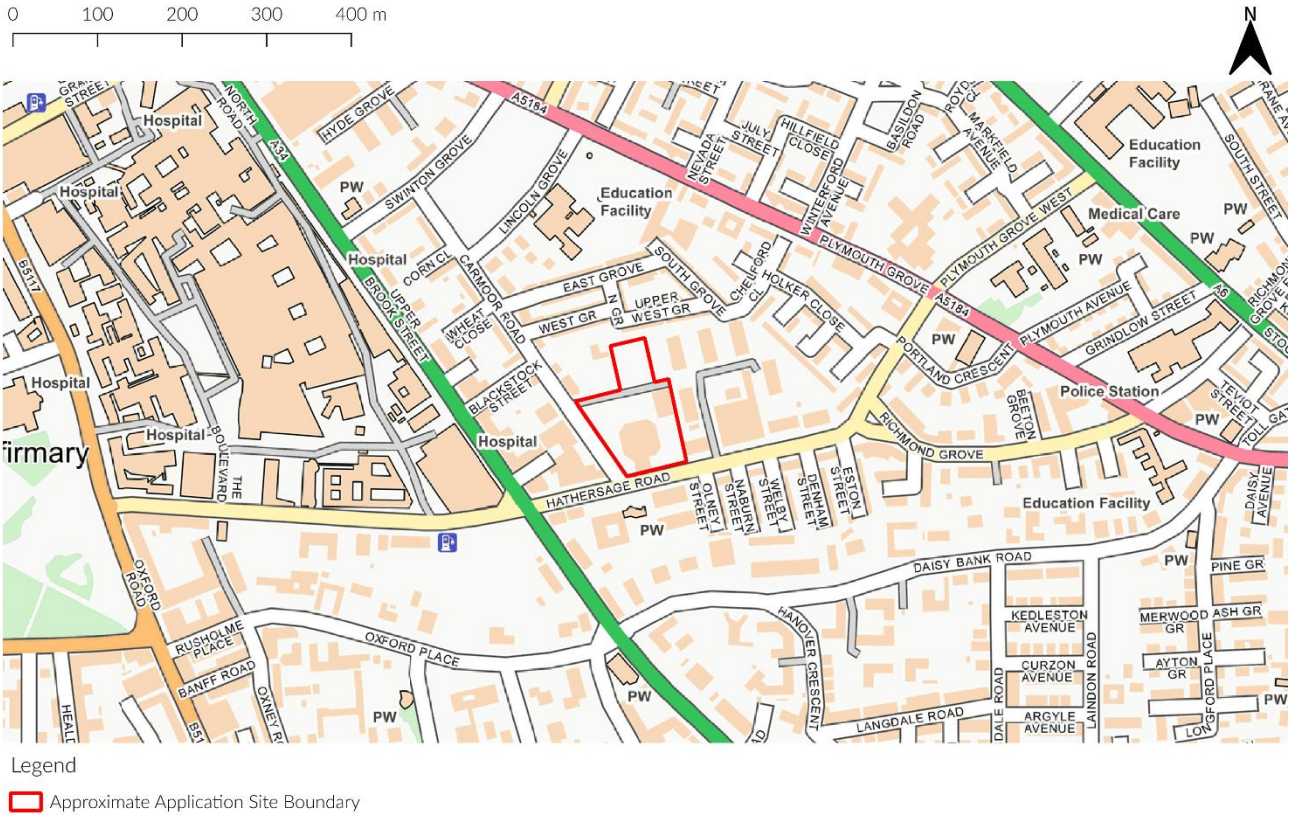


Figure 1: Approximate location of the Application Site. Contains OS Data © Crown Copyright and Database rights 2026.

1.3 Scope of assessment.

An email detailing the proposed methodology for the Air Quality Assessment was provided to MCC on the 13th of May 2026. The EHO agreed to the methodology provided on 20th of May 2026. A copy of the correspondence with MCC has been included in Appendix 1.

A summary of the scope of the assessment includes:

- Review of national and local policy;
- Determination of baseline scenario, using MCC monitoring data;
- Assessment of potential air quality impacts during the construction phase;
- Assessment of potential air quality impacts during the operational phase;
- An assessment of the suitability of the Application Site for its proposed residential use; and
- Identification of required mitigation measures, where necessary.

2. Legislation, policy and guidance documents.

2.1 Legislation.

The following legislation has informed the Air Quality Assessment and is detailed further in the Appendix 2:

- The Environment Act[1,2]
- The Air Quality Strategy[3]
- The Air Quality (England) Regulations 2000[4]
- The Air Quality (England) (Amendment) Regulations 2002[5]
- The Air Quality Standards Regulations 2010[6]
- The Air Quality Standards (Amendment) Regulations 2016[7]
- The Environmental Improvement Plan (EIP)[8]
- Part III of the Environmental Protection Act (EPA) 1990 (as amended)[9]
- The Clean Air Strategy (CAS)[10]
- Part F of the Building Regulations (2021)[11]

2.2 Policy.

The following policy has informed the Air Quality Assessment and is detailed further in the Appendix 2:

- The National Planning Policy Framework (NPPF) 2026[12]
- The Planning Practice Guidance (PPG)[13]

2.3 Guidance.

The following guidance has informed the Air Quality Assessment and is detailed further in the Appendix 2:

- Defra's Local Air Quality Management Technical Guidance[14] - This guidance will be referred to as 'LAQM.TG(22)' throughout this report.
- The Environmental Protection UK (EPUK) and the Institute of Air Quality Management's (IAQM) Air Quality Guidance for Planning[15] - This guidance will be referred to as 'EPUK and IAQM planning guidance' throughout this report.
- The IAQM 'Guidance on the assessment of dust from demolition and construction'[16] - This will be referred to as 'IAQM construction guidance' throughout this report.

2.4 Local policy and guidance.

In addition to the documents outlined in the previous sections above, Table 1 contains a summary of the local Policy and Guidance which are relevant to this assessment.

Table 1: Local policy and guidance documents.

Local policy and guidance document	Summary notes
Manchester Local Development Framework – Core Strategy	Manchester Local Development Framework – Core Strategy[17] was adopted in 2012. It is the key document in Manchester's Local Development Framework and covers a period of 15 years from 2012 to 2027. It describes Manchester today and outlines the Council's vision for Manchester in 2027 along with the planning policies which will be used to deliver that vision. It also contains detailed policies for development control purposes. The relevant policies for this assessment are: – Policy EN 16 – Air Quality; – Policy CC 5 – Transport; and, – Policy DM 1 – Development Management.
Places for Everyone Joint Development Plan	Places for Everyone Joint Development Plan[18] was adopted in 2024 and runs through until 2039. The Joint Development Plan sets out the bold and ambitious vision for the Greater Manchester (GM) region until 2039. It also contains detailed policies for development control purposes. The relevant policies for this assessment are: – Policy JP-S5: Clean Air; and, – Policy JP-C1: An Integrated Network.
Greater Manchester Low Emission Strategy	The GMCA adopted the Greater Manchester Low Emission Strategy[19] in 2016 to present a long-term approach to carbon emissions and air quality in the period up to 2040. The strategy aims to contribute to reducing Greater Manchester's carbon footprint and reducing air pollution as a contributor to ill-health.
Manchester Air Quality & Planning Technical Guidance	MCC published technical guidance[20] for air quality in 2022 to inform applicants, developers and air quality consultants of the requirements for air quality set out in the Core Strategy and associated plans. It outlines the relevant local policies, particularly regarding the City's current Air Quality Management Area (AQMA). This guidance also sets out the council's ambition to reduce particulate matter ($PM_{2.5}$) to below the 2005 World Health Organisation (WHO) guideline (annual mean of 10 $\mu g/m^3$) by 2030 and provided best practice recommendations for electric vehicle infrastructure.
Greater Manchester Transport Strategy 2040	The Greater Manchester Transport Strategy[21] was published in 2017, updated in 2021 and runs through until 2040. The 2040 Transport Strategy supports GM's spatial planning and the Greater Manchester Local Industrial Strategy, as sustainable growth will be driven by improved connectivity. The 2040 Transport Strategy details how air quality can be improved by reducing transport emissions through planning and vehicle fleet updates.
Greater Manchester Clean Air Plan	The GM Clean Air Plan has been designed to reduce nitrogen dioxide (NO_2) pollution to legal limits across the city-region by 2026. It focuses on improving air quality without introducing a Clean Air Zone charging scheme, instead prioritising targeted upgrades, cleaner transport, and local traffic interventions. The plan aims to protect public health, accelerate the shift to low-emission vehicles, and address road-based pollution in the shortest possible time. The key measures outlined within the plan are: – Implementation of the Clean Air Zone; – Monitoring and Compliance; – Local Traffic Measures; and – Upgrading the Local Vehicle Fleet.

2.5 Air quality objectives.

The Air Quality Objectives (AQOs) for nitrogen dioxide (NO_2) and particulate matter (PM_{10} and $PM_{2.5}$) are set out in Table 2. The AQOs for NO_2, PM_{10} and $PM_{2.5}$ were to have been achieved by 2005, 2004 and 2020 respectively and continue to apply in all future years thereafter.

The AQOs apply at locations where members of the public are likely to be regularly present and exposed over the averaging period of the AQO. Examples of where the annual mean AQOs should apply are provided in the

LAQM.TG(22), and include building façades of residential properties, schools, hospitals. The annual mean AQOs are not relevant for the building façades of offices or other places of work where members of the public do not have regular access, as well as kerbsides or gardens.

The 24-hour mean AQO for PM_{10} is considered to apply at the same locations as the annual mean AQO, as well as in gardens of residential properties and at hotels.

The 1-hour mean AQO for NO_2 also applies wherever members of the public might regularly spend 1-hour or more, including outdoor eating locations, pavements of busy shopping streets, carparks and bus stations which are not fully enclosed. The 1-hour mean AQO does not apply at kerbside sites where the public do not have regular access.

Table 2: Air Quality Objectives for NO_2, PM_{10} and $PM_{2.5}$.

Pollutant	Time Period	Objective
Nitrogen Dioxide (NO_2)	1-hour Mean	200 µg/m^3 Not to be exceeded more than 18 times a year
	Annual Mean	40 µg/m^3
Fine Particles (PM_{10})	24-hour Mean	50 µg/m^3 Not to be exceeded more than 35 times a year
	Annual Mean	40 µg/m^3
Fine Particles ($PM_{2.5}$) *	Annual Mean	20 µg/m^3
Notes: Measured gravimetrically *The time period in LAQM.TG(22) states "Work towards reducing emissions/concentrations of fine particulate matter ($PM_{2.5}$)"		

In December 2025, Defra updated the EIP $PM_{2.5}$ interim targets. They are as follows:

a) An annual mean concentration target of 10 micrograms per cubic metre to be achieved by December 2030.
b) A population exposure reduction target of 30% compared to 2018 to be achieved by December 2030.

This target has been put in place to focus on reducing concentrations of, and exposure to, $PM_{2.5}$.

3. Methodology of assessment.

3.1 Existing air quality in the study area.

A baseline air quality review was undertaken to determine the existing air quality in the vicinity of the Application Site.

This desk-top study was undertaken using the following sources:

- Air quality data for MCC, including a review of the MCC air quality reports[22] and local monitoring data.
- The UK Pollutant Release and Transfer Register[23].
- Background pollution maps from Defra's Local Air Quality Management (LAQM) website[24].
- Pollution Inventory from the Environment Agency[25].
- The UK Ambient Air Quality Interactive Map[26].
- Ordnance Survey data and Aerial photography from Google Maps.

3.2 Construction phase impacts.

3.2.1 Construction dust assessment.

The assessment of construction dust impacts has been undertaken in line with the methodology outlined in the IAQM construction guidance[16]. Activities on the proposed construction site have been divided into four types to reflect their different potential impacts. These are:

- Demolition
- Earthworks
- Construction
- Trackout

The risk of dust emissions was assessed for each activity with respect to:

- Potential loss of amenity due to dust soiling;
- The risk of health effects due to a significant increase in exposure to PM_{10}; and
- The risk of ecological impacts due to a significant increase in exposure to dust.

The first stage of the assessment involves screening to determine whether there are any sensitive receptors within the threshold distances defined by the IAQM construction guidance. A detailed assessment of the impact of dust from construction sites will be required where:

- A 'human receptor' is located within 250 m of the boundary of the Application Site or within 50 m of the route(s) used by construction vehicles on the public highway, up to 250 m from the Application Site entrance;
- An 'ecological receptor' is located within 50 m of the boundary of the Application Site or within 50 m of the route(s) used by construction vehicles on the public highway, up to 250 m from the Application Site entrance.

The magnitude of dust emission for each activity is determined on the basis of the guidance, indicative thresholds, information available relating to the project and expert judgement. The risk of dust effects arising is based upon the relationship between the dust emission magnitude and the sensitivity of the area. The risk of impact is then used to determine the mitigation requirements.

3.2.2 Construction emissions assessment.

3.2.2.1 Construction traffic emissions screening.

The screening assessment has been undertaken with reference to the following EPUK and IAQM planning guidance indicative criteria:

- a change of Light Duty Vehicle (LDV) flows of more than 100 Annual Average Daily Traffic (AADT) (within or adjacent to an Air Quality Management Area (AQMA)); and/or
- a change of Heavy Duty Vehicle (HDV) flows of more than 25 AADT (within or adjacent to an AQMA).

3.2.2.2 NRMM emissions screening.
Non-Road Mobile Machinery (NRMM) refers to mobile machines, transportable industrial equipment or vehicles which are fitted with an internal combustion engine and not intended for transporting goods or passengers on roads. NRMM emissions have been screened following IAQM construction guidance.

3.3 Operational phase impacts.

3.3.1 Road traffic emissions assessment.

The screening assessment has been undertaken following the EPUK and IAQM planning guidance indicative criteria:

- a change of LDV flows of more than 100 AADT (within or adjacent to an AQMA); and/or
- a change of HDV flows of more than 25 AADT (within or adjacent to an AQMA).

Where these criteria are exceeded, a detailed assessment is required, although the guidance advises that "*the criteria provided are precautionary and should be treated as indicative*", and "*it may be appropriate to amend them on the basis of professional judgement*".

Where impacts can be screened out there is no need to progress to a more detailed assessment.

3.3.2 Site suitability assessment.

An assessment has been undertaken to consider the site suitability which refers to the exposure of future occupants of the Proposed Development to existing air quality.

The assessment of site suitability will be assessed qualitatively using monitoring data and Defra predicted background concentrations in the vicinity of the Application Site.

3.4 Assessment of significance.

3.4.1 Construction dust.

The IAQM construction guidance states that the primary aim of the construction phase risk assessment is to identify site specific mitigation that, once implemented, should ensure that there will be no significant effect. Therefore, the assessment has been used to determine an appropriate level of mitigation for the construction phase.

The determination of which mitigation measures are recommended include elements of professional judgement and the professional experience of the consultants preparing this report is set out in Appendix 4.

3.4.2 Operational impacts.

The EPUK and IAQM planning guidance has been used to assess the potential for significant impacts as a result of vehicle emissions from traffic associated with the Proposed Development. The focus of the guidance is to assess traffic emission impacts and advises on how to describe the air quality impacts and their significance.

3.4.3 Site suitability assessment.

To determine the significance of predicted air quality impacts based upon a site suitability assessment, the EPUK and IAQM planning guidance states: "*Where the air quality is such that an air quality objective at the building façade is not met, the effect on residents or occupants will be judged as significant, unless provision is made to reduce their exposure by some means.*"

As the Proposed Development includes residential uses, all long and short term NO_2, PM_{10} and $PM_{2.5}$ AQOs presented in Table 2 are applicable.

4. Baseline environment.

This section sets out the available information on air quality in the vicinity of the Application Site.

4.1 Local air quality management review and assessment.

The most recent Greater Manchester Combined Authority (GMCA) air quality annual status report[22] (ASR) states an AQMA was declared in Greater Manchester in 2016 for exceedances of the annual mean NO_2 AQO. The AQMA covers the 10 districts of Greater Manchester, including MCC with coverage over arterial routes, district centres, and the airport. The Proposed Development is not located within this AQMA, the closest area of the AQMA is approximately 100 m to the west as shown in Figure 2.

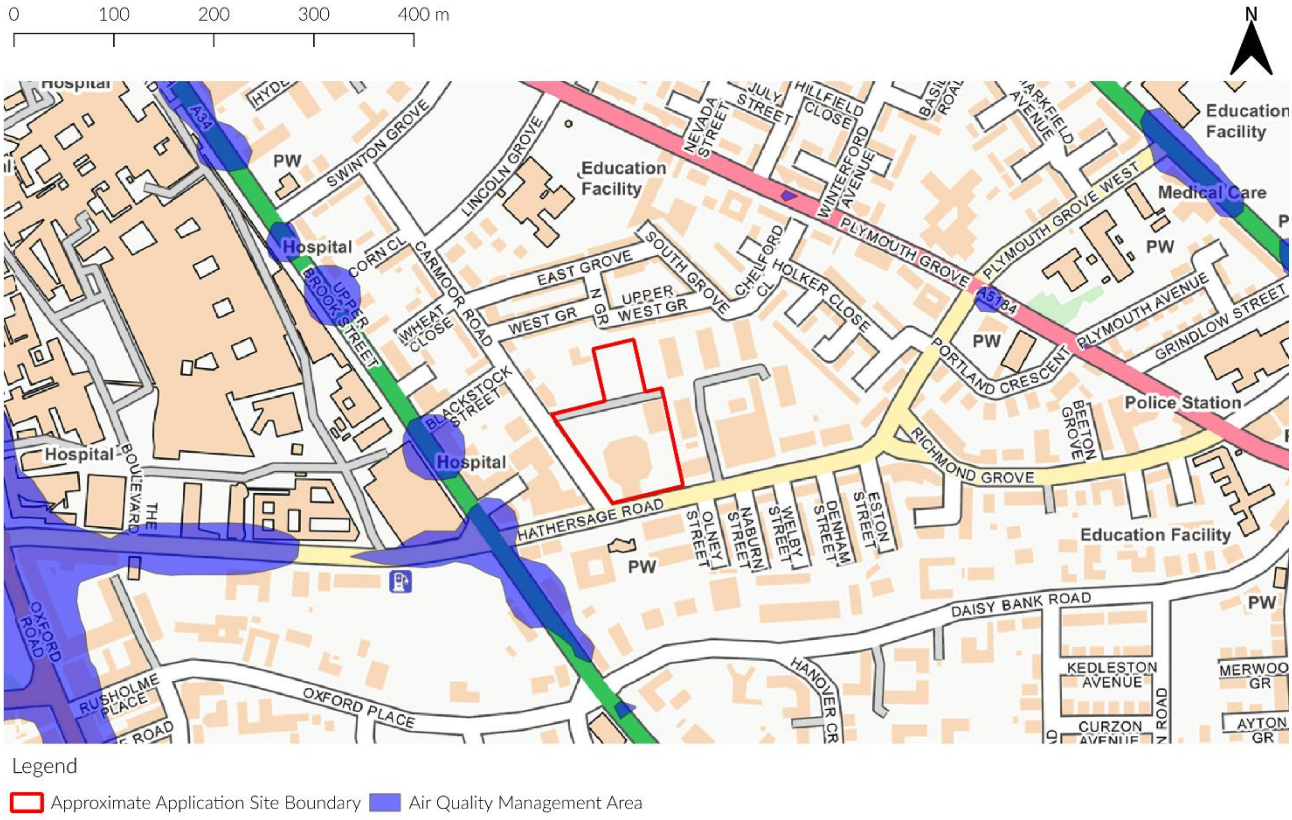


Figure 2: Location of AQMAs relative to the Application Site. Contains OS Data © Crown Copyright and Database rights 2026.

4.2 Local air quality monitoring.

In 2024, GMCA operated a combined 24 automatic monitoring stations, with the closest site being MAN1, located approximately 1.8 km north west of the Application Site.

Recent monitoring data for automatic monitoring stations within a 2 km vicinity of the Application Site are detailed in Table 3 and a visual representation of the locations of the automatic monitoring stations is shown in Figure 2.

Table 3: Automatic monitoring locations.

Monitoring site, classification and distance (km) from site boundary (approx.)	Objective	2020	2021	2022	2023	2024
NO_2						
Manchester Oxford Road (MAN1), Kerbside, 1.8 km	Annual mean (µg/m^3)	36.0	**44.0**	**43.0**	**40.9**	**44.2**
	Number of hours with concentrations >200 µg/m^3	0	0	3	0	0
PM_{10}						
Manchester Oxford Road (MAN1), Kerbside, 1.8 km	Annual mean (µg/m^3)	18.0	18.0	18.0	17.5	20.5
	Number of days with concentrations > 50 µg/m^3	5	2	8	4	1
Notes: Concentrations in **bold** indicate an exceedance of the relevant AQO "-" = no data						

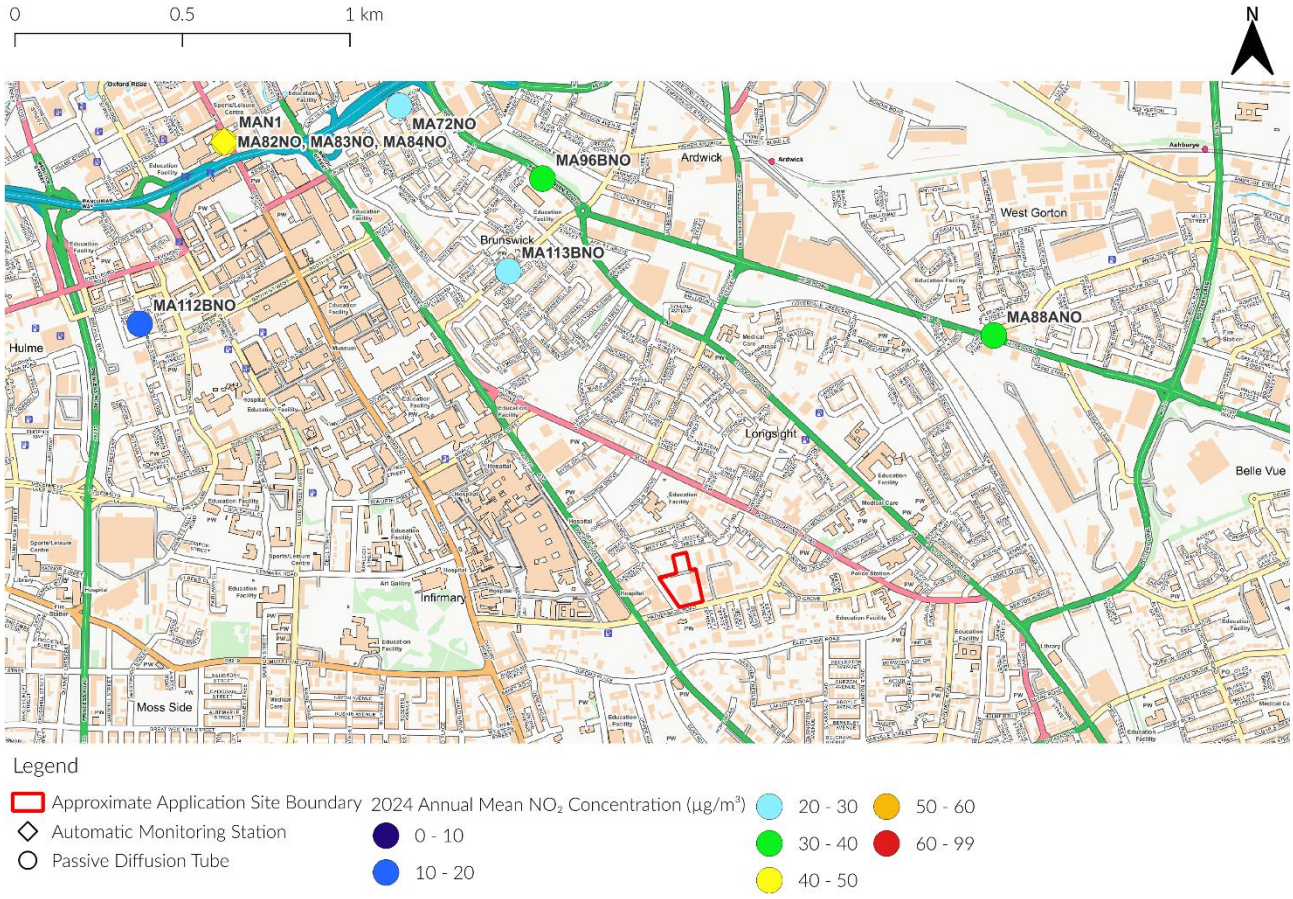


Figure 3: Monitoring locations within the vicinity of the Application Site. Contains OS Data © Crown Copyright and Database rights 2026.

The monitoring results indicate no exceedances of the 1-hour mean NO_2 AQO, 24-hour mean PM_{10} AQO or annual mean PM_{10} AQO. However, in the baseline year of 2024, MAN1 recorded an exceedance of the annual mean NO_2 AQO.

In addition, GMCA operated 383 passive diffusion tubes to monitor NO_2 concentrations in 2024. A review of the most recent monitoring data available indicated that there are six passive diffusion tube monitoring locations within 2 km of the Application Site. Recent monitoring results are shown in Table 4 and the passive diffusion tube monitoring locations are illustrated in Figure 3.

Table 4: Passive diffusion tube monitoring results.

Site ID	Site Type	Site Name	Distance (km) from site (approx.)	Annual Mean NO_2 Concentration (µg/m^3)				
				2020	2021	2022	2023	2024
MA113BNO	Roadside	113 Brunswick Street	0.9	-	28	29	28	28
MA88ANO	Kerbside	Angel Street	1.1	30	37	36	33	30
MA96BNO	Roadside	Ardwick Street	1.2	36	**41**	**44**	40	36
MA72NO	Urban Background	Lockton Close	1.6	25	28	26	24	24
MA112BNO	Roadside	112 Epping Street	1.7	-	21	23	20	19
MA82NO, MA83NO, MA84NO	Roadside	Manchester Oxford Road	1.8	34	**41**	**43**	**41**	**42**

Notes:
Concentrations in ASR recorded to 0 d.p.
Concentrations in **bold** indicate an exceedance of the relevant AQO.
"-" = no data

As shown in Table 4 above, only the passive diffusion tubes (MAN82NO, MAN83NO, MAN84NO) co-located automatic monitor MAN1 recorded an exceedance of the annual mean NO_2 AQO in the baseline year of 2024. All other monitoring locations in a 2 km vicinity of the Application Site did not record any exceedance of the annual mean NO_2 AQO in the baseline year of 2024.

As outlined in Defra LAQM.TG(22)[14], an annual mean NO_2 concentration of 60 µg/m^3 or above is often used to indicate a possible exceedance of the 1-hour mean NO_2 AQO. As presented in Table 4, there have been no recorded exceedance of the 60 µg/m^3 threshold at passive monitoring locations in the vicinity of the Application Site.

4.3 Industrial pollution.

A desk-based review of potential industrial sources using the UK Pollutant Release and Transfer Register and the Pollution Inventory from the Environment Agency identified no potential industrial or waste management sources of air pollution within 1 km of the Application Site that may affect the Application Site with regard to air quality. As such, industrial pollution is not anticipated to have a significant impact on air quality at the Application Site.

4.4 Defra predicted concentrations.

The background concentrations have been obtained from the national maps published by Defra. These estimated concentrations are produced on a 1 km by 1 km grid basis for the whole of the UK. The Application Site falls into grid square X 385500 Y 395500 and the predicted concentrations for this grid square for NO_2,

PM_{10} and $PM_{2.5}$ are provided in Table 5 for 2024, the most recent year with available monitoring data; 2026, the current year; and 2029, the earliest expected opening year.

Table 5: Predicted background concentrations for grid square X 385500 Y 395500.

Year	Predicted Background Concentration (µg/m^3)		
	NO_2	PM_{10}	$PM_{2.5}$
2024	15.8	13.1	7.8
2026	14.7	13.0	7.7
2029	13.0	12.8	7.5

As shown in Table 5, predicted background concentrations are below the relevant AQOs for all pollutants.

4.5 Summary of background data.

The baseline assessment has shown that the Application Site is located adjacent to the GMCA AQMA.

Monitoring data in the vicinity of the Application Site indicates that no exceedances of the indicative 1-hour mean NO_2 AQO was recorded at automatic or passive monitoring locations in the vicinity of the Application Site. The annual mean NO_2 AQO has been exceeded at automatic monitoring and passive monitoring locations in the baseline year of 2024. There were no recorded exceedances of the annual mean PM_{10} AQO or the 24-hour mean PM_{10} AQO at automatic monitoring locations within the AQMA in the baseline year of 2024.

The Defra predicted background concentrations anticipate compliance with the annual mean NO_2, PM_{10} and $PM_{2.5}$ AQOs at the Application Site in 2024, 2026 and 2029.

There are no industrial or waste management sources expected to influence the Application Site in regard to air quality.

5. Construction phase assessment.

The potential for air quality impacts during the construction of the Proposed Development are assessed in this section.

5.1 Construction phase dust assessment.

The risk of dust impacts is based on the potential dust emissions magnitude and the sensitivity of the area. These two factors are then combined to determine the risk of dust impacts with no mitigation applied. In the absence of any site-specific information, a higher risk category has been applied to represent a worst-case scenario.

5.1.1 Assessment screening.

There are 'human receptors' within 250 m of the Application Site but no designated habitat sites within 50 m of the Application Site boundary or within 50 m of the route(s) used by construction vehicles on the public highway, up to 250 m from the Application Site entrance.

The closest ecological receptor to the Application Site Highfield Country Park, classified as a Local Nature Reserve, located approximately 3.1 km to the south east.

Therefore, an assessment of construction dust at human receptors is required, but an assessment of construction at ecological receptors can be screened out from this assessment.

5.1.2 Potential dust emission magnitude.

The potential magnitude of dust emissions from demolition, earthworks, construction and trackout have been assessed, as identified in Table 6.

Table 6: Predicted magnitude of dust emissions.

Activity	Magnitude	Justification
Demolition	Small	The total volume of demolition is expected to be less than 12,000m^3 based on satellite imagery. The materials of the existing outbuilding include brick which is a potentially dusty material, and metal cladding, which has a low potential for dust emission. Within the Octagon House building, there is minimal demolition required for refurbishment. The dust emission magnitude with respect to demolition has been classed as small.
Earthworks	Small	The total area of the Application Site to be impacted by earthworks is anticipated to be less than 18,000 m^2 based on satellite imagery. The soil type is 'loamy' and 'clayey' when reviewed using Soilscape[27] which has potential for dust emission. In line with the IAQM guidance, the potential dust magnitude of dust emissions from earthworks is expected to be small.
Construction	Large	The total building volume is anticipated to be greater than the IAQM guidance large category for dust emission of 75,000 m^3. The construction materials involve potentially dusty materials such as brick. As such, in line with the IAQM guidance, the potential magnitude of dust emissions from construction are expected to be large.
Trackout	Small	The number of construction vehicles accessing the Application Site during construction were not available at the time of writing this report. A desk-based review of the Application Site based on satellite imagery shows the Application Site is currently developed, and there will be no unpaved road. Therefore, the magnitude of dust emissions from trackout will be small.

5.1.3 Sensitivity of the study area.

The sensitivity of the area takes into account the following factors:

- The specific sensitivities of receptors in the area;
- The proximity and number of those receptors;
- In the case of PM_{10}, the local background concentration; and
- Site-specific factors, such as whether there are natural shelters, such as trees or other vegetation, to reduce the risk of wind-blown dust.

Figure 4 illustrates the distance band criteria (sensitivity buffers) from the Application Site boundary.

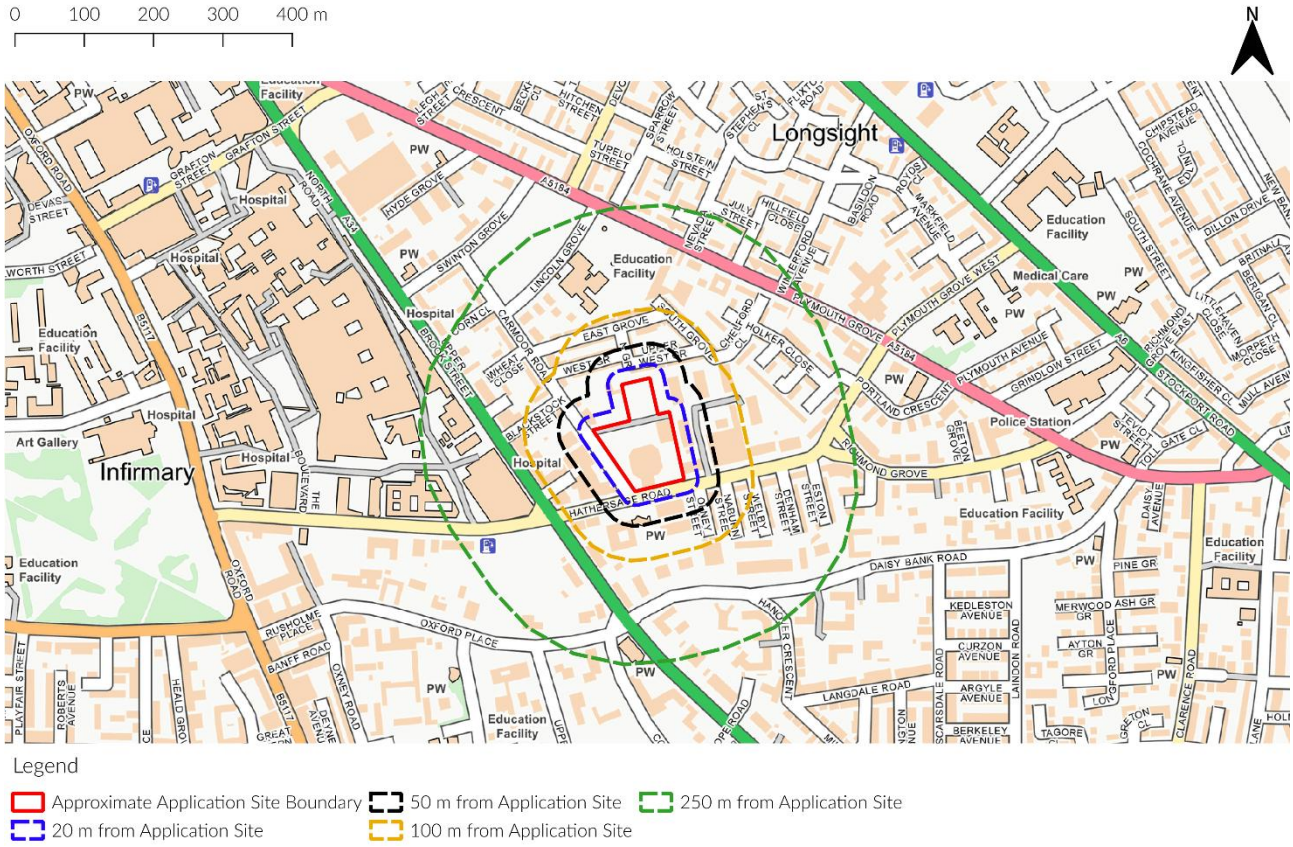


Figure 4: Demolition and construction dust distance band criteria from the Application Site boundary. Contains Ordnance Survey Data © Crown Copyright 2026.

The sensitivity of the area and the factors considered are detailed in Table 7.

Table 7: Sensitivity of the area.

Sensitivity Type	Factors	Sensitivity of Area	
		On – Site Activity	Trackout
Dust Soiling	Within 50 m of the Application Site, there are between 10-100 high sensitivity residential receptors in the form of student accommodations at Victoria Point to the east. The Octagon House building also contains a highly sensitivity receptor in the form of the NHS Central Manchester Dialysis Unit. As such, the sensitivity of the area with regards to dust soiling is classified as high.	High	High

Sensitivity Type	Factors	Sensitivity of Area	
		On – Site Activity	Trackout
	For trackout, the distances are measured within 50 m from the sides of the roads used by construction traffic up to 200 m from the exit of the Application Site. There are more than 100 high sensitivity receptors within 50 m of the surrounding road network to the south and west of the Application Site, the high sensitivity NHS Central Manchester Dialysis Unit is also located within 50 m of the surrounding road network. As such, the sensitivity of the area is classified as high, in line with IAQM Guidance.		
Human Health	The background concentration of PM_{10} in the vicinity of the Application Site is predicted to be less than 24 $\mu g/m^3$. There are over 100 high sensitivity receptors within 20 m of the Application Site in the form of residential properties and student accommodation, as well as the high sensitivity Dialysis Unit. The sensitivity of the area surrounding the Application Site is medium with respect to human health. The distances for trackout are measured within 50 m from the side of the roads anticipated to be used by construction traffic up to 250 m from the Application Site entrance. Within 50 m of these roads, there are over 100 high sensitivity receptors. As such, the sensitivity of the area surrounding the Application Site, with respect to human health impacts for trackout has been classified as medium.	Medium	Medium

5.1.4 Risk of dust impacts.

The outcome of the assessments of potential magnitude of dust emissions and the sensitivity of the area are combined to determine the risk of impact. This risk is then used to inform the selection of appropriate mitigation. Table 8 details the risk of dust impacts for demolition, earthworks, construction and trackout activities.

Table 8: Summary of potential unmitigated dust risks.

Potential Impact	Sensitivity		Demolition	Earthworks	Construction	Trackout
	On-site	Trackout				
Magnitude			Small	Small	Large	Small
Dust Soiling Impacts	High	High	Medium Risk	Low Risk	High Risk	Low Risk
Human Health Impacts	Medium	Medium	Low Risk	Low Risk	Medium Risk	Low Risk

5.2 Construction phase – vehicular pollutants.

The Application Site is adjacent to the GMCA AQMA and therefore the more stringent screening criteria (i.e. 100 LDV and 25 HDV) would apply.

Information on traffic movements anticipated during construction works was unavailable for the completion of the Air Quality Assessment. However, the development quantum is not anticipated to result in a significant increase in movements above the threshold outlined in the EPUK and IAQM planning guidance. The duration of movements will be short-term in nature and are not considered further within the context of this assessment. Therefore, in accordance with the criteria presented within EPUK and IAQM planning guidance, additional road vehicle trips during the construction phase of the Proposed Development "*can be considered to have insignificant effects*" on air quality.

5.3 Construction phase – non-road mobile machinery.

Pollutants emitted by NRMM that may have the most significant potential effects on local air quality are $PM_{10,}$ $PM_{2.5}$ and NO_x/NO_2. Typically, NRMM is associated with construction sites and, therefore there is a potential for NRMM emissions to adversely affect local air quality as a result of the Proposed Development.

IAQM construction guidance states that, with the application of suitable control measures and site management, exhaust emissions from on-site NRMM are "*unlikely to make a significant impact on local air quality. In the vast majority of cases, they will not need to be quantitatively assessed*".

6. Operational phase assessment.

The potential for air quality impacts during the operation of the Proposed Development are assessed in this section.

6.1 Road traffic emissions screening assessment.

Road traffic data associated with the Proposed Development has been provided by SLR Consulting, the appointed Transport Consultants for the project. The traffic flows indicate that there will be a 24-hour AADT net decrease of 475 LDVs and a net increase of 5 HDVs on the local road network as a result of the Proposed Development.

This is below the indicative criteria in the EPUK and IAQM planning guidance of an increase of more than 100 LDV AADT and/or 25 HDV AADT within an AQMA and therefore no further assessment is required.

In accordance with the EPUK and IAQM planning guidance, the impacts on air quality from operational phase traffic generation are considered to be not significant.

6.2 Site suitability assessment.

This section presents a review of GMCA monitoring data and Defra predicted background concentrations in the vicinity of the Application Site, for the purpose of identifying the suitability of the Application Site for residential use and identify any requirements for potential mitigation to be embedded into the Proposed Developments design.

As presented in Section 3.4.3 in line with LAQM.TG(22), as the Proposed Development includes residential usage, all long term and short term AQOs presented in Table 2 as well as the interim $PM_{2.5}$ targets are applicable for the Proposed Development.

6.2.1 NO_2 concentrations.

A review of the annual mean NO_2 concentrations monitored within 2 km of the Application Site has been completed as part of the baseline review with recent monitoring results, presented in Table 4.

The most representative monitoring of annual mean NO_2 pollutant concentrations in regard to the Application Site is passive diffusion tube site 113 Brunswick Street (MA113BNO), located approximately 1 km to the north west. MA113BNO is a roadside monitoring location, set back approximately 3 m off Brunswick Street. The nearest residential units within the Application Site to the roadside are set back 20 m from Hathersage Road, with residential units above ground level. As pollutant concentrations decrease with increased distance from the pollution source, pollutant concentrations are anticipated to be lower at the Application Site in comparison to MA113BNO.

In the baseline year of 2024, the annual mean NO_2 concentration at MA113BNO in 2024 was 28 $\mu g/m^3$, which equates to 70 % of the AQO. Furthermore, there were no recorded exceedance of the indicative criteria of 60 $\mu g/m^3$ for the 1-hour mean AQO, as set out within LAQM.TG(22).

The on-site NO_2 concentrations are considered to be compliant with both the annual mean NO_2 AQO and the 1-hour mean NO_2 AQO based on local monitoring data. Therefore, the Application Site is considered suitable for the proposed residential use without the need for mitigation measures.

6.2.2 PM_{10} concentrations.

A review of the annual mean PM_{10} concentrations monitored within 2 km of the Application Site has been completed as part of the baseline review with recent monitoring results, presented in Table 3.

Automatic monitor MAN1 is a kerbside monitoring location on Oxford Road (A34) approximately 2 km north west of the Application Site. Due to the proximity of this monitoring location the A34, pollution concentrations monitored at this location are expected to be higher than those experienced at the Application Site. MAN1 recorded an annual mean PM_{10} concentration of 20.7 $\mu g/m^3$ in the baseline year of 2024 which is below the

annual mean AQO. Furthermore, the majority of residential spaces are set back from the roadside or are located above ground level where pollutant concentrations are expected to be further reduced.

In addition, MAN1 recorded no exceedances of the 24-hour mean PM_{10} AQO level in 2024. Therefore, due to the location of the Application Site, and the distance the residential units will be set back from any road, it is considered unlikely that the 24-hour mean PM_{10} AQO will be exceeded at the Application Site.

Therefore, PM_{10} concentrations in the locale of the Proposed Development are considered to be below the annual and 24-hour mean AQOs and the Application Site is considered suitable for residential use without the need for mitigation.

6.2.3 $PM_{2.5}$ concentrations.

GMCA do not currently operate any automatic monitoring sites that are in the vicinity of the Application Site or that are representative of pollutant concentrations. Defra's predicted background annual mean $PM_{2.5}$ concentration at the Application Site is 7.5 µg/m^3 (38 % of annual mean AQO) in the baseline year of 2029. As such, the local air quality at the Proposed Development is considered to be compliant with the annual mean $PM_{2.5}$ AQO.

6.2.4 Significance of air quality impacts.

To determine the significance of predicted air quality impacts based upon a site suitability assessment, such as that undertaken as part of this assessment, the EPUK and IAQM planning guidance states:

> *"Where the air quality is such that an air quality objective at the building façade is not met, the effect on residents or occupants will be judged as significant, unless provision is made to reduce their exposure by some means."*

With regards to the Proposed Development, the unmitigated impact significance associated with the Proposed Development has been predicted in accordance with the stated assessment methodology. The Proposed Development will not introduce any new receptor into an area of exceedance of the relevant AQOs for NO_2, PM_{10} or $PM_{2.5}$.

As no exceedances of the considered AQOs are predicted, mitigation measures are not required for the operational phase of the Proposed Development. As such, the overall effect is considered to be 'not significant'.

7. Mitigation.

7.1 Construction phase.

To mitigate the potential impacts during the construction phase it is recommended that mitigation measures as detailed in the IAQM construction guidance are implemented.

It is recommended that MCC approve a Dust Management Plan (DMP) prior to works commencing on site, and that this is implemented using an appropriately worded planning condition. Table 11, in Appendix 3, details the measures that should be incorporated into the DMP.

These mitigation measures have been selected for the Proposed Development and are based upon the dust risk categories outlined in Table 8 of this report. For general mitigation measures, which exclude those specifically targeted towards demolition, earthworks, construction and trackout (which are given towards the end of the table), high risk measures have been applied as these represent the highest risk category determined in Table 8. This approach is consistent with the IAQM construction guidance.

It should be noted that potential dust effects during the construction phase are considered to be temporary and short term in nature. The impacts are determined to be temporary as they will only potentially occur throughout the construction phase and short-term because these will only arise at particular times when certain activities and meteorological conditions combine to create the predicted level of magnitude.

However, with the application of the dust control and mitigation measures outlined in Appendix 3, it is considered that impacts at all receptors will be 'not significant' in accordance with the IAQM construction guidance.

7.1.1 Construction phase road traffic emissions.

Potential air quality impacts associated with construction phase road traffic emissions, principally HDV movements, have been screened out for further assessment with associated impacts on air quality predicted to result in an 'insignificant' effect. Therefore, mitigation measures are not considered to be required.

7.1.2 Construction phase NRMM emissions.

In accordance with Part 4 of the IAQM construction guidance, all NRMM would need to adhere to the emissions standards for NO_2 and PM_{10} set out for NRMM. It is therefore considered the likely effects of construction plant on local air quality would be insignificant.

7.2 Operational phase.

7.2.1 Road traffic emissions.

Potential air quality impacts associated with operational phase development trips have been screened out from further assessment as '*the impacts [on air quality from operational phase movements] can be considered to have insignificant effects*' in accordance with the EPUK and IAQM planning guidance. Therefore, additional mitigation measures are not considered to be required, with regards to road traffic emissions.

7.2.2 Site suitability assessment.

A review of MCC monitoring data in consideration of the Application Site, and mapped concentrations by Defra in the locale of the Application Site, indicates no likely exceedance of the annual and 1-hour mean NO_2 AQOs, the annual and 24-hour mean PM_{10} AQOs or the annual mean $PM_{2.5}$ AQO.

As no exceedances of any considered AQOs are predicted, this follows the 1st hierarchy principle of the EPUK and IAQM planning guidance to '*prevent and avoid*' exposure'. Therefore, no additional mitigation into the Proposed Development design is required.

8. Summary and conclusions.

This report details the potential air quality impacts associated with the refurbishment and redevelopment of Octagon House and the surrounding site.

The findings of the assessment are as follows:

- The baseline assessment has shown that the Proposed Development is located adjacent to the GMCA AQMA. Monitoring data indicates compliance at the Application Site in the baseline year of 2024. This is supported by Defra modelled backgrounds at the Application Site.
- A qualitative assessment of the potential dust impacts during the construction of the Proposed Development has been undertaken. Through good practice and implementation of appropriate mitigation measures, it is expected that the release of dust would be effectively controlled and mitigated, with resulting impacts considered to be 'not significant'. All dust impacts are considered to be temporary and short-term in nature;
- The results of the operational phase traffic screening assessment indicate that traffic generated by the Proposed Development is below the screening criteria set out in the EPUK and IAQM planning guidance and the effects are not predicted to be significant, therefore further assessment is not required;
- The Proposed Development energy strategy is primarily electric with backup generators for life safety purposes. As no combustion sources are proposed for the primary energy supply, no local air quality impacts are anticipated and a detailed assessment of impacts of combustion emissions from the energy plant has been screened out of this assessment;
- A qualitative site suitability assessment has been undertaken to assess the suitability of the Application Site for the proposed residential use. Based on the assessment results, there will be no likely exceedances of relevant AQOs for all pollutants at the Proposed Development and therefore additional mitigation is not required.

Based on the information above, it is considered that air quality should not be viewed as a constraint to planning and the Proposed Development conforms to the principles of the National Planning Policy Framework outlined in Appendix 2 and the Manchester Local Development Framework – Core Strategy 2012 policies presented in Table 1.

Glossary of terms.

AADT	Annual Average Daily Traffic
ASHP	Air Source Heat Pump
AQAP	Air Quality Action Plan
AQDMP	Air Quality Dust Management Plan
AQMA	Air Quality Management Area
AQO	Air Quality Objective
ASR	Annual Status Report
DMP	Dust Management Plan
Defra	Department for Environment, Food and Rural Affairs
EIP	Environmental Improvement Plan
EPA	Environment Protection Act
EPUK	Environmental Protection UK
GMCA	Greater Manchester Combined Authority
HDV	Heavy Duty Vehicles (> 3.5 tonnes gross vehicle weight)
IAQM	Institute of Air Quality Management
LAQM	Local Air Quality Management
LDV	Light Duty Vehicles ($\leq$3.5 tonnes gross vehicle weight)
MCC	Manchester City Council
µg/m^3	Micrograms per cubic metre
NGR	National Grid Reference
NO_2	Nitrogen dioxide
NO_X	Nitrogen oxides (taken to be NO_2 + NO)
NPPF	National Planning Policy Framework
NRMM	Non-Road Mobile Machinery
Objectives	A nationally defined set of health-based concentrations for nine pollutants, seven of which are incorporated in Regulations, setting out the extent to which the standards should be achieved by a defined date. There are also vegetation-based objectives for sulphur dioxide and nitrogen oxides
PM_{10}	Particulate matter with an aerodynamic diameter less than 10 micrometres
$PM_{2.5}$	Particulate matter with an aerodynamic diameter less than 2.5 micrometres
PPG	Planning Practice Guidance
SPG	Supplementary Planning Guidance
Standards	A nationally defined set of concentrations for nine pollutants below which health effects do not occur or are minimal
Trackout	The transport of dust and dirt from the construction / demolition site onto the public road network, where it may be deposited and then re-suspended by vehicles using the network. This arises when heavy duty vehicles (HDVs) leave the construction / demolition site with dusty materials, which may then spill onto the road, and/or when HDVs transfer dust and dirt onto the road having travelled over muddy ground on site
WSHP	Water Source Heat Pump

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Appendix 1 - EHO consultation.

From: [redacted]
Sent: 13 May 2026 11:42
To: Contact
Cc: [redacted]
Subject: Octagon House, Manchester - Air Quality Assessment Consultation

Good morning,

Hoare Lea have been instructed to undertake an Air Quality Assessment to support the planning application for the proposed industrial development at Octagon House, Hathersage Road, Manchester, M13 0FN . Please see the Site boundary below for reference.



The proposals would see the refurbishment of Octagon House to provide accommodation for key workers. Existing healthcare facilities that occupy the lower floor levels of the building, including a dialysis unit will be retained.

Hoare Lea propose to undertake the assessment using the following methodology:

- A baseline assessment will be undertaken utilising the GMCA monitoring data from the most recent air quality Annual Status Report (2025). Monitoring data from 2024 will be used to establish the baseline.
    - If possible, could you provide us with the 2025 monitoring data when it is available?
- Defra's background pollution maps published for 2021 reference year, will be used to further establish background concentrations in the area.
- The existing monitoring data and Defra background concentrations will be used to qualitatively inform the suitability of the site for the proposed residential use.
- An assessment of the construction impacts on air quality and dust using the IAQM methodology, in compliance with the most recent 'The Control of Dust and Emissions During Construction and Demolition' guidance published in January 2024 (v2.2).

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- Any construction or operational phase mitigation will be recommended as necessary in line with the IAQM guidance.
- Road traffic associated with the Proposed Development will be screened against the relevant EPUK and IAQM criteria. At this stage, the screening criteria is not expected to be exceeded and a qualitative assessment will be undertaken.
- The primary energy strategy is anticipated to be electric. As no combustion sources are proposed during normal operation, no local air quality impacts are anticipated and a detailed assessment of impacts of combustion emissions from the energy plant has been screened out of this assessment.
- The assessment will be undertaken in line with the EPUK and IAQM document 'Land-Use Planning & Development Control: Planning for Air Quality' January 2017.
- Air quality policies set out in the Manchester Core Strategy, Greater Manchester Low Emission Strategy and the Manchester Air Quality & Planning Technical Guidance will be considered.

Please let me know if there are any additional guidance documents that aren't publicly available that you would like us to consider.

I would be grateful if you could please confirm your acceptance of the proposed methodology and provide me with any comments you may have.

If you would like to discuss anything further, please let us know.

Many thanks,

The EHO Response was received on the 20th May 2026:

Good morning,

I have received your enquiry regarding the above and the proposed methodology appears sufficient at this time. The 2025 monitoring data should be available here Data Hub | Clean Air Greater Manchester in the next couple of weeks.

Kind regards

[redacted]
Environmental Protection Officer
Environmental Protection
Environmental Health
The Neighbourhoods Directorate
Manchester City Council

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Appendix 2 – Legislation, policy and guidance.

Table 9: Legislation and national policy summary.

Legislation and national policy	Summary notes
The Environment Act 1995 (Part IV)	The Environment Act requires the Secretary of State to publish an air quality strategy and local authorities to review and assess the quality of air within their boundaries (the latter is known as Local Air Quality Management)
The Air Quality Strategy	The Air Quality Strategy provides the policy framework for local air quality management and assessment in the UK. It sets out air quality standards and objectives for key air pollutants. These standards and objectives are designed to protect human health and the environment. The Strategy also sets out how the different sectors of industry, transport, and local government, can contribute to achieving these AQOs
The Environment Act 2021	The Environment Act 2021 acts as the UK's new framework of environmental protection and came into force on 1st April 2022. Regarding air quality, the Environment Act establishes a legally binding duty on government to bring forward at least two new air quality targets in secondary legislation. This was implemented through the Environmental Improvement Plan which outlines new $PM_{2.5}$ targets for future years. These are a long-term target of 10 $\mu g/m^3$ by 2040 and an interim target of 12 $\mu g/m^3$ by 31st January 2028. These targets are expected to focus on reducing concentrations of, and exposure to, $PM_{2.5}$.
The Environmental Improvement Plan	In 2025, Defra released an interim planning guidance on the consideration of the Environment Act $PM_{2.5}$ targets. The interim planning guidance outlines the environmental targets (Fine particulate matter) (England) Regulations 2023. This is a target of 10 $\mu g/m^3$ by 2030. This target has been put in place to focus on reducing concentrations of, and exposure to $PM_{2.5}$.
EU Limit Values.	The European Union has also set limit values for NO_2, PM_{10} and $PM_{2.5}$; these are legally binding and have been implemented into English legislation by The Air Quality Standards Regulations 2010 and The Air Quality Standards (Amendment) Regulations 2016. The limit values for NO_2, PM_{10} and $PM_{2.5}$ are the same as the English objectives (given in Table 2), but applied from 2010 for NO_2, 2005 for PM_{10} and 2015 for $PM_{2.5}$. The limit values apply at all locations (apart from where the public does not have access, where health and safety at work provisions apply and on the road carriageway).
Statutory Nuisance Legislation	Part III of the Environmental Protection Act (EPA) 1990 (as amended) and Section 79 of the EPA. Fractions of dust greater than 10 µm (i.e., greater than PM_{10}) in diameter typically relate to nuisance effects as opposed to potential health effects and therefore are not covered within the UK Air Quality Strategy. In legislation there are currently no numerical limits in terms of what level of dust deposition constitutes a nuisance.
Clean Air Strategy	The Clean Air Strategy (CAS), published in 2019 sets out the Government's proposals aimed at delivering cleaner air in England, and indicates how devolved administrations intend to make emissions reductions. It sets out the comprehensive action that is required from across all parts of government and society to deliver clean air.
Building Regulations	Part F of the Building Regulations (2021) provides guidance for indoor air quality and the pollutant concentrations that must not be exceeded in both buildings for dwellings and non-dwellings.
National Planning Policy Framework	The National Planning Policy Framework (NPPF) 2026 sets out the government's policies for plan-making and for making decisions on development proposals in England. These have been split into dedicated plan-making and national decision-making policies.

Legislation and national policy	Summary notes
	This version replaces the previous NPPF published in 2024 and existing development plan policies inconsistent with decision making policies in this document should carry less weight in comparison to this framework. It includes advice on when air quality should be a material consideration in development control decisions. The NPPF has been considered as a whole document, with the relevant air quality policies outlined below: – P1: Planning for clean and safe places (Parts 1a and 1b) – P3: Living conditions and pollution (Parts 1, 2a, 2b and 2c) – TR3: Locating development in sustainable locations (Part 1d) – DP3: Key principles for well-designed places (Part 2c)
Planning Practice Guidance	The NPPF is supported by the Planning Practice Guidance (PPG), most recently updated in December of 2024. PPG categories have been revised and updated into an air quality guidance which sets out relevant information for this assessment in: – Paragraph 001 (Reference ID: 32-001-20191101) – Paragraph 002 (Reference ID: 32-002-20191101) – Paragraph 005 (Reference ID: 32-005-20191101) The PPG also sets out the information that may be required in an air quality assessment in: – Paragraph 007 (Reference ID: 32-007-20191101) It also provides guidance on options for mitigating air quality impacts in: – Paragraph 008 (Reference ID: 32-008-20191101).

Table 10: Primary guidance documents summary table.

Primary guidance documents	Summary notes
Defra Local Air Quality Management Technical Guidance	Defra's LAQM.TG(22) was published for use by local authorities in their LAQM review and assessment work. The document provides key guidance in aspects or air quality assessment, including screening, use of monitoring data and use of background data that are applicable to all air quality assessments.
EPUK and IAQM 'Air Quality Guidance for Planning'	Environmental Protection UK (EPUK) and the Institute of Air Quality Management (IAQM) have together published guidance (EPUK and IAQM planning guidance) to help ensure that air quality is properly accounted for in the development control process.
IAQM 'Construction and Demolition Dust Guidance'	Guidance on the assessment of dust from demolition and construction has been published by the IAQM (IAQM construction guidance)[16]. The guidance provides a methodology to determine the dust emission magnitude and provides a series of matrices to determine the risk magnitude of potential dust sources associated with construction activities.

Appendix 3 - Mitigation measures for construction phase.

Table 11: Mitigation measures for construction phase.

Issue	Mitigation measure
Communications	Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.
	Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.
	Display the head or regional office contact information.
Dust Management Plan	Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the Local Authority. The DMP may include monitoring of dust deposition, dust flux, real-time PM_{10} continuous monitoring and/or visual inspections.
Site Management	Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
	Make the complaints log available to the Local Authority when asked.
	Record any exceptional incidents that cause dust and/or air emissions, either on- or off- site, and the action taken to resolve the situation in the log book.
	Hold regular liaison meetings with other high risk construction sites within 250 m of the site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/deliveries which might be using the same strategic road network routes.
Monitoring	Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the Local Authority when asked. This should include regular dust soiling check of surfaces such as street furniture, cars, window sills within 100 m of the site boundary, with cleaning to be provided if necessary.
	Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the Local Authority when asked.
	Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
	Agree dust deposition, dust flux, or real-time PM_{10} continuous monitoring locations with the Local Authority. Where possible, commence baseline monitoring at least three months before work commences on site or, if it is a large site, before work on a phase commences.
Preparing and maintaining the site	Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
	Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.
	Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.
	Avoid site runoff of water or mud.
	Keep site fencing, barriers and scaffolding clean using wet methods.

Issue	Mitigation measure
	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 cover as described below.
	Cover, seed or fence stockpiles to prevent wind whipping.
Operating vehicles/machinery and sustainable travel	Ensure all vehicles switch off engines when stationary – no idling vehicles.
	Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable.
	Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the Local Authority, where applicable).
	Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.
	Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking and car-sharing)
Operations	Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
	Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
	Use enclosed chutes and conveyors and covered skips.
	Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
	Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.
Waste management	Avoid bonfires and burning of waste materials.
Demolition	Soft strip inside building before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).
	Ensure effective water suppression is used during demolition activities. 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.
	Avoid explosive blasting, using appropriate manual or mechanical alternatives.
	Bag and remove any biological debris or damp down such material before demolition.
Construction	Avoid scrabbling (roughening of concrete surfaces) if possible.
	Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.

Issue	Mitigation measure
	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 powder materials, ensure bags are sealed after use and stored appropriately to prevent dust.
Trackout	Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being in continuous use.
	Avoid dry sweeping of large areas.
	Ensure vehicles entering and leaving 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).

Appendix 4 - Professional experience.

Lauren Buchanan (Hoare Lea), MSc, BSc (Hons), AMIEnvSc, MIAQM

Lauren is a Principal Air Quality Consultant at Hoare Lea. She is an Associate Member of the Institution of Environmental Sciences and a Member of the Institute of Air Quality Management. She has worked on a range of projects gaining experience in many different aspects of air quality assessment, including monitoring and detailed dispersion modelling of dust, odour, roads and industrial emissions for a variety of sectors and to fulfil Local Air Quality Management (LAQM) duties on behalf of Local Authorities. Lauren has undertaken air quality assessments for permit requirements and planning applications, including stand-alone reports, Environmental Impact Assessments, Habitats Regulations Assessments and Development Consent Orders.

Josh Jones (Hoare Lea), MSci (Hons), MIEnvSc, MIAQM

Josh is a Principal Air Quality Consultant with Hoare Lea. He has over 8 years' experience in the Air Quality field. His role includes the production and project management of air quality assessments, including monitoring and detailed dispersion modelling of dust, odour, roads and industrial emissions, in support of both planning and permit applications for a wide variety of clients across a range of sectors, including residential, industrial, energy and healthcare. He also has detailed knowledge of the LAQM process, the EIA process, co-ordination of multi-disciplinaryenvironmental impact assessment work in support of planning applications and dispersion modelling studies.

Alex Johnson (Hoare Lea), MSc, BSc (Hons), AMIEnvSc, AMIAQM

Alex is a Senior Air Quality Consultant with Hoare Lea. He is an Associate Member of the Institution of Environmental Sciences and an Associate Member of the Institute of Air Quality Management. He has worked on a number of air quality projects across various sectors since graduating from the University of Southampton with a master's degree in Environmental Pollution Control.

He has completed a variety of air quality projects at Hoare Lea, including air quality assessments, indoor air quality plans, monitoring analysis, and bespoke technical reports for clients across various sectors. Previously, he has also worked on several projects for Natural England, Defra and the Environment Agency to provide geospatial data analysis and research assistance.

Jack Race (Hoare Lea), MSci (Hons), AMIEnvSc, AMIAQM

Jack is a Graduate Air Quality Consultant with Hoare Lea aiding in air quality assessment, indoor air quality and dispersion modelling projects.

Jack graduated from UCL with a masters in chemistry where he focused on sustainable and new energy projects. During university, Jack worked on multiple air quality projects, with a focus on passive and continuous outdoor monitoring using diffusion tubes and volatile organic compound (VOC) sensors.

HOARE LEA

JOSH JONES
PRINCIPAL AIR QUALITY CONSULTANT

+44 161 672 7204
joshjones@hoarelea.com

HOARELEA.COM

Western Transit Shed
12-13 Stable Street
London
N1C 4AB
England

