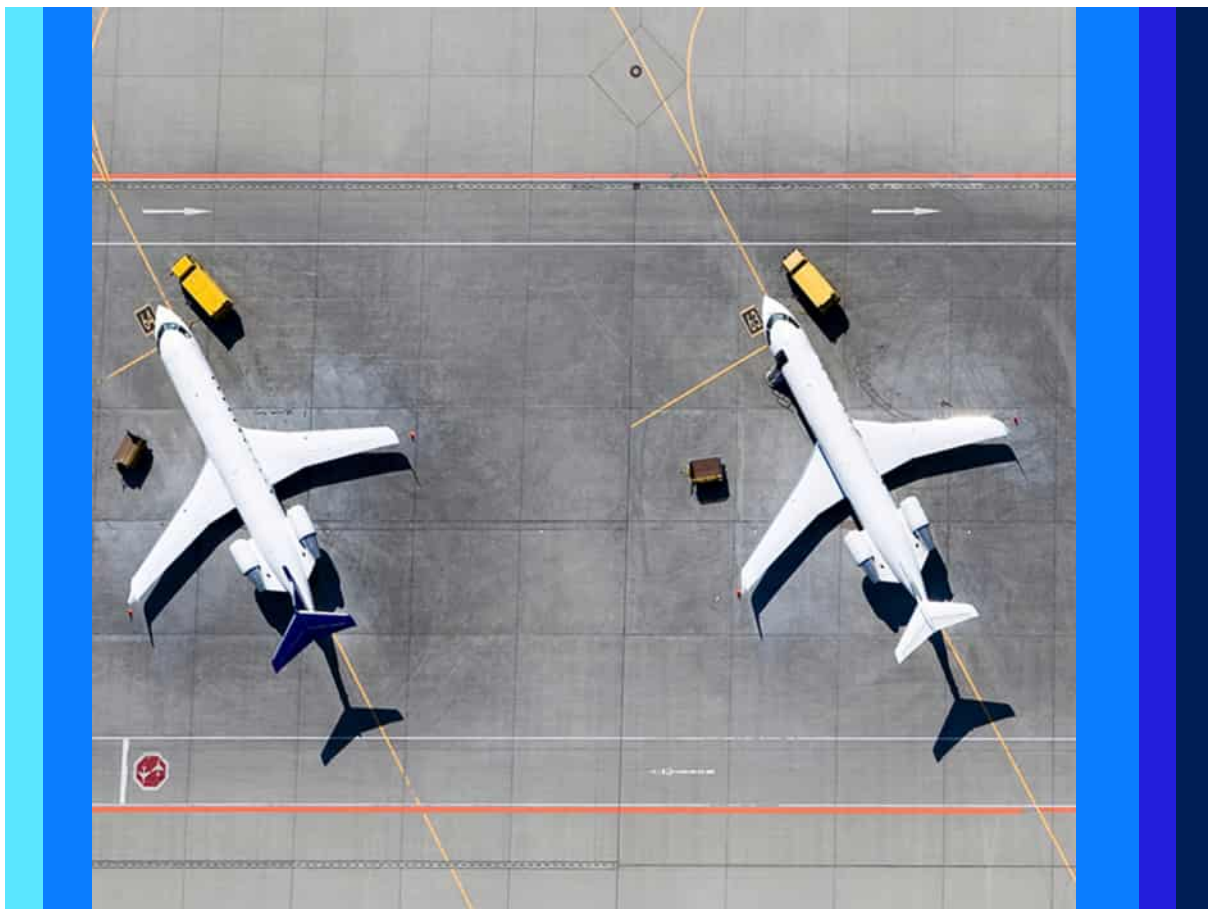


AIR QUALITY STATEMENT SYDNEY AVENUE PLANNING APPLICATION

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Manchester Airport Ltd

MAG Landside - FI, SA & VCC
30/04/24



AIR QUALITY STATEMENT SYDNEY AVENUE PLANNING APPLICATION

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Jacobs U.K. Limited

5 First Street
Manchester M15 4GU
United Kingdom

T +44 (0)161 235 6000
F +44 (0)161 235 6001
www.jacobs.com

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1. Introduction

Manchester Airports Group (MAG) continues to invest in its airport infrastructure. MAG are close to completion of the Manchester Airport Transformation Programme (MAN-TP), a £1.3bn investment programme that will transform passenger experiences and help attract yet more of the world's leading airlines. The transformation was first announced in 2015 with a 10-year vision to revolutionise the customer experience at the Northern hub and unlock the potential of its two full-length runways. The programme involves an extension, doubling the size of Terminal 2 (T2) and refurbishing the original terminal, including the construction of two new aircraft piers, creation of a state of the art baggage hall, installing next generation scanners in a new security hall, additional retail and food and beverage outlets as well upgrading the airfield and taxiways to cater for next generation aircraft. It also includes the development of the landside road network to allow sufficient capacity and access to the terminal to drop off passengers, pick-up passengers as well as additional car parking.

In review of this landside road network, a traffic modelling exercise has been undertaken to review various parts of the road network and the impacts of increasing traffic numbers in the area following the opening of the full Terminal 2 following the completion of MAN-TP in 2025. This exercise has concluded the need for changes to the road network at the western end of T2. With the existing layout, the Sydney Avenue junction with Thorley Lane is anticipated to be over capacity with queues extending into the West End Roundabout and Palma Avenue, therefore blocking the forecourt exit. An optioneering exercise for solutions was undertaken and the option now progressed is for the closure of the existing short Sydney Avenue and construction of a new link road/carriageway from the western side of the existing West End roundabout and connecting into Thorley Lane via a new signal controlled junction. The proposed project includes the following:

- A new carriageway from the West End Roundabout (where Palma Avenue and Sydney Avenue meet) via the existing Staff West Car Park to Thorley Lane (including a 3.0m wide shared footway/cycleway)
- Widening of Thorley Lane to accommodate a signal-controlled junction between the new carriageway and Thorley Lane
- The upgrade of the existing Thorley Lane junction with Runger Lane to a signalised junction.
- Creation of a 3m wide shared footway/cycleway on Thorley Lane.
- Closure of the existing Sydney Avenue carriageway from the West End Roundabout to Thorley Lane and associated retention and realignment of the existing footpaths and cycleway
- Creation of a new exit from the West End Roundabout into the existing Staff West car park

The planning application is limited to seeking planning permission for the creation of a new access from the northern end of the new road to the Thorley Lane carriageway. The extent of the planning application boundary and the extent of the project boundary are shown on the plan in Figure 1 (drawing reference MT2RSYDN-MAN.LG.00.RD-JAC-Z-GA-LANDRD-0006).

It is these developments around Sydney Avenue (hereafter referred to as the 'Proposed Scheme' – reflecting the Project Boundary referred to above) that are subject to this air quality assessment. The air quality impacts that may arise because of the Proposed Scheme are considered to include:

- Potential impacts on amenity from emissions of dust which can occur from works associated with the preparation of land (e.g. demolition, land clearing or grading, earth moving and excavation) and/or during construction (collectively termed 'construction dust' emissions).
- Potential impacts on human health receptors due to emissions of construction dust and/or air pollutants associated with changes in the magnitude and/or location of road traffic emissions during the operation of the Proposed Scheme.
- Potential impacts on designated ecological habitats due to emissions of construction dust and/or air pollutants associated with changes in the magnitude and/or location of road traffic emissions during the operation of the Proposed Scheme.

The assessment of these potential impacts has been undertaken in line with the Institute of Air Quality Management (IAQM) guidance on 'Land-Use Planning & Development Control: Planning for Air Quality' (Ref 1) and 'Guidance on the Assessment of Dust from Demolition and Construction' (Ref 2).

This report sets out the relevant legislative and policy background, existing air quality conditions in the local area, the methodology for and results of an assessment of the potential changes in local air quality because of the Proposed Scheme, proposed mitigation measures and the potential significance of any residual impacts.

2. Legislative and Policy Context

2.1 Key legislation

Key legislation relevant to the protection of air quality considered in this assessment include:

- The Environment Act 1995, Part IV - introduced a system of Local Air Quality Management (LAQM) in the UK. This requires local authorities to review and assess air quality within their boundaries regularly and systematically against Air Quality Objectives (AQOs), appraise development and transport plans in the context of these assessments and make plans to meet the AQOs where these are exceeded.
- The Air Quality Strategy for England (AQS) (Ref 3) – sets out how local air quality is managed through the application of AQO's, which are based on an understanding of the health effects of exposure to air pollutants and have been specified to control health and environmental risks to an acceptable level.
- The Air Quality (England) Regulations 2000 and The Air Quality (England) (Amendment) Regulations 2002 – define the AQOs which are applicable in England.
- Air Quality Standards Regulations 2010 – these regulations transpose air quality Limit Values set out in the EU ambient air quality directive 2008/50/EC into UK law.
- Environment Protection Act 1990; amended by the Pollution Prevention and Control Act 1999. Part III – provides statutory nuisance provisions for dust and odour.
- The Environment (Miscellaneous Amendments) (EU Exit) Regulations 2020 - include an amended annual average Limit Value for PM_{2.5} of 20 µg/m³.

The AQOs/Limit Values for those pollutants considered in this assessment are presented in Table 2-1. The LAQM process undertaken across the UK indicates that all other construction and / or road traffic derived pollutants are expected to meet AQOs in most areas of the UK, therefore other such pollutants have not been considered within this assessment.

Table 2-1: Air quality objectives / Limit Values relevant to this assessment

Pollutant	AQO/Limit Value (µg/m ³)	Concentration measured as
NO ₂	40	Annual mean
	200	1-hour mean, not to be exceeded more than 18 times a year
PM ₁₀	40	Annual mean
	50	24-hour mean, not to be exceeded more than 35 times a year
PM _{2.5}	20	Annual mean

It should be noted that compliance with air quality Limit Values is initially determined via the national monitoring network and national model (the Pollution Climate Mapping (PCM) model), and there are several important differences between this, and the monitoring/modelling carried out by local authorities to determine achievement of AQOs. Because of these differences, there are many locations across the UK where national compliance with the Limit Values, and local achievement of the AQOs, are not in agreement. For the purposes of this assessment, AQOs and Limit Values are therefore considered separately.

2.2 Key Policy

Key policy relevant to the protection of air quality considered in this assessment include:

- National Planning Policy Framework (Ref 4):
 - *Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible*

C2 - Internal

these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.

- Manchester City Council (Manchester City Council, 2012) Core Strategy Development Plan Document (Ref 5)
 - *Policy EN 16 – Air Quality – The Council will seek to improve the air quality within Manchester, and particularly within Air Quality Management Areas, located along Manchester's principal traffic routes and at Manchester Airport. Developers will be expected to take measures to minimise and mitigate the local impact of emissions from traffic generated by the development, as well as emissions created by the use of the development itself, including from Combined Heat and Power and biomass plant. When assessing the appropriateness of locations for new development the Council will consider the impacts on air quality, alongside other plan objectives. This includes cumulative impacts, particularly in Air Quality Management Areas.*

3. Baseline Conditions

3.1 Study Area

Study areas of 200 m and 250 m from the Proposed Scheme boundary have been considered within this assessment for operation and construction dust impacts, respectively. The 250 m study area for construction dust is based on IAQM guidance (Ref 2), with the risk to receptors beyond 250 m being “negligible”, and any effects will be not significant. Design Manual for Roads and Bridges (DMRB) LA 105 Air Quality (Ref 6) suggests that air quality impacts have the potential to occur at sensitive receptors up to 200 m from a road experiencing a change in traffic conditions or alignment in excess of relevant traffic change criteria. As the traffic impacts of the Proposed Scheme are expected to be limited to the boundary extents, a 200 m buffer from the Proposed Scheme boundary has been used as the study area for potential operational phase impacts.

3.2 Baseline data sources

A review of existing air quality conditions in the area around the Proposed Scheme has been undertaken using information from the following sources:

- The 2022 Air Quality Annual Status Report (ASR) published by Manchester City Council (MCC) (Ref 5).
- Defra background map datasets (Ref 8).
- PCM model outputs (Ref 9).
- Geographic information on the location of designated habitats published by Defra (Ref 10) and Natural England (Ref 11)
- The results of air quality monitoring in 2022 published by Manchester Airport (Ref 12)

Information used to determine the baseline air quality in the vicinity of the Proposed Scheme has been taken from freely available public sources. Receptors and baseline information are reported where they fall within the relevant distances required for human health, ecological health, and construction dust assessments (the maximum distance being 250 m from the Proposed Scheme). Where there are no receptors within these distances, the nearest feature is reported.

3.3 Local Air Quality Management

MCC carries out regular assessments and monitoring of air quality within its administrative borough as part of the LAQM process. Where exceedances of relevant AQOs are identified or predicted, MCC would then declare an Air Quality Management Area (AQMA) and introduce an Air Quality Action Plan (AQAP) setting out specific actions to reduce air pollution. At present, there is one AQMA located within the administrative borough of MCC. The Proposed Scheme is located outside of, but in close proximity to, the Greater Manchester Combined Authority AQMA (as shown in Figure 2 (Drawing Reference: MT2RSYDN-MAN.LG.00.ZZ-JAC-G-DE-LAND-0002)).

3.3.1 Air Quality Monitoring

MCC's 2022 Air Quality Annual Status Report (Ref 7) has been reviewed to understand concentrations of NO₂ in the vicinity of the Proposed Scheme and along routes with the potential to be affected by changes in road traffic conditions because of the Proposed Scheme. There were no representative monitoring locations within 200 m of the Proposed Scheme. The closest diffusion tube monitored by MCC is site MA8ANO, which is located approximately 2.3 km to the north of the Proposed Scheme. The latest monitored NO₂ concentration for this site is 23.9 µg/m³ recorded in 2022. Additionally, Manchester Airport undertake air quality monitoring at and near to the airport using both diffusion tubes and continuous monitoring (Ref 12). The closest monitoring site to the Proposed Scheme (a diffusion tube) is site Stand 212, which is located approximately 400 m to the south of the Proposed Scheme and recorded an annual mean NO₂ concentration of 29.2 µg/m³ in 2022. Site Stand 212 is located within the airport boundary and therefore concentrations at this location will include contribution from nearby aircraft.

In addition to diffusion tubes, Manchester Airport operate a continuous monitoring station in partnership with MCC, which is located at Daisy Bank Lane approximately 3.0 km to the east of the Proposed Scheme. This monitoring station measures concentrations of PM₁₀ and PM_{2.5} in addition to NO₂. Annual mean monitoring results for this monitoring site in 2022 are shown in Table 3-1.

Table 3-1: Manchester Airport continuous monitoring 2022 data

Pollutant	2022 Annual Mean
NO ₂	15.5
PM ₁₀	12.6
PM _{2.5}	7.4

The monitoring data discussed above indicates that air pollutant concentrations within proximity of the Proposed Scheme are likely to be well within the annual mean AQOs / Limit Values for NO₂, PM₁₀ and PM_{2.5} described within Table 2-1.

3.3.2 Background Pollutant Concentrations

For the assessed pollutants, information on background air quality in the vicinity of the Proposed Scheme was obtained from Defra background map datasets (Ref 8). The 2018-based background maps by Defra are estimates based upon the principal local and regional sources of emissions and ambient monitoring data.

The range of background concentrations for the grid squares that cover the Proposed Scheme are presented in Table 3-2. This shows that background pollutant concentrations within the vicinity of the Proposed Scheme are well within the relevant AQOs.

Table 3-2: 2024 background pollutant concentrations (µg/m³) in the vicinity of the Proposed Scheme)

Pollutant	AQO (µg/m ³)	Annual mean concentration (µg/m ³)	Description
NO ₂	40	18.4 – 20.3	Range of Defra 1 km x 1 km background map concentrations for the grid squares in which cover the scheme. Range derived from grid squares 380500, 386500 and 381500, 386500.
PM ₁₀	40	12.0 – 12.7	
PM _{2.5}	20	7.7 – 8.2	

3.4 PCM Links

The PCM model (modelled by Ricardo Energy & Environment (on behalf of Defra) (Ref 9) is a collection of air dispersion models that have been created to report ambient concentrations of certain pollutants across the UK to assess Limit Value compliance.

Two PCM links have been identified within 200 m of the Proposed Scheme. The projected 2024 annual mean roadside NO₂ concentrations for these links are 23.8 µg/m³ (Census ID 16044, representing the M56) and 28.0 µg/m³ (Census ID 78683, representing the A555), respectively, which are well within the NO₂ Limit Value (i.e. 40 µg/m³). Locations of the PCM links are presented in Figure 2 (Drawing Reference: MT2RSYDN-MAN.LG.00.ZZ-JAC-G-DE-LAND-0002)).

3.5 Human Health Receptors

For the assessment of potential human health impacts, a relevant receptor can include residential properties and receptor locations used by the young, elderly, and other susceptible population, such as schools and hospitals. In the context of a dust risk assessment, it also refers to any location where a person or property may experience the adverse effects of airborne dust or dust soiling (Ref 2). A desk study indicates that there are a small number of potentially sensitive human health receptors in close proximity to the Proposed Scheme (as shown in Figure 3 (Drawing Reference: MT2RSYDN-MAN.LG.00.ZZ-JAC-G-DE-LAND-0003)). These receptors have the potential to be subject to construction dust impacts as a result of the construction of the Proposed Scheme and/or changes in air pollutant concentrations because of changes in the magnitude and/or location of road traffic emissions as a result of the Proposed Scheme. These receptors include:

C2 - Internal

- Hale Top Farm Cottages, Thorley Lane – Two residential properties located approximately 20 m to the north of the Proposed Scheme
- Holly Cottage – A residential property located approximately 250 m to the east of the Proposed Scheme; and
- Keepers Cottage – A residential property located approximately 100 m to the northwest of the Proposed Scheme

Additional receptors within the vicinity of the Proposed Scheme, which may be considered sensitive to the effects of dust soiling from construction, include airport car parks, shuttle bus parking areas and airport stands for aircraft.

3.6 Ecological Receptors

Ambient concentrations of air pollutants and dust and nitrogen deposition can damage vegetation directly or affect plant health. A desk study indicates that there are no ecological sites within 200 m of the Proposed Scheme. Such receptors have therefore not been considered further within this assessment.

4. Assessment Methodology

To assess whether the Proposed Scheme will have any potentially significant impacts on air quality, the following information and guidance has been used:

- Information presented on baseline air quality conditions (Section 3); and
- IAQM Guidance on Air Quality Planning (Ref 1)
- IAQM Guidance on Construction Dust (Ref 2)

4.1 Construction Phase

The guidance developed by the Institute of Air Quality Management (IAQM), 'Guidance on the assessment of dust from demolition and construction' (Ref 2) was used as the basis for the construction dust assessment presented in this report.

The assessment has been undertaken using the best available information at the time of writing. Any assumptions have been clearly stated. The dust assessment provides a qualitative risk-based appraisal with reference to the Proposed Scheme in relation to sensitive locations, the planned construction process and local site characteristics.

This assessment considered the potential impacts of dust, PM_{10} and $PM_{2.5}$ at sensitive receptors following the methodology outlined within the IAQM guidance (Ref 2).

A summary of the methodology for the construction dust assessment is provided in Table 4-1, with further details provided in Appendix A.

Table 4-1: Summary of IAQM construction dust assessment methodology

Step	Methodology Summary
1	Screen the need for a detailed assessment
2	Step 2a: Determine the potential dust emission magnitude (i.e. small, medium, or large), for each site activity (i.e. Demolition, Earthworks, Construction and Trackout) Step 2b: Define the sensitivity of the area (i.e. low, medium, or high), which includes specific sensitivities of receptors based on proximity and numbers of those receptors and the local background PM_{10} (pertinent to human health effects) Step 2c: Define the risk of impacts, based on the dust risk and area sensitivity conclusions from Step 2a and 2b (without mitigation)
3	Develop site-specific mitigation (if required)
4	Determine significant effects

4.2 Operational Phase

IAQM Land-Use Planning & Development Control: Planning for Air Quality (Ref 1) sets out the following criteria to assess whether changes in road traffic conditions because of a Proposed Scheme have the potential to result in significant impacts on air quality:

- A change of Light Duty Vehicle flows of:
 - More than 100 Annual Average Daily Traffic (AADT) within or adjacent to an AQMA;
 - More than 500 AADT elsewhere;
- A change of Heavy-Duty Vehicle flows of:
 - More than 25 AADT within or adjacent to an AQMA;
 - More than 100 AADT elsewhere;
- Where the change in realignment of the road is more than 5 m.

The IAQM guidance (Ref 1) indicates that if none of the criteria are met then there should be no requirement to carry out an air quality assessment for the impact of the proposed development on the local area, and the impacts can be considered to have insignificant effects.

Potential changes in traffic flows and road alignment expected to occur because of the Proposed Scheme have therefore been compared to these criteria.

5. Results

5.1 Construction Phase

The results of the assessment are summarised below and provided in full in Appendix C.

Across the various stages of the construction of the Proposed Scheme, it is concluded that there is a low risk of dust soiling impacts at sensitive receptors and a negligible risk of human health impacts.

IAQM guidance (Ref 2) indicates that once the risk of dust impacts has been determined and the appropriate dust mitigation measures identified (see Table B-5 of Appendix C), the residual effect will normally be determined 'not significant'.

Therefore, provided construction dust mitigation measures commensurate with a low-risk site is incorporated into the Construction Environmental Management Plan (CEMP) for the Proposed Scheme, and implemented during construction, it is considered the impact of the construction of the Proposed Scheme on air quality would be 'not significant.'

5.2 Operational phase

The Proposed Scheme, which primarily facilitates local access arrangements, is not expected to result in changes in road traffic volumes in excess of the IAQM planning guidance criteria shown in Section 4.2. Instead, the impacts of the Proposed Scheme would be primarily limited to those arising from the proposed physical changes to the local road network, which would move some traffic further away from nearby human health receptors (i.e., Hale Top Farm Cottages), resulting in a slight beneficial impact.

The Proposed Scheme is expected to result in a slight decrease in traffic along the section of Thorley Lane between Sydney Avenue and the proposed new section of road linking to the Sydney Avenue Roundabout. Otherwise, traffic flows are expected to be largely unaffected by the Proposed Scheme.

The impact of the operation of the Proposed Scheme on local air quality is therefore considered likely to be 'not significant'.

6. Conclusions

An air quality assessment has been undertaken of potential construction and operation phase effects on air quality because of the Proposed Scheme.

With regard to dust emissions during the construction phase, there is a low risk for dust to impact on nearby sensitive human receptors. However, providing best practice mitigation measures (as recommended by IAQM (Ref 2) are implemented during construction activities, the potential impacts from emissions of dust associated with construction of the Proposed Scheme would be 'not significant'.

The Proposed Scheme is not expected to result in sizeable changes in road traffic volumes across the wider road network during its operation. Overall, traffic flows are expected to be largely unaffected by the Proposed Scheme and potential operational phase impacts on air quality are therefore considered to be 'not significant'.

7. References

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- Ref 12 Manchester Airport. Air Quality Monitoring Results 2022. Online. Available at: <https://assets.live.dxp.maginfrastucture.com/f/73114/x/33190392a7/manchester-airport-air-quality-monitoring-results-2022.pdf>. Accessed April 2024.

- Ref 13 Department for Environment, Food and Rural Affairs (Defra) (2022). Local Air Quality Management Technical Guidance (TG22). Online. Available at: <https://laqm.defra.gov.uk/wp-content/uploads/2022/08/LAQM-TG22-August-22-v1.0.pdf>. Accessed April 2024.

Appendix A. Figures

Figure 1 – Proposed Site Layout (drawing reference MT2RSYDN-MAN.LG.00.RD-JAC-Z-GA-LANDRD-0006).

Figure 2 – Air Quality Constraints (drawing reference MT2RSYDN-MAN.LG.00.ZZ-JAC-G-DE-LAND-0002)

Figure 3 – Construction Dust Assessment (drawing reference MT2RSYDN-MAN.LG.00.ZZ-JAC-G-DE-LAND-0002)



NOTES:

1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. DO NOT SCALE FROM THIS DRAWING.
3. THIS IS AN INDICATIVE LAYOUT ONLY AND ALL DIMENSIONS ARE TO BE CHECKED ON SITE.

KEY:

PROJECT BOUNDARY

PLANNING APPLICATION BOUNDARY

1.0	ISSUED FOR CLIENT APPROVAL	26/04/24
Rev	Details	Date

Jacobs
5 First Street, Manchester, M15 4GU
Tel: +44 (0) 161 235 6000 Fax: +44(0)161 235 6001
www.jacobs.com

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LEVEL C2 - INTERNAL

KEY PLAN (N.T.S)

Airport

Manchester Airport

Project Name

MAG LANDSIDE - FI, SA & VCC

Title

SYDNEY AVENUE
PROPOSED SITE LAYOUT

Discipline / Multi Discipline		Project Phase	
General / Multi Discipline		Design - Phase 3 - GW 2	
Drawing Originator		Originator's Job No.	
JACOBS		MAG42040	
Drawn By	Drawn Date	Checked By	Checked Date
JL	26/04/24	SR	26/04/24
Approved By	Approved Date	Scale and sheet size	
NL	26/04/24	1:500 @ A1	

Manchester Airport Grid Reference

APX = 11850 , APY = 12188

Project Number		Location Code		Origin	
MT2RSYDN		MAN.LG.00.RD		JAC	
Disc.	Doc. Type	ACC	Unique ID Number	Status	Rev.
Z	GA	LANDRD	0006	S4	1.0



Legend

- Proposed Scheme Boundary
- Proposed Scheme 200m Buffer
- Human Health Receptors
- Pollution Climate Mapping (PCM) Road Links
- Air Quality Management Area (AQMA)

Source:
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C2 - Internal

1.0	4/30/2024	For Stage Approval	WW	JMcL	SP	SR
Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd

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Client

Project

MAN-TP-Landside-FI, SA & VCC

Drawing Title

Air Quality Constraints

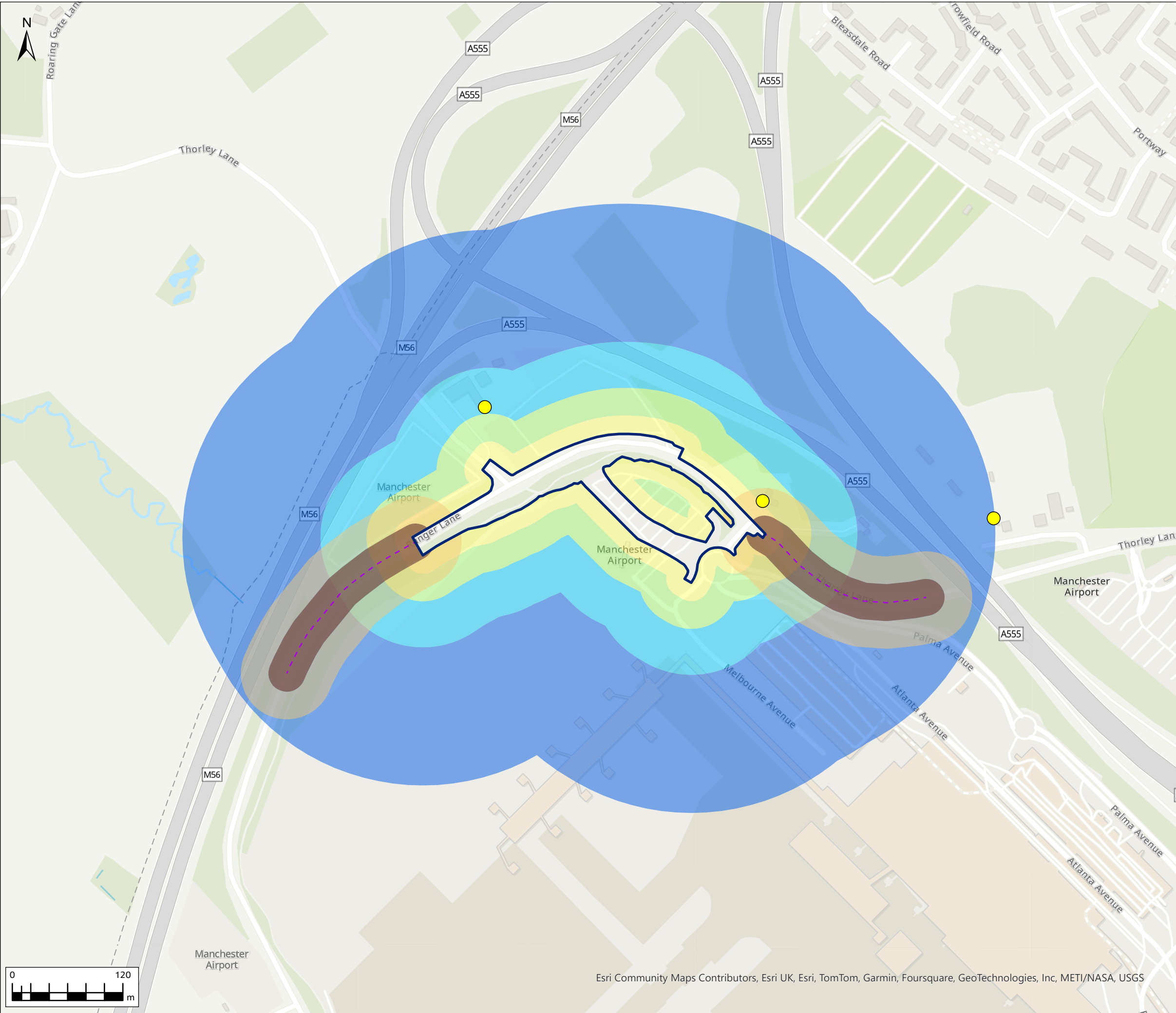
Drawing No.
MT2RSYDN-MAN.LG.00.ZZ-JAC-G-DE-
LAND-0002

Drawing Status
S4 - For Stage Approval

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FIGURE 2



Legend

- Proposed Scheme Boundary
- Human Health Receptors
- Trackout Routes
- Trackout Routes 20m Buffer
- Trackout Routes 50m Buffer
- Proposed Scheme 20m Buffer
- Proposed Scheme 50m Buffer
- Proposed Scheme 100m Buffer
- Proposed Scheme 250m Buffer

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1.0	4/30/2024	For Stage Approval	WW	JMcL	SP	SR
Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd

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Project: MAN-TP-Landside-FI, SA & VCC

Drawing Title: Construction Dust Assessment

Drawing No. MT2RSYDN-MAN.LG.00.ZZ-JAC-G-DE-LAND-0003	Drawing Status S4 - For Stage Approval
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Appendix B. Construction Dust Assessment Methodology

A.1 Assessment Methodology

The guidance developed by the Institute of Air Quality Management (IAQM), 'Guidance on the assessment of dust from demolition and construction' (Ref 2), was used as the basis for the construction dust assessment, discussed in this report.

A.1.1 Step 1: Identify the need for a Detailed Assessment

As stated in the IAQM guidance (Ref 2), an assessment would normally be required where there is:

- A human receptor within 250 m of the boundary of the site; and/ or within 50 m of routes used by construction vehicles on the public highway, up to a distance of 250m from the construction site entrance(s)
- An ecological receptor within 50 m of the boundary of the site; and/or within 50 m of routes used by construction vehicles on the public highway, up to a distance of 250 m from the construction site entrance(s)

A human receptor refers to any location where a person or property may experience the adverse effects of airborne dust or dust-soiling, or exposure to particulate matter over a period relevant to the air quality objectives.

An ecological receptor refers to any sensitive habitat affected by dust soiling. For locations with a statutory designation, such as a Site of Specific Scientific Interest (SSSI), Special Area of Conservation (SAC) and Special Protection Areas (SPA), consideration should be given as to whether the particular site is sensitive to dust. Some non-statutory sites may also be considered, if appropriate, such as a Site of Importance for Nature Conservation (SINC) or Local Wildlife Site (LWS).

Where the need for a more detailed assessment is screened out (i.e. where there are no sensitive receptors within the distance bands described above), it can be concluded that the level of risk is 'negligible,' and any effects would be 'not significant.'

A.1.2 Step 2: Assess the Risk

A site is allocated to a risk category based on the scale and nature of the works (Step 2A) and the sensitivity of the area to dust impacts (Step 2B). These two factors are combined in Step 2C to determine the risk of dust impacts before the implementation of mitigation measures. Risks are described in terms of there being a Low, Medium, or High risk of dust impacts for each of the four separate potential activities (demolition, construction, earthworks and trackout). Site-specific mitigation would then be required, proportionate to the level of risk.

A.1.2.1 Step 2A: Define the Potential Dust Emission Magnitude

The potential dust emission magnitude is based on the scale of the anticipated works and should be classified as Small, Medium, or Large. Table A 1 presents (in tabular form) the dust emission criteria outlined for each construction activity, as defined within Section 7.2 of the IAQM guidance (Ref 2).

Table A 1: Potential dust emission magnitude criteria

Construction Activity	Dust Emission Magnitude		
	Large	Medium	Small
Demolition	▪ Total building volume >75,000 m³	▪ Total building volume 12,000 m³ – 75,000 m³	▪ Total building volume <12,000 m³ ▪ Construction material with low potential for

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Construction	Dust Emission Magnitude		
	- Potentially dusty construction material (e.g. concrete), - On-site crushing and screening, - Demolition activities >12m above ground level	- Potentially dusty construction material, demolition - Activities 6-12 m above ground level	- dust release (e.g. metal cladding or timber) - Demolition activities <6 m above ground, demolition during wetter months.
Earthworks	- Total site area >110,000 m² - Potentially dusty soil type (e.g. clay, which will be prone to suspension when dry due to small particle size) >10 heavy earth moving vehicles active at any one time - Formation of bunds >6 m in height	- Total site area 18,000 m² – 110,000 m² - moderately dusty soil type (e.g. silt) 5-10 heavy earth moving vehicles active at any one time - Formation of bunds 3m - 6m in height	- Total site area <18,000 m² - Soil type with large grain size (e.g. sand) <5 heavy earth moving vehicles active at any one time - Formation of bunds <3 m in height
Construction	- Total building volume >75,000 m³ - On site concrete batching - Sandblasting	- Total building volume 12,000 m³ – 75,000 m³ - Potentially dusty construction material (e.g. concrete) - On site concrete batching	- Total building volume <12,000 m³ - Construction material with low potential for dust release (e.g. metal cladding or timber)
Trackout	>50 HDV (>3.5t) outward movements¹ in any one day² - Potentially dusty surface material (e.g. high clay content) - Unpaved road length >100 m	20-50 HDV (>3.5t) outward movements¹ in any one day² - Moderately dusty surface material (e.g. high clay content) - Unpaved road length 50 m – 100 m	<20 HDV (>3.5t) outward movements¹ in any one day² - Surface material with low potential for dust release - Unpaved road length <50 m

¹ A vehicle movement is a one-way journey. i.e. from A to B and excludes the return journey.

² HDV movements during a construction project vary over its lifetime, and the number of movements is the maximum not the average.

A.1.2.2 Step 2B: Define the Sensitivity of the Area

The sensitivity of the area is described either as Low, Medium, and High and considers several factors:

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

Table A 2 summarises indicative examples of classification groups presented within the IAQM guidance (Ref 2) for the varying sensitivities of human receptors (i.e. to dust soiling effects and the health effects of PM₁₀) and ecological receptors, respectively. A judgement is made at the site-specific level where sensitivities may be lower, for example a soft fruit business may be more sensitive to soiling than an alternative industry in the same location. Box 6, Box 7, and Box 8 within the IAQM guidance outline more detailed criteria for defining sensitivity.

Table A 2: Indicative examples of the sensitivity if different types of receptors

Sensitivity of Receptor	Sensitivities of Human and Ecological Receptors		
	Dust Soiling Effects ¹	Health Effects of PM ₁₀ ²	Ecological Effects ³
High	Dwellings, museums, and other culturally important collections, medium- and long-term car parks and car showrooms.	Residential properties, Hospitals, schools, and residential care homes.	Locations with an international or national designation and the designated features may be affected by dust soiling (e.g., SAC). Locations where there is a community of a particular dust sensitive species such as vascular species included in the Red Data List for Great Britain.
Medium	Parks and places of work.	Office and shop workers but will generally not include workers occupationally exposed to PM ₁₀ .	Locations where there is a particularly important plant species, where its dust sensitivity is uncertain or unknown. locations with a national designation where the features may be affected by dust deposition (e.g., SSSI).
Low	Playing fields, farmland (unless commercially sensitive horticultural), footpaths, short term car parks and roads.	Public footpaths, playing fields, parks, and shopping streets.	Locations with a local designation where the features may be affected by dust deposition (e.g., LNR)

¹ People's expectations would vary depending on the existing dust deposition in the area.

² This follows the Department for Environment, Food and Rural Affairs guidance (Ref 13) as set out in Local Air Quality Management Technical Guidance (LAQM.TG (22)). Notwithstanding the fact that the air quality objectives and limit values do not apply to people in the workplace, such people can be affected to exposure of PM₁₀. However, they are considered to be less sensitive than the general public as a whole because those most sensitive to the effects of air pollution, such as young children, are not normally workers. As such, workers have been included in the medium sensitivity category.

³ Only if there are habitats that might be sensitive to dust.

The IAQM guidance advises consideration of the risk associated with the nearest receptors to construction activities.

Where there are multiple receptors in a single location, a worst-case representative receptor is considered for that area and the highest risk applicable is allocated.

The number and/or sensitivity of individual receptors (based on the examples provided in Table A 2) and distance are then used to determine the overall sensitivity of the area to potential dust effects (i.e. dust soiling, human health and ecological) as shown in Table A 3, Table A 4 and Table A 5 respectively. It is noted that distances are to the dust source and so a different area may be affected by trackout than by on-site works.

Table A 3: Sensitivity of the area to dust soiling effects on people and property (reproduced from Table 2 of the IAQM guidance (Ref 2))

Receptor Sensitivity	Number of Receptors	Distance from the Source (m) ^{1,2}			
		<20	<50	<100	<250
High	>100	High	High	Medium	Low
	10 to 100	High	Medium	Low	Low
	1 to 10	Medium	Low	Low	Low
Medium	>1	Medium	Low	Low	Low

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Receptor Sensitivity	Number of Receptors	Distance from the Source (m) ^{1,2}			
Low	<1	Low	Low	Low	Low

¹ Only the highest level of area sensitivity from the table needs to be considered. For example, if there are seven High sensitivity receptors < 20 m of the source and 95 High sensitivity receptors between 20 and 50 m, then the total of number of receptors < 50 metres is 102. The sensitivity of the area in this case would be high.

² For trackout, the distances are measured from the side of the roads used by construction traffic. The impact declines with distance from the site, and it is only necessary to consider trackout impacts up to 50 m from the edge of the road.

Table A 4: Sensitivity of the area to human health impacts (reproduced from Table 3 of the IAQM guidance (Ref 2))

Receptor Sensitivity	Annual Mean PM ₁₀ Concentration (µg/m ³) ¹	Number of Receptors ²	Distance from the Source (m) ^{3,4}			
			<20	<50	<100	<250
High	> 32	>100	High	High	High	Medium
		10 – 100	High	High	Medium	Low
		1-10	High	Medium	Low	Low
	28 – 32	>100	High	High	Medium	Low
		10 – 100	High	Medium	Low	Low
		1 – 10	High	Medium	Low	Low
	24 – 28	>100	High	Medium	Low	Low
		10 -100	High	Medium	Low	Low
		1 - 10	Medium	Low	Low	Low
	< 24	>100	Medium	Low	Low	Low
		10 -100	Low	Low	Low	Low
		1 - 10	Low	Low	Low	Low
Medium	> 32	>100	High	Medium	Low	Low
		1 - 10	Medium	Low	Low	Low
	28 – 32	>10	Medium	Low	Low	Low
		1 - 10	Low	Low	Low	Low
	24 – 28	>10	Low	Low	Low	Low
		1 - 10	Low	Low	Low	Low
	< 24	>10	Low	Low	Low	Low
		1 - 10	Low	Low	Low	Low
Low	-	≥ 1	Low	Low	Low	Low

¹ The values are based on 32 µg/m³ being the annual mean concentration at which an exceedance of the 24-hour objective is likely in England.

² In the case of High sensitivity receptors with high occupancy (such as schools or hospitals) the number of people likely to be present is approximated. In the case of residential dwellings, the number of properties is counted.

³ Only the highest level of area sensitivity from the table needs to be considered. For example, if there are seven High sensitivity receptors < 20 m of the source and 95 High sensitivity receptors between 20 and 50 m, then the total of number of receptors < 50 metres is 102. The sensitivity of the area in this case would be high.

⁴ For trackout, the distances are measured from the side of the roads used by construction traffic. The impact declines with distance from the site, and it is only necessary to consider trackout impacts up to 50 m from the edge of the road.

Table A 5: Sensitivity of the area to ecological impacts (reproduced from Table 4 of the IAQM guidance (Ref 2))

Receptor Sensitivity	Distance from the Source (m) ^{1,2}	
	<20	<50
High	High	Medium
Medium	Medium	Low
Low	Low	Low

¹ Only the highest level of area sensitivity from the table needs to be considered.

² For trackout, the distances are measured from the side of the roads used by construction traffic. The impact declines with distance from the site, and it is only necessary to consider trackout impacts up to 50 m from the edge of the road.

A.1.2.3 Step 2C: Define the Risk of Impacts

The dust emission magnitude is then combined with the sensitivity of the area to determine the overall risk of impacts with no mitigation measures applied. The matrix in Table A 6 provides a method of assigning the level of risk for each activity. These can then be used to determine the appropriate level of mitigation.

Table A 6: Risk of dust impacts (Reproduced from Table 6 to Table 9 of the IAQM guidance (Ref 2))

Receptor Sensitivity	Dust Emission Magnitude		
	Large	Medium	Small
Demolition			
High	High Risk	Medium Risk	Medium Risk
Medium	High Risk	Medium Risk	Low Risk
Low	Medium Risk	Low Risk	Negligible
Earthworks			
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible
Construction			
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible
Trackout			
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible

A.1.3 Step 3: Site-Specific Mitigation

Step 3 of the IAQM guidance identifies appropriate site-specific mitigation. These measures are related to whether the site is a Low, Medium, or High-risk site. The highest risk category of a site (of all activities being undertaken) is recommended to be used when considering general mitigation measures (e.g. communications, site management, monitoring, etc.). Where risk is assigned as 'Negligible,' no mitigation measures beyond those required by legislation are required. However, additional mitigation measures may be applied as good practice.

A selection of these measures has been specified for Low risk to High-risk sites in Section 8.2 of the IAQM guidance (Ref 2) as measures suitable to mitigate dust emissions.

A.1.4 Step 4: Determine Significant Effects

Once the risks of dust effects associated with the Proposed Scheme and the appropriate mitigation measures have been identified, it is necessary to determine the significance of the potential dust effects.

The approach in Step 4 of the IAQM guidance (Ref 2) has been adopted to determine the significance of effects with regard to dust emissions. The guidance states the following:

"For almost all construction activity, the aim should be to prevent significant effects on receptors through the use of effective mitigation. Experience shows that this is normally possible. Hence the residual effect will normally be 'not significant.'"

IAQM guidance (Ref 2) also states that:

"Even with a rigorous DMP in place, it is not possible to guarantee that the dust mitigation measures will be effective all the time, and if, for example, dust emissions occur under adverse weather conditions, or there is an interruption to the water supply used for dust suppression, the local community may experience occasional, short-term dust annoyance. The likely scale of this would not normally be considered sufficient to change the conclusion that with mitigation the effects will be 'not significant.'"

The IAQM guidance recognises that the key to the above approach is that it assumes that the regulators would ensure that the proposed mitigation measures are implemented. The management plan would include the necessary systems and procedures to facilitate on-going checking by the regulators to ensure that mitigation is being delivered, and that it is effective in reducing any residual effect to 'not significant' in line with the guidance.

Appendix C. Construction Dust Assessment

A.2 Step 1: Identify the Need for a Detailed Assessment

An assessment of potential demolition, earthworks, construction and trackout impacts was undertaken in accordance with the IAQM methodology described in Appendix A. Step 1 determines the need for a detailed assessment based on the location of receptors within the vicinity of the construction works.

A.2.1 Human Receptors

There are several human receptors within 250 m of the Proposed Scheme; therefore, a detailed assessment is required. A count of the number of relevant human receptors within the specified assessment bands was carried out as recommended in the IAQM guidance (Ref 2), the results of which are set out in Table B 1.

Trackout routes for construction vehicles would be associated with the various site access points across the working area. A count showed there were no receptors within the 20m trackout distance band and one receptor within the 50 m distance band.

Table B 1: Dust soiling and human health receptor count (assumed that all are high sensitivity receptors)

Construction Activity and Distance to Receptor		Number of Receptors
Demolition, Earthworks and Construction Activities		
Distance to Planning Application Boundary	< 20 m	1 - 10
	< 50 m	1 - 10
	< 100 m	1 - 10
	< 250 m	1 - 10
Trackout		
Distance from roads up to 200 m from the site entrance	< 20 m	-
	< 50 m	1 - 10

A.2.2 Ecological Receptors

There are no ecological receptors within 50 m of the construction site boundary or 50 m of the local road network.

A.3 Step 2A: Define the Potential Dust Emission Magnitude

The dust emission magnitudes of each activity have been specified with reference to the definitions of dust emission magnitudes in Appendix A and using professional judgment in line with IAQM guidance (Ref 2). These are summarised in Table B 2.

Table B 2: Potential dust emission magnitude criteria

Activity	Dust Emission Magnitude	Justification
Demolition	Small	Whilst there are no structures to be demolished as part of the Proposed Scheme, existing sections of road and car park surfacing need to be removed, which consist of potentially dusty materials (e.g. concrete). The on-site crushing and screening of such materials is not proposed, and all such demolition will be undertaken at ground level (rather than at height), reducing the dispersion potential for dust emissions. On this basis, the assessment of demolition is based on a dust emission magnitude of 'small'
Earthworks	Small	Whilst the total volume of the earthworks is not known at this stage, the total site area is less than 18,000 m ² . On this basis, the assessment of earthworks is based on a dust emission magnitude of 'small'
Construction	Small	The construction period and exact volume of material required for construction are both unknown at this stage. Based on the site area, it is assumed the total volume of building materials used would be <12,000 m ³ . As such, the assessment of construction is based on a dust emission magnitude of 'small'
Trackout	Small	During construction, the maximum number of outward movements of HGVs is anticipated to be four in any one day. On this basis, the assessment for trackout is based on a dust emission magnitude of 'small.'

A.4 Step 2B: Define the Sensitivity of the Area

Table B 3 sets out the sensitivities of the surrounding area to demolition, earthworks, construction and trackout based on the criteria set out in Appendix A. Estimated annual mean mapped background PM₁₀ concentrations within the study area are less than 24 µg/m³ based on the latest continuous monitoring results carried out by Manchester Airport (Ref (See Section 3.3.1)).

Table B 3: Sensitivity of surrounding area

Potential Impact	Sensitivity of the Surrounding Area			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Medium	Medium	Medium	Medium
Human Health	Low	Low	Low	Low
Ecological	N/A	N/A	N/A	N/A

A.5 Step 2C: Define the Risk of Impacts

Using the dust emission magnitude for the various activities in Table B 2 and the sensitivity of the area provided in Table B 3, the definition of the risks for each activity are provided in Table B 4 for dust soiling, human health, and ecological impacts.

Table B 4: Dust risk for each activity

Potential Impact	Risk of Dust Impacts			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Low Risk	Low Risk	Low Risk	Low Risk
Human Health	Negligible	Negligible	Negligible	Negligible
Ecological	N/A	N/A	N/A	N/A

A.6 Step 3: Site Specific Mitigation

The results in Table B 4 indicate that dust risks from construction activities associated with the Proposed Scheme are low for dust soiling and negligible for human health impacts. There is no risk to ecological impacts as there are none located within the defined distances of the Proposed Scheme. Mitigation measures are therefore recommended to reduce the potential for significant effects of dust emissions in the vicinity of the Proposed Scheme.

For the allocation of 'general' mitigation measures (including those listed from 1 to 31 in Table B 5), the IAQM guidance recommends that the highest determined risk category for the Proposed Scheme should be used. For example, if the site is medium risk for earthworks and construction, but a high risk for demolition and trackout, the 'general' mitigation measures applicable to a high-risk site should be applied. Therefore, for the Proposed Scheme, a low risk has been used to determine general mitigation measures.

Table B 5: Mitigation for the Proposed Scheme

Mitigation Controls	IAQM Recommendation (Highly Recommended / Desirable / Not Required)
Communications	
1. Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.	Not Required
2. 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.	Highly Recommended
3. Display the head or regional office contact information.	Highly Recommended
4. Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the Local Authority. The level of detail will depend on the risk and should include as a minimum the highly recommended measures in this document. The desirable measures should be included as appropriate for the site. In London additional measures may be required to ensure compliance with the Mayor of London's guidance. The DMP may include monitoring of dust deposition, dust flux, real-time PM ₁₀ continuous monitoring and/or visual inspections.	Desirable
Site Management	
5. 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	Highly Recommended
6. Make the complaints log available to the local authority when asked.	Highly Recommended
7. Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the logbook.	Highly Recommended
8. 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.	Not Required
Monitoring	
9. Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces	Desirable

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Mitigation Controls	IAQM Recommendation (Highly Recommended / Desirable / Not Required)
such as street furniture, cars, and windowsills within 100 m of site boundary, with cleaning to be provided if necessary.	
10. 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.	Highly Recommended
11. 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.	Highly Recommended
12. 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 a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks, and construction.	Highly Recommended
Preparing and maintain the site	
13. Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.	Highly Recommended
14. Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.	Highly Recommended
15. Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period	Desirable
16. Avoid site runoff of water or mud.	Highly Recommended
17. Keep site fencing, barriers and scaffolding clean using wet methods.	Desirable
18. Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.	Desirable
19. Cover, seed, or fence stockpiles to prevent wind whipping.	Desirable
Operating vehicle/machinery and sustainable travel	
20. Ensure all on-road vehicles comply with the requirements of the London Low Emission Zone and the London NRMM standards, where applicable.	Highly Recommended
21. Ensure all vehicles switch off engines when stationary - no idling vehicles.	Highly Recommended
22. Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable.	Highly Recommended
23. 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 appropriate).	Desirable
24. Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.	Not Required
25. Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).	Not Required
Operations	
26. 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.	Highly Recommended
27. Ensure an adequate water supply on the site for effective dust/particulate matter suppression/ mitigation, using non-potable water where possible and appropriate	Highly Recommended
28. Use enclosed chutes and conveyors and covered skips.	Highly Recommended

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Mitigation Controls	IAQM Recommendation (Highly Recommended / Desirable / Not Required)
29. Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.	Highly Recommended
30. 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.	Desirable
Waste Management	
31. Avoid bonfires and burning of waste materials.	Highly Recommended
Demolition	
32. Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).	Not Required
33. Ensure effective water suppression is used during demolition operations. Handheld sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.	Not Required
34. Avoid explosive blasting, using appropriate manual or mechanical alternatives.	Not Required
35. Bag and remove any biological debris or damp down such material before demolition.	Not Required
Earthworks	
36. Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.	Not Required
37. Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.	Not Required
38. Only remove the cover in small areas during work and not all at once.	Not Required
Construction	
39. Avoid scabbling (roughening of concrete surfaces) if possible.	Desirable
40. 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.	Desirable
41. 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	Not Required
42. For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.	Not Required
Trackout	
43. Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.	Desirable
44. Avoid dry sweeping of large areas.	Desirable
45. Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.	Desirable
46. Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.	Not Required
47. Record all inspections of haul routes and any subsequent action in a site logbook.	Desirable
48. Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.	Not Required
49. Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).	Desirable

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Mitigation Controls	IAQM Recommendation (Highly Recommended / Desirable / Not Required)
50. Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permit.	Not Required
51. Access gates to be located at least 10 m from receptors where possible.	Not Required