

Technical Note – Air Quality

Introduction

In November 2025 an Air Quality Assessment (AQA) has been prepared by Air Quality Experts Ltd on behalf of Stoney Wood Property Developments Ltd, in support of an application for full planning permission for the redevelopment of the site into use with the delivery of 463 new residential units (Use Class C3), complimentary Class E uses, landscaping, car and cycle parking and access.

Following review of the application documents the GLA has provided an initial consultation response on 23/12/2025 which the applicant responded to on 15/06/2026.

The GLA was generally satisfied with some of the applicant's response and requested further clarification on a couple of matters on 20/07/2026.

Lucinda Pestana MEnvSc, MIAQM, a Director at Air Quality Experts Ltd (AQE), and the author of the Air Quality Assessment (AQA) submitted with the planning application, has reviewed the consultee response and provided an answer. For clarity and easy reference, the comments received by the GLA are provided in [blue ink](#), while AQE's response is provided in black ink.

Consultation

Point 4:

“Table 6.1 does not include the M1 and no figure has been provided showing the extent of the modelled network, therefore it cannot be confirmed if the M1 was suitably included.

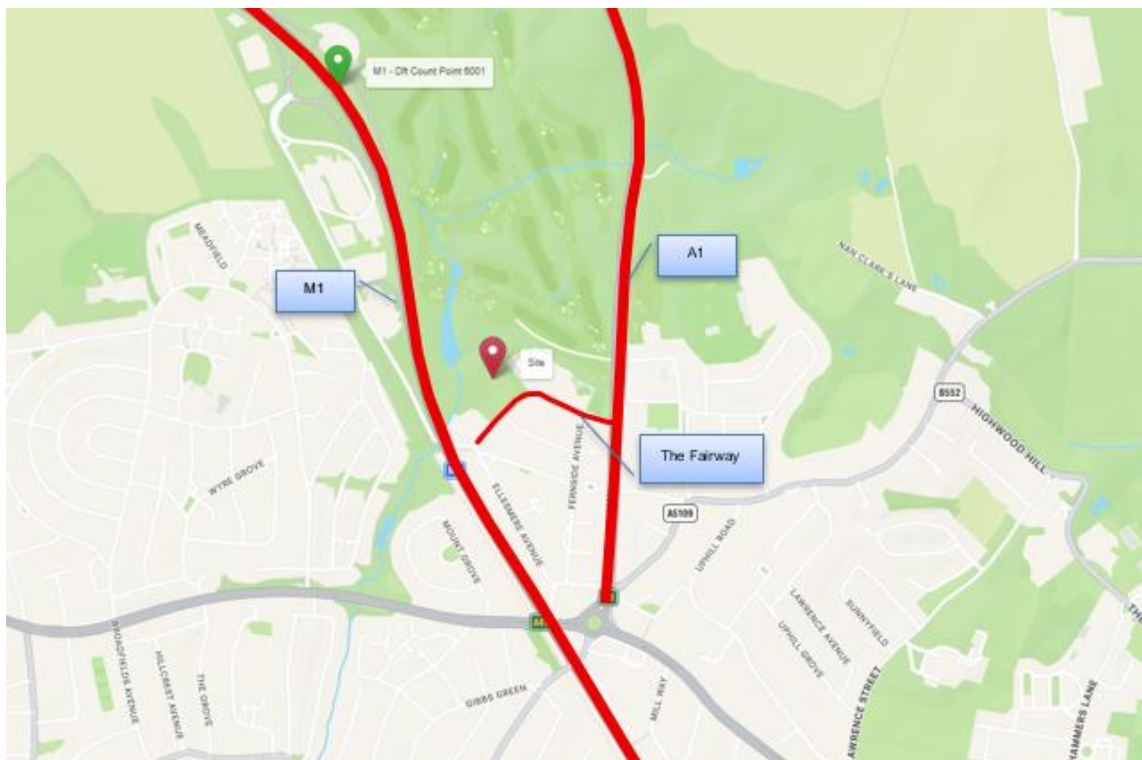
The proposed development is located less than 100 m from the M1 therefore this road must be included in the model.”

Noted, ideally the traffic for the M1 would have also been included in Table 6.1 for clarity. The traffic listed in Table 6.1 was purely the traffic data, as provide by the Transport Consultants at Lime Transport, which includes AADT for Baseline and Proposed Completion Year with and without the proposed development.

The AADT data for the M1 was downloaded from the Department for Transport (DfT) for 2022 (DfT Count Point: 6001 = AADT 59337 light vehicles and 3723 heavy vehicles). This baseline data for the M1 was included in all the modelling scenarios. An amended Table 6.1 is provided overleaf.

* 2025 Traffic Survey Data has been used as the best representation of Baseline 2022

A figure illustrating the road network assessed is also provided below, as requested.



Point 8:

“Paragraph A.13 in appendix A states that there are no high sensitive ecological receptors within 50 m and therefore the sensitivity is low/negligible, Stoney Wood Lake and SINC should be mentioned here as justification for the defined sensitivity as this is not mentioned throughout the appendix.

Small Earthworks emission magnitude and low sensitivity for human health results in a negligible risk (as per IAQM 7), rather than low as stated in Table A.7

The AQ document identifies human health sensitivity as low in Table A.6, whereas the applicant’s response in Column E states that it is high. Clarification will be required to understand and resolve this discrepancy.

Table 2 and 3 in the IAQM construction dust guidance set out various distance bands (20 m, 50 m, 100 m and 250 m), it is not clear which distance band the >100 receptors falls into, i.e. are they all within the 50 - 100 m band or are some closer as this may result in a higher sensitivity being defined.”

Noted about the mentioning of Stoney Wood Lake and SINC within Appendix A, to clearly demonstrate it has been considered as a **Low** sensitive receptor for ecological effects, in accordance with current IAQM guidance.

The **Low** risk (rather than negligible) was adopted as a worst case for robustness, due to the presence of a SINC immediately to the north of the site.

Following **Step 2B** of IAQM guidance, the initial overall site sensitivity for human health was assessed as High due to the presence of high sensitive receptors near the site, i.e residential properties and a school.

Subsequently, due to the low annual mean concentration $15.31\mu\text{g}/\text{m}^3$, and following Table 3 – IAQM, the overall site sensitivity was selected as low using >100 receptors within <100m from source, as demonstrated overleaf.

Table 3: Sensitivity of the Area to Human Health Impacts ^{a b}

Receptor Sensitivity	Annual Mean PM ₁₀ concentration ^c	Number of Receptors	Distance from the Source (m) ^c			
			<20	<50	<100	<250
High	>32 µg/m ³ (>18 µg/m ³ in Scotland)	>100	High	High	High	Medium
		10-100	High	High	Medium	Low
		1-10	High	Medium	Low	Low
	28-32 µg/m ³ (16-18 µg/m ³ in Scotland)	>100	High	High	Medium	Low
		10-100	High	Medium	Low	Low
		1-10	High	Medium	Low	Low
	24-28 µg/m ³ (14-16 µg/m ³ in Scotland)	>100	High	Medium	Low	Low
		10-100	High	Medium	Low	Low
		1-10	Medium	Low	Low	Low
	<24 µg/m ³ (<14 µg/m ³ in Scotland)	>100	Medium	Low	Low	Low
		10-100	Low	Low	Low	Low
		1-10	Low	Low	Low	Low

Despite this, and mainly due to the close location of the school, we have now also provided an amended Construction Dust Assessment to deliver an absolute worst-case scenario to cover for the possible eventuality that occasionally >100 pupils are ever present for long periods of time within <20m from the site boundary or any construction activities.

This results in a Medium site sensitivity for human health, rather than the previous Low.

The site sensitivity for dust soiling on property has been kept as Medium because there are 10-100 properties within 50m of the site boundary and only 1-10 properties within 20m.

The emended Construction Dust Assessment which replaces Appendix A of the original Air Quality Assessment report, is provided overleaf.

It is important to note that the emended Construction Dust Assessment, overleaf, does not alter in any way the mitigation requirements already presented in the original Construction Dust Assessment, which for robustness had already recommended medium mitigation throughout, apart from table A.8 (earthworks) which was allocated low mitigation. This remains unaltered within the updated assessment despite the change from Low to Medium sensitivity for human health owed to the worst-case approach formerly adopted.

UPDATED APPENDIX A

CONSTRUCTION DUST ASSESSMENT

- A.1 The construction dust assessment has been completed in accordance with 2024 IAQM guidance and follows the procedures as outlined in Section 3 of this report.

Screen the Need for a Detailed Assessment

- A.2 The following screening criterion has been applied to the assessment:

“An assessment will normally be required where there is:

- a ‘human receptor’ within:
 - 250m of the boundary of the site; or
 - 50m of the route(s) used by construction vehicles on the public highway, up to 250m from the site entrance(s).
- an ‘ecological receptor’ within:
 - 50m of the boundary of the site; or
 - 50m of the route(s) used by construction vehicles on the public highway, up to 250m from the site entrance(s).”

- A.3 There are a number of human receptors within 250m of the site boundary. Therefore, a dust assessment is required due to the proposed development location meeting some of the above criteria.

Assess the Risk of Dust Impacts

- A.4 The site has no built structures and as such does not require any demolition. Subsequently, the construction activities associated with the proposed development have been separated into three stages:

- Earthworks;
- Construction; and
- Trackout.

A.5 The assessment of the risk of dust impacts has been completed in two stages:

- Determine the potential dust emission magnitude; and
- Determine the sensitivity of the area to dust impacts.

A.6 The potential dust emission magnitude for all three of the construction stages have been determined to be either Small, Medium or Large according to the criteria presented in **Table A.1** below.

Construction Activity	Dust Emission Magnitude Scale		
	Small	Medium	Large
Earthworks	Total site area <18,000m ² , soil type with large grain size, <5 heavy earth moving vehicles active at any one time, formation of bunds <3m in height.	Total site area 18,000m ² – 110,000m ² , moderately dusty soil type, 5-10 heavy earth moving vehicles active at any one time, formation of bunds 3m - 6m in height.	Total site area >110,000m ² , potentially dusty soil type, >10 heavy earth moving vehicles active at any one time, formation of bunds >6m in height.
Construction	Total building volume <12,000m ³ , construction material with low potential for dust release.	Total building volume 12,000m ³ – 75,000m ³ , potentially dusty construction material, on site concrete batching.	Total building volume >75,000m ³ , on site concrete batching, sandblasting.
Trackout	<20 HDV* outward movements in any one day, surface material with low potential for dust release, unpaved road length <50m.	20-50 HDV outward movements in any one day, moderately dusty surface material, unpaved road length 50m – 100m	>50 HDV outward movements in any one day, potentially dusty surface material, unpaved road length >100m.
* HDV – Heavy Duty Vehicle (>3.5t), Note – In each case, not all the criteria need to be met, and that other criteria may be used if justified.			

Table A.1: Dust Emission Magnitude Criteria

A.7 The completed assessment of Dust Emission Magnitude is shown in **Table A.2** below.

Construction Activity	Dust Emission Magnitude	Justification
Earthworks	Small	Total site area < 18,000m ²
Construction	Large	Total building volume to be >75,000m ³
Trackout	Medium	Estimated to be between 20-50 HDV outward movements in any one day.

Table A.2: Dust Emission Magnitude Assessment

- A.8 Due to the scale of the proposed development the magnitude of dust emissions has been assessed as **Small**, for earthworks, **Large** for construction and **Medium** for trackout.
- A.9 The sensitivity of the area has been assessed in relation to a number of factors such as; the specific sensitivities of receptors in the area, the proximity and number of those receptors and in the case of PM₁₀, the local background concentration and by following the significance criteria in **Tables A.3, A.4 and A.5** below.

Receptor Sensitivity	Number of Receptors	Distance from the source (m)			
		<20	<50	<100	<250
High	>100	High	High	Medium	Low
	10-100	High	Medium	Low	Low
	1-10	Medium	Low	Low	Low
Medium	>1	Medium	Low	Low	Low
Low	>1	Low	Low	Low	Low

Table A.3: Sensitivity of the Area to Dust Soiling Effects of People and Property

Receptor Sensitivity	Annual Mean PM ₁₀ Concentration	Number of Receptors	Distance from the source (m)			
			<20	<50	<100	<250
High	>32 µg/m ³	>100	High	High	High	Medium
		10-100	High	High	Medium	Low
		1-10	High	Medium	Low	Low
	28-32 µg/m ³	>100	High	High	Medium	Low
		10-100	High	Medium	Low	Low
		1-10	High	Medium	Low	Low
	24-28 µg/m ³	>100	High	Medium	Low	Low
		10-100	High	Medium	Low	Low
		1-10	Medium	Low	Low	Low
	<24 µg/m ³	>100	Medium	Low	Low	Low
		10-100	Low	Low	Low	Low
		1-10	Low	Low	Low	Low
Medium	>32 µg/m ³	>10	High	Medium	Low	Low
		1-10	Medium	Low	Low	Low
	28-32 µg/m ³	>10	Medium	Low	Low	Low
		1-10	Low	Low	Low	Low
	24-28 µg/m ³	>10	Low	Low	Low	Low
		1-10	Low	Low	Low	Low
	<24 µg/m ³	>10	Low	Low	Low	Low
		1-10	Low	Low	Low	Low
Low	-	≥1	Low	Low	Low	Low

Table A.4: Sensitivity of the Area to Human Health Impacts

Receptor Sensitivity	Distance from the source (m)	
	<20	<50
High	High	Medium
Medium	Medium	Low
Low	Low	Low

Table A.5: Sensitivity of the Area to Ecological Impacts

A.10 In addition to **Tables A.3, A.4** and **A.5** any site-specific factors have been taken into account when defining the sensitivity of the area:

- any history of dust generating activities in the area;
- the likelihood of concurrent dust generating activity on nearby sites;
- any pre-existing screening between the source and the receptors; and
- the duration of the potential impact, as a receptor may become more sensitive over time.

A.11 The completed assessment of Sensitivity of the Area in **Table A.6** below.

Receptor Sensitivity	Sensitivity of the Surrounding Area		
	Earthworks	Construction	Trackout
Dust Soiling	Medium	Medium	Medium
Human Health	Medium	Medium	Medium
Ecological	Low	Low	Low

Table A.6: Sensitivity of the Surrounding Area Assessment

A.12 The completed pre-mitigation impact risk assessment incorporating the sensitivity of the area and the dust emissions magnitude for the four construction activities is shown in **Table A.7** below.

Potential Impact	Risk		
	Earthworks	Construction	Trackout
Dust Soiling	Low Risk	Medium Risk	Medium Risk
Human Health	Low Risk	Medium Risk	Medium Risk
Ecological	Low/Negligible Risk	Low/Negligible Risk	Low/negligible Risk

Table A.7: Summary of Dust Risk (pre-mitigation)

A.13 The risk of dust soiling has been considered **Low to Medium** due to the risk of human receptors located in close proximity to the proposed site. The human health risk was considered **Low to Medium** due to the low PM₁₀ background concentrations in the local area for 2022 (15.31µg/m³) and the potential high number of sensitivity receptors within <20m of the site boundary. There are no high sensitivity ecological sites within 50m of the proposed site, the Stoney Wood Lake and SINC is a Low sensitive receptor, therefore ecological sensitivity has been assessed as **low/negligible**.

A.14 Additionally, the dust emissions magnitude, pre-mitigation, based on the scale of the development, is considered to be **small** for earthworks, **large** for construction and **medium** for trackout.

Site-specific Mitigation

A.15 From the identification of the risk of impacts with no mitigation applied in **Table A.7** it is possible to determine the specific mitigation measures that can be applied in relation to the level of risk associated with the construction activity. The mitigation measures described below are suggested as measures that should be included in a site-specific Construction Environmental Management Plan (CEMP). Due to the site being considered **Low** Risk for earthworks and **Medium** Risk for construction and trackout, the following mitigation measures are either D=Desirable, H=Highly Recommended or N=Not Required in **Tables A.8, A.9, A.10** and **A.11** below.

Earthworks:

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

Table A.8: Site Specific Mitigation Measures for Earthwork Activities

Construction:

Mitigation Measures	Low Risk	Medium Risk	High Risk
Avoid scabbling (roughening of concrete surfaces) if possible.	D	D	H
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.	D	H	H
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.	N	D	H
For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.	N	D	D

Table A.9: Site Specific Mitigation Measures for Construction Activities

Trackout:

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

Table A.10: Site Specific Mitigation Measures for Trackout Activities

General Mitigation Measures:

Mitigation Measures	Low Risk	Medium Risk	High Risk
Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.	N	H	H
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.	H	H	H
Display the head or regional office contact information.	H	H	H
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, realtime PM ₁₀ continuous monitoring and/or visual inspections.	D	H	H
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.	H	H	H
Make the complaints log available to the local authority when asked.	H	H	H
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.	H	H	H
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.	N	N	H
Monitoring			
Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100 m of site boundary, with cleaning to be provided if necessary.	D	D	H
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.	H	H	H

Mitigation Measures	Low Risk	Medium Risk	High Risk
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.	H	H	H
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.	H	H	H
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.	H	H	H
Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.	H	H	H
Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.	D	H	H
Avoid site runoff of water or mud.	H	H	H
Keep site fencing, barriers and scaffolding clean using wet methods.	D	H	H
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.	D	H	H
Cover, seed or fence stockpiles to prevent wind whipping.	D	H	H
Operating Vehicle/Machinery and Sustainable Travel			
Ensure all on-road vehicles comply with the requirements of the London Low Emission Zone and the London NRMM standards, where applicable.	H	H	H
Ensure all vehicles switch off engines when stationary - no idling vehicles.	H	H	H
Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.	H	H	H
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).	D	D	H
Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.	N	N	H
Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing)	N	D	H
Operations			

Mitigation Measures	Low Risk	Medium Risk	High Risk
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.	H	H	H
Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.	H	H	H
Use enclosed chutes and conveyors and covered skips.	H	H	H
Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.	H	H	H
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.	D	H	H
Waste Management			
Avoid bonfires and burning of waste materials.	H	H	H

Table A.11: Site Specific Mitigation Measures for General Activities

- A.16 It is important that attention is paid to any construction activity that takes place in close proximity to the site boundary, potentially at the closest location to sensitive receptors.

Determine Significant Effects

- A.17 Prior to the implementation of any mitigation measures the highest significance of adverse effects was **low** for dust soiling during earthworks and **medium** risk for construction and trackout, **low** risk for human health during earthworks and **medium** risk for construction and trackout and **low/negligible** risk for ecology, with dust emissions magnitude considered to be **small** for earthworks, **large** for construction and **medium** trackout.
- A.18 The mitigation measures listed above are chosen based on their suitability to the site and to reduce the risk of adverse effects from the three stages of construction.
- A.19 Through the implementation of site-specific mitigation measures (secured by planning condition), which are designed to mitigate potential dust impact, will ensure that potential significant adverse dust effects will not occur, and the residual effect will normally be 'not significant'.

Dust Monitoring:

- A.20 The dust monitoring requirements are usually split in three categories as follows:

- **Negligible/Low risk** category sites - should not normally be necessary to undertake any quantitative air quality monitoring, although in some circumstances it may be applicable to undertake occasional surveys in the vicinity of the site boundary at least once on each working day.
- **Medium risk** category sites - should normally be adequate to undertake surveys of dust flux over the site boundary, and/or dust deposition/soiling rates around the site at nearby receptors, although this may have resource implications, and an approach based on continuous particulate matter monitoring may be preferred.
- **High risk** category sites - normally be necessary to supplement the monitoring for medium risk sites with monitoring of ambient PM concentrations. It is recommended that priority be assigned to the measurement of PM₁₀, as emissions of dust from construction sites are predominantly in the coarser fractions.

A.21 The proposed development site has been classified as having a **low** risk of dust soiling during earthworks and a **medium** risk of dust soiling during construction and trackout.

A.22 Therefore, dust monitoring, as specified above, should be undertaken during the relevant stages of construction to ensure that:

- The construction activities do not give rise to any exceedances of the air quality objectives for PM₁₀ or PM_{2.5}.
- The agreed mitigation measures to control dust emissions are being applied and are effective.
- Any high levels of dust are attributed to specific activities on site to ensure that appropriate corrective measures take place.

A.23 The implementation of the specific mitigation measures given above within the CEMP will ensure that any potential adverse impacts from construction dust during all construction stages are avoided. It is noted by the IAQM that, through the use of effective mitigation, the effects of dust from construction activity will normally not be considered significant.

A.24 Compliance should be secured through planning conditions, where necessary.

Conclusions of Construction Dust Assessment

A.25 The completion of the construction dust assessment has shown that the residual effect of the proposed development in the context of construction dust emissions will be 'not significant' after

mitigation. This conclusion has been made based on the **small** dust emissions magnitude for earthworks, **large** dust emissions magnitude for construction and **medium** dust soiling magnitude for trackout related to the scale of development and the assumption that the suggested mitigation measures will be implemented (secured by planning condition) and is relevant for all sensitive receptors within 250m of the site.

- A.26 It should be noted that even with a rigorous CEMP in place, it is not possible to guarantee that all mitigation measures will be effective at all times. If there is an interruption in the water supply used for dust suppression or adverse weather conditions are experienced that exacerbate dust emissions, the receptors may experience occasional, short term dust annoyance.
- A.27 However, the likely scale of this would not normally be considered sufficient to change the conclusion of this assessment. It is therefore important to consider all mitigation measures and provide a frequent review and assessment procedure at each stage, to ensure that mitigation measures continue to provide the maximum attenuation level possible.

Author: Lucinda Pestana MEnvSc, MIAQM

Date: 07/08/2026