

Project

Dob Brook Close, Manchester
Initial Screening and Dust Assessment

Prepared for

Bowker Sadler Architects
Hatherlow House,
Hatherlow,
Romiley,
Stockport
SK6 3DY

By

Zoe Udall BSc (Hons)

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Client	Bowker Sadler Architects
Client Address	Hatherlow House, Hatherlow, Romiley, Stockport SK6 3DY
Author	Zoe Udall BSc (Hons)
Checker	Nicole Asante MSc MEnvSc AIAQM
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1.0 Summary

The proposed development is the construction of 28 new residential dwellings at Dob Brook Close, Manchester.

This air quality screening assessment has shown that a detailed air quality impact assessment is not necessary according to IAQM guidance if the assumptions made within this report are correct.

The site is not in an Air Quality Management Area (AQMA) but is close to some local AQMAs on the neighbouring Oldham Road (A62). The IAQM thresholds are stricter when traffic is within an AQMA. If traffic passing through the AQMAs is expected to increase above those thresholds, it is possible that this may trigger a detailed assessment.

Construction activity associated with the proposed development is assessed to be:

- **medium risk** for dust soiling
- **low risk** for human health effects
- **low risk** for ecological effects

Through good site practice and by adopting suitable mitigation measures, the residual effects are likely to be low. Recommended mitigation measures can be found in **Appendix A**.

2.0 Introduction

The potential air quality impacts associated with the proposed development relate to:

- dust and particulate matter generated by construction activities
- increase in concentrations of nitrogen dioxide (NO₂) and particulate matter (PM₁₀ and PM_{2.5}) due to emissions generated by the emissions from additional road traffic once operational.

This initial assessment looks at the existing air quality conditions around the site, considers the local and national policy context, and describes the proposed assessment methodology.

3.0 Relevant Policy and Guidance

The Air Quality Strategy

The Air Quality Strategy for England, Scotland, Wales and Northern Ireland¹ sets out air quality objectives and policy options to improve air quality in the UK. The main aim of the Strategy is to ensure that ambient air quality is of an acceptable level to protect human health and the environment. It takes account of the Limit Values set out in EU legislation.

Local Air Quality Management (LAQM)

The Environment Act 1995 introduced the LAQM system, whereby local authorities have a duty to review and assess air quality within their areas against the air quality objectives defined in the Air Quality Strategy. Where exceedances of the objectives are identified during this process, the authority must then declare an Air Quality Management Area (AQMA) and define the measures which will be implemented to improve air quality.

National Planning Policy Framework (NPPF)

The NPPF (2019)² sets out the Government's planning policies for England and outlines how they are expected to be applied to achieve the Government's aim of sustainable development. The NPPF states that:

"Planning policies and decisions should also ensure that new development is appropriate for its location, taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development."

¹ Department for Environment, Food and Rural Affairs (DEFRA) and the Devolved Administrations (2007). The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (Volumes 1 and 2)

² Department for Communities and Local Government (2019).

"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... 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 Local Plan: Core Strategy

Manchester City Council adopted their Local Plan: Core Strategy³ in 2012 which sets out the planning policies that govern the borough. The Core Strategy contains Policy EN 16 which is relevant to this Site:

"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."

Greater Manchester Air Quality Action Plan 2016–2021

The Greater Manchester Air Quality Action Plan⁴ was produced by the Greater Manchester Combined Authority (GMCA), of which Manchester City Council is a participant. The action plan describes the controls put in place to regulate the individual and cumulative impacts on air quality from new developments:

"GM (Greater Manchester) local authorities will adopt the most recent IAQM/EPUK guidance for air quality assessment as current best practice, to help ensure that planning applications consider potential local air quality impacts and opportunities to improve air quality are realised."

"GM local authorities to recommend mitigation controls in accordance with the most recent guidance and the other actions in this document for new developments that contribute to a deterioration of air quality in Air Quality Management Areas (AQMA)s"

³ Manchester City Council (2012)

⁴ Greater Manchester Combined Authority and Transport for Greater Manchester (2016)

Guidance

The following guidance documents have also been used where appropriate, in this assessment:

- Local Air Quality Management Technical Guidance (LAQM.TG(16))⁵
- Land-Use Planning and Development Control: Planning for Air Quality. VI.2⁶
- National Planning Practice Guidance - Air Quality⁷
- Guidance on the Assessment of Dust from Demolition and Construction⁸

4.0 Existing Conditions

Existing air quality conditions near to the site have been defined after reviewing the following:

- Manchester City Council (MCC) and Greater Manchester Combined Authority (GMCA) Review and Assessment reports and monitoring data;
- National Atmospheric Emissions Inventory (NAEI) data and maps;
- DEFRA's Local Air Quality Management (LAQM) Support Pages, including background maps; and
- Maps and plans of the site and surrounding area.

The site is on Dob Brook Close and is not within an Air Quality Management Area (AQMA). However several small AQMAs that are part of the Greater Manchester AQMA have been established nearby for annual mean exceedances in NO₂. The closest is less than 100m away to the north of the site on Oldham Road (A62).

Local mapping indicates that there is a large waste transfer business within 350 m of the site on Reliance Street. There doesn't appear to be any facility for incineration of waste, however it does appear as a large point source for pollutants NO₂, PM_{2.5} and PM₁₀ on NAEI mapping. There are no other industrial pollution sources in the immediate vicinity of the site that will influence the local air quality; the main influence is emissions from road transport using the local road network. However, there are two sites south-west of Dob Brook Close which have been identified as point sources for PM₁₀, PM_{2.5} and NO₂. While these sites are located over 1 km away, they may hold significance due to south-westerly prevailing winds and must be considered.

Table I summarises the background pollutant concentrations of NO₂, PM₁₀ and PM_{2.5} used in the assessment for the area encompassing the proposed development. Background concentrations of NO₂, PM₁₀ and PM_{2.5} have been taken from the most recent version of DEFRA's background maps, for 2018 2018 represents the base year; 2018 is the most recently reported monitoring dataset for the Manchester area,

⁵ DEFRA (2018). Part IV of the Environment Act 1995 Environment (Northern Ireland) Order 2002 Part III Local Air Quality Management Technical Guidance (TGI6).

⁶ Environmental Protection UK / Institute of Air Quality Management (2017).

⁷ Department of Communities and Local Government (DCLG) (2014).

⁸ Institute of Air Quality Management (2014)

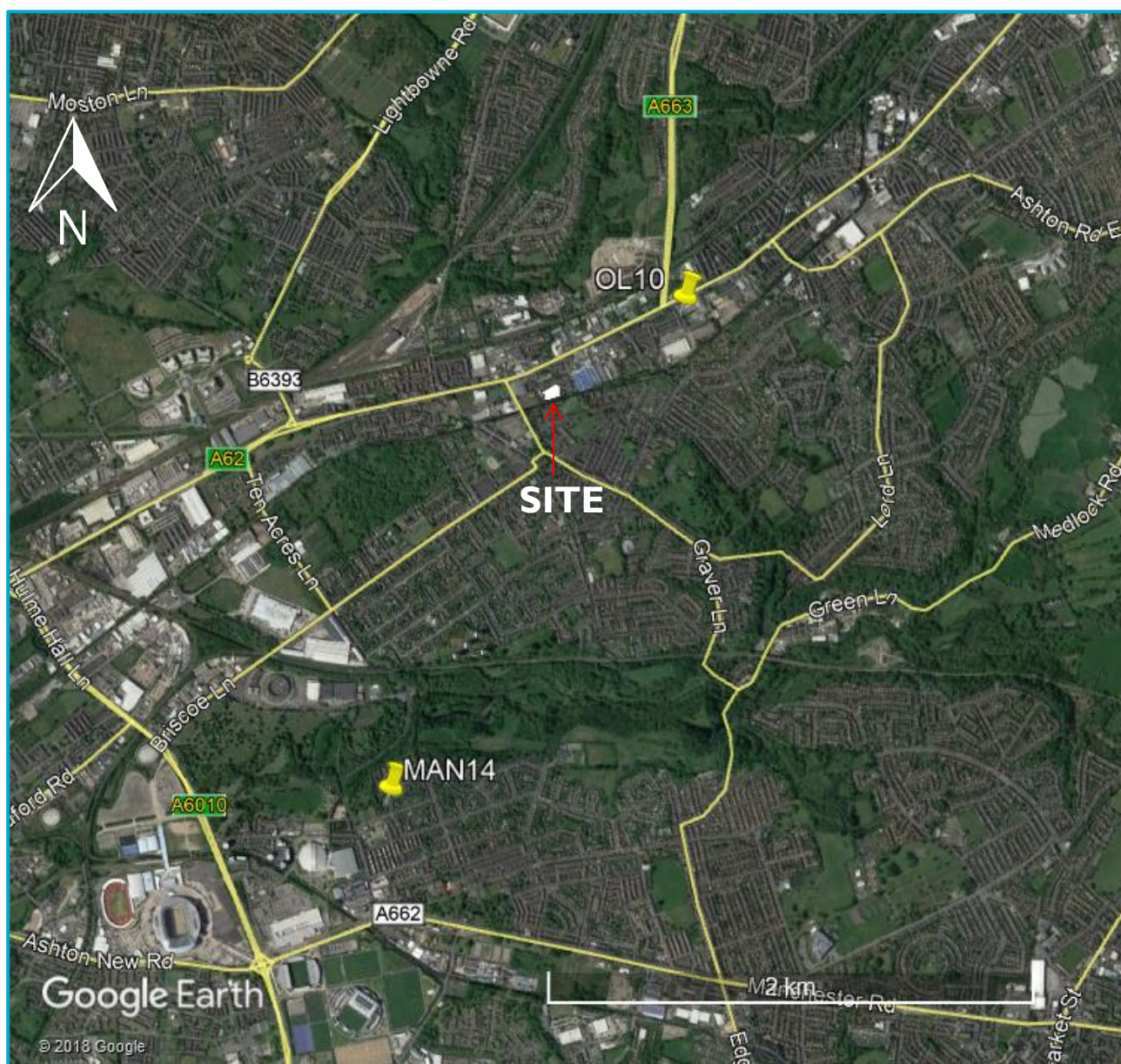
whilst 2021 represents the first year of operation. In each assessment year, the DEFRA annual mean background concentrations are well below the relevant objectives.

Table 1. Background Pollutant Concentrations ($\mu\text{g}/\text{m}^3$)

Grid Square	NO ₂		PM ₁₀		PM _{2.5}	
	2018	2021	2018	2021	2018	2021
388500, 400500	21.1	18.5	12.1	11.6	8.4	8.0
387500, 399500	20.0	17.7	11.5	11.2	7.8	7.64

MCC monitor concentrations of NO₂ using automatic and non-automatic (diffusion tube) monitors at locations within their administrative area. Monitoring data from the nearest monitoring locations are set out in **Table 2**.

Figure I: the nearest MMC diffusion tube monitoring stations (yellow pins) in relation to the site.



4.1 Diffusion Tube monitoring for NO₂

As shown in **Figure 1**, the closest diffusion tubes to the site, OLI0 is located 560m to the north-east of the site, while MANI4 is approximately 1.8 km from the site boundary to south-west.

Yearly trends in ambient NO₂ concentrations can be observed at both monitors.

As displayed in Table 2, diffusion tubes OLI0 and MANI4 show concentrations below the objective of 40 µg/m³. NO₂ concentrations have remained stable over the years at MANI4, whereas NO₂ concentrations have fluctuated at OLI0. Between 2017 and 2018, NO₂ concentrations at OLI0 have decreased from 38.9µg/m³, very close to the 40µg/m³ objective, to 23.7µg/m³, the lowest concentration that has ever been recorded at this monitoring site. For both sites, the most recently recorded NO₂ concentrations in 2018 have been the lowest of all years, indicating positive improvements in the area.

Given the distance between the proposed development and the monitors these results may be less representative for the site. Most monitors are situated on larger roads which are more likely to experience larger volumes of traffic, unlike the proposed development. However, the proposed development may attract more traffic to the area.

It must also be considered that there are local AQMAs for annual NO₂ concentrations situated within 100 m to the north of the proposed development's site boundary, on the A62/Oldham Road (see **Figure 1**). To conclude, as the proposed development is outside of the AQMA, ambient NO₂ concentrations are likely to be at an acceptable level, however, a development in this area may have a detrimental effect on the neighbouring AQMAs, as even a small rise in ambient NO₂ concentrations may further exceed the air quality objective of 40µg/m³.

4.2 Automatic monitoring for NO₂

The nearest automatic monitor, Manchester Piccadilly (MAN3), is relatively far away from the site of the proposed development; approximately 4.5km south-west of the site. Recorded concentrations of NO₂ at MAN3 have exceeded the annual objective of 40µg/m³ in years 2014 and 2016, coming close to exceedance in 2015 at 39µg/m³. However, there have been improvements in more recent years, with NO₂ concentrations totalling 36µg/m³ and 35µg/m³ in years 2017 and 2018.

Table 2. NO₂ Monitoring Data

Monitoring Site ID	Site Type	OS Grid Ref.	Height (m)	Annual Mean NO ₂ Concentrations (µg/m ³)						
				2012	2013	2014	2015	2016	2017	2018
Automatic Monitors										
MAN3	Urban Background	384310, 398337	4.0	-	-	40.0	39.0	40.0	36.0	35.0
Diffusion tube										

Monitoring Site ID	Site Type	OS Grid Ref.	Height (m)	Annual Mean NO ₂ Concentrations (µg/m ³)						
				2012	2013	2014	2015	2016	2017	2018
OLI0	Suburban traffic	388870, 400997	2.0	31.8	27.9	31	33.1	31.5	38.9	23.7
MAN14	Urban Traffic	387656, 399016	3.0	25.6	22.5	22.9	21.9	23.3	22.1	18.6
Objective										
40µg/m ³										

Annual average NO₂ concentrations exceeding the NO₂ objective are shown in bold.

Values exceeding 60µg/m³ indicate a potential exceedance of the NO₂ 1-hour mean objective; these are bold and underlined.

4.3 Automatic monitoring for PM₁₀

MMC monitors concentrations of PM₁₀ using automatic monitors at several locations within their administrative area. Monitoring data from selected monitoring sites are set out in **Table 3**.

Table 3. PM₁₀ Monitoring Data

Monitoring Site	Site Type	OS Grid Ref.	Height (m)	Annual Mean PM ₁₀ Concentrations (µg/m³)						
				2012	2013	2014	2015	2016	2017	2018
Automatic Monitors										
MAN3	Urban Background	384310, 398337	4.0	-	-	20.0	20.0	20.0	20.0	21.0
Objective										
40µg/m³										

There are no exceedances of the annual mean PM₁₀ concentration objective of 40 µg/m³

The annual mean PM₁₀ concentrations for each year are greater than the figures given in the DEFRA background maps, however they are still well below the objective. This implies that the PM₁₀ concentration in this area is currently acceptable, however, given the distance from the site it may not be representative of the conditions around the area of the proposed development.

4.4 Automatic monitoring for PM_{2.5}

MMC monitors concentrations of PM_{2.5} using automatic monitors at several locations within their administrative area. Monitoring data from selected monitoring sites are set out in **Table 4**.

Table 4. PM_{2.5} Monitoring Data

Monitoring Site	Site Type	OS Grid Ref.	Height (m)	Annual Mean PM _{2.5} Concentrations (µg/m³)						
				2012	2013	2014	2015	2016	2017	2018
Automatic Monitors										
MAN3	Urban Background	384179, 386086	4.0	-	-	12.0	10.0	10.0	8.0	11.0
Objective										
25µg/m³										

There are no exceedances of the annual mean PM_{2.5} concentrations

The annual mean PM_{2.5} concentrations for each year are greater than the figures given in the DEFRA background maps, however they are still below the objective. This implies that the PM_{2.5} concentration in this area is currently acceptable, however, given the distance from the site it may not be representative of the conditions around the area of the proposed development.

5.0 Dust Risk Assessment

5.1 Dust Emission Magnitude

During the construction phase, activities may generate dust and particulate matter, as well as exhaust emissions from construction vehicles and plant, which could result in complaints of nuisance and human health effects.

The likely level of risk has therefore been assessed following guidance published by the Institute of Air Quality Management (IAQM). The assessment considers the nature and scale of the activities undertaken and the sensitivity of the surrounding area. Mitigation measures proportionate to the level of risk identified are then set out.

Additionally, exhaust emissions from construction vehicles and plant may have an impact on local air quality adjacent to the routes used by these vehicles to access the site and near the site itself. As precise information on the number of vehicles and plant associated with each part of the construction phase is not yet known, a qualitative assessment of their impact on local air quality has been done using professional judgement and by considering the following:

- The likely number and type of construction traffic and plant;
- The number and proximity of sensitive receptors to the site;
- The likely duration of the construction period; and
- The nature of the activities undertaken.

The IAQM assessment methodology has been used to determine the potential dust emission magnitude for the following four different dust and PM₁₀ sources: demolition, earthworks, construction, and trackout.

5.1.1 Demolition

No demolition will need to take place for this development. Therefore, demolition activities will not be included in this dust risk assessment.

5.1.2 Earthworks

The site is located on an area comprised of loam to clayey loam soil textures⁹. As the site is flat, minor levelling (600mm) will need to take place alongside excavation for footings. The total site area is approximately 3,500m²; therefore, the potential dust emission magnitude is judged to be **medium**.

⁹ UK Soil Observatory (2019). Accessed via: <http://mapapps2.bgs.ac.uk/ukso/home.html>.

5.1.3 Construction

The residential buildings will occupy approximately 5,780m³ of the site area, planned to include two- to three-storey dwellings. With most of the construction material expected to be brick, concrete and cladding, there is some potential for dust. Despite the use of these materials, as the total building volume is less than 25,000m³, the potential dust emission magnitude is judged to be **small**.

5.1.4 Trackout

There will only be one HDV visiting the site per day, however the number of movements associated with the site is not yet known. I expect vehicles will travel over less than 50m of unpaved road, as the anticipated trackout route(s) from the site is paved and tarmacked, with the site width being under 50m. It is therefore judged that the potential dust emission magnitude is **small**.

Table 5. Dust Emission Magnitude

Activity	Dust Emission Magnitude
Demolition	N/A
Earthworks	Medium
Construction	Small
Trackout	Small

5.2 Sensitivity of the Study Area

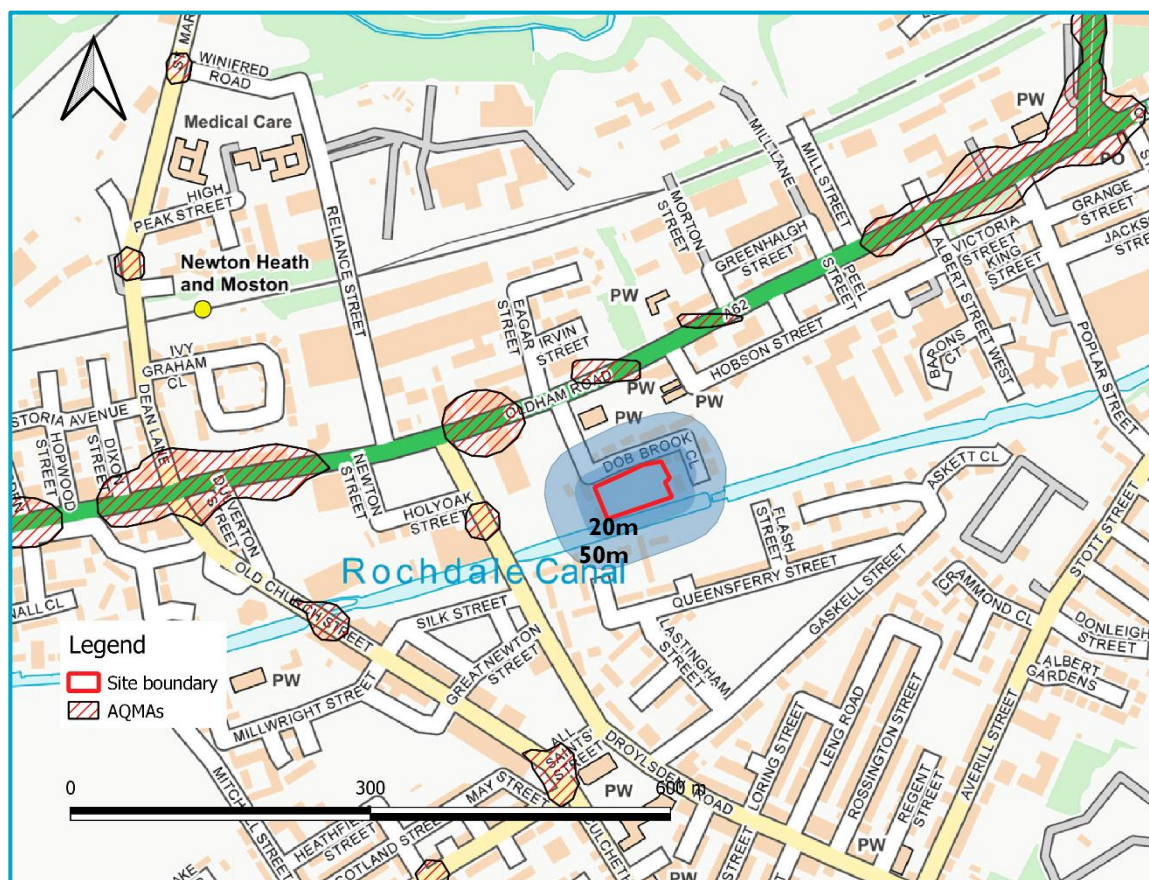
5.2.1 Dust Soiling Effects

All works will take place in the same area of the site as shown in **Figure 2**.

The area surrounding the site is classed as suburban; mainly residential, churches, and food and commercial businesses within 150m of the site boundary.

There are a range of sensitivity receptors surrounding the site, including approximately 20 residential dwellings and a car dealership within 20m, and 2 churches within 50m. It is also worth mentioning that approximately 110m west of the site is a self-storage business accommodating over 200 containers, as well as a minibus and coach service station, being a potential source of dust in the local area. Despite being over 100m away, the location of these receptors mean they could be more susceptible to dust emissions from the south-westerly prevailing winds. With all this considered, the overall sensitivity of the area to dust soiling effects from earthworks and construction is **high**, as per IAQM guidance.

Figure 2. Construction area and site boundary (red) with 20m and 50m buffer zones (blue).

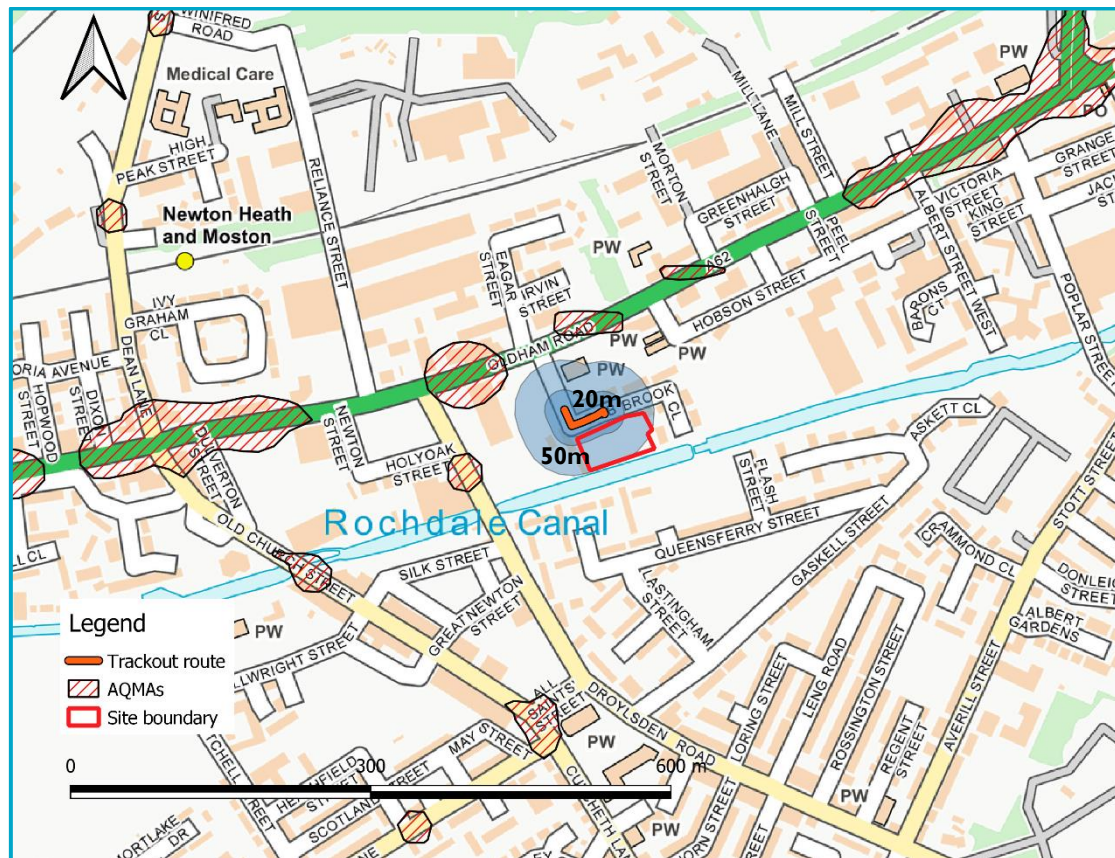


contains OS data © crown copyright

Judging by the site area (approximately 3,500m²), this is a small sized development. IAQM guidance suggests that trackout should be considered for the section of public road within 50m of the site. The likely

entrance/exit is via a paved outcrop in the centre of Dob Brook Close, leading to/from Oldham Road (A62). At this junction, vehicles can either travel westbound towards Manchester City Centre, or eastbound towards Oldham. As shown in **Figure 3**, construction traffic will pass high sensitivity residential and commercial receptors leaving Dob Brook Close, regardless of the direction travelled. There are 6 high sensitivity residential receptors within 20m of the trackout route, as well as a car dealership and church grounds. The overall sensitivity of dust soiling effects due to trackout is **high**.

Figure 3. Trackout route from site, with 20m and 50m buffer zones (in blue shaded area) from site boundary



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5.2.2 Health Effects of PM₁₀

The receptors identified in the previous section for the effects of dust soiling are relevant here, as there are health implications for sensitive receptors due to the dispersion and deposition of PM₁₀. There are several high sensitivity receptors within 50 m of the construction area boundary (**Figure 2**).

In **Table I**, the DEFRA background data on PM₁₀ show that the concentration was 12.1 µg/m³ in 2018.

With up to 21 high sensitivity receptors within 20m of the site boundary already likely to be exposed to this level of PM₁₀, the sensitivity to health effects due to construction and earthworks is **low**.

Using the trackout route as shown in **Figure 3**, there are approximately 6 high sensitivity receptors within 20m of the 50m trackout route. Residential dwellings are considered to have high sensitivity to dust effects as per IAQM guidance. With PM₁₀ concentrations in the area of approximately 12.1 µg/m³, and therefore below the 24 µg/m³ regime, the sensitivity to health effects due to trackout is **low**.

5.2.3 Ecological Effects

An ecological site that would need to be considered during the proposed development at Dob Brook Close would be the SSSI Rochdale Canal. While this is situated over 50m away, due to the SSSI being a canal, pollutants would be able to spread more easily. Consequently, pollutants entering the canal less than 20m south of Dob Brook Close could pollute the Rochdale Canal SSSI due to the flow of water. Special attention should be paid to mitigation measures to prevent run-off from the construction site. Therefore, as a worst case, the area's sensitivity to ecological impacts due to construction, earthworks and trackout is **medium**.

Table 6. Sensitivity of Area

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

5.3 Dust Impact Risk

The predicted dust emission magnitude (**Table 5**) has been combined with the sensitivity of the area (**Table 6**) to determine the risk of impacts during the construction phase, prior to mitigation. **Table 7** summarises the risk of dust impacts for the proposed development. The risk category identified for each construction activity has been used to determine the level of mitigation required.

Table 7. Summary of Dust Risk Impacts

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

6.0 Construction and Operational Road Traffic Impacts

6.1 Construction Vehicles and Plant impacts

One HDV is known to be associated with this project during the construction phase. The threshold defined in the EPUK / IAQM guidance is an additional 100 HDV movements per day outside of an AQMA, therefore, the impacts have been screened out. Therefore, a detailed air quality impact assessment would not be required for the construction phase of the development, however, MCC may require an assessment for the proposed development's operational phase, as 30 car parking spaces, which is potentially 30 additional vehicles, could be passing through the local AQMAs.

6.2 Operational Road Traffic Impacts

During the operational phase, local air quality could be affected by emissions from the additional vehicles in the area. The proposed development is for the construction of 28 new residential dwellings. Although there is already a number of light duty vehicle (LDVs) movements associated with the existing nearby housing estate, the new dwellings are expected to increase the number of LDVs in the area. LDVs are defined as vehicles with a gross weight less than 3.5 tonnes.

The EPUK / IAQM guidance sets a threshold of a 500 LDV increase to AADT flows from development-generated traffic outside of an AQMA. There is not yet any indication of potential vehicle flows once the proposed development is operational. However, an additional 30 car parking spaces are to be created, meaning if these were filled, with each car driven each day, approximately 60 movements could be expected daily.

The development site is close (within 100 m) to a localised AQMA. It is possible that this area and other nearby AQMAs may be trafficked by vehicles making trips associated with the development. If more than 100 extra AADT for LDVs is expected to pass through these AQMAs, then this may trigger the need for a detailed air quality impact assessment.

7.0 Mitigation

7.1 Construction Mitigation

The assessment of potential construction phase impacts has found that the proposed development is low risk for dust soiling and ecological effects, and negligible risk for human health effects. **Appendix A** presents mitigation measures that could be used to reduce the risk of air quality impacts during the construction phase of the proposed development.

7.2 Operational Road Traffic Mitigation

This assessment has found that the proposed development will not likely exceed the IAQM threshold of an additional 500 LDVs per day outside of an AQMA once the site is operational. This assessment has also found that the IAQM threshold of 100 additional HDVs outside of an AQMA is unlikely to be exceeded, with only 1 HDV anticipated per day during the construction phase. However, there are a number of local

AQMAs situated on Oldham Road (A62), therefore there is potential for the thresholds of these AQMAs to be exceeded due to the likelihood of increased traffic to and from Dob Brook Close, although this assumed to be unlikely due to the parking provision planned for the site.

Appendix A - Construction Phase Mitigation Measures

The following mitigation measures are recommended to reduce the identified risk associated with dust soiling and human health effects during the construction phase. Further information on mitigation strategies may be found in the *IAQM Guidance on the Assessment of Dust from Demolition and Construction (2014)*.

Mitigation Measures for All Sites
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.
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 PM10 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 logbook.
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 windowsills within 100 m of 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.

Mitigation Measures for All Sites	
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 a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks and construction.	
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.	
Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.	
Cover, seed or fence stockpiles to prevent wind whipping.	
Operating vehicle/machinery and sustainable travel	
Ensure all vehicles switch off engines when stationary - no idling vehicles.	
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 appropriate).	
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).	

Mitigation Measures for All Sites
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.

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

Measures Specific to Construction
Avoid scabbling (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.

Measures Specific to 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 continuously in use.

Measures Specific to Trackout
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 logbook.
Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).