

ELECTRIC VEHICLE CHARGING ZONE, OLDHAM ROAD

**Proposed Commercial Development
Air Quality Assessment**

Prepared for: Motor Fuel Limited

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1.0 INTRODUCTION

SLR Consulting Ltd (SLR) has been commissioned by Motor Fuel Limited to undertake an air quality assessment to appraise a planning application for the development of six electric vehicle (EV) charging stations, three jet wash bays and associated infrastructure (the 'Proposed Development') at land at Oldham Road, Manchester (the 'Site').

The Site is located at the approximate National Grid Reference (NGR): x386465, y400125, and is bounded by:

- The Oldham Road to the south with industrial properties beyond;
- Industrial properties to the north with Moston to Manchester Victoria railway and commercial/residential properties beyond;
- Industrial properties to the west with Moston to Manchester Victoria railway beyond; and
- Industrial properties to the east with residential properties beyond.

1.1 Scope of Assessment

Following submission of the planning application (Manchester City Council (MCC) Planning Reference 135173/FO/2022), a formal post submission response¹ was received from MCC which included the request for an air quality assessment to be undertaken to assess the potential air quality impact of the Proposed Development, as follows:

"3) An Air Quality Assessment is required: Further to your e-mail dated 19 October 2022 a proportionate AQA is required given the site is within an air quality management area and given the potential for uplift if non-electric vehicles."

Pre-assessment consultation with the Environment Health Officer (EHO) at MCC² was undertaken to agree upon the extent and methodology. The agreed scope of the assessment is as follows:

- Baseline Evaluation;
- Construction Phase Assessment;
- Operational Phase Assessment; and
- Mitigation Measures.

¹ Written response from Julie Roscoe (Director of Planning, Building Control & Licensing) at MCC, dated 1st November 2022.

² Consultation e-mail between SLR Consulting Ltd and Karen Williamson (Environmental Health Officer) at MCC, dated 4th January 2023.

2.0 RELEVANT AIR QUALITY LEGISLATION AND GUIDANCE

2.1 Legislative Context

2.1.1 Air Quality Standards

The Air Quality Standards Regulations 2010³ (AQSR) transpose both the EU Ambient Air Quality Directive (2008/50/EC)⁴, and the Fourth Daughter Directive (2004/107/EC)⁵ within UK legislation, in order to align and bring together in one statutory instrument the Government's obligations. The AQSR includes Limit Values, Target Values, Objectives, Critical Levels and Exposure Reduction Targets for the protection of human health and the environment. Limit values are legally binding and are considered to apply everywhere with the exception of the carriageway and central reservation of roads and any location where the public do not have access (e.g. industrial sites). Compliance is regulated at a national level (based upon a series of zones and agglomerations).

In the interim period the UK has formally left the EU, however despite this, EU rules and regulations referred above have subsequently been written into UK law and are still relevant.

2.1.2 Air Quality Strategy

Irrespective of the above, the UK Government and the devolved administrations are required under the Environment Act 1995 to produce a national air quality strategy to improve air quality. The latest Air Quality Strategy (AQS) for England, Scotland, Wales and Northern Ireland was published in 2007⁶. The AQS provides the over-arching strategic framework for air quality management in the UK and contains national air quality standards and objectives established by the UK Government and Devolved Administrations for the protection of public health and the environment. There is no legal requirement to meet these objectives except where they mirror an equivalent legally binding Limit Value as prescribed within EU legislation, however compliance is regulated by local planning authorities.

The AQS objectives apply at locations outside buildings or other natural or man-made structures above or below ground, where members of the public are regularly present and might reasonably be expected to be exposed to pollutant concentrations over the relevant averaging period – herein referred to as relevant exposure. Table 2-2 provides an indication of those locations.

The ambient air quality standards of relevance to human receptors in this assessment (collectively termed Air Quality Assessment Levels (AQALs) throughout this report) are provided in Table 2-1.

Table 2-1
Relevant Ambient AQALs

Pollutant	Standard (µg/m ³)	Measured As
Nitrogen Dioxide (NO ₂)	40	Annual mean
	200	1-hour mean (not to be exceeded on more than 18 occasions per annum)
Particles (PM ₁₀)	40	Annual mean
	50	24-hour mean (not to be exceeded on more than 35 occasions per annum)
Particles (PM _{2.5})	25	Annual mean

³ The Air Quality Standards Regulations (England) 2010, Statutory Instrument No 1001, The Stationary Office Limited.

⁴ Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe.

⁵ Directive 2004/107/EC of the European Parliament and of the Council of 15 December 2004.

⁶ The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, Defra. July 2007.

Table 2-2
Human Health Relevant Exposure

AQAL Averaging Period	AQALs should apply at	AQALs should not apply at
Annual mean	Building facades of residential properties, schools, hospitals etc.	Facades of offices Hotels Gardens of residences Kerbside sites
24-hour mean	As above together with hotels and gardens of residential properties	Kerbside sites where public exposure is expected to be short term
1-hour mean	As above together with kerbside sites of regular access, car parks, bus stations etc.	Kerbside sites where public would not be expected to have regular access

2.1.3 Local Air Quality Management

As reinforced within the AQS, Part IV of the Environment Act 1995 induces a statutory duty for local authorities to undergo a process of Local Air Quality Management (LAQM). This requires local authorities to Review and Assess air quality within their boundaries to determine the likeliness of compliance, regularly and systematically.

Where any of the prescribed AQS objectives are not likely to be achieved, the authority must designate an Air Quality Management Area (AQMA). For each AQMA, the local authority is required to prepare an Air Quality Action Plan (AQAP), which details measures the authority intends to introduce to deliver improvements in local air quality in pursuit of the objective. AQMAs can give rise to potential constraints to development, or at least a higher degree of scrutiny to air quality assessment work. Local authorities therefore have formal powers to control air quality through a combination of LAQM and through application of wider planning policies.

2.2 Clean Air Strategy

The Clean Air Strategy (CAS)⁷, published in 2019, sets out the Government's proposals aimed at delivering cleaner air in England, and also indicates how devolved administrations intend to make emissions reductions. It sets out the comprehensive action that is required from across all parts of government and society to deliver clean air.

2.3 General Nuisance Legislation

Part III of the Environmental Protection Act (EPA) 1990 (as amended) contains the main legislation on Statutory Nuisance and allows local authorities and individuals to take action to prevent a statutory nuisance. Section 79 of the EPA defines, amongst other things, smoke, fumes, dust and smells emitted from industrial, trade or business premises so as to be prejudicial to health or a nuisance, as a potential Statutory Nuisance.

Fractions of dust greater than 10µm (i.e. greater than PM₁₀) in diameter typically relate to nuisance effects as opposed to potential health effects and therefore are not covered within the UK AQS. In legislation there are currently no numerical limits in terms of what level of dust deposition constitutes a nuisance.

2.4 Planning Policy

The following policies have been considered within this assessment.

⁷ The Clean Air Strategy, Defra. January 2019.

2.4.1 National Policy

The 2021 update to the National Planning Policy Framework⁸ (NPPF) sets out planning policy for England. The NPPF states that the planning system should contribute to and enhance the natural and local environment, by preventing new development from contributing to or being adversely affected by unacceptable concentrations of air pollution, and development should, wherever possible, help to improve local environmental conditions such as air quality.

In specific relation to air quality policy, the document states:

Chapter 15 - Conserving and Enhancing the Natural Environment

"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 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."

The NPPF is accompanied by web based supporting Planning Practice Guidance (PPG) which includes guiding principles on how planning can take account of the impacts of new development on air quality. In regard to air quality, the PPG states:

"The Department for Environment, Food and Rural Affairs carries out an annual national assessment of air quality using modelling and monitoring to determine compliance with relevant Limit Values. It is important that the potential impact of new development on air quality is taken into account where the national assessment indicates that relevant limits have been exceeded or are near the limit, or where the need for emissions reductions has been identified."

"Whether air quality is relevant to a planning decision will depend on the proposed development and its location. Concerns could arise if the development is likely to have an adverse effect on air quality in areas where it is already known to be poor, particularly if it could affect the implementation of air quality strategies and action plans and/or breach legal obligations (including those relating to the conservation of habitats and species). Air quality may also be a material consideration if the proposed development would be particularly sensitive to poor air quality in its vicinity."

The PPG sets out the information that may be required within the context of a supporting air quality assessment, stating that *"Assessments need to be proportionate to the nature and scale of development proposed and the potential impacts (taking into account existing air quality conditions) [...] Mitigation options will need to be locationally specific, will depend on the proposed development and need to be proportionate to the likely impact"*.

2.4.2 Local Policy

The MCC's Local Development Framework: Core Strategy⁹ was adopted in July 2012. The Core Strategy sets out a 'vision' for Manchester up until 2027, outlines strategic objectives, and includes a range of policies under each objective. The following policies within the adopted Core Strategy relate to air quality:

⁸ National Planning Policy Framework (2021). Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

⁹ Manchester City Council: Manchester's Local Development Framework - Core Strategy, Development Plan Document. July 2012.

“Policy EN16: Air Quality

The Council will seek to improve the air quality within Manchester, and particularly within Air Quality Management Areas, [...] 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, [...]

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;

Policy DM1: Development Management

All development should have regard to the following specific issues for which more detailed guidance may be given within a supplementary planning document: [...]

- *Effects on amenity, including privacy, light, noise, vibration, air quality, odours, litter, vermin, birds, road safety and traffic generation [...]*

Policy T1: Sustainable Transport

To deliver a sustainable, high quality, integrated transport system to encourage modal shift away from car travel to public transport, cycling and walking, to support the needs of residents and businesses and to prepare for carbon free modes of transport, the Council will support proposals that: [...]

- *Facilitate modes of transport that reduce carbon emissions e.g by incorporating charging points for electric vehicles, subject to their appropriate design and location. [...]*

2.5 Assessment Guidance

This assessment has been carried out in accordance with the following principles contained within the guidance documents below.

- Department for Environment Food and Rural Affairs (Defra): Local Air Quality Management Technical Guidance (LAQM.TG(22))¹⁰;
- Defra: COVID-19: Supplementary Guidance. Local Air Quality Management Reporting in 2021¹¹;
- Environmental Protection UK (EPUK) and the Institute of Air Quality Management (IAQM): Land-Use Planning and Development Control: Planning for Air Quality¹²;
- IAQM: Guidance on the Assessment Dust from Demolition and Construction¹³;
- IAQM: Use of 2020 and 2021 Monitoring Datasets, Position Statement¹⁴; and
- Manchester City Council: Air Quality and Planning Technical Guidance (2022)¹⁵.

¹⁰ Local Air Quality Management Technical Guidance (22), Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland. August 2022.

¹¹ Defra and the Greater London Authority, COVID-19: Supplementary Guidance. Local Air Quality Management Reporting in 2021. April 2021.

¹² EPUK and IAQM, Land-Use Planning and Development Control: Planning for Air Quality, v1.2 2017.

¹³ IAQM, Guidance on the Assessment Dust from Demolition and Construction, v1.1 2016.

¹⁴ IAQM, Use of 2020 and 2021 Monitoring Datasets, Position Statement, Version 1.0, August 2021.

¹⁵ Manchester City Council: Air Quality and Planning Technical Guidance. August 2022.

3.0 ASSESSMENT METHODOLOGY

In accordance with MCC's Air Quality and Planning Technical Guidance¹⁵, an air quality assessment is required as the Proposed Development is located within Greater Manchester Combined Authority (GMCA) AQMA (see Section 4.1).

3.1 Construction Phase

A construction dust assessment has been undertaken with reference to IAQM guidance. The assessment of risk is determined by considering the risk of dust effects arising from four activities in the absence of mitigation:

- Demolition;
- Earthworks;
- Construction; and
- Trackout.

The assessment methodology considers three separate dust impacts with account being taken of the sensitivity of the area that may experience these effects:

- Annoyance due to dust soiling;
- The risk of health effects due to an increase in exposure to PM₁₀; and
- Harm to ecological receptors.

The first stage of the assessment involves a screening to determine if there are sensitive receptors within threshold distances of the Site activities associated with the construction phase of the scheme. A detailed assessment is required where a:

- Human receptor is located within 350m of the Site, and/or within 50m of routes used by construction vehicles, up to 500m from the Site entrance(s); and/or
- Ecological receptor is located within 50m of the Site, and/or within 50m of routes used by construction vehicles, up to 500m from the Site entrance(s).

The dust emission class (or magnitude) for each activity is determined on the basis of the guidance, indicative thresholds and professional judgement by a technically competent assessor. The risk of dust effects arising is based upon the relationship between the dust emission magnitude and the sensitivity of the area. The risk of impact is then used to determine the appropriate mitigation requirements, whereby through effective application, residual effects are considered to be 'not significant'.

Given the short-term nature of the construction phase and the comparatively low volume of vehicle movements that will likely arise (when compared to the operational phase, for which a full assessment has been undertaken), it is unlikely that significant air quality effects from development related road traffic emissions during the construction phase will arise. Such potential effects have therefore been scoped out from requiring detailed assessment based on their assumed insignificant impact.

3.2 Operational Phase

3.2.1 Road Traffic Screening Assessment

The assessment of air quality effects in relation to development-generated traffic during the operational phase has been undertaken qualitatively, in accordance with EPUK & IAQM guidance.

The EPUK & IAQM guidance provides a series of indicative screening criteria where, if exceeded, should consequently require a detailed assessment. If the Proposed Development is found not to exceed any of the relevant indicative criteria presented, then a detailed impact assessment is consequently not required. Effects are therefore believed to be insignificant.

Vehicle trips are expected to travel along Oldham Road (within Manchester's AQMA). As such, the EPUK & IAQM screening thresholds of relevance to this assessment are as follows:

- Within or adjacent to an AQMA:
 - A change of Light Duty Vehicle (LDV) flows of more than 100 Annual Average Daily Traffic (AADT); and/or
 - A change of Heavy Duty Vehicle (HDV) flows of more than 25 AADT.

Traffic data used for the purposes of the screening assessment has been provided by DW Transportation – the appointed transport consultant for the scheme.

4.0 BASELINE ENVIRONMENT

4.1 Baseline Air Quality

Monitoring data collected prior to the COVID-19 pandemic (i.e. pre-2020) has been used to characterise the baseline environment, as pollutant concentrations monitored during 2020 and 2021 are expected to be atypical, and not representative of the local environment and have therefore not been considered as per guidance produced by Defra and the IAQM.

4.1.1 LAQM Review and Assessment

GMCA, which includes MCC, in fulfilment of statutory requirements, has conducted an on-going exercise to review and assess air quality within their administrative area. The latest publicly available LAQM report for GMCA (not impacted by the COVID-19 pandemic) at the time of writing is the 2020 Annual Status Report¹⁶ (ASR). The monitoring data published therein has therefore been used for the purposes of informing this assessment.

GMCA has declared a single AQMA within their administrative boundary due to exceedances of NO₂ annual mean AQAL. The AQMA was declared in 2016 and covers the 10 districts of Greater Manchester including arterial routes, district centres, and airport. The Site is located within Greater Manchester's AQMA.

4.1.2 Review of Air Quality Monitoring

Automatic Air Quality Monitoring

GMCA currently undertakes automatic monitoring of pollutants within their administrative area at 17 locations, with the nearest monitor located >2.7km southwest of the Site in an urban centre location. Given the separation distance and anticipated differences in local environments, no automatic monitoring locations have been considered further.

Passive Diffusion Tube Monitoring

The details and results of the monitoring location of relevance to the Site (i.e. within 1.5km of the Site) are presented in Table 4-1 and Table 4-2 respectively. MA36NO constitutes the nearest monitoring location with respect to the Site with a similar local environment (i.e. next to an arterial route). The monitoring location is illustrated in Figure 4-1.

Table 4-1
Local NO₂ Passive Diffusion Tube Monitoring Sites: Details

Site ID	Site Type	NGR (m)		Height (m)	Within AQMA	Distance to Site (km)
		X	Y			
MA36NO	Roadside	385203	399750	3	Yes	1.3

Table 4-2
Local NO₂ Passive Diffusion Tube Monitoring Sites: Results

Site ID	2019 Data Capture %	Annual Mean NO ₂ Concentration (µg/m ³)				
		2015	2016	2017	2018	2019
MA36NO	100	32.8	40.1	34.0	33.1	31.7

As shown in Table 4-2, there has been one exceedance of the annual mean NO₂ AQAL (40µg/m³) across the period assessed (2015-2019) at the nearest monitoring location relative to the Site. These elevated values can be considered likely as this monitoring site is located within Greater Manchester's AQMA at a roadside location.

¹⁶ Greater Manchester Combined Authority, 2020 Air Quality Annual Status Report (2020).

Nonetheless, the results indicate that concentrations have remained stable across the period assessed, with the exception of 2016, and under the relevant AQAL.

The empirical relationship given in LAQM.TG(22) states that exceedences of the 1-hour mean AQAL for NO₂ is unlikely to occur where annual mean concentrations are <60µg/m³. This indicates that an exceedence of the 1-hour mean AQAL was unlikely to have occurred at the assessed monitoring location.

4.1.3 Defra Mapped Background Concentrations

Defra maintains a nationwide model of existing and future background air quality concentrations at a 1km grid square resolution which is routinely used to support LAQM requirements and air quality assessments. The data sets include annual average concentration estimates for NO₂, PM₁₀ and PM_{2.5} using a base year of 2018 (the year in which comparisons between modelled and monitoring are made).

Annual mean background concentrations of NO₂, PM₁₀ and PM_{2.5} have been obtained from the Defra published background maps (2018 base year), based on the 1km grid square that covers the Site. The Defra mapped background concentrations for the base year (2019), and the earliest anticipated predicted Proposed Development opening year (2023) are presented in Table 4-3.

All of the mapped background concentrations presented are well below the respective annual mean AQALs.

Table 4-3
Defra Mapped Background Pollutant Concentrations

Grid Square (X,Y)	Year	Annual Mean Concentration (µg/m ³)		
		NO ₂	PM ₁₀	PM _{2.5}
386500, 400500	2019	19.1	12.4	8.2
	2023	16.2	11.8	7.8
AQAL		40	40	25

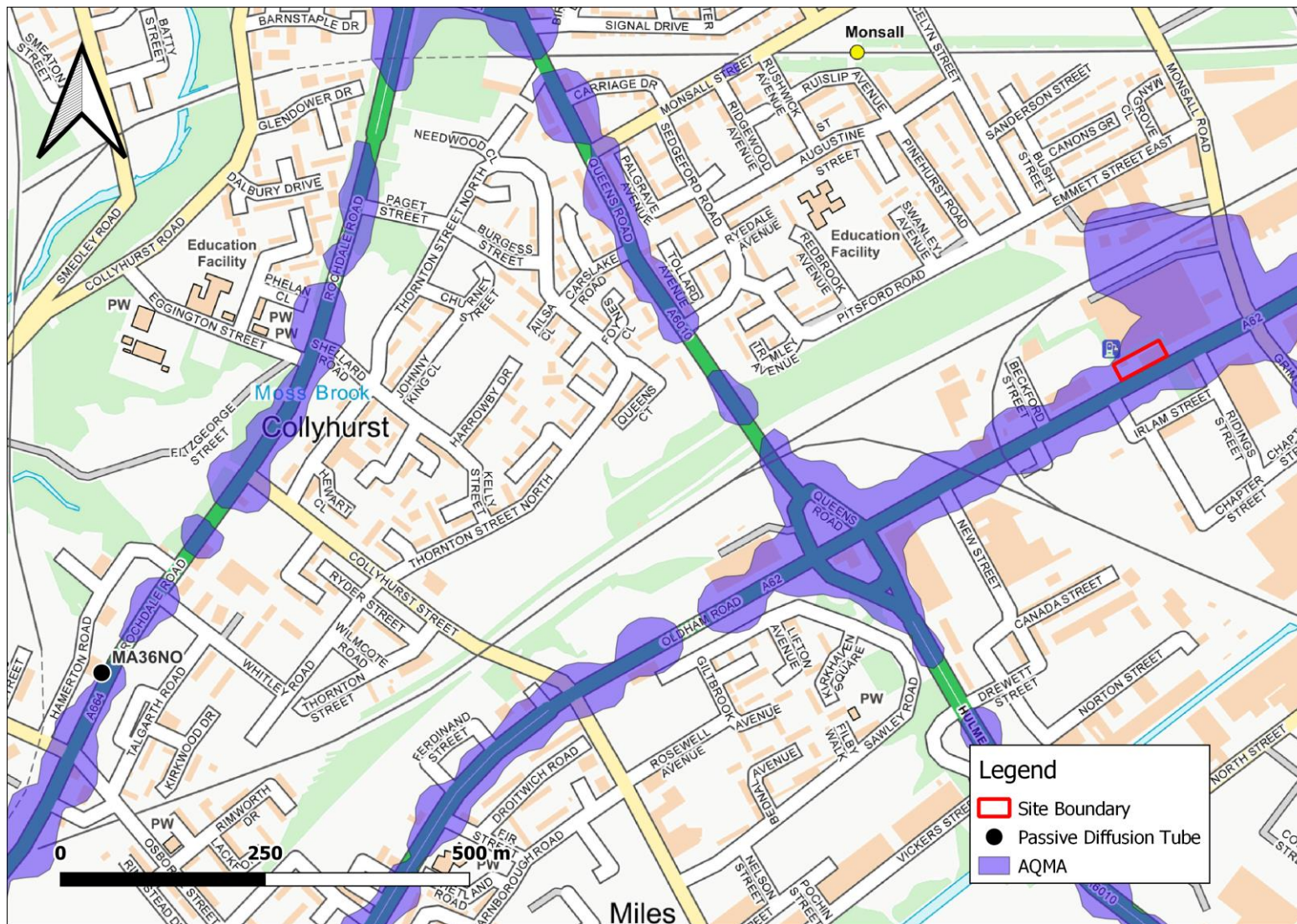


Figure 4-1

GMCA AQMA and Monitoring Location in Relation to the Site

5.0 CONSTRUCTION PHASE ASSESSMENT

This section presents the potential air quality impacts and effects associated with the construction of the Proposed Development.

5.1 Construction Dust Assessment

Where figures relating to area and volume of the Site, approximate number of construction vehicles or distances to receptors are given, these relate to thresholds as defined in the IAQM guidance to guide the assessor to define the dust emissions magnitude and sensitivity of the area.

5.1.1 Assessment Screening

There are 'human receptors' within 350m of the Site but no designated habitat sites within 50m of the site boundary or within 50m of the roads anticipated to witness construction traffic movements up to 500m of the site entrance. Therefore, an assessment of construction dust on human receptors only is required.

5.1.2 Potential Dust Emissions Magnitude

Demolition

The Site is currently comprised of one building associated with a car wash which is to be demolished. Total building volume to be demolished is $<20,000\text{m}^3$ and constructed of materials with low potential for dust release (i.e. metal cladding, glass) as well as some brickwork and concrete present (potentially dusty construction material). The dust emission magnitude for demolition is therefore initially considered to be 'small'.

Earthworks

The proposals comprise the development of six EV charge points and three jet wash bays across a total site area of $<2,500\text{m}^2$. However, as the Site has been previously developed, earthworks are expected to be minimal. As such, the dust emission magnitude for earthworks is initially considered to be 'small'.

Construction

The total building volume associated with the Proposed Development is predicted to be $<25,000\text{m}^3$. Given the nature of the Proposed Development, it is expected that construction materials will have a low potential for dust generation and release (i.e. steel framework). As such, the emission magnitude for construction is therefore initially considered to be 'small'.

Trackout

Construction vehicles are expected to access the Site off Oldham Road and depart through the exit located 30m to the east. Given the scale and nature of works required, it is considered unlikely that >10 outward HDV movements will occur in any worst-case day. Furthermore, as the Site has been previously developed, it is unlikely that there will be any unpaved roads. As such, the dust emission magnitude for trackout is considered to be 'small'.

Summary

A summary of the potential dust emission magnitude for each of the activities is displayed in Table 5-1.

Table 5-1
Potential Dust Emission Magnitude

Activity	Dust Emission Magnitude
Demolition	Small
Earthworks	Small
Construction	Small
Trackout	Small

5.1.3 Sensitivity of the Area

Dust Soiling Impacts

Overall, there are >1 places of work (medium sensitivity receptors) within 20m of the site boundary. In addition, there are >1 places of work (medium sensitivity receptors) within 20m of roads anticipated to witness construction traffic up to 50m from the site entrance and exit (commensurate of a small site¹⁷) – assuming construction traffic travels east along Oldham Road.

The sensitivity of the area with respect to dust soiling effects on people and property in relation to demolition, earthworks, construction, and trackout is therefore considered to be 'medium'.

Human Health Impacts

The maximum 2019 mapped background PM₁₀ concentration (2018 base year) from the 1km² grid square containing the Site is estimated to be 12.4µg/m³ (i.e. falls into the <24µg/m³ class).

Given the above information regarding the number of medium sensitivity receptors within 20m of the Site and access roads up to 50m from the site entrance, the sensitivity of the area with respect to human health impacts in relation to demolition, earthworks, construction and trackout is therefore considered to be 'low'.

Summary

A summary of the sensitivity of the area defined for each potential impact is displayed in Table 5-2, whereas the spatial densities of receptors discussed in relation to the site boundary are illustrated in Figure 5-1.

Table 5-2
Sensitivity of the Area

Potential Impact	Sensitivity of Surrounding Area			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Medium	Medium	Medium	Medium
Human Health	Low	Low	Low	Low

5.1.4 Risk of Impacts (Unmitigated)

The outcome of the assessment of the potential 'magnitude of dust emissions', and the 'sensitivity of the area' are combined in Table 5-3 below to determine the risk of impact which is used to inform the selection of appropriate mitigation.

¹⁷ As per the IAQM's 'Guidance on the Assessment of Dust from Demolition and Construction', without site-specific mitigation, trackout may occur along the public highway up to 500m from large sites, 200m from medium sites and 50m from small sites (determined by the calculated trackout dust emission magnitude), as measured from the site exit.

Table 5-3
Risk of Dust Impacts (Unmitigated)

Potential Impact	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Low Risk	Low Risk	Low Risk	Negligible
Human Health	Negligible	Negligible	Negligible	Negligible

5.1.5 Mitigation

Following the construction dust assessment, the Site is found to be at worst 'low risk' in relation to dust soiling effects on people and property and 'negligible' in relation to human health impacts (Table 5-3). However, potential dust effects during the construction phase are considered to be temporary in nature and may only arise at particular times (i.e. certain activities and/or meteorological conditions).

Nonetheless, commensurate with the above designation of dust risk, mitigation measures as identified by IAQM guidance are required to ensure that any potential impacts arising from the construction phase of the Proposed Development are reduced and, where possible, completely removed. In accordance with IAQM guidance, providing effective mitigation measures are implemented, such as those outlined in Section 7.1, construction dust effects are considered to be 'not significant'.

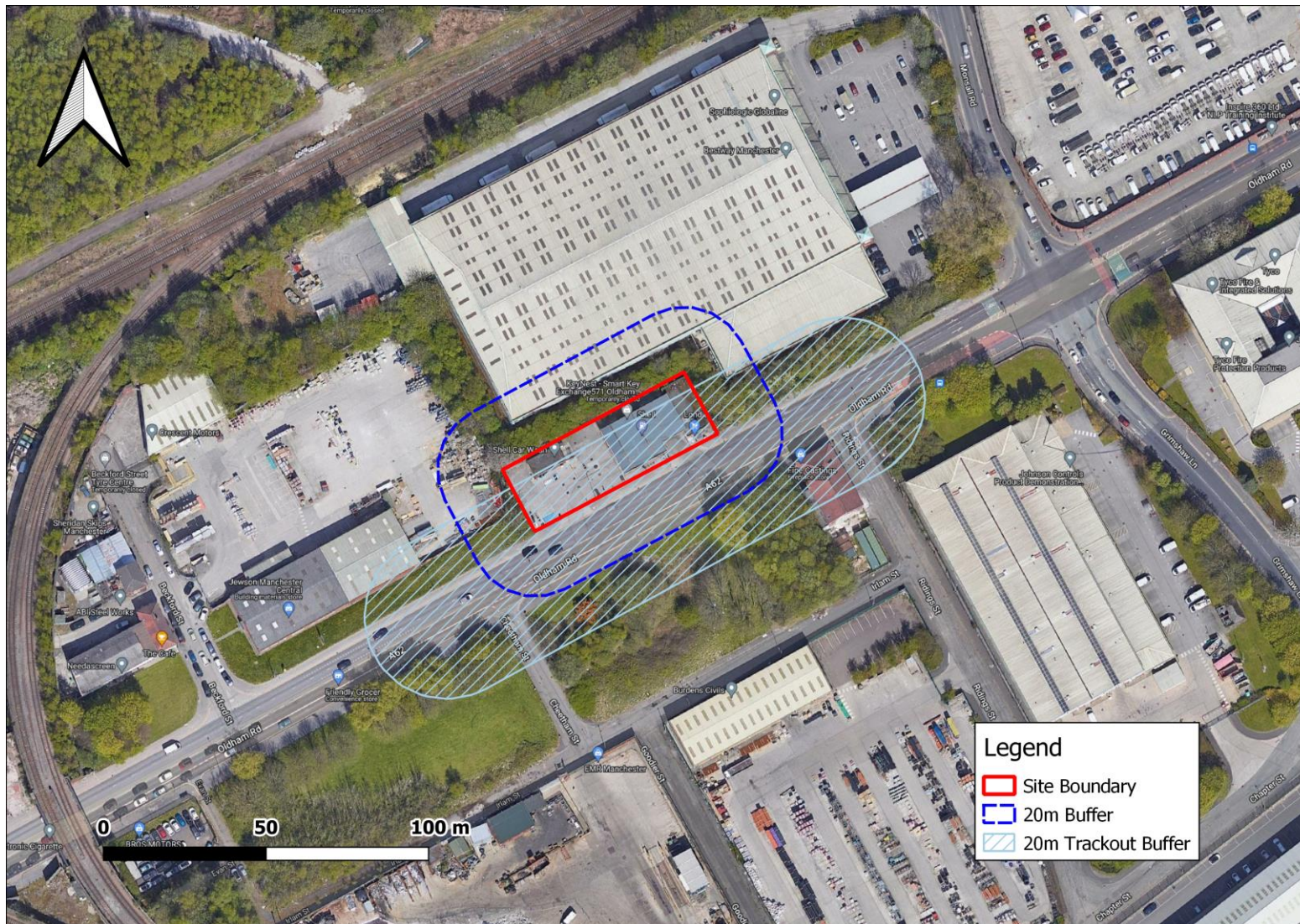


Figure 5-1
Construction Dust Assessment Buffers

6.0 OPERATIONAL PHASE ASSESSMENT

This section presents the potential air quality impacts and effects associated with the operation of the Proposed Development.

6.1 Road Traffic Screening Assessment

Table 6-1 details the maximum road traffic flows generated by the Proposed Development upon the local road network for screening. Traffic data has been provided by DW Transportation, the appointed transport consultant for the scheme.

Table 6-1
Maximum Generated Road Traffic Flows on the Local Road Network

Road Link Name	AADT	
	LDVs	HDVs
Oldham Road	54	0
<i>EPUK & IAQM Screening Criteria</i>	<i>100</i>	<i>25</i>

The maximum road traffic flows generated by the Proposed Development on the local road network are found to be below the relevant EPUK & IAQM screening thresholds. As such, road traffic impacts associated with the operation of the Site can be considered as having an insignificant effect on local air quality and no further assessment is required.

7.0 MITIGATION MEASURES

This section presents any proportionate mitigation measures required during the construction and operational phases of the Proposed Development.

7.1 Construction Dust

As discussed in Section 5.0, construction impacts associated to the Proposed Development would result in the generation of dust and PM₁₀.

IAQM guidance outlines a number of site-specific mitigation measures based on the assessed risk. The measures are grouped into those which are highly recommended and those which are desirable. With the effective application of the dust mitigation measures, as detailed in Table 7-1, residual effects will be 'not significant'.

Table 7-1
Construction Dust Mitigation Measures

Site Application	Mitigation Measures
Highly Recommended	
Communications	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.
Demolition	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. Avoid explosive blasting, using appropriate manual or mechanical alternatives. Bag and remove any biological debris or damp down such material before demolition.
Monitoring	Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked. Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
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.
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.
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.

Site Application	Mitigation Measures
Site Management	Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.
	Avoid site runoff of water or mud.
	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.
Waste Management	Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book.
	Avoid bonfires and burning of waste materials.
Desirable	
Communications	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. The DMP may include monitoring of dust deposition, dust flux, real time PM ₁₀ continuous monitoring and/or visual inspections.
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.
Demolition	Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).
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 100m of site boundary, with cleaning to be provided if necessary.
Operating Vehicle/Machinery and Sustainable Travel	Impose and signpost a maximum-speed-limit of 15mph on surfaced and 10mph 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).
Operations	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.
Preparing and Maintaining the 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.
	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.

7.2 Operational Phase

In accordance with the EPUK & IAQM guidance, road traffic impacts associated with the operation of the Site can be considered as having an insignificant effect on local air quality. Based on the above outcomes, long-term scheme-specific mitigation measures in relation to operational effects are therefore not considered to be necessary.

Notwithstanding the above, in line with MCC's Air Quality & Planning Technical Guidance, proposals are encouraged to adopt good design principles to minimise emissions and impacts on air quality.

8.0 CONCLUSIONS

SLR Consulting has been commissioned to undertake an air quality assessment to appraise a planning application for the development of an Electric Vehicle (EV) charging station and jet wash bays at Oldham Road, Manchester.

8.1 Construction Phase

A qualitative assessment of the potential dust impacts during the construction of the Proposed Development has been undertaken following IAQM guidance.

Following the construction dust assessment, the Site is found to be at worst 'low risk' in relation to dust soiling effects on people and property, and 'negligible' to human health impacts. Providing effective mitigation measures are implemented, such as those outlined in Section 7.1 of this report, residual effects from dust emissions during the construction phase would be 'not significant'.

Given the short-term nature of the construction phase, there is predicted to be an insignificant effect on air quality from construction-generated vehicle emissions.

8.2 Operational Phase

The operational phase The Proposed Development is predicted to generate road traffic volumes below the relevant EPUK & IAQM screening criteria. As such, road traffic impacts associated with the operation of the Site can be considered as having an insignificant effect on local air quality and no further assessment is required.

Notwithstanding the above, the Proposed Development is required to implement mitigation measures in line with the MCC's Air Quality & Planning Technical Guidance.

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