

ENVIRONMENT

ERP (Accrington) Limited c/o Glenbrook
Investments Limited
St. Mary's Gate
Rochdale
Air Quality Assessment

ENVIRONMENT

ERP (Accrington) Limited c/o Glenbrook Investments Limited
St. Mary's Gate
Rochdale
Air Quality Assessment

Birmingham
Livery Place, 35 Livery Street, Colmore Business District
Birmingham, B3 2PB
T: 0121 233 3322

Leeds
Whitehall Waterfront, 2 Riverside Way
Leeds, LS1 4EH
T: 0113 233 8000

London
11 Borough High Street
London, SE1 9SE
T: 0207 407 3879

Manchester
11 Portland Street
Manchester, M1 3HU
T: 0161 233 4260

Nottingham
5th Floor, Waterfront House, Station Street
Nottingham, NG2 3DQ
T: 0115 924 1100

June 2023

DOCUMENT ISSUE RECORD

Document Number:	SMG-BWB- ZZ-ZZ-RP-LA-AQA_S0_P01
BWB Reference:	232571-AQA-0001

Revision	Date of Issue	Status	Author:	Checked:	Approved:
1.0	29/06/2023	Issue	C. Jones MSc, BSc	A. Van De Sande MSc, BSc (Hons), MIAQM, MEnvSc	C. Meddings MSc, BSc (Hons), CSci, MIAQM, MEnvSc

Notice

This document has been prepared for the sole use of the Client in accordance with the terms of the appointment under which it was produced. BWB Consulting Limited accepts no responsibility for any use of or reliance on the contents of this document by any third party. No part of this document shall be copied or reproduced in any form without the prior written permission of BWB.

EXECUTIVE SUMMARY

BWB Consulting Limited was appointed by ERP (Accrington) Limited c/o Glenbrook Investments Limited to undertake an air quality assessment for a proposed drive-thru at St. Mary's Gate, Rochdale.

The proposed development Site is located within the administrative area of Rochdale Borough Council. The Site is not located within an existing Air Quality Management Area. However, the closest Air Quality Management Area is located adjacent along the A671 Whitworth Road to the east and the A58 St Mary's Gate to the south.

A qualitative construction phase dust assessment was undertaken in accordance with Institute of Air Quality Management guidance and measures were recommended to minimise emissions during construction activities. With the implementation of these mitigation measures the impact of construction phase dust emissions was considered to be 'not significant' in accordance with Institute of Air Quality Management guidance.

The proposed development trip generation was screened using the Institute of Air Quality Management and Environmental Protection UK two stage screening process, to determine whether a detailed road traffic emissions impact assessment was required. The proposed development trip generation did not exceed the relevant screening criteria, therefore detailed dispersion modelling of development-generated road traffic was not undertaken. Air quality impacts as a result of additional road traffic emissions associated with the Site were therefore considered to be 'not significant' in accordance with the Institute of Air Quality Management and Environment Protection UK Guidance.

The proposed development was not considered to give rise to significant air quality impacts as a result of development-generated road traffic, therefore measures to minimise air quality impacts are not recommended. However, measures proposed as part of the development which may be beneficial to air quality include a Travel Plan and electric vehicle charging points.

CONTENTS

EXECUTIVE SUMMARY	iii
1. INTRODUCTION.....	1-6
Site Setting	1-6
Proposed Development	1-6
2. LEGISLATION, PLANNING POLICY & GUIDANCE	2-8
National Legislation and Planning Policy	2-8
Regional and Local Planning Policy.....	2-8
Air Quality Assessment Guidance	2-9
3. METHODOLOGY	3-10
Consultation with Rochdale Borough Council	3-10
Construction Phase Dust Assessment	3-10
Operational Phase Road Traffic Emissions – Screening Assessment.....	3-10
Air Quality Standards and Objectives.....	3-11
4. CONSTRUCTION PHASE DUST ASSESSMENT.....	4-13
Step 1: Screen the Need for a Detailed Assessment.....	4-13
Step 2: Assess the Risk of Dust Impacts.....	4-13
Step 3: Site-Specific Mitigation.....	4-18
Step 4: Determine Significant Effects	4-20
5. OPERATIONAL PHASE ROAD TRAFFIC EMISSIONS SCREENING ASSESSMENT	5-21
Impact Screening Assessment	5-21
Site Suitability Assessment	5-21
Development Measures	5-22
6. CONCLUSION	6-23

FIGURES

Figure 1.1: Site Location Plan

Figure 4.1: Construction Phase Dust Assessment Distance Buffers

TABLES

Table 3.1: Air Quality Standards and Objectives (England)

Table 4.1: Dust Emission Magnitude Criteria and Definition

Table 4.2: Summary of Project Defined Dust Emissions Magnitudes

Table 4.3: Determination of the Sensitivity of the Area

Table 4.4: Summary Dust Risk Table to Define Site Specific Risk

Table 4.5: Mitigation Measures for a Low Risk Site

Table 4.6: Mitigation Measures Specific to Earthworks, Construction and Trackout

APPENDICES

APPENDIX A: Glossary of Terms

APPENDIX B: Proposed Development Masterplan

APPENDIX C: Planning Policy and Legislation

1. INTRODUCTION

- 1.1 BWB Consulting Limited (BWB) was instructed by Glenbrook Investments (the Client) to undertake an air quality assessment for a proposed drive thru at St. Mary's Gate, Rochdale ('the Site').
- 1.2 The assessment considers construction phase dust impacts and operational phase road traffic emissions. A qualitative construction phase dust assessment was undertaken in accordance with relevant guidance. An operational phase road traffic emissions screening assessment was undertaken to consider the requirement for a detailed assessment of additional vehicles generated by the proposed development.
- 1.3 This report is necessarily technical in nature so to assist the reader a glossary of air quality terminology can be found in **Appendix A**.

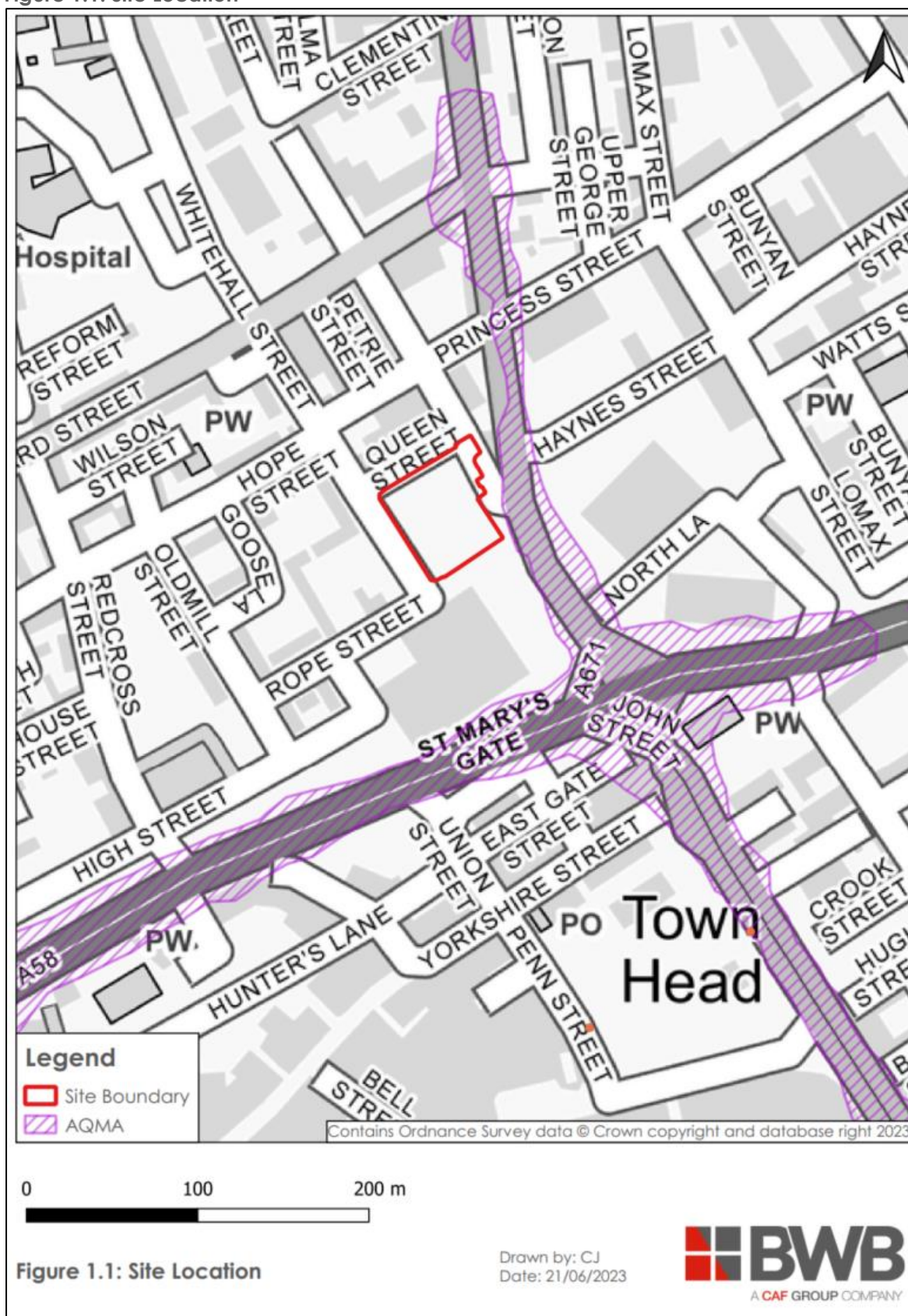
Site Setting

- 1.4 The Site is located off Duke Street within the administrative area of Rochdale Borough Council (RBC). The Site comprises hardstanding and is currently in use as a car park. To the north of the Site lies Queen Street, with commercial development beyond. To the east of the Site is Duke Street and the A671 Whitworth Road, with commercial development beyond. To the south of the Site is commercial development with the A58 St. Mary's Gate beyond. To the west of the Site is Whitehall Street with residential dwellings located beyond.
- 1.5 **Figure 1.1** details the location of the proposed development.
- 1.6 Principal air pollution sources in the vicinity of the Site are likely to comprise road traffic emissions. The Site is not located within an existing Air Quality Management Area (AQMA), however the closest AQMA is located adjacent to the Site along the A671 Whitworth Road to the east and A58 St. Mary's Gate to the south, 20m and 100m respectively.

Proposed Development

- 1.7 The proposed development comprises a single storey drive thru, with associated landscaping, car parking and access. The proposed development masterplan is detailed in **Appendix B**.

Figure 1.1: Site Location



2. LEGISLATION, PLANNING POLICY & GUIDANCE

National Legislation and Planning Policy

2.1 The following national legislation and planning policy is relevant to air quality and was considered in the undertaking of the assessment. A summary of the relevant national legislation and planning policy is provided in **Appendix C**:

- European Parliament, EU 2008 ambient Air Quality Directive (2008)¹;
- HMSO, Air Quality (England) Regulations (2000)²;
- HMSO, Environment Act (1995)³;
- HMSO, Environment Act (2021)⁴;
- HMSO, Air Quality (England) Regulations (2002)⁵;
- HMSO, Air Quality Standards Regulations (2010)⁶;
- Department for Environment, Air Quality Strategy (1997)⁷;
- Department for the Environment, Food and Rural Affairs, Air Quality Strategy (2007)⁸;
- Department for the Environment, Food and Rural Affairs, Air Quality Strategy (2023)⁹;
- Department for the Environment, Food and Rural Affairs, The Environment (Miscellaneous Amendments) (EU Exit) Regulations (2020)¹⁰;
- HMSO, The Environmental Targets (Fine Particulate Matter) (England) Regulations (2023)¹¹;
- Ministry of Housing, Communities and Local Government, National Planning Policy Framework (NPPF) (2021)¹²; and
- Ministry for Housing, Communities and Local Government, Planning Practice Guidance (PPG) for air quality (2019)¹³.

Regional and Local Planning Policy

2.2 The following local planning policy was considered in the undertaking of the assessment and a summary is provided in **Appendix C**:

- Rochdale Adopted Core Strategy (2016 – 2031)¹⁴.

¹ European Parliament (2008) Council Directive 2008/50/EC on Ambient Air Quality and Cleaner Air for Europe

² HMSO (2000) Statutory Instrument 2000 No. 928, The Air Quality (England) Regulations 2000 (as amended), London: HMSO

³ HMSO (1995) The Environment Act 1995, London: TSO

⁴ HMSO (2021) The Environment Act 2021, London: TSO

⁵ HMSO (2002) Statutory Instruments 2002 No. 3043, The Air Quality (England) (Amendment) Regulations 2002, London: HMSO

⁶ HMSO (2010) Statutory Instruments 2010 No. 1001 Air Quality Standards Regulations 2010. London: HMSO

⁷ Department of the Environment (DoE) (1997) The UK National Air Quality Strategy, London: HMSO

⁸ Department of the Environment, Food and Rural Affairs (Defra) (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, London: HMSO

⁹ Department of the Environment, Food and Rural Affairs (Defra) (2023) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, London: HMSO

¹⁰ Department of the Environment, Food and Rural Affairs (Defra) (2020) The Environment (Miscellaneous Amendments) (EU Exit) Regulations, London: HMSO

¹¹ HMSO (2023) Statutory Instruments 2023 No. 96 The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023

¹² Ministry of Housing, Communities & Local Government (2021) National Planning Policy Framework, HMSO London

¹³ Ministry for Housing, Communities and Local Government (2019) Planning Practice Guidance Air Quality

¹⁴ Rochdale Borough Council (2016) Rochdale Adopted Core Strategy

Air Quality Assessment Guidance

2.3 The following guidance was utilised in the air quality assessment:

- Defra, Local Air Quality Management Technical Guidance (LAQM.TG(22)) (2022)¹⁵;
- Institute of Air Quality Management, Guidance on the assessment of dust from demolition and construction (2014)¹⁶; and
- Institute of Air Quality Management and Environmental Protection UK, Land-Use Planning and Development Control: Planning for Air Quality (2017)¹⁷.

¹⁵ Defra (2022) Local Air Quality Management Technical Guidance LAQM.TG(22)

¹⁶ Institute of Air Quality Management (2014) Guidance on the assessment of dust from demolition and construction, Institute of Air Quality Management, London

¹⁷ Institute of Air Quality Management and Environmental Protection UK (2017) Land-Use Planning and Development Control: Planning for Air Quality

3. METHODOLOGY

Consultation with Rochdale Borough Council

- 3.1 Consultation was undertaken with the Environmental Health Department at RBC in which the proposed methodology was provided via email on the 23rd of June 2023. At the time of writing, a response was not received.
- 3.2 The scope of works, as provided to RBC, are detailed below:
- Construction Phase - A construction phase dust assessment was undertaken and relevant measures to mitigate construction phase dust emissions were recommended. The assessment was undertaken in accordance with guidance provided by the Institute of Air Quality Management (IAQM)¹⁶.
 - Operational Phase – An operational phase road traffic emissions screening assessment was undertaken. The trip generation for the proposed development was obtained from the Transport Consultant and compared to the IAQM and Environmental Protection UK (EPUK) guidance¹⁷, to determine whether a detailed assessment is required.
- 3.3 Full details of the methodology used in the assessment, as provided to RBC, are provided below.

Construction Phase Dust Assessment

- 3.4 An assessment of the potential impacts arising from the construction of the proposed development was undertaken in accordance with IAQM Guidance¹⁶. The full assessment methodology is not reproduced within this report but a summary of the assessment steps are provided below:
- Step 1 – screen the requirement for a more detailed assessment. No assessment is required if there are no receptors within a certain distance of the works.
 - Step 2 – assess the risk of dust impacts separately for each of the four activities considered (demolition, earthworks, construction and trackout).
 - Step 2A – determine the potential dust emission magnitude for each of the four activities;
 - Step 2B – determine the sensitivity of the area;
 - Step 2C – determine the risk of dust impacts by combining the findings of steps 2A and 2B.
 - Step 3 – determine the site-specific mitigation for each of the four activities; and
 - Step 4 – examine the residual effects and determine significance.

Operational Phase Road Traffic Emissions – Screening Assessment

- 3.5 Guidance published by the IAQM and EPUK in 2017¹⁷ provides a two-stage approach to determine the level of assessment required in the consideration of the impact of development-generated road traffic emissions on local air quality.

Stage 1

3.6 The Stage 1 criteria requires that the assessment progress to Stage 2 if any of the following apply:

- The development comprises:
 - 10 or more residential units or a site area of more than 0.5ha; or
 - More than 1,000m² of floor space for all other uses or a site area greater than 1ha;
- Coupled with any of the following:
 - The development has more than 10 parking spaces; or
 - The development will have a centralised energy facility or other centralised combustion process.

Note: Consideration should be given to the potential impacts of neighbouring sources on the site, even if an assessment of impacts of the development on the surrounding area is screened out.

Stage 2

3.7 The IAQM and EPUK guidance¹⁷ provides indicative criteria to determine whether a detailed road traffic emissions assessment is required for a proposed development.

3.8 The Rochdale AQMA is located adjacent to the Site along the A671 Whitworth Road, therefore the lower criteria for when a Site is located adjacent to an AQMA was considered.

3.9 The Stage 2 criteria relevant to the proposed development are:

- A change in Light Duty Vehicles (LDV) flow of more than 100 vehicles as a 24 hour Annual Average Daily Traffic (AADT) flow within or adjacent to an AQMA; and
- A change in Heavy Duty Vehicles (HDV) flow of more than 25 vehicles as a 24 hour AADT flow within or adjacent to an AQMA.

Air Quality Standards and Objectives

3.10 Monitored concentrations undertaken by RBC were compared to the current relevant air quality objectives for England^{7 9 11}. The current relevant air quality standards and objectives are detailed in **Table 3.1**.

Table 3.1: Air Quality Standards and Objectives (England)

Pollutant	Averaging Period	Air Quality Objective (µg.m ⁻³)	Date to Achieve by
NO ₂	Annual Mean	40	31 December 2005
	1-hour mean not to be exceeded more than 18 times per year	200	31 December 2005

Pollutant	Averaging Period	Air Quality Objective ($\mu\text{g.m}^{-3}$)	Date to Achieve by
PM ₁₀	Annual Mean	40	31 December 2004
	24-hour mean not to be exceeded more than 35 times per year	50	31 December 2004
PM _{2.5}	Annual mean	20	1 January 2020
	<i>Annual mean interim target as detailed within the Environmental Improvement Plan¹⁸</i>	12	<i>31 January 2028</i>
	Annual mean	10	31 December 2040

Italics denotes future air quality objectives published by the UK Government that will come into force in the future

¹⁸ Defra (2023) Environmental Improvement Plan 2023, First revision of the 25 Year Environment Plan

4. CONSTRUCTION PHASE DUST ASSESSMENT

- 4.1 The construction phase of the proposed development will involve a number of activities which have the potential to impact on local air quality. These include emissions of dust generated through excavation, construction, earthworks and trackout activities, exhaust pollutant emissions from construction traffic on the local highways network, and exhaust emissions from non-road mobile machinery (NRMM) within the construction site itself.
- 4.2 The location of sensitive receptors in relation to construction activities will affect the potential for such construction activities to cause dust soiling, nuisance and local air quality impacts. Meteorological conditions and the use of control measures will also contribute to the effects experienced.

Step 1: Screen the Need for a Detailed Assessment

- 4.3 Step 1 of the IAQM guidance¹⁶ involves a screening assessment to consider whether a more detailed construction phase dust assessment is required.
- 4.4 In accordance with the guidance, a detailed assessment is required if:
- Human receptors are located within 350m of the boundary of the site or 50m of routes used by construction vehicles on the public highways, up to 500m from the site entrances; or
 - Ecological receptors are located within 50m of the boundary of the site or 50m of routes used by construction vehicles on the public highways, up to 500m from the site entrances.
- 4.5 From a review of the Multi Agency Geographic Information for the Countryside (MAGIC) website¹⁹, no ecological designations were identified within the above screening distance and therefore the impact on ecological designations was not considered further. However human receptors are located within the above screening distances, with the closest of these receptors located off Whitehall Street. A construction phase assessment was therefore undertaken.

Step 2: Assess the Risk of Dust Impacts

Step 2A: Define the Potential Dust Emission Magnitude

- 4.6 The dust emission magnitudes for the construction activities were defined using the criteria detailed in the IAQM guidance¹⁶ as detailed in **Table 4.1**. Demolition is not proposed as part of the development and therefore was not considered further in the assessment.

¹⁹ Defra, Multi Agency Geographic Information for the Countryside (MAGIC) [<http://magic.defra.gov.uk/>]

Table 4.1: Dust Emission Magnitude Criteria and Definition

Activity	IAQM Dust Emission Magnitude	IAQM Dust Emission Magnitude Criteria
Earthworks	Large	Total site area >10,000m ² , potentially dusty soil type (e.g. clay, which will be prone to suspension when dry due to small particle size), >10 heavy earth moving vehicles active at any one time, formation of bunds >8 m in height, total material moved >100,000 tonnes.
	Medium	Total site area 2,500m ² – 10,000m ² , moderately dusty soil type (e.g. silt), 5 - 10 heavy earth moving vehicles active at any one time, formation of bunds 4m - 8m in height, total material moved 20,000 tonnes – 100,000 tonnes.
	Small	Total site area <2,500m ² , soil type with large grain size (e.g. sand), <5 heavy earth moving vehicles active at any one time, formation of bunds <4m in height, total material moved <20,000 tonnes, earthworks during wetter months.
Construction	Large	Total building volume >100,000m ³ , on site concrete batching, sandblasting.
	Medium	Total building volume 25,000m ³ – 100,000m ³ , potentially dusty construction material (e.g. concrete), on site concrete batching.
	Small	Total building volume <25,000m ³ , construction material with low potential for dust release (e.g. metal cladding or timber).
Trackout	Large	>50 HDV (>3.5t) outward movements in any one day, potentially dusty surface material (e.g. high clay content), unpaved road length >100m.
	Medium	10 - 50 HDV (>3.5t) outward movements in any one day, moderately dusty surface material (e.g. high clay content), unpaved road length 50m – 100m.
	Small	<10 HDV (>3.5t) outward movements in any one day, surface material with low potential for dust release, unpaved road length <50m.

4.7 The following dust emissions magnitudes were defined for the proposed development:

- Earthworks – much of the existing Site includes hardstanding which is to be retained as part of the proposed development, as such, the total area of earthworks is anticipated to be below 2,500 m². Therefore, the dust emission magnitude was defined as '**Small**'.
- Construction – the proposed development comprises the construction of a single storey drive-thru. Based on the size of the proposed development, the total building volume is below 25,000m³. Therefore, the dust emission magnitude for construction was defined as '**Small**'.
- Trackout – due to the size of the site and scale of development, there are anticipated to be less than 10 HDV movements in any one day during the construction phase. Therefore, the dust emission magnitude for trackout was defined as '**Small**'. Construction traffic will access the Site via Duke Street and Rope Street, where there is exiting Site access. A trackout distance of up to 50m from the site access was therefore used in accordance with the IAQM guidance¹⁶.

4.8 A summary of the defined dust emissions magnitudes for the development are provided in **Table 4.2**.

Table 4.2: Summary of Project Defined Dust Emissions Magnitudes

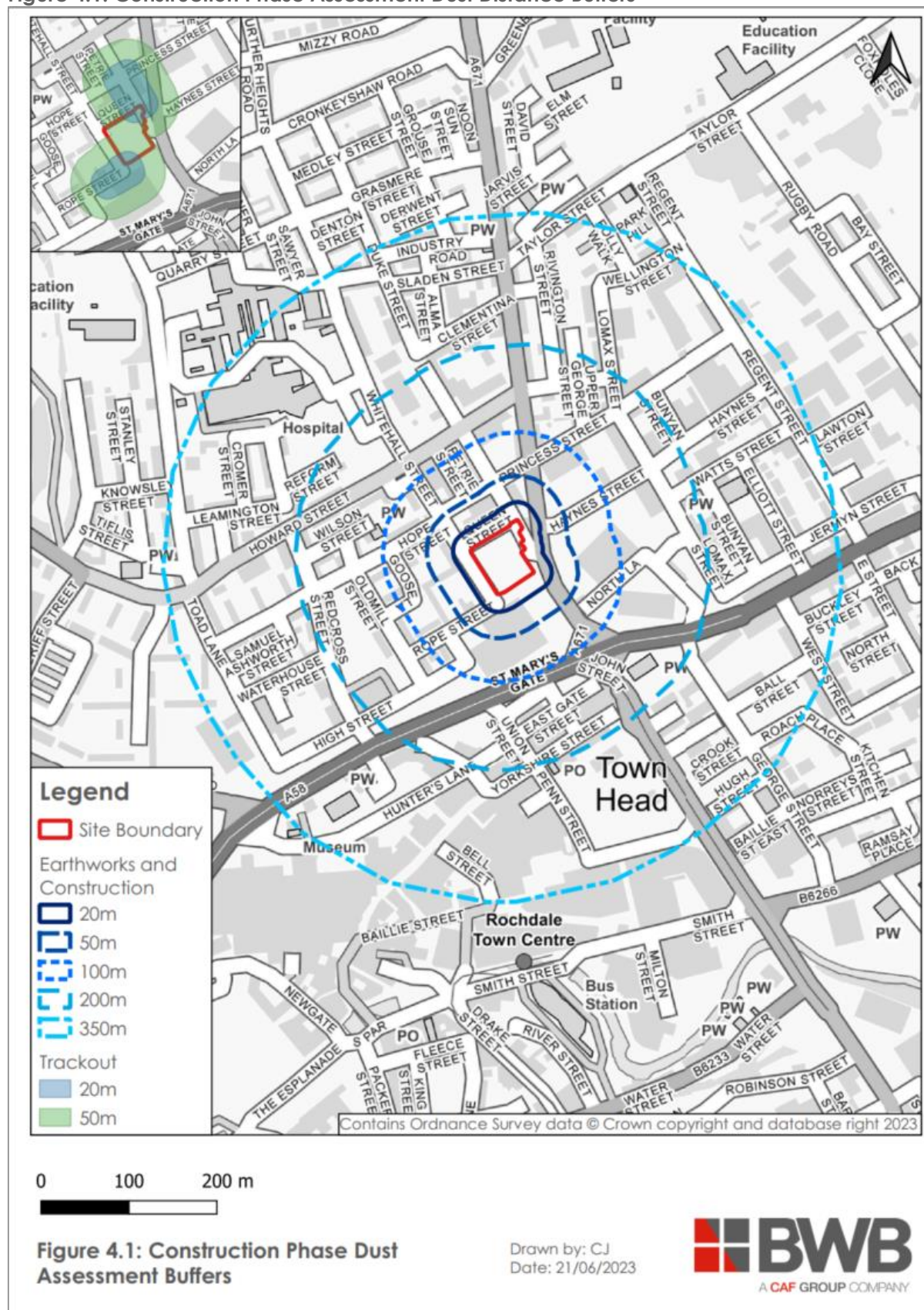
Activity	Dust Emissions Magnitude
Earthworks	Small

Activity	Dust Emissions Magnitude
Construction	Small
Trackout	Small

Step 2B: Define the Sensitivity of the Area

- 4.9 The assessment requires the determination of the sensitivity of the area for the purposes of dust soiling and human impacts. The sensitivity of the study area takes into account the specific receptors in the vicinity of the Site, the proximity and number of those receptors, the local background concentration of PM₁₀ and site-specific factors. **Figure 4.1** was utilised to determine the number of receptors located within the distance bands provided in the IAQM guidance¹⁶ for determining receptor sensitivity.

Figure 4.1: Construction Phase Assessment Dust Distance Buffers



4.10 The sensitivity of the area is defined below, in accordance with IAQM criteria¹⁶ and summarised in **Table 4.3**.

- Dust Soiling – there is one nursery with potentially 10-100 highly sensitive receptors, one to ten highly sensitive residential receptors and 10-100 highly sensitive receptors associated with one short to medium stay car park located within 20m of the proposed Site boundary. Additionally, the nursery and two short to medium stay car parks are located within 20m of the assumed roads used by construction traffic. Therefore, the sensitivity of the area to dust soiling associated with earthworks, construction and trackout activities was defined as '**High**'.
- Human Health – there is one nursery with potentially 10-100 highly sensitive receptors and one to ten existing highly sensitive residential receptors located within 20m of the proposed Site boundary. Additionally, the nursery is located within 20m of the assumed roads used by construction traffic. As detailed in the Defra background mapping data²⁰ the background PM₁₀ concentration at the Site is 11.2µg.m⁻³ and therefore the sensitivity of the area to human health impacts was defined as '**Low**'.

Table 4.3: Determination of the Sensitivity of the Area

Potential Impact	Sensitivity		
	Earthworks	Construction	Trackout
Dust Soiling	High	High	High
Human Health	Low	Low	Low

Step 2C: Define the Risk of Impacts

4.11 The dust emission magnitude determined in Step 2A is then combined with the sensitivity of the area determined in Step 2B to define the risk of dust impacts with no mitigation applied. The results of this assessment are detailed in **Table 4.4**.

Table 4.4: Summary Dust Risk Table to Define Site Specific Risk

Activity	Step 2A: Dust Emission Magnitude	Step 2B: Sensitivity of the Area	Step 2C: Risk of Dust Impacts
Dust Soiling Effects on People and Property			
Earthworks	Small	High	Low Risk
Construction	Small	High	Low Risk
Trackout	Small	High	Low Risk
Human Health Impacts			
Earthworks	Small	Low	Negligible

²⁰ Department for Environment, food and Rural Affairs (2018) Background Mapping data for local authorities

Activity	Step 2A: Dust Emission Magnitude	Step 2B: Sensitivity of the Area	Step 2C: Risk of Dust Impacts
Construction	Small	Low	Negligible
Trackout	Small	Low	Negligible

Step 3: Site-Specific Mitigation

- 4.12 The risk of dust impacts, defined in Step 2C of the assessment, is used to determine the mitigation measures required to minimise the emission of dust during construction phase activities. The IAQM guidance¹⁶ provides details of highly recommended and desirable mitigation measures which are commensurate with the risk of dust impacts defined in Step 2C for construction, earthworks and trackout activities. Where the mitigation measures are general in nature, the highest risk category was applied in accordance with the guidance¹⁶. The highest risk category identified was 'Low Risk' and the recommended mitigation taken from the IAQM guidance¹⁶ is detailed in **Table 4.5** and **Table 4.6**.

Table 4.5: Mitigation Measures for a Low Risk Site

Category	Mitigation Measures for a Low Risk Site	
	Highly Recommended	Desirable
Communication	Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environmental manager/engineer or the site manager.	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.
	Display the head or regional office contact information.	
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.	None
	Make the complaints log available to the local authority when asked.	
	Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the log book.	
Monitoring	Carry out regular site inspections to monitor compliance with the DMP, record inspections results, and make an inspection log available to the local authority when asked.	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
	Increase the frequency of site inspections by the person accountable for air quality	

Category	Mitigation Measures for a Low Risk Site	
	Highly Recommended	Desirable
	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.	furniture, cars and window sills within 100m of the site boundary, with cleaning to be provided as necessary.
Preparing and maintaining the site	Plan the site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.	Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extended period.
	Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.	Keep site fencing, barriers and scaffolding clean using wet methods.
	Avoid site runoff of water or mud.	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.	Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on un-surfaced haul roads and work areas.
	Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.	
		Ensure equipment is readily available on site to clean any dry spillages - cleaning up spillages as soon as reasonably practicable after the event using wet cleaning methods.
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.	None
	Ensure an adequate water supply on 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.	
Waste Management	Avoid bonfires and burning of waste materials.	None

Table 4.6: Mitigation Measures Specific to Earthworks, Construction and Trackout

Category	Mitigation Measures	
	Highly Recommended	Desirable
Earthworks (Low Risk Site)	None	None
Construction (Low Risk Site)	None	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.
Trackout (Low Risk Site)	None	Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any materials tracked out of the site. This may require the sweeper being continuously in use.
		Avoid dry sweeping of large areas.
		Ensure vehicles entering and leaving the sites are covered to prevent escape of materials during transport.
		Record all inspections of haul routes and any subsequent action in a site log book.
		Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).

Step 4: Determine Significant Effects

- 4.13 In accordance with IAQM guidance¹⁶, with the implementation of the mitigation measures detailed in Step 3, the residual impacts from the construction phase are considered to be 'not significant'.

5. OPERATIONAL PHASE ROAD TRAFFIC EMISSIONS SCREENING ASSESSMENT

Impact Screening Assessment

IAQM and EPUK Guidance

- 5.1 The trip generation for the proposed development was screened using IAQM and EPUK Stage 1 and Stage 2 criteria¹⁷ to determine whether a detailed operational phase road traffic emissions impact assessment was required.

Stage 1

- 5.2 The proposed development comprises more 1,000 m² of floor space and proposes more than 10 parking spaces; it was therefore necessary to proceed to Stage 2.

Stage 2

- 5.3 The trip generation for the proposed development was provided by Arcadis, the Transport Consultants for the project. It was confirmed by the Transport Consultant that based on the nature of the proposed development, all LDV trips are considered as existing pass-by and already on the road network. One additional HDV is predicted as a result of the development proposals.
- 5.4 Therefore, this does not exceed the Stage 2 criteria set out in the IAQM and EPUK guidance¹⁷.
- 5.5 The IAQM and EPUK guidance¹⁷ states that "If none of the criteria are met, then there should be no requirement to carry out an air quality assessment for the impact of the development on the local area, and the impacts can be considered as having an insignificant effect". Therefore, the impact on local air quality is considered to be insignificant and a detailed operational phase road traffic emissions impact assessment was not undertaken.

Site Suitability Assessment

- 5.6 Given that the development proposals include sensitive uses that are relevant to the short term air quality objectives, qualitative consideration was given to the suitability of the Site for the proposed end use. This was undertaken through a review of local air quality monitoring data, management regimes and local emissions sources.
- 5.7 The Site is not located within an existing AQMA, however the closest AQMA is the Rochdale AQMA located along A671 Whitworth Road to the east and A58 St Mary's Gate to the south, 20m and 100m respectively. The AQMA was designated by RBC for potential exceedances of the current annual mean NO₂ air quality objective.
- 5.8 Outdoor seating areas are included as part of the development proposals, therefore the short term air quality objective for NO₂ applies. RBC undertakes NO₂ monitoring

within its administrative area using a network of passive diffusion tubes and continuous analysers. The closest monitoring locations to the Site are monitoring locations ROC-B5, ROC-B4, RO19ANO and RO26ANO, located approximately 30m east, 100m south, 270m south east and 300m north, respectively. Annual mean NO₂ concentrations at these monitoring locations are less than 60µg.m⁻³ and therefore in accordance with Defra guidance¹⁵ it may be assumed that exceedances of the 1-hour mean NO₂ objective are unlikely.

- 5.9 There is no monitoring of PM₁₀ and PM_{2.5} available in the vicinity of the Site; however, the closest is monitoring location RDL001, which is located approximately 2.5km south west of the Site. Monitoring data was only available for 2021 at this monitoring location. In accordance with the IAQM position statement²¹ regarding monitoring uncertainty in 2020 and 2021 datasets due to COVID-19, 2019 monitoring data is treated as the last year of typical monitoring data. Monitoring location RDL001 was therefore not considered further.
- 5.10 As the short term NO₂ objective is unlikely to be exceeded within the vicinity of the Site, it was therefore considered that the Site was likely to be suitable for the proposed commercial end use with regard to the current relevant air quality objectives for England.

Development Measures

- 5.11 Whilst the proposed development was not considered to give rise to significant air quality impacts as a result of development-generated road traffic, measures are proposed as part of the development which may be beneficial to local air quality. These include:
- Provision of a Travel Plan, detailing local public and active travel routes and bus timetables; and
 - Provision of 8 Electric Vehicle charge points to encourage uptake of low emission vehicles.

²¹ Institute of Air Quality Management (IAQM) (2020) Implications of the COVID-19 Pandemic on Air Quality Monitoring and Assessments

6. CONCLUSION

- 6.1 An air quality screening assessment was undertaken for the proposed drive-thru at St. Mary's Gate, Rochdale.
- 6.2 A qualitative construction phase assessment was undertaken and measures were recommended to minimise emissions during construction activities. With the implementation of these mitigation measures the impact of construction phase dust emissions is considered to be 'not significant' in accordance with IAQM guidance¹⁶.
- 6.3 The predicted trip generation for the proposed development was screened using the IAQM and EPUK¹⁷ two stage screening process. The predicted trip generation did not exceed the relevant screening criteria for when a detailed air dispersion modelling assessment is likely to be required for a development adjacent to a AQMA. Air quality impacts as a result of additional road traffic emissions associated with the Site were therefore considered to be 'not significant' in accordance with the IAQM and EPUK guidance and detailed air dispersion modelling was not undertaken.
- 6.4 The proposed development was not considered to give rise to significant air quality impacts as a result of development-generated road traffic, therefore mitigation measures to minimise air quality impacts are not required. However, measures proposed as part of the development which may be beneficial to air quality include a Travel Plan and Electric Vehicle charging points.

APPENDICES

APPENDIX A: GLOSSARY OF TERMS

Term	Definition
AADT	Annual Average Daily Traffic flow.
Air quality objective	Policy target generally expressed as a maximum ambient concentration to be achieved, either without exception or with a permitted number of exceedances within a specific timescale (see also air quality standard).
Air quality standard	The concentrations of pollutants in the atmosphere which can broadly be taken to achieve a certain level of environmental quality. The standards are based on the assessment of the effects of each pollutant on human health including the effects on sensitive sub groups (see also air quality objective).
Annual mean	The average (mean) of the concentrations measured for each pollutant for one year. Usually this is for a calendar year, but some species are reported for the period April to March, known as a pollution year. This period avoids splitting winter season between two years, which is useful for pollutants that have higher concentrations during the winter months.
AQAP	Air Quality Action Plan.
AQMA	Air Quality Management Area.
AQS	Air Quality Strategy.
Defra	Department for Environment, Food and Rural Affairs.
EPUK	Environmental Protection UK.
Exceedance	A period of time where the concentrations of a pollutant is greater than, or equal to, the appropriate air quality standard.
HDV	Heavy Duty Vehicles (HGVs + buses and coaches)
HGV	Heavy Goods Vehicles.
IAQM	Institute of Air Quality Management.
LAQM	Local Air Quality Management.
LDV	Light Duty Vehicles (motorbikes, cars, vans and small trucks)
NO	Nitrogen monoxide, a.k.a. nitric oxide.
NO ₂	Nitrogen dioxide.
NO _x	Nitrogen oxides.
Percentile	The percentage of results below a given value.
PM ₁₀	Particulate matter with an aerodynamic diameter of less than 10 micrometres.
PM _{2.5}	Particulate matter with an aerodynamic diameter of less than 2.5 micrometres.
micrograms per cubic metre (µg.m ⁻³)	A measure of concentration in terms of mass per unit volume. A concentration of 1µg.m ⁻³ means that one cubic metre of air contains one microgram (millionth of a gram) of pollutant.

APPENDIX B: PROPOSED DEVELOPMENT MASTERPLAN



SITE PLAN BASED ON TOPOGRAPHIC SURVEY BY SURVEY
OPERATIONS. REFER TO DRAWING A0 21G200/001 FOR FULL
DETAILS

DELIVERIES

PARKING SCHEDULE WITHIN APPLICATION BOUNDARY:

69 CAR PARKING SPACES (INC. 3 ACC., 8 EV, AND 58 STD CARS)
EXCLUDES MOTORCYCLE BAY

59 CAR PARKING SPACES LOST

	BITMAC ROAD
	EXISTING BITMAC FOOTPATH
	PROPOSED BITMAC FOOTPATH
	FOOTPATH BLOCK PAVIOURS
	CONCRETE YARD
	GRAVEL
	EXISTING SOFT LANDSCAPING
	EXTENDED AREAS OF SOFT LANDSCAPING

REV.A 07.03.23 UPDATED TO COMMENTS RECIEVED	AJP
REV. DATE NOTES	INIT.

CLIENT / PROJECT



DRAWING TITLE

ENLARGED SITE PLAN

STATUS **PLANNING**

DATE	DRAWN	SCALE @ A3
07.02.22	AJP	1:250

PROJECT NUMBER	UNIT / BLOCK	CI / SFB CODE	TYPE & NUMBER	REVISION LETTER
-------------------	-----------------	------------------	------------------	--------------------

DRAWING NO. _____

11390 PL L05 A

Site Location Plans	L	GA Plans	P	Elevations	E
Sections	S	Details	D	Prefix: Colour	C

THE RATCLIFFE GROVES PARTNERSHIP

MANCHESTER
105 MANCHESTER ROAD
BURY LANCASHIRE BL9 0TD
T. 0161 797 6000 E. manchester@rgp.uk.com
www.rgp.uk.com

LONDON
19 BEDFORD ROW
LONDON WC1R 4EB
T. 020 7600 6666 E. london@rap.uk.com



APPENDIX C: PLANNING POLICY AND LEGISLATION

National Legislation and Planning Policy

The UK Air Quality Strategy

European Union (EU) legislation forms the basis of air quality policy and legislation in the UK. The EU 2008 ambient Air Quality Directive¹ sets limits for ambient concentrations of air pollutants including nitrogen dioxide (NO₂) and particulate matter (PM₁₀ and PM_{2.5}). The air quality standards and objectives are prescribed through the Air Quality (England) Regulations 2000², as amended, for the purpose of the Local Air Quality Management Framework. The Air Quality (England) Regulations were amended in 2002⁵ and again in 2010⁶, with miscellaneous amendments added in 2020¹⁰ following the UK exit from the EU. Additionally, an updated PM_{2.5} objective was published in 2023¹¹ with an interim target to be achieved by 2028²³.

The UK Government are required under the Environment Act 1995³ to produce a national Air Quality Strategy (AQS). The AQS was first published in 1997⁷ and was most recently reviewed and updated in 2007⁸. The AQS provides an overview of the Government's ambient air quality policy and sets out the air quality standards and objectives to be achieved and measures to improve air quality.

The Environment Act 2021⁴ was granted Royal Assent in November 2021 and contains amendments to Part IV of the Environment Act 1995³ with regard to the Local Air Quality Management regime. Under the Environment Act 2021⁴, the Secretary of State must lay a statement before Parliament setting out progress made in meeting air quality objectives and standard in England and steps taken towards achieving the standards. The Environment Act 2021⁴ also places responsibility on local authorities to co-operate with air quality partners in the preparation of Air Quality Action Plans and identification of measures which should be monitored within the Plan and dates by which they should be implemented.

Part IV of the Environment Act³ requires local authorities in the UK to review local air quality within their administrative area and, if relevant air quality standards and objectives are likely to be exceeded, designate Air Quality Management Areas (AQMAs). Following the designation of an AQMA, local authorities are required to publish an Air Quality Action Plan (AQAP) detailing measures to be taken to improve local air quality and work towards meeting the relevant air quality standards and objectives.

National Planning Policy Framework

The National Planning Policy Framework (NPPF)¹² was amended in July 2021 and sets out the Government's planning policies for England and how these are expected to be applied.

The NPPF¹¹ recognises air quality within Section 15: Conserving and enhancing the natural environment, and states that:

"Planning policies and decisions should contribute to and enhance the natural and local environment by:

[...]

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans;

[...]

Ground conditions and pollution

[...]

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.

[...]

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."

With regard to assessing cumulative effects the NPPF⁶ states:

"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.

[...]"

Planning Practice Guidance

The Planning Practice Guidance (PPG) for air quality¹³ was updated in November 2019 and provides guiding principles on how the planning process can take account of the impacts of new development on air quality.

The PPG¹² sets out the following with regard to air quality and planning:

- "What air quality considerations does planning need to address;
- What is the role of plan-making with regard to air quality;

- *Air quality concerns relevant to neighbourhood planning;*
- *What information is available about air quality;*
- *When could air quality considerations be relevant to the development management process;*
- *What specific issues may need to be considered when assessing air quality impacts;*
- *How detailed does an air quality assessment need to be; and*
- *How can an impact on air quality be mitigated".*

The PPG¹³ sets out the pollutants for which there are legally binding limits for concentrations and those which the UK also has national emissions reduction commitments.

The PPG¹³ states that development plans may need to consider:

- *"what are the observed trends shown by recent air quality monitoring data and what would happen to these trends in light of proposed development and / or allocations;*
- *the impact of point sources of air pollution (pollution that originates from one place);*
- *the potential cumulative impact of a number of smaller developments on air quality as well as the effect of more substantial developments, including their implications for vehicle emissions;*
- *ways in which new development could be made appropriate in locations where air quality is or is likely to be a concern, and not give rise to unacceptable risks from pollution. This could, for example, entail identifying measures for offsetting the impact on air quality arising from new development including supporting measures in an air quality action plan or low emissions strategy where applicable; and*
- *opportunities to improve air quality or mitigate impacts, such as through traffic and travel management and green infrastructure provision and enhancement".*

The PPG¹³ also states what may be considered relevant to determining a planning application and these include whether a development would:

- *"Lead to changes (including any potential reductions) in vehicle-related emissions in the immediate vicinity of the proposed development or further afield. This could be through the provision of electric vehicle charging infrastructure; altering the level of traffic congestion; significantly changing traffic volumes, vehicle speeds or both; or significantly altering the traffic composition on local roads. Other matters to consider include whether the proposal involves the development of a bus station, coach or lorry park; could add to turnover in a large car park; or involve construction sites that would generate large Heavy Goods Vehicle flows over a period of a year or more;*
- *Introduce new point sources of air pollution. This could include furnaces which require prior notification to local authorities; biomass boilers or biomass-fuelled Combined Heat and Power plant; centralised boilers or*

plant burning other fuels within or close to an air quality management area or introduce relevant combustion within a Smoke Control Area; or extraction systems (including chimneys) which require approval or permits under pollution control legislation;

- *Expose people to harmful concentrations of air pollutants, including dust. This could be by building new homes, schools, workplaces or other development in places with poor air quality;*
- *Give rise to potentially unacceptable impacts (such as dust) during construction for nearby sensitive locations;*
- *Have a potential adverse effect on biodiversity, especially where it would affect sites designated for their biodiversity value".*

The PPG¹³ provides guidance regarding what should be included within an air quality assessment. Examples of potential air quality mitigation measures are also provided.

Local Planning Policy

Rochdale Adopted Core Strategy (2016 – 2031)

This Core Strategy sets out the long-term spatial strategy for future development of Rochdale Borough and establishes how much housing and employment growth should be planned for and where development should be located. It also identifies what facilities and infrastructure are needed to support that development and how the environment should be protected in order to improve the borough.

"DM1 - General development requirements

All development proposals, including changes of use of land and buildings, extensions and alterations, will be expected to demonstrate that they:

[...]

Do not have an adverse impact on health, through its impact or the effect of existing problems e.g. land contamination, or poor air quality;

[...]

DM2 - Delivering planning contributions and infrastructure

For all types of development, including housing, we will seek contributions for any infrastructure or other measures necessary to mitigate any on site or off-site impacts from the development.

These contributions may cover, dependent on need:

Mitigation or compensation against environmental impacts e.g. noise, air quality (particularly in Air Quality Management Areas);

[...]"

The above policies were taken into consideration throughout the undertaking of the assessment.

