



Air Quality Assessment

404 Wilbraham Road, Manchester

Armistead Property Limited

MAN.931.002.AQ.R.001.P01



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Air Quality Assessment - 404 Wilbraham Road, Manchester

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Non-Technical Summary

- i. This report provides an assessment of potential air quality impacts relating to a proposed residential development located at 404 Wilbraham Road, Manchester.
- ii. An Air Quality Assessment was provided to determine the baseline conditions at the site, determine site suitability for the proposed end-use and to consider the significance of development impacts.
- iii. A review of available baseline air quality sources indicates the site is not located in an area currently experiencing elevated pollutant concentrations. As such, exposure impacts were screened as not significant. Operational impacts associated with vehicles travelling to and from the site were screened against industry standard screening criteria, with associated impacts deemed not significant.
- iv. In summary, it is predicted that air quality impacts are not significant and should not form a constraint to planning consent.

1.0 Introduction

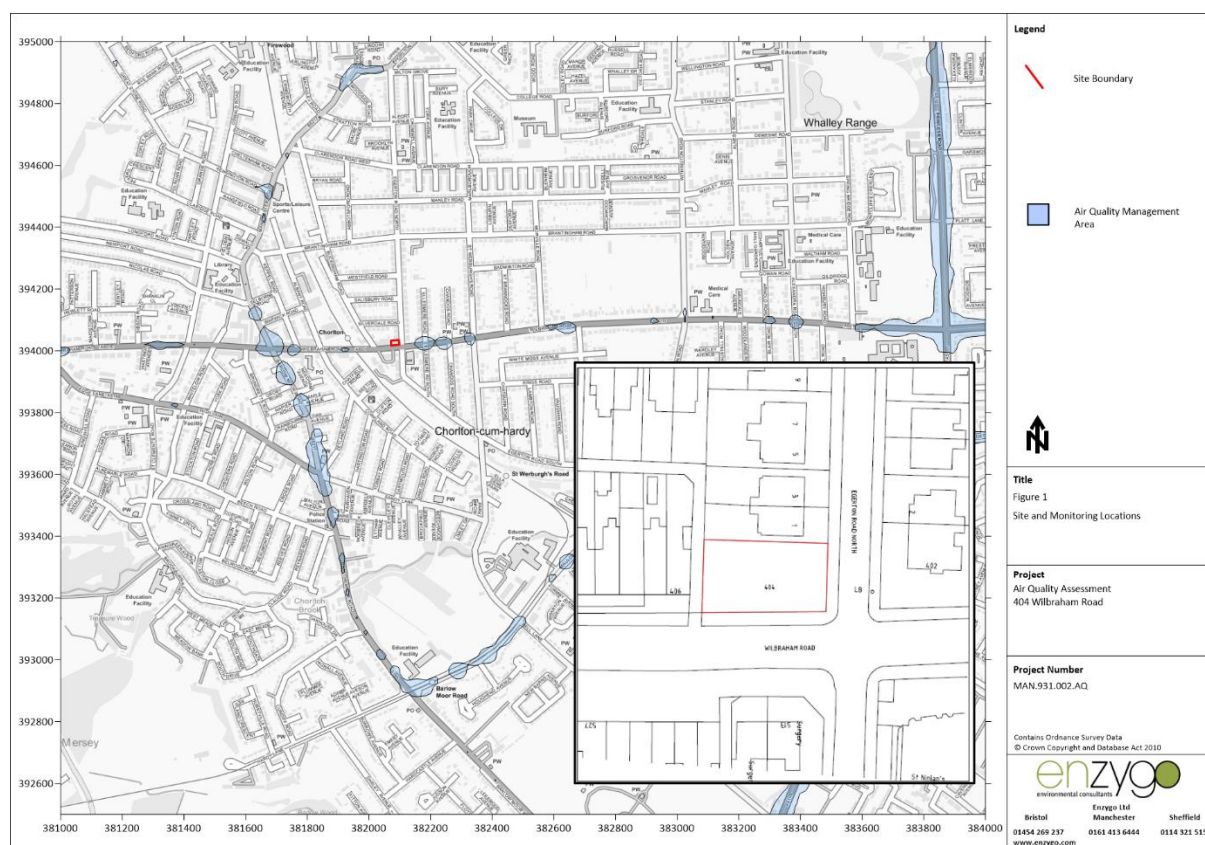
1.1 Background

- 1.1.1 Enzygo Limited (Ltd) was commissioned by Armistead Property Limited to produce an Air Quality Assessment (AQA) in support of a planning application for a residential development located at 404 Wilbraham Road, Chorlton, Manchester, M21 0SD referred to as the 'Proposed Development'.
- 1.1.2 The Proposed Development seeks full planning permission for the for the construction of a building for 8 flats, with access, informal amenity space, landscaping and associated works.
- 1.1.3 An AQA is required to determine existing baseline conditions at the site and assess site suitability for the proposed end-use.
- 1.1.4 Details of the assessment methodology, results and conclusions are presented within this report.

1.2 Site Location and Context

- 1.2.1 The Proposed Development site is located at the approximate National Grid Reference (NGR): 382080, 394020 in the suburban outer areas of Chorlton, Manchester. There are currently no permanent structures on the site which was previously used for garden equipment storage.
- 1.2.2 The site is bound to the north by the A6010 to the south and Egerton Road North to the east. The site is not with the Greater Manchester Air Quality Management Area (AQMA) which lies approximately 50 m to the east of the site boundary at its closest point.
- 1.2.3 Figure 1 shows the site location and context.

Figure 1: Site Boundary and Surrounding Context



1.3 Limitations

- 1.3.1 This report has been produced in accordance with Enzygo's standard terms of engagement. Enzygo has prepared this report solely for the use of the Client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from Enzygo; a charge may be levied against such approval.

2.0 Legislation, Guidance and Policy

The following legislation and guidance documents were considered during the preparation of the AQA:

- European Union (EU) Directive 2008/50/EC;
- The National Planning Policy Framework (NPPF), updated on 20th December 2023;
- The National Planning Practice Guidance (NPPG), relevant chapters produced on 1st November 2019;
- Section 82 of the Environment Act (1995) (Part IV);
- The Air Quality Standards (Amendment) Regulations (2016);
- The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, Department for Environment, Food and Rural Affairs (DEFRA)¹;
- Local Air Quality Management Technical Guidance (LAQM), DEFRA, August 2022²;
- Land-Use Planning and Development Control: Planning for Air Quality Guidance, Environmental Protection UK and IAQM³.

2.1 UK Legislation and National Strategy

- 2.1.1 Government policy requires the Secretary of State to publish a national Air Quality Strategy (AQS). The national AQS produced by DEFRA sets out the framework to reducing adverse impacts of air pollution upon human health, vegetation, and ecosystems. To achieve this the AQS defines air quality objectives (AQOs) for 10 key pollutant species, including nitrogen dioxide (NO₂), fine Particulate Matter (PM₁₀ and PM_{2.5}) which are relevant to this assessment.
- 2.1.2 In accordance with the Environment Act (1995), Local Authorities (LAs) have an obligation under the Local Air Quality Management (LAQM) process to periodically review and assess air quality within their administration to determine if specified pollutants are exceeding relevant objectives.
- 2.1.3 Should the LAQM process identify areas which are predicted to or currently exceeding relevant AQOs the LA is required to designate an AQMA. The AQMA is then accompanied by an Air Quality Action Plan (AQAP) which sets various measures and polices to improve air quality with the goal of restoring compliance with the AQOs. The process of LAQM is informed by DEFRA's Technical Guidance LAQM.TG22².
- 2.1.4 European Directive 2008/50/EC also sets out a similar approach to the AQS and defines limit values for the protection of human health and ecosystems. The Environmental Permitting (England and Wales) (Amendment) (EU Exit) Regulations 2019 ensures that the Environmental Permitting (EP) regime can continue following the UK's exit from the European Union (EU).
- 2.1.5 The regulations state also that exceedances of the objectives should be assessed in relation to air quality at locations which are situated outside of buildings or other natural or man-made structures, above or below ground, and where members of the public are regularly present.

¹ The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, DEFRA, 2007

² Local Air Quality Management Technical Guidance 2022 LAQM.TG22, DEFRA, August 2022.

³ Land-Use Planning and Development Control: Planning for Air Quality, EPUK and IAQM, January 2017.

2.1.6 AQOs applicable to this assessment are summarised in Table 1 with relation to human health receptors. It should be noted that site suitability was determined using these objectives.

Table 1: Air Quality Objectives

Pollutant	Air Quality Objectives	
	Concentration ($\mu\text{g}/\text{m}^3$)	Averaging Periods
NO ₂	40	Annual mean
	200	1-hour mean; not to be exceeded more than 18 times a year
PM ₁₀	40	Annual mean
	50	24-hour mean; not to be exceeded more than 35 times a year
PM _{2.5}	20	Annual mean

2.1.7 LAQM TG22² specifies locations where the AQOs should be applied as detailed in Table 2.

Table 2: Where Air Quality Objectives Apply

Averaging Period	Objectives Should Apply At	Objectives Should Not Apply At
Annual mean	All locations where members of the public might be regularly exposed, including building facades of residential properties, schools, hospitals, care homes etc.	Building facades of offices and places of work where members of the public do not have regular access Hotels, unless people live there as their permanent residence Gardens of residential properties Kerbside sites (as opposed to locations at the building facade), or any other location where public exposure is expected to be short term
24-hour mean	As above, together with hotels and gardens of residential properties	Kerbside sites (as opposed to locations at the building facade), or any other location where public exposure is expected to be short term
1-hour mean	As above and Kerbside sites such as pavements of busy shopping streets, parts of car parks, bus stations and railway stations etc. which are not fully enclosed, where members of the public might reasonably be expected to spend one hour or more, and any outdoor locations where members of the public might reasonably be expected to spend one hour or longer	Kerbside sites where the public would not be expected to have regular access

2.1.8 Based on the proposed residential use the Proposed Development would be sensitive to all exposure periods detailed in Table 2.

2.2 Local Planning Policy

2.2.1 The Proposed Development site is located within Manchester City Council's (MCC) area of administration.

The Places for Everyone Joint Development Plan

2.2.2 The Places for Everyone Joint Development Plan was adopted on the 21 March 2024. Places for Everyone is a long-term plan of nine Greater Manchester districts (Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan) for jobs, new homes, and sustainable growth. This plan sets out how the borough should develop up until 2039. A review of the Development Plan indicated the following policies in relation to air quality:

“A comprehensive range of measures will be taken to support improvements in air quality, focusing particularly on locations where people live, where children learn and play, where there are impacts on the green infrastructure network and where air quality targets are not being met, including:

- 1. Locating and designing development, and focusing transport investment, so as to reduce reliance on forms of transport that generate air pollution;*
- 2. Determining planning applications having regard to the most recent development and planning control guidance published jointly by the Institute of Air Quality Management (IAQM) and Environmental Protection UK (EPUK), and the most recent IAQM Guidance on the Assessment of Dust from Demolition and Construction, or relevant successor guidance, including the requirement for developers to submit construction management plans as appropriate;*
- 3. Requiring applications for developments that could have an adverse impact on air quality to submit relevant air pollution data so that adverse impacts on air quality can be fully assessed and development only permitted where they are acceptable and/or suitable mitigation can be provided;*
- 4. Restricting developments that would generate significant point source pollution such as some types of industrial activity and energy generation;*
- 5. Significantly expanding the existing commercial network of electric vehicle charging points, both for public and private use, including as part of new developments;*
- 6. Implementing the Clean Air and associated measures;*
- 7. Facilitating the more sustainable distribution of goods within the urban area, including through accommodating urban consolidation centres and urban distribution centres that use ultra low-emission vehicles, and local delivery facilities to reduce repeat delivery attempts;*
- 8. Designing streets to avoid trapping air pollution at ground level, including through the appropriate location and scale of buildings and trees;*
- 9. Controlling traffic and parking within and around schools, early years sites and other locations that are particularly sensitive to air quality;*
- 10. Promoting actions that help remove pollutants from the air, such as enhancing the green infrastructure network and using innovative building materials that capture air pollutants; and*
- 11. Development should be located in areas that maximise the use of sustainable travel modes and be designed to minimise exposure to high levels of air pollution, particularly for vulnerable users.”*

Manchester City Council Core Strategy

2.2.3 The Manchester Local Development Plan (LDP) Core Strategy was formally adopted in 2012 and guides development within the city. The LDP comprises a number of documents which set out Manchester City Council's (MCC's) spatial policy framework for delivering a number of policies contained within the Core Strategy and provide the basis for the determination of planning applications prior to the finalisation of the local development framework.

2.2.4 A review of the Core Strategy indicated the following policy in relation to air quality that relevant to this assessment.

Policy EN16 - Air Quality

“The Council will seek to improve the air quality within Manchester, and particularly within Air Quality Management Areas, located along Manchester's principal traffic routes and at Manchester Airport. Developers will be expected to take measures to minimise and mitigate the local impact of emissions from traffic generated by the development, as well as emissions

created by the use of the development itself, including from Combined Heat and Power and biomass plant.

- 2.2.5 *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. This could also include proposals which would be sensitive to existing environmental conditions, such as noise."

2.3 Greater Manchester Air Quality Action Plan

- 2.3.1 MCC is a part of the Greater Manchester Air Quality Action Plan (AQAP) which has involved a review of the strategies, policies and plans which tackle or are in some way related to air quality, to develop a clear, robust and meaningful set of actions which will deliver real changes in terms of air quality, whilst supporting the sustainable economic growth of the region.
- 2.3.2 The primary objectives of the AQAP are to improve air quality across Greater Manchester and to embed low-emission behaviours into the culture of our organisations and lifestyles by 2025, whilst supporting the UK Government in meeting all EU thresholds for key air pollutants. The Plan identifies 'Key Priority Areas' which are generally locations near to major roads and heavily trafficked areas in Manchester city centre, and other major urban centres across the other nine districts.
- 2.3.3 The AQAP comprises a single document including actions that will be ratified by Transport for Greater Manchester (TfGM) and district authorities to tackle air quality in Key Priority Areas, whilst supporting the sustainable economic growth of the region. This plan will allow councils to carry out their statutory duties under Part IV of the Environment Act 1995, as its implementation will help mandatory EU limit values to be met.
- 2.3.4 Reference has been made to these policies during the undertaking of this AQA by assessing impact generated by the Proposed Development, as well as onsite exposure.

3.0 Methodology

3.1 Scope

3.1.1 NO₂ and fine PM emissions associated with the local road network have potential to introduce future site occupiers to an area of existing poor air quality. The Proposed Development includes relevant exposure to long and short term pollutant concentrations. In accordance with LAQM (TG22)² annual, 1-hour and 24-hour mean objectives were considered with relation to on-site pollutant exposure.

3.1.2 On-site conditions within the assessment extents were considered by a review of the following:

- Local emissions sources;
- Air quality management areas;
- Local air monitoring data; and
- Background concentrations produced by DEFRA⁴.

⁴ <https://uk-air.defra.gov.uk/data/laqm-background-maps?year=2018>

4.0 Assessment

Available air quality data and the site surroundings were reviewed to provide an assessment of on-site conditions.

4.1 Emission Sources

4.1.1 The main sources of pollutants within the vicinity of the site are road emissions from the A6010 Wilbraham Road. The kerbside of the road is approximately 4 m from the southern site boundary and 8 m from the proposed building façade. Such locations are defined as 'roadside' rather than 'kerbside' in DEFRA technical guidance TG22².

4.1.2 Pollutants of concern in the UK from road traffic sources are NO₂ and PM. There are no other significant emission sources in the study area and therefore this assessment will focus on these pollutants.

4.2 Air Quality Management Areas

4.2.1 As required by the Environment Act (1995), Greater Manchester Combined Authority (GMCA), which includes MCC, have undertaken Review and Assessment of air quality within their area of administration. This process has indicated that annual mean concentrations of NO₂ could be the above AQO within the area. As such, one AQMA has been declared which is described as:

"Greater Manchester AQMA - An area covering the 10 districts of Greater Manchester, including arterial routes, district centres and airport."

4.2.2 GMCA has concluded that concentrations of all other pollutants considered within the AQS are currently below the relevant AQOs and as such no further AQMAs have been declared. This indicates that PM concentrations are not a concern in the vicinity of the site.

4.2.3 The site is not located within the AQMA although there are portions of Wilbraham Road which have been included and the nearest areas are located approximately 50 m east of the site boundary. Figure 1 shows the Greater Manchester AQMA and its location with respect to the site.

4.2.4 This indicates that pollutant concentrations would be below the AQOs across the Proposed Development site.

4.3 Local Air Quality Monitoring

Annual Mean Concentrations

4.3.1 Monitoring of pollutant concentrations is undertaken by MCC and Trafford Metropolitan Borough Council (TMBC) using continuous and periodic methods throughout their area of administration.

4.3.2 Based on data provided in the GMCA 2024 Annual Status Report (ASR)⁵ shows a graphical representation of the monitoring locations within 3.5 km of the Proposed Development site.

⁵ 2024 Air Quality Annual Status Report, GMCA, June 2025

Figure 2: Monitoring Locations



4.3.3 There are two automatic monitoring locations within 3.5 km of the site operated by TMBC at a roadside and an urban background location. Monitoring results for NO₂ and PM₁₀ from these sites from recent years are shown in Table 3.

Table 3: Automatic Analyser Annual Mean Monitoring Results

ID	Site Name	Type	NGR (m)		Dist' to Site (m)	Pollutant	Annual Mean Concentration (µg/m³)			
			X	Y			2021	2022	2023	2024
TRAF	Trafford	Urban Background	378783	394726	3,371	NO ₂	15	15	14.4	12.4
						PM ₁₀	13	17	11.1	11.2
TRF2	Trafford A56	Roadside	379413	394014	2,669	NO ₂	23	24	20.7	20.2
						PM ₁₀	14	16	12.9	12.8

4.3.4 Table 3 shows that annual mean concentrations at both locations were well below the AQOs for NO₂ and PM₁₀. Roadside concentrations measured at the TRAF monitor are considered a worst case representation of annual mean concentrations at the Proposed Development site. Monitored concentrations here were well below the AQOs for both pollutants for all recent years.

4.3.5 MCC and TMBC also monitor annual mean NO₂ concentrations across the borough using passive diffusion tubes. A review of the most recent air quality monitoring data indicated twenty two diffusion tubes located within 3.5 km of the site. Monitoring data from recent years has been presented in Table 4. Exceedances of the relevant AQO are highlighted in bold.

Table 4: Diffusion Tube Monitoring Results

ID	Type	NGR (m)		Dist' to Site (m)	Annual Mean NO ₂ Concentration (µg/m ³)			
		X	Y		2021	2022	2023	2024
TR32NO	Urban Background	381525	395325	1,414	-	-	16.3	
TR9NO	Urban Background	380933	395889	2,189	20.1	18.4	19.8	18.6
CAP_TRAF_024	Roadside	380191	395162	2,205	-	31.1	-	-
CAP_TRAF_023	Roadside	380160	395156	2,228	-	30.6	-	-
CAP_TRAF_022	Kerbside	380673	395833	2,291	-	35.1	34	29.1
CAP_TRAF_021	Kerbside	380617	395816	2,313	-	36	-	-
CAP_TRAF_010	Roadside	379413	394016	2,667	-	23.9	21.6	20.8
TR20NO	Roadside	379411	394014	2,669	23.9	23.4	-	21.1
TR20ANO	Roadside	379411	394014	2,669	23.9	23.4	-	-
TR20BNO	Roadside	379411	394014	2,669	23.9	23.4	-	-
CAP_MANC_035	Roadside	382792	391430	2,691	31.2	33.7	31.2	29.8
CAP_TRAF_012	Roadside	379352	393804	2,737	22.2	29.2	-	-
CAP_MANC_032	Roadside	382726	391364	2,738	26	29.5	-	-
CAP_TRAF_014	Roadside	379313	393769	2,779	25.2	27.1	-	-
TR26NO	Kerbside	379272	393666	2,831	30.0	-	-	-
TR26ANO	Kerbside	379272	393666	2,831	30.0	-	-	-
CAP_TRAF_011	Roadside	379268	393579	2,847	25.2	31.6	-	-
CAP_MANC_031	Roadside	382637	391216	2,864	24.3	27.5	-	-
CAP_TRAF_015	Roadside	379239	393597	2,873	30.4	30	-	-
CAP_TRAF_013	Roadside	379209	393465	2,925	37.1	40.6	37.7	35.3
CAP_MANC_009	Roadside	382561	397060	3,073	34.9	37.9	32.9	31.8
TR15NO	Roadside	379089	393282	3,082	22.9	22.3	22.2	19.7

4.3.6 Roadside monitoring locations are considered as the most representative of the Proposed Development site. These monitors are all located on a main arterial route to Manchester city centre, the A56, typically with an annual average daily traffic (AADT) between approximately 30,000 and 40,000⁶ vehicles whereas the site is located near a less busy A-road, the A6010, with a typical AADT of approximately 13,000 vehicles. In addition, the highest concentrations near the A56 are recorded at locations close to the M60 motorway.

4.3.7 The monitoring indicates that NO₂ concentrations were below the annual mean AQO in recent years with the exception of CAP_TRAF_013 which just exceeded the AQO in 2022. This monitor is located near the roadside of the A56 at Junction 7 of the M60 and is not considered representative of Proposed Development site conditions.

4.3.8 The most representative monitoring locations, albeit still considered as an overestimate of likely site conditions, are the 2 roadside monitors located on the northern section of the A56 (CAP_TRAF_021 and CAP_TRAF_22). AADT traffic at these locations is approximately 25,000 vehicles on a dual carriageway and the monitors are located between 2.5 m and 3.1 m of the roadside. The proposed facade of the development is 8 m from the kerbside of a single

⁶ <https://roadtraffic.dft.gov.uk/>

carriageway road. The monitors recorded a maximum annual mean NO₂ concentration of 36 µg/m³ in 2022 and the most recent measurement, in 2024, was less than 30 µg/m³.

4.3.9 The two urban background monitoring locations are at Trafford Town Hall and Moss Park School. The maximum monitored annual mean NO₂ concentration in recent years at the background locations was 20.1 µg/m³.

Short Term NO₂ Concentrations

4.3.10 The automatic monitors within the vicinity of the site monitor 1-hour mean NO₂ concentrations. Results from these monitors are shown in Table 5.

Table 5: Automatic Analyser NO₂ 1-Hour Mean Monitoring Results

ID	Site Name	Type	NGR (m)		Dist' to Site (m)	1-Hour Means > 200 µg/m ³			
			X	Y		2021	2022	2023	2024
TRAF	Trafford	Urban Background	378783	394726	3,371	0	0	0	0
TRF2	Trafford A56	Roadside	379413	394014	2,375	0	0	0	0

4.3.11 The 1-hour mean AQO for NO₂ allows for 18 exceedances of the objective in a year. Table 5 indicates that the AQO was not exceeded for any 1-hour period in recent years.

4.3.12 In addition, DEFRA has produced technical guidance LAQM (TG22)² to assist local authorities with their review and assessment of air quality. As stated in TG22 if annual mean NO₂ concentrations are below 60 µg/m³ then it is unlikely that the 1-hour AQO will be exceeded. As such it is not considered that concentrations will exceed the 1-hour mean AQO for NO₂ across the development site in current or future years.

Short Term PM₁₀ Concentrations

4.3.13 The automatic monitors within the vicinity of the site also monitor 24-hour mean PM₁₀ concentrations. Results from these monitors are shown in Table 6.

Table 6: Automatic Analyser PM₁₀ 24-Hour Mean Monitoring Results

ID	Site Name	Type	NGR (m)		Dist' to Site (m)	24-Hour Means > 50 µg/m ³			
			X	Y		2021	2022	2023	2024
TRAF	Trafford	Urban Background	378783	394726	3,371	0	4	0	0
TRF2	Trafford A56	Roadside	379413	394014	2,375	0	4	0	0

4.3.14 The 24-Hour mean AQO for PM₁₀ allows for 35 exceedances of the objective in a year. Table 6 indicates that the AQO was only exceeded for four 1-hour periods at each location in 2022. 24-hour mean PM₁₀ concentrations are therefore considered well within the AQO at the Proposed Development site.

4.3.15 TG22² also provides guidance on estimating the number of days that the 24-hour mean AQO would be exceeded based on annual mean concentrations and using the formula below:

$$\text{No. 24-hour mean exceedances} = -18.5 + 0.00145 \times \text{annual mean}^3 + (206/\text{annual mean})$$

4.3.16 Using a maximum measured roadside annual mean concentration of 17 µg/m³ as given in Table 3 it is predicted that the 24-hour mean would be exceeded for less than 1 day per year.

4.4 PM_{2.5} Concentrations

- 4.4.1 No monitoring of PM_{2.5} concentrations takes place within the vicinity of the site. Therefore, it is not possible to derive a local PM₁₀ to PM_{2.5} concentration ratio.
- 4.4.2 Where no appropriate local sites measuring both PM₁₀ and PM_{2.5} are available, LAQM (TG22)² advises that a nationally derived correction factor can be used to subtract from the annual mean PM₁₀ concentration. For 2024 data, this is given as 6.0 for roadside sites⁷. Based on the 2024 annual mean monitored roadside PM₁₀ concentration in Table 3 it is estimated that PM_{2.5} concentrations at the Proposed Development site would be 12.8 – 6.0 = 6.8 µg/m³ which is well below the AQO of 20 µg/m³.

4.5 DEFRA Background Concentrations

- 4.5.1 Predictions of background pollutant concentrations on a 1 km by 1 km grid basis have been produced by DEFRA⁴ for the UK to assist LAs in their Review and Assessment of air quality. The site is located in grid square NGR: 382500, 394500. Background NO₂, PM₁₀ and PM_{2.5} data for 2026 at this location was downloaded from the DEFRA website and is summarised in Table 7.

Table 7: DEFRA Background Pollutant Concentrations

Pollutant	Predicted 2026 Background Concentration (µg/m ³)
NO ₂	13.4
PM ₁₀	12.5
PM _{2.5}	7.5

- 4.5.2 The background concentrations shown in Table 7 are similar to urban background monitored levels within the vicinity of the site and provide further indication that concentrations of NO₂ and PM are not currently above the AQOs (less than 50% of the AQOs) and would not cause significant adverse impacts for future site users.

4.6 Summary of Predicted On-site Concentrations

- 4.6.1 The Proposed Development site's facade is located 8 m from the roadside with an approximate AADT volume of 13,000. The maximum recorded annual mean NO₂ concentration in recent years at a location twice as close to the roadside with approximately double the traffic volume and twice the number of traffic lanes was below the AQO was 36.0 µg/m³.
- 4.6.2 Notably, the roadside automatic monitor at the A56, the most accurate monitoring in the study area, measured annual mean NO₂ and PM₁₀ concentrations well below the AQOs in recent years.
- 4.6.3 Annual mean PM concentrations are well below the AQO at all monitoring locations.
- 4.6.4 As stated in the GMCA ASR long-term trends in Greater Manchester show an improvement in air quality for NO₂, PM₁₀ and PM_{2.5}.
- 4.6.5 Short term concentrations at roadside monitoring locations near major roads in the study area are all well below the relevant AQOs for NO₂ and PM₁₀.
- 4.6.6 The Proposed Development site is not located within the Greater Manchester AQMA which represented potential exceedances of the annual mean AQO when it was produced using modelling in 2016.

⁷ <https://laqm.defra.gov.uk/air-quality/air-quality-assessment/estimating-pm2-5-from-pm10-measurements/>

4.6.7 Defra predicted background concentrations are well below the AQOs for all pollutants.

4.6.8 Based on the monitoring results, predicted background concentrations and taking the location of the Proposed Development site into consideration it is predicted with confidence that concentrations of NO₂ and PM across the Proposed Development site are below the relevant AQOs and that the proposed residential use of the site would be acceptable from an air quality perspective. Mitigation measures are not required to make the development acceptable.

Off-Site Road Traffic Exhaust Impacts

4.6.9 The EPUK and IAQM guidance document states the following criteria to help establish when an air quality assessment is likely to be considered necessary:

- Changes in Light Duty Vehicle (LDV) flows of more than 100 Annual Average Daily Traffic (AADT) flows within or adjacent to an AQMA; and
- Changes in Heavy Duty Vehicle (HDV) flows of more than 25 AADT flows within or adjacent to an AQMA.

4.6.10 Where development traffic data falls below the thresholds, impacts are considered not significant and no further assessment is required.

4.6.11 The Proposed Development does not provide additional parking provision and is effectively considered car free.

4.6.12 As such, the anticipated traffic generation falls well below the IAQM assessment criteria and impacts relating to road traffic emissions can be considered as not significant.

5.0 Conclusions

- 5.1.1 Enzygo Ltd was commissioned by Armistead Property Limited to produce an AQA in support of a planning application for a residential development located at 404 Wilbraham Road, Manchester to determine existing baseline conditions at the site and assess site suitability for the proposed end-use.
- 5.1.2 A review of worst case roadside monitoring data closer to busier roads in the area indicated that NO₂ and PM concentrations would be expected to be below the relevant AQOs across the site.
- 5.1.3 In addition, the site is not located within the Greater Manchester AQMA and predicted background concentrations in the area are well below the AQOs. On-site NO₂ and PM concentrations were therefore determined as not significant and there is no requirement for the provision of mitigation measures.
- 5.1.4 The Proposed Development would generate a negligible amount of additional traffic and impacts during operation would be not significant.
- 5.1.5 Based on the assessment, air quality is not considered as a constraint to planning permission.

6.0 Abbreviations

AADT	Annual Average Daily Traffic
AQAP	Air Quality Action Plan
AQMA	Air Quality Management Area
AQO	Air Quality Objective
AQS	Air Quality Strategy
ASR	Annual Status Report
DEFRA	Department for Environment, Food and Rural Affairs
EPUK	Environmental Protection UK
EU	European Union
HDV	Heavy Duty Vehicle
IAQM	Institute of Air Quality Management
LA	Local Authority
LAQM	Local Air Quality Management
LDV	Light Duty Vehicle
MCC	Manchester City Council
NGR	National Grid Reference
NO ₂	Nitrogen dioxide
NO _x	Oxides of nitrogen
NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance
PM ₁₀	Particulate matter with an aerodynamic diameter less than 10 µm
PM _{2.5}	Particulate matter with an aerodynamic diameter less than 2.5 µm
TMBC	Trafford Metropolitan Borough Council