



Air Quality Assessment for Proposed redevelopment of the existing residential property into a new residential dwelling at Little Nook Farm, Heywood Old Road, Manchester, M24 4GS.

Prepared for:

SM Properties,
Little Nook Farm,
Heywood Old Road,
Manchester,
M24 4GS.

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Contents

1. Introduction	3
Site Location and Context	3
2. Policy and Guidance	4
Local Guidance	5
Local Situation	6
3. Proposed Development	8
4. Construction Impacts on Local Air Quality	8
Assessment of Risk	9
The Assessment	13
Step 1	14
Step 2	14
Step 3	16
5. Operational Phase	18
Impact from the development	18
Impact on the development	21
6. Conclusion	23
Figure 1 – Aerial Photograph	25
Figure 2 – Proposed Layout Plan	26
Appendix A – Construction Mitigation Measures	27



1. Introduction

- 1.1. Martin Environmental Solutions has been commissioned to undertake an air quality assessment to support a planning application for a residential development on land at Little Nook Farm, Heywood Old Road, Manchester, M24 4GS.

Site Location and Context

- 1.2. The development site is situated to the east of Heywood Old Road, with the exiting property located at a lower level than the road, Gardens are located to the front and, north and rear of the site, with a sunken patio area behind the property and car parking and a garage to the rear. To the northeast is a single detached property and to the north and east open agricultural fields. Existing housing lies to the south and on the far side of the road to the south and north west with more agricultural fields to beyond.
- 1.3. An aerial Photograph is enclosed in Figure 1, together with a proposed layout drawing in Figure 2.
- 1.4. The report has been produced to clarify the potential impact both from-and-on air quality in the vicinity of the proposed development and to identify mitigation measures if required to ensure the development is appropriate in terms of the impact from-and-on air quality.



2. Policy and Guidance

- 2.1. The Government sets out its policy on air quality in relation to planning in the new December 2024 National Planning Policy Framework (NPPF). The NPPF states that planning policies should sustain compliance with and contribute towards compliance with relevant limit values or national objectives for pollutants, considering the presence of Air Quality Management Areas. The NPPF adds that planning decisions should ensure that any new development in Air Quality Management Areas is consistent with the local air quality action plan.
- 2.2. The government have also published the Planning Practice Guidance Note (PPG-A)¹ on Air quality, the latest update being November 2019. This provides further guidance on the how air quality considerations should be taken within the planning process. Identifying the need to consider declared AQMA's, clean air zones and sensitive habitats within decision making.
- 2.3. The PPG-A note highlights the need to consider observed trends in air quality monitoring data and the cumulative impacts of development as well as identifying opportunities to improve air quality.
- 2.4. The guidance document highlights that in order to determine where air quality is a relevant consideration for planning a local planning authority may need to establish;
- The baseline local air quality
 - Whether the development could significantly change air quality
 - Whether occupiers of the development could experience poor living conditions or health as a result of poor air quality.
- 2.5. In addition, the Institute of Air Quality Management have published a number of guidance documents relevant to planning and air quality. In the absence of any national air quality assessment guidance or specific locally approved supplementary guidance these are frequently used across the country as a basis for the assessment of air

¹ <https://www.gov.uk/guidance/air-quality--3>



quality. These cover the construction phase of the development and the operational phase.

Local Guidance

- 2.6. Rochdale Borough Council, as part of the wider Greater Manchester Authority has identified guidance for developers in relation to air quality and planning and have published the *“Greater Manchester Air Quality Action Plan 2016-2021”* and the *“Manchester City Council Air Quality & Planning Technical Guidance, August 2022”* with the *Clean Air Plan* being published more recently. The above documents point developers towards the Institute of Air Quality Management Guidance as a key document for undertaking air quality assessments.
- 2.7. The Institute of Air Quality Management ‘*Land-Use Planning & Development Control: Planning For Air Quality, January 2017v1.2*’ guidance document identifies the importance of air quality within the planning system and suggests a suitable approach to the consideration and evaluation of air quality within the planning process.
- 2.8. The guidance suggests a staged approach, starting with the incorporation of good design within the proposed application, moving onto recommendations on criteria to trigger an air quality assessment.
- 2.9. Stage 1 criteria for proceeding to stage 2 are:
- Ten or more residential units or a site area of more than 0.5ha
 - More than 1000m² of floor space, or a site greater than 1ha
- Coupled with
- Development has more than ten parking spaces
 - The development will have a centralised energy facility or other centralised combustion process.
- 2.10. The next stage looks at indicative criteria for requiring an air quality assessment, Table 6.2 of the guidance. The table identifies indicative criteria for when to proceed to an Air Quality Assessment. The first line considers a change in LDV flows of more than 100 AADT within or adjacent to a declared AQMA and more than 500 elsewhere.



- 2.11. The determination on whether a simple or detailed assessment is then determined based on the existing situation, any predicted change in the location without the potential significance of the development.

Local Situation

- 2.12. In 2016 as part of the Greater Manchester Combined Authority AQMA an area to the southeast of the site around junction 19 of the M60 was declared an Air Quality Management Area (AQMA) for the exceedance of the annual mean objective of Nitrogen Dioxide (NO₂) and Particulate Matter (PM₁₀). The AQMA includes several busy junctions within the administrative area, including the junction of Manchester Old Road and Heywood Old Road to the south of the site.
- 2.13. The Council also undertake a programme of Nitrogen Dioxide Diffusion tube monitoring across the borough. A review of the available data confirms that the nearest monitoring point is a diffusion tube located on the junction of Manchester Old Road and Heywood Old Road. Traffic flows at the junction will be considerably higher than those in front of the development site and as such pollutant levels are likely to be lower at the development location. .
- 2.14. This monitoring point identifies falling NO₂ levels, with the latest results at 26.7µg/m³, (2024) ref CAP_Bury_008, with another monitoring point to the north of the junction roundabout at 21.9 7µg/m³ ref Bury 1, both significantly below the objective value of 40µg/m³.
- 2.15. In, addition, the DEFRA background maps identify the background pollutant concentrations as 12.15945µg/m³ Nitrogen Dioxide and 12.50196µg/m³ PM₁₀ for 2026. Again, the figures suggest a reduction from historic predictions and continue to reduce into the future.



Dust Nuisance

- 2.16. The main requirements with respect to dust control from industrial or trade premises not regulated under the Environmental Permitting (England and Wales) Regulations (2010) and subsequent amendments is provided in Section 79 of Part III of the Environmental Protection Act (1990).
- 2.17. The Act defines nuisance as:
"any dust, steam, smell or other effluvia arising on industrial trade or business premises and being prejudicial to health or a nuisance."
- 2.6. Enforcement of the Act, with regard to nuisance, is currently under the jurisdiction of the local Environmental Health Department, whose officers are deemed to provide an independent evaluation of nuisance. If the LA is satisfied that a statutory nuisance exists, or is likely to occur or happen again, it must serve an Abatement Notice under Part III of the Environmental Protection Act (1990).
- 2.7. Via formal action the council can insist that there be no dust beyond the boundary of the works. The only defence is to show that the process to which the nuisance has been attributed and its operation are being controlled according to Best Practice Measures (BPM).



3. Proposed Development

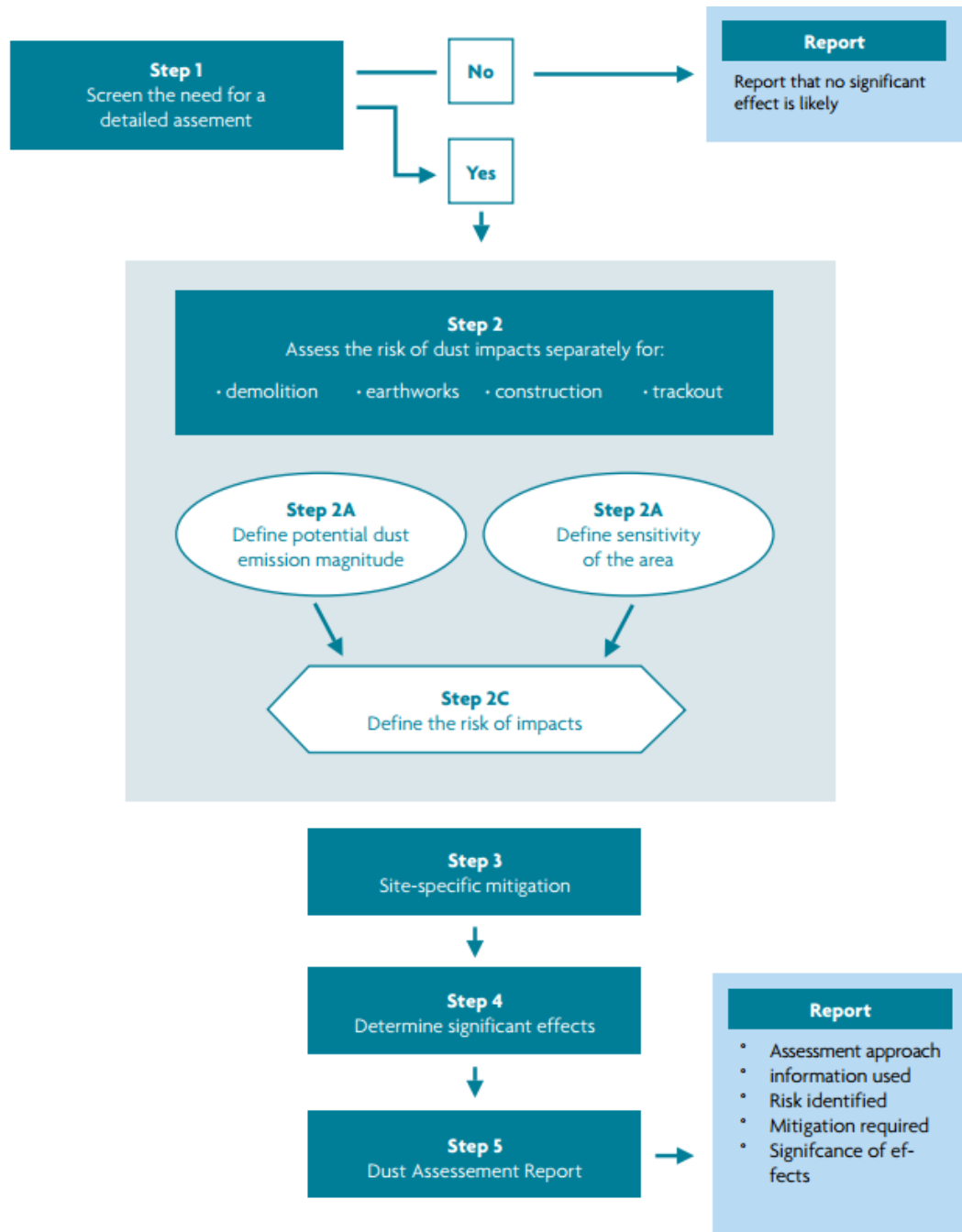
- 3.1. The proposed development consists of the demolition of the existing dwelling and erection of nine detached dwellings on the site.
- 3.2. Figure 2 below provides an overview of the proposed development.

4 Construction Impacts on Local Air Quality

- 4.1. During the construction phase, there will be a number of activities undertaken which have the potential to generate and/or re-suspend dust and PM₁₀/PM_{2.5}. Such activities include site clearance and preparation, storage of materials, laying of hard surfaces and landscaping.
- 4.2. Dust comprises particles typically in the size range 10-75 micrometres in aerodynamic diameter and is created through the action of crushing and abrasive forces on materials. Due to its relatively large size dust is usually only resident in the air for a short period of time after initial release and falls out of suspension fairly quickly. Dust is therefore unlikely to cause long-term or widespread changes to the air quality of the area; however, its deposition on property and cars can cause soiling and discoloration resulting in nuisance complaints from surrounding properties.
- 4.3. Small particles of dust are known as particulate matter (PM₁₀/PM_{2.5}) and are small enough to be drawn into the lungs of people during breathing, which may have adverse reactions to sensitive members of the public. As a result of the potential impacts on health objectives for PM₁₀ have been defined in the Air Quality Strategy and Regulations.
- 4.4. There is also the potential for traffic associated with the construction activities on the site to have an effect on local pollution concentrations, in particular NO_x/NO₂ and PM₁₀/PM_{2.5} levels. The potential for construction traffic emissions to be a significant issue will be dependent on existing and likely future concentrations in the vicinity of the proposed development and the anticipated magnitude of the construction traffic.

Assessment of Risk

4.5. The IAQM guidance 'Guidance on the assessment of dust from demolition and construction 2024, IAQM V2.2' details a 5-stage process for assessing the impacts from the construction phase of the development, as depicted in the chart below:





- 4.6. The IAQM guidance considers the magnitude of potential dust emissions from four distinct activities during the construction phase. These are Demolition, Earthworks, Construction and Trackout, and the magnitude is rated as either large, medium or small for each activity. The guidance also allows for a screening of when an assessment should be undertaken, typical where a human receptor is located within 250m of the site and an ecological receptor within 50m of the site.
- 4.7. In the case of the proposed development there are numerous residential properties adjacent to and within 250m of the site.
- 4.8. The document provides guidance on determining the potential dust emission magnitude of the development (the potential for emissions to occur). The sensitivity of the area based on the type of receptor, the number and distance from the site and for three different affects, dust soiling, human health impacts and ecology.
- 4.9. Four distances are recommended, <20m, <50m, <100m, and <350m. The following tables are used within the guidance document to assess the sensitivity of the receptors to dust soiling, human health and ecology.
- 4.10. The following tables are used within the guidance document to assess the sensitivity of the receptors to dust soiling, human health, and ecology.



Table 2: Sensitivity of the Area to Dust Soiling Effects on People and Property ^{a b}

Receptor Sensitivity	Number of Receptors	Distance from the Source (m) ^c			
		<20	<50	<100	<350
High	>100	High	High	Medium	Low
	10-100	High	Medium	Low	Low
	1-10	Medium	Low	Low	Low
Medium	>1	Medium	Low	Low	Low
Low	>1	Low	Low	Low	Low

^a The sensitivity of the area should be derived for each of the four activities: demolition, construction, earthworks and trackout. See **STEP 2B, Box 6** and **Box 9**.

^b Estimate the total number of receptors within the stated distance. Only the *highest level* of area sensitivity from the table needs to be considered. For example, if there are 7 high sensitivity receptors < 20m of the source and 95 high sensitivity receptors between 20 and 50 m, then the total of number of receptors < 50 m is 102. The sensitivity of the area in this case would be high.

^c For trackout, the distances should be measured from the side of the roads used by construction traffic. Without site-specific mitigation, trackout may occur from roads up to 500 m from large sites, 200 m from medium sites and 50 m from small sites, as measured from the site exit. The impact declines with distance from the site, and it is only necessary to consider trackout impacts up to 50m from the edge of the road.

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

Receptor Sensitivity	Annual Mean PM ₁₀ concentration ^c	Number of Receptors ^d	Distance from the Source (m) ^e				
			<20	<50	<100	<200	<350
High	>32 µg/m ³ (>18 µg/m ³ in Scotland)	>100	High	High	High	Medium	Low
		10-100	High	High	Medium	Low	Low
		1-10	High	Medium	Low	Low	Low
	28-32 µg/m ³ (16-18 µg/m ³ in Scotland)	>100	High	High	Medium	Low	Low
		10-100	High	Medium	Low	Low	Low
		1-10	High	Medium	Low	Low	Low
	24-28 µg/m ³ (14-16 µg/m ³ in Scotland)	>100	High	Medium	Low	Low	Low
		10-100	High	Medium	Low	Low	Low
		1-10	Medium	Low	Low	Low	Low
	<24 µg/m ³ (<14 µg/m ³ in Scotland)	>100	Medium	Low	Low	Low	Low
		10-100	Low	Low	Low	Low	Low
		1-10	Low	Low	Low	Low	Low
Medium	>32 µg/m ³ (>18 µg/m ³ in Scotland)	>10	High	Medium	Low	Low	Low
		1-10	Medium	Low	Low	Low	Low
	28-32 µg/m ³ (16-18 µg/m ³ in Scotland)	>10	Medium	Low	Low	Low	Low
		1-10	Low	Low	Low	Low	Low
	24-28 µg/m ³ (14-16 µg/m ³ in Scotland)	>10	Low	Low	Low	Low	Low
		1-10	Low	Low	Low	Low	Low
	<24 µg/m ³ (<14 µg/m ³ in Scotland)	>10	Low	Low	Low	Low	Low
		1-10	Low	Low	Low	Low	Low
Low	-	≥1	Low	Low	Low	Low	Low

Table 4: Sensitivity of the Area to Ecological Impacts^{a b}

Receptor Sensitivity	Distance from the Source (m) ^c	
	<20	<50
High	High	Medium
Medium	Medium	Low
Low	Low	Low

^a The sensitivity of the area should be derived for each of the four activities: demolition, construction, earthworks and trackout and for each designated site. See **STEP 2B, Box 8** and **Box 9**.

^b Only the highest level of area sensitivity from the table needs to be considered.

^c For trackout, the distances should be measured from the side of the roads used by construction traffic. Without site-specific mitigation, trackout may occur from roads up to 500 m from large sites, 200 m from medium sites and 50 m from small sites, as measured from the site exit. The impact declines with distance from the site.



4.11. The guidance then considers the dust emission magnitude of the four activities and the sensitivity of the area for the four impact scenarios, to determine the potential risk from the development.

Table 6: Risk of Dust Impacts - Demolition

Sensitivity of Area	Dust Emission Magnitude		
	Large	Medium	Small
High	High Risk	Medium Risk	Medium Risk
Medium	High Risk	Medium Risk	Low Risk
Low	Medium Risk	Low Risk	Negligible

The Assessment

4.12. It is considered that the main source of emissions during the construction phase of dust and PM₁₀ will include:-

- Excavations and earthworks
- Use of haulage roads
- Transportation and storage of materials
- Materials handling
- Cut and processing materials
- Exhaust emissions from site off-road machinery
- Emissions from construction vehicles

4.13. The majority of releases are likely to occur during the 'working week' but there is some potential for releases to occur 24 hours a day from material storage and exposed soil unless these are suitably managed and controlled.

4.14. Properties most likely to be exposed to any dust or PM₁₀ from the site are those located immediately to the north, and south of the site.

4.15. Given the current background pollutant levels and traffic flow in the area it is unlikely that the construction traffic will have anything other than a negligible impact on the NO₂ and PM₁₀ levels at relevant receptors. Background levels from the DEFRA background maps give PM₁₀ levels at 10.27442µg/m³ for 2026 and NO₂ levels at 8.576586µg/m³.



Step 1

- 4.16. As identified by the IAQM guidance document the development site is located within 20m of a suitable receptor, namely the adjacent residential properties to the north and south. Therefore, an assessment of the likely impact from the construction phase is required.

Step 2

- 4.17. Demolition of the existing buildings will be undertaken. These consist of approx. 1500m³ of building. As such the potential dust emission magnitude has been identified as small (<12,000m³).
- 4.18. The scale of earthworks is currently unknown but given the size of the site (~2,700m²) and the current ground covering it has been placed into the small category with a site area <18,000m².
- 4.19. For the construction phase the guidance indicates that the magnitude of potential dust emissions has also been identified as small, (total build volume <12,000m³).
- 4.20. Finally, for the potential dust emissions for 'trackout' the magnitude is small with less than 20 outward movements of HDV vehicles expected.

Table 7: Dust Emission Magnitude

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

- 4.21. The receptor sensitivity of the area has been identified as detailed below given the number of nearby residential receptors.



- 4.22. Receptors have been identified as being of a high sensitivity, being residential in nature, with the ecological receptor as low, no identified sensitive ecological sites have been identified on Magicmap in the vicinity of the site.
- 4.23. The residential receptors are located to the north and south of the site, these number less than 10 within 20m of the site. The background annual mean PM₁₀ levels within the area are <24µg/m³, 20265 Defra background maps indicate a level of 12.50196µg/m³, falling in future years.
- 4.24. Based on the sensitivity tables within the guidance document for Dust Soiling, human health impacts and ecology the resulting receptor sensitivity impacts of the development have been assessed as high for dust soiling and for human health and low for ecological sensitivity in line with Box 6-7 of the guidance.
- 4.25. The sensitivity of the area has then been defined in conjunction with tables 2-4 of the IAQM guidance and the impact risk of each of the activities has been assessed with a resulting impact risk for each activity.

Table 8: Sensitivity of the surrounding area

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



- 4.26. Based on the above information in line with the IAQM guidance the impact risk of each of the activities has been assessed with a resulting impact risk for each activity.

Table 9: Impact risk of construction phase

Potential Impact	Risk			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Low risk	Low risk	Low risk	Low risk
Human Health	Neg risk	Neg risk	Neg risk	Neg risk
Ecological	Neg risk	Neg risk	Neg risk	Neg risk

Step 3

- 4.27. Given the impact risk associated with the activities it is recommended that some basic mitigation measures are undertaken. These have been identified from 'The Control of Dust and Emissions from Construction and demolition, Best Practice Guidance, London Councils 2006' and the IAQM guidance and are detailed in Appendix A.
- 4.28. Construction activities with the potential to generate emissions to the atmosphere require two levels of mitigation measures to be adopted. These are termed 'hard' and 'soft' measures. Hard measures include physical actions taken to prevent, suppress or contain emissions; soft measures include management and communication actions.
- 4.29. The most effective way to manage and prevent dust and PM₁₀ generation and re-suspension during construction is through effective control of the potential source.
- 4.30. Appendix A details the mitigation measures identified as required to reduce the potential impact associated with the activities anticipated to take place during the construction phase of the development. If required these can be tailored once more specific information is available on the construction activities. This can be controlled by the imposition of a suitable condition on the planning permission for the proposed development.



- 4.31. Given the location, specific emphasis to preventing deposition of mud onto the highway at the entrance of the site leading past the neighbouring properties is important. Minimising mud and dust deposition at an initial stage of the development will be key to ensuring minimal disruption to residents and preventing any complaints and long-term ill feeling towards the development.



5. Operational Phase

Impact from the development

- 5.1 The proposed development consists of nine residential dwellings. The development is located on the edge of an existing residential area and close to a bus route. It is within 1.5Km of local schools and employment areas.
- 5.2 The IAQM guidance "*Land-Use Planning & Development Control: Planning For Air Quality, January 2017*" details and confirms the need to ensure development is constructed in a sustainable way adopting good design principles to help reduce emissions and contribute to better air quality.
- 5.3 As a consequence, and as detailed within the Council's Local Plan and the NPPF the development has been designed to minimise emissions and to assist future residents to do the same. The principal emissions from the site are therefore linked to transportation to and from the development.
- 5.4 The IAQM guidance details a staged approach to the determination of whether an Air Quality Assessment is required, chapter 6.
- 5.5 The first stage of this considers the size of the development and the potential traffic movements associated with it. If the development exceeds the stage 1 criteria, then you proceed to stage 2.



5.6 The stage 1 criteria are shown below, the proposed development consists of nine residential units. As such the guidance indicates that there is no need to proceed to a stage 2 assessment.

Criteria to Proceed to Stage 2
A. If any of the following apply:
• 10 or more residential units or a site area of more than 0.5ha • more than 1,000 m² of floor space for all other uses or a site area greater than 1ha
B. Coupled with any of the following:
• the development has more than 10 parking spaces • the development will have a centralised energy facility or other centralised combustion process
Note: Consideration should still 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.

5.7 The guidance does state that the impact on and from air quality should still be considered to minimise any adverse impacts.

5.8 The second stage of the assessment looks at the impact of the development, and these are shown below. The criterion of interest with respect to this development is the increase in LDV traffic flows that will result.

The development will:	Indicative Criteria to Proceed to an Air Quality Assessment ^a
1. Cause a significant change in Light Duty Vehicle (LDV) traffic flows on local roads with relevant receptors. (LDV = cars and small vans <3.5t gross vehicle weight).	A change of LDV flows of: - more than 100 AADT within or adjacent to an AQMA - more than 500 AADT elsewhere.
2. Cause a significant change in Heavy Duty Vehicle (HDV) flows on local roads with relevant receptors. (HDV = goods vehicles + buses >3.5t gross vehicle weight).	A change of HDV flows of: - more than 25 AADT within or adjacent to an AQMA - more than 100 AADT elsewhere.
3. Realign roads, i.e. changing the proximity of receptors to traffic lanes.	Where the change is 5m or more and the road is within an AQMA.
4. Introduce a new junction or remove an existing junction near to relevant receptors.	Applies to junctions that cause traffic to significantly change vehicle accelerate/decelerate, e.g. traffic lights, or roundabouts.
5. Introduce or change a bus station.	Where bus flows will change by: - more than 25 AADT within or adjacent to an AQMA - more than 100 AADT elsewhere.
6. Have an underground car park with extraction system.	The ventilation extract for the car park will be within 20 m of a relevant receptor. Coupled with the car park having more than 100 movements per day (total in and out).
7. Have one or more substantial combustion processes, where there is a risk of impacts at relevant receptors. NB. this includes combustion plant associated with standby emergency generators (typically associated with centralised energy centres) and shipping.	Typically, any combustion plant where the single or combined NO _x emission rate is less than 5 mg/sec ^a is unlikely to give rise to impacts, provided that the emissions are released from a vent or stack in a location and at a height that provides adequate dispersion. In situations where the emissions are released close to buildings with relevant receptors, or where the dispersion of the plume may be adversely affected by the size and/or height of adjacent buildings (including situations where the stack height is lower than the receptor) then consideration will need to be given to potential impacts at much lower emission rates. Conversely, where existing nitrogen dioxide concentrations are low, and where the dispersion conditions are favourable, a much higher emission rate may be acceptable.

5.9 The development is located outside of a declared AQMA, but reasonably close to it, for the consideration of the impact from the development it has been assumed that the traffic generated will pass through the AQMA when assessing it against the IAQM standards.

5.10 The less than 100 AADT trips are expected.

5.11 As a result, the guidance indicates that no further air quality assessment is required.



5.12 However, in accordance with the Council's Local Plan and in line with the recommendations with the IAQM guidance relating to good design some basic mitigation measures are recommended.

5.13 These include;

- control of emissions during the construction phase, see preceding section,
- the inclusion of electric vehicle charging points to the residential units, it is recommended that each unit be provided with an EV socket.
- Where gas boilers are to be installed these should be of a low NO_x emitting variety.

5.14 The above measures helping to mitigate any impact from the development.

Impact on the development

5.15 As the development if for new residential dwellings it is also appropriate to consider the impact of the existing air quality on the new receptors.

5.16 The site is located outside of a declared AQMA, with Defra background maps suggesting low levels of pollutants associated with traffic movements for the area.

5.17 A declared AQMA is however located to the south ~200m away to the boundary and forms part of a general AQMA cover the M60 ring road around Manchester. The Greater Manchester authorities declaring the full extent of the M60, irrespective of receptor locations or pollutant levels. Allowing measures to be identified for air quality improvements affecting the whole area.

5.18 Local monitoring within this declared AQMA and at roadside positions identify Nitrogen Dioxide concentrations significantly below the national annual mean objective of 40µg/m³.

5.19 Department of Transport data Manchester Old Road through the declared AQMA and near to the monitoring locations identifies traffic flows of ~25,900 AADT, this is compared to data for Heywood Old Road of ~8,500 AADT.

5.20 Logically with significantly less traffic flowing passed the development site pollutant levels will be lower than that measured within the AQMA.



5.21 As the AQMA is already compliant with the national objective and well below the objective value of $40\mu\text{g}/\text{m}^3$ at $<28\mu\text{g}/\text{m}^3$ the air quality at the development site is also likely to be well below the objective and no adverse impact will be experienced by the future residents.



6 Conclusion

- 6.1 A consideration of the construction phase of the development has been undertaken and suitable mitigation measures proposed to ensure no adverse impact is caused during this phase of the development.
- 6.2 For the operational phase of the development an assessment has been undertaken based on the principles of the IAQM guidance *Land-Use Planning & Development Control: Planning For Air Quality; January 2017*, as recommended by the Greater Manchester Authorities.
- 6.3 The proposed development is for nine residential dwellings, with a total traffic flow of <100 AADT vehicles per day.
- 6.4 Using the guidance document and based on the location of the development and anticipated traffic to be generated by the site, the impact from the development has been assessed as minimal with no formal air quality assessment being required according to the guidance document.
- 6.5 Mitigation measures have however been identified to minimise the potential impact from the development on local air quality. These include control of construction emissions as above, and electric vehicle charging points, and where required low-NO_x emitting boilers.
- 6.6 Finally, a consideration of the impact on future residents has been undertaken. Local air quality is considered to be good with monitoring identifying pollutant levels well below the National Objective values. The road in front of the development experiences lower traffic flows and so lower pollutant levels.
- 6.7 Future residents will not experience any adverse impact from current air quality levels at the site.
- 6.8 As such the development meets with the requirements of the Planning Practice Guidance Note on Air Quality and the National Planning Policy Framework by ensuring



the development will not result in a significant adverse impact on health and quality of life within the area.

Figure 1 – Aerial Photograph



Figure 2 – Proposed Layout Plan





Appendix A – Construction Mitigation Measures

The set of mitigation measures considered appropriate for the development of the proposed site area are as follows:

Hard Measures:

Where reasonable, appropriate, and practicable the contractor should: -

Site Management

- Plan the site layout to locate machinery and dust-causing activities away from sensitive receptors.
- Use appropriate methods, such as the erection of hoardings or other barriers around dusty operations, to mitigate the spread of dust to any sensitive receptors.
- Provide hard standing areas for vehicles and regularly inspect and clean these areas
- No burning on site
- Consider weather conditions prior to potential dusty works. For example, if there are strong winds blowing towards residential properties, works may need to be postponed until more favourable conditions return.
- Consider the provision of wheel washing facilities to prevent material being carried off site on to the public highway.
- Ensure access to a good water supply

Construction Plant and Vehicles

- Operate construction plant in accordance with the manufacturer's written recommendations
- Switch off vehicles and plant when not in use
- Direct vehicle and plant exhausts away from the ground
- Enclose or shield plant likely to generate excessive quantities of dust
- Keep movements of construction traffic on site to a minimum
- Design site access points to avoid queuing of traffic
- Avoid the use of diesel or petrol-powered generators
- Keep roads and accesses clean
- Where available use ultra-low sulphur tax-exempt fuel for all non-road mobile machinery.
- No site run-off of water

Transportation, Storage and Handling of Materials

- Employ appropriate measures, such as covering materials
- Do not overload vehicles
- Keep stockpiles and mounds away from sensitive receptors and site them taking account of the predominant wind direction
- Ensure stockpiles are set at a suitable angle to avoid material slippage
- Cover or stabilise long-term stockpiles – grass long term earth bunding
- Store fine dry material inside or under cover
- Keep the number of handling operations for materials to a minimum



- Maintain and use appropriate watering and sprinkling facilities to reduce or prevent the escape of dust from the site.

Haulage Routes

- Agree haulage routes prior to commencement of the development
- Maintain the surface of all haulage routes on site, in such a condition so as to minimise dust generation. This will be more important in the early stages of the development as haulage routes are likely to be unmade. As the development progresses it is expected that routes will become hard surfaced.
- Inspect haulage routes periodically and repair as necessary to prevent dust generation, record inspections and outcomes.
- Impose and enforce appropriate speed limits on roads for safety reasons and for the purposes of suppressing dust emissions.
- Ensure vehicles entering and leaving the site are covered

Excavation and Earthworks

- Strip topsoil as close as reasonably practicable to the period of excavation or other earthworks to avoid or minimise dust generation
- Keep drop heights from excavators to a minimum
- Use appropriate methods to avoid dust emissions such as shielding or damping sprays
- Undertake soiling, seeding, planting, or sealing of completed earthworks as soon as reasonably practicable.
- Use water suppressant where applicable

Soft Measures

- Establish a clear protocol of communication with the local residents, and the local Environmental Health Department including readily displayed contact details.
- All complaints received should be logged and fully investigated. The contractor may wish to set up a website or newsletter to keep residents informed of activities on site.
- If very dusty works are unavoidable then residents (and the local Environmental Health Department) should be given prior notice.
- Carry out daily on-site and off-site inspections to monitor dust emissions.
- Develop a Dust Management Plan including the measures outlined here along with monitoring and checks carried out to ensure dust generation is minimised.
- Record any incidents of exceptional dust generation and the actions taken to resolve them.
- Consider holding regular liaison meetings with residents if dust or other emissions generate complaints.
- Plan works to avoid or reduce dust generation.



- Provide appropriate training to staff and sub-contracts on methods to avoid dust generation.