Air Quality Neutral Statement

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Executive summary

Overview

Eight Versa has been commissioned to carry out an Air Quality Assessment (AQA) for the proposed development at 82-84 High Street, Ruislip, HA4 7AB, in the London Borough of Hillingdon. The proposal consists of the conversion of the upper floors and rear extension of the above building to provide 5 no. residential flats.

The entire borough was declared as an Air Quality Management Area (AQMA) in 2003 for exceedances of the National Air Quality Objectives (NAQOs) for nitrogen dioxide (NO_2) and 24-hour mean exceedance for particulate matter (PM_{10}). Even though the NAQOs for PM_{10} and $PM_{2.5}$ are currently being met, it remains a pollutant of concern. The site is located in a NO_2 Focus Area and is considered as a hotspot of poor Air Quality in Ruislip.

For developments within London, the AQA methodology includes the requirement to undertake an assessment against the Air Quality Neutral (AQN) guidance. The scheme has been assessed for both the impacts of transport and building operation against the AQN guidance and it meets the requirements for AQN.

Even though further mitigation measures to reduce exposure of future occupants to pollutants are not explicitly required, the design mitigation hierarchy has been applied nonetheless, to maximise air quality for occupants, where feasible. Measures include, provision of sustainable transport modes, such as cycling.

This report was reviewed following receipt of the Air Quality Officers comments. Following recent amendments to the proposed development, we would like to clarify the measures taken to address and exceed the air quality requirements set out in Local Plan Part 2 (Policy DMEI14) and the London Plan (Policy SI1), particularly in the context of the site's location within both an Air Quality Management Area (AQMA) and an Air Quality Focus Area (AQFA).

All-Electric Development: The scheme has now been redesigned to operate solely on electricity. The previously proposed gas boilers have been fully replaced with electric heating systems, eliminating on-site combustion emissions. This change alone significantly improves the local emissions profile, particularly with respect to NO_2, NOx and particulate matter (PM), which are principal concerns in AQMAs and AQFAs.

Improved On-Site Green Infrastructure: Further enhancement has been introduced through the inclusion of a green roof and landscaping. These features contribute to air quality improvement by increasing local vegetation cover, providing deposition surfaces for airborne pollutants, and offering microclimate benefits. The greening also supports Policy SI1 objectives by delivering on-site air quality benefits, even for a minor development.

Active Travel Infrastructure: As previously noted, secure and accessible cycle storage is included to promote active and low-emission travel modes, reducing reliance on private vehicles and supporting the broader borough-wide transport emissions reduction objectives.

Air Quality Neutral and Beyond: Detailed calculations submitted within the Air Quality Neutral Statement confirm that both building and transport-related emissions fall well below the established air quality neutral benchmarks. With the shift to a fully electric energy strategy and enhanced green infrastructure, the scheme now clearly moves beyond neutrality and begins to offer measurable improvements in local air quality outcomes.

We therefore respectfully submit that the development now aligns with the intent and requirements of both DMEI14 and SI1 – not only meeting the minimum standard of air quality neutrality, but also delivering tangible, on-site improvements within a sensitive air quality context.

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Introduction

Project Overview

Eight Versa has been commissioned to carry out an Air Quality Assessment (AQA) for the proposed development at 82-84 High Street, Ruislip, HA4 7AB, in the London Borough of Hillingdon. The proposal consists of the conversion of the upper floors and rear extension of the above building to provide 5 no. residential flats.

The London Borough of Hillingdon has declared an Air Quality Management Area (AQMA) for the whole Borough due to continued exceedances against National Air Quality Objectives (NAQOs) for the annual mean NO_2 and 24-hour mean exceedance for PM_{10}.

Scope of Assessment

An AQA has been undertaken in accordance with relevant planning policy and best-practice guidance at national, regional and local levels. The AQA includes:

- Establishment of nearby sensitive receptors to air pollution.
- Assessment of air quality and dust impacts during the construction phase.
- Establishment and review of existing air quality.
- Evaluation of outline proposals against the Air Quality Neutral (AQN) benchmarks.
- Assessment of air quality impacts expected during the operation of the new development.
- Assessment of the mitigation strategy to limit the exposure of building users and nearby receptors, to air pollution.

Key policy and guidance documents considered in the AQA are outlined in Table 1.

Table 1: National, regional and local policies and guidance.

National	National Planning Policy Framework (Ministry of Housing, Communities & Local Government, 2023)
	The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (Department for Environment, Food & Rural Affairs, Defra, 2007)
	Land-Use Planning & Development Control: Planning for Air Quality (Environmental Protection UK (EPUK), Institute of Air Quality Management (IAQM), 2017)
	Clean Air Strategy (Department for Environment, Food & Rural Affairs, Defra, 2019)
	Air Quality Plan for Nitrogen dioxide (NO_2) in UK (Defra, 2017)
	Guidance on the Assessment of Dust from Demolition and Construction (IAQM, 2014)
	Environment Act 2021 (Ministry of Housing, Communities & Local Government, 2021)
	A Guide to The Assessment of Air Quality Impacts on Designated Nature Conservation Sites (IAQM, 2020)
	The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (Ministry of Housing, Communities & Local Government, 2019)
	Local Air Quality Management: Technical guidance LAQM.TG (19) (Department for Environment, Food & Rural Affairs, Defra, 2021)
Regional	The London Plan 2021 (Mayor of London, 2021)
	Sustainable Design and Construction: Supplementary Planning guidance (Mayor of London, 2014)
	The Control of Dust and Emissions during Construction and Demolition: Supplementary Planning Guidance (Mayor of London, 2014)
	London Local Air Quality Management Technical Guidance LLAQM.TG (19) (Mayor of London, 2019)
	Clearing the Air - The Mayor's Air Quality Strategy (Mayor of London, 2010)
	Air Quality and Planning Guidance (London Councils, 2007)
Local	Local Plan (London Borough of Hillingdon, 2012)
	Development Management Policies (London Borough of Hillingdon, 2020)
	Air Quality Action Plan 2019-2024 (London Borough of Hillingdon, 2019)

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Policy Review

National Legislation and Policy

The Air Quality Standards Regulations 2016 implements the requirements of EU Directive 2008/50/EC into UK legislation. Defra, on behalf of the UK Government, has produced a series of plans for the UK to meet the EU targets in the shortest possible time, the latest being the UK plan for tackling roadside NO_2 concentrations in July 2017 (NO_2 being identified as the primary pollutant for which the EU limit values are exceeded). An overview document has been produced, together with detailed plans for 37 zones where the objectives for NO_2 were not met in 2015.

The plan for the Greater London area sets out a range of measures to reduce NO_2 concentrations and indicates that with these measures, London will be compliant by 2025.

Table 2 sets out the ambient air quality standards for a range of key pollutants requiring specific objectives for ambient concentrations for pollutants UK and WHO limit values, respectively to be achieved and maintained.

Table 2: UK and WHO limit values for key pollutants.[1]

Pollutants	UK Concentrations	WHO Concentrations	Measured as	Date to be achieved by (UK only)
Nitrogen dioxide (NO_2)	200 µg/m^3 not to be exceeded more than 18 times per year	25 µg/m^3	24-hour mean	31 December 2005
	40 µg/m^3	10 µg/m^3	Annual mean	31 December 2005

Table 2: UK and WHO limit values for key pollutants (continued).

Pollutants	UK Concentrations	WHO Concentrations	Measured as	Date to be achieved by (UK only)
Particles (PM_{10})	50 µg/m^3 not to be exceeded more than 35 times per year	45 µg/m^3	24-hour mean	31 December 2004
	40 µg/m^3	15 µg/m^3	Annual mean	31 December 2004
Particles ($PM_{2.5}$)	-	15 µg/m^3	24-hour mean	-
	20 µg/m^3	5 µg/m^3	Annual mean	31 December 2010
Carbon monoxide (CO)	10 mg/m^3	-	Max. daily 8-hour mean	31 December 2003
Sulphur dioxide (SO_2)	266 µg/m^3 not to be exceeded more than 35 times per year	-	15-minute mean	31 December 2005
	350 µg/m^3 not to be exceeded more than 24 times per year	-	1 hour mean	31 December 2004
	125 µg/m^3 not to be exceeded more than 3 times per year	40 µg/m^3	24-hour mean	31 December 2004
Ozone (O_3)	100 µg/m^3 not to be exceeded more than 10 times per year	100 µg/m^3	8-hour mean	31 December 2005

[1] The Environment (Miscellaneous Amendments) (EU Exit) Regulations 2020. The full 2021 WHO can be viewed on WHO website.

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National Planning Policy Framework (Ministry of Housing, Communities & Local Government, 2023)
The National Planning Policy Framework (NPPF) published in December 2023 sets out the UK Government's planning policies for England. Planning law requires that applications for planning permission must be determined in accordance with the local development plan, unless material considerations indicate otherwise.

The NPPF is also a material consideration in planning decisions. It states that the purpose of the planning system is to contribute to the achievement of sustainable development; and that planning decisions on individual applications must reflect statutory requirements. Specifically, in terms of air quality, it requires the planning system to prevent development from contributing to or being put at unacceptable risk from unacceptable levels of air pollution.

Planning policies should promote compliance with or contribute towards achievement of EU limit values and NAQOs, taking into account the presence of AQMAs and the cumulative impacts on air quality from individual sites in local areas. Planning decisions should ensure that any new development within an AQMA is consistent with the local Air Quality Action Plan (AQAP).

The NPPF is supported by a series of Planning Practice Guidance (PPG) documents. The guidance in relation to air quality (PGG – Air Quality, November 2019) provides guiding principles on how planning can take account of the impact of new development on air quality.

Environment Act 2021 (Ministry of Housing, Communities & Local Government, 2021)
The Secretary of State must by regulations set a target ("the $PM_{2.5}$ air quality target") in respect of the annual mean level of $PM_{2.5}$ in ambient air. The $PM_{2.5}$ air quality target may, but need not, be a long-term target. In this section "$PM_{2.5}$" means particulate matter with an aerodynamic diameter not exceeding 2.5 micrometres. Regulations setting the $PM_{2.5}$ air quality target may make provision defining "ambient air". The duty in subsection (1) is in addition to (and does not discharge) the duty in section 1(2) to set a long-term target in relation to air quality. Section 1(4) to (9) applies to the $PM_{2.5}$ air quality target and to regulations under this section as it applies to targets set under section 1 and to regulations under that section. In this Part "the $PM_{2.5}$ air quality target" means the target set under subsection.

National Air Quality Management
Part IV of the Environment Act 1995 requires the UK Government to publish an Air Quality Strategy and for local authorities to review, assess and manage air quality within their areas, known as Local Air Quality Management (LAQM).

The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (Defra, 2007)
The 2007 Air Quality Strategy establishes the policy for ambient air quality in the UK. It includes the National Air Quality Objectives (NAQOs) for the protection of human health and vegetation for 11 pollutants. Those NAQOs included as part of LAQM are prescribed in the Air Quality Standards Regulations 2016 and the Air Quality (Amendment) (England) Regulations 2002. It should be noted that the EU limit values are numerically the same as the NAQO values but differ in terms of compliance dates, locations where they apply and legal responsibility.

The EU limit values are mandatory whereas the NAQOs are policy objectives. Local authorities are not required to achieve them but have to work towards their achievement. In addition, the EU limit values apply in all locations except where members of the public do not have access and there is no fixed habitation, on factory premises or at industrial installations, and on the carriageway/central reservation of roads except where there is normally pedestrian access. Where a local authority's review and assessment of its air quality identifies that air quality is likely to exceed the NAQOs, it must designate these areas as AQMAs and develop an Air Quality Action Plan (AQAP) setting out measures to reduce pollutant concentrations with the aim of meeting the NAQOs.

Clean Air Strategy (Defra, 2019)
Additionally, the Clean Air Strategy 2019 sets outs goals that will be more stringent than EU requirements with the aim of reducing human exposure to toxic pollutants by taking into account the World Health Organisation's guidelines. The policies in the Strategy aim to reduce $PM_{2.5}$ concentrations across the UK so that the number of people living in locations above the WHO annual mean guideline limit of 10 µg/m3 is reduced by 50% by 2025. Moreover, the Strategy will feed information to local authorities on how the cumulative impacts of nitrogen deposition in natural habitats should be assessed and mitigated through the planning system.

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Regional Policy and Guidance

The London Plan 2021 (Mayor of London, 2021)

Policy SI 1 in the Intended London Plan 'Improving air quality' states that:

A Development Plans, through relevant strategic, site-specific and area-based policies, should seek opportunities to identify and deliver further improvements to air quality and should not reduce air quality benefits that result from the Mayor's or boroughs' activities to improve air quality.

B To tackle poor air quality, protect health and meet legal obligations the following criteria should be addressed:

1 Development proposals should not:

- lead to further deterioration of existing poor air quality
- create any new areas that exceed air quality limits, or delay the date at which compliance will be achieved in areas that are currently in exceedance of legal limits
- create unacceptable risk of high levels of exposure to poor air quality.

2 In order to meet the requirements in Part 1, as a minimum:

- development proposals must be at least Air Quality Neutral
- development proposals should use design solutions to prevent or minimise increased exposure to existing air pollution and make provision to address local problems of air quality in preference to post-design or retro-fitted mitigation measures
- major development proposals must be submitted with an Air Quality Assessment. Air quality assessments should show how the development will meet the requirements of B1
- development proposals in Air Quality Focus Areas or that are likely to be used by large numbers of people particularly vulnerable to poor air quality, such as children or older people should demonstrate that design measures have been used to minimise exposure.

C Masterplans and development briefs for large-scale development proposals subject to an Environmental Impact Assessment should consider how local air quality can be improved across the area of the proposal as part of an air quality positive approach. To achieve this a statement should be submitted demonstrating:

- how proposals have considered ways to maximise benefits to local air quality, and
- what measures or design features will be put in place to reduce exposure to pollution, and how they will achieve this.

D In order to reduce the impact on air quality during the construction and demolition phase, development proposals must demonstrate how they plan to comply with the Non-Road Mobile Machinery Low Emission Zone and reduce emissions from the demolition and construction of buildings following best practice guidance.

E Development proposals should ensure that where emissions need to be reduced to meet the requirements of Air Quality Neutral or to make the impact of development on local air quality acceptable, this is done on-site. Where it can be demonstrated that emissions cannot be further reduced by on-site measures, off-site measures to improve local air quality may be acceptable, provided that equivalent air quality benefits can be demonstrated within the area affected by the development.

Clearing the Air - The Mayor's Air Quality Strategy (Mayor of London, 2010)

The Mayor of London produced an Air Quality Strategy in 2002 under the requirements of the Greater London Authority Act 1999, which was superseded by the subsequent Air Quality Strategy, published in 2016. The Air Quality Strategy sets out how the National Air Quality Strategy would be implemented in London as a whole.

The Mayor's Air Quality Strategy outlines a number of policies to deliver the required reductions in PM_{10} and NO_2 concentrations in Greater London, to meet the EU limits. The planning process is required to improve air quality by ensuring that new developments, as a minimum, are 'air quality neutral'. With regard to the proposed development the key policies are as follows:

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- Policy '6 - Reducing emissions from construction and demolition sites' which states that the Mayor will work with the London Council to review and update the Best Practice guidance for construction and demolition sites and create supplementary planning guidance to assist implementation;
- Policy '7 - Using the planning process to improve air quality - new developments in London as a minimum shall be 'air quality neutral' which states that the Mayor will encourage boroughs to require emissions assessments to be carried out alongside conventional air quality assessments. Where air quality impacts are predicted to arise from developments these will have to be offset by developer contributions and mitigation measures secured through planning conditions, section 106 agreements or the Community Infrastructure Levy;
- Policy '8 - Maximising the air quality benefits of low to zero carbon energy supply' which states that the Mayor will apply emission limits for both PM and NOx for new biomass boilers and NOx emission limits for Combined Heat and Power (CHP) plant. Air quality assessments will be required for all developments proposing biomass boilers or CHP plants and operators will be required to provide evidence yearly to demonstrate compliance with the emission limits; and
- Policy '9 - Energy efficient buildings' which states that the Mayor will set CO2 reduction targets for new developments which will be achieved using the Mayor's Energy Hierarchy. These measures will result in reductions of NOx emissions.

Sustainable Design and Construction: Supplementary Planning Guidance (Mayor of London, 2014)
The Supplementary Planning Guidance (SPG), which supports the London Plan, was first published in 2006 and was updated in April 2014. The following guidance on air quality is provided in Section 4:

- Developers should design schemes to be 'Air Quality Neutral';
- Developments should be designed to minimise the generation of air pollutants;
- Developments should be designed to minimise exposure to poor air quality;
- Energy plant, including boilers and CHP) should meet relevant emission limits; and
- Developers and contractors should follow the relevant guidance on minimising impacts from construction and demolition.

The SPG states that where developers are unable to meet the 'air quality neutral' benchmark, consideration should be given to off-site NO_x and PM_{10} abatement measures.

The Control of Dust and Emissions during Construction and Demolition: Supplementary Planning Guidance (SPG) (Mayor of London, 2014)
This SPG provides detailed best practice guidance, seeking to address emissions from construction activities, including construction machinery with respect to London's 'low emission zone' for non-road mobile machinery (NRMM), introduced in 2015. The SPG incorporates the Institute of Air Quality Management (IAQM) 'Guidance on the assessment of dust from demolition and construction' approach for assessing the risk of dust impacts from construction.

London Local Air Quality Management Technical Guidance LLAQM.TG (19) (Mayor of London, 2019)
This technical guidance - London Local Air Quality Management (LLAQM) Technical Guidance – has been prepared by the Greater London Authority (GLA) to support London boroughs in carrying out their duties under the Environment Act 1995 and connected regulations.

Local Policy and Guidance

Local Plan (London Borough of Hillingdon, 2012)
Policy EM8: Water, Air and Noise
Air Quality
All development should not cause deterioration in the local air quality levels and should ensure the protection of both existing and new sensitive receptors. All major development within the Air Quality Management Area (AQMA) should demonstrate air quality neutrality (no worsening of impacts) where appropriate; actively contribute to the promotion of sustainable transport measures such as vehicle charging points and the increased provision for vehicles with cleaner transport fuels; deliver increased planting through soft landscaping and living walls and roofs; and provide a management plan for ensuring air quality impacts can be kept to a minimum.

Air Quality Supplementary Planning Document (London Borough of Hillingdon, 2021)
Policy DMEI 14: Air Quality
A) Development proposals should demonstrate appropriate reductions in emissions to sustain compliance with and contribute towards meeting EU limit values and national air quality objectives for pollutants.
B) Development proposals should, as a minimum:
i) be at least "air quality neutral";
ii) include sufficient mitigation to ensure there is no unacceptable risk from air pollution to sensitive receptors, both existing and new; and
iii) actively contribute towards the improvement of air quality, especially within the Air Quality Management Area.

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Air Quality Action Plan 2019-2024 (London Borough of Hillingdon, 2019)

Highlights of successful projects delivered through the life-span of the past action plan include:

- All schools in Hillingdon now have travel plans;
- There are more dedicated cycle and walking paths to encourage active travel;
- There is focused use of the planning system to minimise the effects of new developments and secure improvements to proposals;
- Residents and people working in the borough are able to sign up to a free pollution episode alert service;
- Projects have been undertaken to use of green infrastructure to protect the vulnerable from pollution, for example at schools;
- There is borough-wide enforcement against idling vehicles;
- The adoption of cleaner vehicles has been encouraged both in Council operations and by the provision of the necessary infrastructure throughout the borough including in all council car parks

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Site Overview

The development site at 82-84 High Street, Ruislip is on the west side of High Street in the north of the London Borough of Hillingdon. The OS grid reference for the site is X (Eastings) 509214, Y (Northings) 187356 and the postcode is HA4 7AB, as illustrated in Figure 1.

The total area of the site is approximately 260m^2 (0.03 ha). The existing building on site is a three-storey building.

Figure 1: The red line illustrates the approximate location of the development site.

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Development Overview

Description of Proposed Development

The proposal consists of the conversion of the upper floors and rear extension of the above building into 5no. residential flats. Illustrations of the proposed floor plans, and elevations of the development are shown in Figure 2 and Figure 3 respectively.

Figure 2: Proposed floor plans of the development.

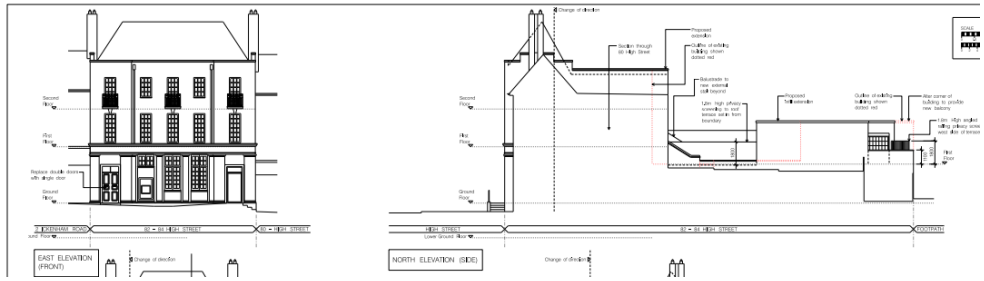

Figure 3: Proposed elevations of the development.

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Existing Air Quality

Current Local Status

The entire borough was declared as an Air Quality Management Area (AQMA) in 2003 for exceedances of the National Air Quality Objectives (NAQOs) for nitrogen dioxide (NO_2) and 24-hour mean exceedance for particulate matter (PM_{10}). Even though the NAQOs for PM_{10} and $PM_{2.5}$ are currently being met, it remains a pollutant of concern.

The AQAP 2019-2024 identified ten Focus Areas, based on modelling using the London Atmospheric Emissions Inventory (LAEI) 2013[2]. Table 3 and Figure 4 illustrate the Focus Areas as determined by LAEI 2016 modelling data. Focus Areas are locations designated as having high levels of pollution and human exposure. The site is located in the Focus Area.

Table 3: List of Focus Areas in Ruislip based on LAEI 2016.

ID LAEI 2016	Focus Areas
91	A40 / South Ruislip
92	A 40 / Long Lane
93	A40 / Swakeleys Road
94	Ossie Garvin to Southall Park
95	Heathrow area
96	Hayes
97	Uxbridge Road Corridor
98	Uxbridge Town Centre
99	West Drayton/Yiewsley
100	M4 Focus Area (Highways England responsible for AQ monitoring and management scheme as required under The M4 Motorway (Junction 3 to 12) (Smart Motorway) Development Consent Order 2016, SI 2016/863 Schedule 2 Part 1 Section 26)

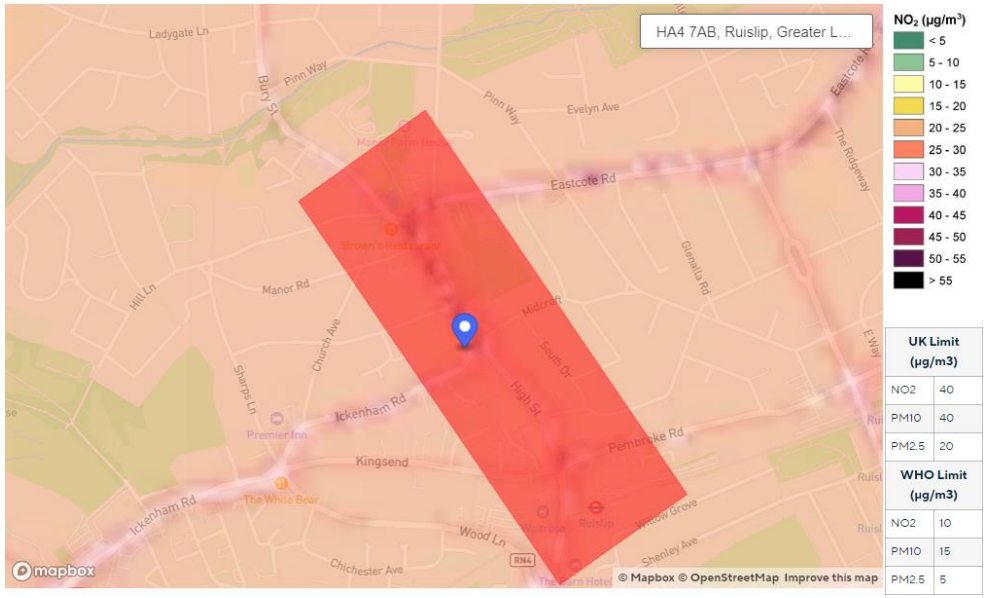

Figure 4: Focus Areas in London available on Eight Versa website. The blue pin illustrates the approximate location of the development site. Maps illustrates 2019 NO_2 annual mean concentration ($\mu g/m^3$) based on LAEI 2019.

[2] LAEI 2013 datasets were used in the AQAP.

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Air Quality Neutral

Operational Impacts: Air Quality Neutral

Policy SI 1 in the London Plan 2021, 'Improving air quality' requires that development proposal should not lead to further deterioration of exiting poor air quality and that they must be at least Air Quality Neutral (AQN). The proposed development has been assessed for its performance against the AQN guidance and benchmarks, for both transport and building-related emissions.

Air Quality Neutral: Transport Emissions

The AQN guidance provides a methodology for calculating the Transport Emissions Benchmark (TEB) for specific land use types. The development does not propose additional parking spaces and therefore no added vehicle trips are concluded. Based on this, the development passes AQN test for Transport Emissions.

Air Quality Neutral: Building Emissions

The AQN guidance provides a methodology for calculating the Building Emissions Benchmark (BEB) for specific land use types. The BEB has been calculated for the development (Table 4) using the factors for Residential.

Table 4: Building Emissions Benchmark (BEB).

Development metric	Residential
Applicable planning use class for BEB	C3
Gross internal area (m^2)	233.1
NO_x BEB factor (g/m^2/year)	26.2
Total NO_x BEB (kg/year)	**6.1**
PM_{10} BEB factor (g/m^2/year)	2.28
Total PM_{10} BEB (kg/year)	**0.5**

The use of biomass, combined heat and power (CHP) and gas boilers have been excluded from the scheme. The residential units are served by an electric boiler to provide heating and hot water. Which is based on a strategy to reduce energy demand as far as practically and economically possible, by implementing energy efficiency measures before applying low carbon and renewable energy technologies.

The development is therefore actively contributing to local air quality by relying solely on electricity-based systems, which do not result in onsite combustion-related emissions. In contrast to developments using fossil fuel-based systems, this all-electric approach avoids direct emissions of NOx and PM10.

For reference, typical emissions (AQN benchmark) for a residential development with a gross internal area of 233.1 m^2 are:

- NOx building emissions benchmark: 6.1 kg/year
- PM10 building emissions benchmark: 0.5 kg/year

Since the energy consumption will all be electricity-based, the development, therefore, passes the AQN test for building emissions.

Air Quality Neutral Statement

The Sustainable Design and Construction SPG issued by the Mayor of London, sets out the requirement for all major developments in Greater London to undertake an AQN Test and be designed so that they are at least 'air quality neutral'. A development is considered to be AQN if it can be demonstrated that both emissions from the operation of a proposed development and transport as a result of the proposed development achieve the relevant emissions benchmarks provided in the AQN guidance.

The development achieves both TEB and BEB, therefore, passes the AQN test. No additional mitigation for the purposes of AQN is required.

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Mitigation Measures

Pollution Mitigation Hierarchy
The development passes the AQN test for transport and building emissions. Therefore, no additional mitigation or offsetting measures for the operational phase of the development will be required. However, the principles of the pollution mitigation hierarchy, outlined in the Institute of Air Quality Management (IAQM) 'Mitigation of Development Air Quality: Position Statement', have been applied to the proposed development to minimise the exposure of future building users and occupants.

1. Prevention and Avoidance
Preference should be given to preventing or avoiding exposure and impacts to the pollutant in the first place by eliminating or isolating potential sources or by replacing sources or activities with alternatives.

Cycle storage
Cycling will be promoted by the inclusion of cycle storage, which will be provided using a covered and secure system.

2.a Reduction and Minimisation: Mitigation Measures that act on the Source
Reduction and minimisation of exposure and impacts should next be considered, once all options for prevention/avoidance have been implemented so far as is reasonably practicable (both technically and economically).

Heating
Electric boilers are proposed to provide space heating and hot water.

2.b. Reduction and Minimisation: Mitigation Measures that act on the Pathway
Urban greening
The proposed development will include soft landscaping and green roof. These strategies of urban greening will help alleviate pollution, benefitting the air quality of the local area. In addition, it will introduce a new biodiversity to the development, contributing to the ecology of the area.

2.c. Reduction and Minimisation: Mitigation Measures at or Close to the Point of Receptor Exposure
Ventilation strategy
Natural Ventilation have been considered in all units and extract ventilation in toilets

3. Off-setting
Off-setting a new development's air quality impact by proportionately contributing to air quality improvements elsewhere (including those identified in Air Quality Action Plans and low emission strategies) should only be considered once the solutions for preventing/avoiding, and then for reducing/minimising, the development-specific impacts have been exhausted. Even then, offsetting should be limited to measures that are likely to have a beneficial impact on air quality in the vicinity of the development site. It is not appropriate to attempt to offset local air quality impacts by measures that may have some effect remote from the vicinity of the development site.

The mitigation measures proposed are appropriate to the scale and nature of the development (see sections 1. to 2.c. above). No additional off-setting measures are proposed.

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Conclusion

Conclusions

Eight Versa has been commissioned to carry out an Air Quality Assessment (AQA) for the proposed development at 82-84 High Street, Ruislip, HA4 7AB, in the London Borough of Hillingdon. The proposal consists of the conversion of the upper floors and rear extension of the above building into 5no. residential flats.

The entire borough was declared as an Air Quality Management Area (AQMA) in 2003 for exceedances of the National Air Quality Objectives (NAQOs) for nitrogen dioxide (NO_2) and 24-hour mean exceedance for particulate matter (PM_{10}). Even though the NAQOs for PM_{10} and $PM_{2.5}$ are currently being met, it remains a pollutant of concern. The site is located in a NO_2 Focus Area and is considered as a hotspot of poor Air Quality in Ruislip.

For developments within London, the AQA methodology includes the requirement to undertake an assessment against the Air Quality Neutral (AQN) guidance. The scheme has been assessed for both the impacts of transport and building operation against the AQN guidance and it meets the requirements for AQN.

Even though further mitigation measures to reduce exposure of future occupants to pollutants are not explicitly required, the design mitigation hierarchy has been applied nonetheless, to maximise air quality for occupants, where feasible. Measures include, provision of sustainable transport modes, such as cycling.