AIR POLLUTION SERVICES

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Air Quality Assessment: 13 Netherhall Gardens, Camden

Date: 16 August 2022

Quality Assurance

Client: Re-Creo (Netherhall Gardens) Ltd **Reference:** P1141A_A1-3 **Date Published:** 16 August 2022

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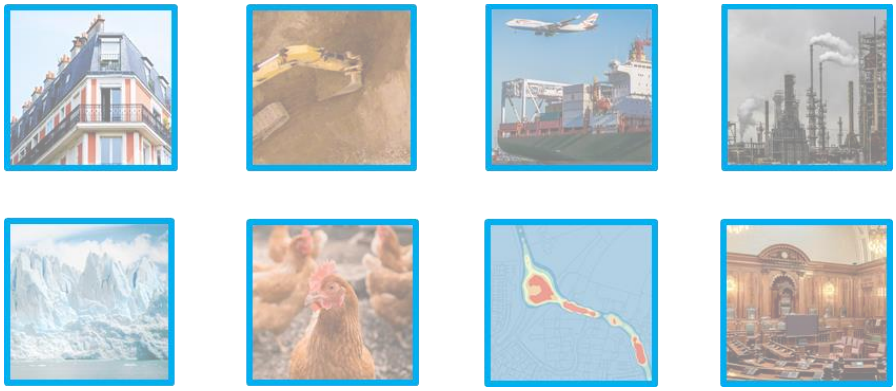


Contents

1 Introduction

1.1 Air Pollution Services (APS) has been commissioned by Re-Creo (Netherhall Gardens) Ltd to assess the air quality impacts associated with the proposed development at 13 Netherhall Gardens Camden, London (the 'Proposed Development').

1.2 This document provides an assessment of the baseline conditions and impacts of construction dust. It also sets out a package of appropriate mitigation measures that are recommended to be implemented during the construction phase of the Proposed Development. This document should be read in conjunction with the following documents:

- Air Quality Context: Netherhall Gardens, Camden, P1141A_A2-1 (Appended)
- Air Quality Baseline: Netherhall Gardens, Camden, P1141A_A3-1 (Appended)
- Construction Dust Assessment: Netherhall Gardens, Camden, P1141A_A4-2 (Appended)

The Proposed Development

1.3 The project comprises three phases; Phase 1 (comprising 8 flats) is already consented, Phase 2 (increase of 3 flats) may be approved soon, and Phase 3 (6 new flats on the southern part of site) forms this application. The application site location is shown in Figure 1 and the design of the Proposed Development is presented in Figure 2.

Figure 1: Application Site

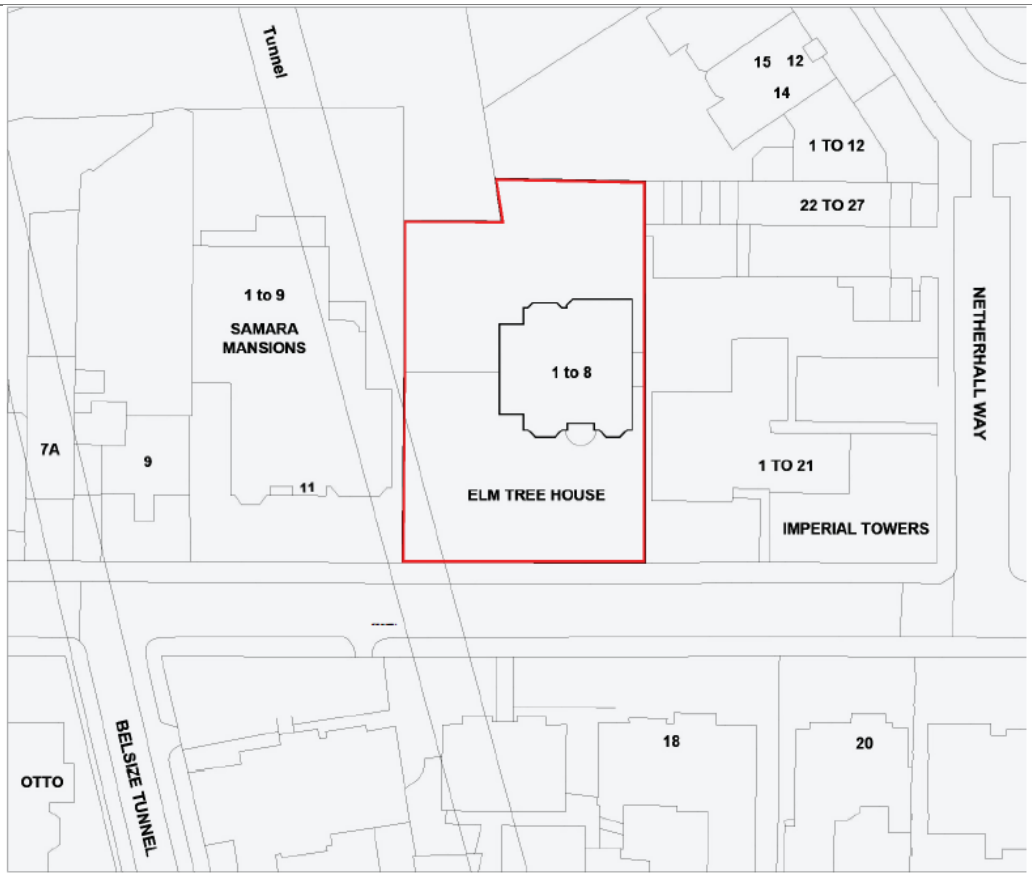


Figure notes: Drawing provided by Re-Creo (Netherhall Gardens) Ltd.

Figure 2: The Proposed Development

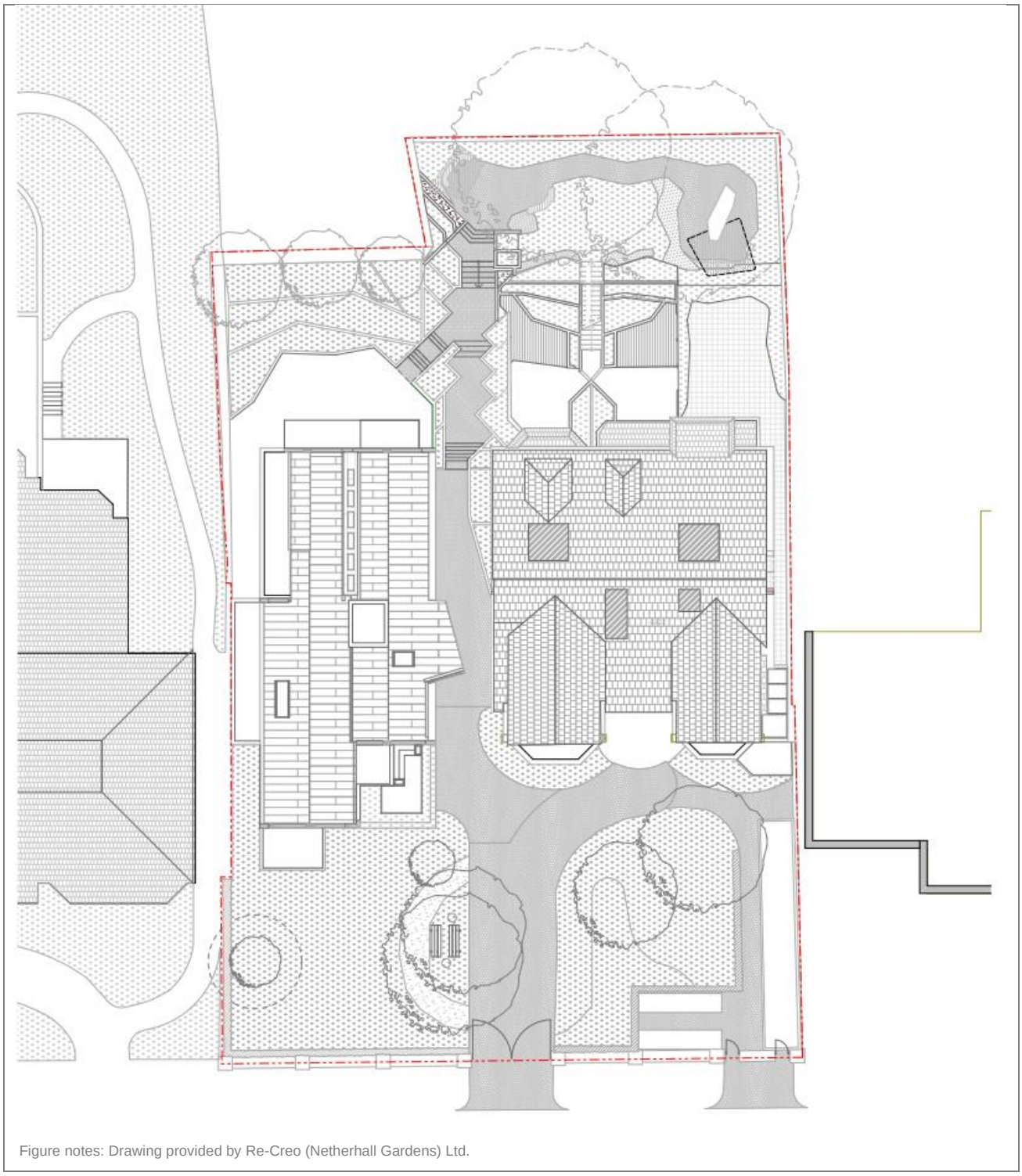


Figure notes: Drawing provided by Re-Creo (Netherhall Gardens) Ltd.

Scope of Assessment

1.4 The planning officer has advised that an air quality assessment should be submitted for the Phase 3 application, as the development will involve earthworks and the Council want to assess the cumulative impacts of the works for the three phases.

1.5 The construction of the Proposed Development may generate some dust and pollutant emissions during the demolition and construction works, which may impact upon the local area. The assessment has considered the cumulative impacts of all three phases of development at the application site. Baseline conditions have also been assessed to provide context and information for the construction dust assessment.

2 Baseline Conditions

2.1 The Proposed Development is located within a borough wide Air Quality Management Area (AQMA) and within an Air Quality Focus Area (AQFA), meaning the local area is likely to be highly sensitive to changes in pollution emissions.

2.2 The baseline concentrations are considered in relation to three separate types of criteria, covered by different legislation, policy, and guidance. These include Air Quality Objectives (AQOs), Limit Values, and World Health Organization (WHO) guidelines.

Air Quality Objectives

2.3 The Government's Environment Act published in 1995 (HMSO, 1995) sets out the requirements of Local Authorities to manage air quality. The Air Quality Standards and Objectives were later defined in the Government's Air Quality Strategy in 2007 (Defra, 2007).

2.4 Measured concentrations in the local area have demonstrated regular exceedances of the both the annual mean nitrogen dioxide (NO_2) AQO. Measured concentrations of particulate matter (PM_{10} and $PM_{2.5}$) have generally been below the AQOs. Predicted concentrations suggest the NO_2 annual mean AQO is exceeded in the local area along busy roads. Away from busy roads, concentrations are predicted to be below the AQOs for all pollutants, which is the case at the Proposed Development.

Limit Value Compliance

2.5 In additional to the Air Quality Standards and Objectives, the UK Government has also set limit values for the protection of human health, as set out in the Air Quality Standards Regulations 2010 (HMSO, 2010) and amended in The Environment (Miscellaneous Amendments) (EU Exit) Regulations 2020 (HMSO, 2020).

2.6 Defra predicts there to be no exceedances of the Limit Values within the local area. It is unlikely that the Proposed Development will delay compliance with the Limit Values in the borough.

World Health Organization Guidelines

2.7 The WHO guidelines are not currently adopted by the UK, although are guidelines for protection of human health. Air Pollution Services have provided their professional opinion in accordance with the definitions set out in these documents.

2.8 Measured NO_2 concentrations in the local area to the Proposed Development, excluding monitor locations that are clearly unrepresentative, are expected to adhere to WHO Interim Target 1 (40

µg/m^3). Measured particulate concentrations in the local area are expected to adhere to WHO Interim Target 3 for both PM_{10} (30 µg/m^3) and $PM_{2.5}$ (15 µg/m^3) at all monitor locations.

3 Construction Dust Assessment

3.1 The key potential dust effects that may occur during the demolition and construction phase are dust soiling nuisance in the local area and health effects associated with elevated PM_{10} concentrations.

3.2 The Greater London Authority's (GLA's) Supplementary Planning Guidance (SPG) on The Control of Dust and Emissions During Construction and Demolition (2014) provides a risk-based methodology for considering the potential for dust generation from a development site and is largely based on the Institute of Air Quality Management's (IAQM's) guidance (2016), and it states that *"the latest version of the IAQM Guidance should be used".* The approach developed by IAQM (2016), divides the activities on construction sites into four types to reflect their different potential impacts, which are described below:

- Minor demolition activities will be undertaken as part of the Proposed Development, the dust magnitude of which is considered *Small*.
- For earthworks, the emissions magnitude is classified as *Small* given the size of the application site, activities involved and soil type.
- For construction activities, the dust emission magnitude is considered *Small* due to the total building volume and construction materials.
- For trackout, vehicles may travel onsite during earthworks and may track out dust and dirt, the dust emission magnitude of which has been considered *Small*.

3.3 The study area is considered to be of 'high' sensitivity to potential dust soiling effects, as there are more than 10 dwellings within 20 m of the application site and more than 10 dwellings within 20 m of the roads where dirt may be tracked out. The study area is considered to be of 'low' sensitivity to potential health effects, due to low baseline PM_{10} concentrations and distances to sensitive exposure.

3.4 There are no designated ecological sites within 50 m of the Proposed Development and therefore the study area is not sensitive to potential dust or PM_{10} impacts upon ecological habitats.

3.5 The overall risks have been identified as *Medium* for dust soiling effects during demolition, *Low* for dust soiling effects during earthworks, construction and for trackout, and *Negligible* for human-health effects.

4 Mitigation Measures

4.1 Measures to mitigate dust emissions will be required during the demolition and construction phase of the Proposed Development in order to minimise impacts upon nearby sensitive receptors.

4.2 A package of appropriate mitigation measures is set out in the construction dust assessment document that includes measures covering communication, management and specific measures demolition, construction and trackout.

5 Summary and Conclusions

5.1 The impacts of construction dust associated with the Proposed Development at 13 Netherhall Gardens in the London Borough of Camden have been considered.

5.2 The construction works have the potential to create dust. During construction it will therefore be necessary to apply a package of mitigation measures to minimise dust emission. With these measures in place, it is expected that any residual effects will be '*not significant*'.

5.3 The IAQM guidance recognises that, even with rigorous dust management plan in place, it is not possible to guarantee that the dust mitigation measures will be effective all the time, for instance under adverse weather conditions. The local community may therefore experience occasional, short-term annoyance. The scale of this would not normally be considered sufficient to change the conclusion that the effects will be not significant.

6 Glossary, References and Professional Experience

Glossary

APS	Air Pollution Services
AQFA	Air Quality Focus Area
AQMA	Air Quality Management Area
AQO	Air Quality Objective
GLA	Greater London Authority
IAQM	Institute of Air Quality Management
Limit Values	Legally binding parameters that must not be exceeded. Limit values are set for individual pollutants and are made up of a concentration value, an averaging time over which it is to be measured, the number of exceedances allowed per year, if any, and a date by which it must be achieved. Some pollutants have more than one limit value covering different endpoints or averaging times.
NO_2	Nitrogen dioxide
PM_{10}	Small airborne particles, more specifically particulate matter less than 10 micrometres in aerodynamic diameter
$PM_{2.5}$	Small airborne particles, more specifically particulate matter less than 2.5 micrometres in aerodynamic diameter

SPG	Supplementary Planning Guidance
WHO	World Health Organization

References

Defra. (2007). *The Air Quality Strategy for England, Scotland, Wales and Northern Ireland.*

GLA. (2014). *The control of dust and emissions during construction and demolition supplementary planning guidance.*

HMSO. (1995). *Environment Act.* HMSO.

HMSO. (2010). *The Air Quality Standards Regulations 2010, ENVIRONMENTAL PROTECTION, 2010 No. 1001, STATUTORY INSTRUMENTS.*

HMSO. (2020). *The Environment (Miscellaneous Amendments) (EU Exit) Regulations 2020, EXITING THE EUROPEAN UNION, ENVIRONMENTAL PROTECTION, CONSUMER PROTECTION, HEALTH AND SAFETY, WILDLIFE, 2020 No.1313. STATUTORY INSTRUMENTS.*

IAQM. (2016). *Guidance on the assessment of dust from demolition and construction.*

Professional Experience

Dr Austin Cogan, MPhys (Hons) PhD CEnv MIEnvSc MIAQM

Dr Cogan is a Director and cofounder of Air Pollution Services, is a Chartered Environmentalist and has nearly 15 years' experience in environmental sciences. He has extensive experience of air quality, dust, and odour assessments, having been involved in hundreds of projects including residential and commercial developments, road schemes, airports, waste management processes, industrial processes, power generating facilities and agricultural facilities. This has included provision of expert witness services at several public inquiries and hearings. Austin has also supported many local authorities with Clean Air Zone studies (such as Bath, Bristol, Newcastle, Gateshead, North Tyneside and South Gloucestershire), Borough Plan modelling, microsimulation modelling and developing AQMAs and AQAPs. He has also contributed to multiple guidance documents, including DMRB and GLA evidence bases, and most recently IAQM's guidance on indoor air quality. Furthermore, Austin led the development of AirChecker, a bespoke air quality conveyancing search report, providing useful information on air quality to home and commercial property buyers and renters. Austin is also an international expert in the field of climate change, having monitored greenhouse gases globally. Austin gained two years' experience in scientific instrument design and spent four years' pioneering research in satellite observations of greenhouse gases and aerosols at the Space Research Centre, Leicester. Austin has worked with many international bodies, including NASA, JAXA, CNES and ESA, and published numerous scientific papers and presented at conferences both nationally and internationally. Additionally, he led the development of officially licensed quality assured observational meteorological data at APS, which is used regularly by most of the air quality and odour industry in the UK.

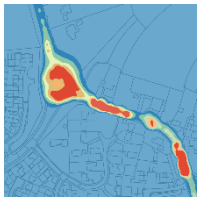
Ellie Tsiarapa, MSc AMIEnvSc

Mrs Tsiarapa is a Graduate Consultant at APS, having previously gained six months' experience working at the Air Quality Management Resource Centre (AQMRC). She was involved in several EU and UK research projects, and she also has experience in dispersion modelling. She holds an MSc in Environmental Consultancy from the University of the West of England (UWE) and she is an Associate Member of the Institution of Environmental Sciences (IES) and the Institute of Air Quality Management (IAQM). She is currently gaining experience at APS in projects for Planning, Environmental Permitting, Local Authority Work and Indoor Air Quality.

AIR POLLUTION SERVICES

Experts in Air Quality, Odour and Climate Change

- Air Quality Assessments for Planning Applications
- Air Quality Neutral
- Pre-application Feasibility



- LAQM Support
- Feasibility Studies
- Local Plan Modelling

- Construction Dust
- Mineral Dust
- Dust Management

- Odour Risks
- Odour Modelling
- Odour Management

- Transport Schemes
- Industrial and Energy
- Agriculture and Waste

- EIA Air Quality Chapters
- Greenhouse Gas Assessments
- Climate Vulnerability

- Air Risk Assessments
- MCPD Permits
- Specified Generator Permits

- Litigation Services
- Quality Assurance
- Monitoring Services
- Policy Development

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