

TAVISTOCK WORKS, LONDON

AIR QUALITY ASSESSMENT

MARCH 2026



AIR – ODOUR - CLIMATE

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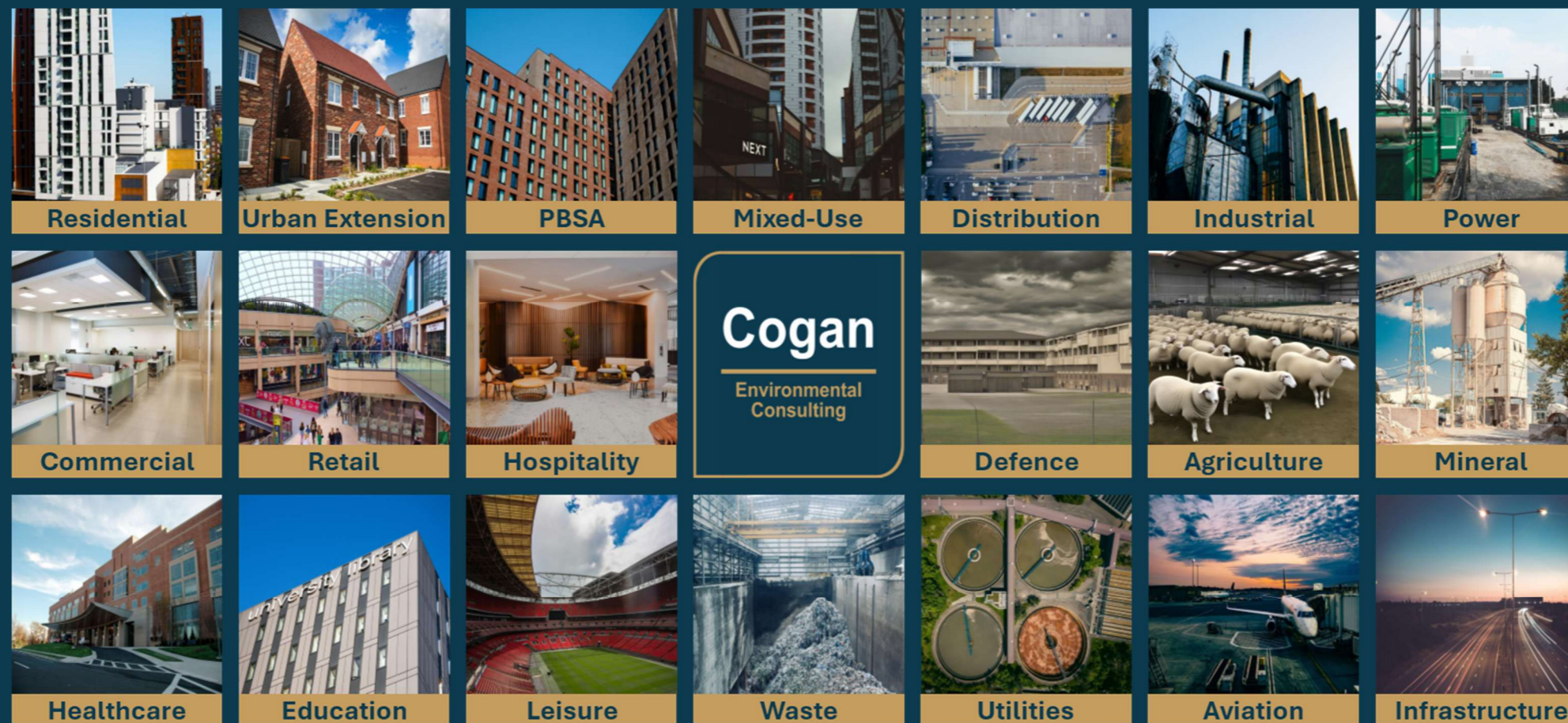
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Executive Summary

The air quality impacts of the proposed residential development at Tavistock Road, Hillingdon have been assessed.

The construction works have the potential to create dust. During construction a package of mitigation measures to minimise dust effects will be applied.

Consideration has been given to the potential air quality impacts of the proposed development upon the local area. All impacts have been determined to be negligible following relevant guidance, and the proposed development is unlikely to delay compliance with regulated thresholds in the local area. The effects will therefore be 'not significant'.

Air quality for future users of the proposed development has also been considered. The assessment has demonstrated the site to be suitable, with annual and short-term mean concentrations below all regulated thresholds.

The Proposed Development has been determined to be air quality neutral in terms of both building and transport related emissions, there is no requirement for mitigation or off-setting payments.

Overall, the air quality effects of the proposed development are judged to be 'not significant'. It will be compliant with policies, strategies and legislation, and a suitable development for the application site in terms of air quality.

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1 Introduction

- 1.1 Cogan Environmental Consulting Limited has been commissioned to produce an air quality assessment for the full planning application of a residential development at Tavistock Works, Hillingdon (herein called the 'Proposed Development').
- 1.2 An air quality assessment has previously been produced¹ for the application site as part of the consented application 35810/AAP/2021/1234 (approved at Appeal APP/R5510/W/21/3288333). This assessed the potential air quality impacts of an 8-storey residential building upon the local area and the suitability of the site for future occupation in terms of air quality. The assessment concluded the effects of the development upon the local area would be 'Not Significant' and air quality at the site acceptable for future occupants.
- 1.3 The Proposed Development comprises a slightly smaller building being proposed (6-storey) and therefore it is judged that the findings of the air quality assessment remain valid for the purposes of this application.
- 1.4 However, there have since been a number of updates in guidance, including in relation to construction dust assessments and air quality neutral assessments. Updated assessments of these have therefore been produced. In addition, there is updated baseline air quality information available, and this has therefore been reviewed and presented. These updates are presented in this assessment.

2 Application

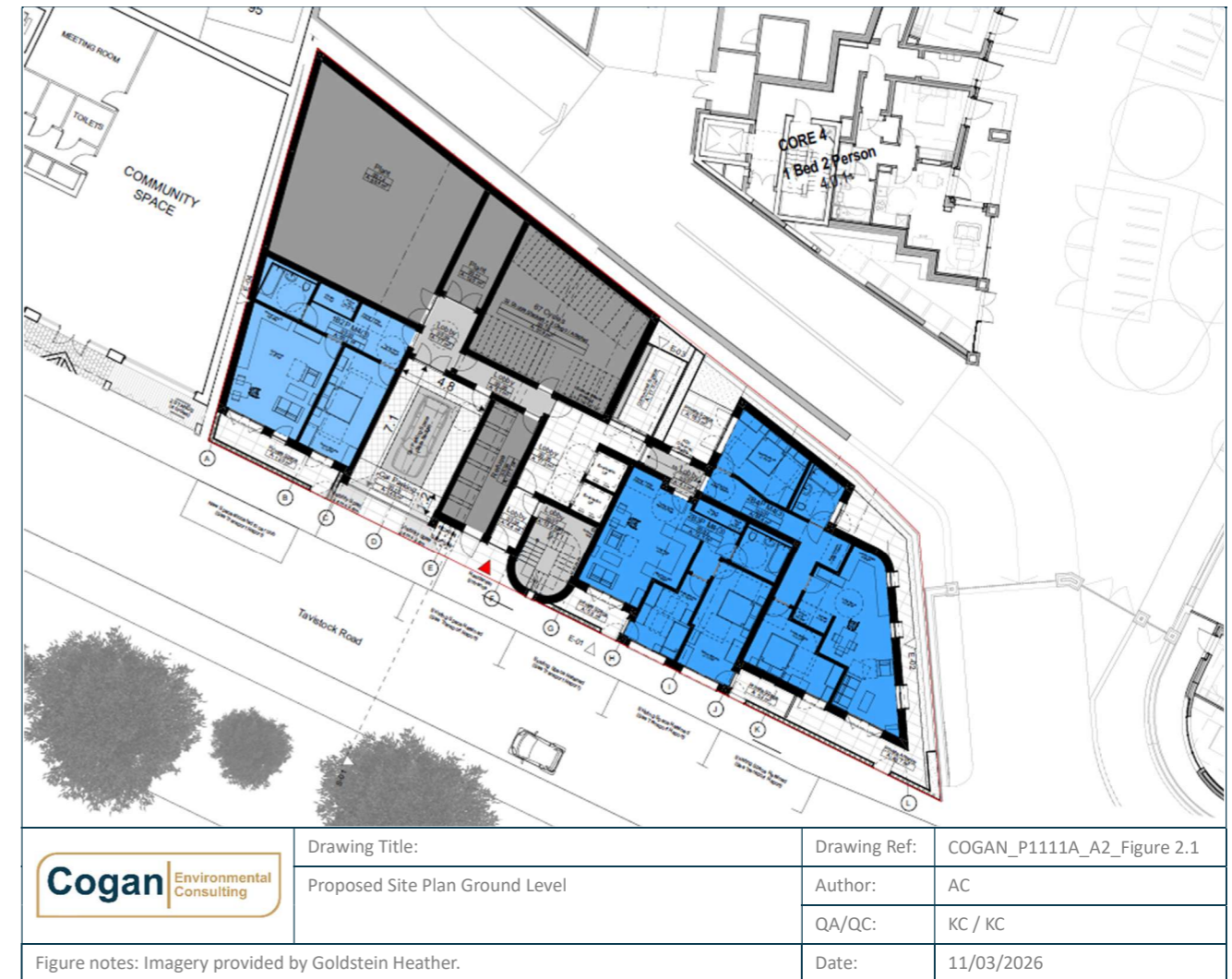
Description

- 2.1 The Proposed Development comprises demolition of existing building and replacement with 6-storey building comprising residential units, landscaping and amenity space. The proposed ground floor plan is shown in Figure 2.1.

Location

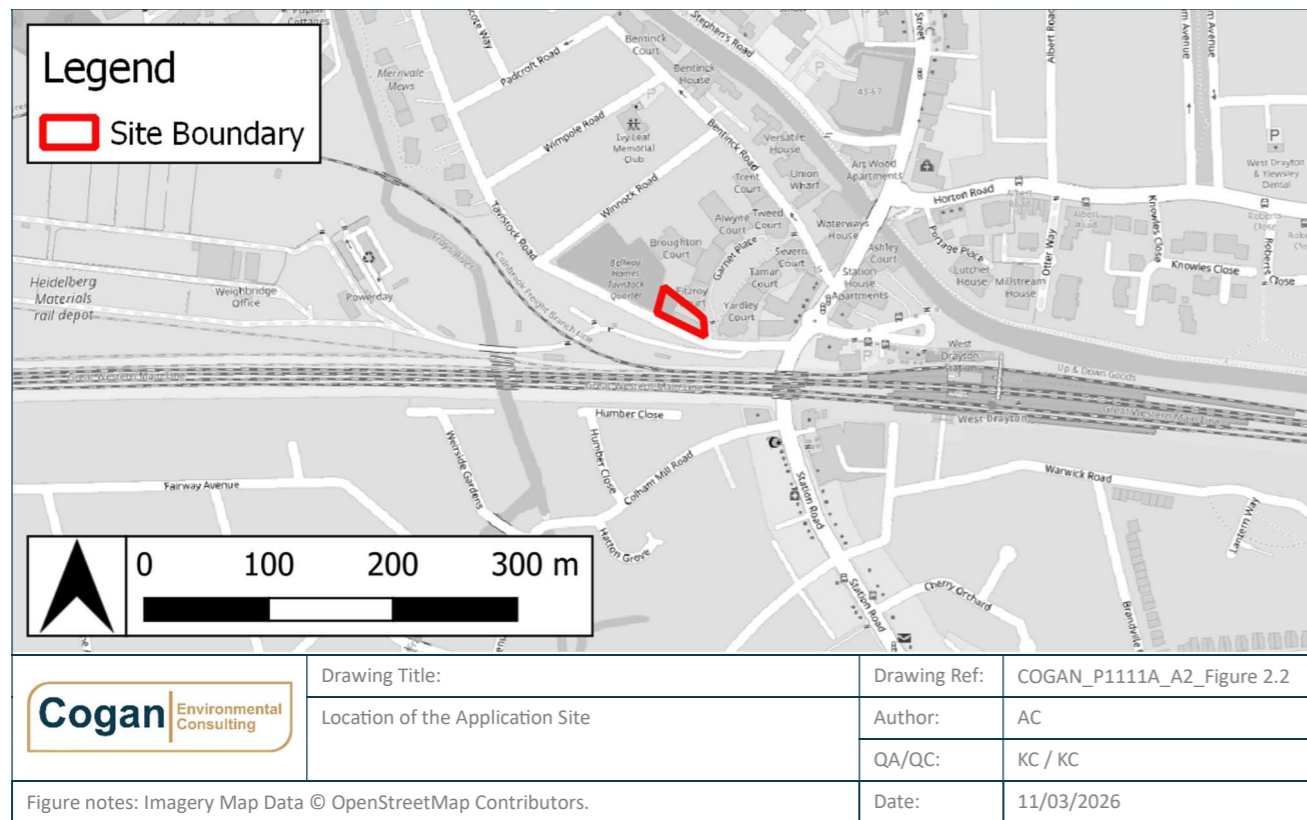
- 2.2 The application site is situated towards the southwest central portion of Hillingdon and is currently a small car park and building on the corner of Tavistock Works and Garnet Place. It is surrounded to the north and east by high rise residential properties, to the west by a portion of land owned by Bellway Homes, and to the south by Tavistock Road and a railway. The location of the application site is shown in Figure 2.2.

Figure 2.1: Proposed Site Plan Ground Level



¹ XCO2 (2021). Air Quality Assessment, Tavistock Works, Hillingdon, Produced by XCO2 for Linea UB7 Ltd, Project reference 9.366, Revision 0.8.

Figure 2.2: Location of the Application Site



- Measured concentrations of NO₂, PM₁₀ and PM_{2.5} in the local area have been identified from local authority and Defra monitoring networks.
- Industrial and waste management sources that may release pollutant emissions in the local area have been identified using the UK Pollutant Release and Transfer Register (PRTR)⁴. Other local sources of emissions have been identified through a review of maps and plans of the local area.
- Background concentrations of NO₂, PM₁₀ and PM_{2.5} have been obtained from the maps of background concentrations published by Defra and Devolved Administrations⁵, which includes average concentrations for each 1 km x 1 km of the UK.
- Roadside concentrations of NO₂, PM₁₀ and PM_{2.5} in the local area have been identified using the maps of roadside concentrations published by Defra and Devolved Administrations⁶, which includes predicted concentrations at a distance of 4 m back from the kerb of main roads considered as part of Defra and Devolved Administrations' 2017 Air Quality Plan and ongoing compliance assessments.
- Predicted NO₂, PM₁₀ and PM_{2.5} concentrations in the local area have been identified from the London Atmospheric Emissions Inventory (LAEI)⁷. Produced by the Greater London Authority (GLA) and Transport for London (TfL), the LAEI includes modelled ground level concentrations at a 20 m x 20 m grid resolution across Greater London for the year of 2022, 2025, and 2030.

3 Assessment Scope

3.1 Based on requirements set out in relevant guidance, policies, legislation, professional judgement, the scope of assessment includes the following elements:

- A review of recent baseline conditions;
- An updated assessment of construction dust; and
- An updated air quality neutral assessment.

4 Review of Recent Baseline Conditions

4.1 A review of baseline air quality for the local area has been conducted. The review considered the following sources of information:

- Proximity of the Proposed Development to air quality zones and ecological habitats in the local area, identified through Defra and Devolved Administrations² and Magic³ data.

Air Quality Zones

4.2 The Proposed Development is located within multiple air quality zones, this includes:

- Hillingdon Air Quality Management Area (AQMA) – designated by the London Borough of Hillingdon and Defra declared for exceedances of the annual mean NO₂, AQO.
- London Low Emission Zone (LEZ) – designated by the GLA and administered by TfL.
- London Ultra Low Emission Zone (ULEZ) – designated by the GLA and administered by TfL.
- London's Low Emission Zone for Non-Road Mobile Machinery (NRMM) – designated by the GLA.
- Within, but on the western edge of, the West Drayton/Yiewsley Air Quality Focus area (AQFA).

Ecological Habitats

4.3 There are no sites for nature conservation near the application site (i.e. within 2 km). Further away (i.e. within 10 km) there is one international site for nature conservation, namely the southwest London Waterbodies, which has both SPA and Ramsar status. This site is located approximately 5.4 km southwest of the Proposed

² Defra and Devolved Administrations (2024). AQMAs. Retrieved from UK AIR Air Information Resource: <https://uk-air.defra.gov.uk/aqma/maps/>

³ MAGIC (2024). Magic Map. Retrieved from: <https://magic.defra.gov.uk/MagicMap.aspx>

⁴ Defra and Devolved Administrations (2024). UK Pollutant Release and Transfer Register (PRTR) data sets. Retrieved from <https://www.gov.uk/guidance/uk-pollutantrelease-and-transfer-register-prtr-data-sets>

⁵ Defra and Devolved Administrations (2024). Background Mapping data for local authorities. Retrieved from UK AIR Air Information Resource: <https://uk-air.defra.gov.uk/data/laqm-backgroundhome>

⁶ Defra and Devolved Administrations (2024). 2019 NO₂ projections data (2017 reference year). Retrieved from UK AIR Air Information Resource: <https://uk-air.defra.gov.uk/library/no2ten/2019-no2-projections-from-2017-data>

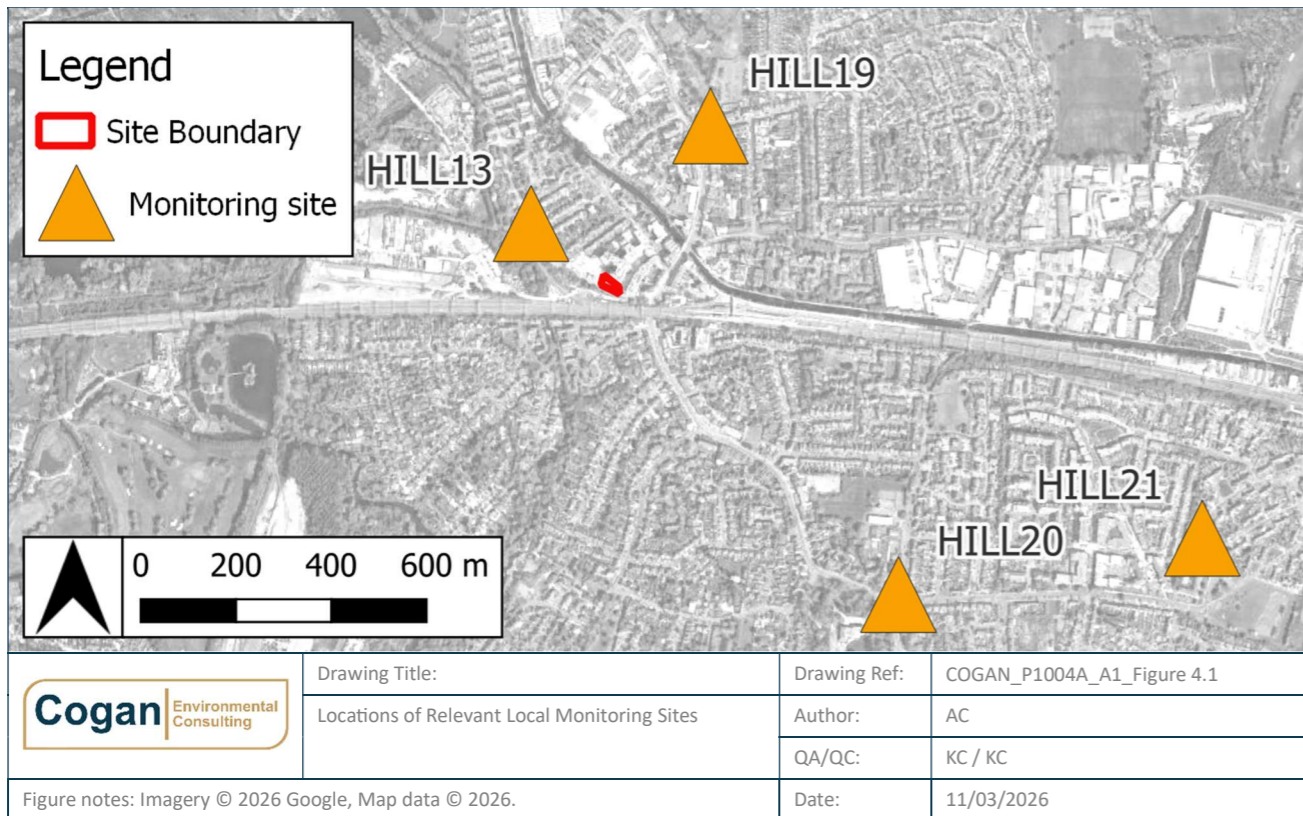
⁷ GLA and TFL (2023). London Atmospheric Emissions Inventory (LAEI) 2019, GLA and TFL Air Quality, London Datastore. Available at: <https://data.london.gov.uk/dataset/london-atmospheric-emissions-inventory--laei--2019>

Development. Based upon this distance and the scale of development, potential significant effects upon the ecological site are discounted and not considered further.

Measured Concentrations

- 4.4 London Borough of Hillingdon (LBH) have measured annual mean concentrations of NO₂ at multiple locations across the Borough. The locations of relevant monitoring sites are shown in Figure 4.1. Data for 2019 to 2023 have been taken from the most recent annual status reports for 2024⁸. Live data per month for the LBH is also available via the Air Quality England website⁹.
- 4.5 LBH monitors PM₁₀ and PM_{2.5} concentrations within the borough, however there are no monitoring stations within 1 km of the Proposed Development.
- 4.6 National Government measures pollutant concentrations at monitoring sites across the UK, as part of the Automatic Urban and Rural Network¹⁰ (AURN) regime. There are no AURN sites within 1 km of the site.
- 4.7 Note, the air quality data for February 2020 to March 2021 are not considered representative of typical conditions at the monitoring sites due to restrictions associated with the COVID-19 pandemic.

Figure 4.1: Locations of Relevant Local Monitoring Sites



Measured Annual Mean NO₂ Concentrations

- 4.8 Measured annual mean NO₂ concentrations for relevant monitoring sites are presented in Table 4.1. In 2023 there were no measured exceedances of the AQO or LV at relevant monitoring sites in the local area. In 2023, the closest monitor HILL13 on Tavistock Rd recorded an annual NO₂ measurement of 21.3 µg/m³ at, below the regulated threshold of 40 µg/m³.
- 4.9 Overall, there has been a slight decrease in measured annual mean concentrations over the past five years, however this period was also affected by the COVID-19 pandemic. As older vehicles are gradually replaced with low emission alternatives in the future, concentrations are expected to reduce.

Table 4.1: Measured Annual Mean NO₂ Concentrations (µg/m³)

Site ID	Site Name	Site Type	2019	2020 ^c	2021 ^c	2022	2023
HILL13	Tavistock Road	Roadside	27.9	19.9	21.0	21.0	21.3
HILL19	Yiewsley High Street	Background	34.6	27.1	27.6	28.7	26.2
HILL20	Porters Way, West Drayton	Background	36.6	31.6	31.5	34.5	29.2
HILL21	Mulberry Crescent, West Drayton	Background	32.3	23.4	24.1	27.9	24.5
AQO ^a			40				
LV ^b			40				

Table notes:
 a. Concentrations above the AQO are presented in bold. These do not necessary represent relevant exposure nor exceedances of the AQO.
 b. Reporting of LV exceedances is only carried out based on approved reference monitoring and at relevant reporting locations. Therefore, while the value is included, the monitoring presented is unlikely to comply with the requirements for LV reporting and assessment.
 c. Air quality monitoring carried out includes periods of national travel restrictions due to the COVID-19 pandemic; measured concentrations may therefore not be representative of typical conditions.
 d. Not in Regulations and there is no legal requirement to meet it.

Predicted Background Concentrations

- 4.10 Ambient background concentrations of NO₂, PM₁₀ and PM_{2.5} have been obtained from Defra⁵. Predicted average concentrations for the study domain are set out in Table 4.2 and are below the Regulated AQOs, LVs, IT and AMCT.

⁸LBH (2024). London Borough of Hillingdon Air Quality Annual Status Report for 2024.

⁹ Air Quality in England. Website accessed 06/03/2026. https://www.airqualityengland.co.uk/local-authority/reports?la_id=199

¹⁰ Defra and Devolved Administrations (2024). UK Air Information Resource, Interactive monitoring networks map. Available at: <https://uk-air.defra.gov.uk/interactive-map?network=aurn>

Table 4.2: Predicted Annual Mean Background Concentrations ($\mu\text{g}/\text{m}^3$)

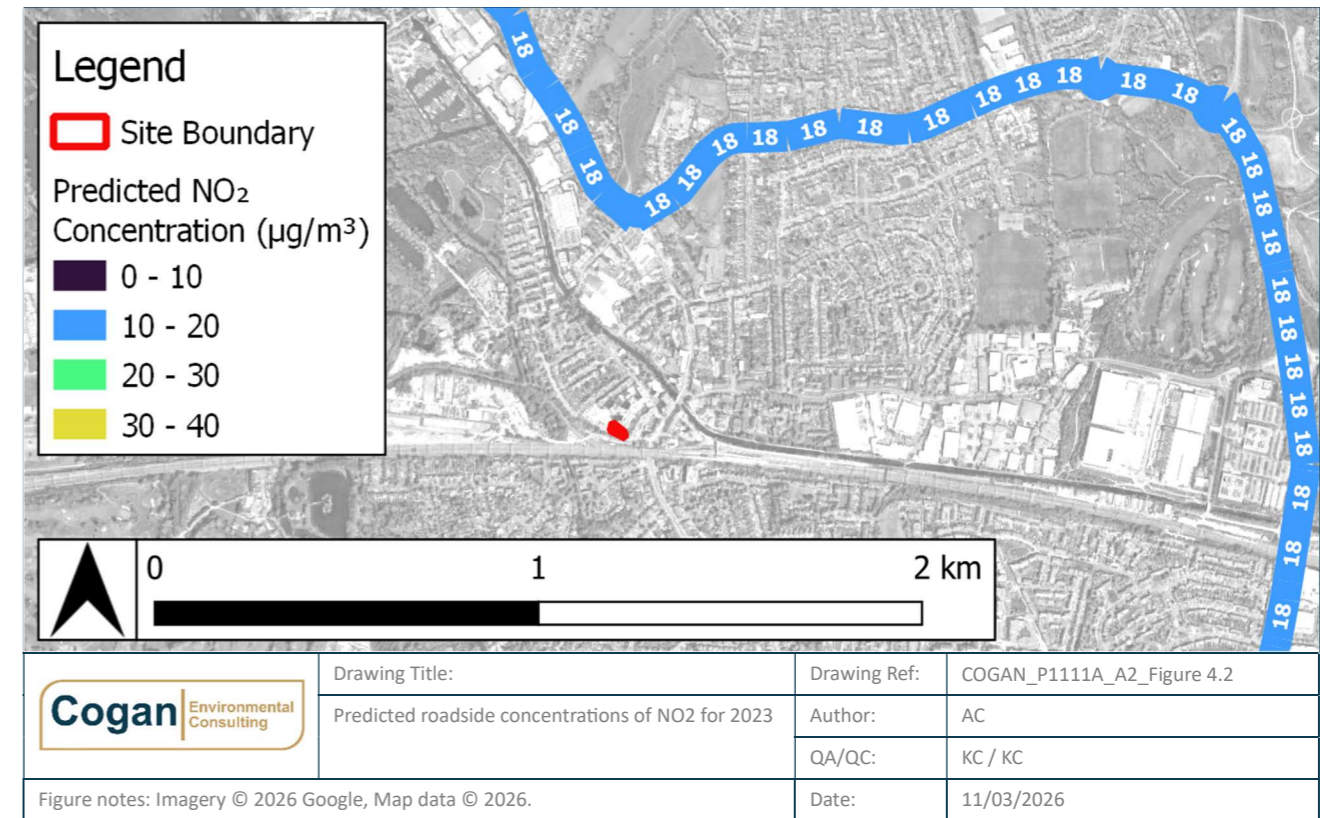
Year	NO ₂	PM ₁₀	PM _{2.5}
2026	14.4	13.6	7.8
2030	12.6	13.3	7.5
AQO ^a	40	40	20
LV ^b	40	40	20
IT	-	-	12
AMCT	-	-	10

Table notes:
 a. Concentrations above the AQO are presented in bold. These do not necessary represent relevant exposure nor exceedances of the AQO.
 b. Reporting of LV exceedances is only carried out based on approved reference monitoring and at relevant reporting locations. Therefore, while the value is included, the monitoring presented is unlikely to comply with the requirements for LV reporting and assessment.
 c. Not in Regulations and there is no legal requirement to meet it.

Predicted Roadside Concentrations

- 4.11 Defra has predicted roadside concentrations of NO₂, PM₁₀ and PM_{2.5} for some of the roads in the local area as part of Defra’s commitment to assess compliance with the LVs⁶. Defra has not predicted any exceedances of the PM₁₀ and PM_{2.5} LVs anywhere in the UK.
- 4.12 For NO₂, Defra undertakes annual compliance assessments. The predicted concentrations from the 2023 compliance assessment for roads in the local area are shown in Figure 4.2. Defra has not predicted any exceedances of the NO₂ annual mean LV in the local area.

Figure 4.2: Predicted roadside concentrations of NO₂ for 2023



Predicted Concentrations

- 4.13 The GLA and TFL have jointly produced the LAEI which includes maps of ground level predicted NO₂, PM₁₀ and PM_{2.5} concentrations at a resolution of 20 m x 20 m across Greater London and surrounding area; this includes the local area.
- 4.14 The predicted concentrations of the local area are shown in Figure 4.3 to Figure 4.11. These demonstrate that:
 - For NO₂:
 - In 2022, the predicted concentrations at the Proposed Development range between 20.1 – 21.7 $\mu\text{g}/\text{m}^3$. The predicted concentrations are below the annual mean AQO and LV.
 - In 2025, the predicted concentrations at the Proposed Development range between 19.3 – 20.0 $\mu\text{g}/\text{m}^3$. The predicted concentrations are below the annual mean AQO and LV.
 - In 2030, the predicted concentrations at the Proposed Development range between 15.7 – 16.2 $\mu\text{g}/\text{m}^3$. The predicted concentrations are below the annual mean AQO and LV.
 - For PM₁₀:
 - In 2022, the predicted concentrations at the Proposed Development range between 13.2 – 13.7 $\mu\text{g}/\text{m}^3$. The predicted concentrations are below the annual mean AQO and LV.

- In 2025, the predicted concentrations at the Proposed Development range between 13.2 – 13.5 $\mu\text{g}/\text{m}^3$. The predicted concentrations are below the annual mean AQO and LV.
- In 2030, the predicted concentrations at the Proposed Development range between 12.2 – 12.5 $\mu\text{g}/\text{m}^3$. The predicted concentrations are below the annual mean AQO and LV.
- For $\text{PM}_{2.5}$:
 - In 2022, the predicted concentrations at the Proposed Development range between 8.3 – 8.6 $\mu\text{g}/\text{m}^3$. The predicted concentrations are below the annual mean AQO, LV, Interim Target and AMCT.
 - In 2025, the predicted concentrations at the Proposed Development range between 8.8 – 8.9 $\mu\text{g}/\text{m}^3$. The predicted concentrations are below the annual mean AQO, LV, Interim Target and AMCT.
 - In 2030, the predicted concentrations at the Proposed Development range between 8.0 – 8.1 $\mu\text{g}/\text{m}^3$. The predicted concentrations are below the annual mean AQO, LV, Interim Target and AMCT.

Figure 4.3: Predicted concentrations of NO₂ for 2022

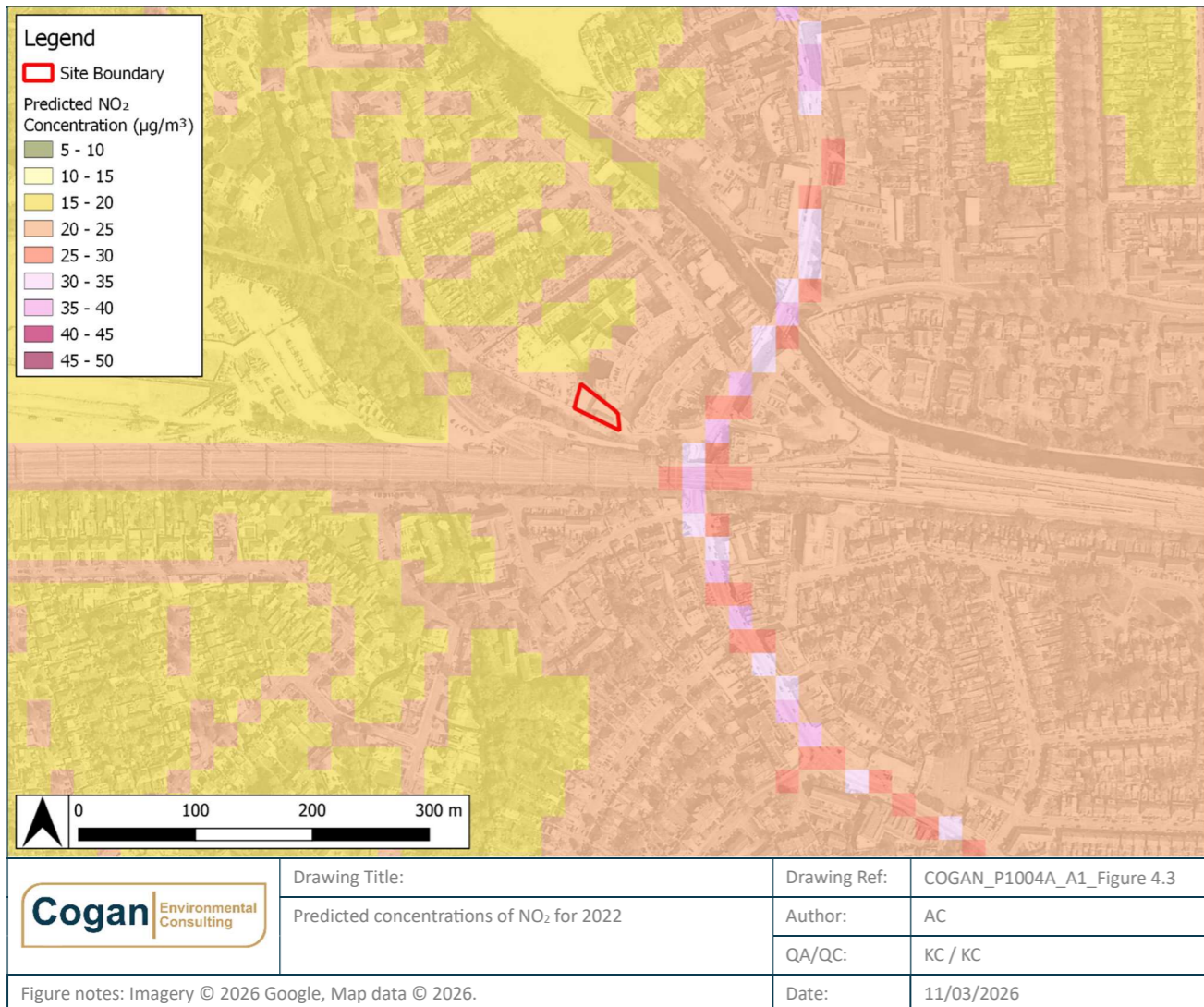


Figure 4.4: Predicted concentrations of NO₂ for 2025

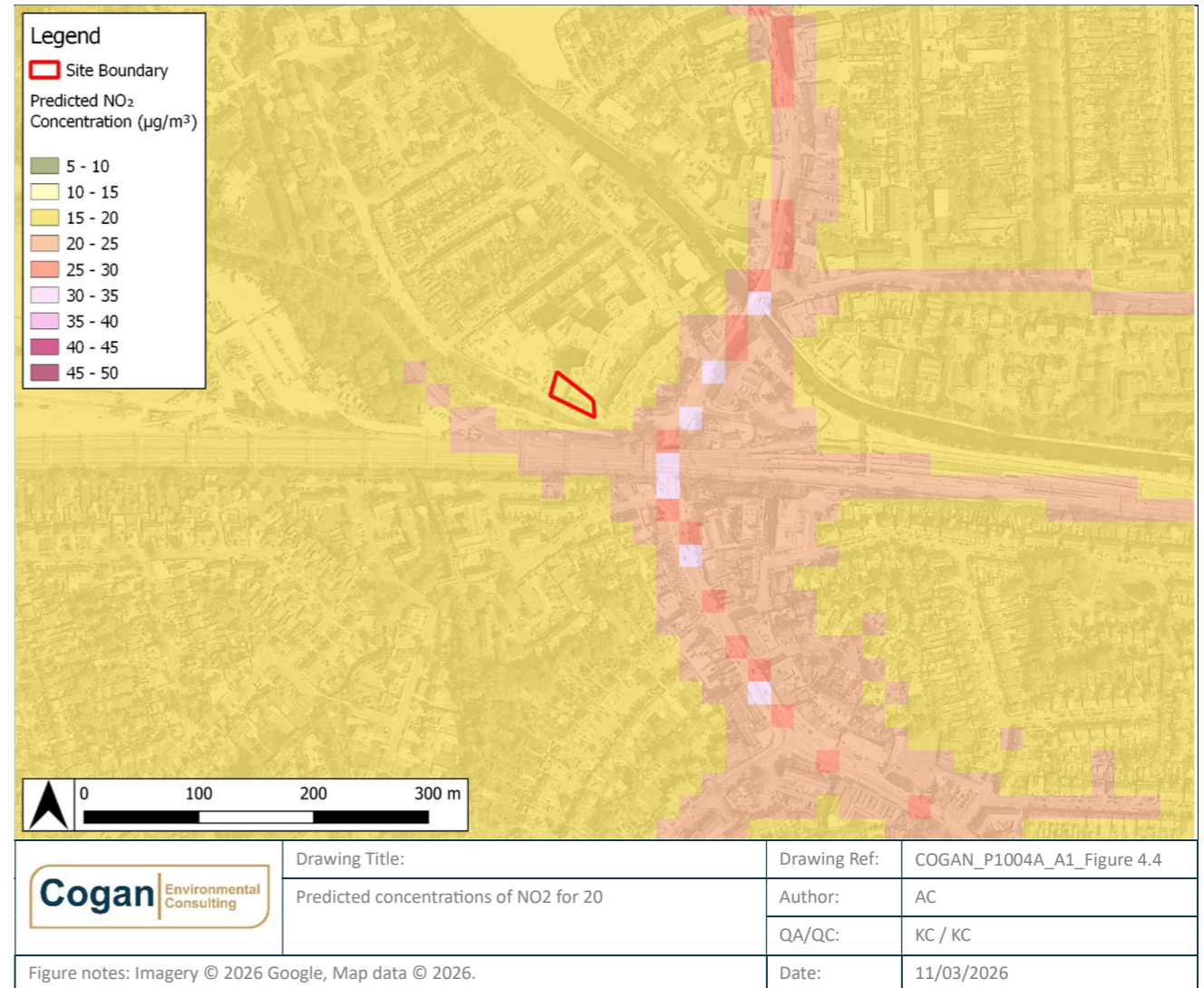


Figure 4.5: Predicted concentrations of NO₂ for 2030

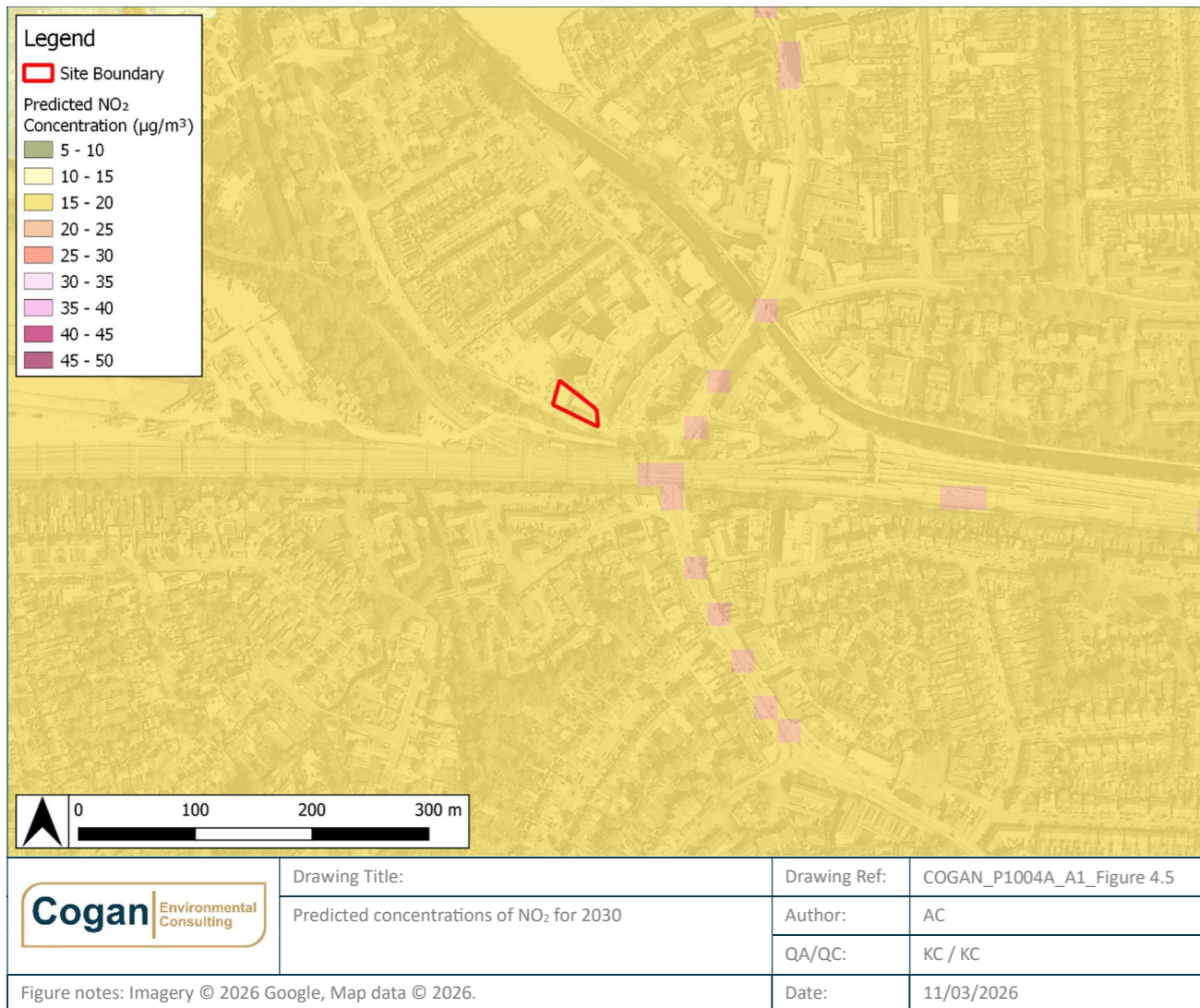


Figure 4.6: Predicted concentrations of PM₁₀ for 2022

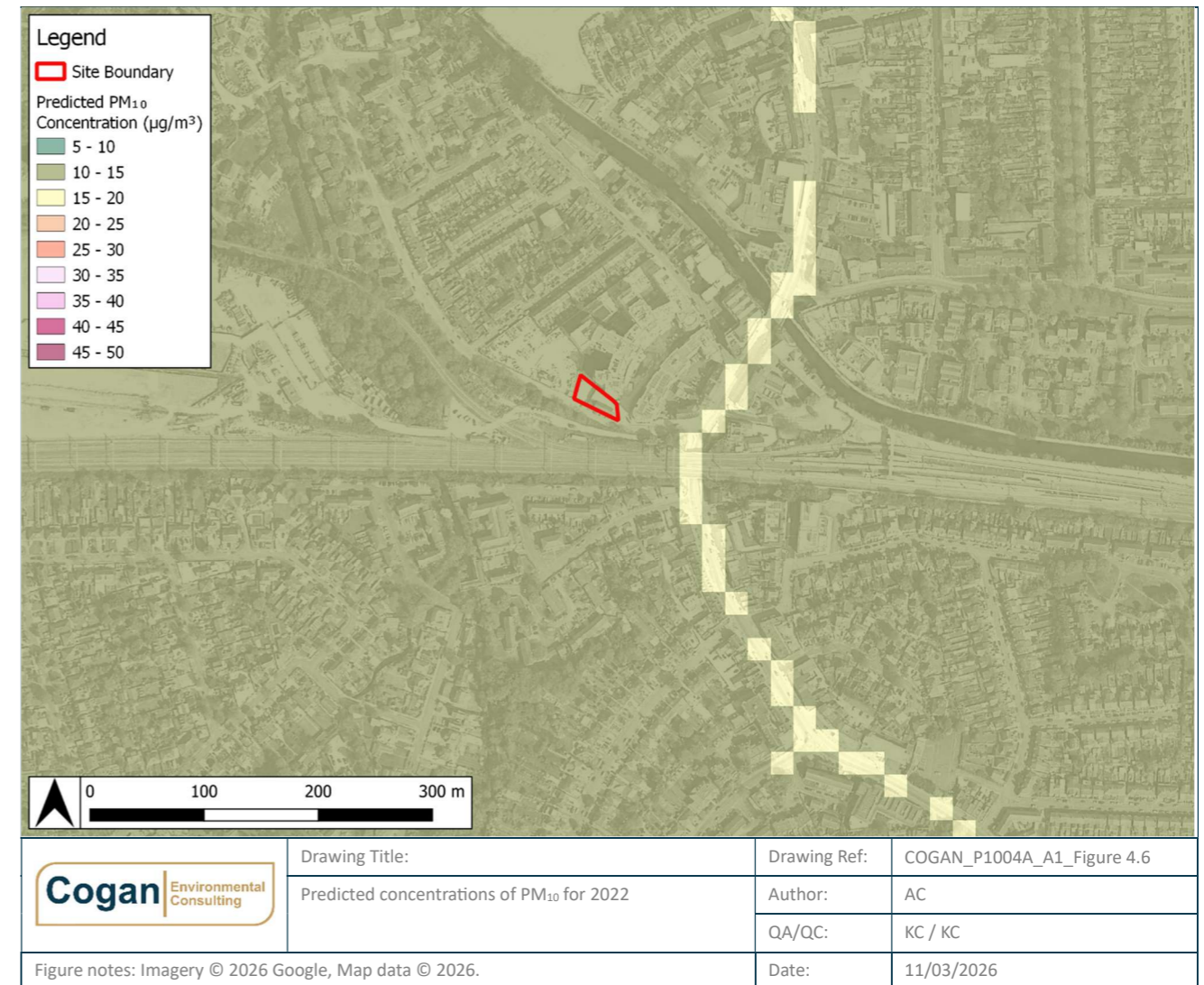
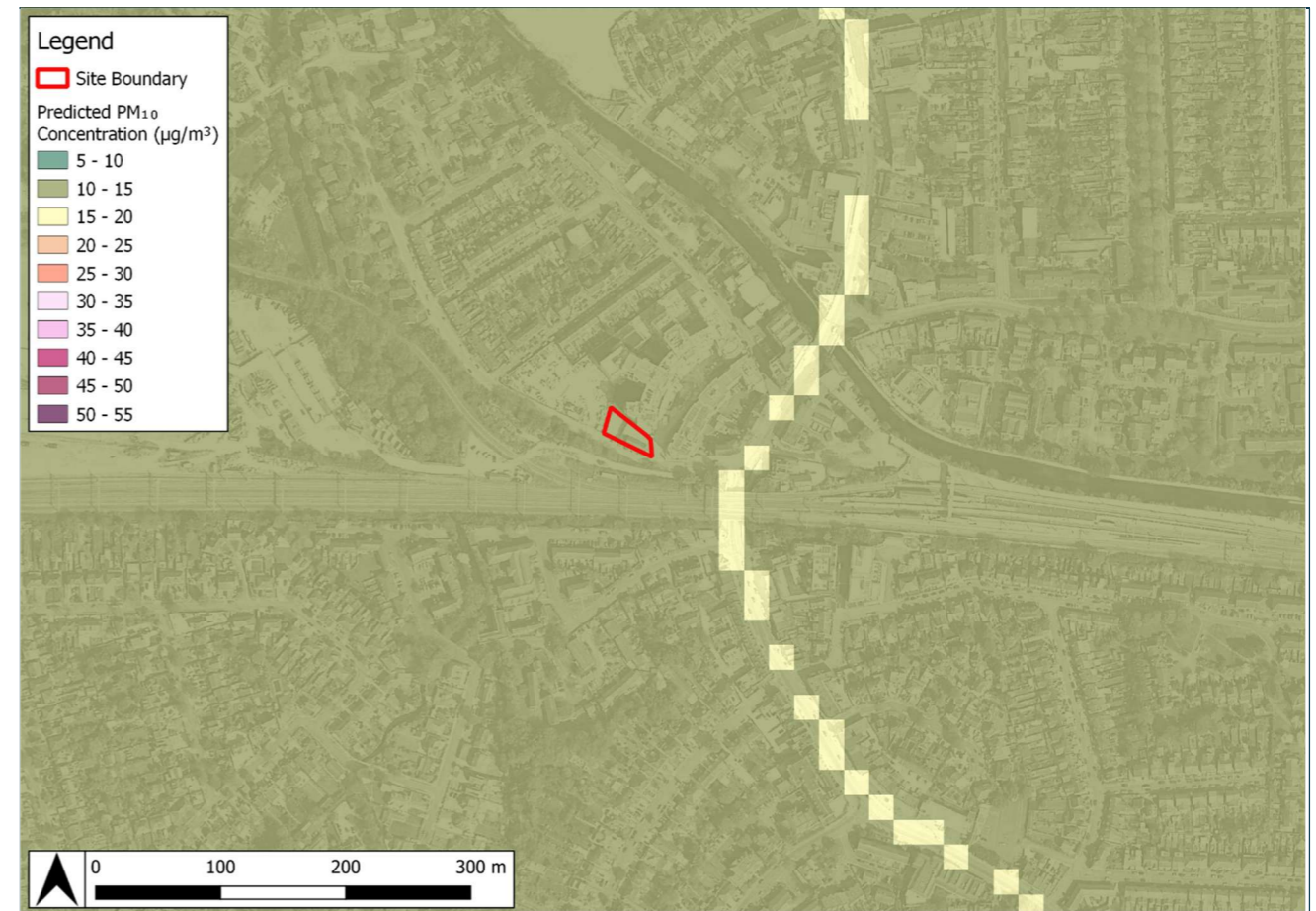


Figure 4.7: Predicted concentrations of PM₁₀ for 2025



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	Predicted concentrations of PM10 for 20	Author:	AC
		QA/QC:	KC / KC
Figure notes: Imagery © 2026 Google, Map data © 2026.	Date:	11/03/2026	

Figure 4.8: Predicted concentrations of PM₁₀ for 2030



	Drawing Title:	Drawing Ref:	COGAN_P1004A_A1_Figure 4.8
	Predicted concentrations of PM10 for 2030	Author:	AC
		QA/QC:	KC / KC
Figure notes: Imagery © 2026 Google, Map data © 2026.	Date:	11/03/2026	

Figure 4.9: Predicted concentrations of PM_{2.5} for 2022

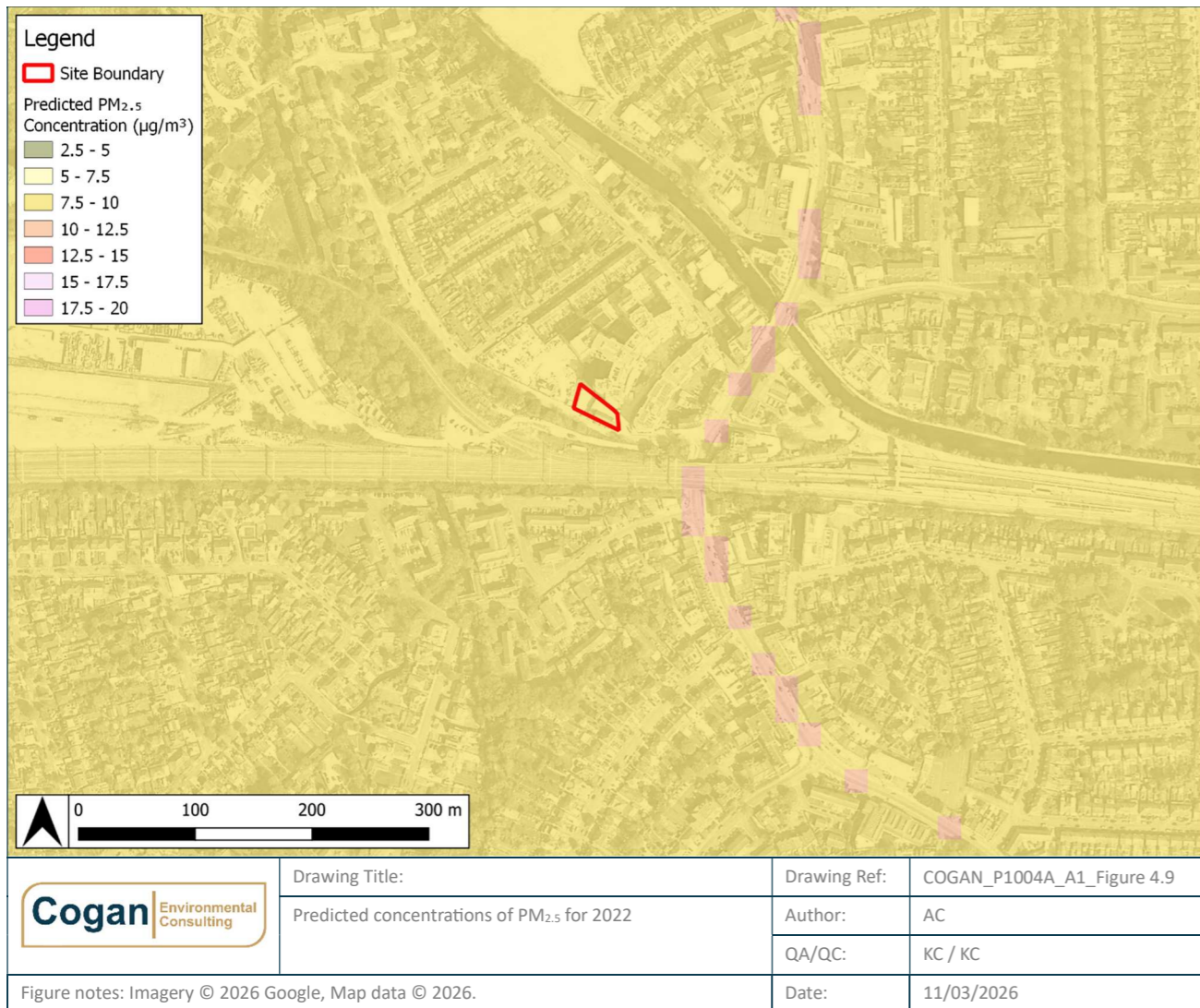


Figure 4.10: Predicted concentrations of PM_{2.5} for 2025

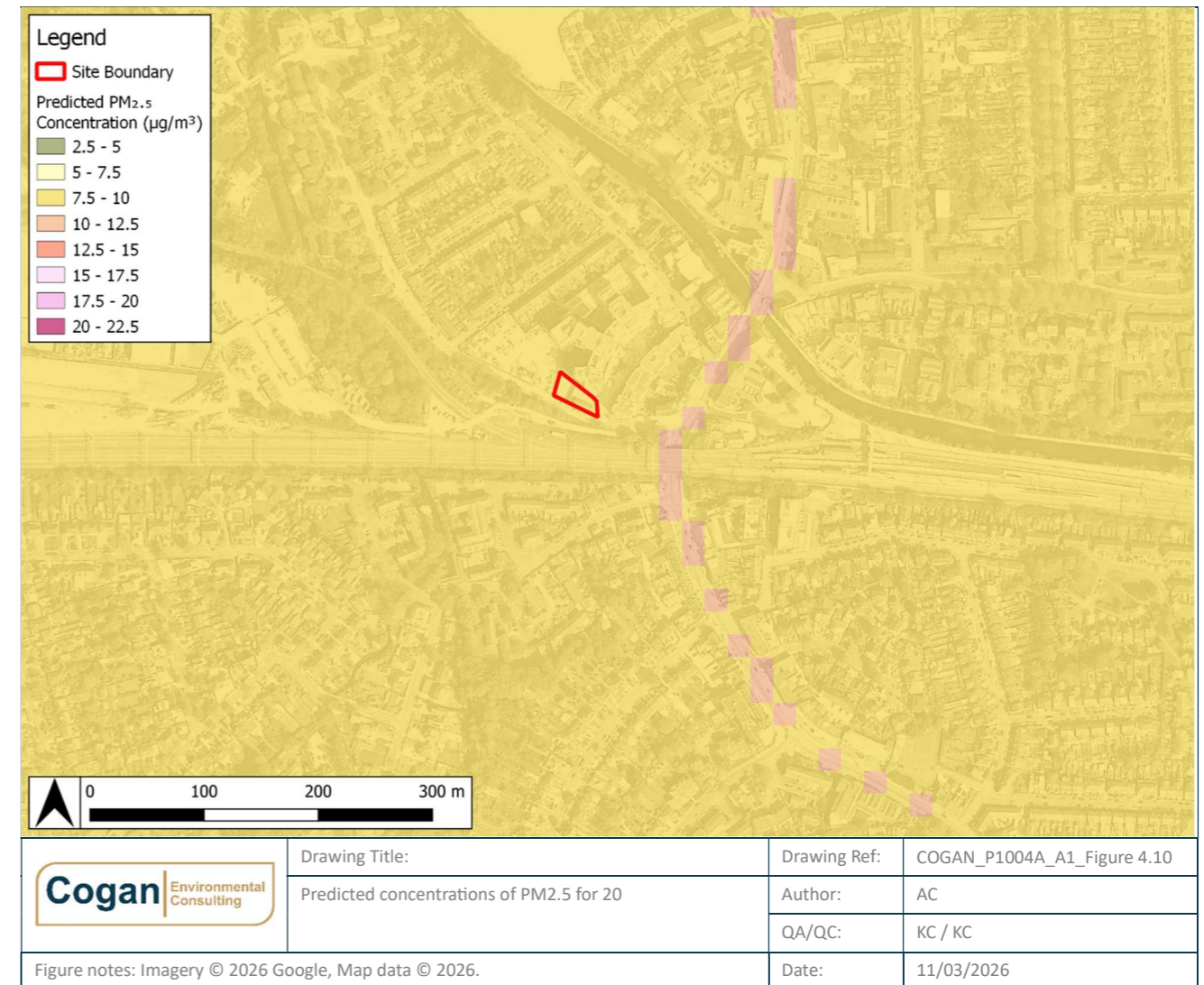
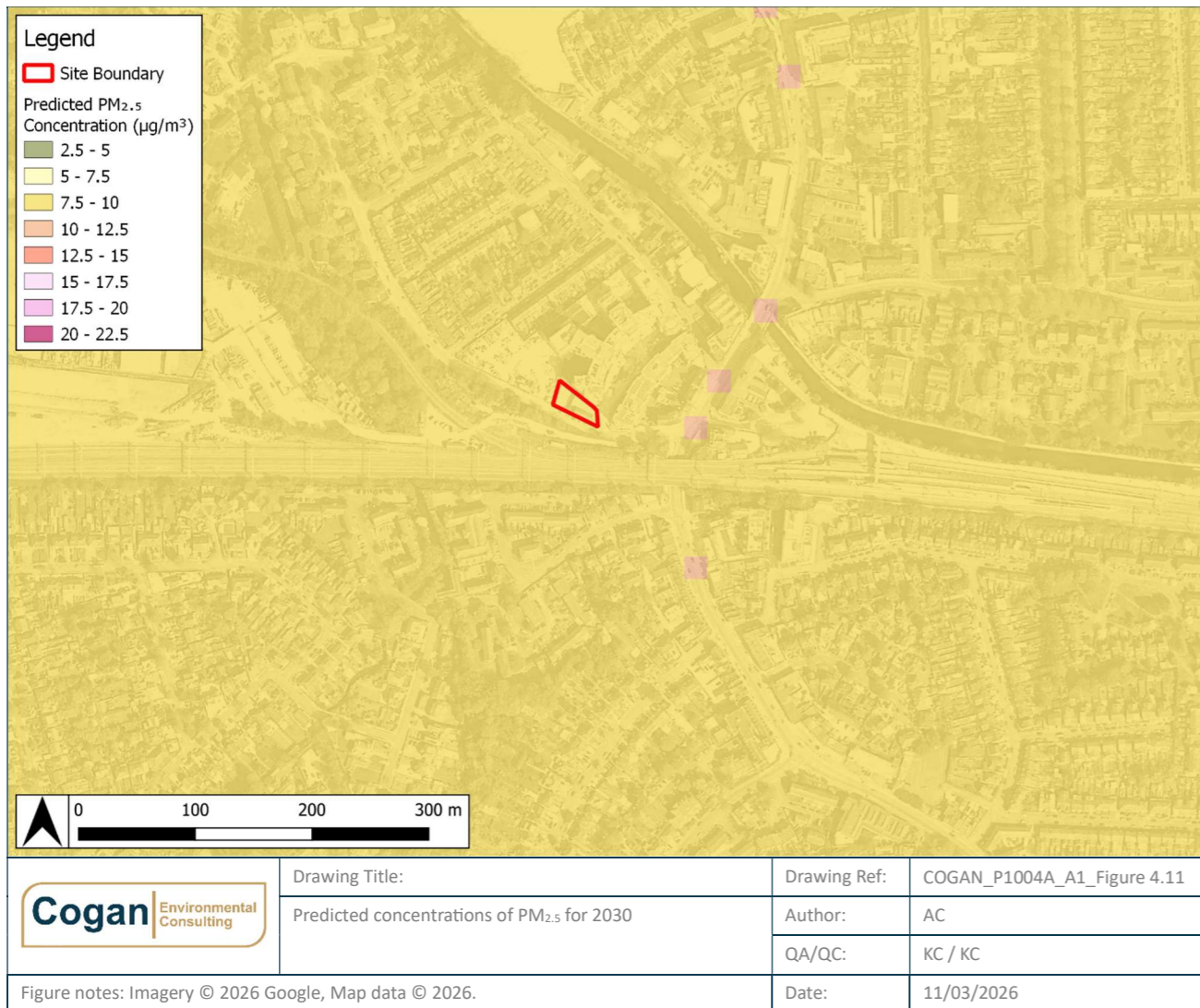


Figure 4.11: Predicted concentrations of PM_{2.5} for 2030



Other Sources of Air Pollution

Permitted Facilities

4.15 Defra and the Devolved Administrations maintain a database of sites which are at risk of contributing significantly to pollutant concentrations, called the UK Pollutant Release and Transfer Register⁴. A search of the 2024 database has identified two facilities within 1 km of the Proposed Development; Powerday H W R C (located approximately 322 m west), and Recycling With Skips Ltd (located approximately 926 m northwest). Both businesses are Installations for the disposal of non-hazardous waste. Both businesses are required to operate in compliance with their permit specifications, and therefore are unlikely to pose a problem to air quality at the Proposed Development.

¹¹ IAQM (2024). Guidance on the assessment of dust from demolition and construction 2024.

Railway

4.16 The railway to the south of Tavistock Road is serviced by the Elizabeth Line which is fully electrified. At its closest point, the Proposed Development is set back from the railway by 28 m. Given it is electrified, there is considered to be limited risk of emissions from this upon air quality at the Proposed Development.

Summary of Baseline Conditions

4.17 The Proposed Development is located within a borough wide AQMA, the London LEZ and ULEZ, the London Low Emission Zone for NRMM and within the West Drayton/Yiewsley AQFA. There are no sites for nature conservation near the application site.

Air Quality Objectives

4.18 LBH have measured annual mean concentrations of NO₂ at multiple locations across their administrative area; all concentrations close to the Proposed Development are below the AQOs in 2023. Background and roadside NO₂, PM₁₀ and PM_{2.5} concentrations are predicted by Defra and Devolved Administrations to be below the AQOs in 2023. The GLA/TfL have also predicted NO₂, PM₁₀ and PM_{2.5} concentrations across the borough and concentrations at the Proposed Development are predicted to be below the AQOs. Baseline concentrations at the application site are thus likely to be below the AQOs.

Limit Value Compliance

4.19 Roadside annual mean concentrations are predicted by Defra and Devolved Administrations to be below the LVs along relevant local roads. The local area is therefore currently compliant with the LVs.

IT and AMCT Compliance

4.20 Annual mean concentrations of PM_{2.5} are predicted by the GLA/TfL and Defra and the Devolved Administrations to be below the IT and AMCT at the application site.

5 Updated Assessment of Construction Dust

Assessment Methodology

5.1 The assessment follows the qualitative risk assessment approach set out in IAQM guidance¹¹, as required by GLA guidance¹². The approach follows a series of steps which are explained below.

Step 1

5.2 Initial distance-based screening is carried out to determine whether there is any risk of dust effects. The screening criteria are:

- a human receptor within:

¹² GLA (2014). The control of dust and emissions during construction and demolition supplementary planning guidance.

- 250 m of the boundary of the site; or
- 50 m of the route(s) used by construction vehicles on the public highway, up to 250 m from the site entrance(s).
- an ecological receptor within:
 - 50 m of the boundary of the site; or
 - 50 m of the route(s) used by construction vehicles on the public highway, up to 250 m from the site entrance(s).

5.3 Where there are no receptors within the screening distances, the effects can be discounted. Where receptors are identified, the assessment proceeds to Step 2.

Step 2

- 5.4 Step 2 of the IAQM approach is to assess the risk of dust effects for four categories; demolition, earthworks, construction and trackout.
- 5.5 The guidance sets out indicative criteria for dust emission magnitude classifications of Small, Medium, and Large. The classification depends on a variety of considerations, including the scale of dust generating activities, the dustiness of materials and soil, the duration of works (including phasing), and professional judgement.
- 5.6 The magnitude of dust effects is then combined with the sensitivity of the local area to any dust effects (i.e. the sensitivity and number of human and ecological receptors) to determine the risk of dust effects without any mitigation.
- 5.7 The sensitivities of receptors should be classified as low, medium or high sensitivity in terms of dust soiling and human health/ecological effects, and take account of a number of factors including the uses of properties, the proximity and number of receptor, baseline dust (PM₁₀) concentrations, and other site-specific factors (such as barriers shielding receptors from dust).
- 5.8 The IAQM guidance provides examples of high, medium and low sensitivity receptors. Residential properties are considered high sensitivity receptors to dust soiling and human health effects. Commercial properties are generally considered medium sensitivity to human health effects, and those reliant on appearance are considered high sensitivity receptors to dust soiling and others are considered medium sensitivity to dust soiling. Industrial facilities are considered low sensitivity receptors. For ecological effects, in general, international statutory nature conservation sites are considered high sensitivity, national statutory nature conservation sites are considered medium sensitivity, and non-statutory nature conservation sites are considered low sensitivity.

Step 3

5.9 Based upon the risk of dust effects identified in Step 2, appropriate site-specific mitigation measures are then identified.

Step 4

5.10 With the identified mitigation measures implemented, consideration is then given to residual effects. Sufficient mitigation measures should be identified in Step 3 to ensure residual effects are not significant.

Impact Assessment

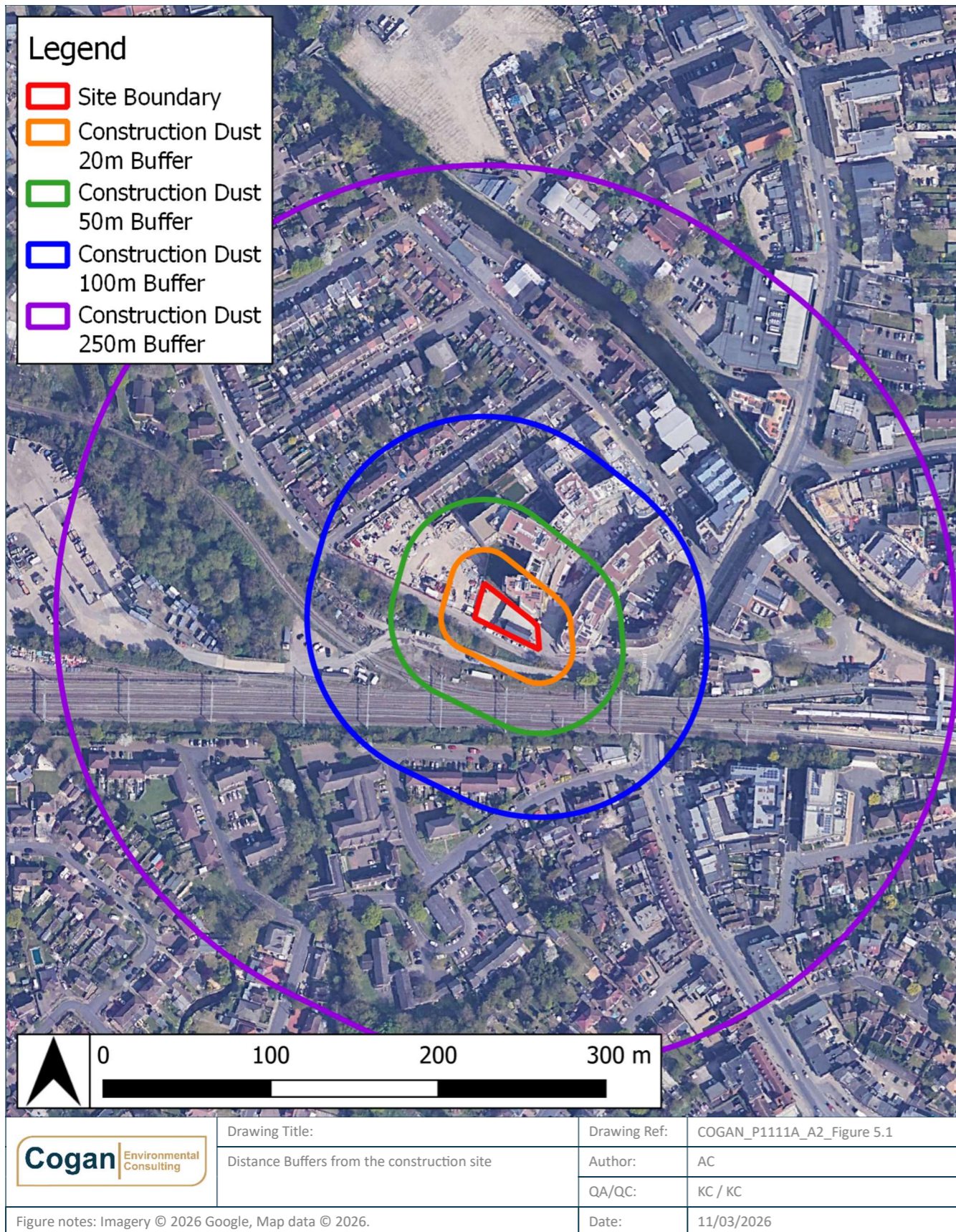
Step 1

- 5.11 Following the IAQM qualitative risk assessment approach, sensitive human and ecological receptors in the local area have been reviewed in relation to the distances set out in the guidance.
- 5.12 For onsite works, the distances are 20 m, 50 m, 100 m and 250 m. These are shown in Figure 5.1. The review has identified:
- there are human receptors within the distances; and
 - there are no ecological receptors within 50 m of onsite works.

For trackout, as the site is small, HDVs will pull up beside the site, resulting in no trackout.

5.13 Hence, further assessment is required for human health receptors for onsite works. No further assessment of ecological receptors will be made.

Figure 5.1: Distance Buffers from the construction site



Step 2

Dust Emission Magnitudes

Demolition

5.14 There will be some demolition on site, to remove the current building and hard standing for the car park. Dust will arise mainly from the demolition, handling and transport of dusty materials (such as building materials). Based on the criteria set out in the IAQM guidance, the dust emission magnitude for demolition is considered Small.

Earthworks

5.15 The dust generated by the earthworks depends on the nature of the earth and soil at the application site. Relevant characteristics of the soil have been obtained from the British Geological Survey's UK Soil Observatory¹³ and are set out in Table 5.1. When the soil is dry, it is considered to have the potential to be slightly dusty.

Table 5.1: Soil conditions at the application site

Category	Record
European Soil Bureau Description	Residual Clay and Loamy Loess
Soil texture	Medium to light (silty) to heavy Silt to silty loam
Subsoil grain size	Argillaceous ^a
Soil layer thickness	Deep ^b
Table notes:	
a. A clay and silt-rich subsoil.	
b. The soil and subsoil can be easily dug to a depth of more than 1 metre.	

5.16 The exact area of earthworks is unknown. The total site area is approximately 680 m². Dust will arise mainly from the handling and transport of dusty materials (such as dry soil). Based on the criteria set out in the IAQM guidance, the dust emission magnitude for earthworks is considered Small.

Construction

5.17 The Proposed Development will involve the construction of a six-storey residential building. The total volume for construction is likely to be between 12,000 - 75,000 m³. Based on the criteria set out in the IAQM guidance, the dust emission magnitude for construction is considered Medium.

Trackout

As the site is small, there will be no trackout, as HDVs will pull up beside the site.

¹³ British Geological Survey. (2024). UK Soil Observatory (UKSO). Available at: <http://mapapps2.bgs.ac.uk/ukso/home.html>

Summary of Dust Emission Magnitudes

5.18 The dust emission magnitudes for the Proposed Development are summarised in Table 5.2.

Table 5.2: Summary of dust emission magnitudes

Activity	Dust Emission Magnitude
Demolition	Small
Earthworks	Small
Construction	Medium
Trackout	N/A

Sensitivity of the Local Area

5.19 Figure 5.1 shows the distances over which receptors need to be considered and demonstrate that:

- For onsite works:
 - There are between 10 – 100 high sensitivity properties within 20 m of the application site. Following the IAQM guidance, the sensitivity of the area to dust soiling effects from onsite works will be High.
 - Baseline annual mean PM₁₀ concentrations in the local area are estimated to be below 24 µg/m³. Following the IAQM guidance, the sensitivity of the area to human health effects from onsite works will be Low.

5.20 The sensitivity of the local area is summarised in Table 5.3.

Table 5.3: Summary of sensitivities of the local area

Effect Stage	Activity			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	High	High	High	N/A
Human Health	Low	Low	Low	N/A
Ecological	N/A	N/A	N/A	N/A

Risk of Dust Effects

5.21 Using the risk matrices set out in the IAQM guidance, the dust emission magnitudes in Table 5.2 have been combined with the sensitivities in Table 5.3 to derive the risks of dust effects, without mitigation. These are presented in Table 5.4.

Table 5.4: Risk of dust effects

Effect Stage	Activity			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Medium Risk	Low Risk	Medium Risk	N/A
Human Health	Negligible Risk	Negligible Risk	Low Risk	N/A
Ecological	N/A	N/A	N/A	N/A

Step 3

- 5.22 Measures to mitigate emissions will be required during the construction phase of the Proposed Development in order to minimise dust effect upon nearby sensitive receptors.
- 5.23 Typically, appropriate measures would be identified based upon the risks identified in Step 2 (Table 5.4). Appropriate mitigation measures have been identified based on the IAQM guidance and are set out in the tables below.
- 5.24 The measures include a recommendation as to whether they are highly recommended or desirable for inclusion within the specification for the construction management. The mitigation measures should be written into a Dust Management Plan and integrated into a Code of Construction Practice or the Construction Environmental Management Plan where possible.
- 5.25 Where mitigation measures rely on water, it is expected that only sufficient water will be applied to damp down the material. There should not be any excess to potentially contaminate local watercourses.

Table 5.5: Communication

Measure	Recommendation
Display the head or regional office contact information.	Highly Recommended
Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the Local Authority. The level of detail will depend on the risk, and should include as a minimum the highly recommended measures in this document. The desirable measures should be included as appropriate for the site. The DMP may include monitoring of dust deposition, dust flux, real-time PM ₁₀ continuous monitoring and/or visual inspections.	Highly Recommended
Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.	Highly Recommended
Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.	Highly Recommended

Table 5.6: Site management

Measure	Recommendation
Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.	Highly Recommended
Make the complaints log available to the local authority when asked.	Highly Recommended
Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the log book.	Highly Recommended

Table 5.7: Monitoring

Measure	Recommendation
Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100 m of site boundary, with cleaning to be provided if necessary	Desirable
Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.	Highly Recommended
Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.	Highly Recommended
Agree dust deposition, dust flux, or real-time PM ₁₀ continuous monitoring locations with the Local Authority. Where possible commence baseline monitoring at least three months before work commences on site or, if it a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks, and construction.	Highly Recommended

Table 5.8: Preparing and maintaining the site

Measure	Recommendation
Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.	Highly Recommended
Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.	Highly Recommended
Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.	Highly Recommended
Avoid site runoff of water or mud.	Highly Recommended
Keep site fencing, barriers and scaffolding clean using wet methods.	Highly Recommended
Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.	Highly Recommended
Cover, seed or fence stockpiles to prevent wind whipping.	Highly Recommended

Table 5.9: Operating vehicle/machinery and sustainable travel

Measure	Recommendation
Ensure all vehicles switch off engines when stationary – no idling vehicles.	Highly Recommended
Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.	Highly Recommended
Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).	Desirable
Ensure all on-road vehicles comply with the requirements of the London Low Emission Zone and the London NRMM standards, where applicable.	Highly Recommended

Table 5.10: Operations

Measure	Recommendation
Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.	Highly Recommended
Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.	Highly Recommended
Use enclosed chutes and conveyors and covered skips.	Highly Recommended
Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.	Highly Recommended
Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.	Highly Recommended

Table 5.11: Waste management

Measure	Recommendation
Avoid bonfires and burning of waste materials.	Highly Recommended

Table 5.12: Measures specific to demolition

Measure	Recommendation
Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).	Desirable
Ensure effective water suppression is used during demolition operations. Hand held sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.	Highly Recommended
Avoid explosive blasting, using appropriate manual or mechanical alternatives.	Highly Recommended
Bag and remove any biological debris or damp down such material before demolition.	Highly Recommended

Table 5.13: Measures specific to construction

Measure	Recommendation
Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.	Desirable
For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.	Desirable
Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.	Highly Recommended
Avoid scabbling (roughening of concrete surfaces) if possible.	Desirable

Step 4

5.26 With the identified mitigation measures implemented, the residual effects are judged to be ‘not significant’. The IAQM guidance recognises that even with a 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 Updated Air Quality Neutral Assessment

- 6.1 Following the requirements of The London Plan¹⁴, an air quality neutral (AQN) assessment has been provided.
- 6.2 The purpose of air quality neutral assessments is to ensure development's small incremental cumulative impacts upon Greater London, as a whole, are checked, such that the combined contributions from developments across London do not cause a detrimental deterioration in air quality. The aim of the assessment is to ensure pollutant emissions are minimised and consistent with good practice sustainable developments.
- 6.3 In addition, total annual emissions are provided to support the applicant in providing additional information that is required to be submitted as part of any planning application in the GLA area as part of the GLA Planning Data Standard.

Assessment Approach

- 6.4 An air quality neutral assessment will be undertaken in accordance with Policy SI.1 of the London Plan¹⁴. The assessment will be carried out following the GLA London Plan Guidance: Air Quality Neutral¹⁵. This sets out a methodology for assessing air quality neutral, comparing the development against pollutant benchmarks in terms of transport and building related emissions. Where emissions exceed benchmarks, recommendations for appropriate mitigation measures will be discussed with the client and where necessary further offsetting costs will be calculated.

Air Quality Neutral Assessment

Building Related Emissions

- 6.5 The energy strategy for the proposed development is Air Source Heat Pumps (ASHP) and Mechanical Ventilation with Heat Recovery (MVHR) which will provide heating/ cooling and hot water. There will be no fossil fuel combustion onsite. There will thus be no emissions produced and the Proposed Development will be air quality neutral in terms of building-related emissions.

Transport Related Emissions

- 6.6 The guidance states that where major developments meet the definition of 'car-free' they can be assumed to meet the transport emission benchmarks and be classed as air quality neutral.
- 6.7 The Proposed Development does not include any onsite car parking (except a single disabled space) and is therefore classified as being car-free under London Plan policy. The Proposed Development will therefore be air quality neutral in terms of transport emissions.

¹⁴ GLA. (2021). The London Plan, The Spatial Development Strategy for Greater London.

¹⁵ GLA (2023). London Plan Guidance, Air Quality Neutral.

¹⁶ GLA (2019). Planning Information, Non-Technical Data Standard, Version 2, V2.1. Available at: https://www.london.gov.uk/sites/default/files/updated_non_technical_planning_data_standard.pdf

Mitigation Measures

- 6.8 As the Proposed Development will be air quality neutral in terms of both building and transport related emissions, there is no requirement for additional mitigation measures.

Offsetting

- 6.9 As the Proposed Development will be air quality neutral in terms of both building and transport related emissions, there is no requirement for off-setting payments.

Conclusion

- 6.10 Overall, the Proposed Development is compliant with the requirements of the AQN guidance and is thus defined as being an air quality neutral development.

GLA Planning Data Standard

- 6.11 The GLA Planning Data Standard sets out the additional information that is required to be submitted as part of any planning application in the GLA area. This includes additional information requirement 4.(x) 'Total annual NOx and PM emissions', as set out in the non-technical planning data standard¹⁶.
- 6.12 Further to data standard, the GLA have published datahub guidance and justification¹⁷. This explains that the emissions should be provided in units of annual kilograms (kg/annum) and the figures relate to those set out in The London Plan's air quality neutral policy SI 1 B2)a)¹⁴.
- 6.13 Since the Proposed Development will be air quality neutral in terms of both building and transport related emissions, the total annual NOx and PM emissions are:
 - NOx Emission: 0 kg/annum
 - PM_{2.5} Emission: 0 kg/annum

7 Conclusion

- 7.1 The air quality impacts of the Proposed Development at Tavistock Works, Hillingdon, have been assessed.
- 7.2 Consideration has been given to the potential air quality impacts of the Proposed Development upon the local area, during both the construction and operational phases. All impacts have been determined to be negligible following relevant guidance, and the Proposed Development is unlikely to delay compliance with regulated thresholds in the local area. The effects will therefore be 'not significant'.

¹⁷ GLA (2020). Datahub guidance and justification. Available at:

https://www.london.gov.uk/sites/default/files/datahub_guidance_and_justification_dec_20.pdf

- 7.3 The construction works have the potential to create dust. During construction a package of mitigation measures to minimise dust effects will be applied.
- 7.4 Air quality for future users of the Proposed Development has also been considered. The assessment has demonstrated the site to be suitable, with annual and short-term mean concentrations below all regulated thresholds.
- 7.5 The Proposed Development has been determined to be air quality neutral in terms of both building and transport related emissions, there is no requirement for mitigation or off-setting payments.
- 7.6 Overall, the air quality effects of the Proposed Development are judged to be 'not significant'.

8 Technical Appendix

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Annex 1: Glossary

Table 8.1: Glossary of terms used in the assessment

Term	Meaning
AADT	Annual Average Daily Traffic
AMCT	Annual Mean Concentration Target
AQMA	Air Quality Management Area
AQO	Air Quality Objective
AQS	Air Quality Standard
Defra	Department for Environment, Food & Rural Affairs
EPUK	Environmental Protection UK
GLA	Greater London Authority
HDV	Heavy Duty Vehicle
IAQM	Institute of Air Quality Management
IT	Interim Target
LAEI	London Atmospheric Emissions Inventory
LAQM	Local Air Quality Management
LDV	Light Duty Vehicle
NRMM	Non-Road Mobile Machinery
NO ₂	Nitrogen dioxide
NO _x	Nitrogen oxides
PM	Particulate Matter (dust)
PM _{2.5}	PM with a diameter of less than 2.5 micrometres
PM ₁₀	PM with a diameter of less than 10 micrometres
TfL	Transport for London
WHO	World Health Organization

Annex 2: Professional Competence



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Austin is Director and Practice Manager at Cogan Environmental Consulting Limited. He is a Chartered Environmentalist with over 17 years' experience in environmental sciences, covering indoor and outdoor air quality, odour, dust, bioaerosols, greenhouse gases and climate change. He was a committee member of The Council of Property Search Organisations and has developed a number of guidance documents in the industry.

He was a reviewer of the International Handbook on the Assessment of Odour Exposure by using Dispersion Modelling. Recently, he has been co-chair of the Institute of Air Quality Management's odour working group, developing updated odour guidance for planning in the UK.

Throughout his career, he has been involved in over 1,000 projects across the UK and abroad, focusing on supporting planning applications and environmental permit applications. His expertise covers a diverse range of sectors, including residential, student, commercial, retail, leisure, community, education, healthcare, distribution, and hospitality developments, industrial, waste, agricultural, power generation, and utility projects, and defence, aviation, and infrastructure schemes. These have included technical reviews for both indoor and outdoor air quality assessments, and climate change assessments for aviation, as well as the provision of expert witness services for air quality and odour.

He has a long history of supporting local authorities with local air quality concerns, including Clean Air Zones, Local Plans, Air Quality Management Areas, Air Quality Action Plans, and feasibility studies involving microsimulation modelling. Austin has also been involved in multiple projects for JNCC, EA, GLA, National Highways and NGOs, undertaking research and development activities. He is an experienced business manager, having managed multiple high-profile projects as well as operating multiple environmental businesses, where he previously led the development of licensed meteorological data which is widely used by the industry.

Austin is also an international expert in the field of climate change, having monitored greenhouse gases globally. He pioneered research in satellite observations and instrument design at the UK's Space Research Centre, where he was involved in software and algorithm development, instrumentation design, data analysis and collaboration with many international bodies, including NASA, JAXA, CNES and ESA. He has produced numerous scientific papers and presented at conferences both nationally and internationally.



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Katya is a Senior Consultant at Cogan Environmental Consulting Limited. She has over 6 years' experience in environmental sciences, covering indoor and outdoor air quality, odour, dust, bioaerosols, greenhouse gases and climate change. She completed BSc Medical Biochemistry at the University of Leicester and continued her studies at the University of Warwick to complete a MBChB Medicine, working as a Doctor in the Southwest Deanery afterwards. Her focus has subsequently involved sales and business development, and most recently environmental sciences.

Throughout her career, she has been involved in a diverse range of projects for planning applications, environmental permit applications, including management, and nuisance assessments, as well as monitoring for COSHH, indoor air quality support for BREEAM, WELL, DREAM, HQM and several research projects. Her experience covers residential, student, commercial, retail, leisure, community, education, healthcare, distribution, and hospitality developments, industrial, waste, agricultural, mineral, power generation, and utility projects, and defence and infrastructure schemes.

She has supported multiple local authorities with LAQM duties, including Local Plans, Air Quality Management Areas, Air Quality Action Plans, and Annual Status Reports. Katya has also been involved in multiple projects for JNCC, EA, and NGOs, undertaking research and development activities. She is an experienced sales and business development manager, having taken on several commercial management roles including indoor air quality business development, the sale of monitoring and diagnostic instruments as well as meteorological data.

Annex 3: Assessment Criteria

8.1 The findings of the assessment in relation to human health are considered in relation to four separate types of criteria, covered by different legislation^{18,19,20,21,22} and policy^{23,24,25}. These include Air Quality Objectives (AQOs), Limit Values (LVs), an Interim Target (IT) and an Annual Mean Concentration Target (AMCT). The Government has also set out Population Exposure Reduction Targets (PERTs) to be achieved nationally. These regulated thresholds are set out in Table 8.2.

Table 8.2: Regulated Thresholds for Human Health

Pollutant	Time Period	Criteria Type	Concentration (number of exceedances allowed per year)	Date to be achieved from and maintained after
Nitrogen dioxide (NO ₂)	1-hour Mean	AQO	200 µg/m ³ (18 times a year)	31 st Dec 2005
		LV	200 µg/m ³ (18 times a year)	1 st Jan 2010
	Annual Mean	AQO	40 µg/m ³	31 st Dec 2005
		LV	40 µg/m ³	1 st Jan 2010
Particulate Matter (PM ₁₀)	24-hour Mean	AQO	50 µg/m ³ (35 times a year)	31 st Dec 2004
		LV	50 µg/m ³ (35 times a year)	31 st Dec 2004
	Annual Mean	AQO	40 µg/m ³	31 st Dec 2004
		LV	40 µg/m ³	31 st Dec 2004
Particulate Matter (PM _{2.5})	Annual Mean	AQO ^a	20 µg/m ³	2020
		LV	20 µg/m ³	2020
		IT	12 µg/m ³	31 st Jan 2028
		IT	10 µg/m ³	Dec 2030
		AMCT	10 µg/m ³	31 st Dec 2040
	Population Exposure Reduction	PERT	22% reduction in population exposure (compared with the average population exposure baseline period 2016-2018)	31 st Jan 2028
		PERT	30% reduction in population exposure (compared with the average population exposure baseline period 2016-2018)	Dec 2030
		PERT	35% reduction in population exposure (compared with the average population exposure baseline period 2016-2018)	31 st Dec 2040

Table notes:
^a Not in Regulations and there is no legal requirement for local authorities to meet it.

8.2 While other pollutants are also regulated (including ozone, sulphur dioxide, polycyclic aromatic hydrocarbons, benzene, 1,3-butadiene, carbon monoxide, and lead), there Council have not identified any significant risks of these within the local area.

8.3 The London Environment Strategy²⁶ sets out the GLA’s vision of “establishing and achieving new, tighter air quality targets for a cleaner London, meeting World Health Organization (WHO) health-based guidelines by 2030”. This strategy was published in 2018 and referred to the WHO 2005 AQG Levels. Hence, the GLA have also set a target to achieve 10 µg/m³ for PM_{2.5} by 2030.

¹⁸ HMSO (2000). The Air Quality Regulations, 2000, Statutory Instrument 928. HMSO.

¹⁹ HMSO (2002). The Air Quality (England) (Amendment) Regulations, 2002, Statutory Instrument 3043. HMSO.

²⁰ HMSO (2020) The Environment (miscellaneous Amendments) (EU Exit) Regulations 2020 (Vol, Statutory Instrument No 1312).

²¹ HMSO (2010) The Air Quality Standards Regulations, ENVIRONMENTAL PROTECTION, 2010, No. 1001, STATUTORY INSTRUMENTS.

²² HMSO (2024). The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023

²³ Defra and Devolved Administrations (2019). Clean Air Strategy 2019. Available at:

<https://assets.publishing.service.gov.uk/media/5c3b9debe5274a70c19d905c/clean-air-strategy-2019.pdf>

²⁴ HM Government (2023). Environmental Improvement Plan 2023.

²⁵ Defra (2026). Policy Paper, Air quality Environment Act target delivery plan

²⁶ GLA (2018). London Environment Strategy.



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Cogan Environmental Consulting Limited is an independent environmental consultancy providing customer focused expert help to developers, planners, architects, industrial operators, farmers, public bodies, NGOs, lawyers and other businesses. Having supported over a thousand projects throughout our team’s careers, we are well placed to provide experienced air quality, odour and climate support for a diverse range of sectors.

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AIR QUALITY	ODOUR	CLIMATE
Air Quality Assessments for Planning and EIAs Feasibility Risk Assessments Air Quality Neutral Assessments Air Quality Positive Statements Air Quality Monitoring Surveys Planning Condition Support Ventilation Strategies Emission Mitigation Statements Damage Cost Assessments Air Quality Dust Management Plans (AQDMP) Dust Monitoring Expert Witness Services Technical Review Services LAQM Technical Support and Clean Air Zones Air Emissions Risk Assessments (Environmental Permitting) Infrastructure Assessments Indoor Air Quality Support (BREEAM, HQM, WELL, DREAM) COSHH Surveys (Air, Fumes, Dust, Bioaerosols)	Odour Assessments for Planning Nuisance Complaint Support Commercial Kitchen Risk Assessments Environmental Permitting Support Odour Management and Control Public Sector Services Expert Witness Services Technical Review Services Qualitative Desktop Assessments Field Odour Surveys (‘Sniff-Tests’) Odour Dispersion Modelling Odour Monitoring / Sampling Kitchen Risk Assessments Council, Regulator and Consultee Liaison Odour Abatement Advice Odour Management Plans	Greenhouse Gas Calculations and Assessments for Planning Greenhouse Gas ES Chapters Greenhouse Gas Monitoring Surveys H1 Calculations for Environmental Permitting UK ETS Advice Resilience and Adaptation ES Chapters Climate Management Plans Expert Witness Services Technical Review Services Net Zero Carbon Assessments for Planning Net Zero Plans for Planning Business Carbon Footprints Business Net Zero Assessments Business Net Zero Plans Business Climate Risk Assessments Business Climate Adaptation Plans
GENERAL ENVIRONMENTAL		
Construction Environmental Management Plans (CEMP) Environmental Permitting Applications and Management Meteorological Monitoring Surveys and Data Provision		

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