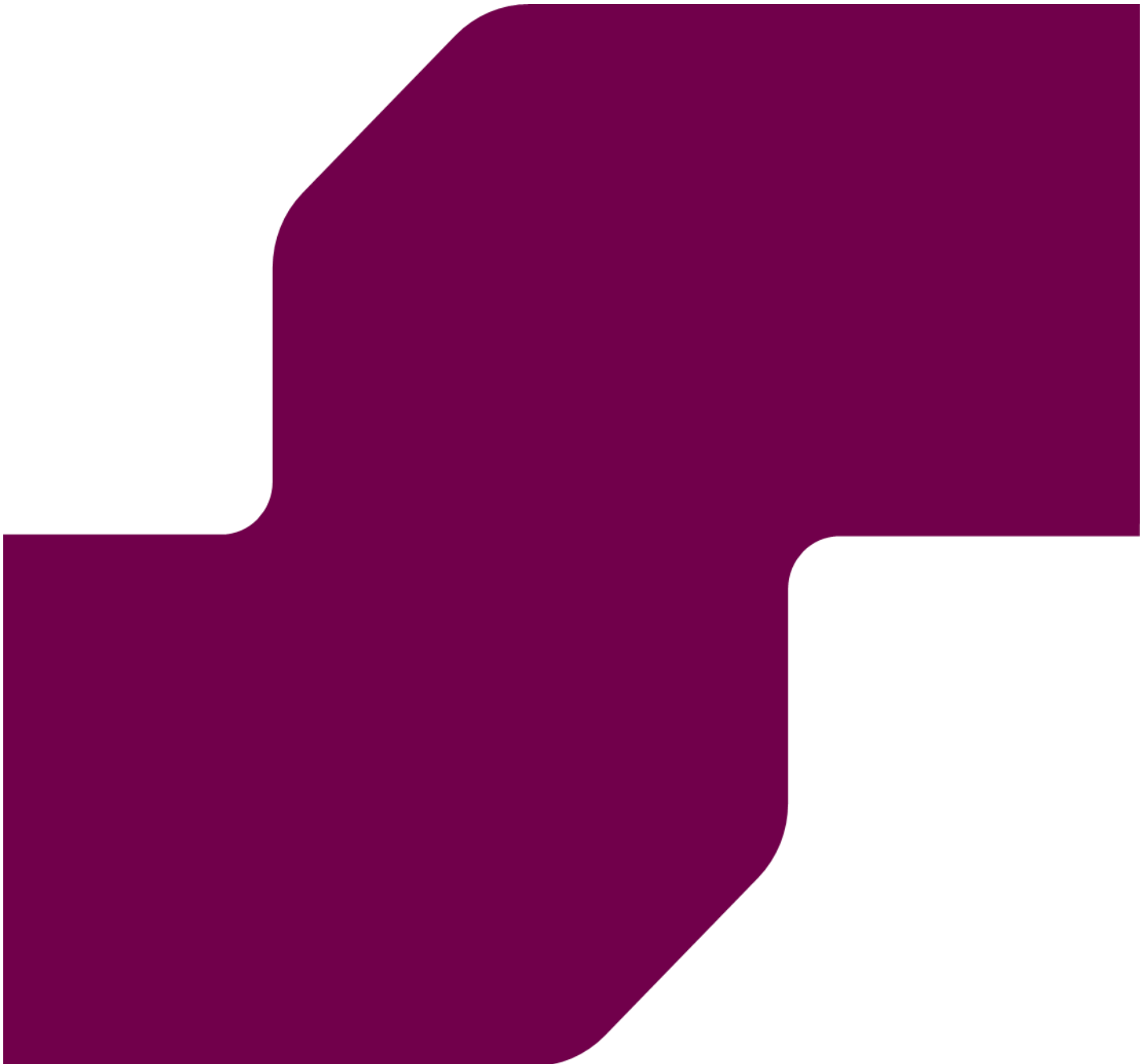


# **Baseline Monitoring Report**

**Alpha House, 24-27 Regis Road**

**For The Big Yellow Construction Co. Ltd**



### Quality Management

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# 1. Introduction

1.1 RPS was instructed by The Big Yellow Construction Co. Ltd to carry out baseline monitoring of suspended particulate matter in ambient air around the site, to establish baseline conditions prior to demolition of the Alpha House, 24-27 Regis Road site to discharge Condition 4 from the London Borough of Camden.

1.2 Condition 4 states:

*“No demolition or development shall commence until all the following have been complied with:*

*a) prior to their installation full details of two air quality monitors shall have been submitted to and approved in writing by the Local Planning Authority. Such details shall include the location and specification of the monitors, including evidence of the fact that they will be installed in line with guidance outlined in the GLA’s Control of Dust and Emissions during Construction and Demolition Supplementary Planning Guidance; and*

*b) A confirmation email should be sent to [airquality@camden.gov.uk](mailto:airquality@camden.gov.uk) no later than one day after the monitors have been installed with photographic evidence in line with the approved details; and*

*c) Prior to commencement of development, a baseline monitoring report including evidence that the monitors have been in place and recording valid air quality data for at least 3 months prior to the proposed implementation date shall be submitted to the Local Planning Authority and approved in writing.*

*The monitors shall be retained and maintained on site in the locations agreed with the Local Planning Authority for the duration of the development works, monthly summary reports and automatic notification of any exceedances shall be provided in accordance with the details thus approved. Any changes to the monitoring arrangements must be submitted to the Local Planning Authority and approved in writing.”*

1.3 A Dust Monitoring Method Statement, (Ref: 794-ENV-AIR-21372, Rev 01, dated 07 August 2024) was approved by the London Borough of Camden and confirmation email sent to [airquality@camden.gov.uk](mailto:airquality@camden.gov.uk) with photographs showing the monitors on 11/10/2024.

## 2. Methodology

- 2.1 Baseline monitoring was performed over a three-month period between 01 October 2024 and 01 January 2024, at two sampling locations, nominally upwind and downwind of the site on the site boundary.
- 2.2 The monitoring locations at the site are shown in Figure 2.1 below.

**Figure 2.1 PM Monitoring Locations**



- 2.3 Particulate monitoring was carried out in accordance with good practice guidance from the Institute of Air Quality Management (IAQM), in its guidance on “*Air Quality Monitoring in the Vicinity of Demolition and Construction Sites*” (2018).
- 2.4 Airborne concentrations of PM<sub>10</sub> were measured using Airly PM monitors, which give a real-time measurement.
- 2.5 The statutory air quality limit values, target values and objectives that relate to PM<sub>10</sub> are summarised in Table 2.1. The parameters for suspended particulates are concentrations averaged either over a year or a 24-hour period.

**Table 2.1 Summary of Relevant Air Quality Limit Values and Objectives**

Pollutant	Averaging Period	Objectives/ Limit Values	Not to be Exceeded More Than
Particulate Matter (PM <sub>10</sub> )	24 Hour	50 µg.m <sup>-3</sup>	35 times per calendar year
	Annual	40 µg.m <sup>-3</sup>	-

- 2.6 For management of construction and demolition activities, the IAQM guidance proposes a Site Action Level of an hourly mean PM<sub>10</sub> concentration of 190 µg.m<sup>-3</sup>. At this level, action should be taken to identify the cause of the elevated PM<sub>10</sub> concentration and to control and/or mitigate dust and particulate emissions. The London Borough of Camden have also requested an additional Site Action Level of a 15-minute mean PM<sub>10</sub> concentration of 250 µg.m<sup>-3</sup> also be added.

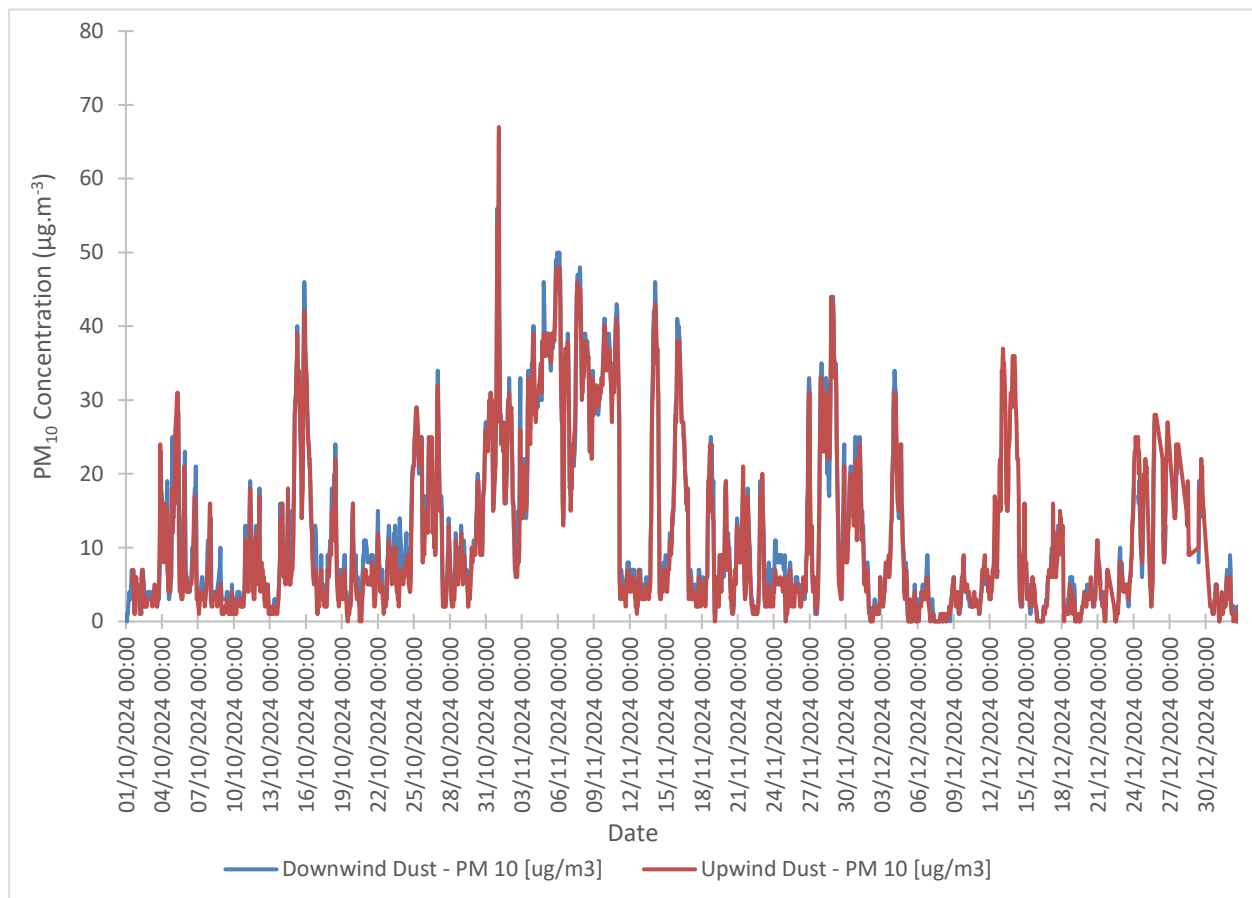
### 3. Results

3.1 A summary of the particulate matter measurements obtained over the three-month survey is presented in Table 3.2. A graph of the measured concentrations is shown in Figure 3.1.

**Table 3.2 Measured Particulate Concentrations ( $\mu\text{g.m}^{-3}$ )**

Parameter	Upwind	Downwind
Period-mean concentration	11.4	11.7
Period standard deviation (SD) of hourly averages	11.4	11.4
Period Mean + 1.96 SD (upper 95% confidence level)	33.8	33.9
Maximum 24-hour mean concentration	40	40
Number of 24-hour mean concentrations exceeding $50 \mu\text{g.m}^{-3}$	0	0
Maximum hourly mean concentration	67	66
Number of hourly mean concentrations exceeding $190 \mu\text{g.m}^{-3}$ (IAQM recommended Site Action level)	0	0

**Figure 3.1 Hourly-mean PM<sub>10</sub> Concentrations (µg.m<sup>-3</sup>)**



- 3.2 The data show there was a great deal of variation in the hourly-mean particulate concentrations, with a few 'spikes' in concentration during the baseline monitoring period.
- 3.3 The mean PM<sub>10</sub> concentration over the monitoring period (both monitors combined) was 11.5 µg.m<sup>-3</sup>. If this was representative of levels over the full calendar year it would be well below the annual mean air quality objective of 40 µg.m<sup>-3</sup>.
- 3.4 None of the 24-hour mean PM<sub>10</sub> concentrations during the baseline monitoring period exceeded the daily-mean objective of 50 µg.m<sup>-3</sup>, with a maximum 24-hour mean PM<sub>10</sub> concentration of 40 µg.m<sup>-3</sup>.
- 3.5 There were no hourly-mean concentrations of PM<sub>10</sub> that exceeded the 190 µg.m<sup>-3</sup> IAQM Site Action Level during the three-month baseline survey. The upper 95% confidence interval on the hourly-mean PM<sub>10</sub> concentrations was 33.9 µg.m<sup>-3</sup>; this can be broadly interpreted as 95% of the baseline concentration variation is within 33.9 µg.m<sup>-3</sup>. There are occasional spikes in background variation that account for a further 5% of the variation. The highest measured hourly mean baseline concentration was 67 µg.m<sup>-3</sup>.

## 4. Conclusions

- 4.1.1 The measurements of particulate matter during the baseline period were well within the relevant air quality objectives and Site Action Levels, as would be expected during a period where demolition and construction activities were not taking place.
- 4.1.2 The results of the baseline monitoring indicate that the Site Action Level PM<sub>10</sub> of an hourly-mean concentration of 190 µg.m<sup>-3</sup> set out in the IAQM guidance is appropriate for the monitoring of dust during the construction period.