

## **Air Quality and Dust Monitoring Monthly Report – September 2019**

**London Borough of Brent**



**SKANSKA**



## Department for Transport

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# Monthly Summary

- 1.1.1 This Summary Report is published in fulfilment of commitments detailed in the High Speed Rail (London-West Midlands) Environmental Minimum Requirements, Annex 1: Code of Construction Practice, for the nominated undertaker to present the results of air quality and dust monitoring undertaken in the London Borough of Brent (LBB) during August and September 2019 respectively.
- 1.1.2 Figure 1 in Appendix A indicates the current worksites together with air quality and dust monitoring locations.
- 1.1.3 This summary should be read in conjunction with the overview monitoring report available from [www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2](http://www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2), which highlights: the applicable standards and guidance, as well as the air quality and dust monitoring methodologies to be implemented by nominated undertakers throughout construction.
- 1.1.4 The current phase of works commenced within the LBB during September 2018 and are expected to be completed by October 2019. The current worksite, as presented in Appendix A, Figure 1, includes:
- Canterbury Road Vent Shaft demolition works. Worksite ref. S001-WS06.
- 1.1.5 One (1) dust monitor is installed on the worksite, where demolition works are underway. This site returned a high dust risk rating.
- 1.1.6 Dust monitoring location and results are presented in Appendix B, Table 1, together with line charts of monthly data from the dust monitor in Figure 2. All continuous dust monitoring is undertaken using indicative monitors. Despite being Environment Agency (MCERTS) certified, indicative monitors carry a higher level of uncertainty than reference monitors, and therefore cannot be strictly compared with Air Quality Standards for human health and the environment. The purpose of the monitoring undertaken is to ensure the effectiveness of the on-site mitigation.
- 1.1.7 The trigger level of  $190 \mu\text{g}/\text{m}^3$ , over a 1-hour period, in accordance with the updated guidance document '*Guidance on Monitoring in the Vicinity of Demolition and Construction Sites – October 2018*' has been applied.
- 1.1.8 There were no (0) dust trigger alerts recorded during this monitoring period (September 2019). All results were in line with expected ranges.

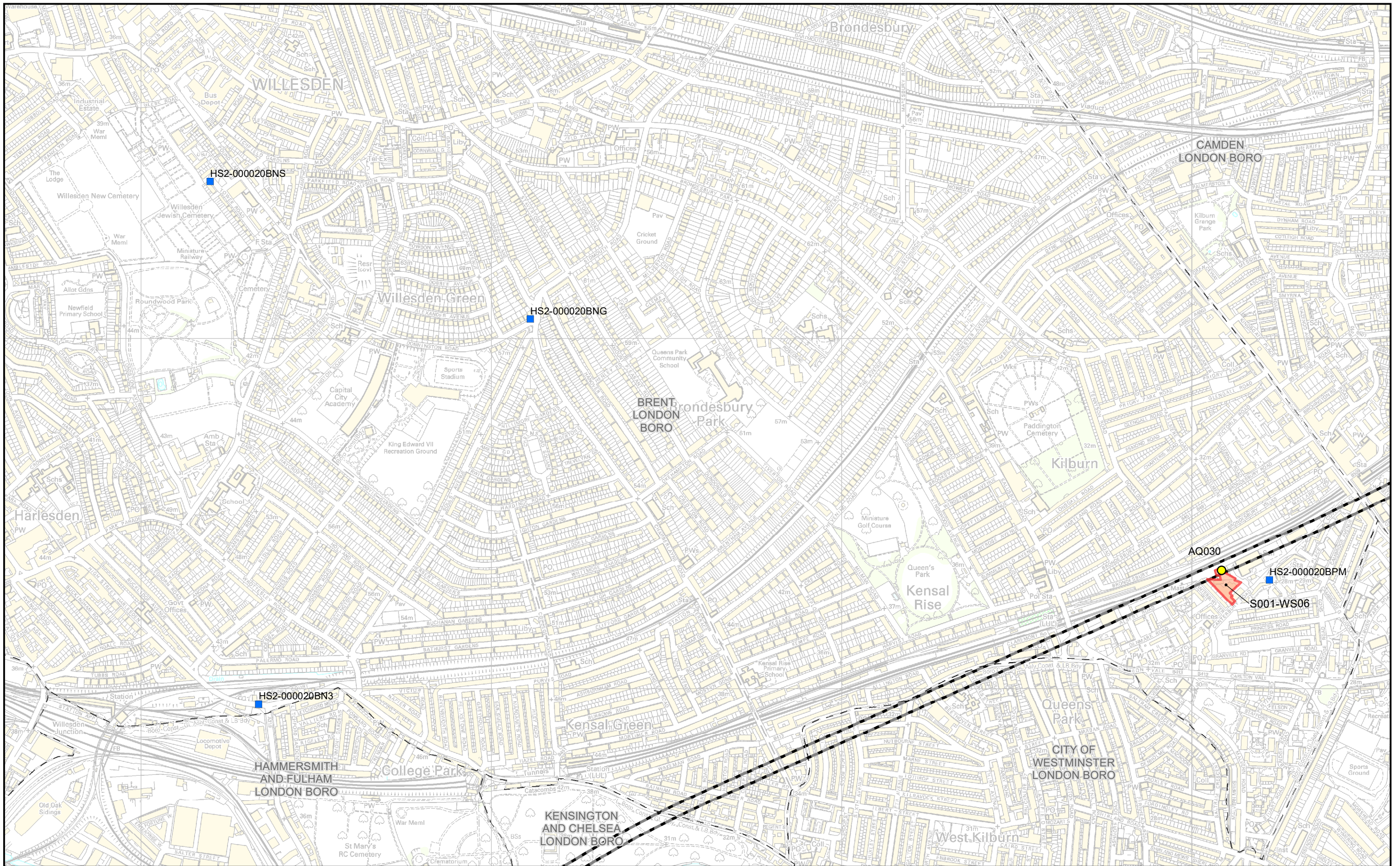
- 1.1.9 Diffusion tube monitoring of Nitrogen Dioxide (NO<sub>2</sub>) was undertaken at four (4) locations in August 2019, around highways within the LBB as part of the management of air quality where significant effects may occur as a result of the scheme.
- 1.1.10 Diffusion tube monitoring results are provided from the laboratory analysis, and therefore still require various analysis and adjustments to be undertaken. Final corrected results will be presented and described in the annual report. However, based on the results to date, no unexpected values were recorded during the monitoring period.
- 1.1.11 NO<sub>2</sub> monitoring locations and results are presented in Appendix C, Table 2, together with the 2019 running mean.
- 1.1.12 There were no complaints received, relating to air quality, during this monitoring period (September 2019).

# Appendix A – Worksites and Monitoring Locations

Figure 1: Current monitoring locations within the LBB







- Legend**
- Route in tunnel
  - Route on surface
  - Diffusion tube monitoring location
  - Canterbury Road Vent Shaft
  - Dust monitoring location

Figure Number	Figure Name
	<b>Monitoring locations in LBB</b>
London Borough of Brent	

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Scale at A3: 10,000

Metres

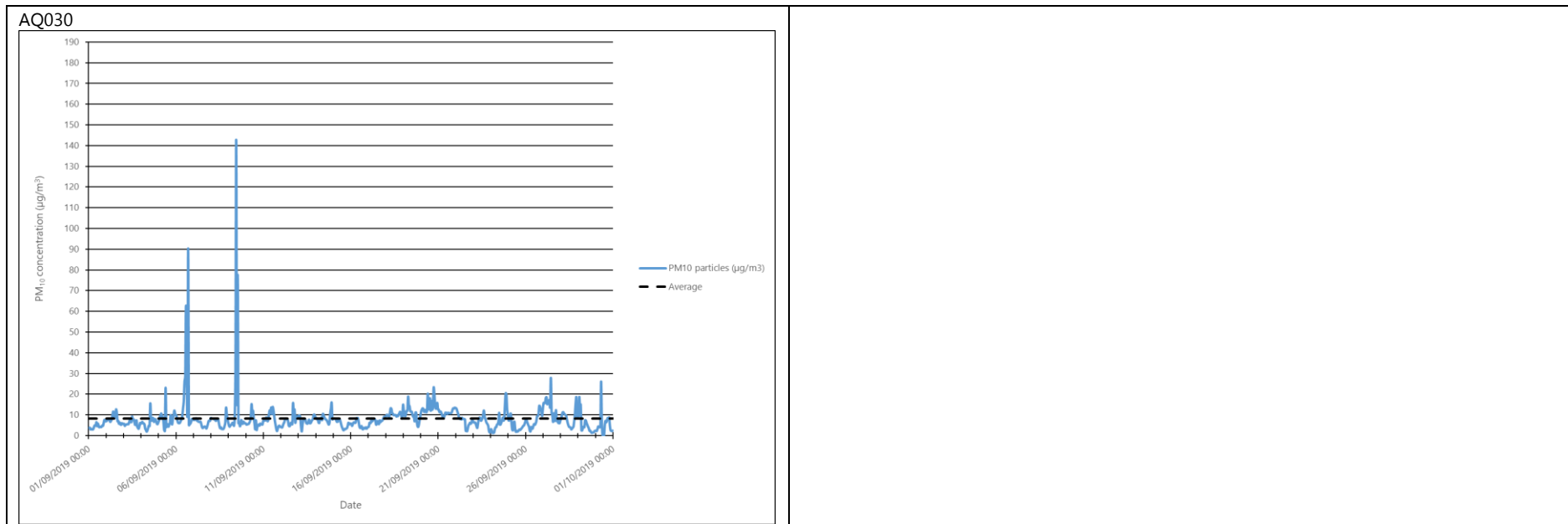


## Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and September 2019 Results

Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Minimum 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Maximum 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Number of 1-hour periods exceeding trigger level of 190 µg/m <sup>3</sup>	Data capture (%)
AQ030	525079, 183341	Canterbury Road Site	H	Yes	N	8.1	1.2	142.8	0	99.6

Figure 2: Construction dust 1-hour mean indicative PM<sub>10</sub> concentration for dust monitors





## Appendix C - Air Quality Monitoring Results

Table 2: NO<sub>2</sub> monitoring locations around highways, NO<sub>2</sub> concentrations and monthly monitoring results with running mean for 2019 (µg/m<sup>3</sup>)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean <sup>1</sup>
HS2-000020BN3	Sign post on High Street Harlesden	522335, 182955	54	75	57	57	51	58	49	54					57
HS2-000020BNG	Lamp post on Donnington Road	523110, 184055	56	53	42	36	34	31	32	31					39
HS2-000020BNS	Lamp post on Tower Road by Willesden Jewish Cemetery	522196, 184448	40	36	29	31	22	24	20	23					28
HS2-000020BPM	Lamp post along Gorefield Place near block of flats	525222, 183309	45	45	34	28	24	23	23	26					31

<sup>1</sup> Note: to aid interpretation and conform with best practice, the monthly measurements in this table are reported rounded to the nearest whole number. The annual mean presented here is calculated based on laboratory data to 4 significant figures, rounded to a whole number, and therefore may differ slightly to a mean derived from averaging the rounded monthly measurements in the table.