

## **Air Quality and Dust Monitoring Monthly Report – February 2020**

**London Borough of Hillingdon**



**SKANSKA**



## Department for Transport

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# Monthly Summary

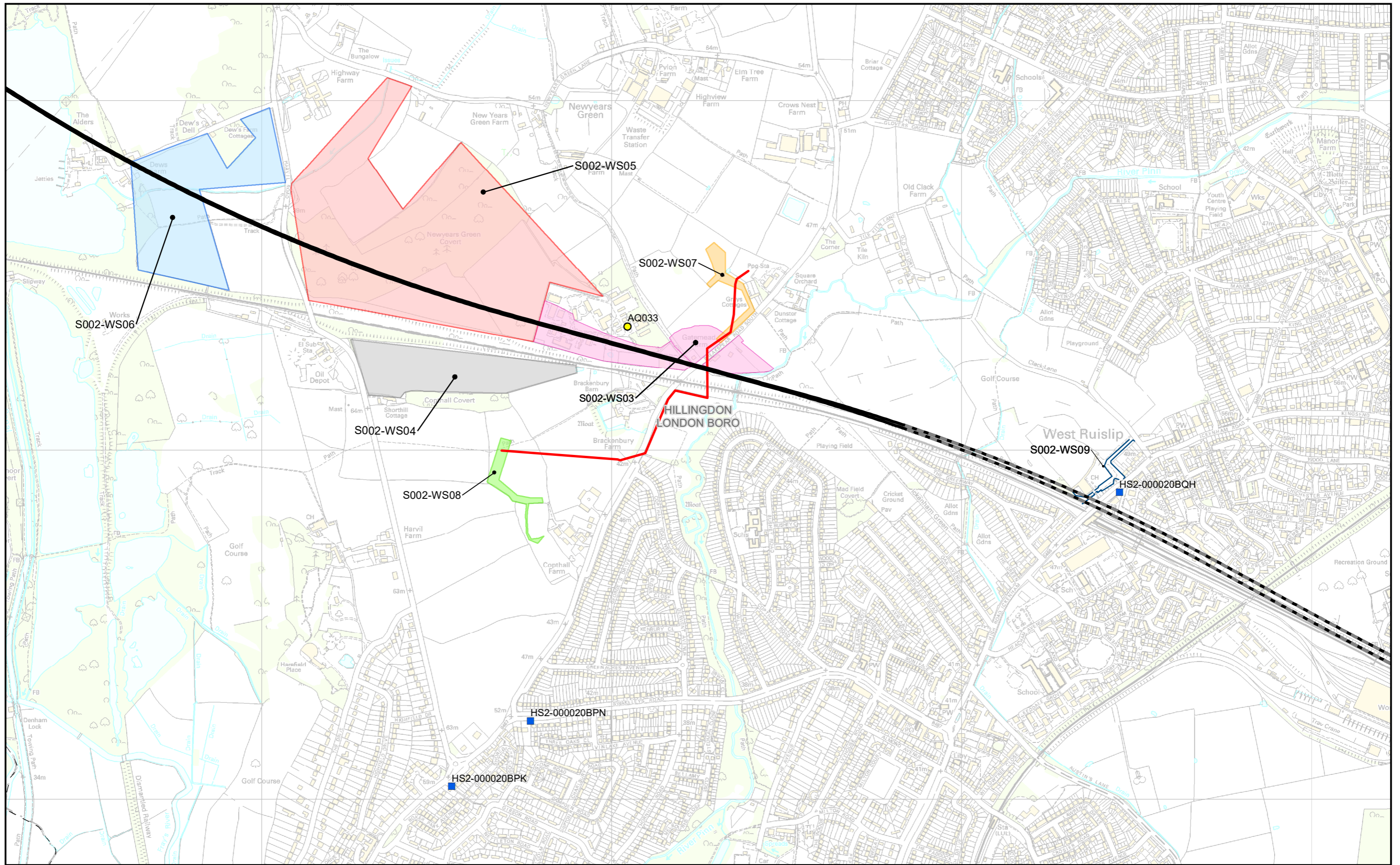
- 1.1.1 This Summary Report is published in fulfilment of commitments detailed in the High Speed Rail (London-West Midlands) Environmental Minimum Requirements, Annex 1: Code of Construction Practice, for the nominated undertaker to present the results of air quality and dust monitoring undertaken in the London Borough of Hillingdon (LBH) during January and February 2020 respectively.
- 1.1.2 Figure 1 to Figure 4 in Appendix A indicate 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 LBH during May 2018 and are expected to be completed by March 2020. The next phase of construction works commenced in November 2019 and is expected to be completed by 2025. The current worksites, as presented in Appendix A, Figure 1 to Figure 4, include:
- 18' and 48' gas pipeline diversions, advanced planting and habitat creation, worksite ref. S002-WS05;
  - Merck Sharpe Dohme, demolition works and new access road construction, completed worksite ref. S002-WS03;
  - Utility diversions at Breakspear Road South; work sites ref. S002-WS07 and S002-WS08;
  - Utility diversions at Cophall North, worksite ref. S002-WS06 and South, worksite ref. S002-WS04;
  - Haul Road construction and site compound and vegetation clearance at West Ruislip Golf Course site, worksite ref. S002-WS09; and
  - West Ruislip Portal site mobilisation and site set up, works site ref. S002-WS09.
- 1.1.5 One (1) dust monitor is installed around worksite S002-WS03, where limited demolition works had previously been underway but are now complete. This monitoring position is to be reviewed along with the second monitor which had previously been installed at the MSD site during demolition works. The monitors are to be reinstalled/repositioned for the future Cophall Cutting and Gatemead Embankment works covering work sites S002-WS03 and S002-WS05. This site has returned a medium dust risk rating.
- 1.1.6 The dust monitoring location and results are presented in Appendix B, Table 1 together with line charts of monthly data from the dust monitor. 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 (February 2020). All results were in line with expected ranges.
- 1.1.9 Diffusion tube monitoring of Nitrogen Dioxide ( $\text{NO}_2$ ) was undertaken at eleven (11) locations in January 2020, around highways within the LBH 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  $\text{NO}_2$  monitoring locations and results are presented in Appendix C, Table 2, together with the 2020 running mean.
- 1.1.12 There were no (0) complaints received, relating to air quality or dust, during this monitoring period (February 2020).

# Appendix A – Worksites and Monitoring Locations

Figure 1 to Figure 4: Current monitoring locations within the LBH



- Legend**
- Route in tunnel
  - Route on surface
  - Diffusion tube monitoring location
  - Dust monitoring location
  - Trunk Main Diversion Route
  - West Ruislip Golf Course
  - Copthall North worksite
  - Copthall South worksite
  - 18' and 48' gas pipeline diversions
  - Merck Sharpe Dhome worksite
  - Utility Diversion worksite south
  - Utility Diversion worksite north

Figure Number

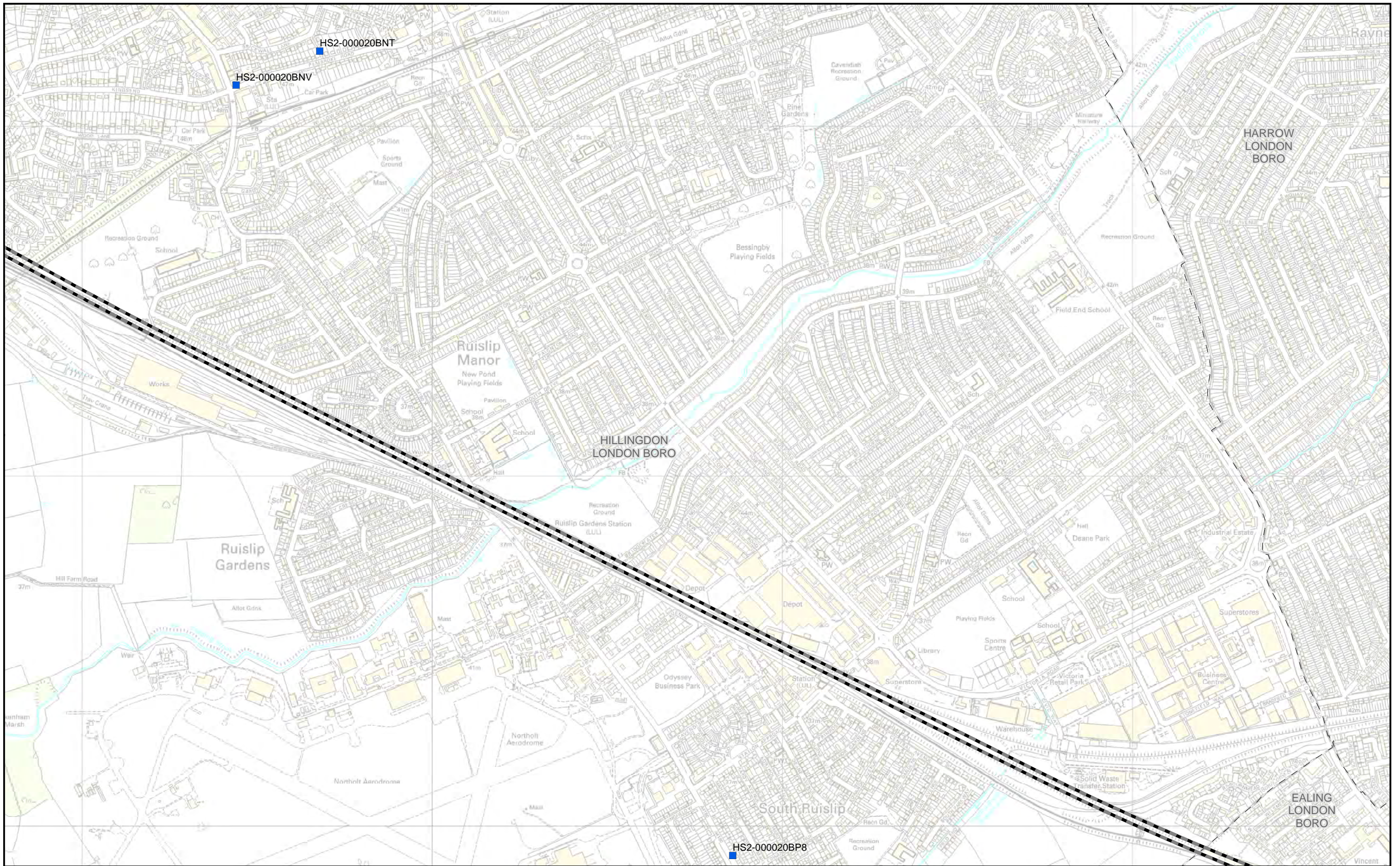
Figure Name  
**Worksites and Monitoring locations in LBH  
 (sheet 1)**

London Borough of Hillingdon

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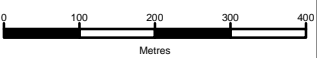


	Route in tunnel
	Route on surface
	Diffusion tube monitoring location


Figure Number	
Figure Name	Worksites and Monitoring locations in LBH (sheet 2)
	London Borough of Hillingdon

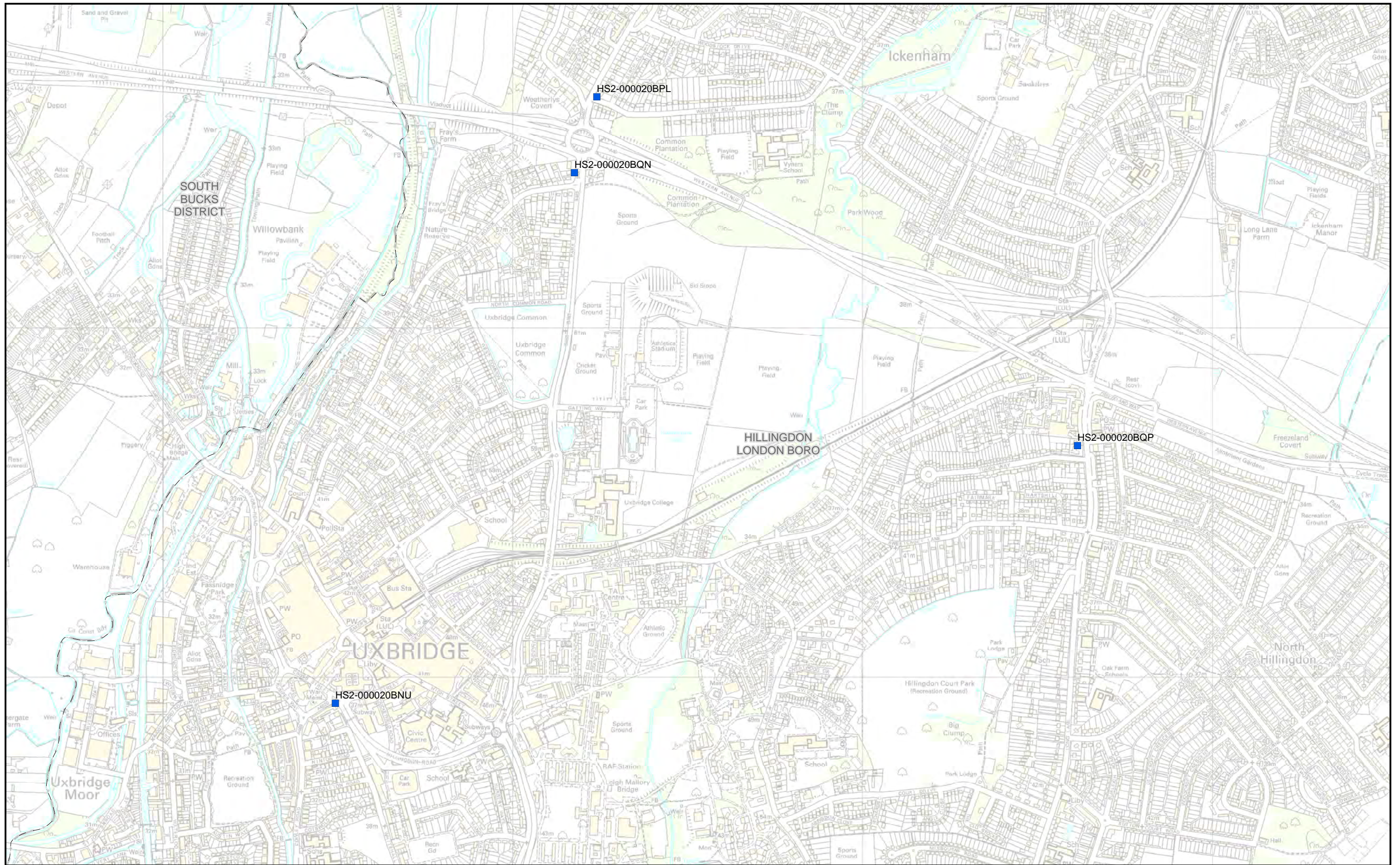

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**Legend**

- Route in tunnel
- Route on surface
- Diffusion tube monitoring location

Figure Number

Figure Name  
**Worksites and Monitoring locations in LBH  
 (sheet 3)**

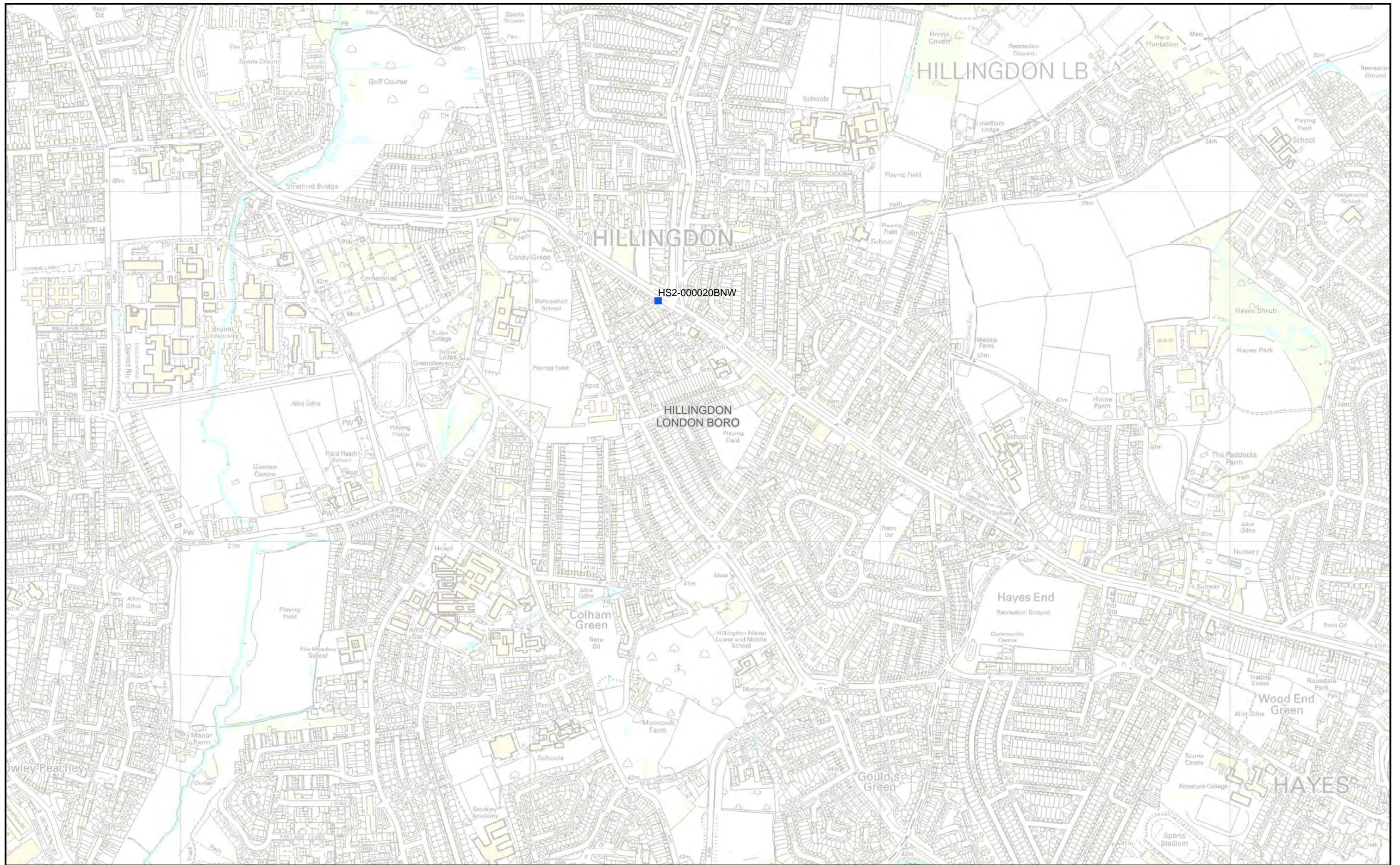
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- Legend**
-  Route in tunnel
  -  Route on surface
  -  Diffusion tube monitoring location

Figure Number
Figure Name <b>Worksites and Monitoring locations in LBH (sheet 4)</b>
London Borough of Hillingdon


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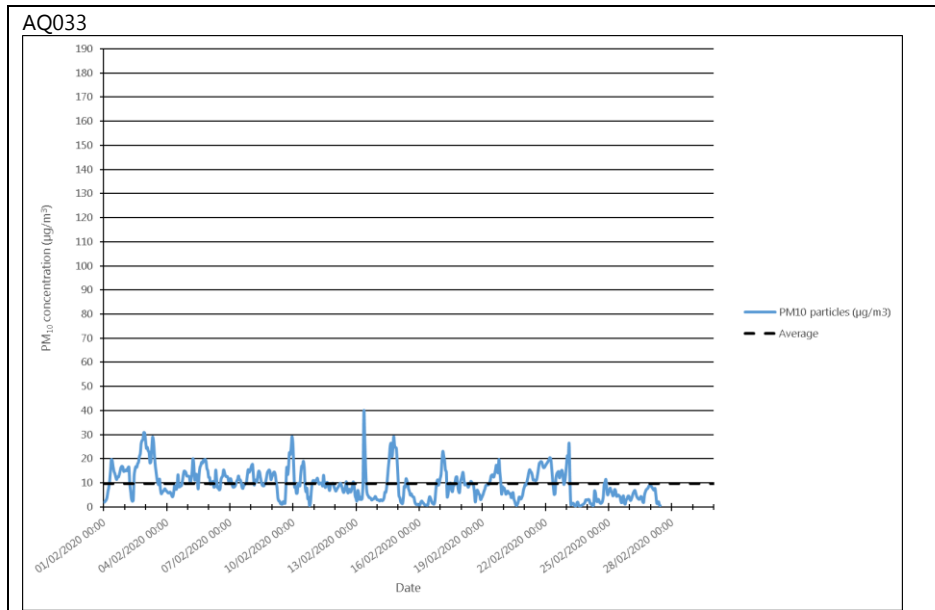
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## Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and February 2020 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 (%)
AQ033	507045, 187352	Merck Sharp Dohme, Building 24	H	Yes	Y	9.7	0.6	39.7	0	91.2

Figure 1: 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 2020 (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>
HS2-000020BNT	Lamp post on Pembroke Road	509678, 187214	35												35
HS2-000020BNU	Cowley Road sign post at junction with Hillingdon Road	505492, 183926	49												49
HS2-000020BNV	High Street sign post at junction with Pembroke Road	509439, 187117	45												45
HS2-000020BNW	Signpost on A4020 Uxbridge Road at junction with Long Lane	507365, 182687	43												43
HS2-000020BPK	Lamp post in crescent off Swakeleys Road	506542, 186037	40												40
HS2-000020BPL	Warren Road sign post on corner of Swakeleys Road and Warren Road	506240, 185660	51												51
HS2-000020BPN	Lamp post on B467	506767, 186224	41												41
HS2-000020BQH	Lamp post on High Road Ickenham	508451, 186879	44												44

<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.

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean <sup>1</sup>
HS2-000020BQN	Lamp post on Park Road	506176, 185444	47												47
HS2-000020BQP	Sign post on Long Lane	507614, 184663	45												45
HS2-000020BP8	Triplicate site at South Ruislip roadside automatic monitoring station	510858, 184916	39												39