

Air Quality and Dust Monitoring Monthly Report – July 2020

London Borough of Hillingdon



SKANSKA



Department for Transport

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High Speed Two (HS2) Limited,
Two Snowhill
Snow Hill Queensway
Birmingham B4 6GA

Telephone: 08081 434 434

General email enquiries: HS2enquiries@hs2.org.uk

Website: www.gov.uk/hs2

A report prepared by CSJV and Align JV on behalf of HS2 Ltd.

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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 June and July 2020 respectively.
- 1.1.2 Figure 1 to Figure 5 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, 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 in May 2018, the remaining of which are expected to be completed later in 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, compound establishment and haul road creation;
 - Merck Sharpe Dohme (MSD) new site set-up and haul road creation;
 - Utility diversions at Breakspear Road South;
 - Utility diversions at Copthall North and Copthall South;
 - West Ruislip Portal site set up, haul road creation and groundworks; and
 - South Ruislip mobilisation, site set-up and ground works.
- 1.1.5 The Colne Valley (CVV) Dews Lane and LTP2 worksites also fall within the administrative boundary of LBH. This phase of works commenced in July 2017 and is expected to be completed by mid-August 2020. Activities within July included:
- Ongoing works at the HOAC/Dews Lane site which include ground investigation works; and
 - Ongoing works at the CVV LTP2 site which include: the mobilisation of piling equipment, the set-up of polymer and bentonite farm, the installation of segmental casings, the excavation of pile and removal of chalk arising, drilling fluid exchange, reinforcement installation, the concreting of pile and the removal of casings.
- 1.1.6 Two (2) dust monitors are installed around the worksites, where groundworks and materials management are underway. These sites returned a medium or high dust risk rating.
- 1.1.7 Dust monitoring locations and results are presented in Appendix B, Table 2, together with line charts of monthly data from each dust monitor in Figure 6. All continuous dust monitoring is undertaken using indicative monitors. Despite being Environment Agency (MCERTS) certified,

indicative monitor 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.

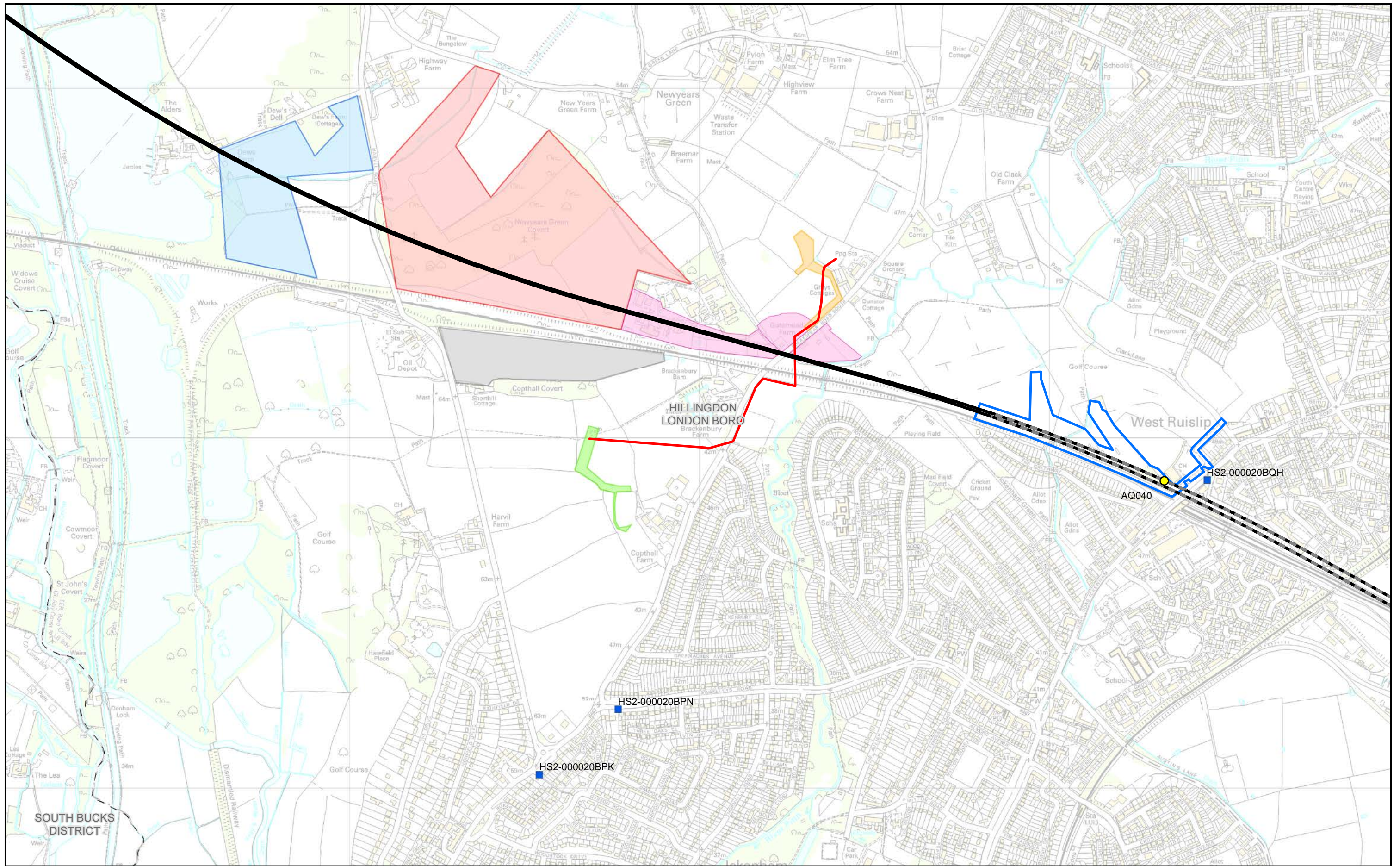
- 1.1.8 The trigger level for PM₁₀ concentrations of 190 µg/m³, over a 1-hour period, in accordance with the updated guidance document '*Guidance on Monitoring in the Vicinity of Demolition and Construction Sites – (October 2018)*' has been applied.
- 1.1.9 There were no (0) dust trigger alerts recorded during the monitoring period (July 2020). All other results were in line with expected ranges.
- 1.1.10 Diffusion tube monitoring of Nitrogen Dioxide (NO₂) is undertaken at eleven (11) locations around highways within the LBH as part of the management of air quality where significant effects may occur as a result of the scheme.
- 1.1.11 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.
- 1.1.12 NO₂ monitoring locations and results are presented in Appendix C, Table 3, together with the 2020 running mean.
- 1.1.13 Table 1 provides a summary of the complaint information related to dust or air quality received during the reporting period (July 2020), together with the findings of any related investigations.

Table 1: Summary of complaints received during July 2020 in LBH

Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
HS2-20-43128-E	(Harvil Road)	Dust associated with the South Portal.	The stakeholder was informed that we would reduce speeds of trucks to mitigate dust and increase damping down within the area.

Appendix A – Worksites and Monitoring Locations

Figure 1 to Figure 5: 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 Portal

- Cophall North worksite
- Cophall South worksite
- 18' and 48' gas pipeline diversions
- Merck Sharpe Dhome worksite
- Utility Diversion worksite south
- Utility Diversion worksite north


Figure Number

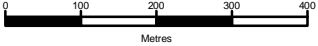
Figure Name
Worksites and Monitoring locations in LBH (sheet 1)

London Borough of Hillingdon

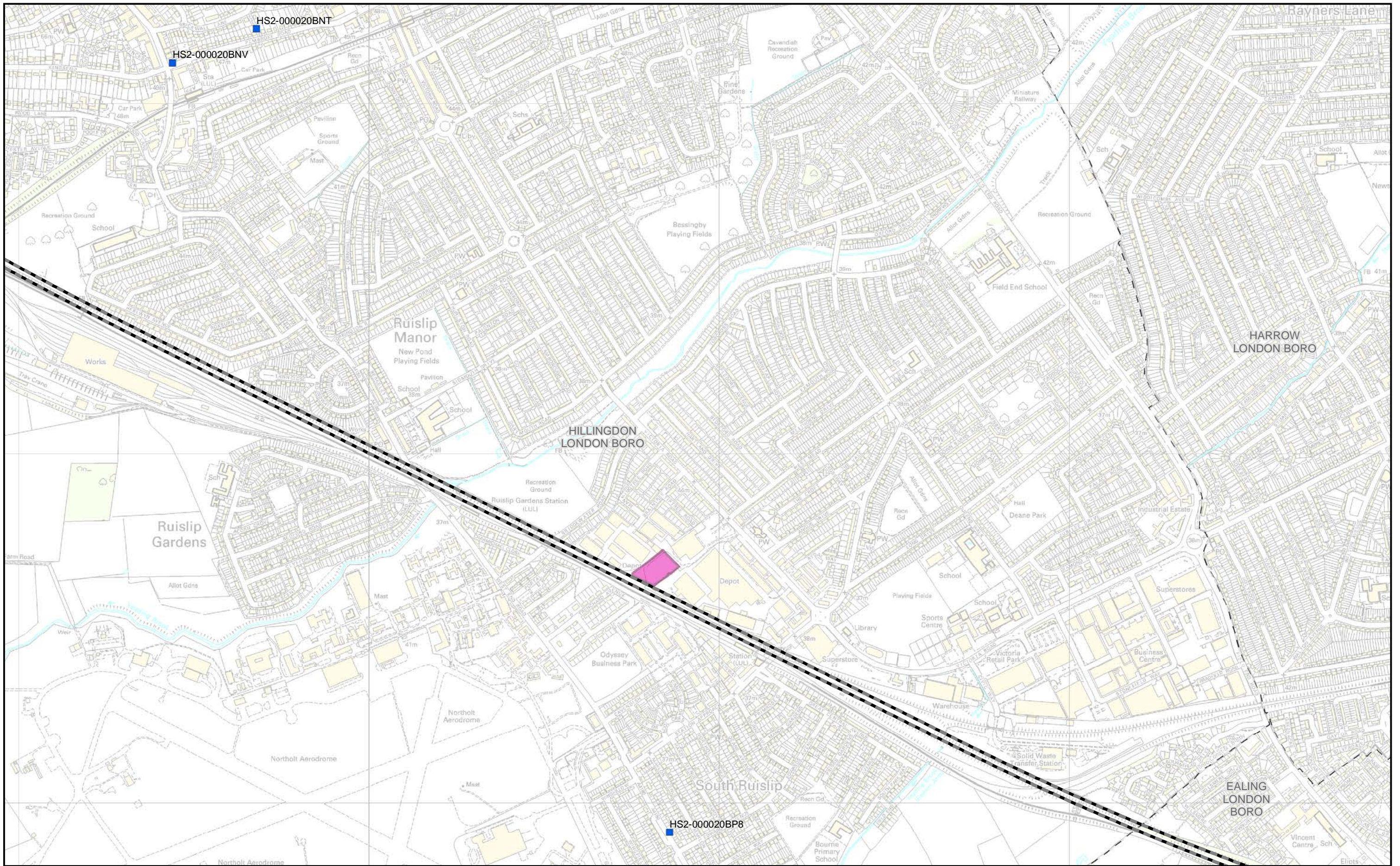

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- Legend**
- Route in tunnel
 - Route on surface
 - Diffusion tube monitoring location
 - South Ruislip Vent Shaft

Figure Number

Figure Name
Worksites and Monitoring locations in LBH
 (sheet 2)

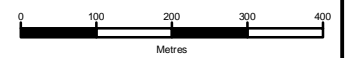
London Borough of Hillingdon

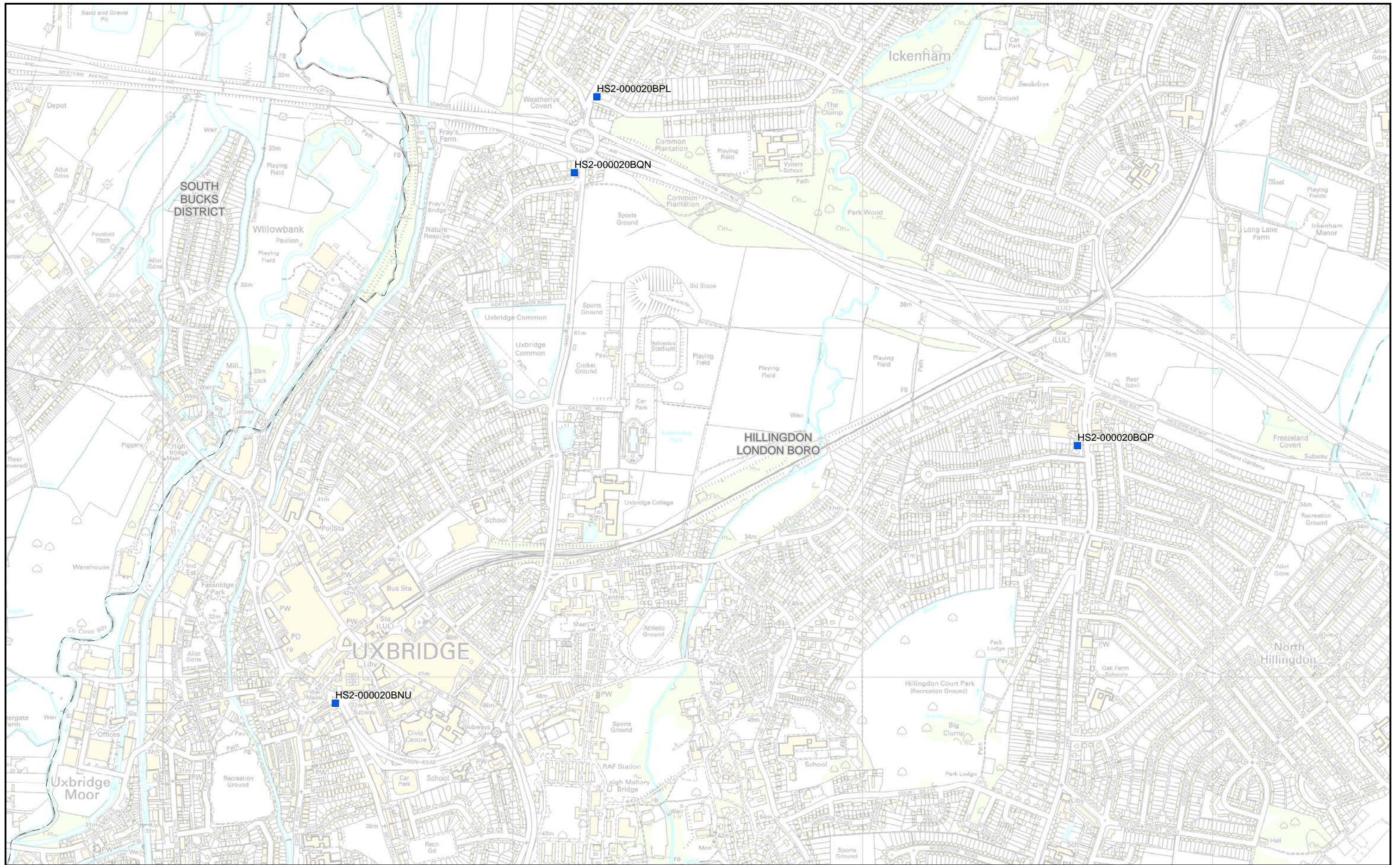


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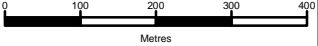




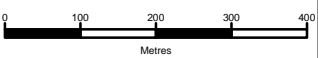
- Legend**
- Route in tunnel
 - Route on surface
 - Diffusion tube monitoring location

Figure Number
Figure Name
Worksites and Monitoring locations in LBH (sheet 3)
London Borough of Hillingdon

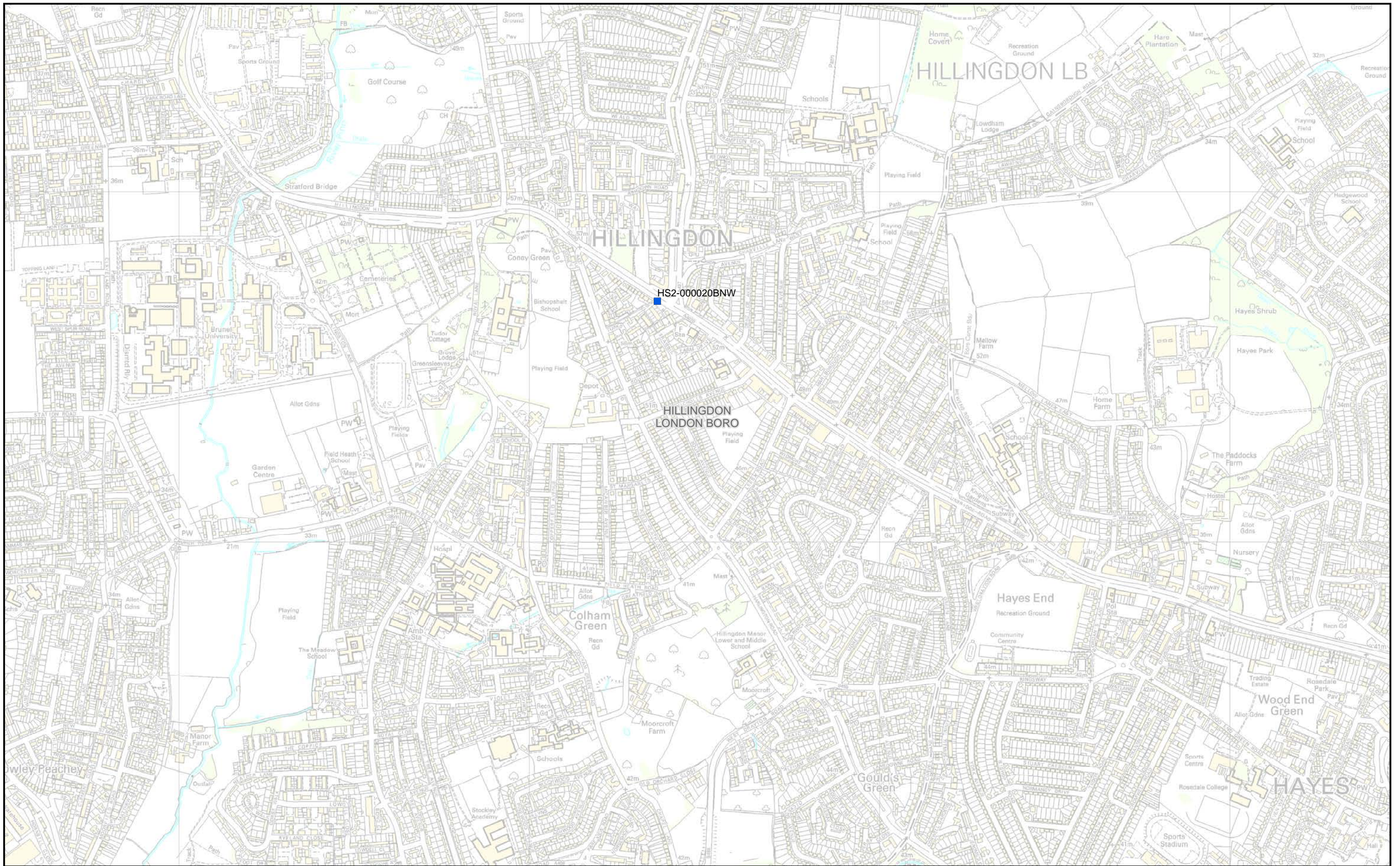

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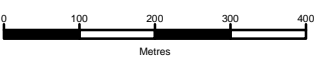
- Legend**
-  Route in tunnel
 -  Route on surface
 -  Diffusion tube monitoring location

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

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Figure 5: Worksites and Monitoring Locations within London Borough of Hillingdon during July 2020

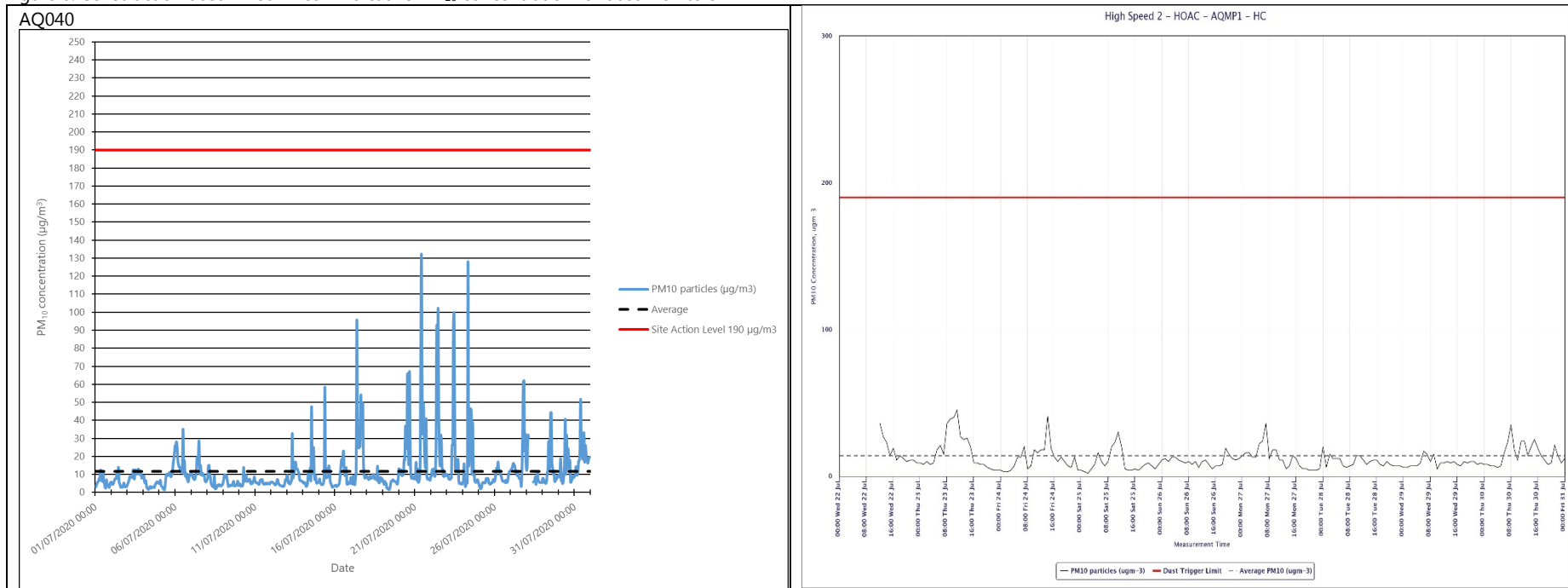


Appendix B – Dust Monitoring Results

Table 2: Dust monitoring locations and July 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 ₁₀ concentration (µg/m ³)	Minimum 1-hour PM ₁₀ concentration (µg/m ³)	Maximum 1-hour PM ₁₀ concentration (µg/m ³)	Number of 1- hour periods exceeding trigger level of 190 µg/m ³	Data capture (%)
AQ040	508329, 186877	West Ruislip Golf Course	M	Yes	N	11.5	1.4	132.1	0	99.2
HOAC-AQMP1-HC	505594, 187801	On the western boundary of HOAC at Dews Lane	M	Yes	Yes	13.9	2.0	68.7	0	100.0

Figure 6: Construction dust 1-hour mean indicative PM₁₀ concentration for dust monitors



Appendix C – Air Quality Monitoring Results

Table 3: NO₂ monitoring locations around highways, NO₂ concentrations and monthly monitoring results with running mean for 2020 (µg/m³)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar ¹	Apr ¹	May ¹	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ²
HS2-000020BNT	Lamp post on Pembroke Road	509678, 187214	35	26	No data			19							27
HS2-000020BNU	Cowley Road sign post at junction with Hillingdon Road	505492, 183926	49	46	No data			33							43
HS2-000020BNV	High Street sign post at junction with Pembroke Road	509439, 187117	45	33	No data			32							37
HS2-000020BNW	Signpost on A4020 Uxbridge Road at junction with Long Lane	507365, 182687	43	32	No data			35							37
HS2-000020BPK	Lamp post in crescent off Swakeleys Road	506542, 186037	40	34	No data			27							34
HS2-000020BPL	Warren Road sign post on corner of Swakeleys Road and Warren Road	506240, 185660	51	40	No data			28							40
HS2-000020BPN	Lamp post on B467	506767, 186224	41	30	No data			24							32
HS2-000020BQH	Lamp post on High Road Ickenham	508451, 186879	44	37	No data			27							36

¹ Note: Due to the Covid-19 pandemic and government lockdown it was not possible to conduct diffusion tube air quality monitoring in March, April and May 2020.

² 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 ¹	Apr ¹	May ¹	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ²
HS2-000020BQN	Lamp post on Park Road	506176, 185444	47	34	No data			34							38
HS2-000020BQP	Sign post on Long Lane	507614, 184663	45	33	No data			30							36
HS2-000020BP8	Triplicate site at South Ruislip roadside automatic monitoring station	510858, 184916	39	32	No data			29							33