

Air Quality and Dust Monitoring Monthly Report – March 2020

London Borough of Camden



SKANSKA



Department for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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 Costain Skanska on behalf of HS2 Ltd.

High Speed Two (HS2) Limited has actively considered the needs of blind and partially sighted people in accessing this document. The text will be made available in full on the HS2 website. The text may be freely downloaded and translated by individuals or organisations for conversion into other accessible formats. If you have other needs in this regard please contact High Speed Two (HS2) Limited.

© High Speed Two (HS2) Limited, 2020, except where otherwise stated.

Copyright in the typographical arrangement rests with High Speed Two (HS2) Limited.

This information is licensed under the Open Government Licence v2.0. To view this licence, visit www.nationalarchives.gov.uk/doc/open-government-licence/version/2 **OGL** or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or e-mail: psi@nationalarchives.gsi.gov.uk. Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.



Printed in Great Britain on paper containing at least 75% recycled fibre.

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 Camden (LBC) during February and March 2020 respectively.
- 1.1.2 Figure 1 to Figure 3 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 enabling works commenced within the LBC during December 2017 and is expected to be completed by October 2020. The next concurrent phase of construction works commenced in November 2019 and is expected to be completed by 2025. The current, completed and planned worksites, include:

Current & Planned -

- Site office and welfare on the adjacent former Addison Lee compound on Granby Terrace.
- Archaeological dig at St James' Gardens, groundworks and materials management.
- Demolition, materials management and groundworks at:
 - IBIS Hotel, 3 Cardington Street;
 - Thistle Hotel, Cardington Street;
 - Cobourg Street / Euston Street;
 - Regents Park Estate;
 - Walkden House, 67-75 & 77-79 Euston Street;
 - One Euston Square, 40 Melton Street and Grant Thornton House, 22 Melton Street; and
 - 132 – 140 Hampstead Road and Petrol Station.
- National Temperance Hospital, Site Office and Welfare 110-122 Hampstead Road.
- Thames Water Compound.
- Vehicle Holding Area, mobilisation, site set up and groundworks.
- Euston Scissor Cut mobilisation and site set up and crushing and storage of spoil (on the former DB Cargo site)
- Adelaide Road Vent Shaft – yet to be established

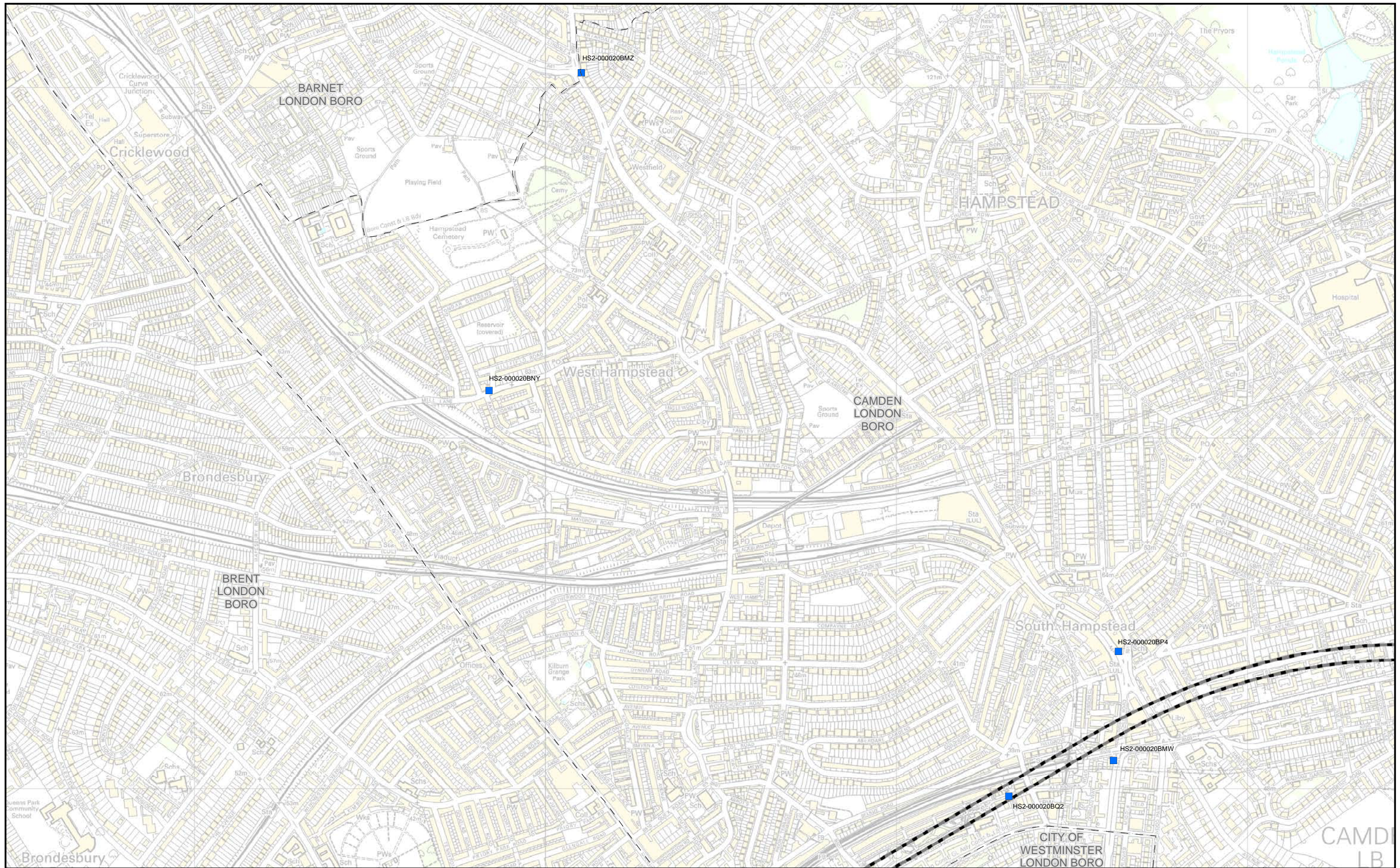
Complete -

- Taxi rank in Euston Square Gardens.

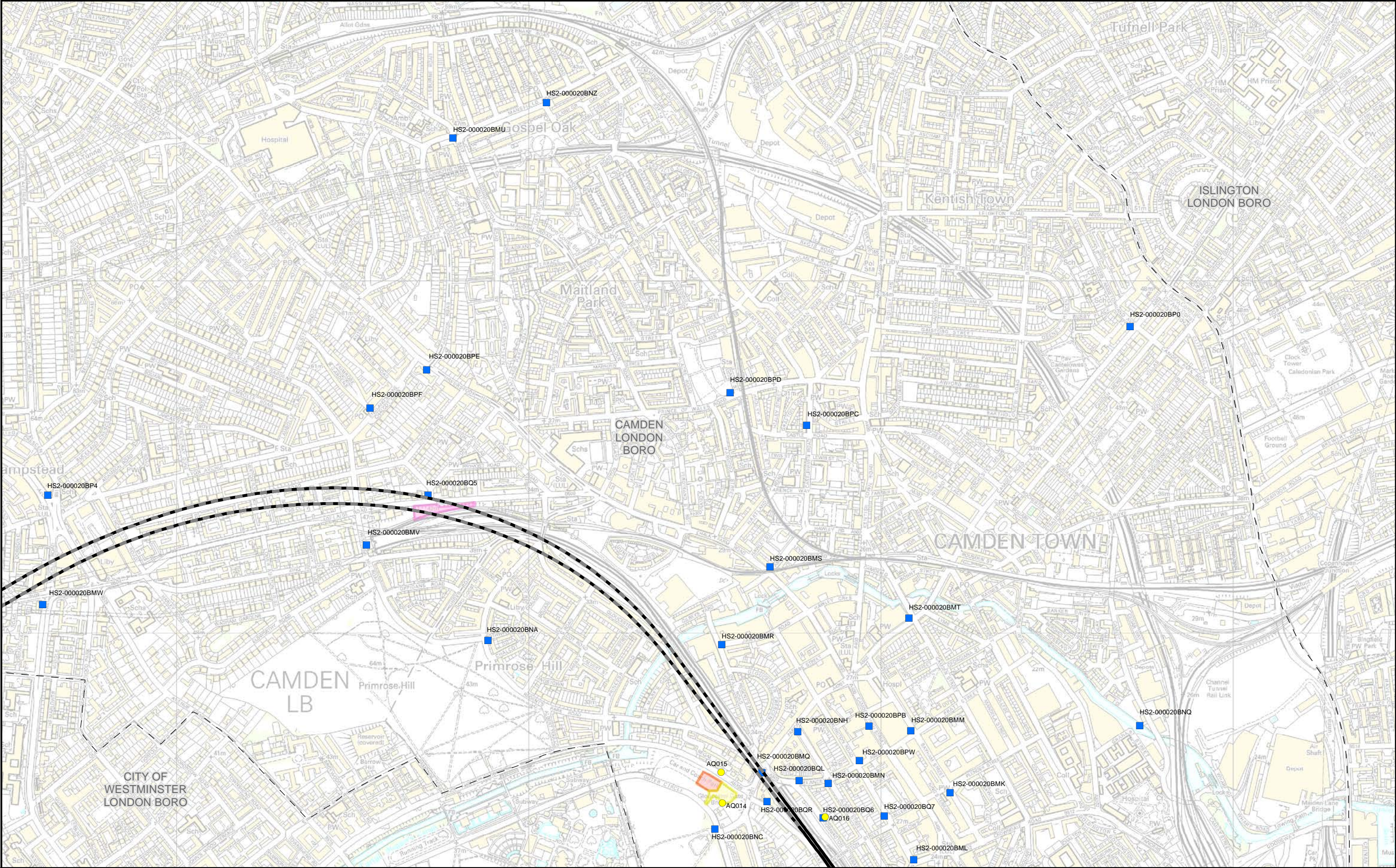
- 1.1.5 Twenty (20) dust monitors are installed around worksites, where demolition, groundworks and materials management are underway. These sites returned a medium or high dust risk rating.
- 1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 1, together with line charts of monthly data from each dust monitor in Figure 4. 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 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.
- 1.1.8 There were ten (10) dust trigger alerts recorded during the monitoring period (March 2020), eight (8) of which were attributed to a faulty monitor which has been replaced. Exceedances are presented in Appendix B, Table 2. All other results were in line with expected ranges.
- 1.1.9 Diffusion tube monitoring of Nitrogen Dioxide (NO₂) was undertaken at sixty-four (64) locations in February 2020, around highways within the LBC 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 NO₂ monitoring locations and results are presented in Appendix C, Table 3, together with the 2020 running mean.
- 1.1.12 No (0) complaints were received, relating to air quality and dust, during this monitoring period (March 2020).

Appendix A – Worksites and Monitoring Locations

Figure 1 to Figure 3: Worksites and monitoring locations within the LBC




Legend - - - Route in tunnel — Route on surface ■ Diffusion tube monitoring location	Figure Number	 HS2 Ltd accept no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way.
	Figure Name Worksites and Monitoring locations in LBC	
	London Borough of Camden	Scale at A3: 10,000 0 100 200 300 400 Metres © Crown copyright and database rights 2016. Ordnance Survey Licence Number 100049190. Map Number: 1EW02-CSJ-EV-REP-S000-000017_appAfig1.pdf Date: 13/07/18




Legend

- Route in tunnel
- Route on surface
- Diffusion tube monitoring location
- Dust monitoring location
- Vehicle Holding area
- Thames Water Compound
- Adelaide Road Vent Shaft

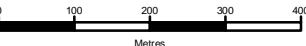
Figure Number
Figure Name
Worksites and Monitoring locations in LBC (sheet 2)
London Borough of Camden



HS2 Ltd accept no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way.

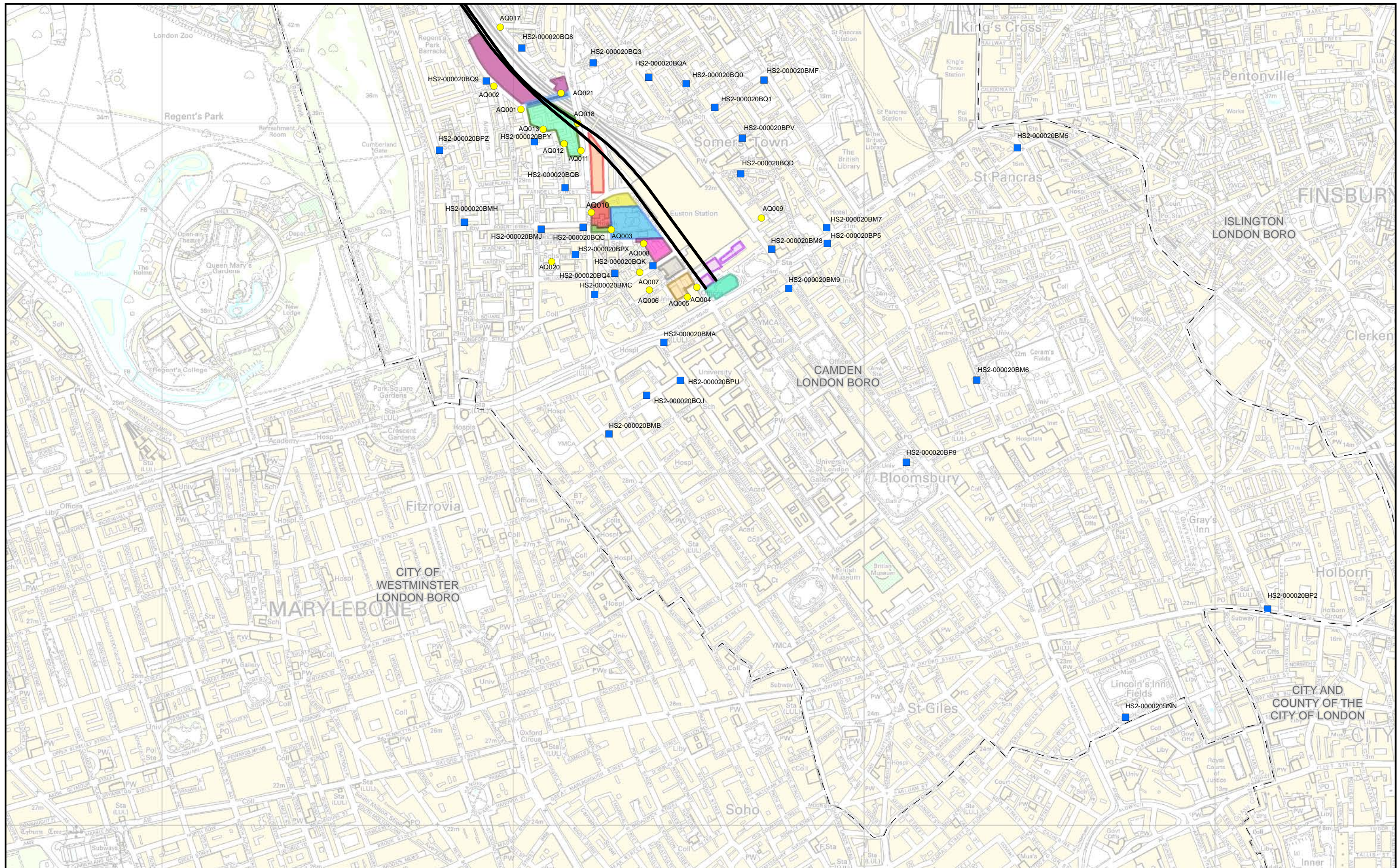


Scale at A3: 10,000



0 100 200 300 400 Metres

© Crown copyright and database rights 2016.
Ordnance Survey Licence Number 100049190.
Map Number: 1EW02-CSJ-EV-REP-S000-000017_appAFig1.pdf Date: 14/04/20



Legend

- Route in tunnel
- Route on surface
- Diffusion tube monitoring location
- Dust monitoring location
- Euston Scissor Cut
- St. James' Gardens worksite
- NTH Site Compound and Former NTH Insull Wing and St James' Garden
- Ibis Hotel, 3 Cardington Street & 1-3 Cobourg Street
- National Temperance Hospital, Insull Wing
- Walkden House, Wolfson House, 65-75 & 77-79 Euston Street
- Thistle Hotel, Cardington Street
- Euston Street, Melton Street, Drummond Street block
- Euston Square Gardens
- One Euston Square, 40 Melston Street and Gran Thortorn House, 22 Melston Street
- 132 and 140 Hampstead Road and Petrol Station
- Regents Park Estate
- Granby Terrace Bridge

Figure Number

Figure Name

Worksites and Monitoring locations in LBC
(sheet 3)

London Borough of Camden



HS2 Ltd accept no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way.



Scale at A3: 10,000



© Crown copyright and database rights 2016.
Ordnance Survey Licence Number 100049190.

Map Number: 1EW02-CSJ-EV-REP-S000-000017_appAFig1.pdf Date: 14/04/20

Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and March 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 (%)
AQ001	529022, 183040	Junction of Park Village East, Stanhope Street and Granby Terrace	H	Yes	N	28.7	0.7	1,320.6* (faulty monitor has been replaced)	8	99.9
AQ002	528945, 183105	Park Village East	H	Yes	N	9.8	0.6	23.2	0	99.9
AQ003	529279, 182698	St James' Gardens	M	Yes	N	12.5	0.8	56.2	0	99.9
AQ004	529523, 182533	Melton Street	H	Yes	N	11.1	0.8	43.8	0	99.9
AQ005	529496, 182505	Stephenson Way	H	Yes	N	17.0	0.9	550.1	1	99.9
AQ006	529399, 182514	Euston Street	H	Yes	N	9.8	0.6	37.2	0	99.9
AQ007	529369, 182564	Drummond Street	H	Yes	N	10.3	0.7	28.6	0	99.9
AQ008	529372, 182657	Cobourg Street	H	Yes	N	15.2	0.9	54.2	0	99.9
AQ009	529707, 182730	Lancing Street	H	Yes	N	12.0	0.7	30.4	0	99.9
AQ010	529223, 182732	Hampstead Road South	H	Yes	N	10.6	0.8	24.6	0	99.9
AQ011	529193, 182921	Hampstead Road	H	Yes	N	12.2	1.1	55.3	0	99.9

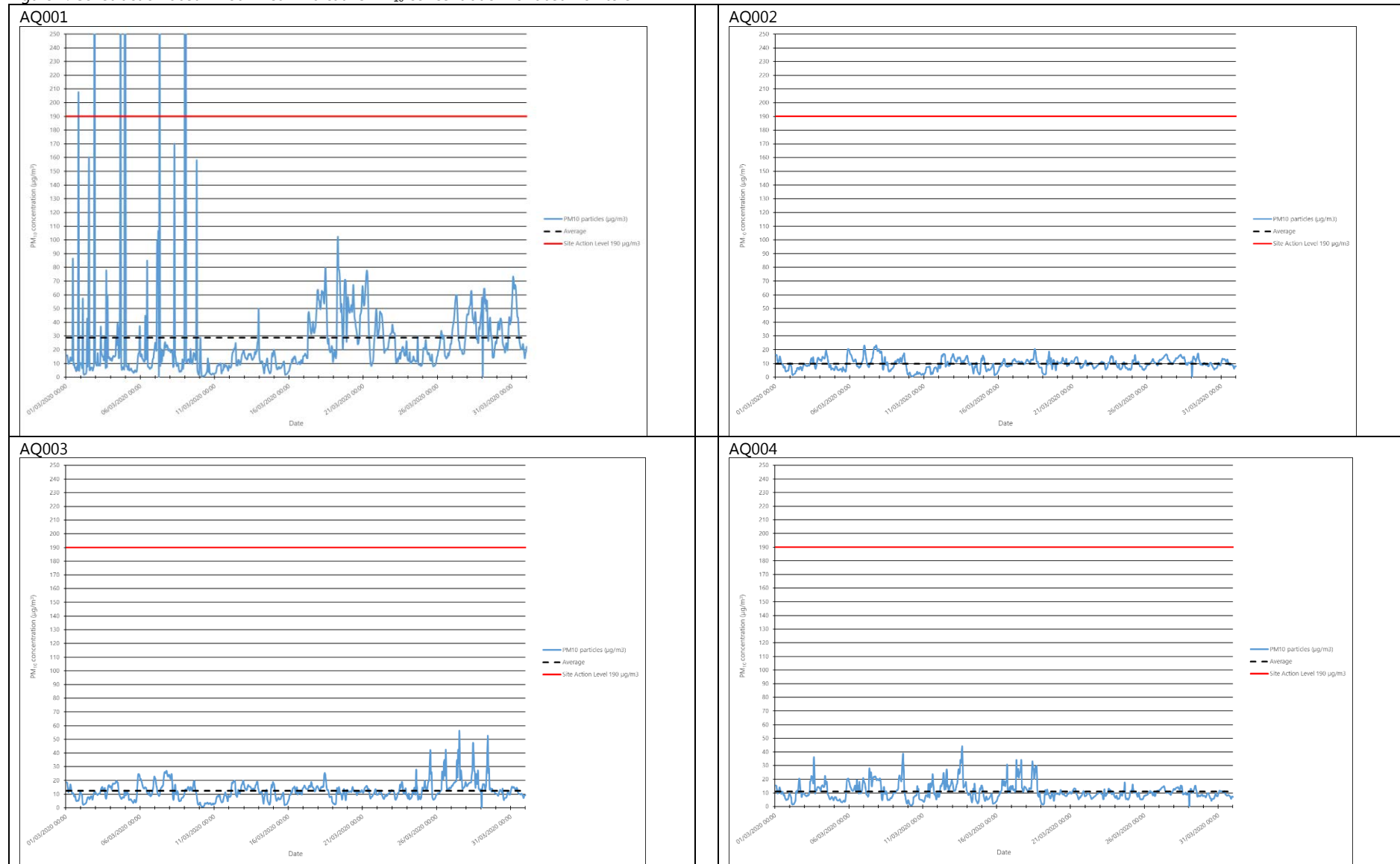
Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (µg/m ³)	Minimum 1-hour PM ₁₀ concentration (µg/m ³)	Maximum 1-hour PM ₁₀ concentration (µg/m ³)	Number of 1- hour periods exceeding trigger level of 190 µg/m ³	Data capture (%)
AQ012	529145, 182941	Rear of Coniston House	H	Yes	N	9.5	0.6	106.1	0	99.2
AQ013	529086, 182983	Regents Park Estate	H	Yes	N	16.0	0.9	34.3	0	99.9
AQ014	528550, 183518	Thames Water Compound	L	Yes	N	11.9	0.6	165.9	0	99.9
AQ015	528546, 183604	Prince Albert Road	L	Yes	N	7.9	0.5	20.1	0	99.9
AQ016	528840, 183466	Mornington Terrace North	H	Yes	N	8.9	0.5	23.5	0	99.9
AQ017	528963, 183274	Mornington Terrace South	H	Yes	N	9.2	0.5	108.4	0	99.9
AQ018	529184, 182999	Hampstead Road North	H	Yes	N	12.8	0.7	300.3	1	99.9
AQ020	529109, 182605	Netley School	n/a	Yes	N	10.3	0.4	69.2	0	99.9
AQ021	529136, 183086	Site compound at the Junction of Hampstead Road & Granby Terrace Bridge.	H	Yes	N	11.9	0.9	27.5	0	99.9

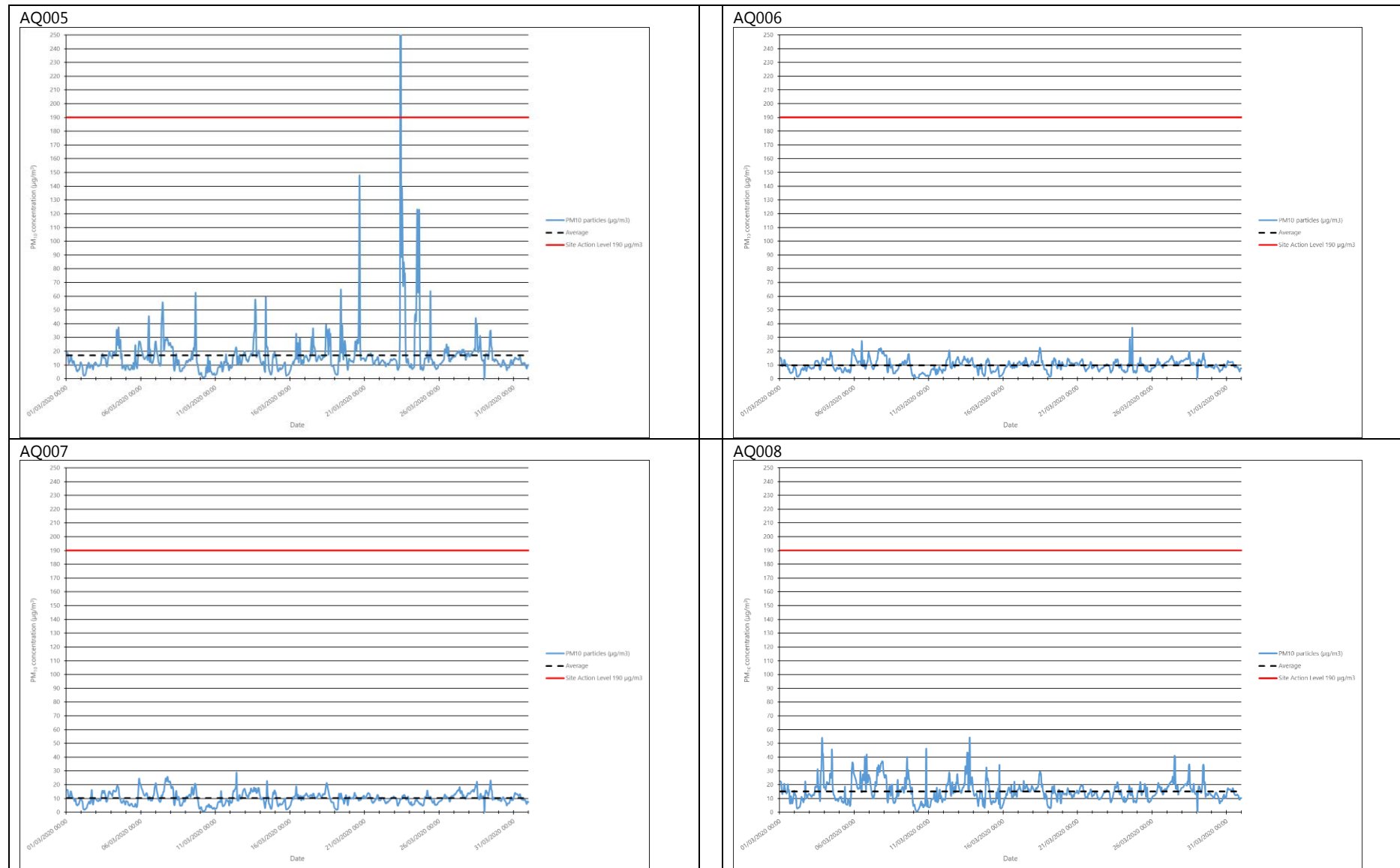
Table 2: Summary of exceedances of trigger level in March 2020

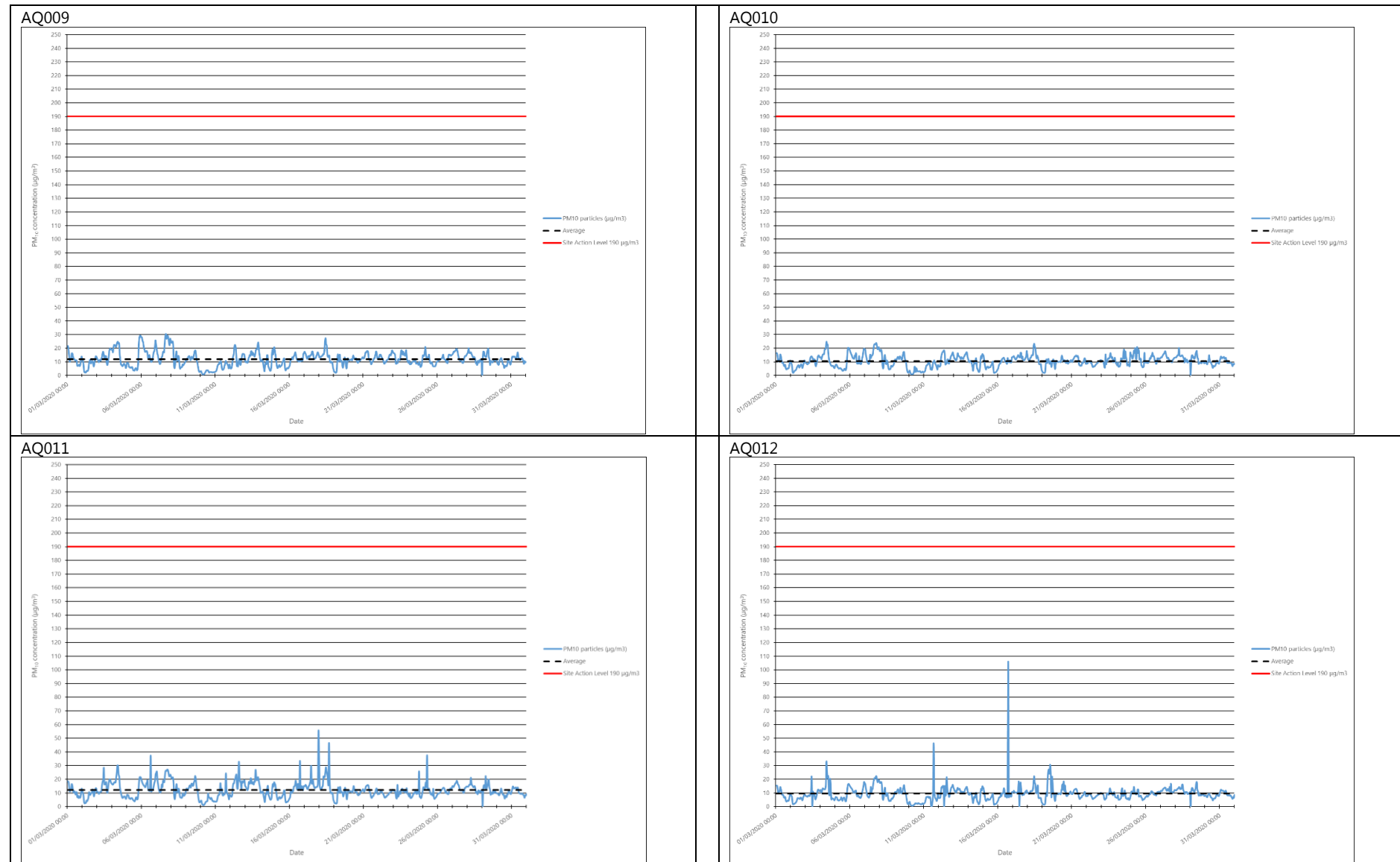
Period exceeding trigger level	Worksite	Monitoring site ID	Complaint reference number (if applicable)	Reason	Resolution
01/03/2020 19:01 – 20:00	Regents Park Estate and Euston Scissor Cut	AQ001	n/a	Monitor Faulty	Early access to the monitor was prevented due to utilities works around the monitor in February. On 27 th February the monitor was serviced but the fault was not resolved. The monitor was replaced on the 10 th March.
02/03/2020 21:01 – 22:00					
04/03/2020 15:01 – 16:00					
04/03/2020 22:01 – 05/03/2020 00:00 (2 x triggers)					
07/03/2020 06:01 – 07:00					
08/03/2020 23:01 – 09/03/2020 01:00 (2 x triggers)					
23/03/2020 09:01 – 10:00	Walkden House, Wolfson House	AQ005	n/a	<p>At the time of the trigger limited materials movements were being undertaken on site. No demolition was taking place and the activity was much reduced to what had been undertaken on site for many weeks/months without cause of any triggers being generated from the monitor.</p> <p>Suitable dust suppression was in operation during the works and there was no obvious cause for the trigger.</p> <p>There were no HS2 utilities works underway along Stephenson Way at the time but there were 3rd party construction works in operation at a site directly opposite the HS2 works. It was not possible to determine whether any activities at this site were a cause or contributor to the trigger.</p>	The current dust suppression was reviewed and repositioned as a precaution and works restarted.
02/03/2020 09:01 – 10:00	Regents park Estate	AQ018	n/a	Demolition works began on the southern end of Stalbridge at 09:20, using the excavator on the first floor. A combination of dust suppression was being implemented at the time including an operator with a hose, numerous moto fogs and a dust cannon. The area planned to be demolished was completed at approximately 09:50 following	The dust suppression was reviewed and redeployed as deemed appropriate prior to works restarting.

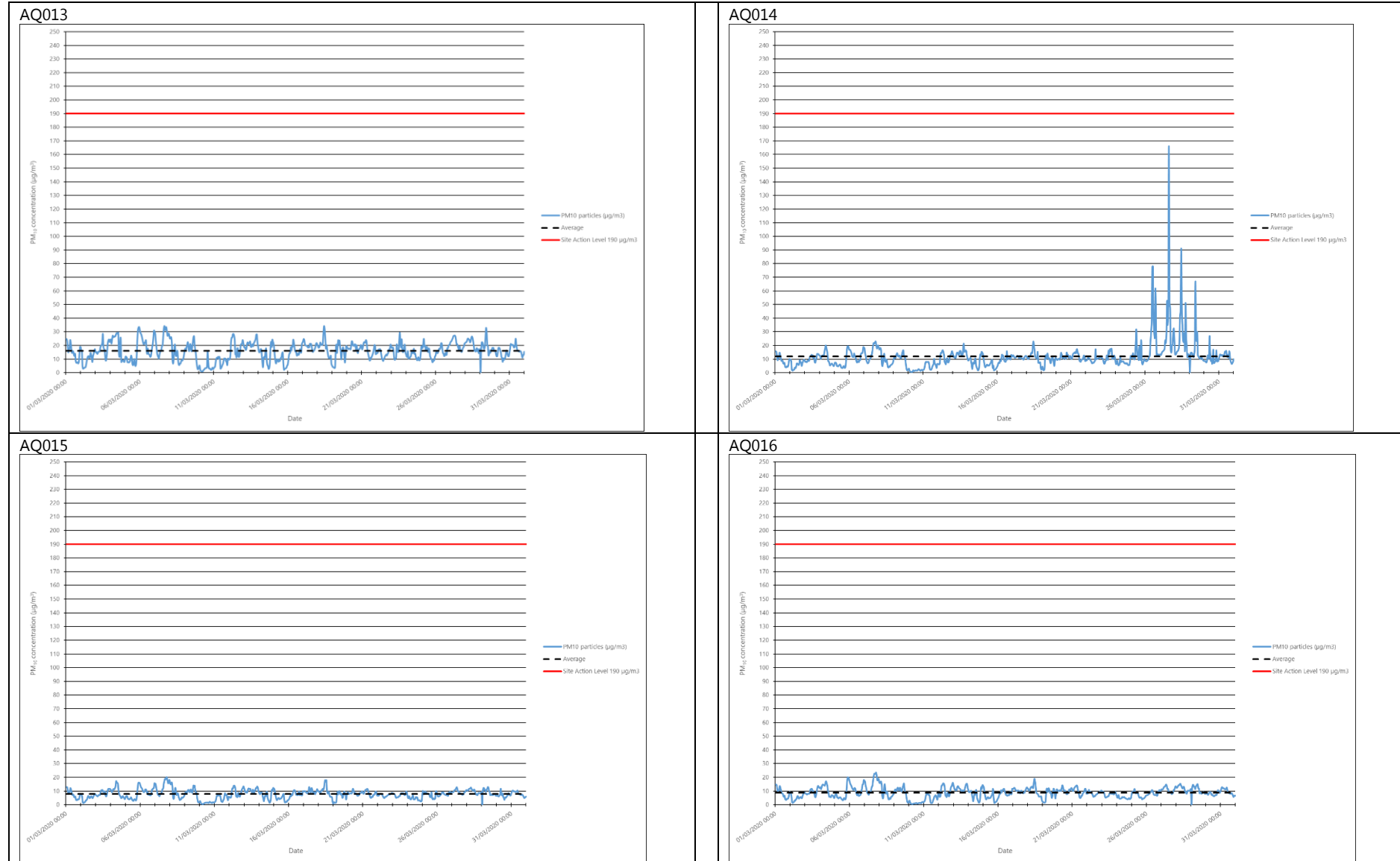
				<p>which works were halted to allow for the scaffolding to be amended.</p> <p>At 10:00 an alert was received from the AQ018 which is located approximately 10 metres away from the building.</p> <p>Works had already been halted when the trigger alert was received, and a review of the dust suppression mechanisms was carried out. Upon investigation, the operative with the hose was thought to be effective at suppressing the dust at the source of the emissions and the surrounding dust sprays were suppressing any dust that did escape.</p> <p>However, it was considered that the proximity of the monitor to the demolition zone (10 metres) meant that dust managed to escape the initial hose spray and was furthermore was not captured by the dust sprays.</p>	
--	--	--	--	--	--

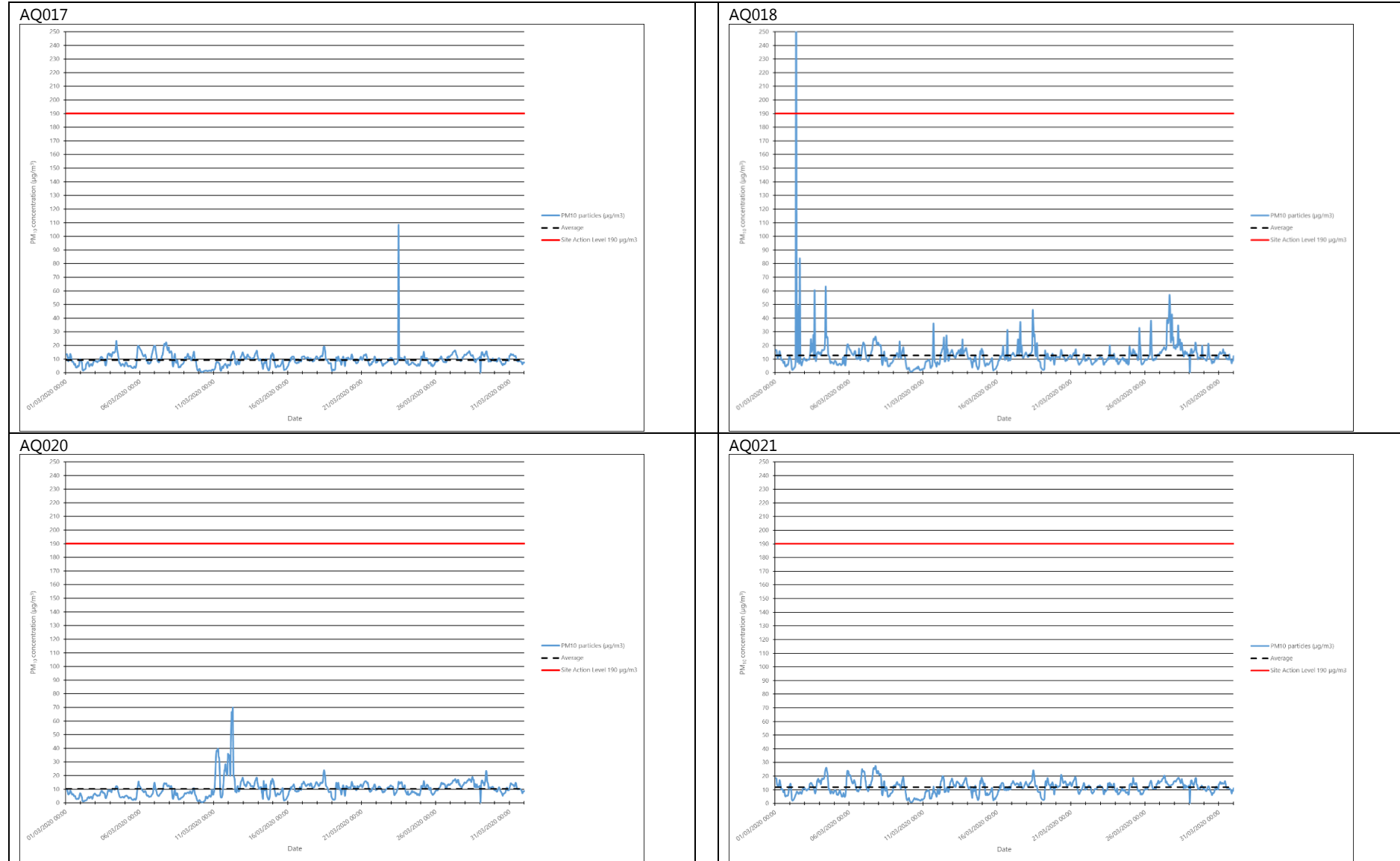
Figure 1: Construction dust 1-hour mean indicative PM₁₀ concentration for dust monitors











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	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BM5	Junction of St Chad's Street and Grays Inn Road	530436, 182929	56	51											53
HS2-000020BM6	Brunswick Square	530321, 182268	55	57											56
HS2-000020BM7	Chalton Street	529894, 182702	66	65											65
HS2-000020BM8	Junction of Euston Square and Grafton Place	529737, 182641	57	57											57
HS2-000020BM9	Junction of Endsleigh Gardens and Upper Woburn Place	529785, 182529	56	58											57
HS2-000020BMA	Junction of Euston Road and Gower Street	529429, 182375	59	54											57
HS2-000020BMB	Whitfield Street	529273, 182114	45	43											44
HS2-000020BMC	Hampstead Road	529232, 182511	58	53											56
HS2-000020BMF	Junction of Polygon Road and Ossulston Street	529715, 183123	38	Tube missing											38
HS2-000020BMH	Nash Street	528861, 182717	44	37											40

¹ 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 ¹
HS2-000020BMJ	Junction on Robert Street and Stanhope Street	529080, 182698	39	33											36
HS2-000020BMK	Junction of Plender Street and Bayham Street	529196, 183546	56	49											53
HS2-000020BML	Junction of Arlington Road and Mornington Crescent	529093, 183356	44	38											41
HS2-000020BMM	Junction of Bayham Street and Pratt Street	529084, 183722	62	58											60
HS2-000020BMN	Junction of Delancey Street and Albert Street	528850, 183573	45	41											43
HS2-000020BMQ	Junction of Parkway and Delancey Street	528662, 183604	51	43											47
HS2-000020BMR	Junction of Oval Road and Jamestown Road	528548, 183967	42	36											39
HS2-000020BMS	Junction of Chalk Farm Road and Castlehaven Road	528685, 184188	52	50											51
HS2-000020BMT	Junction of Camden Road and Camden Street	529079, 184043	51	43											47
HS2-000020BMU	Junction of Southampton Road and Fleet Road	527783, 185407	45	No data											45
HS2-000020BMV	Primrose Hill Road	527538, 184250	44	38											41
HS2-000020BMW	Junction of Finchley Road and Hilgrove Road	526619, 184081	Tube missing												
HS2-000020BMZ	Junction of Finchley Road and Hendon Way	525102, 186042	82	61											72
HS2-000020BNA	Junction of Regent's Park Road and Rothwell Street	527884, 183980	42	30											36

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BNC	Junction of Outer Circle and Gloucester Gate	528528, 183443	33	25											29
HS2-000020BNH	Junction of Parkway and Albert Street	528763, 183720	46	35											40
HS2-000020BNN	Lincoln's Inn Fields	530744, 181308	41	41											41
HS2-000020BNQ	Camley Street	529735, 183737	Tube missing	31											31
HS2-000020BNY	Junction of Mill Lane and Hillfield Road	524839, 185136	45	41											43
HS2-000020BNZ	Mansfield Road	528050, 185508	40	33											37
HS2-000020BP0	Junction of Camden Road and Torriano Avenue	529708, 184871	58	51											55
HS2-000020BP2	Junction of Grays Inn Road and Holborn	531149, 181616	48	45											46
HS2-000020BPB	Camden High Street	528966, 183735	65	54											59
HS2-000020BPC	Castlehaven Road	528788, 184591	43	36											40
HS2-000020BPD	Prince of Wales Road	528571, 184683	39	27											33
HS2-000020BPE	Haverstock Hill	527710, 184749	52	41											46
HS2-000020BPF	Junction of Primrose Gardens and England's Lane	527549, 184640	47	33											40
HS2-000020BPU	Junction of Gower Street and Grafton Way	529476, 182267	56	50											53
HS2-000020BPW	Junction of Delancey Street and Arlington Road	528939, 183637	50	37											44
HS2-000020BPX	Netley Street	529177, 182625	34	28											31

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BPY	Stanhope Street	529060, 182947	40	29											34
HS2-000020BPZ	Albany Street	528790, 182923	44	36											40
HS2-000020BQ0	Werrington Street	529493, 183113	42	36											39
HS2-000020BQ1	Polygon Road	529574, 183045	44	35											40
HS2-000020BQ2	Alexandra Place	526320, 183980	39	31											35
HS2-000020BQ3	Harrington Square	529228, 183172	50	38											44
HS2-000020BQ4	Junction of North Gower Street and Starcross Street	529290, 182572	44	36											40
HS2-000020BQ5	Adelaide Road	527713, 184392	Tube missing	40											40
HS2-000020BQ6	Mornington Terrace	528836, 183474	39	30											34
HS2-000020BQ7	Arlington Road	529009, 183479	40	33											37
HS2-000020BQ8	Clarkson Row	529024, 183213	39	31											35
HS2-000020BQ9	Park Village East	528923, 183121	37	29											33
HS2-000020BQA	Eversholt Street	529386, 183132	60	48											54
HS2-000020BQB	Junction of Harrington Street and Varndell Street	529147, 182816	41	30											36
HS2-000020BQC	Junction of Robert Street and Hampstead Road	529199, 182704	47	37											42
HS2-000020BQD	Drummond Crescent	529648, 182856	Tube missing	42											42
HS2-000020BQJ	Grafton Way	529380, 182225	55	54											54

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BQL	Delancey Street	528768, 183581	44	No data											44
HS2-000020BQR	Lamp post on Park Village East	528682, 183505	37	33											35
HS2-000020BQS	Opposite Maria fidelis school on Pheonix Road	529670, 182982	40	36											38
HS2-000020BQT	Drummond Street	529385, 182581	47	35											41
HS2-000020BP4	Triplicate site on Finchley Road next to Swiss Cottage kerbside automatic monitoring station	526633, 184392	54	Tube missi ng											54
HS2-000020BP5	Triplicate site next to the Euston Road roadside automatic monitoring stations	529895, 182657	69	67											68
HS2-000020BP9	Triplicate site in Russell Square next to Bloomsbury urban background automatic monitoring station	530120, 182034	44	43											44