

Air Quality and Dust Monitoring Monthly Report – **December** 2020

Birmingham City Council



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 dust monitoring undertaken within Birmingham City Council (BCC) during December 2020.
- 1.1.2 Figure 1 and Figure 2 in Appendix A present the current worksites within BCC together with dust monitoring locations for December 2020.
- 1.1.3 This summary should be read in conjunction with the overview monitoring report monthly 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 BCC during July 2018 and is expected to be completed by 2025. The current worksites at Birmingham Museum Trust (BMT), Curzon Street Station and Washwood Heath Depot are presented in Appendix A, Figures 1 and Figure 2. Activities for each worksite within December 2020 included:
- Ground investigation works along Erskine Street and Inkerman Street;
 - Ground remediation works at Curzon Street Station; and
 - Mobilisation and setup works at Washwood Heath Depot.
- 1.1.5 There are currently five (5) dust monitors installed for the current phase of works within BCC. Two (2) dust monitors are installed at the BMT (one inside the building (artefact storage area) and the other outside the building), two (2) dust monitors installed at Curzon Street Station and one (1) additional dust monitor has been installed at Washwood Heath Depot, near receptors on Drews Lane. The Washwood Heath Depot returned a low risk rating for dust soiling and health effects; therefore, automatic monitoring is not required at this site, however has been installed on a trial basis to test the reliability of a solar panel and battery power kit before their additional deployment at other construction assets. Dust Risk Assessments for the other worksites returned a high dust risk rating.
- 1.1.6 Dust monitoring locations and results for December 2020 are presented in Appendix B, Table 1 together with line charts for December 2020 from each dust monitor presented in Figures 3 to 7. 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 no (0) dust trigger alerts recorded during the monitoring period (December 2020).
- 1.1.9 Data capture for dust monitors #775 and WHD001 was below 90% for the month of December 2020. Missing data was due to the loss of continuous site power. The power supplies were reinstated, and the monitoring resumed. Alternative power supplies are under trial to avoid reoccurrence.
- 1.1.10 There were no (0) complaints, related to dust or air quality, received during the reporting period (December 2020).

Appendix A –Worksite and Dust Monitoring Locations

Figure 1: Birmingham City Council worksites and monitoring locations during December 2020.

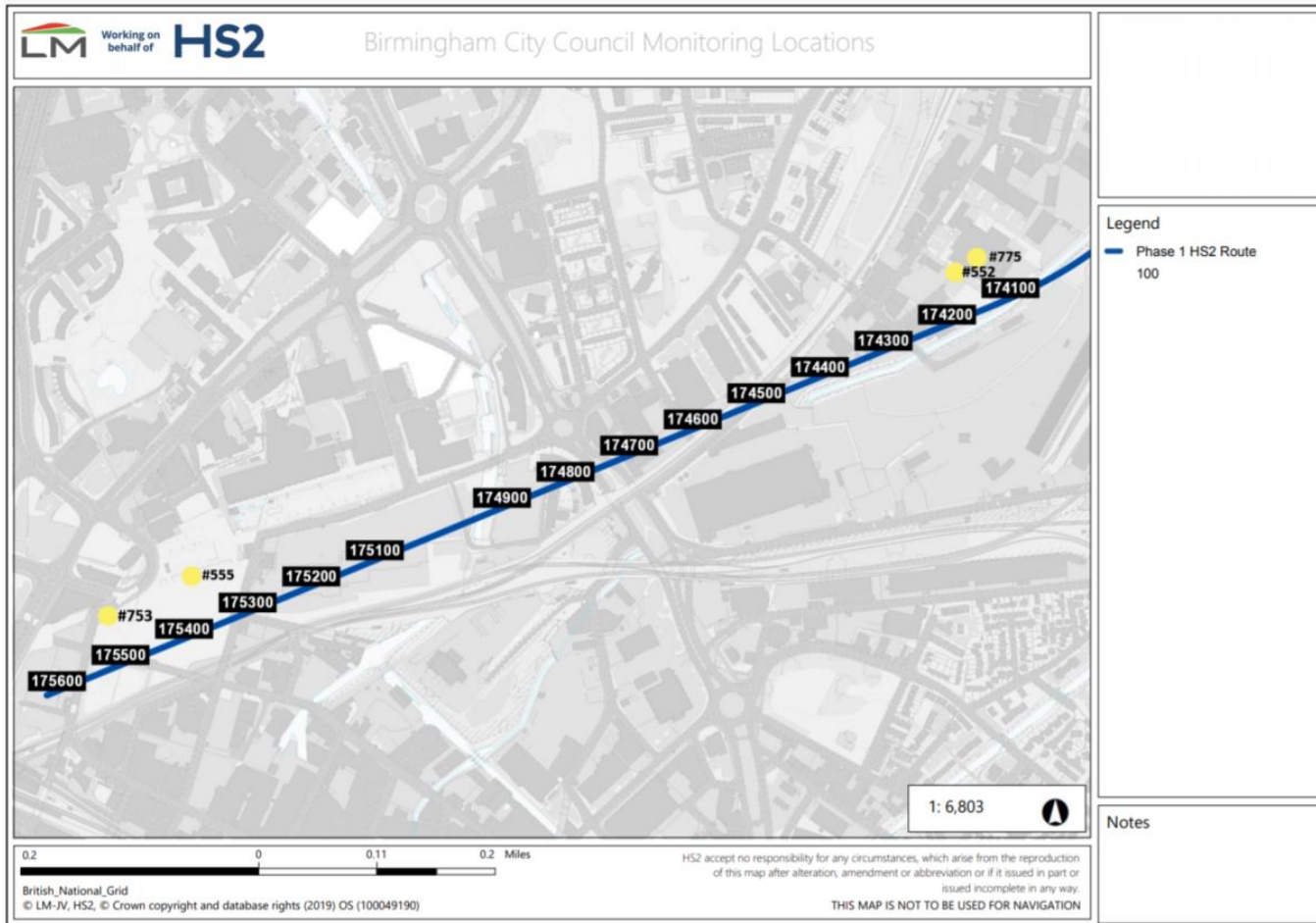
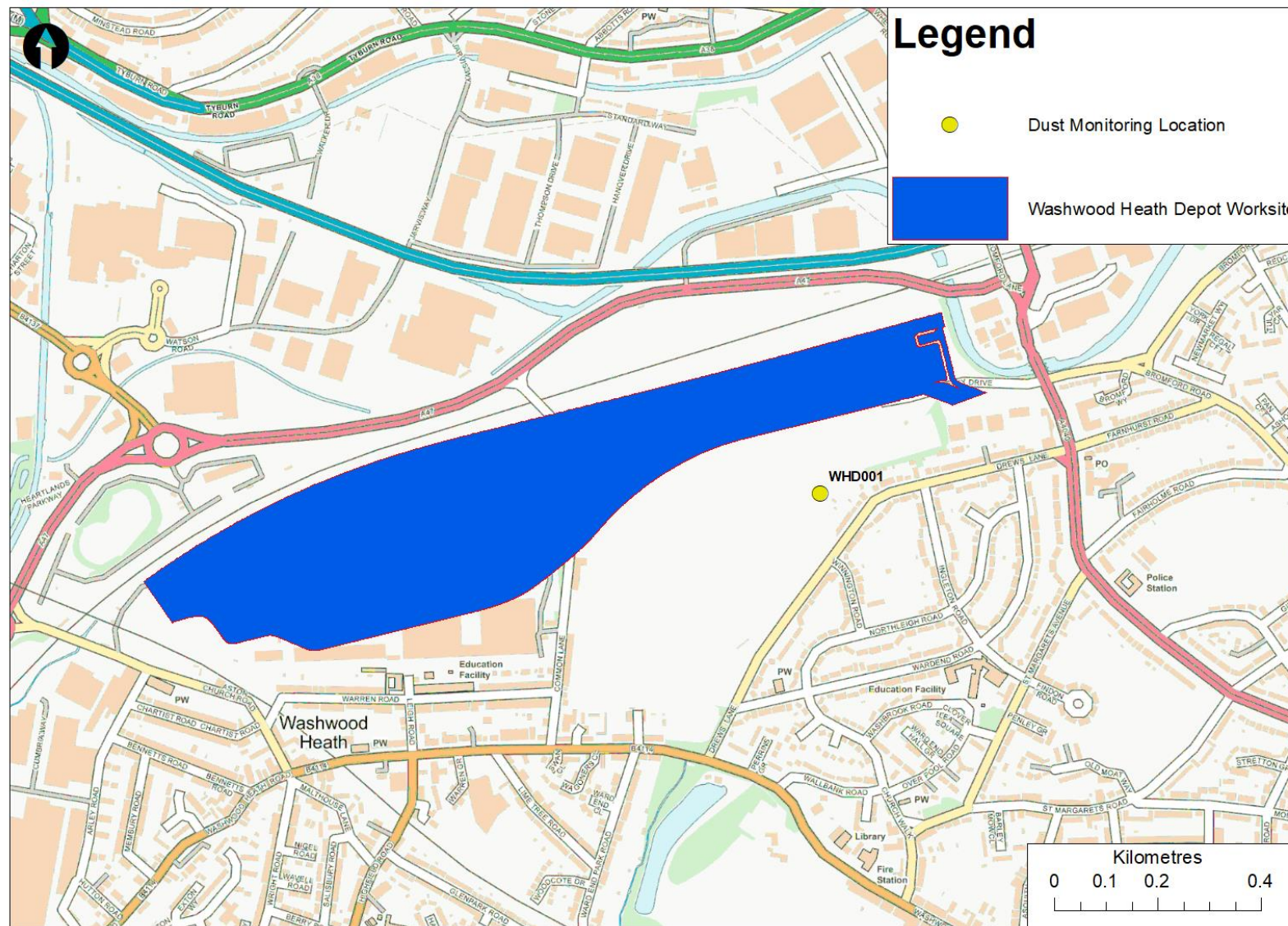


Figure 2: Birmingham City Council worksites and monitoring locations during December 2020.



Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and December 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 rate (%)
Dust #552 (old #82)	408811, 287485	Monitor outside the building	High	N/A	N/A	10.8	0.22	36.5	0	100.0
Dust #775 (old #85)	408841, 287529	Monitor secured inside the building	High	N/A	N/A	10.4	8.69	12.3	0	3.3
Dust #530 (old #555)	407702, 287079	Curzon Street Station HS2 Site	High	N/A	N/A	6.5	0.2	32.4	0	100.0
Dust #753	407619, 287006	Curzon Street Station HS2 Site	High	N/A	N/A	5.7	0.02	32.8	0	92.2
WHD001	411221, 289245	Washwood Heath Depot, near receptors on Drews Lane	Low	Yes	N/A	6.7	0.1	71.4	0	85.0

Figure 3: Construction dust hourly mean indicative PM₁₀ concentration for Dust #552 (December 2020)

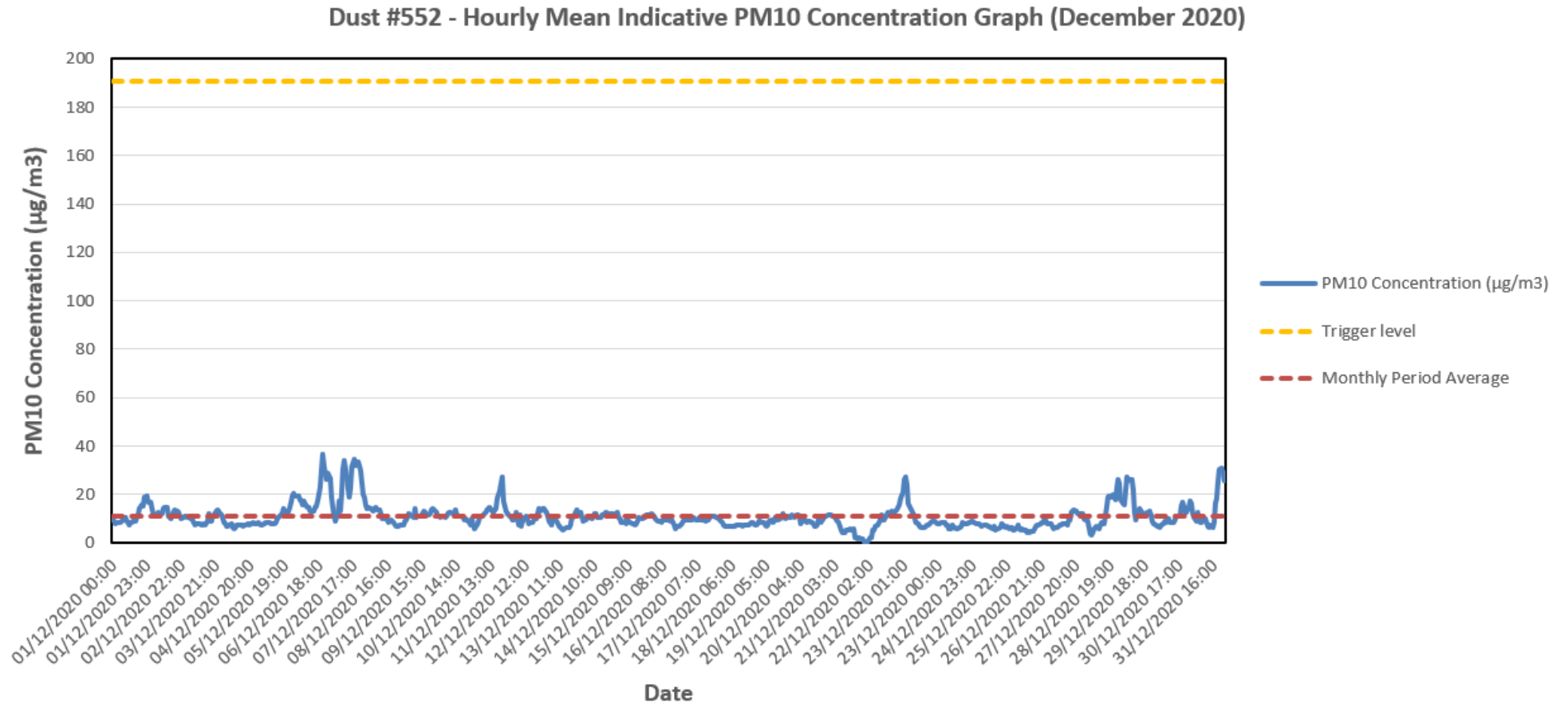


Figure 4: Construction dust hourly mean indicative PM₁₀ concentration for Dust #775 (December 2020)

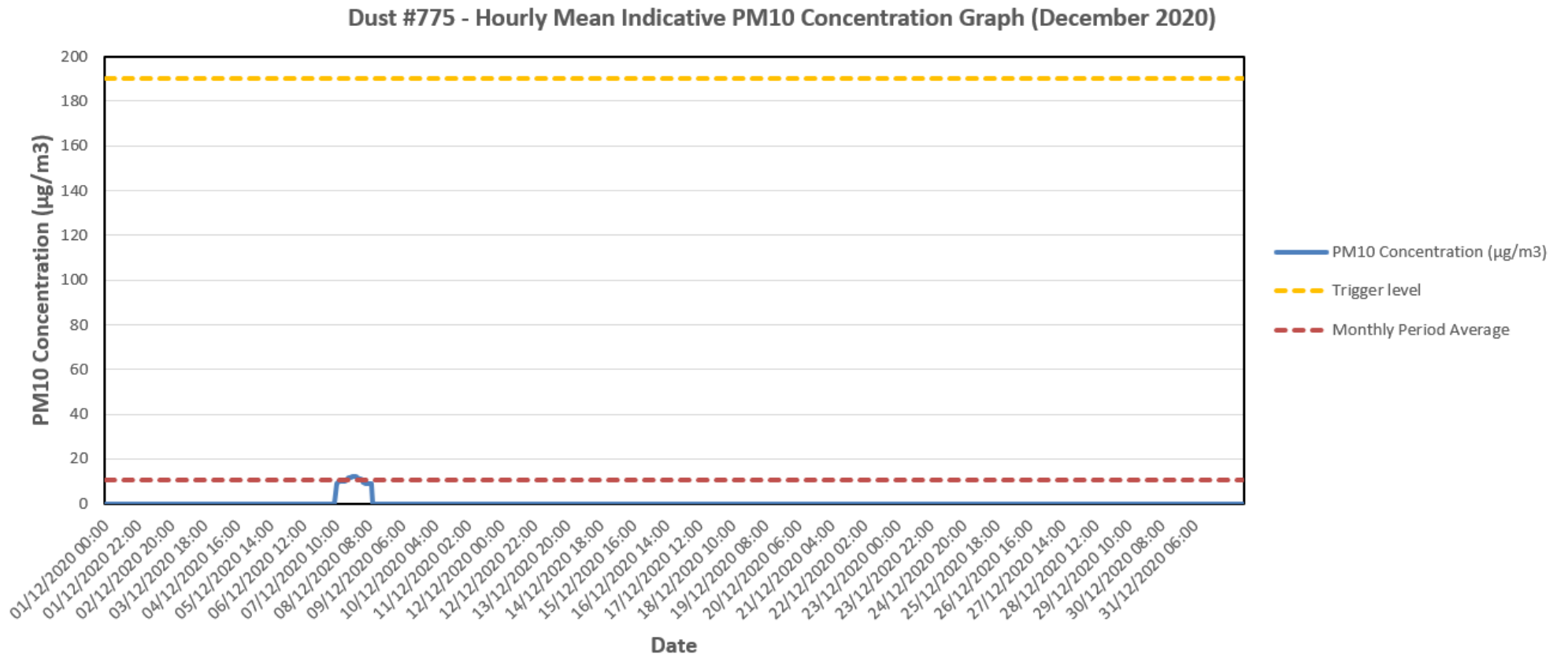


Figure 5: Construction dust hourly mean indicative PM₁₀ concentration for Dust #530 (old #555) (December 2020)

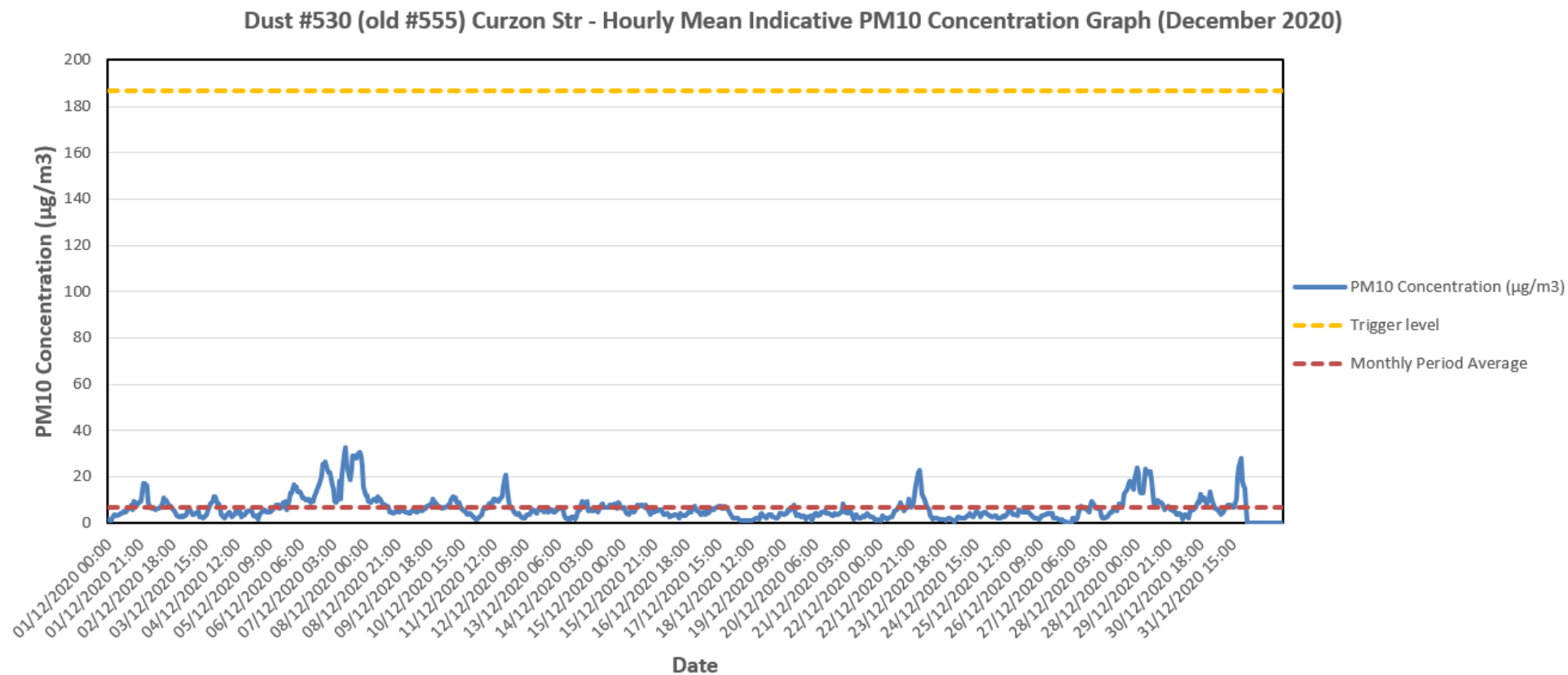


Figure 6: Construction dust hourly mean indicative PM₁₀ concentration for Dust #753 (December 2020)

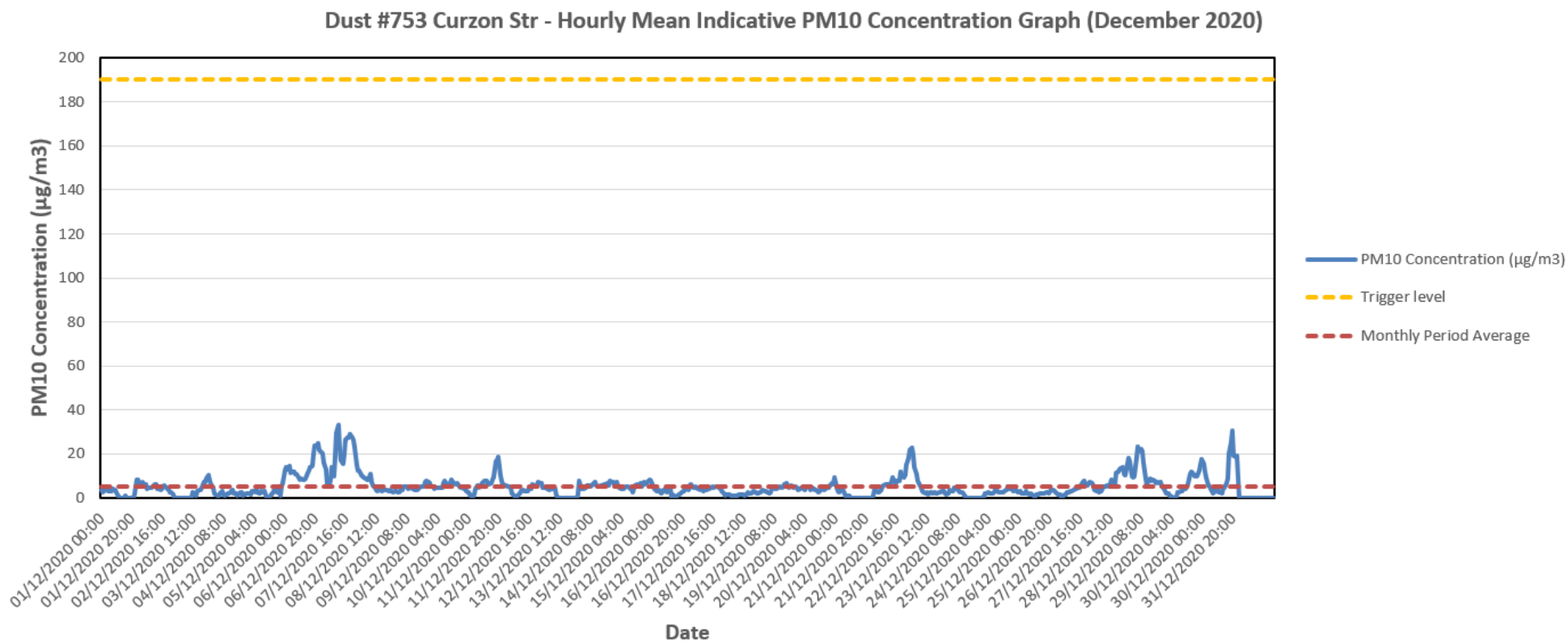


Figure 7: Construction dust hourly mean indicative PM₁₀ concentration for dust monitor WHD001 (December 2020)

