Memo

Project: National Paediatric Hospital

Report Type: Summary of Dust Monitoring Results

Period of Monitoring: January 2018

Introduction

The requirement for Dust Monitoring on site is laid out in the Project Environmental Impact Statement (EIS) that would have been submitted as part of the Planning Permission for the project. A number of monitoring points around the perimeter of the site are used to record dust levels. The location and number of dust monitors may vary throughout the project depending on activities on site.

Dust Monitoring.

The monitors are examined monthly and the levels of dust recorded are compared to a dust limit of 350mg/m^2/day set out in the Project EIS. The monitoring points are monitored on a 'trigger level' basis - so if a predetermined level of dust is exceeded the Main Contractor shall review work processes and modify as required to reduce the level of dust generated.

Number of Monitors on Site during Monitoring Period:

Ten

Location of Monitors:

The location of dust monitoring points for January 2018 (D1, D2, etc.) can be seen in Figure 1. The previous dust monitor locations for the period April to September 2017 are shown in Figure 2 for reference.

Observations:

The dust monitoring period for December extends from 5th January 2018 to 2nd February 2018.

Over this period, ten of the eleven monitors were tested on a monthly basis i.e. once. Monitor D4 had to be moved due to the construction of a new road and thus has been omitted for this month's results. It has been located in its new location and should have results in February's report.

Overall, nine of the ten dust monitors on site showed levels of dust lower than the levels specified in the Project EIS. One of the ten dust monitors showed levels higher than the levels specified in the Project EIS.

Dust Monitoring Point D3 recorded the highest reading and is located near the carpark for St. James's Hospital A&E car park. The dust deposition rate was approximately 210% of the deposition rate limit specified in the Project EIS.

The report notes that "the results obtained at the dust monitoring location D3 indicate that *"the excessive dust (i.e. 760mg/m^2/day) was most likely generated by either the movement of HGVs in the bulk dig area or the operation of a secant piling [rig] which [was] in the proximity of D3 during the sampling period"*.

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During the monitoring period, works have been ongoing across large areas of site and all other monitors have recorded very low levels of dust deposition (i.e. < 40mg/m^2/day) which would indicate that the reading at D3 has been influenced by very localised works. Previous piling works on site have influenced the monitoring results in a similar manner with spoil from the piling process falling locally into the monitor.

Previous Readings:

Dust Monitoring Point D3 (shown in Figure 1) was previously identified as Dust Monitoring point D1 (shown in Figure 2).

Previous Reading for location D3 (and previously D1) were:

June	131mg / m^2 / day
July	222mg / m^2 / day
August	297mg / m^2 / day
September	74mg / m^2 / day
October	100mg / m^2 / day
November	25mg / m^2 / day
December	12,000mg / m^2 / day

The January reading shows a decrease on December's reading from 12,000mg / m2 / day to 760mg / m^2 / day.

The nearest adjacent monitors are D2 and D4. During January's monitoring period the monitors at D2 and D4 were within limits specified in the Project EIS which would suggest the higher level of dust is reasonably localised.

(Note: the high reading in December was reported as "*the excessive dust (i.e. 12,000mg/m^2/day) was likely generated by the operation of a secant piling rig which was in the vicinity of D3 during the sampling period"*.

There was a local spill zone from the pile machine which likely lead to this abnormally high reading. During the monitoring period, works were ongoing across large areas of site and all other monitors recorded very low levels of dust deposition (i.e. < 40mg/m^2/day) which would indicate that the reading at D3 were influenced by very localised works.)

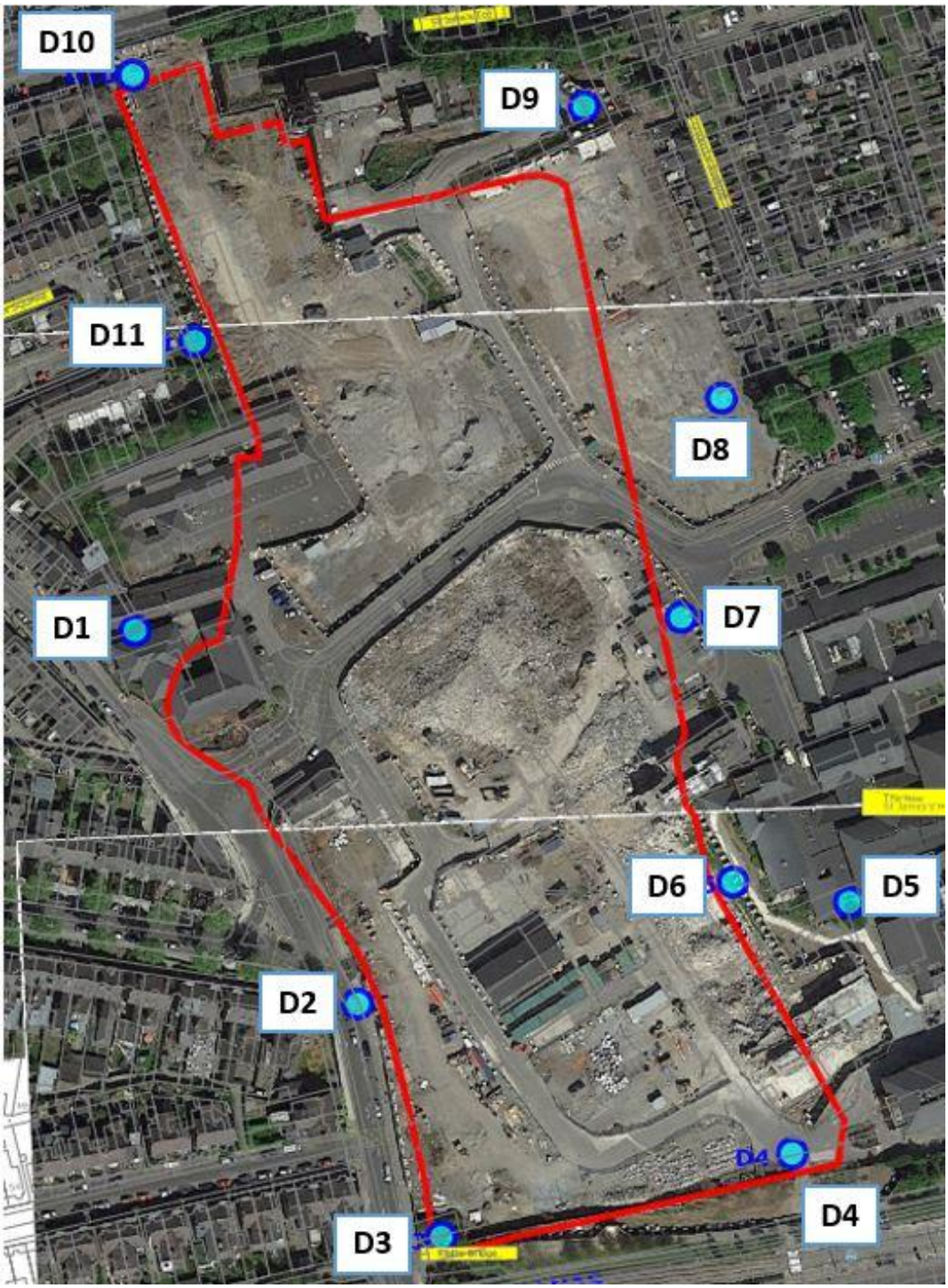

Figure 1. Location of Dust monitors on site (January 2018).

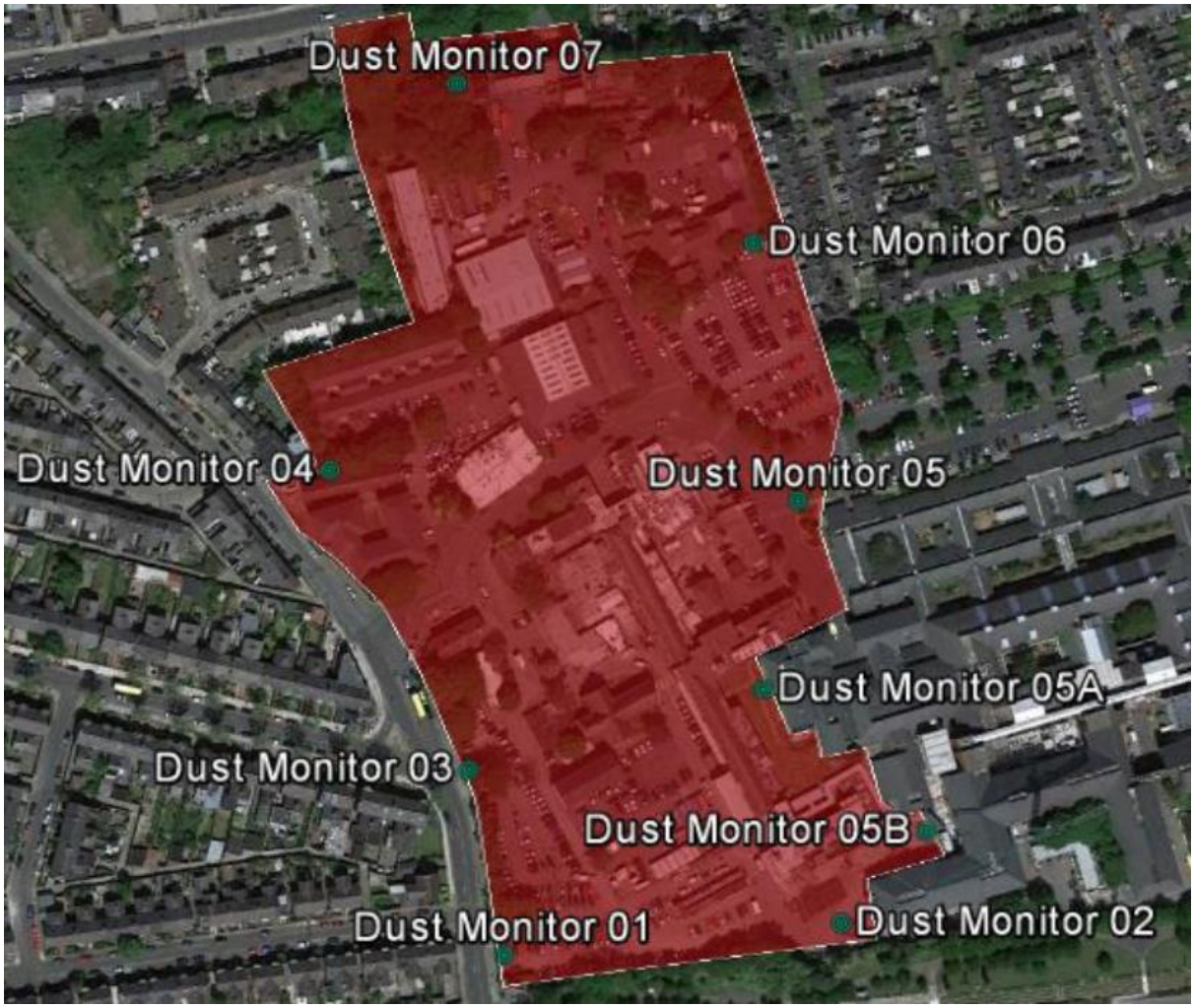

Figure 2. Previous location of Dust monitors on site (April 2017 to August 2017).