ARUP

Subject	Triton Square – Longford Place
Job No/Ref	246868-00
Date	1 December 2023

Response to London Borough of Camden comments on the Arup verification report for Longford Place

Aims

This file note sets out a response to London Borough of Camden comments on the Arup report 'Ground Contamination Verification Report - Longford Place' dated 25 February 2022 (Ref. 264868/LP/REP03). The note discusses the validation testing undertaken and provides further evaluation of TPH concentrations reported in verification samples of topsoil.

Verification testing frequency

As part of the verification for the redevelopment of Longford Place, the contractor (Maylim) commissioned Socotec to complete sampling of soil placed in soft landscaped areas. Four samples of topsoil were collected in line with the remediation strategy which stated that insitu testing of topsoil and subsoil should be completed at a frequency of one sample per $50m^3$. As stated in the verification report, a total of $110m^3$ of topsoil was imported and the four samples collected give a frequency of one sample per $27.5m^3$.

No samples of subsoil were obtained, which doesn't align with the statement in the strategy mentioned above. The contractor advised that their understanding was that testing of the subsoil was not required as it was a natural quarried sand and the remediation strategy states that testing was not required for natural product materials. Based on the photos and records provided by the contractor the subsoil used was a natural sand.

TPH results in topsoil verification samples

The topsoil was obtained from Bourne Amenity and source testing was undertaken by Tim O'Hare Associates (reported by Bourne Amenity). This shows a total TPH (C5-C35) concentration of 12mg/kg [provided in Appendix A4 of the Arup verification report, on page 186 of the pdf].

The total TPH (C8-C40) concentrations in the topsoil verification samples from the site ranged from 2,210mg/kg to 3,990 mg/kg [shown on page 199 to 200 of the report pdf] and were therefore unexpectedly higher than the source testing result.

The contractor should have commissioned speciated TPH analysis of the topsoil verification samples. However, only the total TPH results for the C8-C40 range described above and individual results for benzene, toluene, ethylbenzene and xylene (BTEX), which are in the aromatic C6-C8 range, are available. Concentrations of each of the BTEX compounds in all four samples were found to be below the method detection limit [results are shown on page 195 of the report pdf].

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Further evaluation of TPH results

As set out in the verification report, the contaminant concentrations recorded in the verification samples were compared to GAC for a Public Open Space residential (POS Resi) end use based on a 1% SOM level. This was considered to be suitably protective of the identified receptors based on the proposed end use.

POS resi GAC are only available for the individual aliphatic and aromatic fractions and a single GAC which applies to the entire C8-C40 range is not available. In the absence of a total TPH GAC, the recorded concentrations can be compared to the GAC available for individual fractions. The lowest GAC for any of the TPH fractions in the C8-C40 range is 3,770mg/kg which applies to the aromatic fractions C15-C21 and C21-C35. The total TPH concentrations reported in three of the four samples are below this fraction-specific conservative GAC and the topsoil these samples represent can therefore be considered suitable for use.

The fourth concentration is slightly higher but well below the next lowest fraction-specific GAC of 5,020mg/kg for the aromatic fraction C8-C10. The TPH in the sample is highly unlikely to have been limited to a single specific fraction and would almost certainly be a mixture of aromatic and/or aliphatic fractions. As a result, the reported concentration is unlikely to pose a risk to receptors and the topsoil the sample was taken from could be considered suitable for use.