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Jag Bains
Technical Manager - JagBains@hill.co.uk

08 March 2023

Subject: The Roundway – Ground gas mitigation and clean cover requirements
Our ref: L-21914m-2.4.2-23-251-RJG

Dear Mr Bains,

IDOM Merebrook Limited (IDOM) was commissioned to undertake preliminary site investigation works and to advise on the geo-environmental implications of the redevelopment of the site for the proposed end use. IDOM produced the following report for submission:

- 1) IDOM Merebrook; Roundways, Geoenvironmental Assessment Report; ref. GEA-21914m-22-463 (RevA); dated December 2022.

The proposed development consists of residential apartments for the homeless.

This letter sets out the ground gas protection and mitigation measures to be incorporated into the design.

Ground gas

As part of the investigation, IDOM undertook a programme of ground gas monitoring to assess the ground gas risk for the site and suggest any potential mitigation measures required. Following the BS 8485:2015 Gas Protection Guidance, the proposed development can be classified as a Type B building or “a private or commercial property with central building management control.”

Three rounds of ground gas monitoring were completed. Based on the data collected, the site conforms to Characteristic Situation 1 where no gas protection measures are required. A significant ground gas source was not encountered in the made ground and organic matter in made ground was generally low, reducing the possibility of ground gas generation from made ground.

Despite no hazardous ground gas concentrations being recorded to date, the developer proposes to install a ‘cross venting system’. This system involves the installation of a 150 mm subfloor void containing a 110 mm ventilation pipe which leads to a ventilation cowl. Should any ground gas be present, this will provide a suitable migration pathway for the ground gas to escape to the atmosphere.

Perched groundwater was encountered at 0.3 metres below ground level in one location. The underlying London Clay is an Unproductive Stratum and will not support large volumes of water. As a result, the potential for the sub-floor void to become inundated or compromised by shallow groundwater is considered to be low.

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The gas protection system will be installed by a suitably qualified specialist and subject to independent verification.

Clean cover system

Contamination of soils by metals and PAH compounds was reported. As a result, mitigation measures in the form of clean soils in areas of soft landscaping were recommended. This should include 300 mm of clean validated soil, to incorporate a minimum of 150 mm validated topsoil in communal landscaped areas. A greater thickness, 600 mm of clean soil will be required for any private gardens.

This will provide suitable mitigation and sever any potential pollution pathways.

Summary

Overall, the proposed mitigation measures for ground gas are considered to be sufficient to render the site suitable for use. No hazardous ground gas was recorded during the monitoring programme and based on the ground conditions encountered, no significant ground gas source was reported.

A clean cover system will be installed in areas of soft landscaping.

Please do not hesitate to contact me should you require any further information.

Yours sincerely



Rob Glavin
For IDOM Merebrook Ltd