

400 LONGWATER AVENUE PLANNING APPLICATION 2016/160569/FUL CONDITION 19: LAND GAS

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1. Introduction

This note relates to the discharge of planning condition 19 for the development of 400 Longwater Avenue, Green Park, Reading. Below, we set out our approach to mitigating the land gas identified during ground investigation.

Condition 19: No development shall take place until a scheme showing how the development is to be protected against the possibility of land gas has been submitted to and approved in writing by the Local Planning Authority. The land gas remediation scheme as approved shall be fully implemented in accordance with approved timetable of works and completed before the development is first occupied and those measures incorporated into the development shall thereafter be retained.

2. Ground investigations and requirements:

The plot is the latest development at Green Park and a number of investigations have been carried out across the site. The plot specific information was submitted as part of the Planning Application and presented in the PBA 'Updated Interpretative Report on Ground Conditions (Contamination) – 2016' (Doc reference 27159 3504 CBH/RHT/CC update 2016 Rev 01 final).

The data assessment and conclusion of the report was a recommendation to consider the development as Characteristic Situation 3 (CS3).

3. Proposed solution

The proposed mitigation and design approach will be in accordance with BS8485; *Code of Practice for the characterisation and remediation from ground gas in affected developments*. Table 2 of BS8485 outlines the required gas protection by gas situation and type of building; for a commercial building with a Gas Situation of 3, the required gas protection score is 2.

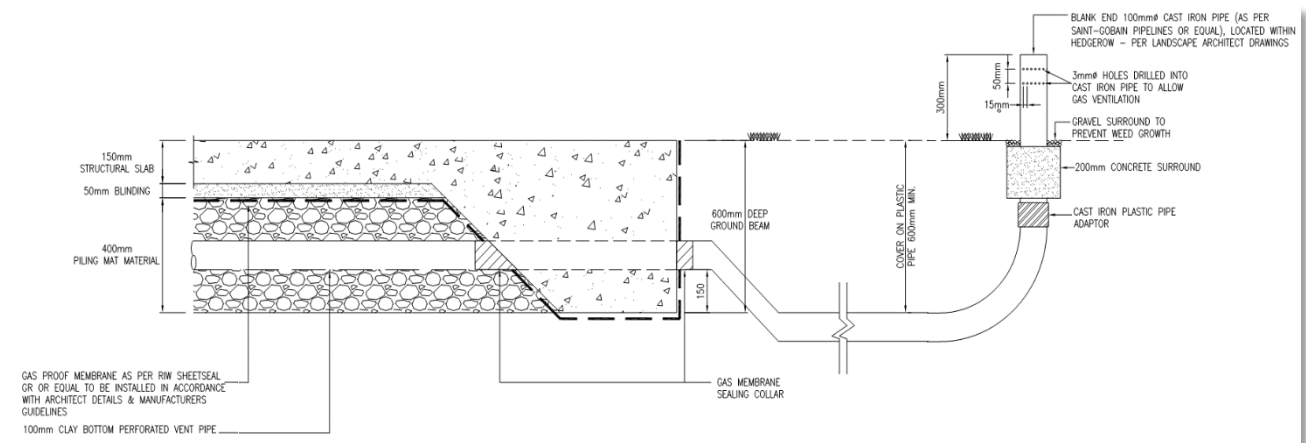
To achieve a gas protection score of, at least, 2 we propose the following measures are adopted:

A) Ventilation / Dilution: Passive sub floor ventilation – Good performance – score 1

B) Barriers: Reinforced concrete ground bearing floor slab - score 0.5

C) Membrane: Proprietary gas resistant membrane to reasonable levels of workmanship/in line with current good practice under independent inspection (CQA) - score 1

This solution has been successfully adopted elsewhere on Green Park, at 500 South Oak Way, and a similar arrangement would be developed for 400 Longwater Avenue.



4. Conclusion

In conclusion, we confirm that the development will be protected against the possibility of ground gas through the incorporation of a network of perforated pipes below the building, venting to gravel trenches in the soft landscaping. In addition, a gas resistant membrane will be laid below the reinforced concrete ground bearing slab to provide a robust barrier.