

Appendix A - Review of Basement Impact Assessment Report

for

1-11A Swains Lane, London, N6 6QX

October 27th 2016

Prepared by



Nimbus
Engineering Consultants

The logo for Nimbus Engineering Consultants features the word "Nimbus" in a large, bold, sans-serif font. Below it, the words "Engineering Consultants" are written in a smaller, lighter sans-serif font. The text is centered and appears to be on a light-colored rectangular background.

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1 INTRODUCTION

1.1 Appointment and Brief

- 1.1.1 Nimbus Engineering have been commissioned by Tasou Associates to review the Basement Impact Assessment Report produced by ADS consultancy for 1-11A Swains Lane, London, N6 6QX, in order, to provide any comments to their assessment and, also to discuss this risk of groundwater flooding to the proposed basement in greater detail.
- 1.1.2 The Basement Impact Assessment Report produced by ADS consultancy for 1-11A Swains Lane, London, N6 6QX was prepared, in order, to discharge a planning condition and to provide an assessment of basement and subterranean scheme impacts on drainage, flooding from all sources, especially groundwater conditions. The report was written to ensure the proposed development does not cause harm to the built and natural environment and local amenity and does not result in flooding or ground instability.
- 1.1.3 The report has been reviewed by Andrew Long who is a Chartered Member of the Chartered Institute of Water and Environmental Management (CIWEM).

1.2 Limitations

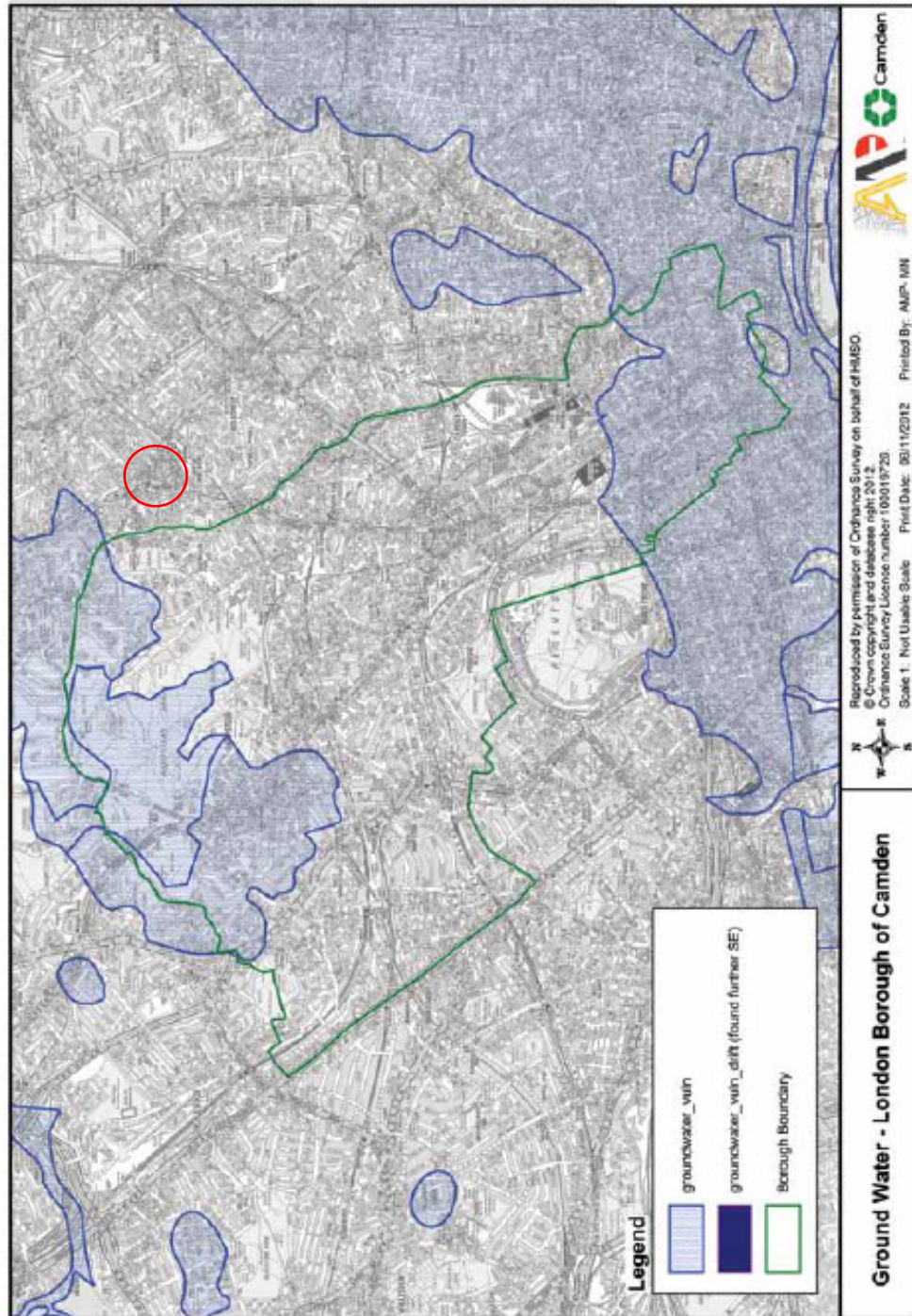
1.2.1 The general limitations of this report are that:

- A number, of, data and information sources have been used to prepare this report. Whilst Nimbus Engineering believes them to be trustworthy, Nimbus Engineering is unable to guarantee the accuracy of data and information that has been provided by others;
- This report has been prepared using best data and information that was available at the time of writing. There is the potential for further information or data to become available, leading to changes in the conclusions drawn by this report, for which Nimbus Engineering cannot be held responsible.

2 RISK OF FLOODING FROM GROUNDWATER

2.1 The map shown below, from the Camden Flood Risk Management strategy report shows that the proposed site is not in an area that is at risk of groundwater flooding, or in an area with groundwater vulnerability.

4. Map of groundwater flood risk



2.2 Ground investigation was carried out at the site in November 2013 by Harrison Environmental Consulting as follows:

- 2 no. Cable Percussive Boreholes.
- 1 no. Window Sample Borehole
- 3 no. Dynamic Probe Holes
- 4 no. Trial Pits
- TRL Probe Tests

- Gas and groundwater monitoring

Groundwater was encountered in three of the above boreholes at a depth of between 0.42 metres below ground level and 1.45 metres below ground level, however as this groundwater was only encountered in 3 out of 10 holes/pits, the groundwater encountered is thought to be that of a perched water table, rather than representative of the ground water table.

The presence of this perched water must be taken in to consideration when excavating below ground and during the construction of the basement.

As per the ADS consultancy report proposals, the proposed structures should be designed to resist any potential hydrostatic uplift forces which may be imparted by the presence of groundwater.

The basements should be designed as watertight elements. It should also be appreciated that the soils at likely foundation/basement depth will deteriorate rapidly in the prolonged presence of water, therefore a waterproof membrane such as delta membrane or equivalent should be used. Consequently, it may be prudent to apply a blinding layer of lean-mix concrete to all excavations, if continuous working cannot be achieved.

Pumps will also be provided to remove excess water should the properties flood.

Additional mitigation measures will include:

- Fixtures and fittings for the basement will be located to ensure that if any flood water does enter the building, the impact of floodwater on the property will be minimal;
- Electricity sockets for the basement will be 600mm above the finished floor level and wired from the ceiling down;
- Non return valves will be employed in the drainage design for the basement, to prevent back up of flow;
- Water resistant paint to be used for internal walls.

3 BASEMENT IMPACT ASSESSMENT REVIEW AND COMMENTS

- 3.1.1 The ADS consultancy Structural engineer's report and structural methodology statement has been reviewed and approved. Their proposals for during excavation, construction and post construction show that they have considered all issues that may arise and have provided a sound assessment.
- 3.1.2 This report is to be read in conjunction with the BREEAM UK New Construction Pol 03 Surface Water Run-Off report which provides a full assessment of the flooding from all sources, as well as a suitable Sustainable Urban Drainage strategy to ensure that this proposed development does not increase flooding at the site or elsewhere.