

HYDROLOGY REPORT

FOR NEW BASEMENT CONSTRUCTION

AT

**23 HOWITT ROAD
LONDON NW3 4LT**

FOR

HALO PROPERTIES LTD

Prepared by:

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This hydrology report has been prepared to support a full planning application for new basement construction at 23 Howitt Road, London NW3 4LT.

This document should be read in conjunction with submitted drawings.

Basement excavations have implications on drainage as they may be below the invert level of existing drains, and need to be carefully considered with a view to flooding.

In the case of 23 Howitt Road, the invert of the existing combined foul and surface manhole at the front of the building is approx. 2.9m below ground floor level, which allows to build a basement with a floor level being 0.5m above the invert level of existing manhole. This will be enough for gravity drainage within Building Regulation recommended falls for both the soil pipes (from two bathrooms with max distance 13.0m) and surface drainage from rear lightwells. A new manhole will be constructed close to the main one at the front to allow inclusion of a non-return valve, as recommended by Camden Council. It is proposed that an overflow from the rear external area will connect to a pumped sump under the lightwell floor as a second line of defence. The bottom of new sloped lightwells at the front will be 150mm below window cills. The front lightwells will be connected to the new manhole.

A risk of the basement being flooded by ground water is a separate issue.

In order to prevent this type of flooding a waterproof structure is required.

Basement walls will be constructed in 1.0m long sections as underpinning of existing walls and then connected to concrete ground slab.

A DPM on the slab will be connected with a tanking on the walls creating the waterproof structure. The basement will be safe from ground water.

All the described solutions, together with the fact that the property is about halfway up Howitt Road and benefits from good falls on the existing drainage, ensure the safety of the basement studios against flooding.