



KNAPP HICKS & PARTNERS LTD

CONSULTING STRUCTURAL, CIVIL & GEOTECHNICAL ENGINEERS

32027A.L.001.RJM
19th December, 2014



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Nanayaa Ampoma
Planning Officer
Regeneration and Planning
London Borough of Camden
Town Hall
Argyle Street
London WC1H 8ND

BY EMAIL

Dear Nanayaa,

BASEMENT IMPACT ASSESSMENT 6 ANTRIM GROVE, NW3 4XR

Introduction

We have received the Audit of our Basement Impact Assessment (GEA Letter Reference J14312/MC/1, dated 7th November 2014), for the above site and our responses are set out below. This letter also describes our proposals to conclude the Basement Impact Assessment (BIA).

Item 1.2 - Proposed Development: Subject to the findings of further trial pit investigations to be carried out in the rear garden of the property, we confirm that the preferred method of construction will consist of conventional reinforced concrete underpinning of existing walls and cast insitu reinforced concrete cantilevered retaining walls where the basement extends beyond the existing building, constructed in hit and miss panels of limited width.

Item 2.3 - Author Qualification: The BIA has been prepared by Richard Moore, a Technical Director at Knapp Hicks and Partners Limited (KHPL), a Fellow of the Geological Society (FGS), and a Chartered Geologist (CGeol) with 25 years experience of geotechnical projects including hydrogeological assessment, slope stability, foundations and site investigation.

Richard Moore has been assisted in the preparation of the BIA by KHPL colleagues Jennifer Sturman, Chartered Civil Engineer (CEng) and Member of the Institution of the Civil Engineers (MICE), who has over 25 years experience of civils and drainage design, and flood risk assessment and her career to date has included experience with Local Authority, contractors and consultants. Jennifer has contributed to both the Land Stability and the Surface Water & Flooding stages of our assessment.

We are also pleased to confirm that our proposals to conclude the BIA will include input from Keith Gabriel (MSc, DIC, CGeol, FGS, RoGEP) to assist with the calculation of predicted ground movements and structural impact, and by hydrogeologist Stephen Buss, MSc FGS CGeol who will model the groundwater to determine the impact of the basement.

We can also confirm that one of our structural engineers will also review the completed document in addition to preparing structural designs for the proposed basement.

Item 2.4.1 - Site Investigation: Our investigations included 1No windowless sampler borehole to a depth 7.4mbgl at the front of the property, and 3No hand dug pits which attempted to prove existing foundation details and the ground conditions to the rear of the property.

All soils have been logged by a graduate engineering geologist qualified to BSc.

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As recommended in the BIA, we propose to undertake 2 No hand dug pits in the rear garden to help assess ground stability and the existing groundwater level and flow, and the potential effects of the new basement on the groundwater.

In addition, 2-3 No pits will be excavated to provide more information on the existing foundations, including the party wall details. These will be excavated by the front door, adjacent to the party wall with No4, and along the flank wall beside No8.

Groundwater monitoring wells will be installed to the base of the pits before they are backfilled, and we will carry out 3 No monitoring visits to help confirm the groundwater level in the Head Deposits overlying the London Clay.

Our assessments will also take into account the ground investigation information obtained for No8 Antrim Grove.

Item 2.6 - Basement Impact Assessment: Upon completion of these further investigations, we will review and assess the following in relation to the most current version of CPG4 (September 2013) and the related Arup Report, and the screening stage flowcharts will be updated to take account of the findings.

Item 2.6.1 – Surface Water Flow & Flooding: We will revisit the questionnaire in relation to the impermeable/permeable ratio as requested

Item 2.6.2 – Groundwater Flow: We will investigate this further by excavation of hand dug trial pitting and monitoring of instruments installed to below the depth of the proposed basement. Monitoring to be undertaken through the current winter months. We have made arrangements for provision of groundwater modelling and sensitivity analysis to assess the impact of the proposed basement on groundwater levels.

Item 2.6.3 – Ground Stability: We will assess potential for heave associated with existing vegetation, as well as analysis of heave/settlement associated with the excavation and construction process. Data will be presented as contoured plots of vertical displacements and tabulated.

We will review requirements to minimise ground movements.

Damage category will be assessed using typical displacements alongside underpins and reinforced concrete retaining walls.

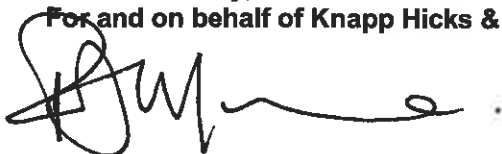
3.0 - SUMMARY:

We have noted the comments made by GEA and we confirm that we will be undertaking additional site investigations to complete the necessary data set required to fully assess the impacts of this proposed basement.

Following completion of the investigations, further structural, hydrogeological and geotechnical analysis will be undertaken to complete our assessment of the basement impacts.

We are confident that these supplementary measures will satisfactorily conclude the Basement Impact Assessment process in accordance with LB Camden Planning Guidance and we would be grateful if you can confirm approval of these proposals.

Yours sincerely,
For and on behalf of Knapp Hicks & Partners Ltd



R J MOORE

cc Peter Braslavsky, 6 Antrim Grove, NW3
Martin Cooper, GEA Ltd
Jim Biek, Bchitecture Ltd