

5 Branch Hill,  
NW3 7LT

Basement Impact Assessment  
Audit

For  
London Borough of Camden

Project Number: 12727-69  
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August 2018

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### Document History and Status

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### Document Details

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## 1.0 NON-TECHNICAL SUMMARY

- 1.1. CampbellReith was instructed by London Borough of Camden, (LBC) to carry out an audit on the Basement Impact Assessment submitted as part of the Planning Submission documentation for 5 Branch Hill (planning reference 2017/6899/P). The basement is considered to fall within Category B as defined by the Terms of Reference.
- 1.2. The Audit reviewed the Basement Impact Assessment for potential impact on land stability and local ground and surface water conditions arising from basement development in accordance with LBC's policies and technical procedures.
- 1.3. CampbellReith was able to access LBC's Planning Portal and gain access to the latest revision of submitted documentation and reviewed it against an agreed audit check list.
- 1.4. The Basement Impact Assessment (BIA) was carried out by LBH Wembley Engineering. The authors' qualifications are in accordance with LBC guidelines.
- 1.5. The BIA has confirmed that the proposed basement extension will be over a very small area (in the order of 1m x <2m) and will require an excavation of around 4m from existing ground level. It will be founded within the Bagshot Formation at the same level as the existing basement. The Bagshot Formation overlies the Claygate Member.
- 1.6. Although the Bagshot Formation is designated as a secondary Aquifer it is unlikely that the groundwater table will be encountered during the proposed excavation and construction works.
- 1.7. The BIA states underpinning to be the method for basement construction. Temporary works information is provided. Damage impact to neighbouring structures is assessed to be Category 0 (Negligible) in accordance with the Burland Scale.
- 1.8. A combined sewer runs beneath the existing basement. The proposed development will allow appropriate future access to the sewer.
- 1.9. It is accepted that the development will not impact on the wider hydrogeological or hydrological environments, will not impact upon slope stability and is not in an area subject to flooding.
- 1.10. The BIA meets the criteria of CPG Basements.

## 2.0 INTRODUCTION

- 2.1. CampbellReith was instructed by London Borough of Camden (LBC) on the 13<sup>th</sup> of March 2018 to carry out a Category B Audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for 5 Branch Hill, NW3 7LT.
- 2.2. The Audit was carried out in accordance with the Terms of Reference set by LBC. It reviewed the Basement Impact Assessment for potential impact on land stability and local ground and surface water conditions arising from basement development.
- 2.3. A BIA is required for all planning applications with basements in Camden in general accordance with policies and technical procedures contained within
- Guidance for Subterranean Development (GSD). Issue 01. November 2010. Ove Arup & Partners.
  - Camden Planning Guidance Basements. March 2018.
  - Camden Development Policy (DP) 27: Basements and Lightwells.
  - Camden Development Policy (DP) 23: Water.
  - Local Plan Policy A5 Basements.
- 2.4. The BIA should demonstrate that schemes:
- a) maintain the structural stability of the building and neighbouring properties;
  - b) avoid adversely affecting drainage and run off or causing other damage to the water environment;
  - c) avoid cumulative impacts upon structural stability or the water environment in the local area, and;
  - d) evaluate the impacts of the proposed basement considering the issues of hydrology, hydrogeology and land stability via the process described by the GSD and to make recommendations for the detailed design.
- 2.5. LBC's Audit Instruction described the planning proposal as "*Erection of rear basement and ground floor level 2 storey extension*".
- 2.6. CampbellReith accessed LBC's Planning Portal on 13 August 2018 and gained access to the following relevant documents for audit purposes:
- Application for Planning Permission, dated December 2017;

- Drawings: Proposed 3D Images (P04), Proposed plans (P01), Existing Plans (E01), Existing Sectional Elevations (E02), Proposed Sectional Elevations (P02), Proposed Roof Plan (P03), dated December 2017;
- Basement Impact Assessment, dated July 2018;
- Screening and Scoping Assessment, dated March 2018;
- Consultation responses and objections.

### 3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	Yes	
Is data required by Cl.233 of the GSD presented?	Yes	
Does the description of the proposed development include all aspects of temporary and permanent works which might impact upon geology, hydrogeology and hydrology?	Yes	
Are suitable plan/maps included?	No	However, suitable maps have been referenced during the preparation of the BIA.
Do the plans/maps show the whole of the relevant area of study and do they show it in sufficient detail?	No	It's accepted that appropriate mapping has been referenced in preparation of the BIA.
Land Stability Screening: Have appropriate data sources been consulted?	Yes	
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	
Hydrology Screening: Have appropriate data sources been consulted?	Yes	
Is a conceptual model presented?	Yes	Discussed within BIA text.
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	Yes	

Item	Yes/No/NA	Comment
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	Yes	
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	Yes	
Is factual ground investigation data provided?	No	However, appropriate ground investigation data for nearby areas were consulted, considering the scale and nature of the proposals.
Is monitoring data presented?	No	Considering the proposed scale of construction and the existing full depth basement / lightwell adjacent, this is accepted.
Is the ground investigation informed by a desk study?	Yes	
Has a site walkover been undertaken?	Yes	
Is the presence of adjacent or nearby basements confirmed?	Yes	The current extension is being made to an existing basement. Section 8.3.1 of the BIA states that the adjacent No.4 Branch Hill is set at basement level.
Is a geotechnical interpretation presented?	Yes	Appropriate bearing capacity assessed.
Does the geotechnical interpretation include information on retaining wall design?	Yes	
Are reports on other investigations required by screening and scoping presented?	NA	
Are the baseline conditions described, based on the GSD?	Yes	
Do the base line conditions consider adjacent or nearby basements?	Yes	

Item	Yes/No/NA	Comment
Is an Impact Assessment provided?	Yes	
Are estimates of ground movement and structural impact presented?	Yes	
Is the Impact Assessment appropriate to the matters identified by screen and scoping?	Yes	
Has the need for mitigation been considered and are appropriate mitigation methods incorporated in the scheme?	Yes	
Has the need for monitoring during construction been considered?	Yes	
Have the residual (after mitigation) impacts been clearly identified?	NA	
Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure will be maintained?	Yes	
Has the scheme avoided adversely affecting drainage and run-off or causing other damage to the water environment?	Yes	The site area is 100% hard surfaced now and will remain the same after development.
Has the scheme avoided cumulative impacts upon structural stability or the water environment in the local area?	Yes	
Does report state that damage to surrounding buildings will be no worse than Burland Category 1?	Yes	
Are non-technical summaries provided?	Yes	

## 4.0 DISCUSSION

- 4.1. The Basement Impact Assessment (BIA) along with the Screening and Scoping document, has been prepared and carried out by a well-known firm of engineering consultants, LBH Wembley Engineering and the authors' qualifications are in accordance with LBC guidance.
- 4.2. The basement proposal does not involve a listed building nor is it adjacent to listed buildings.
- 4.3. The BIA has confirmed that the proposed basement extension will be over a very small area (in the order of 1m x <2m) and will require an excavation of around 4m from existing ground level.
- 4.4. Based on nearby site investigation data, the BIA has identified that the basement shall be founded on the Bagshot Formation, underlain by the Claygate Member at around 15m below ground level (+110m OD). Groundwater is believed to be well below the proposed basement level and it is unlikely that the groundwater table will be encountered during the proposed excavation and construction works.
- 4.5. Section 7 of the BIA outlines the proposed construction methodology, using underpinning. It is stated that the existing walls of the lightwell and the ground floor would act as high and low level props to laterally support the walls in the permanent case. Reinforced Concrete Retaining Walls Calculations have been included in the BIA. The design calculations take into account the traffic surcharge load from the Branch Hill Mews access. The existing perimeter walls and proposed retaining walls would be temporarily laterally propped during construction.
- 4.6. Damage impact to neighbouring structures is assessed to be Category 0 (Negligible) in accordance with the Burland Scale.
- 4.7. A sewer line runs beneath the existing basement of No 5 Branch Hill. The property, together with its neighbours at Nos 1 to 4, is served by this sewer. Concern was raised by residents in the neighbouring buildings regarding the access to the manhole for this drain. The BIA states that this access to the sewer, which is currently within the existing lightwell area, shall be preserved within the new structure using a sealed cover.
- 4.8. It is accepted that the development will not impact on the wider hydrogeological or hydrological environments, will not impact upon slope stability and is not in an area subject to flooding.
- 4.9. It is accepted that there are no slope stability concerns regarding the proposed development and it is not in an area prone to flooding.

## 5.0 CONCLUSIONS

- 5.1. The qualifications of the author are in accordance with CPG4 guidelines.
- 5.2. The proposed development comprises an extension of the existing basement to occupy a lightwell area and the BIA has confirmed the basement will be founded within the Bagshot formation.
- 5.3. Although the Bagshot formation is designated as a secondary Aquifer it is unlikely that the groundwater table will be encountered during the proposed excavation and construction works.
- 5.4. The BIA states underpinning to be the preferred method for basement construction. Temporary works information is provided. Damage impact to neighbouring structures is assessed to be Category 0 (Negligible) in accordance with the Burland Scale.
- 5.5. A combined sewer runs beneath the existing basement. The proposed development will allow appropriate future access to the sewer.
- 5.6. It is accepted that the development will not impact on the wider hydrogeological or hydrological environments, will not impact upon slope stability and is not in an area subject to flooding.
- 5.7. The BIA meets the criteria of CPG Basements.

## **Appendix 1: Residents' Consultation Comments**

Residents' Consultation Comments

Surname	Address	Date	Issue raised	Response
Whitmore, Neal	3 Branch Hill, NW3 7LT	16 August 2018	Access to sewer manhole.	The BIA states that access to the sewer will be maintained.
Minckwitz, Christopher de	4 Branch Hill, NW3 7LT	25 January 2018	-same as above-	-same as above-
Aveline, Alice and Robin	6 Branch Hill, NW3 7LT	25 January 2018	-same as above-	-same as above-

## Appendix 2: Audit Query Tracker

None

## **Appendix 3: Supplementary Supporting Documents**

Application No:	Consultees Name:	Consultees Addr:	Received:	Comment:	Response:
2017/6899/P	Neal Whitmore	3 Branch Hill	25/01/2018 13:24:54	COMMEM PER	<p>I'm a resident at No 3 Branch Hill. We have a concern about this application regarding the drainage of all the properties 1-5 Branch Hill.</p> <p>The surface water and some of the foul water - sinks/baths/dishwashers/washing machines etc - from all five properties runs along a small sewer at the back of the houses. The only access to this drain is a a manhole in the middle of the proposed extension floor at No 5 Branch Hill.</p> <p>This sewer has been blocked many times over the past 20 years that I've been living here. The method of clearing any blockage is to jet from the manhole to the rear of No 5 Branch Hill.</p> <p>Any planning permission must take this into account. Access to the manhole must be maintained.</p> <p>Thank you.</p>
2017/6899/P	Christopher de Minckwitz	4 Branch Hill	25/01/2018 17:14:44	INT	<p>As the owner of an adjoined property, I have no issue with the overall design nor the notion of the planned extension, as the space will likely provide more practical purpose as planned than currently.</p> <p>However I would like to note.</p> <p>The shared wall between the two properties in the interior and exterior of number 4 Branch Hill bears no damage, is high and dry from any moisture and is in otherwise good condition As such I would expect the owner of number 5 Branch Hill to ensure the quality of this is not sacrificed in any way. Further that his agents are satisfied with its condition and provide for recourse in the event of any damage caused by the activities as planned or otherwise carried forward in respect to this development.</p> <p>Further the adjoining party wall where the extension is planned should be made to match the current wall when looking from number 4 Branch Hill.</p> <p>Finally it is my understanding that there is a drain junction or other such element on the property of number 5 Branch Hill, which will with the planned extension now be inside the domicile. Access to this junction which feeds from number 1 through to number 5 of Branch Hill is critical in the event of blockage which has the potential consequence of flooding. As such the extension must either allow for continued access to said junction or allow for its relocation.</p>

<b>Application No:</b>	<b>Consultees Name:</b>	<b>Consultees Addr:</b>	<b>Received:</b>	<b>Comment:</b>	<b>Response:</b>
2017/6899/P	Alice and Robin Aveline	6 branch hill London	25/01/2018 22:56:53	COMMNT	Whilst we are happy in principle with the proposed extension, we are concerned that the area being extended into carries the drain for our house and the other houses numbered 1-5 on branch hill. We would like a plan in place before permission is granted to ensure continuous access to the drain will be maintained.
2017/6899/P	Susan Witherow	The Gatehouse Branch Hill London NW3 7LS	25/01/2018 15:16:28	OBJ	The application states that the property has an existing arrangement for waste management but it is completely ineffective and does not aid in the storing and collection of waste. There is no outdoor storage space front of the house for bin storage,(only in the rear). Currently, rubbish bags from no. 5 Branch Hill often are deposited on the street days before scheduled collection, foxes rip open the bags leaving a mess the entire way up and down Branch Hill and in front of neighbouring properties, creating a nuisance and a health hazard. This problem needs to be sorted effectively before the property expands to a larger size.

Application No:	Consultees Name:	Consultees Addr:	Received:	Comment:	Response:
2017/6899/P	Mr A. Greenway	Branch Hill Mews Branch Hill London NW3 7LT	25/01/2018 17:41:05	OBJ	<p>As the owners of Branch Hill Mews have not been notified of this application and have only been informed by a neighbour today. The application property is adjoining ours and are concerned we have not formally been notified by the Council.</p> <p>We object to the application reference 2017/6899/P on the following grounds:</p> <ol style="list-style-type: none"> <li>1. The proposal drawings do not illustrate the site context and how the development would be undertaken. I note there is no CTMP attached to this application. The construction of the basement extension appears not to have been considered in any detail. The passage along side the applicants property (The access to Branch Hill Mews) has limited rights by 'footway' and must be kept free at all times. Construction access will not be granted by us the owners and Freeholders of this land. The site has a very narrow pavement in front addressing Branch Hill. It would not be possible to safely implement works without significant disturbance and risk to all surrounding property, occupiers and traffic.</li> <li>2. There is no BIA submitted with this application. The site is surrounded by buildings and roads at varying ground levels. The potential impact to the surrounding structures could be significant if not thoroughly considered. The access road to Branch Hill Mews has a retaining wall one side 3.3m high holding back the ground to the adjoining property. This does not appear to have been considered on the application and is not referenced on any of the plans.</li> <li>3. The drawings do not illustrate the required construction to allow the proposal to be realised. There is no structure, waterproofing, insulation or drainage system shown. If these items are added to the drawings it would be questionable if the spaces left would be considered habitable.</li> <li>4. We do not believe that the reduction in amenity space to the rear ground floor is permitted under the current planning guidance.</li> <li>5. The terrace houses along this block all share the same drainage run. There is a history of blockages at the last inspection chamber branch before it meets the main sewer. Branch Hill Mews is also serviced by this drain run. The location of this drain run and access is directly below the proposed basement extension. The shared drainage run should not be covered by a building if future issues are to be avoided. Though this is not a planning issue this matter should be addressed as many residents depend on this drainage.</li> <li>6. The drawings illustrate a proposed new rear door (Fire Exit) opening out over the land owned by Branch Hill Mews. This is unlawful and will not be consented by the owners of Branch Hill Mews.</li> </ol> <p>This is a poorly conceived and under supported application for a subterranean development on a site that has reached a substantial level of density. We therefore request that the application be refused.</p>

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