

26 West End Lane
London, NW6 4PA

Basement Impact Assessment
Audit

For
London Borough of Camden

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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 26 West End Lane (Camden Planning reference 2016/2083/P). On the basis of the BIA, the basement was considered to fall within Category A as defined by the Terms of Reference, however, the screening has not been fully carried out to be able to confirm that there are no potential impacts.
- 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) screening authors are a Chartered Structural and Chartered Civil Engineer respectively and whilst CPG4 requires the input of a Chartered Geologist with respect to the appraisal of groundwater flow, it is considered the issue could be appropriately addressed once clarification on a few items discussed in Section 4 is received.
- 1.5. It is proposed to extend an existing courtyard bounded by a 0.90m high retaining wall outwards by approximately 2.50m at the same depth. Although it is accepted that the scale of the proposal is modest, it is not sufficiently detailed.
- 1.6. No desk study or any indication of the underlying soils has been given. It is stated that the 0.90m excavation is likely to extend just beyond the depth of the topsoil.
- 1.7. An anticipated works duration is provided with the screening document.
- 1.8. The screening process has not been fully undertaken. It is recommended the BIA be re-submitted with a full description of the baseline conditions, the screening fully undertaken in accordance with CPG4 and details of the temporary and permanent works included. This will inform the need for further assessment and/mitigation or support the statement in the BIA that mitigation measures are not required due to the scale of the proposal.
- 1.9. Thames Water have stipulated a Planning Condition on the discharge of foul or surface water into the network drainage system.
- 1.10. Queries and requests for further information are discussed in Section 4 and summarised in Appendix 2.

2.0 INTRODUCTION

2.1. CampbellReith was instructed by London Borough of Camden (LBC) on 4 May 2016 to carry out a Category A Audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for 26 West End Lane, NW6 4PA (Camden Planning Reference 2016/2083/P).

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 (CPG) 4: Basements and Lightwells.
- Camden Development Policy (DP) 27: Basements and Lightwells.
- Camden Development Policy (DP) 23: Water.

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;

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 *"Creation of one additional flat and reconfiguration of existing layout including erection of single storey rear extension at lower ground level with increased patio area and excavated garden with new retaining wall, revised front boundary treatment and landscaping with access stair and entrance to lower ground flat, side elevation access stair with canopy over entrance, installation of maintenance access hatch to roof level and alterations to side elevation windows."*

- 2.6. The Audit Instruction also confirmed 26 West End Lane is not listed, nor is it a neighbour to listed buildings.
- 2.7. CampbellReith accessed LBC's Planning Portal on 26 May 2016 and gained access to the following relevant documents for audit purposes:
- Basement Impact Assessment Report (BIA) Screening report: TZG Partnership, undated
 - Design and Access Statement: Nick Baker Architects, dated April 2016
 - Method Statement: TZG Partnership Engineering Consultants, dated March 2016
 - Nick Baker Architects Planning Application Drawings consisting of
 - Location Plan
 - Existing Plans
 - Proposed Plans
 - Existing Sections
 - Proposed Sections
 - Existing elevations
 - Proposed elevations
 - 2 No Planning Comments and Responses

3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	No	See Audit paragraph 4.1.
Is data required by Cl.233 of the GSD presented?	Yes	BIA screening report, Design and Access Statement and Architects' Drawings.
Does the description of the proposed development include all aspects of temporary and permanent works which might impact upon geology, hydrogeology and hydrology?	No	Description not sufficiently detailed (see Audit paragraph 4.2).
Are suitable plan/maps included?	No	Although scheme drawings have been provided with some of the Arup GSD extracts, not all the screening questions have been answered therefore not all relevant supporting extracts provided (see Audit paragraphs 4.3 and 4.5).
Do the plans/maps show the whole of the relevant area of study and do they show it in sufficient detail?	Yes	However, not all of the relevant map extracts are provided.
Land Stability Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	No	Not undertaken (see Audit paragraphs 4.3 and 4.4).
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	No	Clarification is requested on the responses to Q4 and Q5 (see Audit paragraph 4.4).
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	No	Q5 and Q6 have not been answered (see Audit paragraphs 4.3 and 4.5).
Is a conceptual model presented?	No	Not presented.

Item	Yes/No/NA	Comment
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	N/A	Screening not undertaken.
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	No	BIA not taken beyond screening stage.
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	No	BIA not taken beyond screening stage.
Is factual ground investigation data provided?	No	BIA not taken beyond screening stage.
Is monitoring data presented?	No	BIA not taken beyond screening stage.
Is the ground investigation informed by a desk study?	N/A	BIA not taken beyond screening stage. Desk study information not presented.
Has a site walkover been undertaken?	Yes	Photos of the site in the supporting documents indicate a walkover has been undertaken.
Is the presence/absence of adjacent or nearby basements confirmed?	No	No description of the neighbouring property presented although the property is semi-detached and the proposals are modest.
Is a geotechnical interpretation presented?	No	BIA not taken beyond screening.
Does the geotechnical interpretation include information on retaining wall design?	N/A	BIA not taken beyond screening.
Are reports on other investigations required by screening and scoping presented?	N/A	None identified.
Are the baseline conditions described, based on the GSD	No	No mention of ground conditions or description of neighbouring properties.

Item	Yes/No/NA	Comment
Do the base line conditions consider adjacent or nearby basements?	N/A	Baseline conditions not presented.
Is an Impact Assessment provided?	No	BIA not taken beyond screening.
Are estimates of ground movement and structural impact presented?	No	Although the property is semi-detached and the proposals are modest.
Is the Impact Assessment appropriate to the matters identified by screen and scoping?	N/A	BIA not taken beyond screening.
Has the need for mitigation been considered and are appropriate mitigation methods incorporated in the scheme?	No	Not possible to determine if these are needed as the screening has not been fully undertaken.
Has the need for monitoring during construction been considered?	No	Not considered although the property is semi-detached and the proposals are modest.
Have the residual (after mitigation) impacts been clearly identified?	N/A	
Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure will be maintained?	No	The property is semi-detached and the proposals are modest, however, further information is requested (see Audit paragraphs 4.3 to 4.5 and 4.8 and 4.10).
Has the scheme avoided adversely affecting drainage and run-off or causing other damage to the water environment?	No	This is unlikely to be a risk given the modest proposals, however, the full screening still needs to be undertaken to demonstrate this.
Has the scheme avoided cumulative impacts upon structural stability or the water environment in the local area?	No	See Audit paragraphs 4.3 to 4.5 and 4.8 and 4.10.
Does report state that damage to surrounding buildings will be no worse than Burland Category 2?	No	BIA not undertaken beyond screening however property is semi-detached and proposals are modest.
Are non-technical summaries provided?	No	Not provided.

4.0 DISCUSSION

- 4.1. The Basement Impact Assessment (BIA) was prepared by TZG Partnership and the individuals concerned in its production have CEng MIStructE FConsE and CEng MICE qualifications. The preparation of a BIA also requires the involvement of a Chartered Geologist (C.Geol) with respect to appraisal of groundwater flow and whilst this does not appear to be the case, the proposals are modest and it is considered the issue could be appropriately addressed once clarification on a few items is received as discussed below.
- 4.2. The existing building is described as a semi-detached house of conventional construction and it is proposed to '*sub-divide the property*'. It is proposed to extend an existing courtyard bounded by a 0.90m high retaining wall outwards by approximately 2.50m at the same depth. No details are given on the existing or proposed retaining wall or foundations for the extension.
- 4.3. The screening process has not been fully undertaken. The land stability screening questions have not been answered. Rather than undertaking the screening, '*paragraph 234*' assumed to be Cl. 234 of the Arup GSD is referenced with the following statements '*the 0.90m deep excavations at this development will not have any effect on any macro topographical features. On a micro level, the proposed excavation will not extend beneath the footings of any adjacent property*'. Questions 5 and 6 of the surface flow and flooding screening have not been answered. With reference to Question 6, the SFRA maps indicate the site is located in an area at risk from internal and external sewer flooding.
- 4.4. A 'No' response is given to Question 4 of the Hydrogeology screening which relates to whether or not the proposal will lead to a change in the proportion of land surface/paved area. Drawing No P-007 appears to indicate an increase in paved areas and clarification is requested. Clarification is also requested for the response to Question 5 which states more surface water will not be discharged into the ground as permeable paving will be used.
- 4.5. Cl. 234 of the Arup GSD states that it is the applicant's responsibility to provide sufficient information proportionate to the potential impacts of the proposed basement. At the very least, a thorough screening process with the requirements of CPG4 accurately followed needs to be completed to demonstrate there are no potential impacts from the proposal.
- 4.6. No desk study or intrusive ground investigation have been carried out. Anticipated ground conditions are not presented although it is stated in the screening document that '*excavation depths are likely to extend just beyond the depth of the topsoil*'.
- 4.7. An anticipated works duration is provided with the screening document.

- 4.8. One of the consultation comments relates to a '*long term subsidence problems and bulging*'. The BIA does not include baseline conditions and there is no mention of building distress. It is stated in the Method Statement that the lowering of the garden level will be near an existing tree, however, there is no mention of the effects of this.
- 4.9. A response from Thames Water states that the existing wastewater infrastructure is unable to accommodate the needs of the site. A Planning Condition stating that no discharge of foul or surface water from the site will be accepted into the public system until a detailed drainage strategy is submitted to and approved by the local planning authority in consultation with the sewerage undertaker has been stipulated by Thames Water.
- 4.10. Without undertaking the full screening process, it is not possible to accept the statement in the BIA that '*the extent of this project is so small that mitigation measures are not particularly relevant*'.

5.0 CONCLUSIONS

- 5.1. The Basement Impact Assessment (BIA) screening authors are a Chartered Structural and Chartered Civil Engineer respectively and whilst CPG4 requires the input of a Chartered Geologist with respect to the appraisal of groundwater flow, given the modest proposals, it is considered the issue could be appropriately addressed once clarification on a few items discussed in Section 4 is received.
- 5.2. It is proposed to extend an existing courtyard bounded by a 0.90m high retaining wall outwards by approximately 2.50m at the same depth. Although it is accepted that the scale of the proposal is modest, it is not sufficiently detailed.
- 5.3. No desk study or any indication of the underlying soils has been given. It is stated that the 0.90m excavation is likely to extend just beyond the depth of the topsoil.
- 5.4. The screening process has not been fully undertaken. It is recommended the BIA be re-submitted with a full description of the baseline conditions, the full screening undertaken and details of the temporary and permanent works included. This will inform the need for further assessment and/mitigation or support the statement in the BIA that mitigation measures are not required due to the scale of the proposal.
- 5.5. Thames Water have stipulated a Planning Condition on the discharge of foul or surface water into the network drainage system.
- 5.6. An anticipated works duration is provided with the screening document.

Appendix 1: Residents' Consultation Comments

Residents' Consultation Comments

Surname	Address	Date	Issue raised	Response
Parsons	28 West End Lane London NW6 4PA	03/05/16	Subsidence and ' <i>bulging wall</i> '	See Audit paragraphs 4.8 and 4.10
Thames Water	Development Planning Thames Water Maple Lodge STW Denham Way Rickmansworth WD3 9SQ	06/05/16	Inability of the existing wastewater infrastructure to accommodate the needs of this application. Discharge of foul or surface water into the public system will not be accepted until drainage strategy detailing any on and /or off site drainage works has been submitted.	N/A

Appendix 2: Audit Query Tracker

Audit Query Tracker

Query No	Subject	Query	Status	Date closed out
1	BIA format	Screening not fully undertaken in accordance with CPG4 requirements	Open – Full screening to be undertaken by accurately following the requirements of CPG4 with any issues identified appropriately addressed	
2	BIA format	No deskstudy information /baseline conditions presented	Open - to be provided	
3	BIA format/stability	No details of the temporary and permanent works	Open – to be provided	
4	Hydrogeology/surface flow and flooding	A 'No' response is given to the question on whether or not paved areas are to be increased	Open – Clarification requested as proposed plan indicates otherwise	
5	Hydrogeology	A 'No' response to given to whether or not more surface water will be discharged into the ground	Open – Clarification is requested on where this is to be discharged into	
6	Surface flow and flooding	Thames Water comments on the inability of the existing infrastructure to accommodate the needs of the site	Open – Drainage strategy to be provided for LBC and Thames Water approval	N/A

Appendix 3: Supplementary Supporting Documents

None

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