

64 Delancey Street,
London NW1 7RY

Basement Impact Assessment
Audit

For
London Borough of Camden

Project Number: 12985-74

Revision: D1

October 2019

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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 64 Delancey Street, London NW1 7RY (planning reference 2019/0935/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 (BIA) 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 BIA has been prepared by LBH Wembley. The qualifications of the authors are in accordance with the requirements of LBC guidance.
- 1.5. The site is occupied by a Grade II listed terraced house with a lower ground floor. It is proposed to deepen the existing patio area by approximately 1m and extend it further into the rear garden.
- 1.6. The BIA includes a desk study. A site investigation has identified Made Ground over the London Clay Formation. No groundwater was encountered during the investigation. It is accepted there will be no impact to the wider hydrogeological environment.
- 1.7. Geotechnical interpretation, including retaining wall design parameters, and outline temporary works information, is provided.
- 1.8. The neighbouring properties have basements and the Party Walls will be underpinned by approximately 1m. The Ground Movement Assessment concludes that a maximum of Burland Category 1 damage (very slight) will be sustained to the property itself and the neighbouring properties.
- 1.9. An outline methodology and guidance for monitoring structural movements during construction are provided, including contingency response actions to mitigate movements / damage.
- 1.10. The site is within a Critical Drainage Area (Group 3-001) but not located within a Local Flood Risk Zone. The site is at 'very low' risk of flooding from surface water run-off. Standard flood risk mitigation measures should be adopted.
- 1.11. The proposed scheme will decrease the proportion of impermeable area at the site. It is accepted there is no impact to the wider hydrological environment. Attenuation SUDS is proposed. Final drainage design should be agreed with LBC and Thames Water.
- 1.12. An outline construction programme has been provided.
- 1.13. Discussion is presented in Section 4. The BIA meets the requirements of CPG Basements.

2.0 INTRODUCTION

2.1. CampbellReith was instructed by London Borough of Camden (LBC) on 5th August 2019 to carry out a Category B Audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for 64 Delancey Street, London NW1 7RY, Camden Reference 2019/0935/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): Basements. March 2018.
- Camden Development Policy (DP) 27: Basements and Lightwells.
- Camden Development Policy (DP) 23: Water.
- The Local Plan (2017): 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; and,
- 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 planning portal describes the proposal as: "*Erection of lower ground and first floor rear extensions involving excavation within rear garden and lowering of lower ground floor level; removal of metal staircase to front basement lightwell and replacement with York stone paving; new sash windows to front and rear and new double glazing to rear windows; general refurbishment of interiors, and refurbishment of roof.*"

The planning portal confirmed the site is a Grade II listed building and neighbours listed buildings.

2.6. CampbellReith accessed LBC's Planning Portal on 26th August 2019 and gained access to the following relevant documents for audit purposes:

- Basement Impact Assessment (ref LBH4576 Ver 1.0) dated April 2019 by LBH Wembley.
- Existing and Proposed Plans, Sections and Elevations dated 18th April 2018 by Davies Architecture.
- SUDS Strategy (ref LBH57suds Ver 1.0) dated April 2019 by LBH Wembley.
- Factual Site Investigation Report (ref JN1243) dated April 2019 by ST Consult.

2.7. Following discussion in September 2019 with the Applicant's engineering team, the following documents were provided (included within Appendix 3):

- Outline Construction Programme.
- LBH Wembley Email September 2019 confirming damage impact to the subject property.

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 plans/maps included?	Yes	
Do the plans/maps show the whole of the relevant area of study and do they show it in sufficient detail?	Yes	
Land Stability Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	
Is a conceptual model presented?	Yes	

Item	Yes/No/NA	Comment
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	Yes	
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	N/A	No impacts identified at Screening.
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	Yes	
Is factual ground investigation data provided?	Yes	
Is monitoring data presented?	Yes	
Is the ground investigation informed by a desk study?	Yes	
Has a site walkover been undertaken?	Yes	
Is the presence/absence of adjacent or nearby basements confirmed?	Yes	
Is a geotechnical interpretation presented?	Yes	
Does the geotechnical interpretation include information on retaining wall design?	Yes	
Are reports on other investigations required by screening and scoping presented?	Yes	Site Investigation, SUDS Assessment, Ground Movement Assessment.
Are baseline conditions described, based on the GSD?	Yes	
Do the baseline 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	Temporary works sequence indicating underpinning and propping; structural monitoring; attenuation SUDS presented.
Has the need for monitoring during construction been considered?	Yes	Outline strategy including contingency actions to limit movement / damage presented.
Have the residual (after mitigation) impacts been clearly identified?	N/A	None
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	
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 BIA has been prepared by LBH Wembley. The qualifications of the authors are in accordance with the requirements of CPG Basements.
- 4.2. The site is occupied by a Grade II listed terraced house with a lower ground floor. It is proposed to deepen the existing patio area by approximately 1m and extend it further into the rear garden. The neighbouring terrace houses are also Grade II Listed and include similar lower ground floors.
- 4.3. The BIA includes the majority of the information required from a desk study in line with the GSD Appendix G1.
- 4.4. A limited site investigation was undertaken by ST Consult. The ground conditions comprise shallow Made Ground over London Clay. No groundwater was encountered during the investigation. The London Clay is designated Unproductive Strata and it is accepted there will be no impact to the wider hydrogeological environment.
- 4.5. Despite limited site investigation data, the BIA adopts reasonably conservative geotechnical design parameters. It is recommended that the Contractor confirms the in situ shear strength of the London Clay at formation level.
- 4.6. The basement will be formed by underpinning techniques. An outline temporary works strategy is provided, including sequencing and propping proposals. Party walls will be underpinned by approximately 1m and excavation depth across the site varies from approximately 1m, beneath party walls, to 3m where the existing garden is excavated.
- 4.7. A sycamore tree is present in the rear garden. The BIA indicates that the works will not disturb the root protection zone, and that the depth of the proposed foundations effectively mitigate any potential for shrink / swell movements impacting upon them.
- 4.8. The BIA identifies deep sewer and rail tunnels at 15m and 40m away respectively. The BIA predicts no impact to these assets. Asset protection criteria should be agreed in consultation with asset owners, as required.
- 4.9. The Ground Movement Assessment (GMA) concludes that a maximum of Category 1 damage (Very Slight) will be sustained to the property itself and the neighbouring properties.
- 4.10. An outline methodology and guidance for monitoring structural movements during construction is provided, including contingency response actions to mitigate movements / damage. Monitoring works should be agreed under the Party wall Act.

- 4.11. The site is within a Critical Drainage Area (Group 3-001). Although the impermeable site area is stated to decrease by approximately 25%, attenuation SUDS is proposed in accordance with best practice, to reduce off-site discharge flows to sewers. Final drainage design should be agreed with LBC and Thames Water. It is accepted the site will not impact the wider hydrological environment.

- 4.12. The site is not located within a Local Flood Risk Zone. The site is at 'very low' risk of flooding from surface water run-off.

- 4.13. An outline construction programme has been provided.

5.0 CONCLUSIONS

- 5.1. The qualifications of the authors are in accordance with LBC guidance.
- 5.2. The ground conditions comprise Made Ground over the London Clay. In the absence of an aquifer, it is accepted there will be no impact to the wider hydrogeological environment.
- 5.3. Geotechnical interpretation, including retaining wall design parameters and outline temporary works information, is provided.
- 5.4. The GMA indicates that damage to the subject property and neighbouring buildings will be a maximum of Category 1 (Very Slight).
- 5.5. An outline methodology and guidance for monitoring structural movements is provided, including contingency response actions to mitigate movements / damage.
- 5.6. The BIA states the site is at very low risk of flooding from surface water run-off.
- 5.7. The proposed scheme will decrease the proportion of impermeable area. Attenuation SUDS is proposed. It is accepted there is no impact to the wider hydrological environment.
- 5.8. The BIA meets the requirements of CPG Basements.

Appendix 1: Residents' Consultation Comments

None

Appendix 2: Audit Query Tracker

None

Appendix 3: Supplementary Supporting Documents



RE: 2019/0935/P 64 Delancey Street BIA 12985-74
 Seamus Lefroy-Brooks to: grahamKite@campbellreith.com 12/09/2019 14:46
 Cc: "Laura.Hazelton@camden.gov.uk", "richard@daviesarchitects.co.uk", "Darcy
 Kitson-Boyce", "camdenaudit@campbellreith.com"
 History:

This message has been replied to.

Dear Graham,

Following your email to Laura below and subsequent conversation with Darcy earlier this week, I confirm that we have assessed the risk of potential damage to the subject (Grade II listed) property and are satisfied, given the limited depth of underpinning required to lower the existing basement terrace, that ground movements affecting the subject building are expected to be minimal and that the predicted damage level lies within Category 1 of the Burland Scale.

As you will have noted, the plan is in this case to carry out monitoring of the rear elevation of the subject property such that the first signs of any movement should be detected and that there should be no risk of movements reaching unacceptable levels.

Best Regards

Seamus Lefroy-Brooks

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LBH WEMBLEY

 ENGINEERING

Sent from [Mail](#) for Windows 10

From: [davies architecture](#)
Sent: 09 September 2019 12:33
To: [Darcy Kitson-Boyce](#)
Cc: 'Pooja Shah'
Subject: FW: 2019/0935/P 64 Delancey Street BIA 12985-74

Dear Darcy

We have had the feed back below from the Planners concerning the Basement Impact Assessment you prepared for 64 Delancey Street.

Please can you provide answers to item 1 for us to respond to the planners?

Many thanks

Richard

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