

9 Dartmouth Park Road
London, NW5 1SU

Basement Impact Assessment
Audit

For
London Borough of Camden

Project Number: 12336-41

Revision: D1

April 2016

Campbell Reith Hill LLP
Friars Bridge Court
41-45 Blackfriars Road
London
SE1 8NZ

T: +44 (0)20 7340 1700
F: +44 (0)20 7340 1777
E: london@campbellreith.com
W: www.campbellreith.com

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Project Partner	E M Brown, BSc MSc CGeol FGS
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Contents

1.0 Non-technical summary 1
2.0 Introduction 2
3.0 Basement Impact Assessment Audit Check List 4
4.0 Discussion 7
5.0 Conclusions 9

Appendix

- Appendix 1: Residents’ Consultation Comments
- Appendix 2: Audit Query Tracker
- Appendix 3: Supplementary Supporting Documents

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 9 Dartmouth Park Road (planning reference 2016/0385/P). On the basis of the BIA, the basement was considered to fall within Category A as defined by the Terms of Reference, however, a review of the proposals identified potential impacts on surrounding structures and infrastructure.
- 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 authors of the BIA possess the relevant qualifications required by CPG4.
- 1.5. The property to be developed is semi-detached and includes an existing lower ground floor which will remain unchanged. Two small rear extensions will be replaced by a slightly larger one at the same existing lower ground floor level and the patio area in the rear garden will be extended. This will require an area to the rear and side of the house to be lowered approximately 1.39 metres.
- 1.6. Although no intrusive soils investigation has been undertaken, it is anticipated that the site is founded in the London Clay formation. It is accepted that the new foundations will be below the potential depth of tree root action.
- 1.7. It is accepted that an anticipated small increase in the area of impermeable paving/building footprint will have a negligible effect on groundwater and the quantity of water entering the existing sewer system.
- 1.8. It is accepted that the localised lowering of the pathway to the side of the property will have minimal effect on the adjacent highway or the adjacent property.
- 1.9. It is accepted that the property was unaffected in the 1975 and 2002 flood events, lies within Flood Zone 1, and will remain unaffected by its proximity to York Rise which suffered in the 1975 flood event.
- 1.10. It is accepted that there are no slope stability concerns, no known ponds, springlines or wells near the site and it is outside the Hampstead pond chain catchment area.
- 1.11. It is accepted that it is unnecessary to carry out the impact assessment and review stages of the BIA process.

2.0 INTRODUCTION

- 2.1. CampbellReith was instructed by London Borough of Camden (LBC) on 24 March 2016 to carry out a Category A Audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for 9 Dartmouth Park Road, London NW5 1SU, Camden Reference 2016/0385/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; 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 Audit Instruction described the planning proposal as *"Construction of part single, part two storey rear and side extension at lower ground and upper ground levels including landscaping and lowering of ground level to front and side and erection of porch at lower ground level to replace side shed. Installation of roof lights to side and rear roof slopes."*

The Audit Instruction also confirmed the proposal does not involve a listed building nor is it neighbour to a listed building.

2.6. CampbellReith accessed LBC's Planning Portal on 13 April 2016 and gained access to the following relevant documents for audit purposes:

- Basement Impact Assessment (BIA) by Fairhurst dated March 2016
- Existing and Proposed Plans and Sections comprising:

Drawing Nos 6227/100A, 101A, 102A, 103, 104, 105, 106A, 107, 108, 109, 200A, 201A, 202A, 203A, 204A, 205A, 206A, 207, 208A, 209A.

By Russell Taylor Architects

3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	Yes	BIA Section 2.4
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?	Yes	See BIA Figures and Architect's drawings
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	See BIA Section 3.8
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	See BIA Section 3.8
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	See BIA Section 3.8
Is a conceptual model presented?	No	

Item	Yes/No/NA	Comment
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	Yes	See BIA Section 4
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	Yes	See BIA Section 4
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	Yes	See BIA Section 4
Is factual ground investigation data provided?	Yes	See BIA Section 3.3
Is monitoring data presented?	No	
Is the ground investigation informed by a desk study?	No	
Has a site walkover been undertaken?	No	
Is the presence/absence of adjacent or nearby basements confirmed?	Yes	See BIA Section 3.7
Is a geotechnical interpretation presented?	Yes	See BIA Section 3
Does the geotechnical interpretation include information on retaining wall design?	No	
Are reports on other investigations required by screening and scoping presented?	N/A	
Are 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?	N/A	
Are estimates of ground movement and structural impact presented?	N/A	
Is the Impact Assessment appropriate to the matters identified by screen and scoping?	N/A	
Has the need for mitigation been considered and are appropriate mitigation methods incorporated in the scheme?	N/A	
Has the need for monitoring during construction been considered?	N/A	
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?	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 2?	N/A	
Are non-technical summaries provided?	Yes	See BIA Sections 1.0, 3.9, 4.1

4.0 DISCUSSION

- 4.1. The Basement Impact Assessment (BIA) has been produced by Fairhurst Consulting Engineers and the authors possess the relevant qualifications required by CPG4.
- 4.2. The property to be developed comprises a four storey semi-detached building that includes an existing lower ground floor and two rear extensions and small patio area at lower ground floor level. It is proposed to replace the existing extensions with a slightly larger one and extend the lower ground patio area into the rear garden. This will require lowering part of the rear garden and the footpath to the side of the house by approximately 1.39 metres from existing external ground level. The level of the lower ground floor below the main house footprint will remain unchanged, which appears from photographs supplied, to be at a similar level to adjacent properties.
- 4.3. A Screening and Scoping exercise has been undertaken in accordance with CPG4 requirements which identified that there will be a minor increase (9.0m²) in impermeable hard surfaced/paved areas, the site is within 5 metres of a highway, and that the London Clay is the shallowest strata at the site which has a history of seasonal shrink-swell subsidence in the local area.
- 4.4. Although no intrusive soils investigation has been undertaken, Fairhurst has reviewed the British Geology Survey online records and determined that the site is underlain by the London Clay formation and that the groundwater is likely to be found at significant depth. It is accepted that the existing and extended lower ground floor are below the potential depth of tree root action as noted within the scoping section of the BIA.
- 4.5. It is accepted that the nominal increase of 9m² in the area of impermeable paving/building footprint (133m² increased to 142m²) will have negligible effect on groundwater and the quantity of rainwater entering the existing sewer system.
- 4.6. It is accepted that the localised lowering of the pathway to the side of the property will have minimal effect on the adjacent highway or the adjacent property.
- 4.7. The BIA notes that No 9 Dartmouth Park Road did not flood during either the 1975 or the 2002 flood events and that the Environment Agency Flood Maps show the site to lie within Flood Zone 1, its lowest category. However, the BIA fails to mention that York Rise, an adjacent road slightly to the east, flooded in 1975. Having reviewed the available EA and LBC flood documentation, it is accepted that should York Rise suffer another flood event it is extremely unlikely to affect Dartmouth Park Road due to the slope to the south of York Rise.
- 4.8. It is accepted that there are no slope stability concerns regarding the proposed development.
- 4.9. It is accepted that no known ponds, springlines or wells are in close vicinity to the site and the site is outside the Hampstead pond chain catchment area.

- 4.10. On the basis of the Screening and Scoping exercise, it is accepted that it is unnecessary to carry out the impact assessment and review stages of the BIA process.

5.0 CONCLUSIONS

- 5.1. The authors of the BIA possess the relevant qualifications required by CPG4.
- 5.2. The property to be developed is semi-detached and includes an existing lower ground floor which will remain unchanged. Two small rear extensions will be replaced by a slightly larger one at the same existing lower ground floor level and the patio area in the rear garden will be extended. This will require an area to the rear and side of the house to be lowered approximately 1.39 metres.
- 5.3. Although no intrusive soils investigation has been undertaken, it is anticipated that the site is founded in the London Clay formation. It is accepted that the new foundations will be below the potential depth of tree root action.
- 5.4. It is accepted that an anticipated small increase in the area of impermeable paving/building footprint have a negligible effect on groundwater and the quantity of water entering the existing sewer system.
- 5.5. It is accepted that the localised lowering of the pathway to the side of the property will have minimal effect on the adjacent highway or the adjacent property.
- 5.6. It is accepted that the property was unaffected in the 1975 and 2002 flood events, lies within Flood Zone 1, and will remain unaffected by its proximity to York Rise which suffered in the 1975 flood event.
- 5.7. It is accepted that there are no slope stability concerns, no known ponds, springlines or wells near the site and it is outside the Hampstead pond chain catchment area.
- 5.8. It is accepted that it is unnecessary to carry out the impact assessment and review stages of the BIA process.

Appendix 1: Residents' Consultation Comments

None

Appendix 2: Audit Query Tracker

None

Appendix 3: Supplementary Supporting Documents

None

London

Friars Bridge Court
41- 45 Blackfriars Road
London, SE1 8NZ

T: +44 (0)20 7340 1700
E: london@campbellreith.com

Birmingham

Chantry House
High Street, Coleshill
Birmingham B46 3BP

T: +44 (0)1675 467 484
E: birmingham@campbellreith.com

Surrey

Raven House
29 Linkfield Lane, Redhill
Surrey RH1 1SS

T: +44 (0)1737 784 500
E: surrey@campbellreith.com

Manchester

No. 1 Marsden Street
Manchester
M2 1HW

T: +44 (0)161 819 3060
E: manchester@campbellreith.com

Bristol

Wessex House
Pixash Lane, Keynsham
Bristol BS31 1TP

T: +44 (0)117 916 1066
E: bristol@campbellreith.com

UAE

Office 705, Warsan Building
Hessa Street (East)
PO Box 28064, Dubai, UAE

T: +971 4 453 4735
E: uae@campbellreith.com

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A list of Members is available at our Registered Office at: Friars Bridge Court, 41- 45 Blackfriars Road, London SE1 8NZ
VAT No 974 8892 43