

5 Oval Road,
London, NW1 7EA

Basement Impact Assessment
Audit

For
London Borough of Camden

Project Number: 12985-05
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April 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 5 Oval Road, NW1 7EA (planning reference 2018/3048/P & 2018/3049/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 updated BIA relates to one of the two proposals for the same address; 2018/3048/P - excavation for a small boiler room beneath the front garden. The audit relates to this proposal; the alternative proposal will require a separate audit, if the application is taken further.
- 1.5. In the revised submissions, the qualifications of the individuals involved in the BIA have been demonstrated to be in accordance with LBC guidance.
- 1.6. In the revised submissions, the BIA makes reference to and has been undertaken in accordance with the current guidance documents.
- 1.7. In the revised submissions, appropriate information is presented including site investigation, geotechnical design parameters and outline structural and temporary works information.
- 1.8. The ground conditions at the site comprise Made Ground over the London Clay. No groundwater was encountered during monitoring. There will be no impact to the wider hydrogeological environment.
- 1.9. In the revised submissions, an arboricultural report has been provided. No trees are being removed due to the proposed development.
- 1.10. There will be no change in impermeable site area. The proposal will not impact the wider hydrological environment.
- 1.11. In the revised submissions, a ground movement assessment is presented. The predicted movements are broadly within the range accepted for the size, depth and methodology of construction. Considering the neighbouring foundation levels, it is accepted that damage impacts will be Category 0 to Category 1 (Negligible to Very Slight).

- 1.1. In the revised submissions, a preliminary structural monitoring strategy is presented to ensure construction is controlled and impacts are limited to within the predicted limits.
- 1.2. In the revised submissions, an indicative works programme is provided.
- 1.3. It is accepted that there are no slope stability concerns regarding the proposed development and it is not in an area prone to flooding.
- 1.4. Queries and requests for information are summarised in Appendix 2. Considering the revised submissions, the BIA meets the requirements of Camden Planning Guidance: Basements.

2.0 INTRODUCTION

- 2.1. CampbellReith was instructed by London Borough of Camden (LBC) on to carry out a Category B Audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for 5 Oval Road, NW1 7EA (planning reference 2018/3048/P and 2018/3049/P). This audit relates only to 2018/3048/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 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 "*2018/3048/P: Erection of a single storey side extension and excavation of boiler room to front garden, installation of side gate and refuse store, sliding gate to front forecourt, enlargement of side stairwell and front lightwell, replacement of all windows, all to single family unit (Class C3). Demolish two storey building and erection of 2 x 3 bedroom, four storey dwellings including a new basement floor and*

2018/3049/P: Two storey side extension to include basement exaction and provision of garage at ground floor level, with associated landscaping to the rear, installation of side gate and refuse store, sliding gate to front forecourt, enlargement of side stairwell and front lightwell, replacement of all windows, all to single family unit (Class C3).

2.6. The Audit Instruction confirmed 5 Oval Road is not listed, however, the terrace row across the site listed.

2.7. CampbellReith accessed LBC's Planning Portal on 6 September 2018 and gained access to the following relevant documents for audit purposes:

- BIA Impact Screening Assessment Stage 1 screening, Ground & Water, dated June 2018.
- Arboricultural Assessment – Impact Assessment for Land at 5 Oval (Rev A) and screw pile detail, Keen Consultants, dated 8 March 2018 under 2018/3049/P.
- Arboricultural Assessment – Impact Assessment for Land at 5 Oval (Rev 0) and screw pile detail, Keen Consultants, dated 27 March 2018 under 2018/3048/P.
- Design and Access Statement, 5 Oval Road, Charles Doe Architects Ltd, dated May 2018.
- Charles Doe Architects Planning Application drawings:
 - Site plan (TP-200)
 - Existing plans (S-01)
 - Proposed lower and upper ground floor (TP-201)
 - Proposed Section AA, BB and CC (TP-204, TP-205 and TP-206)
 - Proposed northeast, northwest and southwest (TP-207, TP-208 and TP-209)
 - Existing and proposed Section DD (TP-210)

2.8. CampbellReith received the following relevant documents for audit purposes in March 2019:

- Email summarising audit query responses.
- BIA Impact Screening Assessment V1.01 ref GWPR2885/GIR, Ground & Water, dated January 2019.
- Arboricultural Assessment – Impact Assessment for Land at 5 Oval (Rev B) and screw pile detail, Keen Consultants, dated February 2019.
- Method Statement, Underpinning and Plant Room Construction, V1, Sub-Tech Contractors Ltd, dated 12th December 2018.
- Movement Monitoring Statement, Inertia Structures Ltd, February 2019, including programme and Structural Drawing.

3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	Yes	Updated in revised submissions
Is data required by Cl.233 of the GSD presented?	Yes	Updated in revised submissions
Does the description of the proposed development include all aspects of temporary and permanent works which might impact upon geology, hydrogeology and hydrology?	Yes	Updated in revised submissions
Are suitable plan/maps included?	Yes	Relevant maps with site location indicated included in Ground & Water BIA.
Do the plans/maps show the whole of the relevant area of study and do they show it in sufficient detail?	Yes	As above.
Land Stability Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	Updated in revised submissions
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	Section 3.1.1 of the Ground & Water BIA.
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	Section 3.1.3 of the Ground & Water BIA.
Is a conceptual model presented?	Yes	Updated in revised submissions
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	Yes	Updated in revised submissions

Item	Yes/No/NA	Comment
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	Yes	Section 3.2.1 of the BIA.
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	Yes	Section 3.2.1 of the BIA.
Is factual ground investigation data provided?	Yes	Updated in revised submissions
Is monitoring data presented?	Yes	Updated in revised submissions
Is the ground investigation informed by a desk study?	Yes	Section 2 of the BIA.
Has a site walkover been undertaken?	N/A	Not specifically stated however the site description on Section 2.2 implies a walkover was undertaken.
Is the presence/absence of adjacent or nearby basements confirmed?	Yes	Section 3.1.2 of the BIA states the neighbouring properties comprise lower ground floor.
Is a geotechnical interpretation presented?	Yes	Updated in revised submissions
Does the geotechnical interpretation include information on retaining wall design?	Yes	Updated in revised submissions
Are reports on other investigations required by screening and scoping presented?	Yes	Updated in revised submissions
Are the baseline conditions described, based on the GSD?	Yes	Updated in revised submissions
Do the base line conditions consider adjacent or nearby basements?	Yes	It is stated that lower ground floors are present beneath the nearby properties.
Is an Impact Assessment provided?	Yes	Updated in revised submissions

Item	Yes/No/NA	Comment
Are estimates of ground movement and structural impact presented?	Yes	Updated in revised submissions
Is the Impact Assessment appropriate to the matters identified by screening and scoping?	Yes	Updated in revised submissions
Has the need for mitigation been considered and are appropriate mitigation methods incorporated in the scheme?	Yes	Updated in revised submissions
Has the need for monitoring during construction been considered?	Yes	Updated in revised submissions
Have the residual (after mitigation) impacts been clearly identified?	N/A	Mitigation not identified.
Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure will be maintained?	Yes	Updated in revised submissions
Has the scheme avoided adversely affecting drainage and run-off or causing other damage to the water environment?	Yes	Updated in revised submissions
Has the scheme avoided cumulative impacts upon structural stability or the water environment in the local area?	Yes	Updated in revised submissions
Does report state that damage to surrounding buildings will be no worse than Burland Category 1?	Yes	Updated in revised submissions
Are non-technical summaries provided?	Yes	Updated in revised submissions

4.0 DISCUSSION

- 4.1. The BIA was undertaken by Ground & Water Ltd. In the revised submissions, the qualifications of the individuals involved in the BIA have been demonstrated to be in accordance with LBC guidance.
- 4.2. In the revised submissions, the BIA makes reference to and has been undertaken in accordance with the current guidance documents: Camden Planning Guidance: Basements (2018).
- 4.3. In the revised submissions, non-technical summaries are provided.
- 4.4. The site comprises a four storey building including a lower ground floor semi-basement. The front of the site is indicated to be 1.50m above the rear garden. The proposed development is described in LBC Planning Application 2018/3048/P, involving the construction of a basement plant room. The lower ground floor level will be at 3.50m below the front garden level and 1.50m below the rear garden level.
- 4.5. In the revised submissions, appropriate information is presented including site investigation, geotechnical design parameters and outline structural and temporary works information.
- 4.6. In response to the previous audit, responses to the Screening and Scoping Sections have been updated and are accepted.
- 4.7. The ground conditions at the site comprise Made Ground over the London Clay. No groundwater was encountered during monitoring. There will be no impact to the wider hydrogeological environment.
- 4.8. An updated arboricultural report has been provided, in response to the previous audit. No trees will be removed.
- 4.9. The neighbouring properties are stated to have lower ground floors at the same depth as No.5.
- 4.10. In the revised submission, it is confirmed that for the smaller development application (2018/3048/P) there will be no change in impermeable site area. The proposal will not impact the wider hydrological environment.
- 4.11. In the revised submissions, a ground movement assessment is presented. The predicted movements are broadly within the range accepted for the size, depth and methodology of construction. Considering the neighbouring foundation levels, it is accepted that damage impacts will be Category 0 to Category 1 (Negligible to Very Slight).
- 4.12. In the revised submissions, a preliminary structural monitoring strategy is presented to ensure construction is controlled and impacts are limited to within the predicted limits.

- 4.13. In the revised submissions, an indicative works programme is provided.
- 4.14. 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. This audit relates to Planning Application 2018/3048/P only.
- 5.2. The qualifications of the BIA authors are in accordance with LBC guidance.
- 5.3. The BIA makes reference to and has been undertaken in accordance with the current guidance documents.
- 5.4. Appropriate information is presented including site investigation, geotechnical design parameters and outline structural and temporary works information.
- 5.5. There will be no impact to the wider hydrogeological environment.
- 5.6. No trees are being removed due to the proposed development.
- 5.7. The proposal will not impact the wider hydrological environment.
- 5.8. Considering the neighbouring foundation levels, it is accepted that damage impact from ground movements will be Category 0 to Category 1 (Negligible to Very Slight).
- 5.9. A preliminary structural monitoring strategy is presented to ensure construction is controlled and impacts are limited to within the predicted limits.
- 5.10. An indicative works programme is provided.
- 5.11. It is accepted that there are no slope stability concerns regarding the proposed development and it is not in an area prone to flooding.
- 5.12. Queries and requests for information are summarised in Appendix 2. Considering the revised submissions, the BIA meets the requirements of Camden Planning Guidance: Basements.

Appendix 1: Residents' Consultation Comments

None

Appendix 2: Audit Query Tracker

Audit Query Tracker

Query No	Subject	Query	Status	Date closed out
1	BIA format	Author qualifications.	Closed	April 2019
2	BIA format	BIA not undertaken in accordance with Arup GSD and Camden Planning Guidance requirements.	Closed	April 2019
3	BIA format	Works programme not included	Closed	April 2019
4	BIA format	Inconsistencies between BIA and arboricultural assessment.	Closed	April 2019
5	Hydrology	Drainage strategy not provided	Closed	April 2019
6	Stability	Proposal not sufficiently detailed. No outline retaining wall calculations, construction methodology, construction sequence sketches or temporary works proposal.	Closed	April 2019
7	Stability	Ground movement assessment (GMA) not undertaken.	Closed	April 2019
8	Stability	Movement monitoring proposal not provided.	Closed	April 2019

Appendix 3: Supplementary Supporting Documents

None

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