

Building E
39-45 Kentish Town Road
London NW1 8NX

Basement Impact Assessment
Audit

For
London Borough of Camden

Project Number: 12066-02

June 2015

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Contents

1.0 Non-technical summary 1
2.0 Introduction 1
3.0 Basement Impact Assessment Audit Check List 4
4.0 Discussion 7
5.0 Conclusions 8

Appendices

- 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 Building E, 39-45 Kentish Town Road, London NW1 8NX (planning reference 2015/1937/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 review it against an agreed audit check list.
- 1.4. The BIA has confirmed that the proposed basement will be located within the London Clay and that the surrounding slopes are stable.
- 1.5. It is accepted that groundwater will not be affected by the excavation and mitigation measures should effectively control potential variations to the groundwater regime.
- 1.6. The proposed basement will be excavated and constructed utilising established techniques.
- 1.7. The risk of surface water flooding is very low.
- 1.8. The proposed basement is remote from existing residential and commercial properties. The BIA states that the adjacent Network Rail infrastructure, LUL infrastructure, canal wall and utilities will not be affected by the new basement. This should be confirmed by the owners of these assets.
- 1.9. A condition survey of the structures affected has been offered. Such a mitigation measure should be adopted, and agreed with the asset owners.
- 1.10. Monitoring during construction is being proposed. Such a mitigation measure should also be adopted and agreed with the asset owners.
- 1.11. The BIA does not consider the impact on neighbouring Building D. This is because the current intention is to combine the construction of both buildings. If the situation arose where Building D was constructed prior to Building E then the impact on Building D will need to be investigated.

2.0 INTRODUCTION

- 2.1. CampbellReith was instructed by London Borough of Camden (LBC) on 13 May 2015 to carry out a Category B Audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for Building E 39-45 Kentish Town Road, Camden Reference 2015/1937/P. The proposed development is part of the Hawley Wharf development masterplan which comprises areas A to E. This report is related to Building E only.
- 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 the *"Erection of a six-storey mixed use building comprising flexible employment/gym at ground floor level and 24 flats (1 x studio, 9 x 1 bed, 9 x 2 bed and 5 x 3 bed) together with associated works to create public realm improvements and landscaping."* and indicated that *"Site borders canal towpath."*

The Audit Instruction has not confirmed whether the basement proposals involve a listed building or neighbour listed buildings, however, the proposed basement is remote from any existing residential and commercial properties.

2.6. CampbellReith accessed LBC's Planning Portal on 27 May 2015 and gained access to the following relevant documents for audit purposes:

- Basement Impact Assessment
- Geotechnical and Geo-environmental interpretative report
- Drawing Nos
 - 10396 EP (00) 1000 Site Location Plan Rev PO1
 - 10396 EP (00) 1190 Basement Level Rev PO1
 - 10396 EP (00) 1200 Ground Level Rev PO1
 - 10396 EP (00) 2000 Elevations Rev PO1

2.7. On that date CampbellReith also accessed a number of third party consultation responses associated with the application and those that are pertinent to the basement construction were considered together with the other documents listed above. The relevant consultation responses are detailed in Appendix 1.

3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	Yes	Checker and Reviewer, not the Author
Is data required by Cl.233 of the GSD presented?	Yes	BIA and Hoare Lea report.
Does the description of the proposed development include all aspects of temporary and permanent works which might impact upon geology, hydrogeology and hydrology?	Yes	BIA Sections 3 to 9.
Are suitable plan/maps included?	Yes	BIA and supplementary 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	BIA Section 3.
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	BIA Section 3.
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	BIA Section 3.
Is a conceptual model presented?	Yes	BIA Section 5.5.
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	Yes	BIA Section 4.

Item	Yes/No/NA	Comment
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	Yes	BIA Section 4.
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	Yes	BIA Section 4.
Is factual ground investigation data provided?	Yes	GIR Appendix C.
Is monitoring data presented?	Yes	GIR section 2.2.
Is the ground investigation informed by a desk study?	Yes	GIR Section 1.
Has a site walkover been undertaken?	Yes	BIA Section 5.1.
Is the presence/absence of adjacent or nearby basements confirmed?	No	Not stated presence or absence.
Is a geotechnical interpretation presented?	Yes	GIR Section 3.
Does the geotechnical interpretation include information on retaining wall design?	Yes	BIA Section 5.4.
Are reports on other investigations required by screening and scoping presented?	Yes	Hoare Lea report on the capacity of the existing Thames Water network.
Are baseline conditions described, based on the GSD?	Yes	
Do the base line conditions consider adjacent or nearby basements?	No	Presence or absence of nearby basements not stated.
Is an Impact Assessment provided?	Yes	BIA Section 6.
Are estimates of ground movement and structural impact presented?	Yes	

Item	Yes/No/NA	Comment
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	BIA Section 10.
Has the need for monitoring during construction been considered?	Yes	BIA Section 10.
Have the residual (after mitigation) impacts been clearly identified?	Yes	BIA Section 7.
Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure been maintained?	Yes	Confirmation required by owners of surrounding infrastructure.
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?	Yes	Estimated to be Burland Category 0 for Network Rail structure, and within permissible limits for the National Grid and Canal infrastructure. To be confirmed by asset owners.
Are non-technical summaries provided?	Yes	BIA Section 11.

4.0 DISCUSSION

- 4.1. The BIA has been carried out by an established firm of consulting engineers, Card Geotechnics Ltd. The author does not have suitable qualifications but the checker and approver do have suitable qualifications.
- 4.2. The proposed basement will be excavated within a piled retaining wall. This is an acceptable methodology using established techniques.
- 4.3. It is acknowledged that the basement is founded within the London Clay, which extends to within 0.7-1.4 metres of the existing site surface. We accept that the minor seepages detected at the Made Ground : London Clay interface, or within the London Clay, do not constitute a continuous water flow and the groundwater will not be affected by the excavation.
- 4.4. The surrounding structures and infrastructure which could be affected by construction comprise a Network Rail viaduct, the adjacent canal, Northern line underground tunnels below Kentish Town Road, and surrounding utilities. There are no residential or commercial properties within the likely zone of influence of the proposed basement.

The BIA states that the adjacent Network Rail infrastructure, LUL infrastructure, Canal wall and utilities will not be affected by the new basement. This is based on an assumed continuous piled retaining wall although the BIA states that a sheet piled wall may be adopted following a value engineering exercise. The ground movement assessment will require revision should this alteration to the scheme be adopted. The ground movement assessment and conclusions regarding the impact of construction on the surrounding infrastructure must be confirmed as adequate by the asset owners.

- 4.5. The BIA has not explicitly considered the impact, if any, on Kentish Town Road.
- 4.6. The BIA states that the development will have a negligible impact on surface water flow and flooding, and the risk is accepted as being very low.
- 4.7. The BIA does not consider the impact on neighbouring Building D. This is because the current intention is to combine the construction of both buildings. If the situation arose where Building D was constructed prior to Building E then the impact on Building D will need to be investigated.

5.0 CONCLUSIONS

- 5.1. The BIA has been carried out by an established firm of consulting engineers. The author does not have suitable qualifications but the checker and approver do have suitable qualifications.
- 5.2. The proposed basement will be excavated within a piled retaining wall.
- 5.3. The BIA states that the adjacent Network Rail infrastructure, LUL infrastructure, Canal wall and utilities will not be affected by the new basement. This must be confirmed for the adopted basement construction by the asset owners.
- 5.4. The BIA has not explicitly considered the impact, if any, on Kentish Town Road.
- 5.5. The BIA states that the development will have a negligible impact on surface water flow and flooding, and the risk is accepted as being very low.
- 5.6. The BIA indicates that the basement will be constructed in the London Clay and that the slopes are stable.
- 5.7. A condition survey of the structures affected has been offered. Such a mitigation measure should be adopted and agreed with the asset owners.
- 5.8. Monitoring during construction is being proposed. Such a mitigation measure should also be adopted and agreed with the asset owners.
- 5.9. The BIA does not consider the impact on neighbouring Building D. This is because the current intention is to combine the construction of both buildings. If the situation arose where Building D was constructed prior to Building E then the impact on Building D will need to be investigated.

Appendix 1: Residents' Consultation Comments

Residents' Consultation Comments

Surname	Address	Date	Issue raised	Response
Thames Water	Development Planning, Maple Lodge STW, Denham Way, Rickmansworth, WD3 9SQ	30.04.15	No impact piling to be permitted	See 4.4
Network Rail	Square One, 4 Travis Street, Manchester, M1 2NY	11.05.15	No vibro-impact works to be permitted Limits on tower crane use	See 4.4 No response
London Underground	Infrastructure Protection 3 rd Floor Albany House, 55 Broadway London SW1H 0BD	07.05.15	Risk of structural damage	See 4.4

Appendix 2: Audit Query Tracker

Audit Query Tracker

Query No	Subject	Query	Status	Date closed out
1	Stability	BIA offers condition survey and monitoring of adjacent structures	Monitoring regime and trigger levels to be agreed with Party Wall Surveyor or Asset Owner	N/A
2	Stability	No impact assessment of Kentish Town Road	To be agreed with TfL	N/A

Appendix 3: Supplementary Supporting Documents

None

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