## CampbellReith consulting engineers

## Land between Gondar House and South Mansions

Basement Impact Assessment Audit

For

London Borough of Camden

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June 2021

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# Land between Gondar House and South Mansions BIA – Audit



#### **Document History and Status**

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#### **Document Details**

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#### 1.0 INTRODUCTION

- 1.1. CampbellReith was instructed by London Borough of Camden, (LBC) to carry out an audit on a revised Ground Movement Assessment submitted as part of the Planning Submission documentation for revisions to a previously audited scheme for the Land between Gondar House and South Mansions, London NW6 1QD (planning reference 2021/2596/P, original planning reference 2020/3553/P). The basement is considered to fall within Category B as defined by the Terms of Reference.
- 1.2. The Audit reviewed the updated Ground Movement Assessment (GMA) for potential impact on land stability arising from basement development in accordance with LBC's policies and technical procedures. Impacts to local ground and surface water conditions are presented in the original audit report by CampbellReith, ref. KBemb13398-45-170221-Land between Gondar House and South Mansions F1, dated 17 February 2021.
- 1.3. CampbellReith was able to access LBC's Planning Portal and gain access to the following relevant documents for audit purposes:
  - Letter Report by Card Geotechnics Ltd, ref. CG/28978c, dated 24 May 2021.
  - Structures Stage 2 Report by SD Structures, revision 3, dated 24 May 2021.
  - Planning Application drawings including proposed plan and section drawings, all dated 25 May 2021.
- 1.4. The changes to the original scheme comprise reducing the overall footprint of the building and reducing the excavation depth of the basement.
- 1.5. The updated GMA has been prepared by Card Geotechnics Ltd and the authors possess suitable qualifications that comply with the requirements of CPG: Basements.
- 1.6. The Structural Stage 2 Report (SSR) should be updated to reference the revised BIA submission and to include the changes that were agreed as part of the original audit report.
- 1.7. A summary of queries and information requested is presented in Appendix 2. Based on the data submitted, the GMA does not currently meet the criteria of CPG: Basements.



#### 2.0 DISCUSSION

- 2.1. The updated Ground Movement Assessment (GMA) has been prepared by Card Geotechnics Ltd (CGL) and authors possess suitable qualifications that comply with the requirements of CPG: Basements.
- 2.2. The revised proposal comprises the following:
  - 1. Slight adjustments to the layout of the basement and building footprint.
  - 2. Raising the basement floor elevations from -1.71m to -0.803m from Site Datum (SD) and from -3.05m to -1.33m SD.
  - 3. The inclusion of a permanent prop to support the lightwell.
- 2.3. A review of the submitted drawings shows the change to the basement footprint will not bring the line of the contiguous pile wall closer to the neighbouring building than the original scheme.
- 2.4. The GMA considers the impact of the revised scheme on each of the critical sections analysed in the BIA for the original scheme. For critical sections 1 and 1a, the GMA letter concludes that, due to the reduction in the basement depth, the impact to these buildings would not increase from that assessed in the original BIA. For critical sections 3 and 4, the GMA letter concludes that, due to the reduction of the basement footprint the impacts to these buildings would not be more onerous than the impacts assessed in the original BIA.
- 2.5. Critical Section 2 has been reassessed due to the proposal to use two steel permanent props to support the lightwell adjacent to the outbuilding for No. 3 Hillfield Road. A Wallap analysis is provided, which shows the anticipated deflection of the wall during basement construction. This data is used to calculate the anticipated ground movements experienced by the adjacent structure. The GMA identifies that an increase in the deflection ratio is anticipated, but that this increase does not cause damage to the adjacent structure to exceed Burland category 1 (Very Slight).
- 2.6. Section 6.3 of the Structures Stage 2 Report (SSR) discusses monitoring of the adjacent buildings during construction. The trigger level values have not been updated from the previous version 2 of the report, despite correspondence with SD Structures during the course of the original audit report that theses would be updated to reflect the findings of the BIA. It is therefore requested that the SSR be revised with trigger level values as agreed as part of the original BIA audit (red trigger level of 5mm for vertical movement and 7mm trigger level for horizontal movement).

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- 2.7. It is noted that the SSR also uses ground movement data from the BIA for the previous scheme, which should be updated. However, as described in 2.4 and 2.5, the revised scheme is shown as not resulting in more onerous building damage to neighbouring properties.
- 2.8. A summary of queries and information requests is presented in Appendix 2. Based on the data submitted, the scheme does not currently meet the criteria of CPG: Basements.

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## Appendix 1: Residents' Consultation Comments

None



Appendix 2: Audit Query Tracker



#### Audit Query Tracker

Query No	Subject	Query	Status/Response	Date closed out
1	Stability	The Structures Stage 2 Report should be updated to reference the most up to date version of the BIA and present the monitoring trigger levels that were agreed by SD Structures during the original audit for the property.	Open	



### Appendix 3: Supplementary Supporting Documents

None

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