

Ref: 131.1CRAN

Ben Farrant

BY E-MAIL ONLY

20th January, 2020

Dear Ben Farrant,

Flat 1, Basement & Ground Floor 28 Canfield Gardens London NW6 3LA - Enlargement of existing basement level, including front and rear lightwell (LPA Ref. 2017/0859/P)

Please find attached materials in response to the auditor's comments and summarised under the headings below.

Basement Impact Assessment Audit June 2017

To recap, the Auditors 'open' items were as follows.

1	Hydrology	Site within flood risk zone.	Open - Assessment required with appropriate mitigation proposed.
2	Hydrology	Impermeable site area, drainage and flood mitigation to be assessed.	Open - Increase in surface water flow to be assessed. Mitigation measures to be proposed including SUDS assessment. Lightwell anti-flood measures to be proposed.
3	Stability	Services search to be undertaken.	Open – Impacts to be assessed, if applicable.
4	Stability	Indicative temporary works scheme required for lightwell retaining walls.	Open – Sequencing and propping to be outlined. Contingencies for encountering softer Alluvium should be considered.
5	Stability	Establish levels of adjoining basements.	Open – To confirm assessments.
6	BIA	Conceptual Site Model	Open – CSM should indicate the existing and proposed development foundation levels in the context of ground / groundwater conditions and neighbouring structures, highlighting potential risks and impacts.

Revised BIA Revised report (December 2019)

The BIA Report has been revised and updated to take account of the additional information requested by the auditor (flood risk; services search; drainage strategy etc.).

Flood Risk Assessment and Sustainable Drainage Strategy

A Flood Risk Assessment has been completed by Sandersons Associates (October 2019). This concludes that the site can be developed without increasing flood risk to the site itself and other sites in the vicinity with the implementation of suitable mitigation measures.

The areas of hard paving across the front and rear gardens have been replaced with permeable surfaces. A raised lip has been introduced around the proposed front and rear light wells. Please refer to Proposed Cross section B-B.

Utilities

A utilities services search has been undertaken. Please find attached a Groundwise Desk Top Utility Report of October 2019. The results have been assessed in the light of the BIA findings as a whole. Please refer to the attached revised BIA Report (December 2019).

Temporary works

The auditor has requested details of the indicative temporary works scheme for lightwell retaining walls and further details of sequencing and propping.

Please find attached revised Typical Sequence of Underpinning Propping Rev. A (Martin Redston Associates Revision A 15/11/2019) giving additional details of temporary works for the front and rear light wells. Please also refer to Foundation Plan and Details (Martin Reston Associates Revision B 15/11/2019).

Alluvium, perched groundwater etc.

Section 7.2 of the revised BIA report finds that, due to the small size of the historic ditch in the vicinity, any possible flooding that may have occurred is unlikely to have caused anything but very thin layers of Alluvium, but is unlikely to extend as far as No. 28. As such, the report concludes, there is no influence on site. Nevertheless, the revised BIA recommends that contingencies for encountering softer Alluvium (which is very unlikely as proven in the site investigation) should be considered.

The ground investigation has established a variable depth of Made Ground, below which lies London Clay in which the basement will be founded. The auditor states that Perched groundwater may be encountered in the Made Ground and contingency measures should therefore be considered.

As a precautionary measure, the contractor will put in place a contingency plan to deal with any groundwater inflows including:

- I. The installed standpipe will continue to be monitored in order to determine the equilibrium level and the extent of any seasonal variations.
- II. After the contractor has undertaken further monitoring and prior to the start of excavation, a sump-pumping system will be specified and a suitable discharge location identified for that water.
- III. If for any reason water is found in the excavation percolating from within the made ground or Clay layers, the ground will be carefully assessed and the sump-pumping scheme installed to carry the water away from the excavation.
- IV. Where ground water inflows are encountered shoring of the excavation will be implemented in accordance with normal safe construction practice.

Adjoining basements

The presence, extent and levels of adjoining basements have been determined by reference to planning records and historic drainage plans.

Please find attached details of adjacent basements derived from historic planning records. These indicate that the neighbouring properties have basement layouts similar to the existing basement at No. 28.

Conceptual Site Model (CSM)

Please refer to the revised and updated section 7 of the BIA report and appendices containing the Ground Movement Assessment (appended to the revised BIA report) updated January 2020.

The revised conceptual Site Model takes account of all new attached information and as detailed in the revised BIA report.

Based on these predicted ground movements, the properties surrounding the site are not expected to suffer any damage greater than CIRIA C580 Damage Category 1 (Very Slight). (Section 4.7.2 - Results)

Utilities search

Please find attached 'Groundwise' Desktop utility search (October 2019).

The revised BIA confirms a full statutory service search has been completed as part of this investigation and it is confirmed that no utilities will be affected by the proposed development.

Trees

The earlier submission omitted reference to a front garden tree. An Arboricultural assessment and method statement has been commissioned in order to assess any impact of the proposed works on the tree and vice versa.

The revised BIA report confirms that no trees are to be felled as part of the development. An arboricultural impact report confirms that no basement development will intrude upon root protection areas.

Revised scheme drawings

In revising the BIA the scheme has also been revised and updated:

- The total amount of basement floorspace has been reduced, reducing the amount of basement excavation overall.
- The outline of front light well has been adjusted with faceted corners that follow the profile of the canted bay above.
- The rear light well has been reduced in width.
- A toilet and washbasin have been provided at ground floor entrance level in accordance with London Plan Housing Quality Standards.
- The ground and basement floors are now each arranged on one level with no additional stairs. In order to improve accessibility.
- The staircase from ground to lower ground has been designed with passive provision for a future stairlift to meet Lifetime Homes standard.

Construction management plan

Please find attached an outline construction management plan (using Camden's pro forma).

Measured Survey

A revised measured survey has been commissioned. Please see attached drawings.

Heritage Statement

The earlier application omitted to include a Heritage Statement. Please find attached a short heritage statement.

Yours sincerely,



Michael Doyle

Partner

CC

Shimshon Torn Hibler

Ronit Conforti-Brinkmann, The Treatment Architecture

Martin Redston, Martin Redston Associates

Andrew Smith, Fairhurst