

28 July 2015

Mr Obote Hope  
Planning Officer  
London Borough of Camden

BY EMAIL: [Obote.Hope@camden.gov.uk](mailto:Obote.Hope@camden.gov.uk)

Dear Mr Hope

**4 Langland Gardens NW3 5PB**  
**REF 2015/3036/P**

We have prepared a series of revisions to the documents submitted as part of the planning application listed above. These comprise amendments to a number of the drawings, the Basement Impact Assessment (BIA) and the Construction Method Statement (CMS).

The attached report provides an outline summary of the detailed responses to points raised the BIA Audit carried out on behalf of the London Borough of Camden by Campbell Reith Consulting Engineers.

In addition to these points, the revisions to the architectural drawings also respond to concerns raised by you about certain aspects of the design. These include: a reduction in the length of the rear lightwell to 3metres in order to mitigate any impact on the setting of the Conservation Area (Dwgs 205G, 206G, 211H); 45degree sight lines drawn from the limits of the proposed rear extension to clarify any impact on the neighbouring property (Dwgs 207D, 210G).

Yours faithfully

Jim Biek

Cc P Godfrey – Zen Developments Ltd

Encl Dwgs 100A, 101C, 102A, 103B, 104A, 112D, 205G,  
206G, 207D, 208C, 209D, 210G, 211H  
Basement Impact Assessment – Updated July 2015  
Construction Method Statement – Rev B  
CMS Supplementary Calculations – Rev A

# **SUMMARY OF RESPONSES TO BIA AUDIT CARRIED OUT BY CAMPBELL REITH CONSULTING ENGINEERS On Behalf of London Borough of Camden**

28<sup>th</sup> July 2015

1 Revised basement methodology – Further information to address comments in 4.3 to 4.6 and 4.9.

4.3. *“The retained walls of the existing property will be underpinned using traditional construction techniques. The CMS indicates that each pin will have a section of reinforced concrete retaining wall and base formed under the existing brickwork wall. No calculations or reinforcement details are provided and although temporary props are indicated in sketches of each stage, no details are provided. The extent of the adjacent basement to no. 2 does not appear to accord with the Architect’s existing basement floor plan. No details of dowels between adjacent underpins are provided.”*

**From Blue Engineering – Please refer to document: CMS Supplementary Calculations. Calculations of Global stability, local analysis and typical prop forces during construction have been provided. A statement referring to the dowels between pins has been included.**

**CMS drawings 2385-200 (P2) & 2385-201 (P2) have been revised to reflect the extent of the basement at No.2 on the 2007 planning application. The planning drawings for No.2 have been included with the revised information.**

4.4. *“No details are provided to show how the light well(s) at the front of the property will be excavated and constructed.”*

**From Blue – CMS drawing 2385-204 (P1) indicates a potential sequence of works through the more extensive lightwell located on the left hand side of the property. Outline methodology has been added to the bottom of page 3 of the Construction Method Statement – section 3.0.**

4.5. *“The rear light well is to be formed using reinforced concrete retaining walls with a reinforced concrete heel projecting beyond its rear face into the garden, potentially using an open cut excavation. The effect of this open excavation on the adjacent properties has not been considered. The CMS has been produced by Blue Engineering and some of their drawings are included within the BIA. Confusingly, those within the BIA contradict the CMS as they show the walls of the rear light-well constructed from reinforced masonry. One Blue Engineering drawing in the BIA, no. 2385/100 P1 states that “underpinning has been designed so that the maximum bearing pressure is 200kN/m<sup>2</sup> based on medium dense sand and gravel ....., which would appear to be an error as the founding stratum is London Clay.”*

**From Blue – 2385-100 series were a set of outline scheme drawings. 2385-200 series are the latest set of drawings that refer to the latest planning application. The retaining wall forming the lower ground floor terraced area is to be constructed using reinforced concrete.**

**Methodology for the construction of this area is given at the top of page 3 of the Construction Method Statement - Section 3.0**

***From Soiltechnics – Removal of drawings in BIA Appendix – already addressed Calculations added to the BIA of movement specifically taking into account the proposed method of construction of the rear lower ground external terrace.***

4.6. *“The information supplied by the Architect and the CMS showing underpinning details and methodology provide an incorrect location (NW3 5BP) in their documentation.”*

**From Blue – This has been updated on all documents produced.**

**From Bchitecture – full set of drawings reissued with postcode corrected**

4.9. *“The BIA has shown that the surrounding slopes to the development are stable. However, the plan of the existing basement does not show the existing front light well. It is unclear whether the light well is to be deepened or how this is to be achieved, particularly as it is within 5 metres of an adjacent highway.”*

**From Soiltechnics – Update BIA with appropriate drawing, DLA supply accurate drawing if required by Soiltechnics drawing 02 updated to show light wells in front of property and included in the updated BIA. Refer appendix E**

**From Bchitecture – See Dwgs 112D, 205G & 211H for clarification of the extent of the alterations to the front lightwells; please note the front lightwells are set 6.85metres from the property boundary.**

2 - Ground Movement Monitoring – Proposals required

Further details from audit section 4.12. *“No mention is made of any monitoring of ground movements which should be incorporated into the proposals in order give early warning of unexpected movements and ensure that propping arrangements, once finalised, can be adjusted as necessary to minimise potential damage.”*

**From Blue – Monitoring for movement will be via target points with a traffic light system to confirm action to be taken if movement occurs. Details of this can be found at the bottom of page 4 of the Construction Method Statement – Section 4.0**

3 – Surface water attenuation - Proposals required and impact on adjacent properties assessed.

Further detail from audit section 5.8 The basement proposal will increase the extent of the paved area discharging to the existing surface water drainage system but, although attenuation is proposed, no details are provided which could impact on movements affecting adjacent properties.

**Drawing 2385-201 (P2) indicates position of Polypipe Stormwater Modular Attenuation System which is to be wrapped in a non-permeable membrane and installed below 500mm of ground. The system is designed to have a 95% void ratio to retain the additional volume of storm water runoff.**

**Soiltechnics – BIA update confirming no impacts on adjacent properties. BIA refers to Blue Engineering drawings and CMS not included in BIA but separately presented**

4 – Surface water flooding - Proposals required to prevent flood waters entering front light well.

Further details from audit section 4.15. *“The BIA identifies that Langland Gardens was subject to flooding in 1975, but not in 2002, due to the surface water drainage system not being able to cope with that rainfall event. It states that the 1 in 12 gradient of the road makes it unlikely that the flooding would have affected the subject property. Precautions should be taken to ensure that potential flood water does not enter the front light well and hence access the proposed basement.”*

**From Bchitecture – see Dwgs 112D & 211H for clarification of relative levels demonstrating that lightwells will be set higher than the adjoining highway; revised proposed shows a curb of approximately 150mm surrounding lightwells to safeguard from flood water.**

**From Soiltechnics – Google street view presented in BIA to show falls down Langland Gardens Refer paragraph 3.4.3 page 11**

5 – Stability - Predictions of ground movement to be confirmed in relation to proposed construction methodology.

Further details from audit section 4.10. *“The BIA includes an empirical assessment of vertical settlement and horizontal movement of the excavations to construct the*

*basement resulting in potential damage to no. 2 Langland Gardens of up to Burland Damage Category 1 – Very Slight Damage to its rear quadrant. The ground movement assessment (Section 5 of the BA) states that the existing walls will be underpinned and the basement extension will be supported by a structural retaining wall. However, none of the information provided describes how the retaining walls will be constructed. The case studies referred to, from which ground movements have been predicted, relate to strutted excavations supported by embedded retaining walls. It is not possible to assess whether this is appropriate to the proposed construction.”*

**Soiltechnics – BIA updated to include calculations for deformation of walls to neighbouring property and to address means of settlement analysis. Refer section 5.2 page 14 and appendix F**

6 –Stability - Once ground movement predictions are confirmed, the building damage assessment should consider horizontal movements and shallow foundations. Further details from audit section 4.11. *“Whilst horizontal ground movements are predicted, it is not clear that these have been considered in the building strain assessment. A contour plan of settlements only is presented. Additionally, whilst the adjacent properties may have basements, these are of limited extent and foundations outside the basement areas are likely to be shallow.”*

**Soiltechnics – BIA updated to include calculations for deformation of walls to neighbouring property and includes trial pit information on party wall. Refer section 5.2, page 14 and appendices D and F**