**2019/5835/P 4B Hampstead Hill Gardens, NW3 2PL - Appendix 1**

**Notes from Dr Phil Smith of Geotechnical Group based on the BIA (revised 19/05/20) for this application and the two audits by Campbell Reith (11/05/20 + Final 11/06/20)**

1. The ground investigation appears to be some site specific works that went to 3m below ground, and some data from a property nearby: Section 5.2 in the BIA refers, and states that this off-site information is “used for information only”. There appears therefore to be insufficient site-specific site investigation.

**The proposed basement goes to about 3m below ground level, so there should be a borehole that goes at least 2m below that depth**.

1. The drawings showing sections through the development (drawing 218136-S-D300 revision P4) show the existing walls to 4B as being on piled foundations, which includes the dividing wall between 4a and 4b. The BIA has assumed that foundations are at 0.85m bgl for both 4a and 4b (section 8.2).

**The BIA should reflect the true state of the building’s existing foundations and should be done again.**

1. Related to (2), the ground movement assessment should also consider the impact of ‘pinning’ one end of the building (by the basement acting as a deep foundation), while much of 4A is on shallow foundations and will still be subject to shrink/swell movement of the clay. Even though shrink/swell movement is already occurring, the basement will change the way it affects the property.

**\*The BIA should be done to satisfy Policy A5 that the scheme “would not cause harm to neighbouring properties”. (**\* Note: I have also been advisedthatthe applicant must demonstrate fully, prior to determination, the detailed and plans of the temporary work and the transition phases. JW)

1. The basement construction in the back garden is described (BIA letter V1 R2, dated 12 November 2019) as being formed using trench sheeting (to provide temporary support during construction). These are described as “assuming a conservative 10m deep trench sheet”.

**The applicant should include in their method statement how these trench sheets will be installed, and provide a ground movement assessment for the movements resulting from their installation** **The applicant needs to show that this is a viable construction methodology (i.e. can the machine needed to insert the trench sheets access the area it needs to work, allowing for any temporary supports that may be needed above ground to support 4A, and is there sufficient room for the machine to work and insert the sheets).**

**Note:** A report on the BIA by Steven Brunswick, a structural engineer, is attached to this objection and appears as a separate response on the planning portal.