**2017/0579/P**
**Site Address -** 26 Netherhall Gardens London NW3 5TL

[redacted] I very strongly object to the new application on following grounds.

In summary:
Despite the rejections to this application in the past, the developers still propose a development that is aggressive and construction-wise very risky. This time, they provided a large amount of documents to seemingly address the many serious risks inherent to the development. These documents are however flawed and misleading as they are in majority based on the BIA report of Jan 2016 which was deemed inadequate by the CampbellReith (CR) Audit report of March 2016. CR concluded that the author of the BIA report in question had no proof of expertise in engineering geology, and that CPG4 qualified opinions be instated before any approval is granted. This has not been done. The developers instead continue to use the flawed report in this submission. As such, their conclusions with regard to the massive risks this development will have on the ground stability and altered water flows - because of the double basement construction and the huge excavation of the rear garden -, are of NO value and very misleading. The site study undertaken by the developers on ground water flow is incomplete (limited quantifiable data collected), narrow in its scope (no peak or seasonality data was collected) and misleading in its conclusions. At this stage, we lack any quantifiable assessment of the damage that the altered surface and ground water flows will have on the foundations of 24 and 24a. This development proposes a ridiculous quintupling of the amount of hard vs soft surface from today's ratio of 1.2 to a staggering 5.4 ratio. This means that the hard surface will take up 84% of this whole development (650m2 out of a total of 770m2). No SuD's drainage can cope with this vast amount of altered water flows given the constraints and boundaries of the site (only 1 meter from 24a boundaries). All these risks are compounded by the fact that the proposed sits on a hillside in an area which is already VERY prone to subsidence, which Camden is very well aware of. In addition, the development will result in the felling of 5 trees which is totally excessive, adds to ground instability and unnecessarily takes away the greenery in this conservation area. In addition, the development proposes a massive reduction in daylight and sunlight to neighbouring properties, and an intrusion of their privacy. The building's design is totally out of character with neighbouring properties.

Basis of objection – The geological/hydrological/drainage studies are all based on a flawed BIA report of 2016. The developers simply decided not to bother to update this report, despite its many errors and shortcomings – see my objection of April 2017. This is simply unacceptable and shows the cavalier attitude of the developers.

1. It is totally unacceptable that major parts of the studies are based on a BIA report which was deemed inadequate by the CampbellReith (CR) BIA Audit report (March 2016). The Sinclair Johnston report of Sep 2018 confirms "... *the site investigation and ground movement analysis reports are from a previous BIA submission* [from 2016].... *The reports have not been updated as the impact of the smaller basement on the geology, hydrogeology, hydrology, flooding and ground movements will be greatly reduced from the acceptable limits stated in the report".*

- ⇨ CR BIA states *"An additional BIA and a SDCS has been carried out ….and, although the author is a Technical Director and a chartered structural engineer, no proof of expertise in engineering geology is provided as required by CPG4." Basis of* CR demanded that two fully CPG4 qualified opinions for the planning at 26 NG are instated before any approval can be granted. This has been ignored by the developers.

2. For the developers to then conclude that given *" The basement has been significantly reduced in size by approx. 50% in depth and 75% on plan"* the risks will be "greatly reduced" as the basement is "smaller", shows how scathing and negligent the developers are in assessing the massive risks to our properties. They are wrong:

   - Though the basement is reduced by 50% in depth, it <u>still</u> extends beneath the water table surface and so it WILL affect the ground water flow materially.
   - The quintupling of the ratio of hard vs soft surfacing, will change the surface flow (rain and run-off) dramatically. I do not consider a "Category 1 risk of land stability impact on neighbouring properties" to be "acceptable" given the development is a) based on a sub-par BIA report, and b) the development sit on an aggressive 1 meter away from 24a.

3. The analysis carried out by GEA Ltd. (Appendix D of the SJ report) to assess the ground movement and damage impact assessment is also based on this flawed BIA report of 2016, which makes the analysis totally flawed and of NO value.

In conclusion, the hundreds of pages of supporting documents or studies are greatly flawed and lack credibility and robustness, as they are for a large majority based on an inadequate study. They fail to provide a full picture and fact-based understanding of the nature and extend of all the risk factors. Quantity of documents does not mean Quality of data. Assumptions and guesstimates cannot substitute for hard data. This application is completely unfounded, misleading and unsubstantiated.

Hence, I demand that before any consideration to this application is given, the developers provide:

a. an up-to-date BIA report done by an qualified expert in engineering geology to assess correctly and comprehensively all the risk factors of the proposed development, including ground stability, ground water flow, surface flow (rain and run-off), impact of change of hard vs soft surfaces, differential depth of foundations relative to neighbouring properties.
b. a comprehensive site survey which collects data on all aspects of each of the above mentioned risk factors and provides a 'quantitative' analysis (ie no guesstimates) of their impact on the integrity of the surrounding structures, and
c. a comprehensive, quantitative step-by-step construction plan on how to *fully* mitigate each of the risk factors.

Basis of objection - At this late stage in the application process, it is unacceptable that studies and surveys which are vital to the feasibility and scope of proposed development are still missing or incomplete

1. The developers only *qualitatively* assess the damage impact of the altered surface/ground water flows resulting from the quintupling of the hard versus soft surfacing (hard vs soft today of 420m2/350m2 vs. 650m2/120m2 in the proposed). No drainage system can fully mitigate the risks of such vast changes in water flows, particularly given the boundary constraints of the proposed development (within 1 meter of the boundary with 24a). The developers only qualitatively confirm *"As a result, more surface water than at present will be discharged 24 and 24a, instead of following the current westerly direction across the sited according to the topography."*

    ⇨ A comprehensive analysis is needed to quantify the volumes and direction of surface/ground water flows across the site at peak times and across seasonal fluctuations, and assess if a SuDs drainage system can *fully* mitigate the damage these could cause to our house (foundation, dampness, etc). These studies are conditional to the application being granted. We also need a legal agreement securing a Basement Construction plan which protects the water environment and structural integrity of neighbouring properties. So far, the developers have shown a very cavalier attitude to mitigate this massive risk.

    ⇨ The developers' plan to follow 'best practice' regarding the design and management of rainwater drainage is not good enough. This site is unique in its character of slope and extent of changed water flows, so we need a site-specific proposal of construction.

2. The proposed basement will extend beneath the water table surface and hence will materially change the ground water flow regime and increase the degree of dampness or seepage for the existing nearby structures. Ground Water studies were conducted, though only during a 7-week period of time, a period that looks to have been a very dry period. Despite this, ground water was found in Borehole 1 at 3.00m bgl rising to 2.8 m bgl within only 20 mins.

    ⇨ More studies, surveys should be undertaken to take into account *peak times, seasonal fluctuations and wetter periods*.

3. In addition to these flows, the site is within 100m of tributaries of the Westbourne river (Camden Geological, Hydrogeological and Hydrological Study 'Camden Aquifer Designation Map' - Figure 11) and could be affected by it in terms of ground water flow regime. Nothing has been done to quantify these flows.

    ⇨ Further investigation is essential to determine the impact of this tributary.

4. It is unthinkable that 4.5 years since the first application, the "presence, nature or depth of adjacent basements" has still not been established and that the whole planning application, size of retaining walls

and impact assessment calculations on neighbouring properties has been done without this analysis. How can developers conclude that 'maximum damage of no 26 development to immediate properties is of Burland Category 0 to Category 2' if the construction proposal of the double basement excavation has not even acknowledged the nature of the foundations 3 meters away from it?

- ⇨ I demand that a full structural analysis of the foundations of 24 and 24a and the interconnectivity that exists between 24 and 24a is made and provided to Camden and all parties concerned, and that appropriate proposals are made to mitigate damage to the foundations of adjacent properties (28, 24 and 24a). The SJ SDCS of Jan 2017 makes a simplified assumption that no 24 and 24a are each of single structure. This is WRONG.
- ⇨ I demand a maximum protection of my property and its foundations to Burland Category 0 before any application is approved. As the CampbellReith Audit report goes on to say *"Further mitigation with regards to limiting damage to neighbouring properties is required.*

5. Regarding the clay formation of the proposed development, it is very well known for clay to have a tendency to shrink and swell. Still no site investigation has been done to determine the clay shrinkability and propose mitigating measures..

6. Other additional surveys still to be performed as per CampbellReith Audit Report (March 2016). Please see my objection of April 2017 for detail:
   - CampbellReith Paragrah 4.16. - Modelling and analysis to study the impact of the basement on the buildings on the opposite side
   - CampbellReith Paragraph 4.17. - The input data from the Xdisp programme for the pile installation should be provided and included in a revised GMA once the construction methodology and sequence have been agreed.
   - CampbellReith Paragraph 4.18. - The magnitude of anticipated heave from the demolition and excavation should be provided to insure these balance out the reloading (construction).
   - CampbellReith Paragraph 4.19. – Analysis required as to the impact of a 'sufficiently' stiff basement on the stability of the adjacent highways and public right of way.
   - CampbellReith Paragraph 4.20. - It is stated on Section 6 of the GMA that the detailed retaining wall design will ensure ground movements are within acceptable limits. This together with the propping arrangements is described as a 'pre-emptive approach' to mitigation, however, it should be noted that the proposed sequence already assumes high support stiffness with some degree of top-down construction which predicts a maximum damage of 'Category 2'. Further mitigation with regards to limiting damage to within Category 1 is requested.

Basis of objection – Removal of trees detrimental to the ground stability and greenery of this conservation area

The 5 trees that will be felled for the proposed development are totally excessive. There are no plans nor is there space to grow and replace these category C trees. The impact on ground stability of their

removal is scathed over by the developers. It also unnecessarily takes away the greenery in this conservation area.

There is also misleading documentation on the position of trees at boundary with 24A. This is of serious concern and Camden should take a firm stance and strongly resist approval of this application given these obvious errors in the design and planning.

As an owner of a house in this postcode, I only know too well how difficult it is already to find buildings insurance, because of the risk of subsidence in our area. This development could very well make our buildings insurance unaffordable or impossible to get. I have great concerns regarding the impact on subsidence and very real potential structural damage which will be done to my own property if the basement, the massive garden excavation as well as the small gap between the proposed development and the property of 24a (and thus 24) were permitted. I also have great concerns about the cavalier attitude of the developers to the many serious risks of this development to the ground stability and foundations of 24 and 24a.

On these grounds, I continue to strongly oppose this development. We need to deal with the aggressiveness and massive risks of this development to the neighbouring properties NOW and not post-construction when damage to our properties has occurred.

Please refuse this application.

Catrien Harris

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