Further Objection to Planning Application 2024/0012/P – 194 Goldhurst Terrace following uploading of new documentation in October 2024

This further objection should be read in conjunction with my original objection letter, submitted in February. For ease of reference, the full original objection letter is included as **Annex 1** to this document.

Over the past month, the following additional documents have been uploaded to the case website:

1) A revised Basement Impact Assessment (BIA) – (Revision P3), published on 5th September 2024 by the Engineers (Axiom Structures Ltd)

2) A BIA Audit carried out by Camden's independent advisors Campbell Reith, dated 15 October 2024. (This audit is not clear as to exactly which version of the BIA is being referenced, but it is assumed that it is the 3rd Issue/Revision P3 dated 5th September 2024.

3) A 'Neighbour Response Letter' from Savills (UK) Ltd as agents for the Developer/Applicant (194 Goldhurst Terrace (Cowell) Ltd) dated 28th October 2024, that seeks to address some of the points of concern raised in the 18 public objections that had by then been received.

4) Slightly revised plans and elevations which seek to reduce the degree of overlooking of the neighbouring property at 196 Goldhurst Terrace but which fail to substantively do this. They also provide no front elevation view which is where there are several discordant and out-of-character features (eg. very elevated front access staircases to the raised ground floor) that are at odds with the immediate style of local properties.

None of the concerns that were previously raised in my earlier objection letter have been adequately addressed –details are as follows.

1 Deficiencies in the BIA Revision P3 and the Audit of the BIA Revision P3, and consequently in the agent's letter

In respect of the previous concerns and objections raised in my original objection letter regarding clear deficiencies (unevidenced assertions and over-complacent assumptions) in the original BIA (see Annex 1), it appears that nothing has been done in this new Version P3 of the BIA to address any of them.

The most recent BIA Audit document by Campbell Reith simply 'rubber-stamps' what was previously said (both in the original, and Rev. P3, BIAs) in respect of these, and does not take a firm stand on the outstanding actions that must be taken, and completed, before they will 'sign-off' the BIA for Camden.

To compound this, the recent summary letter (dated 28th October) from the applicants Agents merely then again repeats the very same deficiencies from the BIA Version P3 (that have themselves not been adequately challenged by the latest BIA Audit), but in such a manner as to 'whitewash' the fact that no further actions have in fact been taken on addressing the fundamentals of these specific concerns and shortcomings.

The key areas of concern were as follows. Please see Annex 1 for the detailed exposition of the BIA-related concerns originally described under each of these 4 headings:

1) The excessive scale of the proposed Basement Excavations and the deficient, complacent, and non-exhaustive approach taken by the BIA and the Flood Risk Assessment

2) Complacency and lack of due diligence in the BIA and Flood Risk Assessments by ignoring the two well-known recent (July 2021) extreme rainfall events and the surface flooding they caused nearby in the same street

3) Groundwater flooding

4) Flooding from Sewers

2 No coverage of the extent of the most recent local serious flood incidents in 2021

The latest BIA (Version P3) remains complacent and lacks due diligence, remains not comprehensive in its assessments of local flooding incidents (it continues to omit any reference to the two most recent very serious local rain-flooding incidents on this same street in South Hampstead, both in July 2021), and whitewashes concerns relating to the local groundwater situation. In particular it is wholly silent on the cumulative effect on groundwater levels and flows, of the many basement conversions completed in the vicinity within the last 20+ years.

3 No on-site investigation of actual ground water levels over a full year

No further 'on-site'/'on the ground' investigations appear to have been done over the last 11 months since the original BIA, nor has a more comprehensive desk-based survey been done of similar basement conversions within even a 100m radius of the site, let alone the 500m radius recommended by the Camden Strategic Flood Risk Assessment (SFRA) with the aim of understanding the ground-water flows in the area. Please see the later section below on the Camden SFRA requirements, that have not been met by the BIA Version P3, or been called-out as not having been met, by the BIA Audit.

Specifically, instead of the Engineers having taken the initiative and used the ample time over the past 11 months since the original BIA was done, in order to sink at least 2 new boreholes on site (at least one each on the North and South sides of the existing main building), and to monitor the water levels in them at least monthly over the Winter, Spring, Summer and Autumn seasons, the BIA continues only to reference just one measurement, from just a single borehole drilled elsewhere on a different site, some years ago.

Coincidentally this other site was one where the same Engineers had previously done a BIA, so perhaps, on the instructions of their client, they were seeking to achieve some (false) economies by re-using the very limited, and out-of-date, data from that other site, instead of actually doing the thorough investigation that is now needed on the subject site?

This lack of pro-active due diligence with respect to monitoring on-site groundwater levels in an area with acknowledged high groundwater levels seems to betray either a lack of professionalism and rigour, or a misguided desire to cut corners, in order to get early planning consent by ignoring or whitewashing potentially important information.

Camden must now insist on a full 12 months-worth of groundwater level measurement records from at least two on-site boreholes (at least one to the North and one to the South of the existing building) before being prepared to consider the application further. If groundwater levels are demonstrated NOT to be a problem, then this issue falls away in the consideration of the application. However, if groundwater levels are too high and are shown to be a potential problem, then the application in its current form/scale must not be allowed to proceed until and unless the enormous scale of the basement excavation is significantly reduced.

4 Examples of local elevated groundwater levels ignored in both the BIA Rev. 3 and in the BIA Audit

As an illustration of the potentially elevated local groundwater conditions and flooding risk in the immediate vicinity, please consider the following actual examples, gathered from a close inspection by the author of comments/objections on previous planning applications in the immediate area. Some of the information was offered by local resident objectors in response to a recent basement excavation application nearby at 253 Goldhurst Terrace, and some in response to the current case at 194 Goldhurst Terrace:

- In the 1975 severe rainfall event a nearby basement at 62 Priory Rd (only about 80m from the subject sites) was flooded.

- the original basement/cellar of No. 196 Goldhurst Terrace next door, regularly floods during periods of heavy rain (only about 5m – 7m from the subject site).

- The rear gardens of both 261 and 263 Goldhurst Terrace are regularly flooded and/or waterlogged (only about 30m from the subject site).

Unfortunately it would appear that neither the Engineer that prepared the original BIA (and its subsequent up-issues), nor the BIA Auditors for Camden, Campbell Reith. seem to have taken the time and shown the due diligence needed to find and recognise this important information. If the author can find it in a few minutes research, then why cannot they?

5 No identification of the many other nearby recent basement excavations and assessment of their cumulative impact

This area, at the Western end of Goldhurst Terrace (in post-codes NW6 3EP and NW6 3HN) already has no less than 5 recently completed/in-progress basement conversions that are all within a radius of about 50m of each other and of the subject property, namely: 190, 251, 253, 255, 261 Goldhurst Terrace, and there are a few more within about 150m, at 166, 156, 231 Goldhurst Terrace. A more thorough search will, no doubt, reveal many more basement conversions, in this and adjacent streets.

Why has the cumulative impact on groundwater levels and flows, in an area with acknowledged high levels of groundwater, not been addressed?

6 Lack of observance of recommendations Camden Strategic Flood Risk Assessment (SFRA) document- July 2014

The Camden SFRA document can be found here:

https://www.camden.gov.uk/documents/20142/0/download+%2815%29.pdf/37025249-3da8-4fe1-3075-aa025d3b66de

The Camden SFRA is an important document and includes full coverage of the interplay between flood risk and groundwater levels and applications for basement excavations and I would request the BIA Engineer and Camden's BIA Auditors, and the Case Officer to please carefully read paras. 6.4.3 to 6.4.9. This includes a very helpful illustration of how existing groundwater flows can be significantly changed by a basement excavation (see Figure 6.1 and its description in para. 6.4.6).

For ease of reference, **Annex 3** of this objection includes an extract of paras. 6.4.3 to 6.4.9, including Fig. 6.1 which gives a very helpful illustration of the effects that building a large, impermeable basement structure can have on groundwater flows. (Note: The large scale of the proposed basement excavation on the subject site is wholly unprecedented for this area).

The Camden SFRA document also goes on to say (para. 6.4.6) that: "As part of the assessment carried out for basement development it will be important to identify any potential receptors which may be affected by the change in water level. Locally within the LBC area, the <u>main receptors are likely to be</u> <u>existing basements</u>, various abstraction sources from the River Terrace Deposits and groundwater-fed water features. <u>A basement search radius of 500m around a development is advisable to inform a basement impact assessment</u>.

(Note: The underlining is the author's own emphasis)

It appears that the recommendation of a basement search radius of as much as 500m is persistently (and probably deliberately?) being ignored. A very few BIAs list just a few other excavations within less than 100m of the subject site, while most (regrettably including this one) do not even do that. It is likely that there will be at least 15 to 30 new basements that have been excavated in the last 30 years within a

radius of 500m. The aggregate and collective effects on groundwater flows of such a large number of new impermeable basement structures, could have a significant and very unpredictable effect on the groundwater flow directions and levels in the area, and could easily cause unexpected and undesirable effects around existing properties and gardens. No-one has yet attempted to model and quantify this. The BIA seeks only to propose measures to mitigate problems on the subject site; it very misguidedly and selfishly ignores assessing possible groundwater effects on other nearby properties to which there is a clear duty of care by the applicant/developer.

Camden must in this case (194 Goldhurst Terrace), and routinely for future cases, insist on a much more exhaustive list of recent basements built within 500m of the site, and before considering whether to give consent for such a large-scale and voluminous further excavation (almost certainly larger than any other single basement excavation done in the whole South Hampstead Conservation Area over the last 20-30 years).

Please see **Annex 2** for a detailed analysis/rebuttal of specific claims made in respect of the BIA/BIA Audit concerning local flooding and groundwater aspects, in each of the 3 documents recently uploaded to the case website.

7 Revised plans/north Elevation still shows excessive overlooking of the adjacent property and garden at 196 Goldhurst Terrace

The proposed revised floor plans and North Elevation can be found at: <u>https://camdocs.camden.gov.uk/CMWebDrawer/Record/10712919/file/document?inline</u>

The revised North Elevation drawing (on pg. 7 of 8) shows a wholly unacceptable degree of overlooking of the adjacent property and garden to the rear (at 196 Goldhurst Terrace).

There are now proposed to be 20 windows on this elevation of the main building, a huge increase compared with just 3 windows on the existing North elevation. The only, very limited, obscure glazing now, belatedly, being proposed is on just the lower sash of just 3 of those 20 overlooking windows. This gross invasion of a neighbours privacy is wholly unacceptable, and goes against all relevant Camden Planning Guidelines relating to overlooking and privacy.

Even if it is argued that the 4 of the proposed new windows that are at the new basement level are too low to have sightlines over the ground-level boundary wall with No. 196 GT, this still leaves 16 windows that enable the invasion of a neighbour's privacy, compared with just the 3 windows currently on the North Elevation. So this is still wholly unacceptable.

In addition the proposed new detached 2-storey house just to the East of the main building itself has 2 further large first floor windows that also overlook No. 196, and no obscure glazing is proposed for these either. This compounds the 'overlooking/privacy' iissue still further.

Inexplicably the 'Pre-App' advice given to the applicant's agent (dated 16 Nov. 2023), which has just been published on the Case Website, entirely ignores these invasions of privacy to No. 196 Goldhurst Terrace to the North, and instead only addresses the much less significant privacy issues relating to the neighbouring property to the East at 192 Goldhurst Tce.

8 Revised plans/north Elevation does not shows any improvements to the front (South) Elevationvery intrusive external metal staircases

The previously-published plans for the South Elevation showed that two of the now 'very raised' ground floor flats (the plan appears to be to raise the whole new 'ground' floor by about 60cm, compared with its current level), have enormous metal access staircases with hand-rails down into the front garden, crossing over the lightwells below. The size/length of these staircases is accentuated by the fact that the

level of the front garden declines to the East of the main front door to the whole property.

These are wholly out-of-character with all the other buildings in this very harmoniously-styled and characterful part of the South Hampstead Conservation Area. Almost all the ground floors of other similarly-styled houses in this area are effectively 'level ground', and none have large metal staircase structures emerging out of a bay window and descending some 2m-3m down to the front garden.

These wholly inappropriate metal staircases are an ugly and discordant affectation of the new design, and need to be removed, with access to those raised ground floor flats instead being provided only through an internal hallway - as is the case for all other houses in the vicinity.

9 Conclusion – Consent should be refused for the current application

For the many reasons described above, it is requested that Camden please Refuse this application in its current form.

A reduced number of new flats with a much less extensive basement excavation and no raising of level for the new ground floor, as well as precise alignment in levels across the whole South Elevation is first required. This is in addition to the more comprehensive and rigorous improved BIA and BIA Audit that are required, as previously described.

18 Nov. 2024/E Peel

Annex 1 My previous objection letter from February 2024

Please see the document uploaded on 12 February 2024 at 9.07am on the case website

Annex 2a - Detailed comments on aspects of the BIA Rev. 3, dated 5th September 2024

(Key: The text highlighted in red in the small-font text extracted from the BIA Rev. 3 is addressed in my comment in blue below (in normal-sized font).

From 'Non-technical Summary' section of BIA Rev. 3:

"1.1.6 The ground and groundwater conditions beneath the site are expected to be stiff London Clay. Made Ground will be present associated with past construction and development works. Local experience suggests that Head Deposits may be present above the London Clay. Groundwater is expected to be limited to perched in pockets at shallow depths in the Made Ground. Local boreholes (refer to Appendix 2, with the closest borehole located within 15m from the proposed excavation) indicate that the groundwater is likely to be present at 5m below external ground level which is well below formation of proposed basement (at 3.5m below external ground level, in the worst case). Due to its low permeability, groundwater flow in the London Clay is very limited, although Head Deposits may present pockets of more permeable material. The proposed development will also include engineered SuDS techniques and pumped devices which will further reduce influx of storm water to the ground. Therefore, the proposed basement is considered acceptable in relation to groundwater flow."

Comment: There is far too much supposition and assumption here, but there is NO site-specific and sustained evidence-gathering and presentation of evidence. At least 2 boreholes now need to be sunk to the north and south of the current main building and the groundwater levels need to be measured at least monthly for a full year

"1.1.11 Policy A5 states: The Council will not permit basement schemes which include habitable rooms and other sensitive uses in areas prone to flooding. The BIA and associated Flood Risk Assessment (FRA) and SUDS Strategy Report by Nimbus have demonstrated that the site is at low risk from flooding. The development considers recent local flooding events in the area and

therefore, the basement will be protected from any accidental flooding by watertight structure, drain cavity membranes and the resilience measures noted in FRA by Nimbus. These measures are in addition to proposed pumping system in the basement and necessary non-return valves to prevent sewer flooding, refer to Section 7 and Appendix 5 for system details"

Comment: The BIA and associated FRA documents do not even recognise the 2 most serious local flooding events in the same road in July 2021 that took place within weeks of each other. Some 100m - 150m of the road was flooded. This is a shameful and negligent oversight. Repeatedly referring only to the 1975 and 2002 events regrettably demonstrates an approach lacking in adequate rigour and due diligence. Even as regards the 1975 flooding event, I am aware that a basement as close as some 60m away was flooded then (at 62 Priory Road, NW6).

"2.3.6 Neighbouring gardens and large-mature trees are limited and are not affected by the proposed basement as they are away from the zone of influence"

Comment: This appears to be factually incorrect, as there are nearby trees in the rear garden of 196 Goldhurst Terrace and either or both the basement works themselves, or the excavation works for the adjacent sunken rear garden of the house at the Eastern end of this site will be within the root protection area of some of the trees. This was pointed out in objections made earlier in 2024. Why has the revised BIA not taken note of this?

From 'Desk Study' section of BIA Rev. 3:

"3.4.6 Based on the latest flood models by the Environmental Agency, and by URS for the Camden SFRA, the site is classified as 'very low' risk of surface water flooding

3.4.7 Goldhurst Terrace was subject to surface water flooding in both the 1975 and 2002 flood events, refer to Appendix 1. The Camden Strategic Flood Risk Assessment (the SFRA, by URS, 2014) identified a Goldhurst Local Flood Risk Zone, which includes Goldhurst Terrace, because of these events. Construction of the NW Storm Relief Sewer in 1994 would have helped to prevent flooding in some of the surrounding roads since then, although it too became overloaded in 2002 because it was only designed for a 1 in 10 year storm. Flood mitigation measures to protect the basement from local surface water flooding are highlighted in Clause 7."

Comment: This analysis wholly ignores the two major flooding events in July 2021 that resulted in at least 150m of the eastern end of Goldhurst Terrace towards Fairhazel Gdns being flooded to a depth of up to around 50cm. The author's desk-based analysis is severely and worryingly flawed. There are many news sources that would have confirmed the July 2021 flood events, including the two local papers. The July 2021 flood event would almost certainly have also overloaded the NW Storm Relief sewer. A basement only around 60m away from the site was also flooded in the 1975 flood event.

"3.4.9 The site is within area where internal and external sewer flooding occurred, refer to Appendix 1; Site is within Goldhurst Local Flood Risk Zone".

Comment: The statement in 3.4.6 seems to be totally inconsistent with that in 3.4.9. Which is correct?

From 'Planning Searches' Section 3.5 of BIA Rev. 3

3.5.1 A search was made of planning applications on the Camden Council's website, in order to obtain details of any other basements which have been constructed or are planned in the vicinity of the property, the results of which are listed below:

"No.190 Goldhurst Terrace: Proposed basement under the terrace property (Axiom Structures provided BIA). Planning permission granted; the basement is currently under construction;

• Adjoining No.192 Goldhurst Terrace: No relevant applications (only minor superstructure works);

• Adjoining No.196 Goldhurst Terrace: No relevant applications (only related to tree works);

• No.186 Goldhurst Terrace: Application (2016/1112/P) involving the "Erection of single storey part-replacement rear extension and lowering of internal lower ground floor level" was granted planning consent on 22nd April 2016. Drawings of the proposed scheme on Camden's website showed that the "internal lower ground floor" comprised only the original cellar;

• No.255 Goldhurst Terrace: Application (2011/5554/P) involving "Excavation of basement (below rear part of house only) and rear lightwell with balcony over at rear ground floor level and steps to garden, erection of extension at rear ground floor........."

was granted planning permission on 22nd December 2011. Drawings of the proposed scheme were found on the website;

• No.253 Goldhurst Terrace: Application (2012/2911/P) involving "Excavation at basement level for the provision of an enlarged extension [between basement and ground floor level throughout the footprint of existing building],......" was granted planning permission on 27th July 2012. Drawings of the proposed scheme found on Camden's website show that the section is somewhat misleading, as the proposed basement extension was at the level of the existing basement and was only below the rear part of the building"

Comment: This list is ok as far as it goes, but it is not complete. What about other nearby properties with recently-built basements including Nos. 251, 261, 166, 156 and 231 Goldhurst Terrace? A simple survey of the area on foot would have revealed these following which a planning records search could have been done. Seemingly insufficient due diligence?

From Section 4 'Screening' of the BIA Rev. 3

1b. Question: Will the proposed basement extend beneath the water table surface? Response: Unlikely Details: Borehole record in Appendix 2, note that works involve lowering the cellar (and new foundations) within London Clay formation

Comment: This is a crucial question for an area with known raised groundwater levels, to which a definitive answer is surely needed, rather than 'Unlikely'? A definitive answer could easily have been obtained if two boreholes had been sunk on the subject site (to the north and south of the main building) and levels monitored monthly over a full year. Instead, excessive reliance is being placed on just a single borehole (not clear if this was to the north or south of the building?) sunk on a different site some 15m away and with apparently only a single/one-off measurement of levels at that location a couple of years earlier. It has been almost a year since the original BIA was done, so there has actually been ample time for the extra due diligence to have been done, but for some reason (cost saving?) it has not been done, and is now required.

From Section 4.3 Surface Water and Flooding

"6. Question: Is the site in an area identified to have surface water flood risk according to either the Local Flood Risk Management Strategy or the Strategic Flood Risk Assessment or is it at risk from flooding, for example because the proposed basement is below the static water level of nearby surface water feature.

Response: YES Details: Carried forward to Scoping. Goldhurst Terrace was subject to surface water flooding in both the 1975 and 2002 flood events. The site is within the Goldhurst Local Flood Risk Zone."

Comment: This again entirely omits reference to the TWO local flood events in July 2021. Lack of due diligence?

From Section 5.2 Ground/Surface Water Monitoring and Control during construction

"5.2.1 While borehole records indicate that there is unlikely significant or at all risk of inflow of water into the excavation, the residual risk remains and some allowance should be made for localised dewatering.

5.2.2 Groundwater is to be monitored before and during construction. Refer to Appendix 3 for proposed method of localised dewatering using sump pumping"

Comment: The 'borehole records' appear to refer to a single borehole on a different site with a single measurement taken at least a year previously. For a site with known elevated groundwater levels surely the onus is on the BIA to <u>definitively demonstrate</u> that the groundwater levels on the site are sufficiently deep, and this requires active monthly monitoring for up to a full year before reporting this in the final version of the BIA, upon which planning consent would be based if levels are sufficiently deep. If groundwater levels are too high, then planning consent would not be given unless the scale of basement construction is substantially reduced or eliminated. Impeding groundwater flows can have unpredictable effects on nearby properties.

"5.4 The excavations are slightly protruding into Root Protection Area as set up by arboricultural consultant's report.

5.4.1 While the proposed lightwells protrude into Root Protection Area, the proposed basements do not extend beneath canopy of large trees within the site and adjoining owners' lands. Refer to GHA Trees report for details of Roots Protection Area

and protection to tree roots during groundworks. The groundworks will be generally carried out in short sections using hand tools or mini excavators so the large roots can be identified and protected during the course of works."

Comment: This has only addressed trees on the site of No. 194, and appears to have ignored trees behind, in the garden of No. 196 Goldhurst Tce.

"5.7. The site is within the Goldhurst Local Flood Risk Zone.

5.7.1 Goldhurst Terrace was subject to surface water flooding in both the 1975 and 2002 flood events, refer to Appendix 1. The Camden Strategic Flood Risk Assessment (the SFRA, by URS, 2014) identified a Goldhurst Local Flood Risk Zone, which includes Goldhurst Terrace, because of these events. Construction of the NW Storm Relief Sewer in 1994 would have helped to prevent flooding in some of the surrounding roads since then, although it too became overloaded in 2002 because it was only designed for a 1 in 10 year storm. Refer to Flood Risk Assessment by Nimbus for further details and mitigation measures.

5.7.2 Flood mitigation measures to protect the basement from local surface water flooding are highlighted in Clause 7 and Appendix 5 and include:......"

Comment: Same as comments made against para. 3.4.7 above. Ignores the two major flood events in July 2021.

From Section 6.1 Site Investigation:

"6.1.1. The site investigations at this early stage included (refer to Appendix 2 for data):

• Desk studies of ground investigations at adjacent sites, we noted consistent data in the close proximity of the development (no190 Goldhurst Terrace);"

Comment: As already stated, a very large-scale basement excavation such as that proposed here must require pro-active (not desk-based) regular (at least monthly) monitoring of groundwater levels <u>in new</u> <u>boreholes sunk on the actual subject site</u>, not a single borehole, on a different site, sunk some time previously. Around 11 months have elapsed since the since the original BIA was prepared, and NO new boreholes have been sunk on the actual site since then, so no regular monitoring of levels has been done on the site in question, despite ample opportunity to do so.

From Section 7.2 Outline Temporary & Permanent Works Proposals:

"7.2.2 Groundwater: Significant groundwater is not expected to be encountered during excavation of the new basement as the proposed formation level is within London Clays. Any perched water will be dealt with by local water pumps. The groundwater monitoring should be undertaken on site as part of the later ground investigation to establishing requirement and the most suitable method of controlling groundwater during construction"

Comment: As already mentioned many times, the area is already well known to have relatively high general groundwater levels. Therefore 2 new boreholes on the actual site (one 'uphill' to the north of the main building, and one 'downhill' to the south, need to be sunk and monitored monthly over the full annual rainfall cycle. The final version of the BIA must demonstrate to Camden that actual levels of groundwater, measured regularly over a full year, are sufficiently low for such a large basement excavation, and that diversion of the flow will not cause unacceptable problems to nearby buildings and in particular to the neighbouring buildings at Nos. 196 and 192 Goldhurst Terrace.

From Section 8.0 Basement Impact Assessment:

• The groundwater level is expected to be outside influence of the proposed works;

Comment: This needs to be directly evidenced by a set of recent monthly measurements taken over a year, from two on-site boreholes. Expectation/assumption is not sufficient.

From Section 8.3 Hydrogeology and Groundwater Flooding

8.3.1 The BIA has concluded there is a very low risk of groundwater flooding and proposed basement is acceptable in relation to groundwater flow, given that:

• Local boreholes indicated that no water table and no significant groundwater movement is anticipated within the London Clay and the proposed basement will therefore not cause an obstruction to groundwater flow;

• The soils are London Clay which are impermeable and flow of the groundwater is very slow;

• No cumulative impact is anticipated from the construction of the proposed basement, owing to the lack of deep basements on either side of the proposed excavation and presence of surrounding landscaping areas

Comment: As already frequently observed, these are assertions and wishful thinking aspiration; <u>not</u> <u>factual findings underpinned by real evidence</u>. No boreholes have been sunk on the actual site and nor have actual on-site groundwater levels been monitored for a full year (to cover the different seasonal rainfall patterns). Instead, reliance is being placed on just a single borehole sunk some years previously at a nearby site some 20m away, and for which only very limited level monitoring was done.

As regards the statement '*No cumulative Impact is anticipated owning to the lack of deep basements on either side of the proposed excavation*..', this again entirely ignores the many other recent basement excavations within just 50m of the subject site and several more within about 120m. Please see Section 5 in the main body above. Why has sufficient due diligence on this issue not been done for the BIA? If it has not identified and listed the other excavations nearby it cannot possibly assess the cumulative impact of all these excavation. It is a recommendation of the <u>Camden Strategic Flood Risk Assessment</u> document that a cumulative impact assessment is undertaken over a relatively wide radius of up to 500m (see paras. 6.4.3 to 6.4.9 of the SFRA). Please also see Section 6 in the main body above.

8.3.2 The BIA has concluded there are no impacts to the wider hydrogeological environment

Comment: Yet again this is just an assertion and a wishful thinking aspiration, that has not in any way been evidenced by extended on-site monitoring of newly-sunk on-site boreholes. No assessment has been done of other recent basement excavations within even a 50m radius, let alone the 500m radius that the SFRA document recommends.

From Section 8.4. Hydrology, Surface Water Flooding and Sewer Flooding

8.4.1 The BIA has concluded there is a very low risk of surface water/sewer flooding based on Flood Risk Assessment

Comment: The BIA has completely ignored the well-documented two separate local flood events in the same street in July 2021. So, yet again, insufficient due research and diligence has been done for the BIA. See also Section 4 in the main body, above.

8.4.2 The BIA has concluded there are no impacts to the wider hydrological environment

Comment: Again no detailed research has been done, or evidence provided, so these are just assertions and somewhat wishful thinking. Please see Section 4 above in the main body.

Annex 2b Detailed comments on the latest BIA Audit by Campbell Reith dated 15 October 2024

In the interests of brevity, a detailed set of responses to my analysis of the latest BIA Audit are not presented below, as many of the assertions in the Audit document regarding ground water and flood risk are simply a repetition of exactly what the BIA Rev 3 has itself said, and my comments would be the same as above in Annex 2a. The same is true of some of the unevidenced assertions of the BIA that are again repeated in the Agents letter from Savills ('<u>Neighbours Response Letter' uploaded to the Case</u> website on 29th October)

There is no attempt in the BIA Audit document to push-back on, or to cross-question, many of the assertions made by the BIA, a number of which have not, in reality, been evidenced by factual on-site evidence or by adequate desk-based research.

It is not clear why the audit has not pushed-back more vigorously against a number of the many oftenrepeated assertions/omissions in the BIA. Is this perhaps a failure in Camden's scoping statement for how the BIA Audit is to be conducted, in which case this needs to be improved in its rigour and comprehensiveness? Or is it due to a lack of initiative on the part of the Auditor to really challenge the 'conclusions' (actually in some cases just assertions) of the BIA and identify omissions and require them to be covered?

For reference, a number of the relevant/important/disputed sections of the BIA Audit document are highlighted in red below. The comments against them would be the same as the comments made in **Annex 2a** above, and are not repeated here in the interests of brevity.

194 Goldhurst Terrace - Campbell Reith BIA Audit of 15th Oct 24 - areas of concern highlighted in red.

https://camdocs.camden.gov.uk/CMWebDrawer/Record/10709315/file/document?inline

1.0 NON-TECHNICAL SUMMARY

1.6 The basement will be founded in stiff clay of the London Clay Formation. It is not anticipated that groundwater will be encountered however allowance for dewatering small areas of perched groundwater using sump pumps has been recommended. It is accepted that the proposed basement will not adversely impact the hydrogeology of the area.

1.7 With the inclusion of appropriate mitigation measures it is accepted that the proposed basement will not adversely impact the hydrology of the area however, proposals will need to be approved by the LLFA and Thames Water.

2.2 The audit was carried out in accordance with the Terms of Reference set by LBC. It reviewed the Basement Impact Assessment for potential impact on land stability and local ground and surface water conditions arising from basement development.

2.4 The BIA should demonstrate that schemes:

a) maintain the structural stability of the building and neighbouring properties;

b) avoid adversely affecting drainage and run off or causing other damage to the water environment;

c) avoid cumulative impacts upon structural stability or the water environment in the local area; and evaluate the impacts of the proposed basement considering the issues of hydrology, hydrogeology and land stability via the process described by the GSD and to make recommendations for the detailed design.

Hydrology Screening: (Pg8)

Have appropriate data sources been consulted? Is justification provided for 'No' answers? Yes

Hydrology Scoping Provided? (Pg9)

Is scoping consistent with screening outcome? Yes

Is factual ground investigation data provided? No However, a review of historical boreholes logs has been included

Is monitoring data presented? No

Has the scheme avoided adversely affecting drainage and run-off or causing other damage to the water environment? (Pg10). Yes

Has the scheme avoided cumulative impacts upon structural stability or the water environment in the local area? Yes

4.7 (Pg 11) The intrusive ground investigation is limited to two foundation inspection pits carried out to confirm the condition and depth of the existing foundations. The desktop study assessment, provided in the BIA, also includes review of historical borehole data near the site.

4.9 (pg 11) Groundwater is presumed to be outside the influence of the proposed works however, limited pockets of perched groundwater may be encountered. These are anticipated to be easily controlled using sump pumps.

4.10 The BIA recommends that a site-specific ground investigation is carried out to confirm the ground conditions.

4.13 (Pg 12) The surface water and flooding screening responses highlight that the site is situated within a street that flooded in both the 1975 and 2002 flood events and is located in the Goldhurst local Flood Risk Zone. In addition, the development will

include an increase in hard surfacing. The Flood Risk Assessment (FRA) provided includes a scheme to manage the surface water by reducing the rate of discharge. This is proposed to be done using wall mounted rainwater harvesting tanks and green or sedum roofing. Hardstanding areas will be formed of porous surfacing. The remaining surface water runoff will be attenuated to restrict flow rates into the public drains. It is assumed that the proposals will require approval from the LLFA and Thames Water

4.14 The hydrogeology screening and scoping identifies that the site is within an unproductive aquifer and thus, the risk of water inflows during excavation are unlikely. However, as a residual risk remains, an allowance for localised dewatering is recommended within the BIA. The updated BIA confirms a lost river is situated 180m from the site

Conclusions

5.3 (pg 14) The basement will be founded in stiff clay of the London Clay Formation. It is not anticipated that groundwater will be encountered however allowance for dewatering small areas of perched water using sump pumps has been recommended. It is accepted that the proposed basement will not impact the hydrogeology of the area

5.4 With the inclusion of appropriate mitigation measures it is accepted that the proposed basement will not adversely impact the hydrology or flooding of the area. Drainage proposals will require approval by the LLFA and Thames Water

Annex 3.

Extract from Camden Strategic Flood Risk Assessment (SFRA) document- July 2014 concerning the effect on groundwater flows and levels of building a large, impermeable basement structure

https://www.camden.gov.uk/documents/20142/0/download+%2815%29.pdf/37025249-3da8-4fe1-3075-aa025d3b66de

Basement Dwellings

- 6.4.3 LBC guidance CPG4⁴⁹ covers basements and lightwells and supports the policies in the Local Development Framework (LDF). There are two aspects relating to basement dwellings covered by the guidance;
 - basement impact assessments, principal impacts of basements, planning and design considerations; and
 - 2. how basement dwellings may be affected in streets at risk from flooding.
- 6.4.4 The issue of basements built within the borough has received a lot of recent press coverage. The issue which a groundwater specialist needs to consider is how the basements will affect groundwater flow in the local area. Factors which will influence this are the geological setting, thickness of the strata, the depths to the water table and permeability/confining nature of the layers. The creation of a barrier in the sub-surface may cause an obstruction to groundwater flow, with can lead to a rise in the water table on the upstream side and a fall in the water table on the downstream side. An example of what may happen to groundwater flows when a single basement is constructed is shown in the diagrams below.

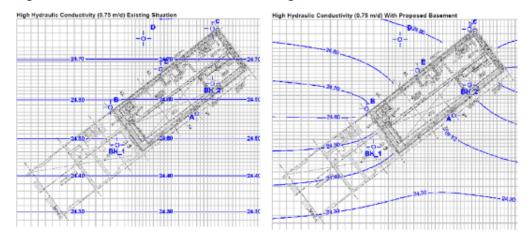


Figure 6.1: Groundwater flows around basements - pre and post-development

- 6.4.5 Moreover, if a basement development is close to a well or a spring feeding a surface water feature, the effect of groundwater taking a new flow pathway may result in reduced flow to the well or spring. Alternatively, a dormant spring may be reactivated or new spring activated, causing groundwater to take a different flow path. A larger basement will have a larger impact on the groundwater flow regime. A Basement Impact Assessment should assess the likely damming effect of the development and assess the likely rise in groundwater levels. The impact should not be considered in isolation. An example of predicted groundwater rise is provided below.
- 6.4.6 The pre-development conditions (Figure 6.1, left hand drawing) show groundwater movement in a southerly direction (at right angles to the blue groundwater contours). With the basement constructed (Figure 6.1, right hand drawing) – it is predicted that groundwater levels would rise by 0.2m on the north west side of the structure, and correspondingly lower to the south east. As part of the assessment carried out for basement development it will be important to identify any potential receptors which may be affected by the change in water level. Locally within the LBC area, the main receptors are likely to be existing basements, various abstraction sources from the River Terrace Deposits and groundwater-fed water features. A basement search radius of 500m around a development is advisable to inform a basement impact assessment.
- 6.4.7 In terms of groundwater flooding basement impact assessments should consider the following:
 - Quantitative assessment of groundwater level rise; and
 - Design the basement and selecting construction method to minimise the impact on groundwater flow.
- 6.4.8 This is relevant to both groundwater within River Terrace Deposits, and within perched water within sand pockets within London Clay and Bagshot Beds.
- 6.4.9 The other issue which may affect basement dwellings is in streets which are affected by surface water flooding. Basement dwellings are classified in the NPPF as Highly Vulnerable development and therefore should be discouraged within areas at risk of surface water or groundwater flooding. LBC Core Strategy Camden Development Policy 27 Basements and lightwells (see Section 2.4.6) outlines requirements for basement development when it is proposed. Adverse impacts on drainage and runoff must be avoided.