

**St Stephens Church and Hampstead Hill School
Response to DBCP**

Introduction

This is a response by St Stephens Church (“St Stephens”) and Hampstead Hill School (“the School”) to the Detailed Basement Construction Plan (“DBCP”) prepared by Wilmot Dixon on behalf of the Royal Free Hospital Trust (“the Royal Free”) and submitted to London Borough of Camden Council (“the Council”) on Thursday 12 October in response to the requirements of the Section 106 agreement (“the Agreement”) in relation to planning application number 2014/6485/P for a proposed extension to the Royal Free Hospital.

This response scrutinises the DBCP by considering in particular the reliability of the ground model for predicting the damage that could occur to St Stephen’s, its Hall and surrounding ground; by identifying key questions relevant to those predictions that remain unanswered and by noting information of critical significance to the management of construction for the excavation that has not been supplied. We ask that each member of the Board considering the acceptability of the DBCP, and the officer making the decision on the DBCP, are supplied with a copy of this report and its appendices and encouraged to read them.

Our position can be summarised as follows:

1. The current DBCP gives serious cause for alarm in a number of areas. In the view of our experts it is inevitable that the works will cause damage that exceeds level 0 on the Burland Scale and are thus certain to be in breach of the 106 provisions;
2. The DBCP has revealed previously undisclosed detail about the piling mat and the consequent noise that will be generated from the piling and its impact on the school. The length of time that that piling operations will be present, and the amount of noise generated, is likely to make it impossible to operate the school at all.
3. Officers have discretion to reject the current DBCP or revert back to the applicant for more information or delay its approval until such time as the applicant can prove that its requirements will be met.
4. We recommend that the Council does not approve the DBCP as it is clear that it does not comply with a number of the requirements of the 106 agreement, including specifically demonstration that the development as a whole will not have “any impact on the structural integrity of the Neighbouring Properties beyond 'category 0 (negligible)’”. Indeed given the seriousness of the deficiencies identified we are of the view that it will be irrational and unreasonable to approve the document in its current form.

Even if the Council is minded to approve the DBCP It is evident from the scrutiny of it so far that changes must be made.

Most of the major changes that have been made to date relate to the ground model of movement and damage, to the ground model of ground water and to the design and management of construction, have been initiated and justified by the technical group from St Stephens, who have already contributed so much of relevance to try to guide the project's safe completion. If approved, the changes that must be made to this project should involve this group: to ignore this proven corpus of knowledge and experience would be contrary to good engineering practice. This will be to the benefit of all parties.

For this reason, we propose that any decision to approve the DBCP is made conditional on the Royal Free signing up to a 'Memorandum of Understanding' ('MOU') to improve existing communications, to ensure effective ongoing oversight and to inform the operation of any working group set up with the local community. A sample set of terms is attached at Appendix One.

The remainder of this document is structured as follows:

- Technical concerns arising from the expert reports of Eldred Geotechnics, First Steps and Stevenson Davenport;
- Specific concerns about construction impacts on the operation of the School and St Stephens;
- Specific concerns about procedural issues.

It is accompanied by the following appendices:

1. Appendix 1 proposed terms for MOU
2. Appendix 2 report of Eldred Geotechnics and First Steps Ltd on ground properties and engineering response
3. Appendix 3 report of Stephenson Davenport Structural Associates Ltd on design implications for St Stephen's Church, the School and on 5-23 Pond Street
4. Appendix 4 Sketch of Noise Zone
5. Appendix 5 Fire Routes
6. Appendix 6 report on Planning Implications by DRK Planning Ltd

It is submitted to the Council and copied to the following parties

- The Royal Free care of Withers LLP
- St Stephens Trustees
- The Diocese of London

Concerns related to technical issues in DBCP

- 1) The technical substance of this submission is contained in two reports: a joint report from Eldred Geotechnics Ltd and First Steps Ltd dated 8th November 2017 (Appendix 2) and a separate report on engineering issues by Stephenson Davenport Structural Associates Ltd (Appendix 3)
- 2) **Report of First Steps Ltd and Eldred Geotechnics** This report is an expert view on the way in which the DBCP has assessed ground properties and proposed technical responses to them. It raises a number of issues, summarised as follows:
 - a) The intention of clause 2.16 of the Agreement is to protect lives, livelihoods and properties against damage from unwanted ground response and groundwater arising from the Development. The Detailed Basement Construction Plan dated 12/10/2017 is submitted in purported compliance with the Agreement, specifically the overarching requirement that the risk of damage to neighbouring property will be limited to Category 0 of the Burland Category of Damage.
 - b) Clause 2.16 of the Agreement requires (page 8) "detailed ground movement analyses" to be carried out. Any numerical model produced for the purposes of this clause should be able to calculate the known historical movement of the ground. This would give confidence that the performance of the model can be trusted and provide the basis for accepting that its predictions for movement accompanying excavation and construction can be believed.
 - c) However in this case:
 - i) No background measurements for the movement of the church, its hall or the ground they sit on have been made available as a baseline from which the significance of change in the future can be assessed;
 - ii) Despite the considerable investment in instrumentation there appears to be no background information for defining the response of ground water level to seasonal rainfall, and so no basis for knowing whether changes in groundwater level that may occur during the works are of concern.
 - d) This means the site is ill prepared to start work with the "observational method" being its criterion for "safe" construction (in this, actual movements are compared with those predicted and when significant differences occur changes are made either to construction or to the predictive model, or to both, until actual movements accord with those predicted). In the current DNMP the model's portrayal of historical movement not only conflicts with historical records but also contradicts itself. The performance of the model thus provides no confidence in the results it produces including its predictions of negligible damage. The invalidity of the model's calculations is demonstrated by the fact that in each analysis, historical damage is assessed as nil: a conclusion which is explicitly contradicted by the visible cracks in these buildings recorded in the condition surveys.

- e) Further numerical modelling has been presented in purported compliance with clause 2.16 (1) of the agreement, predicting ground water movement and levels of groundwater. However this ground water study has not obtained or utilised any historic groundwater records. Such records are important because they record groundwater level at different locations over time, i.e. over the seasons. Without such records the predictions reached in the groundwater model are untrustworthy. There are also serious doubts about the utility of the drainage system employed over the lifetime of the scheme and of the drainage provisions for the ground within 3m of ground level, in which the foundations of the church and its hall are largely sitting.
- f) Clause 2.16 of the Agreement requires (page 11) that the works be “undertaken without any impact on the structural integrity of the Neighbouring Properties.” As mentioned below, we are yet to receive a reliable and clear definition of "Neighbouring Properties" that adds any detail or clarity to the existing one in the Agreement. In addition, the calculation of damage in the DBCP misunderstands and thus misuses an industry standard method devised by Burland and others:
 - i) The configuration of the walls of the church and its hall (the school) does not conform to that required by the analytical method.
 - ii) In addition to this, the movements used for analysis are those calculated by an unreliable ground model, as noted above, confusing the issue even further.
 - iii) In short the predictions for damage are meaningless.
- g) Ground investigation bore hole BH 213 shows ten discrete zones of previous ground failure (shear) within a depth of 20m from ground level. BH213 has thus revealed a major geological structure on the margins of the excavations for the Pears Building that is of significant relevance to ground engineering. However, it has not been accounted for in terms of either its geological origins or their geotechnical implications for both design and construction of the works, and for the protection of neighbouring properties. This is a serious deficiency and undermines any claim to compliance with the Agreement.
- h) The Agreement (page 10) requires the appointment of an independent Basement Design Engineer; known as a ‘checking engineer’. For a project of this size, involving ground and structures of extreme sensitivity and with a history of movement, and with a client of the status of the Royal Free, this would normally involve the involvement of a senior engineer. This is supported by paragraph 6.128 of the Local Plan that requires that a suitably qualified engineer from "a recognised relevant professional body is engaged to monitor, inspect and approve the construction works.", as well as paragraph 3.37 to 3.39 of CPG4.
- i) Campbell Reith were expressly commissioned as this checking engineer and did table a report to the Council on or about 12th or 13th October. However it is not clear whether this was no more than confirmation that the DBCP had been submitted as required by the Agreement or a full and rigorous review of the design proposed and all other information provided leading to a formal endorsement

j) The former seems the most likely option since there is copious evidence that the rigorous scrutiny required in page 11 of the Agreement has been not been carried out. Indeed, it appears from the issues highlighted above that there are serious deficiencies in the proposals, explicable only as a result of absence of expert oversight from a senior engineer with a view of the whole project. There is no evidence that this situation will change for the better until such a senior engineer is appointed to provide this oversight.

k) Report of First Steps Ltd and Eldred Geotechnics – key points

- i) The DBCP does not meet the requirements of the Agreement. Scrutiny of the various sections of this document reveals repeatedly that the assurances offered are, at best, untrustworthy and, at worst, seriously wrong.
- ii) The DBCP fails to demonstrate that the risk of damage to neighbouring properties arising from ground response and groundwater flow will be limited to Burland Category 0.
- iii) There is little evidence of effective interface between data produced from the instrumentation that has been installed and the outputs on which predictions for damage have been made.
- iv) Many issues recorded in the question and answer section as “Closed”, i.e. by implication “Answered” are in fact not closed but have been passed on to another time or another person. This is most misleading for non-technical readers.
- v) There is no evidence of effective engineering oversight or scrutiny. It is alarming that the issues raised above remain unresolved at this late stage.
- vi) We recommend that an internationally recognised numerical analyst in geotechnical engineering familiar with the London Clay be asked to advise on whether the problems encountered with modelling can be resolved. Where they cannot be resolved, that analyst should be asked to recommend measures that should be taken during excavation and construction to safeguard the surrounding properties, and ensure compliance with the Agreement.

3) **Report of Stephenson Davenport Structural Associates Ltd.** This report represents an expert view on engineering aspects of the DBCP. The key points are set out below. Reference to the relevant paragraphs in the main reports are included (bracketed) but the report should be read in full in order to understand completely our concerns:

a) Missing information

- i) The draft DBCP included sections on Amelioration and Monitoring of Construction Traffic and a Pre-commencement Risk Schedule. They are removed from the current document without any reason being given (1.8, 4.2, 4.3)

- ii) The appendix on 'Appointments' contains no actual details of the appointments whatsoever. It is not clear what each of the members of the design team are doing and who is taking responsibility for the various elements (3.1.1 onwards)
 - iii) There is significant uncertainty detailed in paragraph 2i) above surrounding the role and function of Campbell Reith and whether they have formally endorsed the design. It is in any case an enduring concern that they have formally approved the document with so many technical issues unremarked and unresolved. (3.1.9, 4.4)
 - iv) There is no indication in the calculation sheets that demonstrate that the loading information from the contiguous wall has been taken on board. (3.5.6)
 - v) Concerns were raised previously about the contiguous piling information but these have not been taken into account and the information is still inadequate (3.6.5)
 - vi) The effect of the removal of the trees on the ground water levels has not been taken into account (3.8.2 and 3.13.3)
 - vii) There is no Vibration Prediction Model (3.10.9)
 - viii) There is no summary of the scope of the oversail of the cranes and whether or not this oversail will include St Stephens or the School (3.11.6)
 - ix) The Condition Survey on the Church, School Building and the site boundary wall that was undertaken by Ryan Bunce and Co does not include the timber School buildings. They ought to have been considered. (3.15.2)
- b) Specific concerns
- i) Compacting large amounts of backfill, with vibrating rollers, is not appropriate this close to masonry buildings of this age and type (3.10.8).
 - ii) The piling mat is shown to extend to well within 5 metres of the School. The implication is that a large (20m high) piling rig will be fully operational within 5 metres of the School. (3.10.10) The rig is the noisiest item of plant that will be used on site and generates 89dB at a 10 metre radius. The sketch attached as Appendix 4 shows the likely auditory impact within an approximate 10m "zone".
 - iii) The approved CMP includes proposed trigger levels for noise dust and vibration are all well above the ambient levels around the site at present (3.12.15 onwards).
 - iv) Turnaround times for vehicles entering and leaving the site (mostly from Pond Street) are optimistic and unlikely to be met, extending the programme and associated disruption far longer than the current programme anticipates. (3.12.13)
 - v) The traffic management programme is incorrect showing a programme time of 24 months when the main programme shows this as 30 months (3.12.4) and there are inconsistencies in the movements per work stage predictions (3.12.6). The turning circle for trucks is described as 'laughable' (3.12.10)
- c) General lack of project/design management

- i) There is still no detailed holistic design for the project and no evidence of an overall view of the design process. Many sections remain as a response to the requirements of the section 106 requirements rather than evidence of management (4.5).
 - ii) Information produced by way of soil investigation, ground modelling, etc. that has been suggested by the team of technical advisors advising the St Stephen's Trust has not in many instances been properly co-ordinated into the design. (5.2)
 - iii) There is no-one at Heyne Tillet Steele listed as having the high level of geotechnical experience that is required for an input on this project.(2.9.3)
 - iv) Noise, Dust and Vibration levels have been agreed by the Council as part of the process of approval of the Construction Management Plan (CMP). There has been no consultation on this document (3.12.3) The CMP is usually submitted as part of the completed DBCP or afterwards so that it can take account of it. The timing of this CMP means that it cannot take account of the findings in the DBCP(3.12.2)
- d) General lack of communication and engagement
- i) The positive start made earlier in the year by way of consultation between the Pear's building design team and the St Stephen's team of experts has not been maintained and there has been no meaningful consultation between those two groups in the critical three months in the final preparation of preparing the DBCP (4.7, 5.7)
 - ii) The spreadsheet in Appendix P headed "S106 Q&A Master Document" gives a misleading impression of the real situation. Many of the 97 items that were raised by the author in the previous report are deemed CLOSED, whereas many in fact are ongoing and still require further input (3.16.6)
 - iii) There is no clear line of communication between the owners of these buildings and the site in the event of any problems arising (3.14.6-9)
- e) Report of Stephenson Davenport: key points
- i) Whilst this document is an improvement on the January 2017 version, the design remains uncoordinated and appears to be driven by the need to comply with the 106 agreement rather than out of any overall project management approach (1.14)
 - ii) The information provided is described as "worryingly poor. The very crude approach in assembling the 'models' and the important exclusions in doing so, means that the outcomes are not realistic and therefore cannot be relied upon." (Summary p 2)
 - iii) Reporting proposals are "woefully inadequate" (3.14.6) and lack any emergency response measures (3.14.7);
 - iv) On the evidence contained in the DBCP it will be difficult, perhaps impossible, to continue the operation of St Stephens or the School. The DBCP does not demonstrate that the Royal Free Trust's proposals can be carried out without risk

to both the Church and the School. Indeed it is highly unlikely that the structures will comply with Burland Category 0 either during or after the works are completed.

4) **Concerns related to Construction Impacts**

- a) Impact of works so far. The disturbance created by the limited and localised work done so far has already had a significant impact on the operation of the school and severely compromised its ability to function effectively or at all.
 - i) Notes made by members of staff in June and July 2017 record noise and vibration from exploratory works outside on the operation of the school, difficulty closing gates and cupboards, and doors not locking;
 - ii) A note made on 31 July 2017 records a drop in the floor level and the emergence of a crack not seen before;
 - iii) Notes made by staff in September and October 2017 record noise, vibration, difficulties closing gates and doors and an emerging incline in the floor resulting in complaints from parents.
 - iv) All of these issues were brought to the immediate attention of the Royal Free. The response (from the Royal Free solicitors on 18th October) disputed the content of those reports and in terms of a substantive response provided only a 35 page report of noise levels together with assertions that all work done was within approved limits.
- b) Piling and its impact on the footpath and the School
 - i) The CMP forms Appendix L of the DBCP in the form that was submitted to and approved by the Council in July 2017. It refers to the closure of the footpath during construction on page 42. A series of drawings on pages 10, 11, 12 and 13 show stages 5 to 8 of the construction (Appendix K of the DBCP - WD Logistic Sequence) and there is a programme on page 21. This shows Stage 5 starting at the beginning of week 10 and stage 8 finishing in week 27 – a closure of 4 months.
 - ii) The CMP includes a series of drawings (15, 16, 17 and 18) produced by Robert West that clearly show that the piling mat encroaches on the footpath adjacent to the School. As recognised in sections 3.10 and 5.14 of the Stephenson Davenport Report piling will occur very close to the wall of the School which means that there will be a piling rig within 5 metres of the School buildings for 17 weeks.
 - iii) The position of the piling mat alone will compromise the school operation. In addition the piling rigs are arguably the noisiest items on site. In this case they are likely to be 20m in height with an output of 89dB 10 metres from where they are operational. The Arup report shows an average level of 59 dB in the path next to the School.

- iv) Appendix 4 attached to this document shows the likely impact of the noise on the school buildings. This needs to be managed on environmental/health and safety grounds alone and that at the very least an exclusion zone should be placed around the school for all machinery whilst the children are on site.
- c) Fire safety Appendix 5 shows the fire routes for the children and staff of Hampstead Hill School from the Church Hall, ancillary classrooms and St. Stephen's towards the assembly point which is the Hampstead Green footpath. Paragraph 5.14 of the Stephenson Davenport report is clear that the passageway is going to be blocked up for a 4 month period exactly where the children assemble in the event of a fire or fire drill (they are not allowed to assemble on the narrow pavement of Pond Street). No alternatives have been provided.

5) Concerns related to procedural issues –

- a) Consultation. The definition of the DBCP in the Agreement dated 25 April 2016 (“the 106 Agreement”) includes the following requirements (page 15 definition clause 2.16 (v)(a):
 - i) “evidence that the Owner has meaningfully and actively consulted local interested parties/local residents groups on the provisions of the plan prior to submission of the plan to the Council;”
 - ii) “a statement summarising all representations received by the Owner pursuant to the consultation with local interested parties;”
 - iii) “evidence that the Owner (in preparing the plan for submission to the Council) has taken account of any representations received.. and sought to address any issues raised”;
- b) In addition, there are a number of common law principles that apply to all consultations:
 - i) Consultation should occur when proposals are at a formative stage
 - ii) Consultations should give sufficient reasons for any proposal to permit intelligent consideration
 - iii) Consultations should allow adequate time for consideration and response;
- c) As a minimum we would expect compliance with this part of the 106 to include a clear list of who was consulted on the draft DBCP, a summary of their responses, and, importantly, how the concerns raised were taken into account in the submitted document.
- d) This would be consistent with the Government’s own consultation principles¹: “Take consultation responses into account when taking policy forward...Publish any response on the same page on gov.uk as the original consultation, and ensure it is clear when the government has responded to the consultation”
 - i) It would also be consistent with the Council’s general Statement of Community Involvement dated July 2016 states (para 3.27) that “*There is no statutory*

¹ <https://www.gov.uk/government/publications/consultation-principles-guidance>

requirement to consult local civic and amenity societies and residents' associations but we recognise that they are interested in applications in their area and are a continuing source of advice on planning and other applications."

and the Council's own practice, on its consultation hub, of recording what has been said and what the Council has done about it ².

- e) Part P of the DBCP purports to comply with the requirements of the S106 agreement. It includes a plan showing the area for letter drops, letters to residents, dates of consultations and meetings with the public, and of "Principals", details of technical meetings, summary of engagement with the local community including meetings and exhibitions, a copy of a Q&A Master Document, and a feedback document, selected emails with individuals, a copy of a consent for the installation of monitoring equipment, and several issues of "Community News".
- f) General concerns on Appendix P.
- i) Some pages are duplicated; this is confusing and misleading.
 - ii) Part P is supposed to comply with the requirement for a consultation on the basement proposals. Instead it records general public meetings and exhibitions, and both the 106 Q&A document and the Feedback summary refer to the development as a whole.
 - iii) Technical meetings are exactly that – meetings of professionals with advanced technical knowledge. They should not count as contributing to a public consultation.
 - iv) None of the following – all of which are in Part P – can legitimately be considered to be part of a public consultation or engagement exercise on the effect of the proposals on the basement.
 - (1) Emails on traffic management,
 - (2) Emails on the width of the public footpath
 - (3) Copies of listed building consents
 - (4) Correspondence in relation to a s247 Order.
 - v) Part P is in fact not a record of a consultation but a summary of all meetings, consultation and engagement, on all aspects of the scheme with a range of different people. It is simply wrong to present Part P a consultation exercise that is compliant with the 106 requirements
 - vi) It is extremely difficult to extract the basement-specific content from the general bundle but it appears that the only meeting with the public that appears to consider specifically the issue of the basement works was on 4th January 2017. This is neither meaningful nor sufficient. In fact, the only exercise that could be called a public consultation on the basement works is that carried out in January this year. The process was so deficient that the Royal Free eventually agreed an extension to the consultation period.

² https://consultations.wearecamden.org/we_asked_you_said/

- vii) St Stephens submitted its formal response to the DBCP consultation on 7th March but many of its concerns were either not taken into account at all or not responded to properly.
- g) Observations of Hampstead Green Neighbourhood Group
- i) The statement in paragraph 4 and map (Appendix 1) “illustrating where information was initially distributed within the local community prior to the main public meetings ...” Is incorrect and misleading, and exaggerates the extent of consultation with local residents.
 - ii) Initially the Charity only circulated information and invitations to the list of neighbours identified by LB Camden in response to the initial planning application. This effectively limited consultees to residences in Pond Street and Haverstock Hill that strictly border the hospital site and Hampstead Green as far as Ornan Road. The list did not include any properties in Hampstead Hill Gardens (one of the main streets affected by hospital visitor parking), Belsize Lane, Lyndhurst Road or Perceval Avenue.
 - iii) Of the “330 properties”, 76 are rooms in two hostels and a re-cycling point. Many addresses appear multiple times.
 - iv) The public meetings were mainly lengthy presentations about immunology and transplantation research.
 - v) The letter dated 4 April 2017 (p1,271) is headed: “II&T – the Pears Building Construction Management Plan, Meeting No 3, Working Group Meeting”. This appears to imply that there is a working group and that it has had meetings. It is listed as “Public Exhibition/Working Group”. There is no knowledge of the existence of any such group.
 - vi) It is misleading to describe everything in the Appendix as feedback from public consultation. All meetings were overwhelmingly attended by staff. The list of attendees for the 30 November 2016 meeting contains many duplicate names, implying far more local residents than were actually present. For example
 - (1) For the public meeting on 9 February 2017, only 12 out of 72 names are local residents. The remainder are mostly hospital and Charity staff.
 - (2) The feedback from the 9 February 2017 meeting includes 43 comments. Of the 35 complimentary comments 25 are from staff including Royal Free Charity staff.
- h) Observations made on behalf of Pond Street Residents
- i) There has been a failure to consult meaningfully with HGNG re protection of Pond Street properties by way of monitoring and surveys as referred to above
 - ii) The consultation that is referred to by the hospital are the meetings of principals that have taken place this year. In most cases the minutes were not supplied nor were they approved so they cannot be relied on as an accurate record.
 - iii) The meetings that did take place were largely occupied with an an update of how the redesign exercise was progressing.

- iv) The leaflets put out by the hospital are not evidence of consultation but simply promote a developer's view of the benefits of a new development. They did not answer the question of why this development had to be built on this site and not elsewhere on the hospital's estate.
- v) As lay people we do not have the ability to evaluate technical proposals on monitoring but the Royal Free only agreed to discuss payment at a very late stage.
- vi) The hospital's lack of co-operation has left insufficient time for discussions/engagement to reach meaningful conclusions.
- i) Definition of 'neighbouring properties' One of the developer's obligations in page 12 of the 106 agreement is to "prepare a detailed structural appraisal and condition survey of all the Neighbouring Properties to be undertaken by an independent suitably qualified and experienced chartered surveyor." Although 'Neighbouring Properties' is defined in the Agreement, it is not clear what this means in terms of actual properties consulted. Despite a number of requests made to both the Royal Free and the Council for clarification of the meaning of this term in a practical sense the meaning of this term, and the work carried out to satisfy this requirement, has not been clarified or confirmed. Despite assurances that this would be dealt with as part of the DBCP submission part P of the DBCP does not clarify what was understood by the term, except for
 - i) Item 44 in the S106 Q&A document referring to St Stephens Church and Hampstead Hill School only
 - ii) An email dated 22 August referring to condition surveys at 7,9, 13,17, 17A, 19 and 21 Pond Street
- j) Lack of 'active and meaningful' engagement. As set out above, part of any consultation exercise is careful recording of responses received and the production of a formal reaction to those responses, showing how they have been taken into account. Neither of these crucial elements of a consultation exercise has been demonstrated here. The Stephenson Davenport report is highly critical of the lack of engagement in a number of different areas as detailed above. In the absence of key information it is difficult to assess how genuine and sincere the supposed consultation has been.
- k) 106 Q&A Master document
 - i) The most recent version of this document was received on 16th May. However the version in the DBCP is dated 5 October. It would be useful to have regular updates on the status of this document
 - ii) The Stephenson Davenport Report lists at section 3.16 general concern about this document and at 3.16.8 a number of specific issues that have been closed without being resolved.
 - iii) The joint report by Eldred Geotechnics and First Steps Ltd also mentions (S1.0 and 1.8) that the table is misleading as it implies that questions already asked

about this basement have been answered when they have not been – possibly in some cases because the issues raised are “not capable of being delivered”.

iv) In addition

- (1) Item 21 refers to a communications strategy but we are not aware that any such strategy is in place
- (2) Item 57 appears to challenge the validity of the Burland classification imposed
- (3) Item 71 proposes fortnightly email updates "to those with legitimate interest of the results" but this has not been put in place
- (4) Items 250-253 are listed as closed but there is no record that the questions have been answered

l) Costs

- i) Although not a comment on the substance of the document itself, we believe that the way in which costs have been dealt with are relevant because they are a valid signifier of the Royal Free's general approach to St Stephens and interaction with the community generally and also because it is an issue that should be dealt with in the MOU.
- ii) There has been little or no clarity from Royal Free as to which costs will and will not be paid and commitments to pay have not been met.
 - (1) in emails dated 10th and 31 March 2017 Mr Owens advised Mr Taylor that the costs of excavating a trial pit would be met by the Council.
 - (a) In an email dated 8 May 2017 Mr Owens further stated in relation to the attendance of consultants at meetings that “it is recommended you pay them directly then seek to recover reimbursement from the Royal Free Charity. It may be more appropriate to seek to recover monies specific to attendance at technical meetings on a meeting –by-meeting basis.”
 - (2) In an email dated 11 May 2017 relating to boreholes and trail pits Mr Owens further confirmed that “the Charity will reimburse SSRPT for having this work carried out”
 - (3) On 25 August 2017 Invoices 647 and 648, both dated 22nd August were handed to Mr Owens. Each one was accompanied by copies of the (paid) invoices to which they related. Neither has been paid
- iii) The design has already benefitted from the technical input provided by the neighbour’s team of experts where constructive meetings have resolved issues of concern and added to the general understanding of how best to work with the ground on site including:
 - (1) Requirements for the provision of a ‘ground model’ of the site summarising geology, water flows etc of the Pears Building and surrounding areas;
 - (2) Requesting a significant number of extra boreholes;
 - (3) Generating a proposal taken up with OGI Groundwater Specialists who undertook this work.

- iv) The input from the St Stephen's technical team has required the Pear's building team to justifiably carry out a far more detailed investigation by way of ground investigation, modelling, etc. than would normally be required of a third party. This has added a very significant amount of new information in terms of the geology and the impact of the works on St Stephen's and the School and the adjoining properties. This has been critical in moving towards getting a better understanding of the ground conditions. The strategic thinking on all of this has come from the St Stephen's team rather than the Royal Free. Where they have been excluded from discussions and meetings the process of completing the DBCP properly has been compromised.
- v) St Stephens is a charity with limited resources and a fluctuating cash flow. The costs of what is in effect an engineering and project management scrutiny function are being borne by St Stephens alone.
- vi) By delaying or refusing payment in this way the Royal Free is prejudicing St Stephens ability to participate in the development process. It is simply inequitable that the Royal Free should benefit from this work without paying anything towards the cost of it, particularly when they have promised to do so.

6) **Conclusion**

- a) Part P does not meet the requirements of the 106 nor does it comply with the common law principles relating to consultation.
- b) On the evidence supplied the development proposed will have an impact beyond that of 0 on the Burland Scale and make the operation of St Stephens and the School so difficult that they are forced to close
- c) There is no evidence of effective engineering oversight or efficient and comprehensive management of the project. The Council will be acting irrationally and unreasonably to accept that it does.
- d) If the Council does approve the DBCP we ask that this approval is made conditional on arrangements put in place based on the attached Memorandum of Understanding

Appendix 1 Memorandum of Understanding

Between:

- The RFHCT represented by XXX (ideally a senior engineer)
- Local Residents, St Stephens Trust and Hampstead Hill School represented by (ideally the St Stephens technical team who submitted the attached reports)

Relating to the development of an extension to the Royal Free Hospital (the Development)

Need for the agreement

- The scheme is large in scale and construction will be a long process;
- The scheme includes some specific elements so that it requires unusual levels of care and attention:
 - There is a large area of influence including existing buildings at St Stephen's Church, Hampstead Hill School and the properties of Pond St and Rowland Hill St ;
 - Many of these existing buildings have been cracked by previous ground movement that occurred in association with ground work at the RFH site;
 - The ground itself, which slopes, is now proven to contain failure surfaces and flowing ground water within it and easily transmits ground borne vibration;
 - The detailed structure of the ground and the nature of its ground water outside the footprint of the works yet to be included within the numerical model of the RFHCT and its framework of instrumentation for the work is insufficiently known.
- Monitoring systems have been installed but if they are to be effective as an integral part of the "observational method" of engineering, there must be an effective interface between a team who know these structures better than the teams from the RFHCT and who will be acutely aware of the implications of movement measured on and near them for their stability and that of the surrounding ground;
- There is no value in providing neighbours with data the value of which they cannot know – it is professionally disingenuous for example, to respond to complaints of noise and vibration with 35 pages of noise readings. This sort of response illustrates perfectly the professional need and engineering necessity for this MOU

Purpose of the Agreement

- To provide a single conduit of information coming in from the contractors and the Royal Free to the people and businesses most affected by the development;
- To provide a single conduit for representations to be made to the contractors and the royal free from those most affected by the development;
- To provide an expert interface so that members of the community are able to understand the meaning of the data produced
- To reassure the Council that the scheme is compliant with the requirements in the 106 Agreement and planning conditions and that the development is being carried forward with effective engagement and engineering oversight

Agreement by the Royal Free

- To provide relevant contact details of individuals with a close working knowledge of the project who are in direct contact with work on the ground including phone numbers for evening/weekend issues
- To provide a weekly update including access to relevant documents on
 - a) Construction programme
 - b) Construction management plan
 - c) Construction meetings
- To ensure that monitoring data is made available and accessible in real time for
 - a) Noise
 - b) Air quality
 - c) Water levels and pressure
 - d) Ground movements
 - e) Building movements
- To pay for the costs of consultants providing the 'expert interface' and scrutiny function within 28 days of receipt of an invoice
- To be professional at all times

Agreement by St Stephens Trust and Hampstead Hill School and local community

- To make all representations relating to the construction to the nominated representative for the work and by no other means
- To organise regular meetings (monthly or more as required) with the engineering team, and representatives from the Council to summarise concerns and identify outstanding issues
- To submit regular invoices clearly stating what is being charged and why
- To be professional at all times