

28 Redington Road,
London NW3 7RB

Basement Impact Assessment
Audit

For
London Borough of Camden

Project Number: 12336-98
Revision: D1

Date: September 2016

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1.0 NON-TECHNICAL SUMMARY

- 1.1. CampbellReith was instructed by London Borough of Camden, (LBC) to carry out an audit on the Basement Impact Assessment submitted as part of the Planning Submission documentation for 28 Redington Road (planning reference 2016/2997/P). The basement is considered to fall within Category B as defined by the Terms of Reference.
- 1.2. The Audit reviewed the Basement Impact Assessment for potential impact on land stability and local ground and surface water conditions arising from basement development in accordance with LBC's policies and technical procedures.
- 1.3. CampbellReith was able to access LBC's Planning Portal and gain access to the latest revision of submitted documentation and reviewed it against an agreed audit check list.
- 1.4. This BIA has been carried out by MM with separate reports for groundwater and seismic cone penetration testing being prepared by third parties. The qualifications of the authors of the reports have not been identified. These should be provided to confirm that they comply with CPG4.
- 1.5. It is intended to demolish the existing property and replace it with a six storey structure with a basement. Proposals for the demolition of the existing building have been opposed by residents and three technical reports have been prepared on their behalf. These are considered in this audit report alongside the BIA.
- 1.6. As described above, the basement proposals shown in architect's drawings and described in the BIA are contradictory and clarification is required.
- 1.7. The screening exercise identified a number of potential impacts as unknown, however, these were not taken through the scoping and investigation stages. This process should be completed and any potential impacts assessed.
- 1.8. A ground investigation was carried out, however, no interpretation has been provided to inform the design of the basement and superstructure. It should be demonstrated that the investigation has correctly identified the groundwater regime.
- 1.9. Surface water drainage calculations identify the need for the attenuation of surface water flow from the site. Further information is now required to show how and where this might be accommodated. It is recommended that a CCTV survey to assess the existing lines, their condition and their suitability for the proposed works will be also required.
- 1.10. There are numerous properties within the vicinity of No. 28 Redington Road with basements. One of these is No. 26 Redington Road where planning permission has been granted to lower

an existing basement level in 2013. Consideration must be given to the localised and cumulative impacts of the basement proposals on groundwater flows.

- 1.11. No structural calculations and drawings have been presented within the BIA. The BIA should contain outline information relating to the sequence of construction, the form of the temporary and permanent works, and the stability and nature of retaining walls and slabs so that the feasibility of the proposals is demonstrated. Ground floor sections and details along the site boundaries will also need to be submitted to demonstrate how stability will be maintained. Proposals should include dewatering and a consideration of its impacts.
- 1.12. It has not been demonstrated that the ground movements around the excavation will be controlled to avoid imposing damage to the neighbouring properties. Once the form and sequence of construction are determined, a ground movement assessment should be carried out with building damage assessments prepared for all potentially affected structures. The control of the ground movement is also dependent on a monitoring regime which needs to be implemented. Outline proposals should be provided.
- 1.13. With reference to Dr. M. H. de Freitas' report (p. 8) it is accepted that there are potential slope stability concerns to the proposed development. This does not comply with LBC development policy documentation and as such the developer will be required to demonstrate this to the contrary. The presence of nearby spring lines and near surface water is also to be confirmed.
- 1.14. The proposed basement footprint will be kept outside the root area of existing mature trees and access/unloading of plant and materials during construction will be planned as not to impact on any of these. Mitigation measures for this should be in place and included within the Construction Management Plan prepared by the Contractor prior to tender.
- 1.15. An indicative construction programme is required.
- 1.16. Queries and requests for further information are discussed in Section 4 and summarised in Appendix 2.

2.0 INTRODUCTION

2.1. CampbellReith was instructed by London Borough of Camden (LBC) on 23rd August 2016 to carry out a Category B Audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for 28 Redington Road, London NW3 7RB, planning reference 2016/2997/P.

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.

2.3. A BIA is required for all planning applications with basements in Camden in general accordance with policies and technical procedures contained within

- Guidance for Subterranean Development (GSD). Issue 01. November 2010. Ove Arup & Partners.
- Camden Planning Guidance (CPG) 4: Basements and Lightwells.
- Camden Development Policy (DP) 27: Basements and Lightwells.
- Camden Development Policy (DP) 23: Water.

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.

2.5. LBC's Audit Instruction described the planning proposal as *"Erection of a 4 storey plus basement building (with accommodation at 4th floor level within the roof) to provide 8 flats (1x1 bed, 5x2 bed, 1x3 bed and 1x4 bed) including front balcony and rear roof terraces, hard and soft landscaping and 7 basement car parking spaces with car lift, following demolition of the existing building (Class C3)".* The Audit Instruction also confirmed that the building itself is not listed. The nearest listed building to the site is No. 16 Redington Road.

2.6. CampbellReith accessed LBC's Planning Portal on 29th August 2016 and gained access to the following relevant documents for audit purposes:

- Basement Impact Assessment (BIA, July 2016, rev: E) incorporating Geotechnical and Geo-environmental Desk Study, Factual Report on Ground Investigation and Ground Investigation Report.
- Surface Water Drainage Calculations and Surface Water Pro Forma.
- Jo Cowen Architects Planning Application Drawings consisting of
 - Location plan
 - Existing plans, elevations and sections
 - Proposed plans, elevations and sections
- Camden BIA Audit Form Part ABC.

2.7. A number of consultation comments were provided to CampbellReith by Camden on 5th September 2016. These included three technical reports prepared on behalf of neighbours which are considered in this audit. The remaining consultation responses generally echo the issues raised in those technical reports. The consultation responses provided by Camden are detailed in Appendix and the technical reports are listed below:

- First Steps Report for 28 Redington Road by Dr M. H. de Freitas (August 2016), commissioned by No 26 Redington Road.
- Eldred Geotechnics Ltd. reviews of planning application 2016/2997/P to Camden Council with respect to 26 Redington Road and 30 Redington Road and Camden development policy DP27 (August 2016), commissioned by 26 and 30 Redington Road.

3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	No	The qualifications of the BIA authors have not been identified.
Is data required by Cl.233 of the GSD presented?	No	Proposal not sufficiently detailed. Contradictory information presented.
Does the description of the proposed development include all aspects of temporary and permanent works which might impact upon geology, hydrogeology and hydrology?	No	Proposal not sufficiently detailed. Contradictory information presented.
Are suitable plan/maps included?	Yes	Relevant plans and extracts are contained within BIA.
Do the plans/maps show the whole of the relevant area of study and do they show it in sufficient detail?	Yes	
Land Stability Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	Refer to table 2.2 of the BIA.
Hydrogeology Screening Have appropriate data sources been consulted? Is justification provided for 'No' answers?	No	Refer to table 2.1 of the BIA. Q4 not answered (and subsequent question numbering incorrect) but this question is answered in respect of surface water.
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	Refer to table 2.3 of the BIA.
Is a conceptual model presented?	Yes	Ground conditions are described in section 4 of Appendix D (Ground Investigation Report) of the BIA report.
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	No	Considers ground investigation only.

Item	Yes/No/NA	Comment
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	Yes	Scoping has been carried out and focus of ground investigation described.
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	No	Scoping considers ground investigation only.
Is factual ground investigation data provided?	Yes	A ground investigation has been incorporated in Appendix C of the BIA.
Is monitoring data presented?	Yes	Monitoring results and records have been provided within Appendix C of ESG Factual Report. This is incorporated in Appendix C of the BIA.
Is the ground investigation informed by a desk study?	Yes	Refer to Appendix A of the BIA.
Has a site walkover been undertaken?	Yes	See above.
Is the presence/absence of adjacent or nearby basements confirmed?	No	No investigation of the existing foundations to the neighbouring properties has been carried out. Camden Council confirmed to CampbellReith locations of neighbouring basements (granted planning permission) around 28 Redington Road. A copy of this is included in this document.
Is a geotechnical interpretation presented?	No	Further information required. Refer to section 4 (Discussion) of this document for details.
Does the geotechnical interpretation include information on retaining wall design?	No	No critical design parameters for the retaining wall design have been presented / tabulated. Further information required. Refer to section 4 (Discussion) of this document.
Are reports on other investigations required by screening and scoping presented?	No	Screening suggests potential impacts related to slopes and neighbouring foundations – not investigated further.
Are the baseline conditions described, based on the GSD?	Yes	Refer to section 2 of the BIA.

Item	Yes/No/NA	Comment
Do the base line conditions consider adjacent or nearby basements?	No	No information on neighbouring building foundations has been presented.
Is an Impact Assessment provided?	Yes	However, this does not comply with the requirements of CPG4.
Are estimates of ground movement and structural impact presented?	No	Report discussing potential movements arising from piling, excavation and short and long term heave movements etc. will be required with subsequent damage assessment. Analysis software input and output with design assumptions need to be included.
Is the Impact Assessment appropriate to the matters identified by screen and scoping?	No	
Has the need for mitigation been considered and are appropriate mitigation methods incorporated in the scheme?	No	Some mitigation is described but it is brief and generic. Further detail is required once impact assessment completed.
Has the need for monitoring during construction been considered?	No	Details of monitoring and trigger levels for contingency actions during construction are required.
Have the residual (after mitigation) impacts been clearly identified?	No	Further information is required.
Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure will be maintained?	No	Further information is required.
Has the scheme avoided adversely affecting drainage and run-off or causing other damage to the water environment?	No	Design proposals and details to be submitted.
Has the scheme avoided cumulative impacts upon structural stability or the water environment in the local area?	No	Further information is required.
Does report state that damage to surrounding buildings will be no worse than Burland Category 2?	No	

Item	Yes/No/NA	Comment
Are non-technical summaries provided?	No	

4.0 DISCUSSION

- 4.1. This BIA has been carried out by Mott Macdonald with separate reports for ground investigation and seismic cone penetration testing being prepared by Environmental Scientifics Group Ltd (ESG). The qualifications of the authors of the reports have not been identified. These should be provided to ensure that they comply with CPG4 requirements.
- 4.2. CampbellReith was provided with a number of objectors comments including three technical reports as described in Section 2. These consultation responses have been reviewed and the issues raised considered. A list of the most relevant Residents' Consultation Comments is attached in Appendix 1 of this document.
- 4.3. The proposed development comprises of the demolition of an existing 4 storey building to construct a new 6 storey residential development with a single storey rear extension. The architect's drawings appear to show the level of the rear garden is being reduced with the basement having two levels at the rear and one at the front. However, the BIA states that the maximum basement depth might be as much as 12m.
- 4.4. Although no structural drawings (including construction sequence and temporary works) have been submitted, it is understood that current proposals allow for the footprint of the new structure to be extended significantly into the rear garden with a new perimeter retaining secant piled wall to form the basement. It should be noted that MM's proposal for secant piled wall is contradicted by the information provided by the architect whose drawings appear to show a reinforced concrete retaining wall. An objection raised by Mr M Eldred in relation to No 26 Redington Road refers to a party wall being demolished. Works are to be clarified and a construction methodology provided that secures the stability of the boundary is to be provided.
- 4.5. The screening exercise omits Q4 of the hydrogeology section, although it is acknowledged that this question is answered in respect of hydrology. The answer to a number of questions is given as "unknown" including the angle of surrounding slopes, the differential depths between proposed and adjacent foundations, and the potential for changed to inflows received by adjacent properties. This last question in particular appears not to have been understood.
- 4.6. The scoping section of the BIA only considers a ground investigation to establish the groundwater and the sequence of strata. No other investigations are considered despite the number of unknowns identified by the screening exercise.
- 4.7. Trial pits and boreholes have been undertaken to the front and rear of the property to confirm existing ground conditions, ascertain soil design parameters and record groundwater levels for the substructure design. The ground investigation comprised 7No. boreholes to a maximum depth of 20m, 2No. inspection pits and cone penetration testing to a depth of 20m. A site plan

illustrating locations of the above and logs of the investigation holes has been included in the BIA report.

- 4.8. The investigations have identified that the site is underlain by Topsoil and Made Ground to a depth of up to 1.45mbgl below which lies an approximate 4.55m thick layer of Bagshot Formation (to 6.00mbgl). London Clay was recorded from approx. 6.00mbgl to the base of the exploratory holes at a maximum of 20mbgl, however, some variation was noted in the nature of the Superficial Deposits and the depth to the surface of the London Clay. The site investigation did not record existing foundations to adjacent buildings. Where possible, these should be provided to confirm that the extent of the proposed development will have no impact on the structural stability of the adjoining buildings. Alternatively conservative assumptions should be made and the potential impacts assessed.
- 4.9. Groundwater was encountered during the investigations at a minimum level of approx. 6.90mbgl (BH4). Standpipes were installed in boreholes 4 and 5. Based on monitoring results (submitted within Appendix C of the ESG report) further groundwater readings have been noted at a minimum level of 5.79mbgl in BH4 and 4.78mbgl in BH5. Dr de Freitas notes that the standpipes response zones straddle more than one stratum and postulates that there are successive water tables. Groundwater assumptions made in the design of the temporary and permanent works must be clearly stated, accompanied by a description of suitable mitigation measures.
- 4.10. As part of the site investigation works, geotechnical testing has been also carried out. Limited information has been presented within the BIA report and further information is required on critical soil parameters for the retaining wall design, excavation and the potential short and long term ground movements.
- 4.11. The BIA confirms that the proposed site is not within an area at risk of flooding from surface water. It can be assumed that the existing site is served by two combined sewers, one running through the northern area of the site and one along the centre of Redington Road. Surface water drainage calculations and the surface water pro forma are presented and identify the need for attenuation of surface water flow from the site. However, the technique to achieve this and the relevant below ground drainage strategy, drawings and details have not been submitted. It is recommended that MM also commission a CCTV survey to assess existing drainage lines, their condition and suitability for the proposed works.
- 4.12. As noted in Figure 1, there are numerous properties within the vicinity of No. 28 Redington Road that have an existing basement. One of these is No. 26 Redington Road where planning permission was granted to lower an existing basement level further. The scheme was consented in 2013 and it is understood that construction works should have been now completed. There are another 9 properties close to site with completed single storey basements.

24 Redington Grds:
"Demolition of existing dwelling house and the erection of a replacement dwelling house, including the excavation of the basement and associated hard and soft landscaping" (plan. ref: 2016/1015/P)

25 & 26 Redington Grds:
"Demolition of two existing dwellings and erection of two semi-detached dwellings including the excavation for a basement" (plan ref: 2015/3200/P)

20 Heath Drive: "Excavation of basement in connection with the construction of a swimming pool" (plan ref: 9500706)

39 Redington Road: "Excavation of enlarged basement area with 3 rooflights over at ground floor level on the south side of the building and new windows and doors in rear elevation at basement level all in connection with the existing single-family dwellinghouse (Class C3)" (plan. Ref: 2008/2027/P)

22 Redington Road: "Excavation of a basement level to create additional ancillary floorspace for the single family dwellinghouse". (plan. ref: 2005/0876/P)

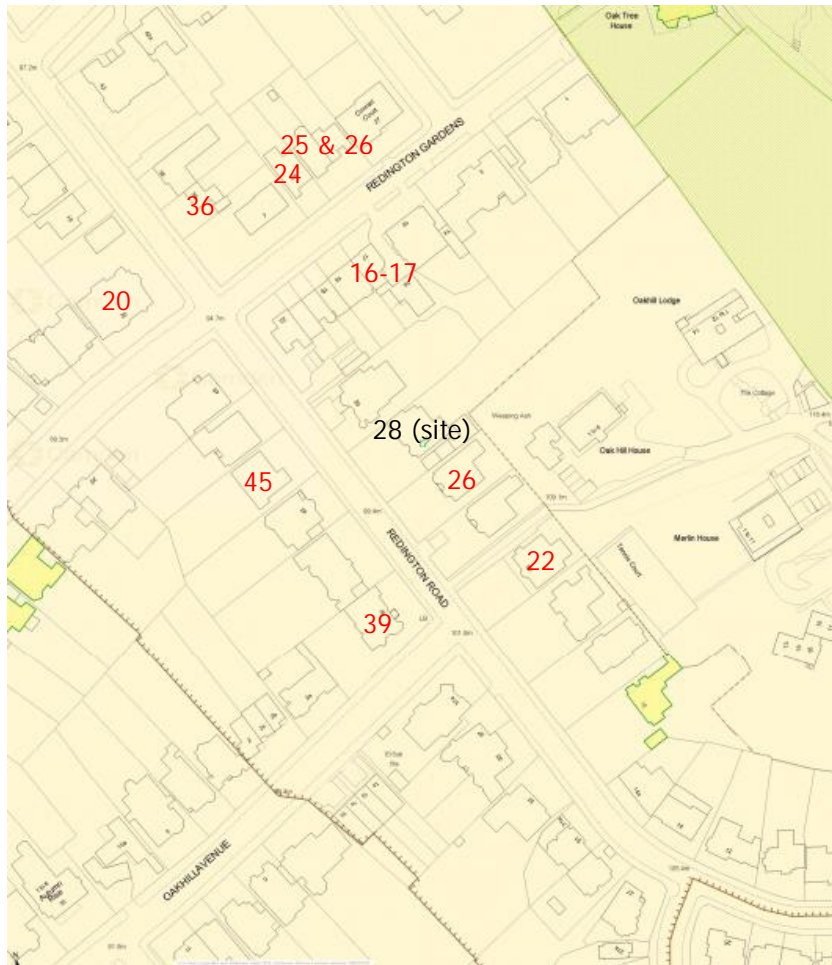


Figure 1 – Extract from "Map of basements granted PP around 28 Redington Road" (Camden Council)

16-17 Redington Gardens:
"Erection of 2 storey dwellinghouse with attic and basement levels (following demolition of two single-family dwellinghouses), associated landscaping and installation of enclosed climate control (or air conditioning) unit in rear garden. (planning ref: 2012/4813/P)

45 Redington Road: "Change of use from 4 x self-contained flats to single-family dwelling house, plus excavation to enlarge existing basement area." (plan. ref: 2004/2735/P)

36 Redington Road:
"Erection of 3-storey including basement 4-bed house, front and rear lightwell and associated landscaping following demolition of existing dwelling." (planning ref: 2015/3004/P)

26 Redington Road:
"Erection of first floor rear extension and ground floor infill extensions to north-east side, alterations to rear, front, north east and south west elevations, lowering existing basement level and excavation of front garden associated with new steps and new front basement windows to single dwellinghouse (Class C3)" (plan. ref: 2013/5996/P)

- 4.13. With reference to Dr. M. H. de Freitas' report, "impounding of groundwater can be expected on the boundary between Nos. 26 and 30 with some rise in water level resulting. The diversion of groundwater around the basement of No. 28 would discharge in a concentrated flow near the entrance of No. 30." It is accepted that this is a possible scenario and the developer should demonstrate the absence of an impact or describe suitable mitigation measures. As well as local effects, the cumulative effect on groundwater flows must be considered. The presence of nearby spring lines and near surface water is also to be confirmed.
- 4.14. A large part of the site is currently landscaped garden containing large trees. Mature trees are present to the front and the rear of the property and along the boundary with No. 30 Redington Road. Some of these have Tree Prevention Orders (TPOs). It is understood that all of these will be retained and the basement footprint will be kept outside their root area so as to avoid any damage. Furthermore, it is necessary that access/unloading of plant and materials during

construction does not an impact on any of these and mitigation measures (to ensure that the construction of the basement will have minimal impact on trees) should be in place and included within Construction Management Plan prepared by the Contractor prior to tender.

- 4.15. For the temporary and permanent works designs, outline drawings and calculations are required to confirm the assumptions made with respect to soils and groundwater. A construction methodology and sequence are required to demonstrate that the basement proposals are feasible. The retaining walls and basement will have to be designed to resist hydrostatic forces and the basement as a whole checked against any net uplift. Temporary stability of the excavation also requires consideration as well as the possible need for and impacts from dewatering. The information recorded within the site investigation report should be incorporated within these calculations and typical retaining wall and slab structural sections provided. Details along the site boundaries need to be carefully considered and added.
- 4.16. Horizontal deflection to the perimeter of the basement void needs to be limited in both the temporary and permanent conditions. An indicative temporary and permanent works scheme is required to demonstrate proposed restraints to the perimeter piled secant walls to keep movements within allowable limits. MM have not discussed ground movement and building damage in their BIA report and have not demonstrated that resulting ground movements around the excavation can be controlled without imposing damage to the adjacent properties. A ground movement assessment is required once the construction methodology has been determined. Building damage assessments are required for any potentially affected buildings. Outline monitoring proposals are also required.
- 4.17. It is reported that the residents of No. 30 Redington Road experienced problems with groundwater ingress in 2010 and had the premises tanked. Any proposal to address a design solution for No. 28 Redington Road will also have to address and prevent movements which will result in damaging the seal of this tanking.
- 4.18. Dr. de Freitas indicates there are slope stability concerns regarding the proposed development and the BIA has not ascertained the nature of any slopes in the adjacent properties. This requires further investigation and assessment, together with appropriate mitigation measures where necessary.
- 4.19. A works programme should be provided.

5.0 CONCLUSIONS

- 5.1. This BIA has been carried out by MM with separate reports for groundwater and seismic cone penetration testing being prepared by third parties. The qualifications of the authors of the reports have not been identified. These should be provided to confirm that they comply with CPG4.
- 5.2. It is intended to demolish the existing property and replace it with a six storey structure with a basement. Proposals for the demolition of the existing building have been opposed by residents and three technical reports have been prepared on their behalf. These are considered in this audit report alongside the BIA.
- 5.3. As described above, the basement proposals shown in architect's drawings and described in the BIA are contradictory and clarification is required.
- 5.4. The screening exercise identified a number of potential impacts as unknown, however, these were not taken through the scoping and investigation stages. This process should be completed and any potential impacts assessed.
- 5.5. A ground investigation was carried out, however, no interpretation has been provided to inform the design of the basement and superstructure. It should be demonstrated that the investigation has correctly identified the groundwater regime.
- 5.6. Surface water drainage calculations identify the need for the attenuation of surface water flow from the site. Further information is now required to show how and where this might be accommodated. It is recommended that a CCTV survey to assess the existing lines, their condition and their suitability for the proposed works will be also required.
- 5.7. There are numerous properties within the vicinity of No. 28 Redington Road with basements. One of these is No. 26 Redington Road where planning permission has been granted to lower an existing basement level in 2013. Consideration must be given to the localised and cumulative impacts of the basement proposals on groundwater flows.
- 5.8. No structural calculations and drawings have been presented within the BIA. The BIA should contain outline information relating to the sequence of construction, the form of the temporary and permanent works, and the stability and nature of retaining walls and slabs so that the feasibility of the proposals is demonstrated. Ground floor sections and details along the site boundaries will also need to be submitted to demonstrate how stability will be maintained. Proposals should include dewatering and a consideration of its impacts.
- 5.9. It has not been demonstrated that the ground movements around the excavation will be controlled to avoid imposing damage to the neighbouring properties. Once the form and

sequence of construction are determined, a ground movement assessment should be carried out with building damage assessments prepared for all potentially affected structures. The control of the ground movement is also dependent on a monitoring regime which needs to be implemented. Outline proposals should be provided.

- 5.10. With reference to Dr. M. H. de Freitas' report (p. 8) it is accepted that there are potential slope stability concerns to the proposed development. This does not comply with LBC development policy documentation and as such the developer will be required to demonstrate this to the contrary. The presence of nearby spring lines and near surface water is also to be confirmed.
- 5.11. The proposed basement footprint will be kept outside the root area of existing mature trees and access/unloading of plant and materials during construction will be planned as not to impact on any of these. Mitigation measures for this should be in place and included within the Construction Management Plan prepared by the Contractor prior to tender.
- 5.12. An indicative construction programme is required.

Appendix 1: Residents' Consultation Comments

Residents' Consultation Comments

Surname	Address	Date	Issues raised	Response
Eldred Geotechnics Ltd Review of planning application 2016/2997/P to Camden Council with respect to 30 Redington Road and Camden development Policy DP27.	Consulting Engineers 11A Woodside, Chelsfield, Orpington, Kent, BR6 6RJ.	30.08.16	-Application documents of 2016/2997/P do not satisfy the specific policy requirements. -Outbuildings and external areas to No. 30 Redington Road at risk of being damaged from the proposed works. -Risk of flooding from incomplete surface water drainage assessment and lack of details regarding attenuation. -Inadequate information and interpretation of ground and groundwater conditions places unacceptable risk of damage by subsidence and/or groundwater flood to No. 30 Redington Road.	Refer to audit Section 4
Eldred Geotechnics Ltd Review of planning application 2016/2997/P to Camden Council with respect to 26 Redington Road and Camden development Policy DP27.	Consulting Engineers 11A Woodside, Chelsfield, Orpington, Kent, BR6 6RJ.	30.08.16	-Application documents of 2016/2997/P do not satisfy the specific policy requirements. -No. 26 Redington Road at high risk of being damaged from the proposed works. -Option for retaining wall shown in architects drawings considered as unacceptable design solution to proposed scheme. -Potential changes to groundwater regime	Refer to audit Section 4

			not considered.	
First Steps Ltd	Consulting Engineers Unit 17, Hurlingham Studios, Ranelagh Gardens, London, SW6 3PA.	27.08.16	<ul style="list-style-type: none"> - Ground stability concerns. - Understanding of groundwater regime lacking. - Impact of secant piled wall to site's hydrogeology not considered. - Comments on BIA slope stability assessment and various comments on BIA submission. 	Refer to audit Section 4
Redington Frogna Neighbourhood Forum		30.08.16	<p>Numerous concerns were raised over adequacy of BIA including:</p> <ul style="list-style-type: none"> • Qualifications of authors ? • No damage assessment • No engineering calculations • No assessment of cumulative impacts • Lost river 	Refer to audit Section 4
Ashmount Management Company	30 Redington Road, Hampstead, London, NW3 7RB.	31.08.16	Echoes concerns raised by Eldred and First Steps.	Refer to audit Section 4
Zimmerman	26 Redington Road	31.08.16	Echoes concerns raised by Eldred and First Steps.	Refer to audit Section 4

Scheinmann Conway Corners Panayiotou Sanai Bharwani McDouagh Aleskseev	Various	Various	Echoes concerns raised by Eldred and First Steps.	Refer to audit Section 4
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Appendix 2: Audit Query Tracker

Audit Query Tracker

Query No	Subject	Query	Status	Date closed out
1	General / BIA	Author details and qualifications for the relevant sections of the BIA to be provided to confirm they are in accordance with CPG4. Refer to section 4.1 of this document.	Open – to be provided.	
2	General/BIA	Screening, scoping and investigation to be completed. Refer to section 4.5 of this document.	Open – scoping to consider all potential impacts and necessary investigation to be completed.	
3	General / BIA	Works programme not included. Refer to sections 4.19 of this document.	Open – Outline works duration to be provided.	
4	Stability	Structural proposals for the construction of basement to be submitted. Design information and structural proposals for the remaining sub- and superstructure to be confirmed. Refer to sections 4.3, 4.4 and 4.15 of this document.	Open – Ensure basement proposals consistent between documents. Provide structural drawings and calculations for the permanent and temporary works showing proposed construction sequence, dewatering and monitoring assumptions regarding adjacent buildings foundations and critical soil design parameters to be provided. Analysis input, output and design assumptions to be provided.	
5	Stability	Ground movement assessment required with building damage assessments for all potentially affected structures. Refer to sections 4.16 and 4.17 pf this document.	Open	
6	Stability	Concerns to the stability of a side wall adjoining No 26 Redington Road. Refer to Eldred report on impact to No 26.	Open – action to secure wall required.	
7	Stability	Slope stability concerns regarding the proposed development. Refer to section 4.18 of this document.	Open – to be provided.	

8	Groundwater	Details of groundwater will be controlled and stability will be maintained during construction need to be submitted.	Open – to be provided.	
9	Groundwater	Consider the presence of neighbouring basement and the presence of nearby spring lines and near surface water is also to be confirmed. Local and cumulative effects of basement to be assessed. Refer to sections 4.13 of this document.	Open	
10	Surface water	Technique (SUDS etc.) for attenuation of surface water from site and below ground drainage design information required. Refer to section 4.11 of this document.	Open – commission CCTV survey. Provide relevant below drainage strategy, drawings and details.	

Appendix 3: Supplementary Supporting Documents

None

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