

28 Redington Road,
London NW3 7RB

Basement Impact Assessment
Audit

For
London Borough of Camden

Project Number: 13398-09

Revision: F1

June 2020

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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, London NW3 7RB (planning reference 2019/6407/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 (BIA) 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. The BIA has been prepared by Symmetrys Structural Engineers with supporting information provided by Socotec UK Ltd and Card Geotechnics Ltd. The qualifications of the authors of the reports are in accordance with LBC guidance.
- 1.5. The existing building is of brick construction with accommodation arranged over four floors, including lower ground. The proposed development involves extending the property and lowering the lower ground floor level by 0.4m.
- 1.6. The proposed development involves new retaining walls to be constructed by underpinning methodologies.
- 1.7. The BIA includes the majority of the information required from a desk study in line with the LBC guidance.
- 1.8. Consultation of the 'Lost Rivers of London' map has confirmed that a tributary of the lost River Westbourne runs northeast to southwest (along Redington Gardens) approximately 50m northwest of the proposed development.
- 1.9. An historic site investigation identified that the existing lower ground level is underlain by Made Ground, Bagshot Formation, Claygate Member and London Clay. Groundwater was recorded at depths of 4.78 to 6.40m bgl during monitoring in January to March 2016. The proposed basement slab level will be above groundwater level. There will be no impact to the wider hydrogeological environment.
- 1.10. Additional information for the southwest part of the site, close to the boundary retaining wall with 30 Redington Road, has been submitted. The structural calculations have been updated to include

geotechnical design parameters recommended in the site investigation report and ground movement assessment (GMA).

- 1.11. The site investigation report recommends additional investigation is undertaken to inform detailed design, which should be implemented.
- 1.12. Outline permanent and temporary structural information is provided. Clarification on the potential instability of the retaining wall on the boundary of 28 and 30 Redington Road due to a change in loading conditions has been presented.
- 1.13. The GMA considers the movements relating to the proposed basement construction and the impacts upon the foundations at 26 Redington Road, the foundation of 26 Redington Road retaining wall and the foundations at 30 Redington Road. A maximum of Category 0 (Negligible) damage is predicted, in accordance with the Burland Scale.
- 1.14. The BIA provides a strategy for monitoring structural movements to ensure construction is controlled and impacts are limited to those predicted. Structural monitoring should be implemented.
- 1.15. The site is not located within a Local Flood Risk Zone. The site is indicated to be at 'very low' risk of flooding from surface water run-off.
- 1.16. Redington Road is within a Critical Drainage Area (Group 3-010). The proposed development will not increase the impermeable area of the site. The proposed drainage strategy comprises attenuation SuDS with a controlled discharge rate of 2 l/s to the public combined sewer. There will be no impact to the wider hydrological environment.
- 1.17. Further to 1.16, a consultation response highlights potential instability to the retaining wall between 28 and 30 Redington Road in the event of a drainage failure and build-up of water behind the wall. Clarification of mitigation measures to address this potential instability has been provided in the updated BIA.
- 1.18. Queries and matters requiring further information or clarification are discussed in Section 4 and summarised in Appendix 2. Considering the clarifications presented, the BIA meets the requirements of CPG Basements.

2.0 INTRODUCTION

- 2.1. CampbellReith was instructed by London Borough of Camden (LBC) on 9th March 2020 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, Camden Reference 2019/6407/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): Basements. March 2018.
 - Camden Development Policy (DP) 27: Basements and Lightwells.
 - Camden Development Policy (DP) 23: Water.
 - The Local Plan (2017): Policy A5 (Basements).
- 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; and,
 - 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 planning portal describes the proposal as: *"Replacement of north-westerly extension including new windows at ground floor on northwest elevation; alteration and enlargement to south-eastern wing to include first floor extension; rebuild and extend rear extension to include lantern rooflight; enlargement of 2nd floor including raising height of rear gable, erection of two*

dormers and rooflights to north west elevation; removal and relocation of chimneys; solar panels to rear roof and glazed balustrade to 3rd floor roof terrace; alteration and enlargement of front porch including limestone cladding and alteration to front steps and door; excavation of lower ground floor level to lower by 0.4m and excavation of front lightwell; alterations to windows, ground floor bay and erection of balcony at first floor level, all on the rear elevation; erection of entrance gates and railings to existing garden wall; and alterations to landscaping”.

The planning portal also confirmed the site lies within Redington Froggnal Conservation Area but that the building is not listed. The nearest listed building to the site is No. 16 Redington Road.

2.6. CampbellReith accessed LBC’s Planning Portal on 25th March 2020 and gained access to the following relevant documents for audit purposes:

- Basement Impact Assessment Report (ref. 19117, Rev B) dated 18th December 2019 by Symmetrys Structural Engineers including:
 - Structural Engineer’s Statement and Calculations (ref. 19117-CAL-001) dated 26th November 2019 by Symmetrys.
 - Interpretative report on Ground Investigation (ref. D9036-19) dated October 2019 by SOCOTEC UK Ltd.
 - Ground Movement Assessment (ref. CG/38114) dated 17 September 2019 by Card Geotechnics Ltd.
 - Flood Risk Assessment (‘Flood Smart’) Report (ref. 71978R1) dated 18th July 2019 by GoeSmart Information Ltd.
 - SuDS Feasibility Report (‘SuDSmart Pro’) (ref. 71978.01R2) dated 18th December 2019 by GeoSmart Information Ltd.
 - Regulated Drainage & Water Search Report (ref. 71978) dated 16th July 2019 by GeoSmart Information Ltd.
- Proposed elevations, plans and sections dated July and September 2019 by Thomas Croft Architects.
- Design and Access Statement dated 19th December 2019 by Thomas Croft Architects.
- Planning Statement dated December 2019 by Montagu Evans LLP.
- Arboricultural Survey Report dated August 2019 by Boward Tree Management.

- Comments and objections to the proposed development from local residents.
- 2.7. CampbellReith issued an initial audit report (ref.no. GKemb13398-09-160420-28 Redington Road-D1) in April 2020. In response to the initial audit report the following revised documents were received in May 2020:
- Basement Impact Assessment Report (ref. 19117, Rev C) dated 06th May 2020 by Symmetrys Structural Engineers
 - Ground Movement Assessment (ref. CG/38114/revision 1) dated April 2020 by CGL
 - Email correspondence obtained by the applicant (saved in Appendix 3)
- 2.8. A previous application (2016/2997/P) for the subject site was refused due to lack of sufficient information in the Basement Impact Assessment which did not satisfy the policy criteria. Campbell Reith undertook three audits of information provided as part of this application, the final report being issued in September 2017 (Report ref. KZrm-12336-98-110917-28 Redington Road-D3). The subsequent appeal was dismissed and the inspector upheld this reason for refusal.

3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	Yes	
Is data required by Cl.233 of the GSD presented?	Yes	
Does the description of the proposed development include all aspects of temporary and permanent works which might impact upon geology, hydrogeology and hydrology?	Yes	
Are suitable plans/maps included?	Yes	
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	
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	No	BIA Report, Section 4.1. Screening does not identify the nearby historic tributary of the River Westbourne although this is discussed within BIA text and accepted as not impacting / being impacted by the site.
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	The site is located within a Critical Drainage Area (Group 3-010) but this has not been identified during screening.
Is a conceptual model presented?	Yes	CGL Ground Movement Assessment Report, Figure 5 (Appendix 4 of BIA).

Item	Yes/No/NA	Comment
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	Yes	BIA Report, Section 5.
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	Yes	BIA Report, Section 5.
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	N/A	No Hydrology Scoping provided as the Screening did not identify any issues. The BIA has not identified that the site is within a Critical Drainage Area Group (as defined by LBC). The site does not lie within a local flood risk zone. A Flood Risk Assessment has been provided. The BIA notes that SuDS will be required to mitigate impacts.
Is factual ground investigation data provided?	Yes	The site investigation report recommends additional investigation is undertaken to inform detailed design, which should be implemented.
Is monitoring data presented?	Yes	Socotec UK Ltd report on Ground Investigation (Appendix 3 of BIA), Section 3.5. Records of the groundwater levels encountered during the drilling process are provided.
Is the ground investigation informed by a desk study?	Yes	Not provided with this planning application but available for review on previous application.
Has a site walkover been undertaken?	Yes	
Is the presence/absence of adjacent or nearby basements confirmed?	Yes	The GMA report states that 'both neighbouring properties are of a similar brick construction with single level lower ground floor level'.

Item	Yes/No/NA	Comment
Is a geotechnical interpretation presented?	Yes	Site investigation report and GMA –the parameters adopted in the structural engineering calculations have been revised.
Does the geotechnical interpretation include information on retaining wall design?	Yes	Site investigation report and GMA – noted the parameters adopted in the structural engineering calculations have been revised.
Are reports on other investigations required by screening and scoping presented?	Yes	Ground Movement Assessment, Flood Risk Assessment, SuDS Feasibility Report, Regulated Drainage & Water Search Report and Arboricultural Survey Report.
Are baseline conditions described, based on the GSD?	Yes	
Do the baseline conditions consider adjacent or nearby basements?	Yes	
Is an Impact Assessment provided?	Yes	BIA Report, Section 8.
Are estimates of ground movement and structural impact presented?	Yes	A Ground Movement Assessment is provided within the BIA and it has been updated following CR initial audit (Appendix 4).
Is the Impact Assessment appropriate to the matters identified by screen and scoping?	Yes	A Ground Movement Assessment is provided within the BIA (Appendix 4) and it has been updated following CR initial audit.
Has the need for mitigation been considered and are appropriate mitigation methods incorporated in the scheme?	Yes	SuDS proposed. Further clarification on concerns regarding the build-up of water behind retaining wall with No 30 are given in Section 4
Has the need for monitoring during construction been considered?	Yes	BIA Report, Section 7.6 and Section 7 of the GMA.
Have the residual (after mitigation) impacts been clearly identified?	Yes	Residual impacts are considered to be negligible.

Item	Yes/No/NA	Comment
Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure will be maintained?	Yes	As above
Has the scheme avoided adversely affecting drainage and run-off or causing other damage to the water environment?	Yes	SuDS Strategy to be implemented. Concerns regarding drainage and stability impact to retaining wall with No. 30 have been addressed in the updated BIA submission.
Has the scheme avoided cumulative impacts upon structural stability or the water environment in the local area?	Yes	See Section 4.
Does report state that damage to surrounding buildings will be no worse than Burland Category 1?	Yes	GMA concludes that maximum damage will be a Category 0 (negligible).
Are non-technical summaries provided?	Yes	

4.0 DISCUSSION

- 4.1. The BIA has been prepared by Symmetrys Structural Engineers with supporting information provided by Socotec UK Ltd and Card Geotechnics Ltd. The qualifications of the authors of the reports are in accordance with CPG guidelines.
- 4.2. The site is positioned on the northern side of Redington Road which slopes down to the north-west in a south-east to north-west direction with a gradient of c. 4°. The south-western half of the plot, adjacent to Redington Road, is currently occupied by a large house, with a garden situated to the rear (north-east) of the house. The part of the site occupied by the house is bounded to the south-east and north-west by the plots of No 26 and No 30 Redington Road respectively.
- 4.3. The existing building is an early 20th century house of brick construction with accommodation arranged over lower ground, raised ground floor, first and second floors. Part of the proposed development (along with various extensions) comprises the reduction of finished floor level from 100.20m AOD to 99.80m AOD with an estimated maximum dig depth of 0.90m, to a level of c. 99.30m AOD. This deepening will require the existing walls to be underpinned and a new lower ground floor level slab to be cast.
- 4.4. The BIA documents include the majority of the information required from a desk study in line with the GSD Appendix G1.
- 4.5. Consultation of the 2016 'Lost Rivers of London' map has confirmed that a tributary of the lost River Westbourne runs northeast to southwest (along Redington Gardens) approximately 50m northwest of the proposed development.
- 4.6. A previous investigation was undertaken by Socotec, then trading as ESG, in 2015 (Report No D5513-15, dated April 2016) as part of a previous planning application at the site. The site investigation undertaken by ESG identified that the existing lower ground level is underlain by Made Ground and layers of Bagshot Formation, Claygate Member and London Clay from 0.60 - 3.40m below ground level (bgl) (99.15 – 104.27m OD) to the bottom of the exploratory holes (20.00m bgl). Whilst groundwater was encountered between 7.40m bgl and 12.00m bgl during the investigation, further monitoring over January, February and March 2016 confirmed water to be present within the London Clay Formation and at depths of 5.79 to 6.40m (97.29 to 97.90m OD) in BH4 and 4.78 to 4.87m (94.98 to 95.07m OD) in BH5 with an average level of 95.76m OD.
- 4.7. It is understood that additional foundation inspection pits have been undertaken across the site by Symmetrys to gain further information on the existing foundations. However only one of the pits (TP6) have been submitted for review.

- 4.8. At 99.00m AOD, the proposed basement slab is above the site's groundwater level. There will be no impact to the wider hydrogeological environment.
- 4.9. Interpretative geotechnical information broadly in accordance with the GSD Appendix G3 is presented. Socotec UK Limited was commissioned in July 2019 by Symmetrys to carry out a geotechnical assessment of the site, including assessing suitable allowable bearing capacities for the shallow foundations being proposed to underpin the existing house that occupies the site. At the proposed formation level of c. 99.30m OD the floor slab is likely to be underlain by the London Clay Formation. An allowable bearing capacity of 85kN/m² is stated, which is reflected also in the ground movement assessment (GMA) and in the updated structural calculations.
- 4.10. The site investigation report originally highlighted the absence of information in the southwest part of the site, which is in proximity to the retaining wall between No 28 and No 30 Redington Road. A foundation inspection pit (TP6) has subsequently been undertaken in the south-west area of the site. However, details of the ground conditions are not given. SOCOTEC UK Ltd consider that the information currently available should be sufficiently representative of the ground condition to allow a preliminary design to be undertaken, with additional ground investigation to be undertaken in the south-western area of the site at the detailed design stage, which should be implemented.
- 4.11. The lower ground floor level extension beneath the existing property will be constructed using traditional underpinning techniques employing a 'hit and miss' construction sequence with pins excavated in sequence in bays typically 1.0m wide. Temporary works information is provided, including sequencing, propping and structural calculations. A consultation response highlights potential instability of the retaining wall on the boundary of No 28 and No 30 Redington Road due to a change in loading conditions. The retaining wall has been assessed in the revised BIA, which states that the wall will be able to withstand the lateral pressure and the retained height will remain at the existing level.
- 4.12. The GMA considers the movements relating to the proposed basement construction and the impacts upon the foundations at No 26 Redington Road, the foundation of No 26 Redington Road retaining wall and the foundations at No 30 Redington Road. A maximum of Category 0 (Negligible) damage is predicted, in accordance with the Burland Scale. The GMA has been reviewed following the initial audit report the analysis (indicating the geometry analysed and ground movement contours) has been presented.
- 4.13. The BIA provides a strategy for monitoring structural movements to ensure construction is controlled and impacts are limited to those predicted. Structural monitoring should be implemented during the works.

- 4.14. The site is not located within a Local Flood Risk Zone. The site is indicated to be at 'very low' risk of flooding from surface water run-off.
- 4.15. Redington Road is within a Critical Drainage Area (Group 3-010). The proposed development will not increase the impermeable area of the site. The proposed drainage strategy comprises attenuation SuDS with a controlled discharge rate of 2 l/s to the public combined sewer. The SUDs strategy considers a suitable return period and uplift for climate change in accordance with policy. There will be no impact to the wider hydrological environment.
- 4.16. Further to 4.14, a consultation response highlights potential instability to the retaining wall between 28 and 30 Redington Road in the event of a drainage failure and build-up of water behind the wall. A drainage maintenance strategy is included in the original BIA submission. Further mitigation measures such as the adoption of longer pipe sections in the proximity of the wall to reduce the number of joints, concrete coating of the pipe and design of site levels to allow the flow of any surface water to be directed away from the retaining wall are proposed in the revised BIA.

5.0 CONCLUSIONS

- 5.1. The qualifications of the authors of the reports are in accordance with CPG guidelines.
- 5.2. The proposed development involves extending the property and lowering the lower ground floor level by 0.4m, with an estimated maximum dig depth of 0.9m.
- 5.3. The proposed development involves new retaining walls to be constructed by underpinning methodologies.
- 5.4. The BIA includes the majority of the information required from a desk study in line with the LBC guidance.
- 5.5. The underlying ground conditions comprise Made Ground, Bagshot Formation, Claygate Member and London Clay. The site investigation report recommends additional investigation is undertaken to inform detailed design, which should be implemented.
- 5.6. It is understood the proposed basement slab level will be above groundwater level. There will be no impact to the wider hydrogeological environment.
- 5.7. Additional information for the southwest part of the site, close to the boundary retaining wall with 30 Redington Road has been submitted. The structural calculations have been updated to include geotechnical design parameters recommended in the site investigation report and ground movement assessment (GMA).
- 5.8. Outline permanent and temporary structural information is provided. Clarification on potential instability of the retaining wall on the boundary of No 28 and No 30 Redington Road due to a change in loading conditions has been provided.
- 5.9. The GMA predicts a maximum of Category 0 (Negligible) damage to neighbouring structures, in accordance with the Burland Scale.
- 5.10. The site is not located within a Local Flood Risk Zone. The site is indicated to be at 'very low' risk of flooding from surface water run-off.
- 5.11. The proposed development will not increase the impermeable area of the site. There will be no impact to the wider hydrological environment.
- 5.12. A consultation response highlights potential instability to the retaining wall between No 28 and No 30 Redington Road in the event of a drainage failure and build-up of water behind the wall. Clarification of mitigation measures to address this potential stability issue has been provided.

- 5.13. Queries and requests for information are summarised in Appendix 2. Considering the additional information submitted, the BIA meets the requirements of CPG Basements.

Appendix 1: Residents' Consultation Comments

Consultation Comments

Surname	Address	Date	Issue raised	Response
Zimmerman	26 Redington Road	14/01/2020	Mr Zimmerman has employed the services of Eldred Geotechnics Ltd who have provided a review of the BIA in relation to his property at 26 Redington Road. - Concerns regarding temporary works not adequately supporting the foundations of 26 Redington Road.	Section 4
Ashmount Management Company	30 Redington Road	20/2/2020	Ashmount Management Company employed the services of Eldred Geotechnics Ltd who have provided a review of the BIA in relation to the property at 30 Redington Road. Concerns raised about the retaining wall between No 30 and No 28 and the surface water disposal associated with the proposed SuDS. - Concerns regarding geotechnical parameters adopted in structural calculations. - Concerns regarding loading on retaining wall between No 28 and No 30 Redington Road and potential for instability. - Concerns regarding drainage scheme and potential for build-up of water causing instability.	Section 4

Appendix 2: Audit Query Tracker

Audit Query Tracker

Query No	Subject	Query	Status/Response	Date closed out
1	Land Stability	Site investigation data is absent for the southwest part of the site, close to the boundary retaining wall with 30 Redington Road. The site investigation report recommends further investigation in this area.	Closed – See Section 4.10. Note: The site investigation report recommends additional investigation is undertaken to inform detailed design, which should be implemented.	June 2020
2	Land Stability	The geotechnical design parameters recommended have not been adopted within the structural calculations. The calculations should be reviewed and updated to be consistent with recommended parameters.	Closed – See Section 4.9.	June 2020
3	Land Stability	Outline permanent and temporary structural information is provided. A consultation response highlights potential instability of the retaining wall on the boundary of 28 and 30 Redington Road due to a change in loading conditions, which should be clarified.	Closed - See Section 4.11.	June 2020
4	Land Stability	The GMA should consider the responses to queries 1 to 3 and update the assessment as required. A plan showing all the walls analysed and ground movement contours should be presented.	Closed – See Section 4.12.	June 2020
5	Land Stability	Potential instability to the retaining wall between 28 and 30 Redington Road in the event of a drainage failure and build-up of water behind the wall. Clarification of mitigation measures to address this potential stability issue should be provided.	Closed – See Section 4.16.	June 2020

Appendix 3: Supplementary Supporting Documents

Email correspondence obtained by the applicant

From: Richard Ball <RichardB@cgl-uk.com>
Sent: 04 May 2020 08:34
To: David Snaith
Cc: Thomas Perry; Simone Boncio
Subject: RE: 19117 - 28 Redington Road - BIA audit No.1
Attachments: CG38114_28RedingtonRoad_GMA_Rev1_Apr2020.pdf

Hi David,

Please see attached our updated report; to reiterate our responses on the other CRH points raised:

Query 1: Socotec to comment; CGL view is that the site is relatively small, and that provided excavations/works in the southwest are carried out diligently with on-site verification of soil conditions (potential occasional inspection visit and testing by qualified professional), the risk presented by a lack of SI in the southwest is low and can be mitigated.

Query 2: Assuming that calculations have been updated to match BIA parameters we have no further comment.

Query 4: See attached updated report.

Kind regards,

Richard

Richard Ball, Technical Director



All CGL staff are home office working and are contactable through our standard phone systems, emails and so on, in the usual way. Following government requirements on us all to limit non-essential travel, we are currently only working on a minimal number of sites, following social distancing guidelines, which are identified to us to be essential work by clients where they have to maintain progress.

We intend to continue with as near “normal” working to deliver ground solutions, as these exceptional circumstances permit.

Card Geotechnics Limited registered in England and Wales No. 2993862. Registered Office at 4 Godalming Business Centre, Woolsack Way, Godalming, Surrey, GU7 1XW.

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From: Miles Martin <Miles.Martin@socotec.com>

Sent: 24 April 2020 09:08

To: David Snaith <david.snaith@symmetrys.com>

Subject: Re: D9036-19 - 28 Redington Road, London - Response to checking engineer query.

Morning David,

Further to our conversation earlier this week regarding the statement made by the checking engineer (copy attached), our proposed response to Query No 1 of the statement is as follows:

- To date, information on the ground conditions across the overall site has been obtained by SOCOTEC's investigation No. D5513-15, an assessment of which was made in the report No D9036-19, dated October 2019. Subsequently, additional trial pits have been undertaken across the site by Symmetrys to gain further information on the existing foundations. We consider that the information currently available should be sufficiently representative of the ground conditions to allow a preliminary design to be undertaken, and for the planning application to be progressed. As stated in our report, however, for final design the ground conditions in the south-west corner of the site (an area not accessible during the initial investigation) should be investigated further in order to verify that the ground conditions present agree with those anticipated. One of the trial pits by Symmetrys was located in this area, and provided preliminary information. This should be supplemented by deeper investigation once suitable access has been arranged.

We trust this meets with your approval, but should you have any further comments or questions do let us know.

Regards

Miles

Miles Martin

Principal Engineer

0118 932 8888 / 07803 262 235

INFRASTRUCTURE AND ENERGY

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Many thanks

Gemma

Following receipt of the Basement Impact Assessment Audit Revision D1 produced by Campbell Reith Consulting Engineers in relation to document in support of the planning application for 28 Redington Road basement works, please find below our comments to the queries.

Query No. 1 – Please see below statement from Miles Martin, Principal Engineer at Socotec:

‘To date, information on the ground conditions across the overall site has been obtained by SOCOTEC’s investigation No. D5513-15, an assessment of which was made in the report No D9036-19, dated October 2019. Subsequently, additional trial pits have been undertaken across the site by Symmetrys to gain further information on the existing foundations. We consider that the information currently available should be sufficiently representative of the ground conditions to allow a preliminary design to be undertaken, and for the planning application to be progressed. As stated in our report, However, for final design the ground conditions in the south-west corner of the site (an area not accessible during the initial investigation) should be investigated further in order to verify that the ground conditions present agree with those anticipated. One of the trial pits by Symmetrys was located in this area, and provided preliminary information. This should be supplemented by deeper investigation once suitable access has been arranged’. Please find copy of correspondence attached.

Please find the trial pit No.6 log and location plan included in the section ‘Addendum to the Basement Impact Assessment’ included at the end of the report.

CGL view is that the site is relatively small, and that provided excavations/works in the southwest are carried out diligently with on-site verification of soil conditions (potential occasional inspection visit and testing by qualified professional), the risk presented by a lack of SI in the southwest is low and can be mitigated. Please find correspondence attached.

Query No.2 – The structural calculations have been updated respecting the maximum bearing pressure of 85KPa recommended by Socotec. Please refer to updated structural calculation report within the BIA report.

Query No.3 – The existing retaining wall between No.28 and No.30 Redington Road has been assessed by calculation and is able to withstand the lateral pressure. The retained soil height will remain at the existing level as the area will not be infilled. Please refer to the section ‘Addendum to the Basement Impact Assessment’ included at the end of the report.

A temporary work preliminary analysis in relation to 26/28 Redington Road retaining wall has been included within the ‘Addendum to the Basement Impact Assessment’ section to be read in conjunction with Section A-A retaining wall analysis within the calculation report.

Query No.4 – CGL updated the Ground Movement Assessment report, please find attached.

Query No.5 – A drainage maintenance strategy is included within the original application and when followed will reduce the likelihood of drainage failure. In addition to this we could specify long lengths of pipe (6m max) where in close proximity to the wall, to reduce the number of joints, and surround the pipe in concrete this would reduce the risk of system failure at joints.

If the system failed due to blockage, it would back up and come out of gullies or channel drains, levels of the site can be designed such that overland flood routing is provided to allow the flow of water to be directed away from the property and retaining walls.

Please find at the following link the revision C of the Basement Impact Assessment report:

<https://we.tl/t-K5rzzyt3p>

We trust the information provided is satisfactory. However, should you have any questions, please do

not hesitate to contact us.

Kind regards,

SIMONE BONCIO

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Structural Engineer

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SYMMETRYS.COM

It's business as usual

Just to let you know it's business as usual at Symmetrys – we are still providing the same level of service. Stay safe all and take care.

From: Gemma Kendall <gemma.kendall@montagu-evans.co.uk>

Sent: 17 April 2020 08:51

To: Tom Croft <tc@thomascroft.com>; David Snaith <david.snaith@symmetrys.com>; Simone

Boncio <Simone.boncio@symmetrys.com>; Fabio Gonzalez Calzada <fgc@thomascroft.com>

Cc: Ac <acfarstad@gmail.com>; Matthew Wood <matthew.wood@lancasterim.co.uk>; Tim Miles <tim.miles@montagu-evans.co.uk>

Subject: FW: 28 Redington Road - 2019/6407/P

All

We have now received the comments back on the BIA Audit. There are a few issues that need to be addressed, largely in relation to No. 30.

David/Simone – please can you review and respond?

Many thanks

Gemma

Gemma Kendall

Associate

Montagu Evans LLP, 5 Bolton Street, London, W1J 8BA

d: 020 7312 7547 t: 020 7493 4002 e: gemma.kendall@montagu-evans.co.uk

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Covid-19: Client care and business continuity at Montagu Evans

From: Peres Da Costa, David [<mailto:David.PeresDaCosta@Camden.gov.uk>]

Sent: 16 April 2020 13:51

To: Gemma Kendall <gemma.kendall@montagu-evans.co.uk>

Subject: RE: 28 Redington Road - 2019/6407/P

Hi Gemma,

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