

**Basement Impact
Assessment Audit**

14A Keats Grove, London,
NW3 2RS

For
London Borough of Camden

Project No.
14006-65

Date
October 2024

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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 14A Keats Grove, London, NW3 2RN (planning reference 2023/5162/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 The qualifications of the individuals involved in the BIA are in accordance with LBC guidance.
- 1.5 The proposed development comprises the construction of a single level basement beneath the footprint of the existing building with new lightwells to the front and rear. Formation level for the proposed basement is approximately 3.20m below ground level (bgl), which will be formed by 'hit and miss' underpinning.
- 1.6 A ground investigation was undertaken in July 2021 and indicates that the basement will be founded within the London Clay.
- 1.7 Local perched groundwater may be encountered during basement excavation. The BIA recommends conventional sump pumping to deal with any groundwater ingress during the basement excavation.
- 1.8 Further information is requested in relation to the identified increase in hardstanding and proposed mitigation measures to control the impact to hydrology.
- 1.9 Geotechnical design parameters are provided and are accepted.
- 1.10 The revised BIA makes several assumptions relating to the construction sequence and propping arrangements that have not been confirmed by structural engineering input. Additional information as described in Camden's Engineering Scope of Services document should be provided to support the BIA.
- 1.11 A revised Ground Movement Assessment (GMA) is provided. The associated Building Damage Assessment identifies that damage to most neighbouring structures will not exceed Burland Category 1 (Very slight) and suggests limiting movement values to control the damage to walls to keep it within Category 1.
- 1.12 The BIA indicates that a movement monitoring scheme is to be adopted to ensure that movements generated are maintained within predicted limits.
- 1.13 As described in Section 5, it cannot be confirmed that the BIA complies with the requirements of CPG: Basements and the Principles for Audit set out in the Basement Impact Assessment (BIA) Audit Service Terms of Reference & Audit Process. Queries and comments on the BIA are described in Section 4 and Appendix 2.

2.0 INTRODUCTION

2.1 CampbellReith was instructed by London Borough of Camden (LBC) on 22 March 2024 to carry out a Category B audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for 14A Keats Grove, London, NW3 2RN and Planning Reference 2023/5162/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

- Camden Local Plan 2017 - Policy A5 Basements.
- Camden Planning Guidance (CPG): Basements. January 2021.
- Guidance for Subterranean Development (GSD). Issue 01. November 2010. Ove Arup & Partners.
- Hampstead - Neighbourhood Plan

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 "Excavation of basement with front lightwell and sunken terrace to rear; erection of two-storey rear extension, two-storey front infill extension, and single storey side infill extension; installation of air source heat pump to front lightwell; various external alterations including to fenestration; installation of entrance gates; erection of covering over existing parking space; and erection of bike and bin stores to front of site."

2.6 The Audit Instruction confirmed that 14A Keats Grove is adjacent to Grade I and Grade II listed buildings. Keats House is a Grade I listed building whilst, 17 and 18 Keats Grove, 12 Keats Grove, and Keats Community Library are Grade II listed buildings.

2.7 CampbellReith accessed LBC's Planning Portal on 27th March 2024 and gained access to the following relevant documents for audit purposes:

- Ground Investigation & Basement Impact Assessment Report by Geotechnical & Environmental Associates Limited (GEA), Ref.: J23301 Rev 0, dated December 2023.
- Tree Survey and Arboricultural Method Statement by Tretec, Ref.: 2307, dated November 2023.
- Existing Architectural drawings by PERRY + BELL LTD Architects:
 - Existing elevations, Ref.: 2307-SV-05, dated 27 February 2023
 - Existing ground and 1st floor plan, Ref.: 2307-SV-03, dated 27 February 2023
 - Existing 2nd floor and roof plan, Ref.: 2307-SV-04, dated 27 February 2023
 - Existing site plan, Ref.: 2307-SV-02, dated 18 April 2023
- Proposed Architectural drawings by PERRY + BELL LTD Architects:
 - Proposed street elevation, Ref.: 2307-PL-02-05-A, dated 10 October 2023
 - Proposed basement floor, Ref.: 2307-PL-01-01-A, dated 02 May 2023
 - Proposed driveway elevations, Ref.: 2307-PL-02-07, dated 04 November 2023
 - Proposed first floor plan, Ref.: 2307-PL-01-03-A, dated 02 May 2023
 - Proposed front elevation, Ref.: 2307-PL-02-01-B, dated 02 May 2023
 - Proposed ground floor plan, Ref.: 2307-PL-01-02-A, dated 02 May 2023
 - OS location plan, Ref.: 2307-SV-01, no date.
 - Proposed rear elevations, Ref.: 2307-PL-02-03-B, dated 02 May 2023
 - Proposed roof plan, Ref.: 2307-PL-01-05-A, dated 02 May 2023
 - Proposed second floor plan, Ref.: 2307-PL-01-04-A, dated 02 May 2023
 - Proposed Sections 1, Ref.: 2307-PL-02-06-A, dated 26 March 2023
 - Proposed side Elevation to No 14, Ref.: 2307-PL-02-04-B, dated 02 May 2023
 - Proposed side Elevation to No 16, Ref.: 2307-PL-02-02-B, dated 02 May 2023
 - Proposed site plan, Ref.: 2307-PL-01-06-A, date 18 April 2023
 - Sketch view – street entrance, Rev.: 2307-02, dated 24 August 2023
 - Sketch visual front, Ref.: 2307-PL-03-01-A, dated 24 August 2023
- Planning Consultation Responses

2.8 The following additional documents were submitted to CampbellReith in May 2024, in response to the queries raised in the D1 audit report:

- Ground Investigation & Basement Impact Assessment Report by Geotechnical & Environmental Associates Limited (GEA), Ref.: J23301 Rev 1, dated 7 May 2024.

3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	Yes	Section 1.3.2 of the BIA.
Is data required by Cl.233 of the GSD presented?	No	The construction sequence summarised in Section 9.2 of the BIA relies on drawings provided by the consulting engineer, which are not provided and are requested.
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 plan/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	Section 3.1.2 of the revised BIA.
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	No	Section 3.1.1 of the BIA. The proposed drawings show that the proposed development will increase the proportion of hard surfaces/paved areas. Clarification is requested.
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	No	Section 3.1.3 of the BIA. The proposed drawings show that the proposed development will increase the proportion of hard surfaces/paved areas. Clarification is requested.
Is a conceptual model presented?	Yes	Sections 7 and 10.2.1 of the BIA.

Item	Yes/No/NA	Comment
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	Yes	Section 4.1 of the BIA. However, subject to revision of the Land Stability screening regarding tree felling.
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	Yes	None were carried to scoping. However, additional clarification regarding the increase in hardstanding is required.
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	Yes	None were carried to scoping. However, additional clarification regarding the increase in hardstanding is required.
Is factual ground investigation data provided?	Yes	Appendix A of the BIA.
Is monitoring data presented?	Yes	Section 5.4 of the BIA.
Is the ground investigation informed by a desk study?	Yes	Section 2.0 of the BIA.
Has a site walkover been undertaken?	Yes	Section 2.1 of the BIA.
Is the presence/absence of adjacent or nearby basements confirmed?	Yes	Section 2.1.1 of the BIA. The adjoining properties along Keats Grove, to the west and west of the site do not have basements.
Is a geotechnical interpretation presented?	Yes	Sections 8.1, 8.2, 8.3 and 10.2 of the BIA.
Does the geotechnical interpretation include information on retaining wall design?	Yes	Section 8.1 of the BIA.
Are reports on other investigations required by screening and scoping presented?	No	Tree survey and Arboricultural method statement are provided. A Flood Risk Assessment is referenced in 13.3.1 of the revised BIA report however this document has not been provided.

Item	Yes/No/NA	Comment
Are the baseline conditions described, based on the GSD?	Yes	
Do the base line conditions consider adjacent or nearby basements?	Yes	Section 9.1 of the BIA. The BIA assumes that neither neighbouring properties, 14 Keats Grove nor 35 Downshire Hill, have basements. Their foundations have been modelled to extend to a depth of 0.5mbgl.
Is an Impact Assessment provided?	Yes	Section 13 of the BIA.
Are estimates of ground movement and structural impact presented?	Yes	Sections 10 and 11 of the BIA. GMA provided; clarifications requested.
Is the Impact Assessment appropriate to the matters identified by screening and scoping?	Yes	Section 13 of the BIA. Subject to revision of screening and scoping assessments.
Has the need for mitigation been considered and are appropriate mitigation methods incorporated in the scheme?	No	Movement monitoring is suggested. Further mitigation measures may be required as part of the revised impact assessment.
Has the need for monitoring during construction been considered?	Yes	Section 11.2 of the BIA.
Have the residual (after mitigation) impacts been clearly identified?	Yes	However, subject to impact assessment review.
Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure will be maintained?	No	GMA provided; clarifications requested.
Has the scheme avoided adversely affecting drainage and run-off or causing other damage to the water environment?	Yes	
Has the scheme avoided cumulative impacts upon structural stability or the water environment in the local area?	No	See above.

Item	Yes/No/NA	Comment
Does report state that damage to surrounding buildings will be no worse than Burland Category 1?	No	Section 11 of the BIA. GMA provided; clarifications requested.
Are non-technical summaries provided?	Yes	Executive summary section of the BIA.

4.0 DISCUSSION

- 4.1 The Basement Impact Assessment (BIA) has been carried out by engineering consultants Geotechnical & Environmental Associates (GEA) and the individuals concerned in its production have suitable qualifications.
- 4.2 The Audit Instruction confirmed that 14A Keats Grove is adjacent to Grade I and Grade II listed buildings. Keats House is a Grade I listed building whilst, 17 and 18 Keats Grove, 12 Keats Grove, and Keats Community Library are Grade II listed buildings. Additionally the site is adjacent to Grade II listed garden walls, railings, gate piers and gate for numbers 36, 37, and 38 Downshire Hill which have been considered as part of the revised Ground Movement Assessment (GMA).
- 4.3 The site fronts onto Keat Grove to the south and is bounded by three-storey properties to the north, east and west. The existing development comprises a three-storey detached house with a single storey extension opening onto a garden to the rear. The house is located at the northern end of the property, with a long narrow driveway and a footpath leading from Keats Grove. The rear extensions and garden are approximately at 0.50m below ground level (bgl) while the footpath steps down towards the driveway and road.
- 4.4 The proposed development comprises the construction of a single level basement beneath the footprint of the existing building with new lightwells to the front and rear. Formation level for the proposed basement is approximately at 3.20m bgl.
- 4.5 Screening and scoping assessments are presented and are informed by desk study information. Most relevant figures/maps from the ARUP GSD and other guidance documents are referenced within the BIA to support the screening questions.
- 4.6 The revised BIA submission confirmed that a single Wild Cherry tree will be removed as part of the development and that no structures are within the zone of influence to be impacted by its removal.
- 4.7 The revised BIA submission states the proposed basement will essentially cover the same area as the existing building and existing hardstanding areas. The BIA then goes on to state that the increase in hardstanding will comprise permeable paving. Confirmation of the areas of permeable paving proposed are requested, as well as supporting information relating to the addition of lightwells, which extend beyond the building footprint, and the proposed mitigation measures to control any increase in surface water discharge.
- 4.8 A ground investigation was undertaken in July 2021 and identified the site to be underlain by a moderate thickness of Made Ground to a maximum depth of 1.30m bgl. Below the Made Ground, Head Deposits were found to a depth of 3.20m bgl. London Clay encountered to the full depth of the investigation (12.00m bgl). The BIA states that formation level for the proposed development is likely to be within London Clay.

- 4.9 The BIA states that groundwater was not encountered during drilling. Standpipes were installed in three boreholes and monitored on two occasions. Monitoring measures groundwater between 0.66m and 4.53m bgl, assumed to be associated with seepages from granular pockets within the Head Deposits.
- 4.10 The BIA states that significant inflows of groundwater are unlikely to be encountered within the basement excavation, such that it should be possible to form the basement without the need for groundwater protection measures. However, it recommends that trial pits are dug as close to the proposed basement depth as possible to confirm this and groundwater monitoring to be continued. It also adds that shallow seepages may be encountered within the Made Ground and granular layers of the Head Deposits, and any such inflows can be adequately controlled using sump pumping.
- 4.11 The Desk Study section of the BIA identifies the site as not being at risk from flooding, nor located within a Groundwater Source Protection Zone.
- 4.12 In Section 13.3.1 of the BIA, the non-technical summary of evidence makes reference to a site-specific Flood Risk Assessment (FRA) in relation to questions 2 to 5 regarding surface water flow and flooding screening. However, the FRA is not provided and is requested.
- 4.13 The BIA states that the simplest and most preferred construction method at this point is to form the retaining wall by underpinning the existing foundations using a traditional hit and miss sequence. However, no structural method statement has been provided and it is required. Additionally, information regarding the number of underpinning lifts required is missing. Confirmation of the construction methods is required, and if alternative methods are considered, the BIA and consequently the GMA should be updated to reflect the scheme.
- 4.14 Although the construction sequence is summarised in Section 9.2 of the BIA, it relies on drawings provided by the consulting engineer, which are not included in the appendix as stated. These drawings are requested to support the proposed basement construction, as required by Camden's Engineering Scope of Services document.
- 4.15 According to the BIA, underpinning of the existing boundary walls will occur in a hit-and-miss sequence, with stages to be agreed upon with the temporary works engineer under the party wall agreement. Underpinning is to be taken in short sections not exceeding 1.0m in length. Additionally, no adjacent pin will be excavated until a minimum of 48 hours after the adjacent pin has been cast, dry-packed, and placed, with the sides of the excavation adequately shored and propped. The concrete will be cast and cured prior to excavation of the basement and removal of the formwork and supports. The new retaining walls will not be cantilevered at any stage during the construction process.
- 4.16 The Geotechnical parameters are presented in the BIA and are accepted.
- 4.17 The screening and scoping assessments indicate that the site includes slopes greater than 7°. The impact assessment highlights the need to ensure stability during construction. However, details on how this will be achieved and any planned measures for stability assurance are not provided. Clarification is required.

- 4.18 The Tree Survey and Arboricultural Impact Assessment indicates that Tree T6 – Wild Cherry, near 14 Keats Grove, will be felled during the redevelopment. The revised BIA confirmed that, based on its height (7m) and reference to NHBC guidance, the tree's zone of influence would be a circle with a 5.25m radius. No potentially sensitive neighbouring structures are located within this area, with only fences being present. Therefore, the removal of the tree will not impact any neighbouring structures.
- 4.19 A GMA and Damage Assessment are provided to demonstrate that ground movements and consequential damage to neighbouring properties will be within the LBC's policy requirements. The analyses were carried out using the Oasys programme PDisp and XDisp.
- 4.20 The GMA in the revised BIA has been updated in light of the queries and comments raised in the D1 audit as follows:
- The effects of underpin installation have been modelled in XDisp using the CIRIA C760 curve "Installation of planar diaphragm wall in stiff clay", while the excavation effects have been assessed using the "Excavation in front of a high stiffness wall in stiff clay" curve. In the response to CampbellReith's query regarding data import from PDisp into XDisp. The revised GMA shows that no data has been imported from PDisp into XDisp and is accepted.
 - In the original submission, the rigid boundary in the PDisp models was set at 12m bgl. The revised BIA submission confirmed that the rigid boundary adopted in the revised GMA is set at a depth of 88m bgl, which is the depth of the base of the London Clay provided by a nearby BGS historic borehole located 140m northwest of the site.
 - The XDisp contour plots of the combined excavation and underpinning movements show vertical displacement of approximately 4mm, except at the location of re-entrant corners (up to c. 8mm), with horizontal movements around 5mm to 10mm. The BIA states that in cases where a section of the wall is predicted to experience damage exceeding Category 1 (Very Slight), the segments of movements have been combined to reflect the higher stiffness of the wall. This approach reduced the overall damage category of the combined sections reduced to within acceptable limits. CampbellReith, upon inspecting the individual wall segments, accepts that they can be combined in this instance, as they result from model complications.
 - A sensitivity analysis has been carried out as part of the revised BIA submission. The analysis modelled 5mm underpinning movements in the horizontal and vertical directions using XDisp, alongside installation movements from a planar diaphragm wall in stiff clay. The XDisp results indicate that horizontal movements range between 4mm and 10mm, and vertical movements range between 5mm and 13mm. The results show that damage of Category 2 (Slight) will still occur to neighbouring walls. Section 11.2 of the revised BIA states that a sensitivity analysis was undertaken and determined the limiting movements that would prevent nearby structures experiencing damage exceeding Category 1 (Very Slight). By limiting movements from excavation to a maximum of 5mm on the horizontal plane and 4mm on the vertical plane, damage will remain within tolerable limits.

- The site is adjacent to grade II listed boundary walls at 36, 37 and 38 Downshire Hill. These walls are assessed in the GMA as part of the revised BIA submission.
- 4.21 The revised BIA and GMA make several assumptions relating to the construction sequence and propping arrangements that have not been confirmed by structural engineering input. Both documents should be revisited once the structural information is available.
- 4.22 The BIA states that monitoring of ground movements should be undertaken, the structures to be monitored during the construction stages should include the existing property and the neighbouring buildings assessed in the GMA. With condition surveys carried out before and after the proposed works. The precise monitoring strategy will be developed at a later stage and will be subject to discussions and agreements with the owners of the adjacent properties and structures.

5.0 CONCLUSIONS

- 5.1 The qualifications of the individuals involved in the BIA are in accordance with LBC guidance.
- 5.2 The proposed development comprises the construction of a single level basement beneath the footprint of the existing building with new lightwells to the front and rear. Formation level for the proposed basement is approximately at 3.20m bgl, which will be formed by 'hit and miss' underpinning.
- 5.3 A ground investigation was undertaken in July 2021 indicating that the basement will be founded within the London Clay.
- 5.4 Local perched groundwater may be encountered during basement excavation. The BIA recommends conventional sump pumping to deal with any groundwater ingress during the basement excavation.
- 5.5 Further information is requested in relation to the identified increase in hardstanding and proposed mitigation measures to control the impact to hydrology.
- 5.6 The site-specific Flood Risk Assessment (FRA) referenced in the BIA should be provided.
- 5.7 The BIA mentions that several construction methods are feasible, with the preferred approach being to construct the retaining wall through underpinning of existing foundations using a traditional hit-and-miss sequence. However, a structural method statement has not been provided and is therefore requested.
- 5.8 The construction sequence summarised in the BIA relies on drawings provided by consulting engineer, which are not included in the appendix as stated and are requested.
- 5.9 Geotechnical design parameters are provided and accepted.
- 5.10 The screening and scoping assessments indicate that the site includes slopes greater than 7°. The impact assessment highlights the need to ensure stability during construction. However, specific plans and measures for ensuring stability and addressing potential risks are not presented and are requested.
- 5.11 A revised Ground Movement Assessment (GMA) is provided. The associated Building Damage Assessment identifies that damage to most neighbouring structures will not exceed Burland Category 1 (Very slight) and suggests limiting movement values to control the damage to walls to keep it within Category 1.
- 5.12 The revised BIA and GMA make several assumptions relating to the construction sequence and propping arrangements that have not been confirmed by structural engineering input. Both documents should be revisited once the structural information is available.
- 5.13 The BIA indicates that a movement monitoring scheme is to be adopted to ensure that movements generated are maintained within predicted limits.
- 5.14 It cannot be confirmed that the BIA complies with the requirements of CPG: Basements and the Principles for Audit set out in the Basement Impact Assessment (BIA) Audit Service Terms of Reference & Audit Process, specifically:

- The methodologies and assumptions are not clearly stated and/or are not appropriate to the scale of the proposals and the nature of the site.
- The conclusions have not been arrived at based on all necessary and reasonable evidence and considerations, in a reliable, transparent manner, with sufficient attention paid to risk assessment and use of cautious or moderately conservative engineering values/estimates.
- The conclusions of the various documents/details comprising the BIA are not consistent with each other. The conclusions are not sufficiently robust and accurate and are not accompanied by sufficiently detailed amelioration/mitigation measures to support the grant of planning permission in accordance with Policy A5 of the Local Plan, in respect of:
 - maintaining the structural stability of the building, the ground and any neighbouring properties to within limits set out in the policy/guidance
 - avoiding adversely affecting drainage and run-off or causing other damage to the water environment and
 - avoiding cumulative impacts on ground and structural stability or the water environment in the local area.

5.15 Queries and requests for information are summarised in Section 4 and Appendix 2.

Basement Impact Assessment Audit
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Appendix 1

Consultation Responses

Residents' Consultation Comments

Surname	Address	Date	Issue raised	Response
Rosenfeld	Unknown	16 March 2024	Concerns regarding excavation and land stability.	The impact of ground movements arising from the proposed basement have been queried in this audit.
Sinclair	36 Downshire Hill	27 March 2024	Concerns regarding Ground Movements at boundaries of listed buildings, 24, 25 and 26 Downshire Hill.	
			Land stability concerns	
			Groundwater regime concerns	The impact to the hydrogeological environment has been queried in this audit.
Steinberg	Unknown	28 March 2024	Flooding concerns	The impact to the hydrological environment has been queried in this audit.
Marple	Unknown	30 March 2024	Flooding Concerns	
			Concerns regarding damage to Grade II listed boundary walls	The impact to the listed walls has been queried in this audit.

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Appendix 2

Audit Query Tracker

Audit Query Tracker

Query No	Subject	Query	Status	Date closed out
1	Land Stability	Question 6 of the Stability Screening Assessment indicates no tree felling, yet the Tree Survey and Arboricultural Assessment identify Tree T6 – Wild Cherry for removal. Clarification is requested.	Closed	28/05/2024
2	Hydrology	Detail of the mitigation measures for the increase in hardstanding are requested.	Open - See 4.7	
3	Hydrology/ Hydrogeology	The BIA makes reference to a site-specific Flood Risk Assessment (FRA) in relation to questions regarding surface water flow and flooding screening. However, the FRA is not provided and is requested.	Open - See 4.10	
4	Land Stability	Structural information, including construction method statement, outline retaining wall calculations and temporary propping arrangement are not provided and are requested.	Open - See 4.13 to 4.15	
5	Land Stability	The site has slopes exceeding 7 degrees, specific measures for ensuring stability are not outlined. Further clarification is requested.	Open - See 4.17	
6	Land Stability	The Ground Movement Assessment and Building Damage Assessment are to be reviewed and updated following the comments provided in Section 4 and once structural information is available.	Open - See 4.20 and 4.21	
7	Land Stability	Assessment of impact of tree removal on neighbouring properties is requested.	Closed	28/05/2024

Appendix 3

Supplementary Supporting Documents

None

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