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12 Pilgrim's Lane, NW3 1SN

Stage 2 - Planning Report and Basement Impact Assessment with Subterranean Construction Method Statement

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		Remarks:	Planning		
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Date:	30/06/22	Signature:		Signature:	

Executive Summary

0.1

Elliott Wood Partnership has completed many residential basement projects in London, many of which are within the London Borough of Camden.

0.2

Site investigation work has been carried out by Geotechnical and Environmental Associates Ltd (GEA) to confirm soil profile, contaminations levels and ground water conditions of the site.

0.3

The lower ground floor structure has been designed on the findings of GEA's Site Investigation and Basement Impact Assessment Report

0.4

GEA found the proposed development is predicated to result in negligible (Burland 0) or very slight (Burland 1) damage to the surrounding properties and predicted to have negligible impact to the wider hydrological environment, considering the Claygate Member was not encountered.

0.5

The development will be undertaken by qualified and experienced Contractors, following good workmanship procedures and methods. As such, the proposals do not compromise the structural stability of the existing, adjacent, or local structures.

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Our practice

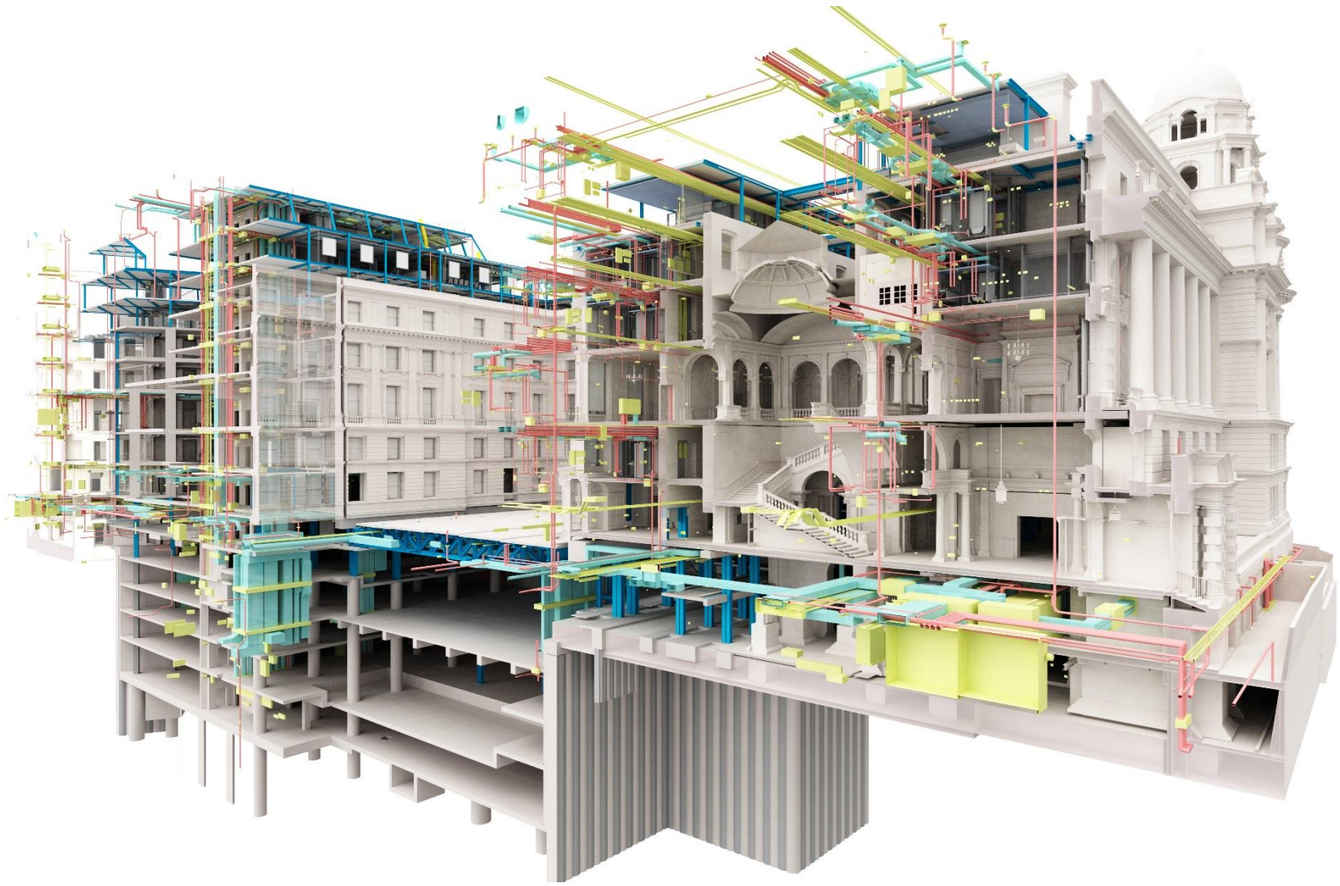
Elliott Wood work with likeminded people to engineer a better society

Our portfolio is extraordinarily diverse, and we particularly enjoy those projects which provide the opportunity to engineer for the common good – from making dramatic improvements to the life of a town or city, through to nurturing a new generation of exceptional engineers in our own in-house academy.

Despite more than twenty years in practice, we continue to be curious and find ways to pass on the benefit of our collective experience. We foster enquiring minds and share ideas because we know that this knowledge can make a real difference to our clients.

Engineering is often about the unseen: much of what we do is hidden when a building is complete. But engineering is not a necessary evil – it's much cleverer than that. Our role is to demystify the invisible workings of a structure, to reveal unexpected opportunities and to make the existing engineering work harder.

We value both technical and creative thinking and are activists for a new kind of engineering profession in which our craft is pivotal to the design process. We are no ordinary engineers.



Reveal / Materialise / Impact

Engineers make a difference

We like to be involved at the start of our clients' creative and commissioning journey, because we are concerned that not enough people are realising the full potential of their buildings. They are only working with what they can see.

Our process challenges usual perceptions of the engineer's role, because we help clients to see the unseen and achieve results beyond the aspirations of the brief – and which have a positive legacy for their wider communities.

Reveal

We ask questions. With innovative thinking, we reveal the unexpected opportunities in an already ambitious brief.

Materialise

We give ideas life. Using expertise and imagination, we materialise new assets for our clients.

Impact

We make a difference. Our work not only benefits our clients, it has a positive impact on society as a whole.

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One

Introduction

1.1

Elliott Wood Partnership is a firm of consulting structural engineers approximately 130 strong operating predominantly in central London. Residential developments of all scales have been central to the workload of the practice with many in the Greater London area. In particular Elliott Wood Partnership Ltd. have been producing designs for basements to both existing and new buildings. To date this numbers approximately 500 sites many of which have been in The London Borough of Camden. Our general understanding of the development of London, its geology, and unique features together with direct experience on many sites puts us in a strong position to advise clients on works to their buildings and in particular the design and construction of their basement.

1.2

Elliott Wood have been appointed by the Client to provide Structural and Civil Engineering input for the planning submission for the proposed lower ground floor and refurbishment works at 12 Pilgrim's Lane, London, NW3 1SN.

This report is to be read in conjunction with the drawings, plans and sections, produced by Elliott Wood and alongside the architectural documentation produced by Wolff Architects.

1.3

It is assumed that the following measures and subsequent sequence of works will be considered in the eventual design and construction of the proposed works.

Provided the works outlined are properly carried out by suitably qualified contractors, the works can be safely undertaken and will not impact on the structural integrity and natural ability for movement of existing and surrounding structures, utilities, and infrastructure.

1.4

Elliott Wood Partnership will oversee that adequate supervision and monitoring is provided throughout the works particularly during the excavation and demolition stages, should we be instructed to advance the project beyond the planning stage.

1.5

This report has been created to satisfy the requirements, as interpreted by Elliott Wood, set out in Camden Planning Guidance – Basements (January 2021) and Camden Local Plan policy A5. The design has considered, the impact on the surrounding environment, residents, as well as the appearance and character of the local borough.

Two

Description of Existing Building and Site

2.1 Overview

12 Pilgrim's Lane is situated in Hampstead, in the north of the London Borough of Camden, approximately 500m East of Hamstead Underground Station. Pilgrim's Lane is a residential street with a varied collection of residential properties, with the site sitting on the corner of an S-bend on the road. The site location is shown in Figure 1 in red.

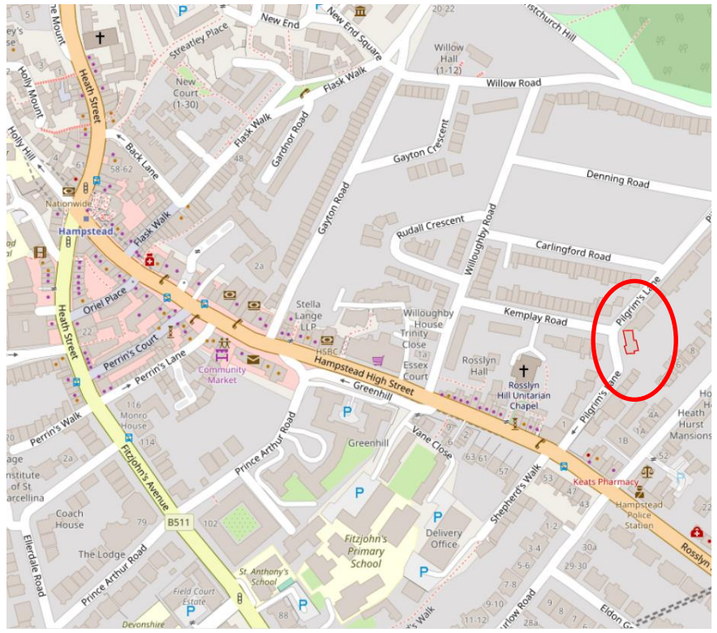

Figure 1: Site Location (OpenMaps)

2.2 Site History

Historically Pilgrim's Lane was once called Worsley Road, dating back to 1895. Historic OS maps illude that the area has always been residential, with no indication of larger industrial buildings. In 1912, the site of 12 Pilgrim's Lane was undeveloped and a grassed, open area with trees. From the 1953 OS map the footprint closely resembles the current building form. At some point a party wall with No14. was built. The historic OS maps are presented in Figure 2 and Figure 3.

Figure 2: Historic OS map - 1912

Figure 3: Historic OS map - 1953

There are a several recordings of UXOs in the vicinity of the site. However, none directly recorded to have been record at the site, see Figure 4. The London County Council Bomb Damage Maps indicate that the site and the surrounding residences were generally untouched during the Blitz.

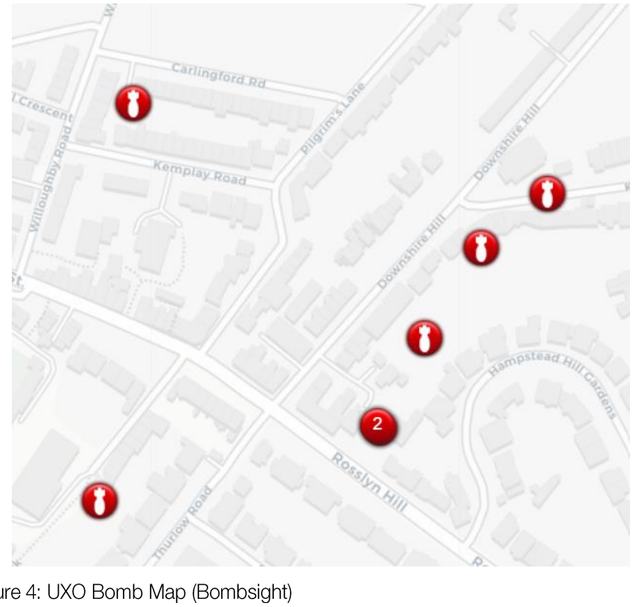

Figure 4: UXO Bomb Map (Bombsight)

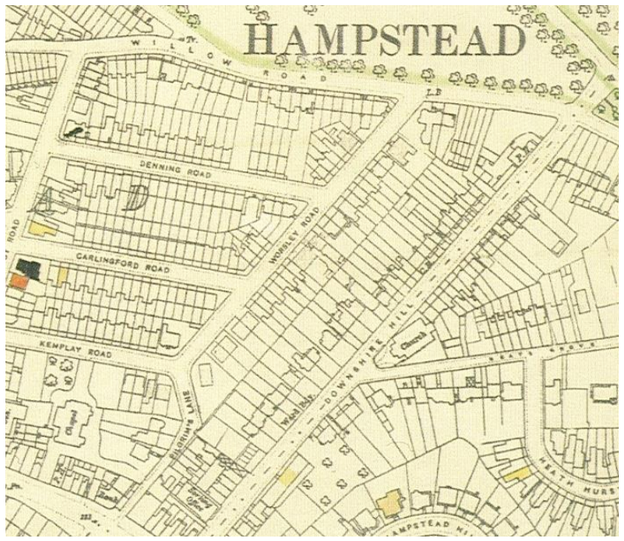

Figure 5: The London County Council Bomb Damage Maps, 1939-45

2.3 Site Constraints

2.3.1 TFL Assets

The site is situated approximately 120m north of the Northern Line running under A502. The site is outside of the influence zone of TFL assets.

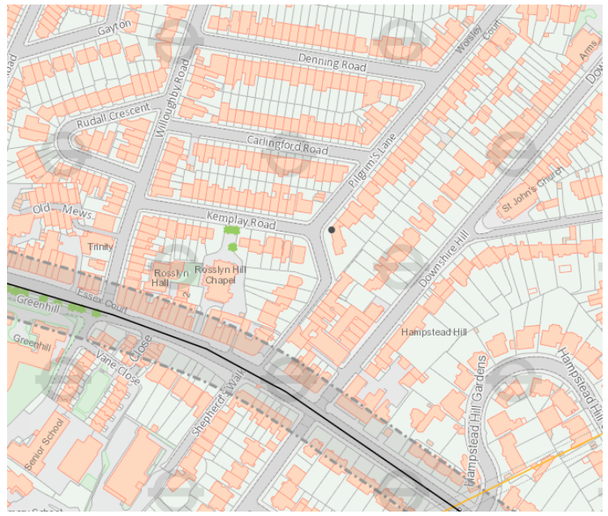

Figure 6: TFL asset location (TFL)

2.3.2 Listed Buildings

The site is situated near several listed buildings. Most notably, at the east of the site there are three Grade II listed buildings on Downshire Hill. The works are at sufficient distance from these properties that the excavation works are not anticipated to impact these properties.

Figure 7: Location of Adjacent Listed Buildings (Camden Council)

2.3.3 Conservation Area

The site is situated within the Hampstead Conservation Area.

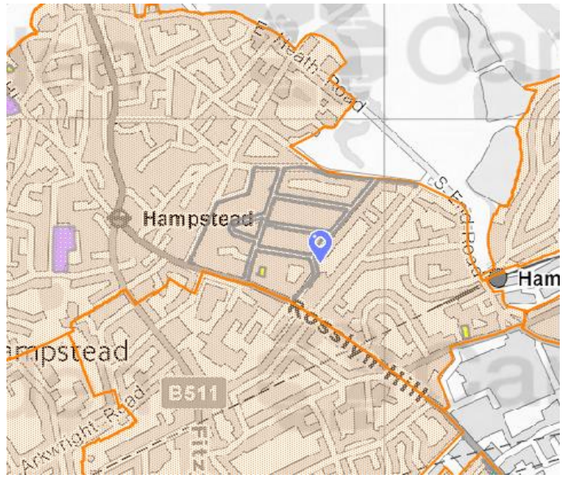

Figure 8: Site location in Hampstead Conservation Area (Camden Council)

2.3.4 Lost Rivers

The site is situated approximately 375m from the closest point of the River Fleet. The site is shown in red.

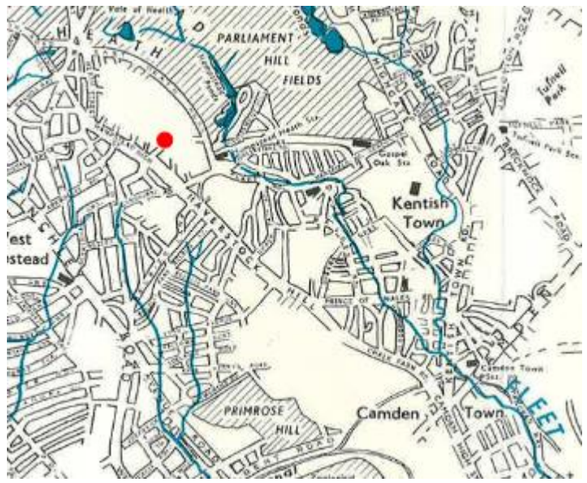

Figure 9: Lost Rivers of London (Nicholas Barton)

2.3.5 Archaeological

Running adjacent to the site is a known Medieval highway, according to MOLA records.

Figure 10: Site location (MOLA)

2.3.6 Contaminated Gas

The site is in an area where less than 1% of homes are above the Action Level and would require measures to protect against Radon.

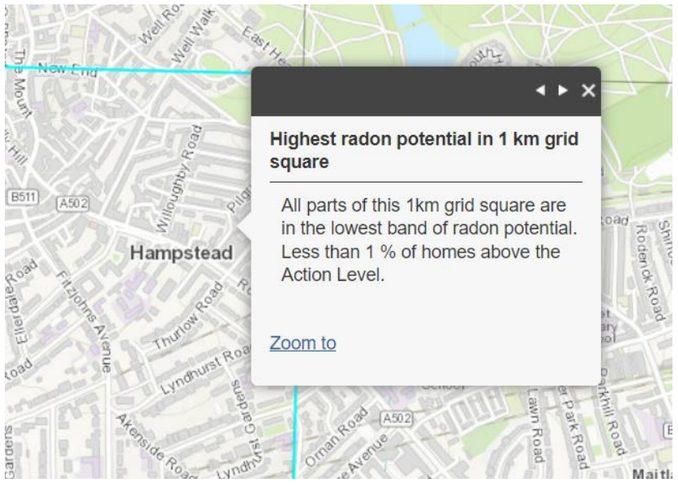

Figure 11: Map showing radon exposure potential (UK radon)

2.3.7 Tree Protection Orders

There are several mature trees who root zone encompass a significant portion of the site. An Arboriculturist has produced a report on the condition and classification of these trees, which has been included in Appendix J. Considerations have been made for where the roots zones are within the building footprint.

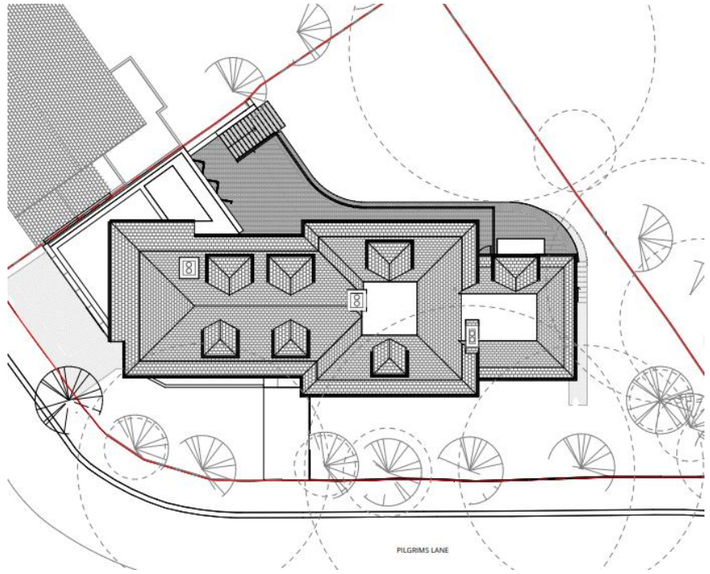

Figure 12: Proposed site plan with RPZs shown indicatively (Wolff Architects)

2.3.8 Topography

A Measured Building Survey was undertaken by Target Surveys in September 2021.

External levels show that the site is largely flat but with differing topographical features and levels on the west and east sides of the building. The westside falls to the southeast towards the building, with levels starting at 99.9AOD to 99.7AOD. The eastern side has a fall to the southeast away from the building, with levels starting at approximately 97.55AOD and falling to approximately 97.25AOD at the boundary of the garden.

The topographic survey has been included in Appendix E.

2.3.9 Flood Risk Assessment

A full flood risk assessment has been prepared and is included in Appendix F. In conclusion, following a review of all relevant available information, the proposed development is considered to be at low risk of flooding from all sources and will not increase the flood risk to the surrounding area.

2.4 Existing Structure

The existing site contains a single home, which at some point was split into No. 12 and No.12A, presumably to create a small rental property or as a separate space for some independence from the main house.

The construction of No.12A is clearly of more modern construction and from the historic maps, was not present on the site until after 1945.

The construction of both properties is load-bearing solid masonry walls supporting timber floors with a timber truss roof.

The Party Wall between No.14 and No.12A is anticipated to be a pair of separate leaves.

The overall stability of the existing buildings is provided by the cellular layout of the masonry walls and diaphragm action of the timber floors at each level.

Trial pits were undertaken to expose the existing foundation construction and depth relative to the current ground levels. The foundations to the existing building were found to be corbelled masonry sat on a concrete bed with a total depth below ground of about 0.85m.

The main building has a small lower ground floor which facilitates a level access out to the garden.

Architect's drawings of the existing building and proposed new building are included in Appendix C.

2.5 Geology

Elliott Wood Partnership Ltd. and the Site Investigation Contractor, Geotechnical and Environmental Associates Ltd. (GEA), have a comprehensive understanding of the underlying ground conditions in the area gained from the numerous basement projects we have completed in the vicinity.

A site investigation has been carried out by GEA, the full results of which can be found in Appendix D. The investigations consisted of 2No. boreholes to 8.0m BGL, 2No. window samples and 10No. trial pits.

The ground conditions experienced on site were as expected comprising 0.5m to 1.0m of Made Ground overlying London Clay.

Ground water was not encountered by GEA in the investigation works and was not anticipated either due to the soil's low permeability. A standpipe was installed and monitored once after the main investigation works. Water was found in the standpipe at 3.0m depth has been attributed by GEA to be perched water, and not an indication of the water table.

The structural design of the retaining walls will conservatively assume that the phreatic surface is 1.0m below ground level. Uplift from perched water within the Made Ground overlying the impermeable London Clay, tracking under the lower ground floor, is to be resisted by the building mass on raft construction. Details to be developed in stage 3.

Three

Proposed Alterations

3.1

The proposed alterations include:

- Forming a new RC lower ground floor under almost the whole footprint of the building but avoiding undercutting the party wall with No.14 Pilgrim's Lane.
- The lower ground floor is to include a swimming pool on the south side.
- Reconfiguring the internal space, with reconstruction of the floors with new steelwork and timber joists above for first floor and up. The ground floor is to be formed with an RC slab as part of the lower ground floor works, forming an RC box.
- An extension to the building footprint to the south.
- Rebuilding of the roof to allow for a habitable "loft" space formed of cranked steel beams and columns with new timber joists and rafters.
- A new green roof and roof light at first floor level over a new larger garage space, adjacent to 14 Pilgrim's Lane.
- Various landscaping works to the garden to facilitate level access from all areas of the new lower ground floor.
- Significant portions of the front and back masonry walls are to be kept and reused as part of the permanent structure.

3.2

As part of the proposals, the preserved masonry walls are to be inspected and repaired were required. Where existing walls are being altered or adapted for new or extended openings, steel box frames on new RC foundations are to be installed where contribution to global stability needs to be reinstated. Lintels will be used for openings which can be accommodated without affecting stability.

New internal walls are to be formed in timber or light gauge steel studs with deflection heads to accommodate deflection in the floor construction over.

3.3

The new lower ground floor and ground floor slab are to be formed of a reinforced concrete box, comprising:

- RC external walls on 3 sides, formed in an underpinning sequence under existing load bearing masonry walls or cast within formwork following battened back excavation away from walls not proposed to be underpinned. Full extent of underpinning to be confirmed at detailed design. No underpinning to party walls is anticipated.
- An RC raft slab. Heave has been indicated to be significant on the site and measures either resist the heave forces or mitigate against them with heave protection boards will be determined in the next stage.
- An RC shear keys will be incorporated into the raft to restrain the building against sliding, which is intended to be utilised in both the temporary and permanent condition.

3.4

The new roof structure is to be formed of a steel frame with cranked roof beams, in addition to timber rafters. The existing chimney's likely to be rebuilt and restrained with new galvanised steel subframe. Where attempt to preserve the chimneys are being considered, suitable high friction DPCs will be incorporated.

3.5

The overall stability of the building above ground is to be provided by new portalised and braced steel frames with timber floor plate transferring load via diaphragm action. Some contribution from the preserved masonry walls is also to be utilised. Below the ground floor level, stability loads are to be resisted by a combination of the retaining walls, concrete fins and moment frames.

3.6

The lowest point of the excavation is expected to be up to 4m below the existing ground level. The geological investigation carried out by GEA indicated no groundwater present within the 8.45m deep borehole carried out. If water is encountered on site, it is likely that this is perched water, and it will be delt with locally via pumping. When a contractor is appointed, it would be prudent to raise this as a potential risk and request they propose a suitable method of construction.

3.7

Surface water runoff from the proposed development will be managed through the use of permeable paving and below ground geo-cellular attenuation, with the peak discharge rate restricted to 2.0 l/s.

All foul water drainage from above ground floor will offset at high-level within the building, as designed by the M&E engineer, and drop to the below ground drainage network. All ground floor drainage will be connected to this network. To protect the building from flooding due to sewer surcharge all foul drainage below ground floor level will be positively pumped, discharging to the high-level suspended gravity network.

It is proposed that foul and surface water will outfall from the site via the existing 100mm diameter combined outfall to Pilgrim's Lane.

The Sustainable Drainage Strategy can be found in Appendix G.

The development boundary is over 6.0m away from the Thames Water sewer on plan, and as such there is no need for a sewer build near or build over agreement. Confirmation of this has also been included in Appendix G.

3.8

In co-ordination with Wolff Architect's details, the proposed lower ground floor will be designed to achieve a Grade 3 level of waterproofing protection in accordance with BS 8102:2009.

This is intended to be provided by using waterproof concrete with hydrophilic strips for the lower ground floor underpins and slab construction in combinations with an internal cavity drain system, designed by others

3.9

As part of the Clients' desires for a sustainable construction approach to their development, the design team has endeavoured to maintain much of the existing structure, where it has a positive impact on the architecture, internal space and facilitates good construction.

Our specifications will indicate that where possible recycled steelwork should be used and appropriate alternatives to Portland Cement within the concrete mix sort. Recycled aggregates will also be considered.

All new structural timber will be supplied from sustainable sources.

Four

Party Wall Matters

4.1

The proposed works fall within the scope of the Party Wall etc Act 1996. Procedures under the Act will be dealt with in full by the Employer's Party Wall Surveyor. The Party Wall Surveyor will prepare and serve necessary notices under the provisions of the Act and Agreed Party Wall awards. The Contractor will be required to provide the Party Wall Surveyor with appropriate drawings, method statements and other relevant information covering the works that are notable under the Act. The resolution of matters under the Act and provisions of the Party Wall Awards will protect the interests of the building and adjoining owners.

4.2

The proposed works will be developed so as not to inhibit any works on the adjoining properties. This will be verified by the Surveyors as part of the process under the Act.

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Five

Ground Movement Assessment Summary

5.1

A Ground Movement Assessment (GMA) has been completed by GEA which considers the short- and long-term effects of the proposed development on the neighbouring structures. Details of the analysis can be found in GEA report included in Appendix D.

5.2

The assessment concluded that the construction is unlikely to cause significant damage to surrounding structures with a maximum degree of damage predicted at Burland Category 1. This is within the limits as prescribed by Camden Policy A5. This is provided that appropriate consideration is given to the detailed design and good workmanship and practise is adhered to through the construction phase.

5.3

Early movement monitoring of the boundary walls to the neighbouring buildings is recommended during the construction stage and trigger levels should be set to protect the neighbouring properties as a precautionary measure. A monitoring specification is to be agreed with the Contractor prior to commencement of construction as part of the Party Wall Award.

5.4

GEA Basement Impact Assessment also highlighted that the unloading of the excavation is expected to result in a degree of heave. By incorporating a stiff foundation raft slab, the building loading is to be evenly distributed, limiting the long-term heave impacts. Details to be developed in stage 3 design. Raft construction will equally limit differential settlement.

Six

Hydrological Statement Summary

6.1

As part of the Basement Impact Assessment, GEA have accessed the proposed scheme and deemed that the works will not have an impact on the local hydrological setting. See Appendix D.

6.2

Although the east of the site is mapped by the British Geological Society as underlaid by the Claygate Member, which is classified as a secondary 'A' aquifer, this stratum was not found during investigations.

6.3

Although the ground water table was not penetrated during the investigations works, it is anticipated that a provision for sump pumping will be adequate to deal with any inflow of water.

Seven

Outline Construction Method Statement

The proposed works include the construction of a new partial single storey lower ground floor including new pool and alterations and extensions to the house over.

Some of the issues that affect the construction sequence of the RC box structure are:

- Maintaining stability of the existing structure
- Maintaining stability of adjoining/adjacent structures
- Forming a sensible access onto the site to minimise disruption to the neighbouring residents
- Providing a safe working environment

The Contractor is responsible for maintaining the stability of the existing building and adjoining building and all works from the date of possession of the site until practical completion works.

It is anticipated that the lower ground floor works will be completed in a 'bottom up' construction process.

The following text outlines a feasible construction methodology for the works and should be read in conjunction with the suggested sequence of works drawings in Appendix B of this document, where more detail has been provided. A full set of temporary works drawings and supporting calculations will be provided by the contractor and will be reviewed by Elliott Wood prior to work commencing on site.

The Contractor will consider their own construction strategy, in discussion with the design team, once appointed.

7.1 Stage 1

- Contractor takes procession of the property and commences site set up; including installation of hoardings, welfare facilities etc.
- Soft strip out of the property is completed.
- Installation of scaffolding and temporary roof
- Installation of temporary timber bracing to window bays

7.2 Stage 2

- Existing roof coverings and roof structure are removed (whilst initially maintaining attic joists to keep façade walls restrained)
- Existing chimneys are ideally also removed. (If retained, temporary works installed to maintain them in the temporary condition)

7.3 Stage 3

- Temporary works pads are installed at lower ground floor level
- Temporary works columns installed within property and raking props installed externally (any internal columns to be threaded up through the existing floors)
- Temporary works waling beams fixed back to existing walls below each existing floor level. Temporary work beams then installed to span between waling beams and or temporary works columns

7.4 Stage 4

- With temporary works in place, commence removal of internal floors and walls, starting from the attic and working down.
- Create openings within external walls for access to lower ground floor excavation.

7.5 Stage 5

- Commence sequential mass concrete underpinning and dry packing where required (allowing sufficient time for mass concrete and drypack to cure prior to proceeding to next pins in the sequence)
- Commence reinforcement underpinning to demarcated area below front wall of the property (allowing sufficient time for RC and drypack to cure prior to proceeding to next pins in the sequence)
- Install thrust blocks and temporary raking props to retain the reinforce underpinning retaining walls in the temporary condition until the ground floor permanent prop is installed.

7.6 Stage 6

- With underpinning complete, commence bulk excavation of lower ground floor by battering excavation back from party walls and existing walls of the property not underpinned
- Any soft spots in the London Clay are to be rolled and back filled with compacted granular material prior to lean mix blinding being placed
- Install the new lower ground floor raft, tying it into the temporary thrust blocks and reinforced underpinning
- Install remainder of RC basement retaining walls and internal columns

7.7 Stage 7

- Install temporary falsework/formwork for new ground floor RC slab
- Install RC slab and connect the slab back to the retaining walls (for restraint back to reinforcement underpinning, RC stem is to be recessed partially within existing brick wall)

- Allow slab to cure prior to striking and back propping

7.8 Stage 8

- After lower ground floor box has cured, temporary LGF raking props may be removed
- Commence installation of new steel framed superstructure
- Install new diaphragm timber floors and tie back to existing masonry walls via restraint straps secured into concrete pockets within walls.
- Remove wailing beams and ties at each level once permanent structure is installed.

7.9 Stage 9

- Repeat steps in stage 8 until all new floors have been installed and all temporary works have been removed.

7.10 Stage 10

- Install new cranked steel and timber roof and either rebuild chimneys to match existing (restrained via a galvanised steel subframe) or install permanent steel supports and restraint if the chimneys have been retained in-situ

Eight

Dust, Noise & Vibration Mitigation

8.1

The Camden Planning Policy A5 and associated guidance on basement works indicates that appropriate measures are taken to ensure that construction impacts such as noise, vibration and dust are kept to acceptable levels during the works.

The most disruptive aspects of the works are the demolition works and the excavation works to form the lower ground floor.

This section describes mitigations measures that are proposed and will be proposed to the tendering contractors for these works.

8.2 Demolition

The breaking out of existing structures is suggested to be out by diamond saw cutting and hydraulic bursting where practicable to minimise noise and vibration to the adjacent properties. All demolition and excavation work will be undertaken in a carefully controlled sequence, considering the requirement to minimise vibration and noise. The Contractor will be advised to utilise non-percussive breaking techniques where practicable.

As the property is in close proximity to others, careful consideration needs to be given to minimise noise and vibration transfer to the adjoining property. The Contractor will consider that where any slab is adjacent to the boundary the slab or plate should be diamond saw cut first along the boundary to isolate the slab from any adjoining structures.

Dust suppression equipment should be considered during the demolition process to limit airborne dust. Where practical, concrete should also be wetted down prior to and during breakout to further inhibit airborne dust.

8.3 Underpinning

The underpin shafts is suggested to be excavated using hand tools where possible. At the base of the underpin shaft it may be found that compressed air tools are required due to the compaction of the ground. Care should be taken in selecting a suitable air compressor that keeps noise to a minimum. The air compressor should be located within the site and behind a hoarding to minimise noise transfer to the adjoining properties.

The spoil could be removed from the excavation using an electrically powered conveyor or by hand. The Contractor will need to ensure that this is regularly serviced and inspected to reduce noise. In order to minimise dust, skips and conveyors should be covered.

8.4 Excavation

Due to the size of the excavation, it is likely that some mechanical plant will be required to complete the bulk excavation. The Contractor should ensure that any mechanical plant is switched off when not in use and is subject to regular maintenance checks and servicing.

8.5 Construction

The Contractor should ensure that any concrete pours are completed within the permitted hours for noise generating works. The Contractor should allow for a contingency period to ensure that concrete pours can be completed within these hours regardless of unforeseen circumstances such as batching plant delays and traffic congestion. The fabrication and cutting of steelwork for the reinforced concrete walls and underpins should take place off site. If any rebar needs to be trimmed on site, we suggest that it be completed using hydraulic or pneumatic tools instead of angle grinders.

8.6 Dust Control

In order to reduce the amount of dust generated from the site, the Contractor should ensure that any cutting, grinding and sawing should be completed off site where practicable. If cutting, grinding and sawing is being carried out on site, surfaces are to be wetted down prior to and during these types of work whenever possible. Any equipment used on site should be fitted with dust suppression or a dust collection facility.

The Contractor will be responsible for ensuring good practice with regards to dust and should adopt regular sweeping, cleaning, and washing down of the hoardings and scaffolding to ensure that the site is kept within good order. The Contractor selected will be a member of the Considerate Contractors Scheme or at least agree to follow the principles as set out in the scheme. Contact details of the Contractor who will be responsible for containing dust and emissions within the site will be displayed on the site boundary so that the local residents can contact the Contractor to raise any concerns regarding noise and dust.

Stockpiles of sand or dust-generating materials should be covered and container of cement, fine aggregates, sand and other fine powders should be sealed after use.

Nine

Movement Monitoring Proposals

9.1

The Contractor is to provide monitoring to all structures adjacent to the excavation during excavation and construction. The extent of this is to be agreed with the Party Wall surveyors.

9.2 Proposed Monitoring Regime

- Monitoring is to start one month prior to starting structural works, including any demolition works, to establish a base reading.

- Once works commence a reading should be taken and the start and end of every shift during the excavation and construction of the lower ground floor and maintained until the concrete is up to strength.

- After the completion of notifiable works monitoring is to continue for six months to confirm the performance of the construction.

- The frequency of readings is to be agreed as part of the party wall awards.

9.3 Trigger Values

The final trigger values are to be agreed as part of the party wall awards, however a preliminary set of limits and the agreed responses are suggested below.

As part of the works, notwithstanding party wall agreements, the Contractor will be responsible for the reviewing of the movement monitoring results and provide immediate advice and remedial works should it be proved necessary. This review process could be undertaken by a separate appointment under the Contractor.

Below are stated suggested Amber and Red trigger points for this work.

Code Amber Trigger

Settlement = +/- 5mm Lateral Displacement = +/- 5mm

All interested parties, including the Adjoining Owner's Surveyor and their Engineer should be informed and further actions immediately agreed.

Should these trigger values be reached the Contractor and their Engineer must provide all interested parties with their plan for emergency works.

The Contractor must have ready emergency access suitable temporary props, needles and concrete should this event arise.

Code Red Trigger

Settlement = +/- 8mm Lateral Displacement = +/- 8mm

As above and all works will be stopped to ensure that the site is safe with emergency measures later as per Code Amber.

The Contractor will need to confirm that following the emergency works the movement has halted.

The requirements of the Party Wall Act will then ensure that, Surveyors and their advising Engineers enter an addendum Award, setting out whether the Building Owner's works can re-commence and when.

Additional precautions or modifications to the proposals prior to re-commencement may be required.

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Conclusion

- The proposed development includes the forming of a new single storey RC lower ground floor below the existing property, with modifications to the existing superstructure and an extension to the south.

- If the works are undertaken by a suitably experienced and qualified Contractor, they should not pose any significant threat to the structural stability or condition of the existing adjacent buildings.

- The proposal is expected to have a negligible effect on the local hydrology.

- The development is at low risk of flooding and does not increase the flood risk to the local area.

- Elliott Wood is to have an on-going role in ensuring that works are generally carried out in accordance with the detailed design drawings and specifications.

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Appendices

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