12 Park Village West, London, NW1 4AE

Basement Impact Assessment
Structural Engineer's Supporting Report

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Reviewed by:	Michael Brown MEng CEng MIStructE
Job Number:	29838
Document Reference:	29838-RP-0001

Date	Revision	Notes/Amendments/Issue Purpose
May 2023	P01	For Planning
September 2023	P02	Updates For Planning

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Contents

1 Introduction

Price & Myers have been appointed by the Client to provide Structural and Civil design consultancy in relation to the proposed development at 12 Park Village West, London. Adam Richard Architects are the appointed Architects and Lead Consultants. This document has been produced to assist in the production of information to be submitted for planning approval for the development.

Geotechnical and Environmental Associates Limited (GEA) are the appointment Geotechnical Consultants responsible for ground conditions and hydrogeology surveys and assessment of ground movements resulting from excavation of the proposed basement. GEA have also appointed to assess the extent of any contamination and to provide information to assist with the design of the basement structure and suitable foundations. GEA's full report - reference: J23136, Rev 0 - can be read as part of the planning submission.

This report outlines the progress of the design at Planning Application Stage.

The proposed sub-structure development involves the construction of a new basement beneath the Coach House on the western part of the site, extending to a depth of approximately 4.5 meters. The project also includes a link structure, ranging from 2.5 to 3.5 meters deep, that will connect the new Coach House basement to the lower ground floor of the main house. Additionally, the wider works will include the construction of a new conservatory, with an opening to the link structure, and the creation of a new external terrace/patio area.

1.1 Executive summary

This Basement Impact Assessment (BIA) is issued to demonstrate compliance with the London Borough of Camden (LBC) planning requirements for new basement construction. It has been prepared and reviewed by Structural Engineers experienced in the design of deep basements and excavation works.

This report provides:

- A detailed discussion of the proposed basement works at the property.
- Survey information, in relation to the condition of existing buildings.
- A summary of the geotechnical conditions, based on a Ground Investigation and Basement Impact Assessment report (Doc ref. J23136, Rev 0 dated March 2024) produced by Geotechnical and Environmental Associates (GEA) . This describes existing ground conditions, groundwater levels and hydrology, and soil properties.
- Outline proposals for both the substructure and superstructure.
- An outline construction sequence.

2 The Site

2.1 Site Location

12 Park Village West is a grade II* listed villa originally dating from about 1832-7 as part of James Nash Regents Park development. It is situated to the West of Regents Park and originally had the Regents canal at the bottom of the garden to the east. The canal has long since been filled in and the garden extended over this area. The rail line serving Euston Station is a bit further east of the old Regents canal.

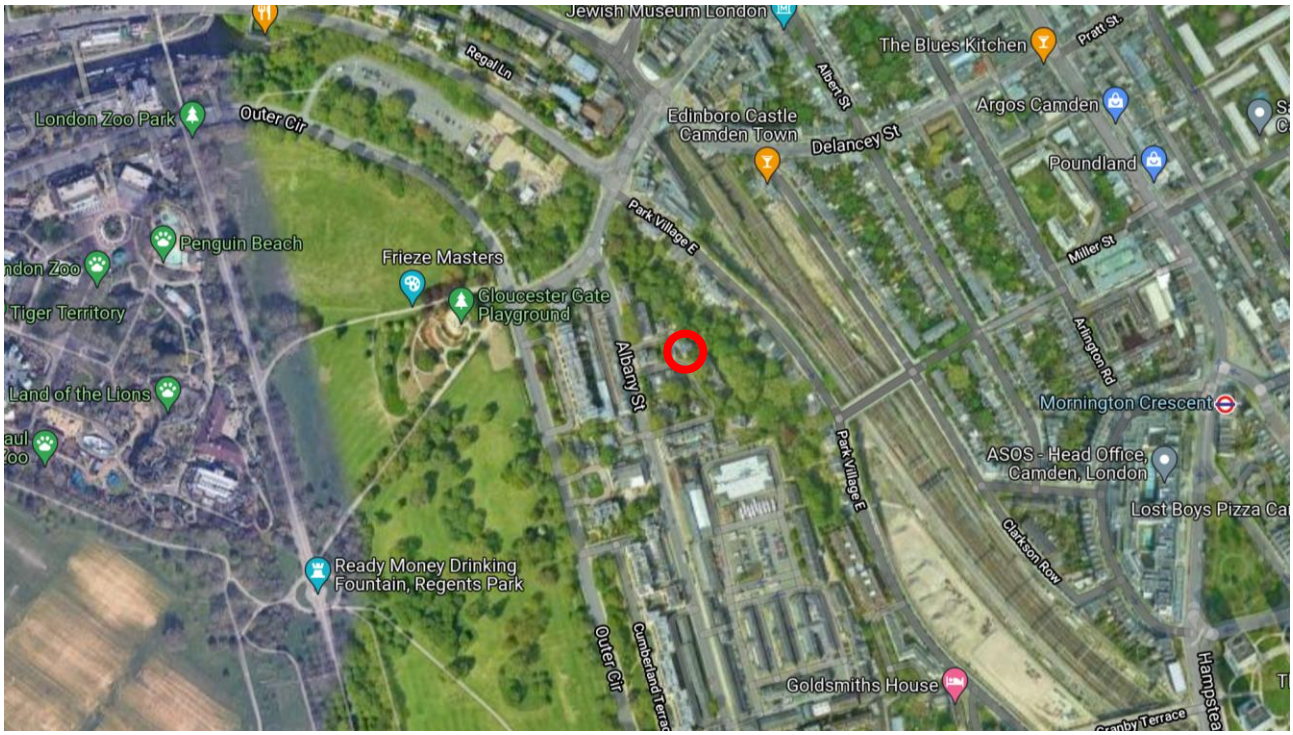


Figure 1 - Google map extract showing site aerial view

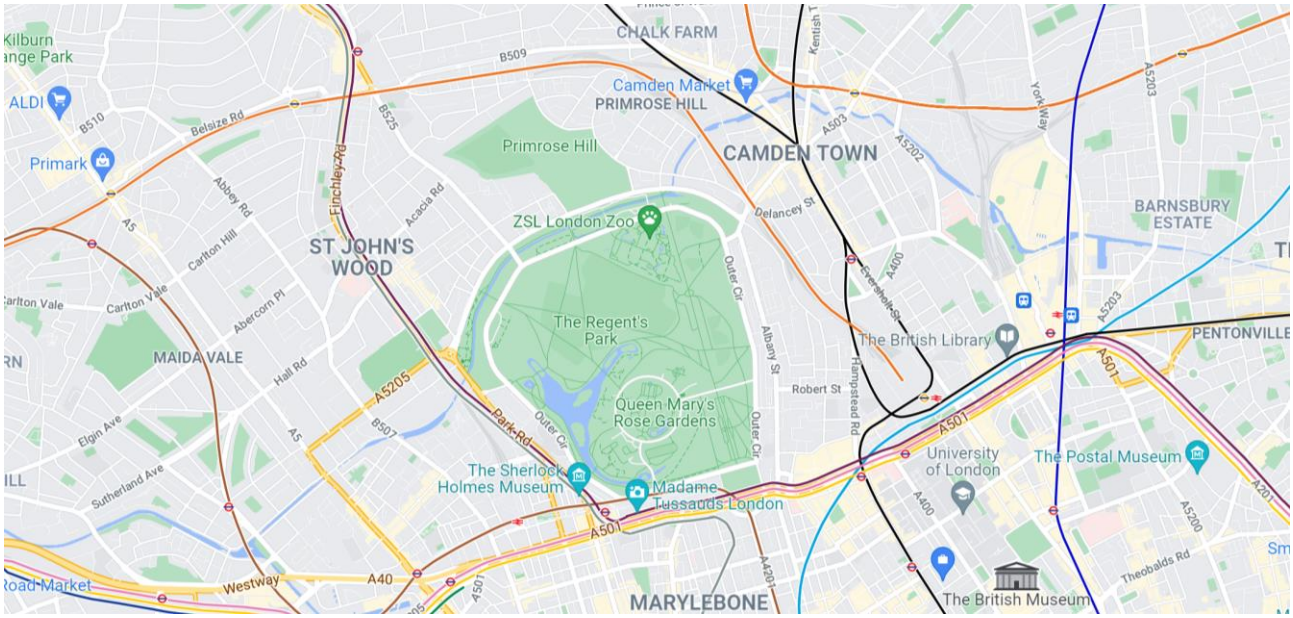


Figure 2 - Google map extract showing site view

2.2 Site Background

The villa is situated on the bend of the road and the site slopes down to the east where the old canal once was. It has an octagonal entrance tower to the South of the main building the garden sits to the east and the old coach house / garage to the west. The house is linked to the coach house with a single storey room and corridor. Due to the site slope, the main house is entered from the street at ground level and the garden from the lower ground floor. The main house has a first floor with the entrance tower extending up further with a small second floor room. The coach house is two storeys ground and first. See plans below and photos in Appendix A.

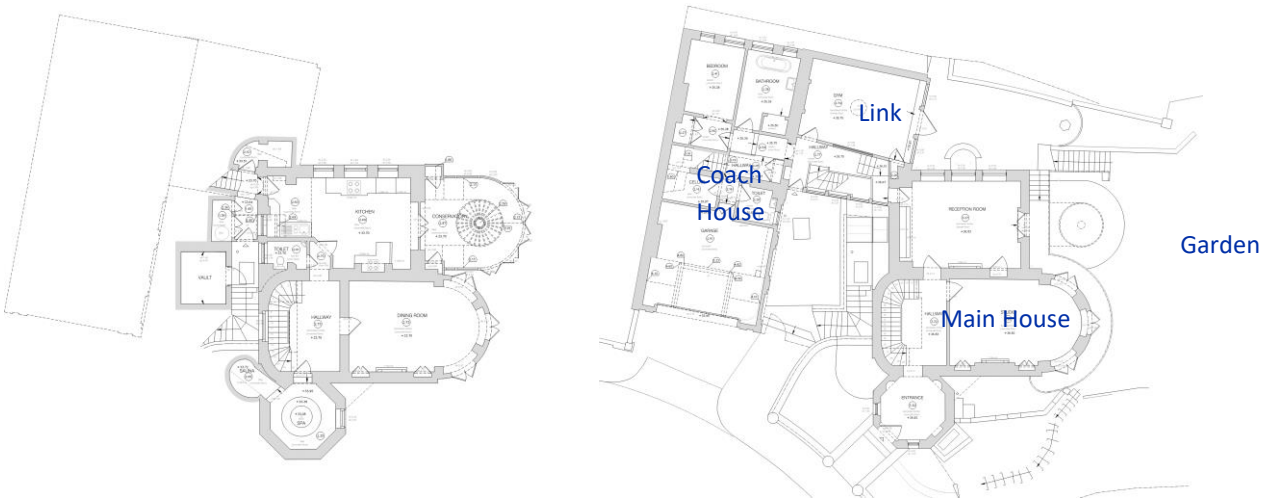


Figure 3 - Lower Ground Floor Plan and Ground floor Plan

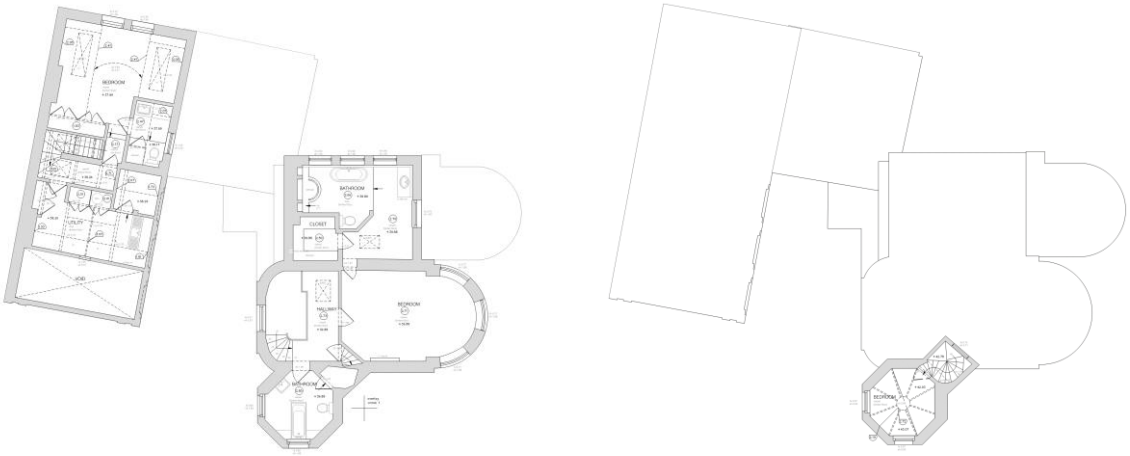


Figure 4 - First Floor Plan and Second Floor Plan

The area was bombed in the second world war - the military barracks nearby may have been a target, but even though the neighbouring properties were damaged no damage was recorded to the house.

Figure 5 - WW2 London Bomb Damage Map Extract

Looking at other maps for the area, the house first appeared on OS maps back in 1875, figure 6; the lost rivers of London, figure 7, shows the Tyburn to the West, in the middle of Regents park and the canal just to the east.

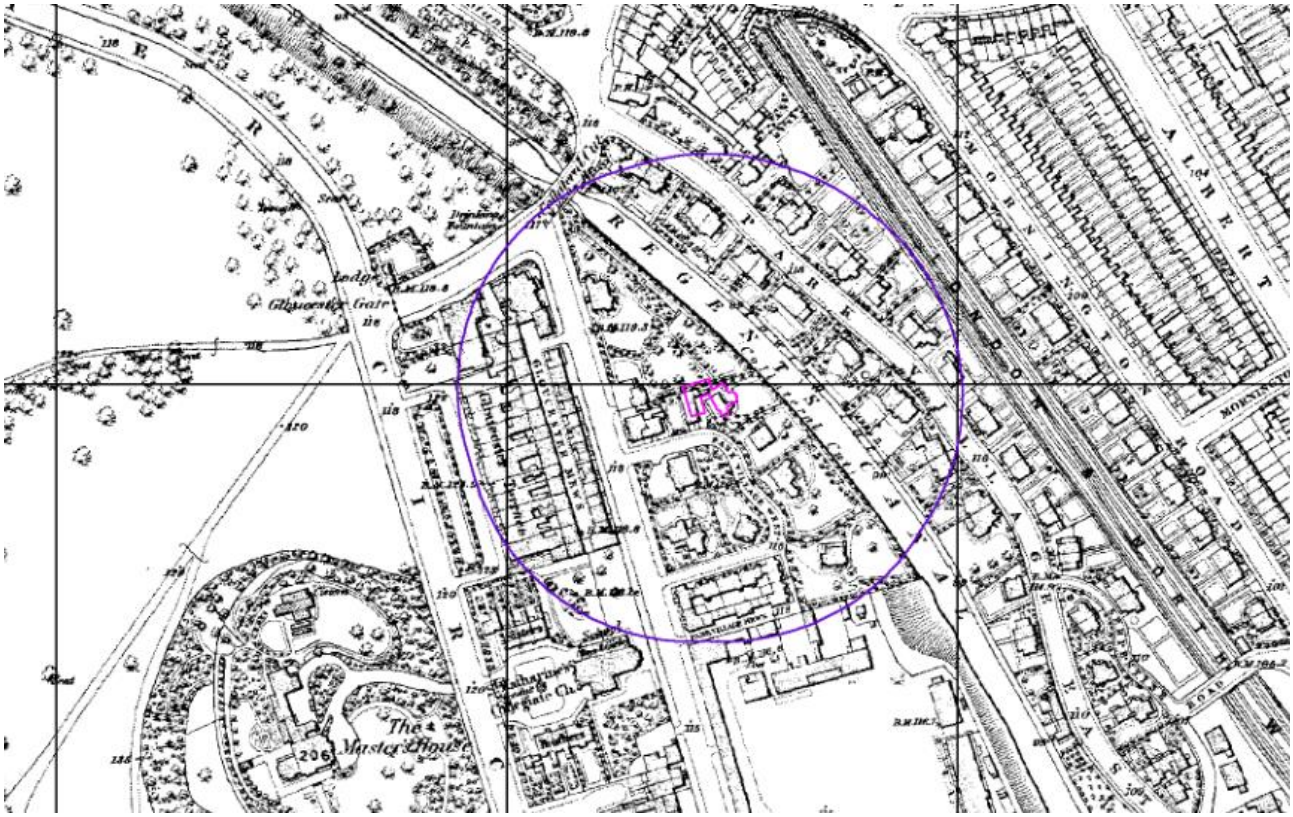


Figure 6 - 1875 OS Map

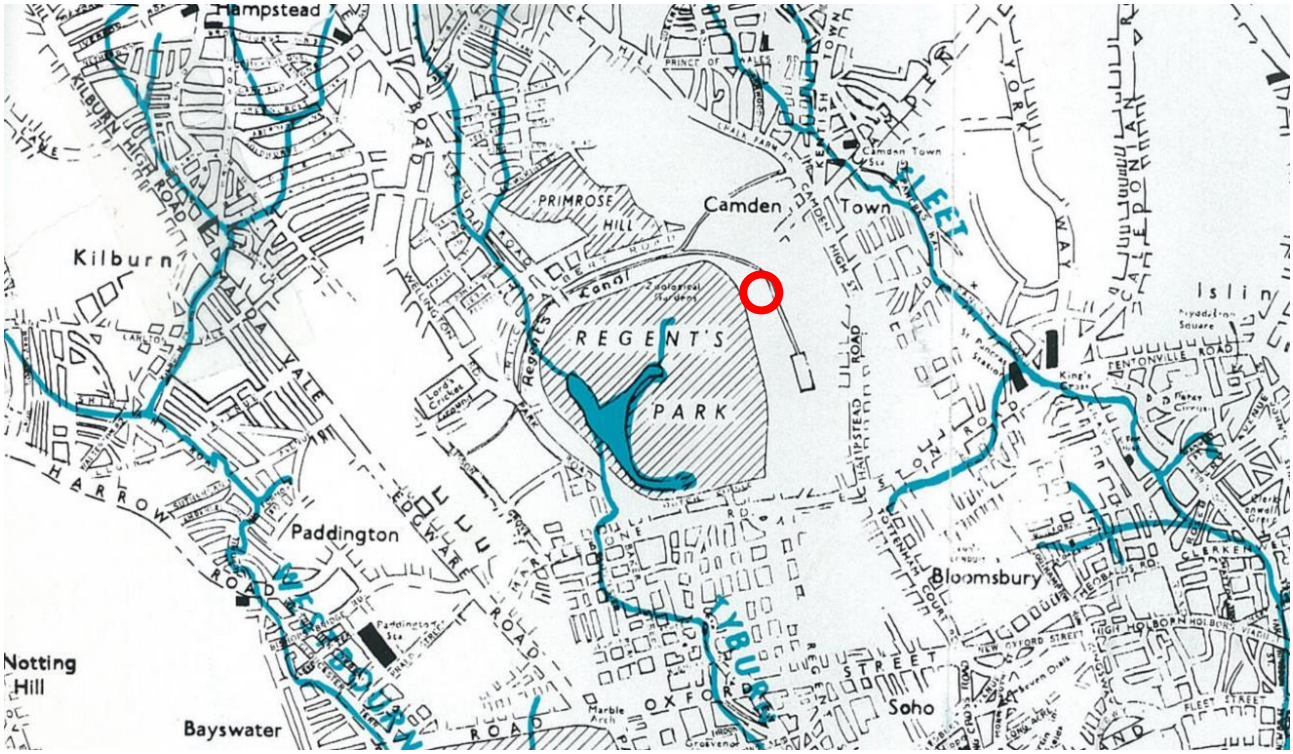


Figure 7 - Lost Rivers of London Map

Checking the environment agency flood map, figure 8, with no active rivers near by the site is in flood zone 1.

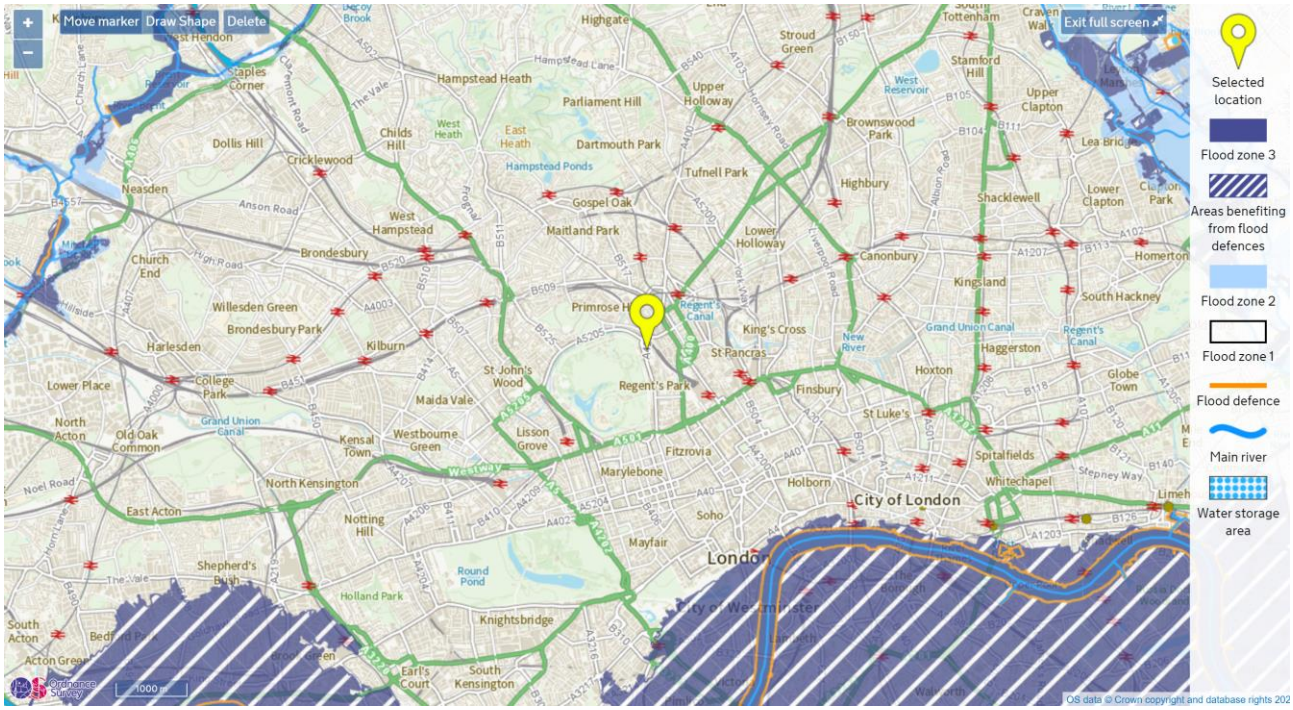


Figure 8 - Environment Agency Flood Map

3 Ground Conditions

A Ground Investigation and Basement Impact Assessment report has been completed by Geotechnical and Environmental Associates (GEA), ref. J23136, Rev 0, dated 18 March 2024 dated March 2024. The report includes a detailed output of the ground conditions found on site, and is summarised in the following section.

3.1 Geology

The British Geological Survey (BGS) map of the area indicates that the site is underlain by London Clay, which according to the British Geological Society memoir, comprises a homogenous, slightly calcareous silty clay to very silty clay, with some beds of clayey silt grading to silty fine-grained sand. GEA's ground investigations confirmed this, with on-site testing confirming that beneath a moderate thickness of made ground, London Clay was encountered to the full depth of any investigations.

3.2 Site Investigations

The GEA site investigation comprised the following:

- Five drive-in window sampler boreholes, advanced to depths of between 2.80 m and 5.00 m
- Two groundwater monitoring standpipes, to depths of 4.00 m and 5.00 m
- Two window sampler boreholes, advanced to depths of 4.00 and 5.00 m
- Seven hand-dug trial pits to provide information on the existing foundations and boundary wall conditions
- Laboratory testing of selected soil and root samples for contamination and geotechnical purposes

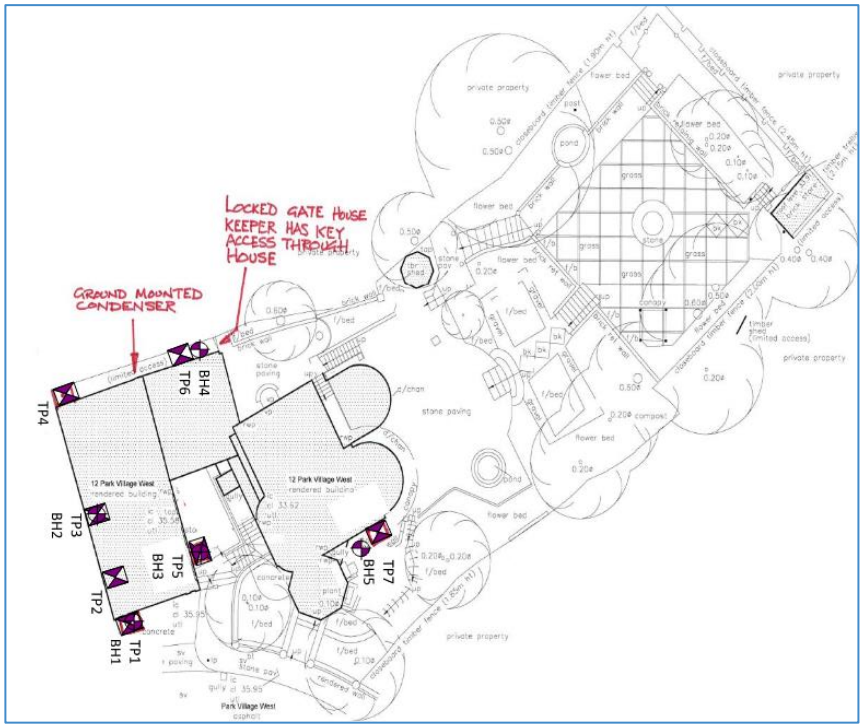


Figure 9 - Site Investigation Plan

3.3 Contamination

Based on an initial desk study, the site is considered low risk for contamination. Some elevated levels of lead were found in samples of the made ground. The implications and significance of these findings are discussed in GEA's report.

3.4 Hydrology and Hydrogeology

The presence of water during the investigation is considered to represent the ingress of surface water or perched, which is then unable to drain away due to the low permeability of the surrounding soils, rather than being indicative of a general groundwater table.

3.5 Flood Risk

The Environment Agency (EA) flood map for planning shows that the site is in Flood Zone 1 and is therefore at 'low' risk of tidal and or fluvial flooding. The property has no recorded history of groundwater flooding, and the site investigation has not detected groundwater.

4 Proposed Structure

4.1 Substructure

The proposed scheme involves the construction of a new basement beneath the Coach House on the western part of the site, extending under the link structure to connect the new basement to the existing lower ground floor of the main house. The new basement levels will be constructed using traditional hit-and-miss underpinning, with excavations reaching a depth of approximately 4.5 meters.

The underpinned sections, designed as simply supported reinforced concrete (RC) retaining walls, will provide the retaining perimeter structure. The basement slab will be designed to withstand potential overburden pressures, resisted by the self-weight and frictional resistance of the concrete "box" in the ground. The ground floor will consist of a reinforced concrete (RC) slab, supported by the retaining walls, which will act as a permanent prop at the top of the retaining wall sections. The superstructure loads will typically be transferred to the foundations as a series of line loads from the walls above, with additional point loads from some floor beams at the upper levels.

All concrete below ground level is currently proposed to be waterproof concrete, constructed with hydrophilic strips (water bars) at all construction joints, and designed to accommodate a crack width of 0.2mm or less, depending on the waterproofing specialist's requirements.

Further information is provided in the structural drawings and construction methodology documents.

4.2 Superstructure

Above ground, the scheme includes the addition of a new rear extension/ conservatory, some modest internal alterations and remedial works. Structural form/ make-up will comprise load bearing masonry, steel beam and timber joists, typically.

5 Design Criteria

5.1 Codes and Standards

The design will be developed in accordance with the relevant Eurocode standards.

BS EN 1990	Load combinations and basis of design.
BS EN 1991-1	Dead and imposed loads.
BS EN 1991-3	Snow loads.
BS EN 1991-4	Wind loads.
BS EN 1992	Reinforced concrete structures.
BS EN 1993-1-1	Design of steel structures.
BS EN 1995-1-1	Design of timber structures.
BS EN 1997	Geotechnical design.

5.2 Loadings

In accordance with BS EN 1991-1

- Typical domestic floor loads of 1.5 kN/m2 for (A1 use) shall be used generally with suitable allowances for partitions.
- Typical domestic balcony load of 2.5kN/m2 for single dwellings (A5 use) and 3.0kN/m2 for communal areas (A6 use)
- Floor load of 3.0kN/m2 to be used for communal/circulation spaces within the development (C31 and C32 use)
- Floor load of 5.0kN/m2 to be used for the proposed gymnasium space at lower ground floor (C41 use)
- Roof load of 0.6kN/m2 for roofs not accessible except for normal maintenance and repair (H use)
- A load of 7.5kN/m2 shall be applied at plant locations.

An appropriate surcharge loading to be applied to the retaining wall structures in accordance with BS EN 1991-2 (UK NA) and BD37/01.

5.3 Design Life

The structures are to be designed with a 50-year design life in accordance with BS EN 1990 NA 2.1.

5.4 Design Fire Periods

The fire strategy will be developed by the Fire Engineer, but it is assumed the structural elements will be protected using the inherent resistance of the concrete frame. With a top storey below 18m above ground level, and basement less than 10 m deep, the anticipated period of fire resistance of the house is 60 minutes, in accordance with Building Regulations Approved Document B, Volume 1, 2019 edition, Table B4.

5.5 Disproportionate Collapse

As a three-four storey residential building (above ground) with a basement, the structure will be classified as Building Consequence Class 2A Lower Risk Group) in accordance with Building Regulations Approved Document A, Table 11. Therefore, standard horizontal ties are required. The proposed superstructure formed using masonry, steelwork and timber joists with be fully connected tied using restraint straps which satisfy this requirement.

Table 11 Building consequence classes

Consequence Classes	Building type and occupancy
1	Houses not exceeding 4 storeys
	Agricultural buildings
	Buildings into which people rarely go, provided no part of the building is closer to another building, or area where people do go, than a distance of 1.5 times the building height
2a Lower Risk Group	5 storey single occupancy houses
	Hotels not exceeding 4 storeys
	Flats, apartments and other residential buildings not exceeding 4 storeys
	Offices not exceeding 4 storeys
	Industrial buildings not exceeding 3 storeys
	Retailing premises not exceeding 3 storeys of less than 2000m² floor area in each storey
	Single-storey educational buildings
	All buildings not exceeding 2 storeys to which members of the public are admitted and which contain floor areas not exceeding 2000m² at each storey
2b Upper Risk Group	Hotels, blocks of flats, apartments and other residential buildings greater than 4 storeys but not exceeding 15 storeys
	Educational buildings greater than 1 storey but not exceeding 15 storeys
	Retailing premises greater than 3 storeys but not exceeding 15 storeys
	Hospitals not exceeding 3 storeys
	Offices greater than 4 storeys but not exceeding 15 storeys
	All buildings to which members of the public are admitted which contain floor areas exceeding 2000m² but less than 5000m² at each storey
	Car parking not exceeding 6 storeys
3	All buildings defined above as Consequence Class 2a and 2b that exceed the limits on area and/or number of storeys
	Grandstands accommodating more than 5000 spectators
	Buildings containing hazardous substances and/or processes

Notes:

1. For buildings intended for more than one type of use the Consequence Class should be that pertaining to the most onerous type.
2. In determining the number of storeys in a building, basement storeys may be excluded provided such basement storeys fulfil the robustness requirements of Consequence Class 2b buildings.
3. BS EN 1991-1-7:2006 with its UK National Annex also provides guidance that is comparable to Table 11.

Figure 10 - Extract from Approved document A showing building consequence class.

6 Construction

6.1 Outline Method statement

Appendix C illustrates the construction stages on a typical long section through the site, as detailed in the method statement below. S099 outlines the proposed temporary works.

All retaining walls under existing structures will be constructed using an underpinning sequence to ensure that the stability of the existing buildings is maintained, and soil movements are minimised. The underpinning works should be carried out by a competent contractor experienced in such operations, and preferably accredited by the Association of Specialist Underpinning Contractors (ASUC).

Further commentary is as follows:

4.3.1 Stage 1 – Locally break out the existing slab and commence phase 1 of the underpinning beneath the load-bearing perimeter walls of the Coach House. The underpinning should be conducted in traditional 1.0m wide "hit and miss" sections to minimise the risk of damage to the existing walls. Each section of underpinning is to be tied to the adjacent sections using either pre-fixed or post-fixed dowels, with surfaces prepared to provide a shear key between each section. Hydrophilic water stops are to be applied at each joint before pouring the new sections to ensure watertightness.

4.3.2 Stage 2 – Shallow excavations with battered faces against the completed underpinning should be carried out to ensure the stability of the excavations. Once a safe level has been reached, temporary horizontal propping structures (e.g., waling beams, flying shores) should be installed to secure the underpins and facilitate continued excavation.

4.3.3 Stage 3 – After the installation of propping, the second phase of underpinning should be completed in 1.0m bays, similar to the first stage. Temporary bases can be cut-back to allow for this second phase. Vertical reinforcement from the first stage should be lapped with the reinforcement in the second-stage underpins to provide full continuity. As with the vertical joints, hydrophilic strips should be installed along the horizontal surfaces to prevent water ingress through the joints.

4.3.4 Stage 4 – Similar to the first stage of excavation, a reduced level dig with battered faces should follow, down to propping level. Horizontal propping must be installed before reducing the ground level to the final formation level.

4.3.5 Stage 5 – Once the formation level has been reached and horizontal propping is in place, the basement slab can be cast and fully connected to the foundation underpins. The slab will serve as falsework propping for the top (ground floor) slab. All substructure elements should be connected with lapped reinforcement and hydrophilic strips (in accordance with the waterproofing subcontractor's requirements) to prevent water ingress at the joints.

4.3.6 Stage 6 – Once the works on the Coach House are complete, works to the link structure can commence. The project should be phased to minimize the extent of large, open excavations that could result in heave movements affecting neighbouring structures. The first of the link works include the formation of a set of retaining structures built in-board of the existing main house's north (kitchen) side wall. Sections of RC upstands should be cast in 1m hit and miss sequence in an underpinning fashion. Although no undermining to the existing foundations is expected – based on trial hole data – this method helps to mitigate soil movement and will safeguard against any potential *temporary* undermining to the existing main house foundations.

4.3.7 Stage 7 – Once the length of retaining wall against the main house is formed, the existing link building and it's foundation can be carefully grubbed up. New section of RC substructure against the main house wall, should be installed with suitable compressible material in-behind against the main house – such to not surcharge the existing wall and to keep the structures sperate. The retaining wall sections themselves should be connected with dowelled pins for continuity.

4.3.8 Stage 8 – The remaining sections of the RC retaining wall, away from the main house, should now be formed for the remaining link substructure. These should be constructed in similar 1m hit-and-miss sections. Due to the greater depth, temporary shoring will be required for the exposed excavations.

4.3.9 8 Stage 9 – Once the perimeter retaining wall sections have been formed, excavation for the new link area can commence. This should be done using 45-degree battered-back excavations against the faces of the retaining wall. Some temporary trench sheeting will likely be required. A set of diagonal raking props and a waler beam, anchored to a central base/foundation, should be installed to provide temporary stability to the retaining wall in advance of the new lower-ground slab and higher-level superstructure, which will act as permanent 'props' for the wall.

4.3.10 Stage 10 – With temporary propping installed, the lower ground floor link slab can be cast along with foundation bases to support the new link and conservatory structures and any other freestanding elements.

6.2 Substructure

The basement will be constructed using a typical bottom-up sequence. Once the site has been cleared of trees and other debris, work can begin. Localized piling may be required to accommodate the cut-down rig for temporary micro-piling. The reinforced concrete basement retaining walls, liner walls, columns, and other walls will be interconnected with reinforcement. All columns and walls will be supported directly by the basement slab.

It is proposed that the new lower ground-floor link area be formed using 1m hit-and-miss RC retaining structures built in-board of the existing main house's north (kitchen) side wall and foundations. The proposed floor level of the new link area will match the existing internal kitchen level. External trial pits suggest that the footings are conventional and sufficiently deep. Therefore, only protection during the temporary situation – during excavation to formation level - needs to be considered. Installing the new link slab in 1m bays will help safeguard this process and mitigate associated soil movements. It is also recommended that a separate barrier, in the form of a compressible material (e.g., Cordek), be used to protect the main house and its foundation and to prevent any unwanted transfer of load between structures.

6.3 Superstructure

From the ground floor up, the construction will be a combination of RC construction, and load-bearing masonry with timber joisted floor. Some localised steelwork will be required to accommodate the alterations (e.g. openings in existing masonry walls) to the main house.

The openings to main house's north (kitchen) side wall are to be lengthened by removal of the existing cills. Structurally, this involves the retention of the existing lintels, and the removal of the low-level brickwork. Aside from the making good to the brick reveals, this is considered low-risk and structurally straightforward.

6.4 External Works

The external landscaping including the patio/ terrace area will be tied to the new lower ground floor slab of the link building and coach house. A series of RC retaining walls will be required externally to accommodate the change in levels across the site.

6.5 Construction Generally

All works will be undertaken by a suitably experienced contractor, familiar with the techniques proposed and the restrictions of the site. Construction in proximity to existing structures, piling works, and basement excavation are specialist works and the Structural Engineer will be involved in the selection of an appropriate contractor who will produce finalised method statements and temporary works designs.

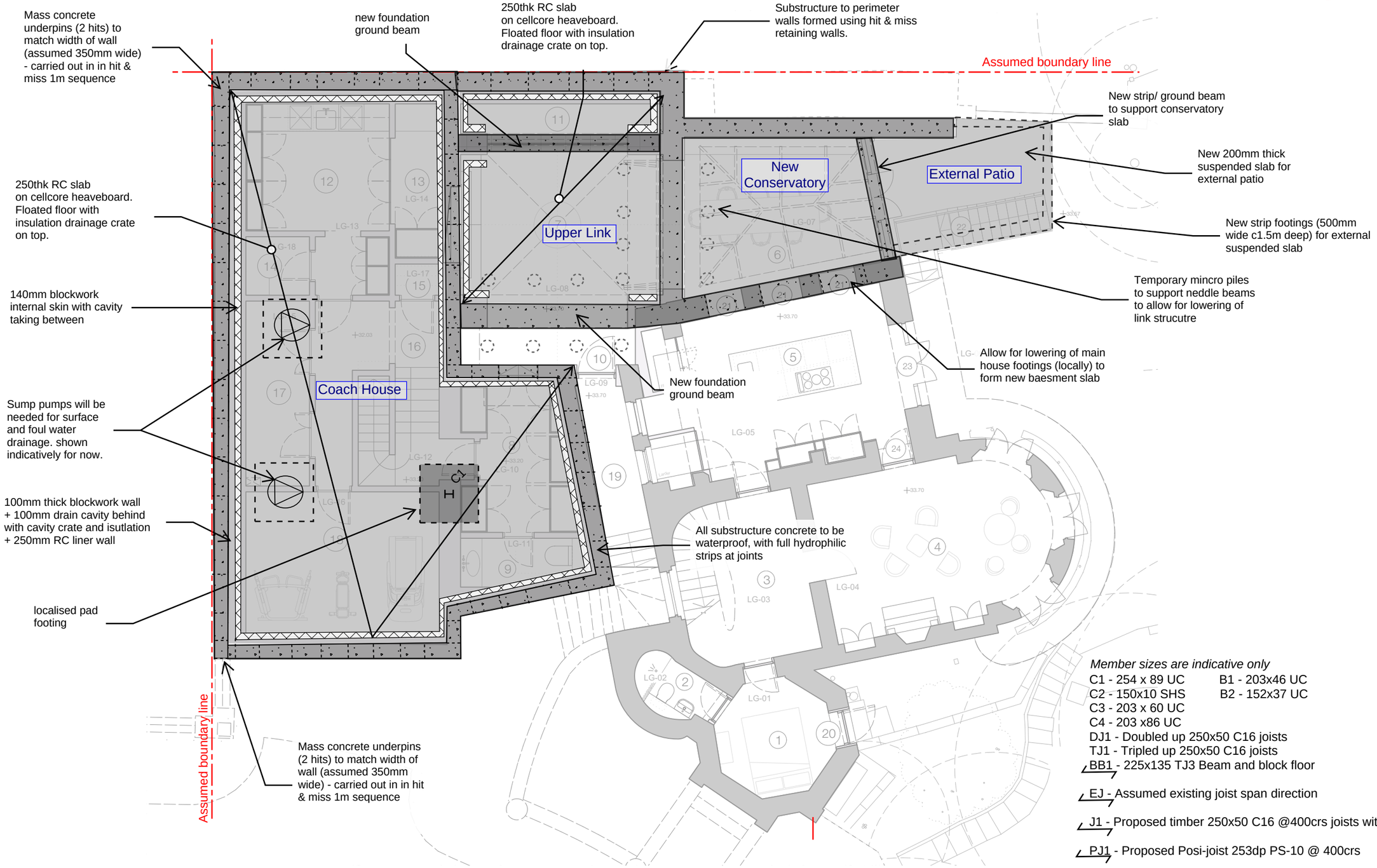
The Coach House building exhibits significant cracking, likely due to historical settlement, inadequate internal modifications, and shallow foundations on poor ground. Price & Myers addressed these structural issues in a 2021 inspection report. It is recommended that sections of the masonry walls be rebuilt, cracks repaired using helibar stitching, and remedial restraint ties added before underpinning begins. These measures will help prevent further movement and damage. The contractor is expected to implement a strict movement monitoring regime, with regular recordings during the works.

6.6 Noise, Dust and Vibration

The Contractor shall undertake the works in such a way as to minimise noise, dust and vibration when working close to adjacent buildings to protect the amenities of the nearby occupiers. The Contractor will be expected to carry out the work in accordance with their Method Statements and Local Authority requirements using equipment to comply with EC Directives and UK Regulations set out in BS 5228- 1:2009+A1:2014. All demolition and excavations will be undertaken in a carefully controlled sequence, considering the requirement to minimise vibration and noise using low impact technique such as demolition munchers and bored or hydraulically jacked piling rigs, alternatives to percussive drills/hammers where possible. Steps would be taken to isolate the deconstruction works from the neighbours with erection of acoustic screens or enclosures wherever possible. Effective site management would be implemented to avoid unnecessary noise such as engines idling or revving, shouting and loud radios. Control of dust will be a high priority and mechanisms for dust control would be to use airborne dust wet suppression systems with fire hoses and diffuser nozzles or large area misters.

Appendix A
Proposed Structural GA's

FOR INFORMATION



Member sizes are indicative only

C1 - 254 x 89 UC
C2 - 150x10 SHS
C3 - 203 x 60 UC
C4 - 203 x86 UC
B1 - 203x46 UC
B2 - 152x37 UC
DJ1 - Doubled up 250x50 C16 joists
TJ1 - Tripled up 250x50 C16 joists
BB1 - 225x135 TJ3 Beam and block floor

EJ - Assumed existing joist span direction

J1 - Proposed timber 250x50 C16 @400crs joists with 18mm structural ply

PJ1 - Proposed Posi-joist 253dp PS-10 @ 400crs

- Demolished structure
- Structure below
- Brick and block cavity wall
- Load bearing block work wall
- Lightweight block work / timber / sfs partition wall

Basement - Proposed

1:100 @A3
DO NOT SCALE

PRICE & MYERS

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Job	12 Park Village West				

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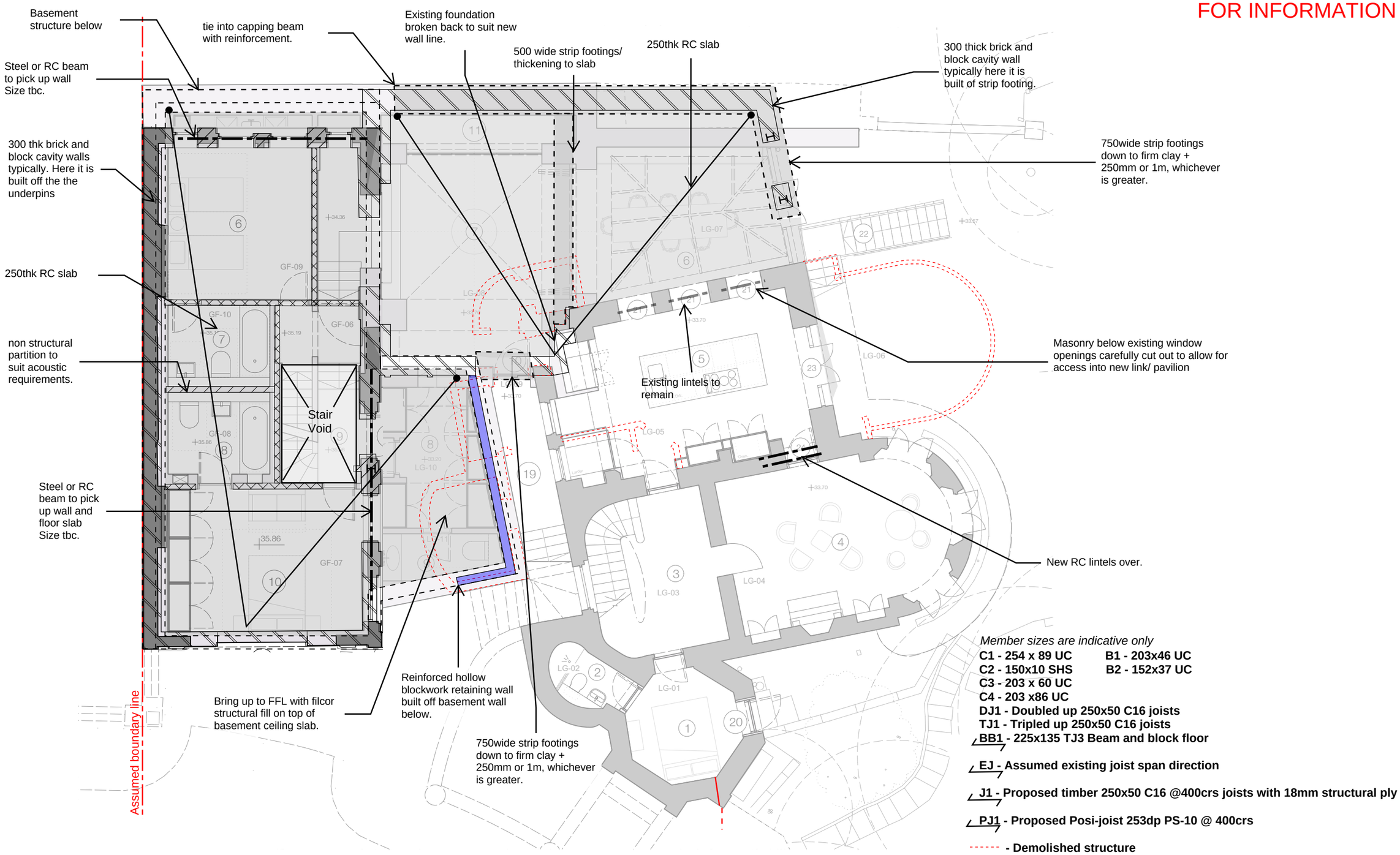

Member sizes are indicative only

C1 - 254 x 89 UC **B1 - 203x46 UC**
C2 - 150x10 SHS **B2 - 152x37 UC**
C3 - 203 x 60 UC
C4 - 203 x86 UC
DJ1 - Doubled up 250x50 C16 joists
TJ1 - Tripled up 250x50 C16 joists
BB1 - 225x135 TJ3 Beam and block floor

EJ - Assumed existing joist span direction

J1 - Proposed timber 250x50 C16 @400crs joists with 18mm structural ply

PJ1 - Proposed Posi-joist 253dp PS-10 @ 400crs

- Demolished structure
- Structure below
- Brick and block cavity wall
- Load bearing block work wall
- Lightweight block work / timber / sfs partition wall

Lower Ground Floor - Proposed

1:100 @A3
DO NOT SCALE

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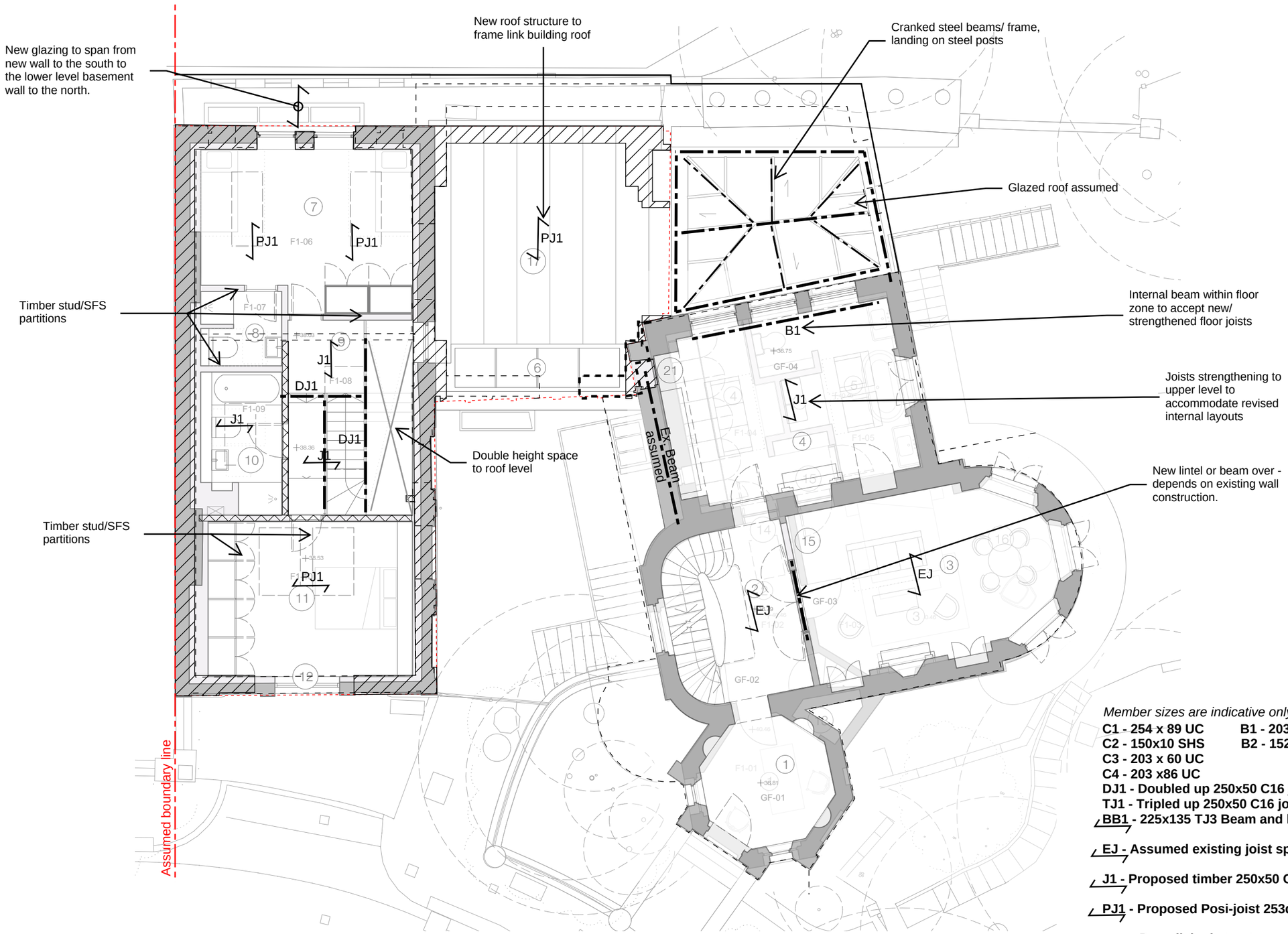
Date	06/12/22	Eng	HV	Chd	MB
Job	12 Park Village West				

FOR INFORMATION



Member sizes are indicative only

C1 - 254 x 89 UC **B1 - 203 PFC**
C2 - 150x10 SHS **B2 - 152x37 UC**
C3 - 203 x 60 UC
C4 - 203 x86 UC
DJ1 - Doubled up 250x50 C16 joists
TJ1 - Tripled up 250x50 C16 joists
BB1 - 225x135 TJ3 Beam and block floor

EJ - Assumed existing joist span direction

J1 - Proposed timber 250x50 C16 @400crs joists with 18mm structural ply

PJ1 - Proposed Posi-joist 253dp PS-10 @ 400crs

- Demolished structure
- Structure below
- Brick and block cavity wall
- Load bearing block work wall
- Lightweight block work / timber / sfs partition wall

Ground Floor - Proposed

1:100 @A3
DO NOT SCALE

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Job No.	29938	Page	SK 3	Rev	1
Date	06/12/22	Eng	HV	Chd	MB
Job	12 Park Village West				

Appendix B
Architect's Site Plan

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scale bar 1:500@A3
Site Plan - Proposed

General Notes:

This drawing is to be read in conjunction with all other issued information incl. architect's and structural engineer's drawings and specifications.
Report any discrepancies to the architect.

N

Revision	Date	Description
1	14/12/2022	First issue for Pre-App
2	19/01/2024	Planning

DRAFT
For Coordination

ARA
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Project:	Park Village West
Job No:	21-08
Client:	Louis and Nura Mosley
Drawing:	Site Plan-Proposed
Scale:	1:500@A3
Date:	19/01/2024
Status:	Planning
Drawn:	TE
Checked:	AR
Number:	21-08-003 Rev: P02

Appendix C
Construction Sequence Sketches

PRICE & MYERS

SUGGESTED CONSTRUCTION SEQUENCE - BASEMENT

Notes:
- All items shown indicatively - final sequencing TBA with contractor
- All items shown subject to opening up works and confirmation of extent of existing footings to adjacent buildings

FOR INFORMATION

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Date	March '24	Eng	MB	Chd	JW
Job	12 Park Village West, London				

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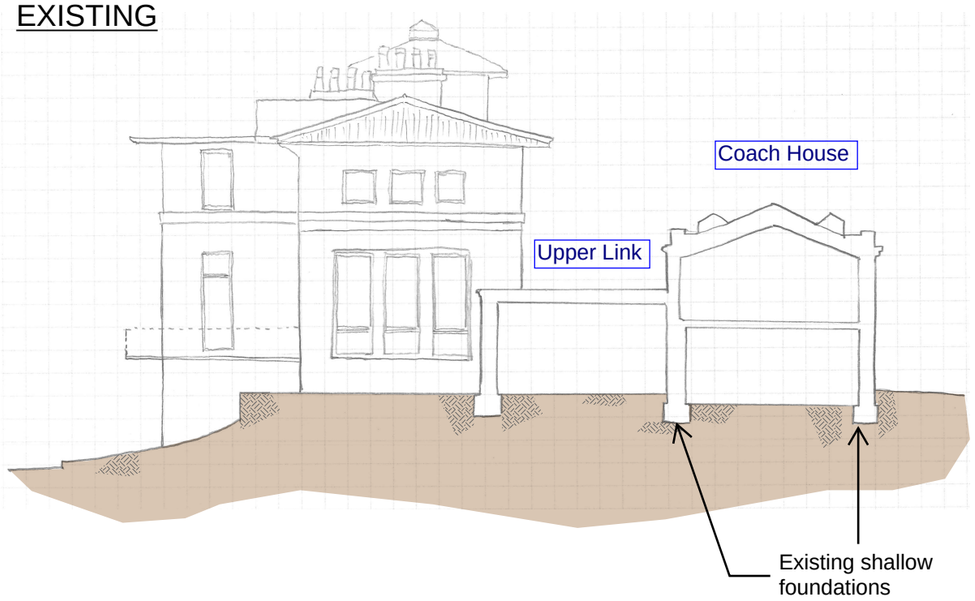
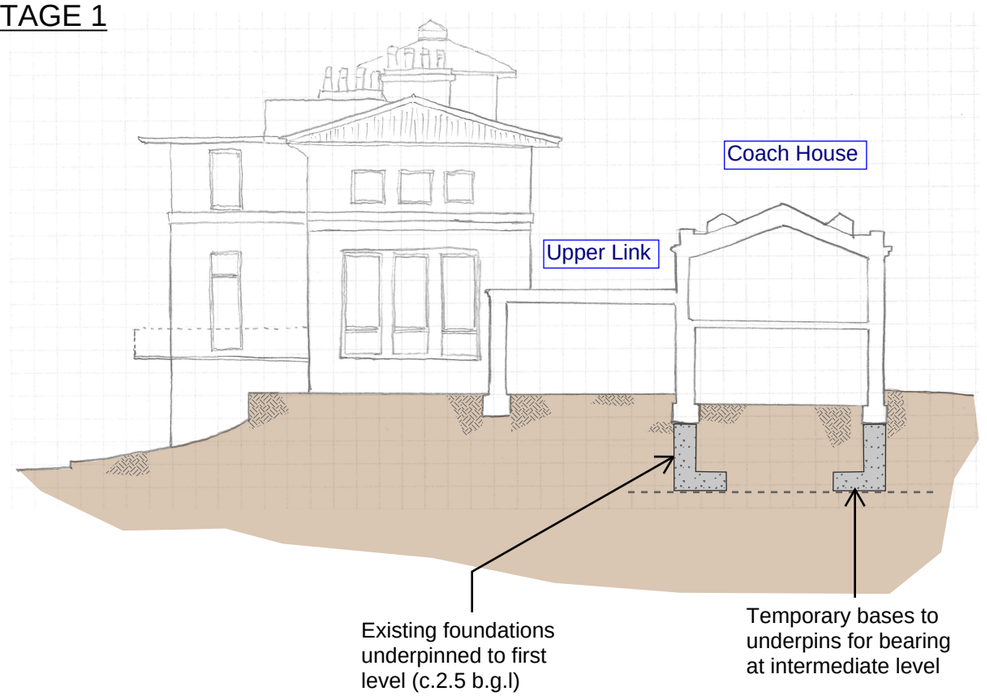
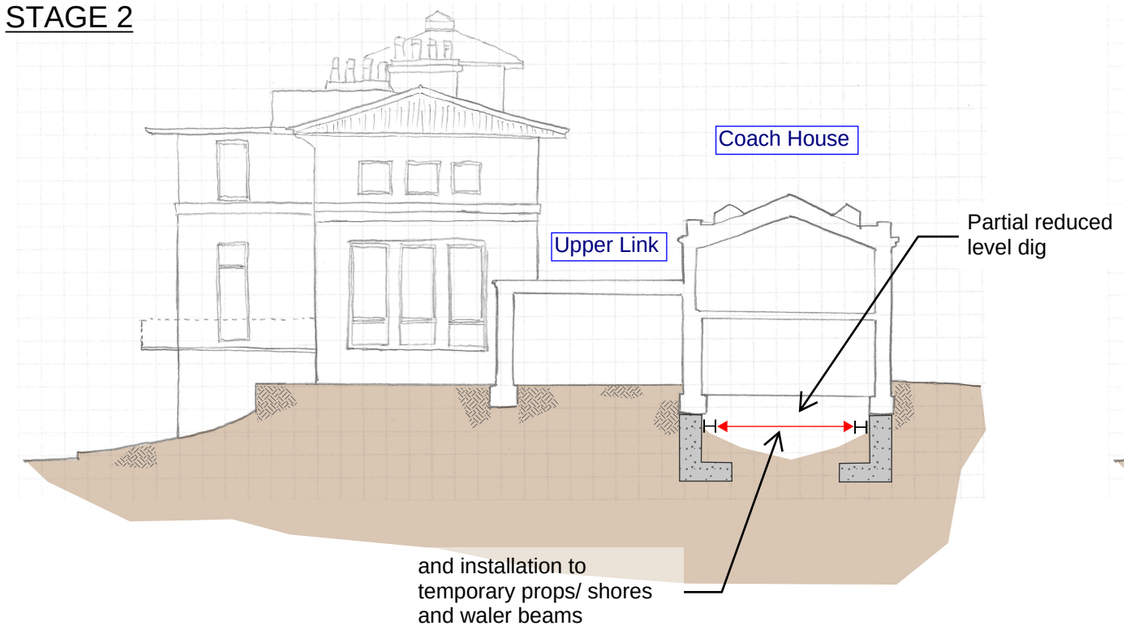


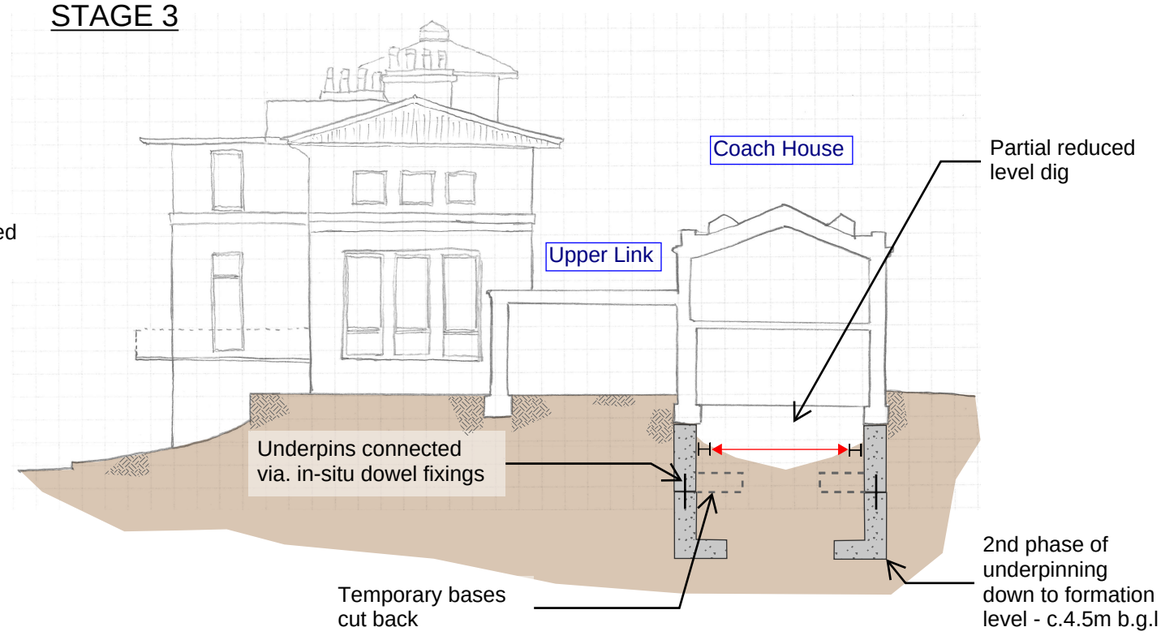
STAGE 1



STAGE 2



STAGE 3



PRICE & MYERS

SUGGESTED CONSTRUCTION SEQUENCE - BASEMENT

Notes:
- All items shown indicatively - final sequencing TBA with contractor
- All items shown subject to opening up works and confirmation of extent of existing footings to adjacent buildings

FOR INFORMATION

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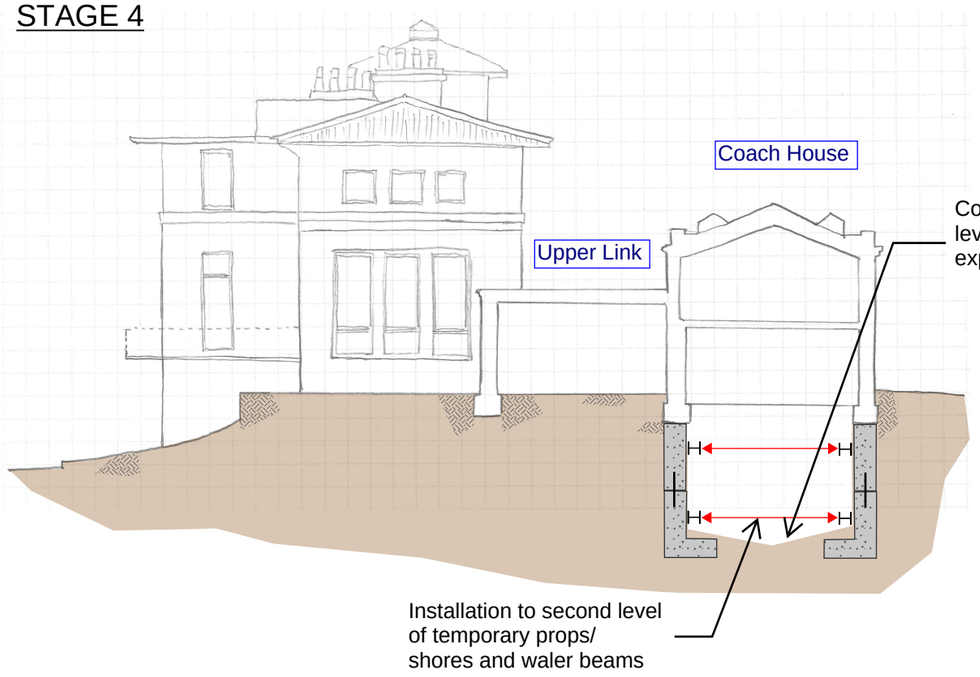
STAGE 4



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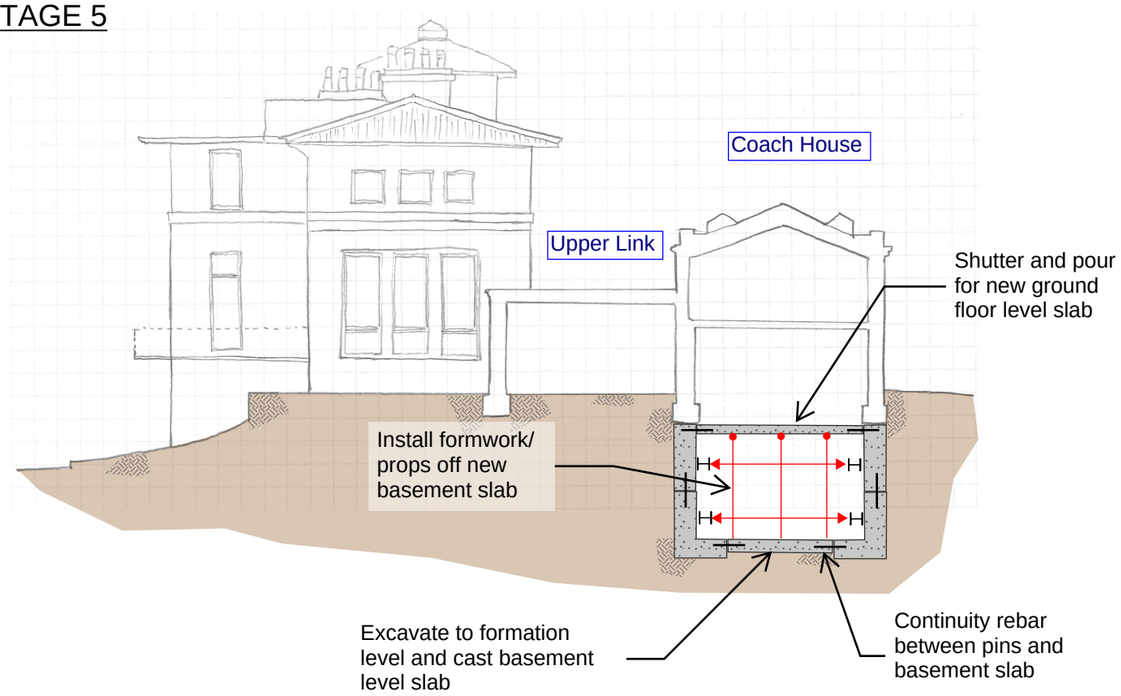

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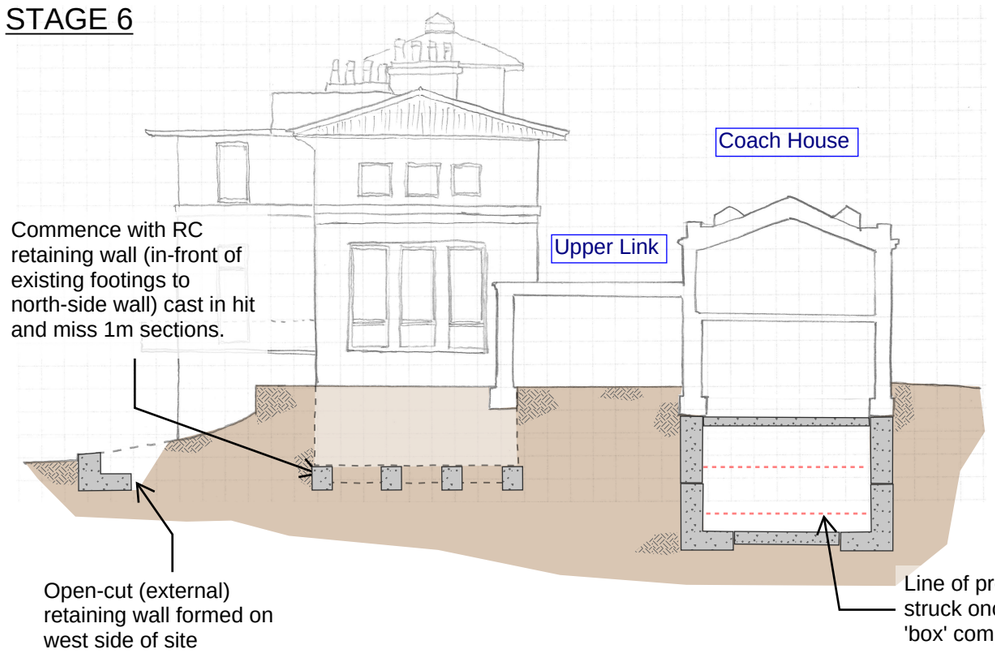

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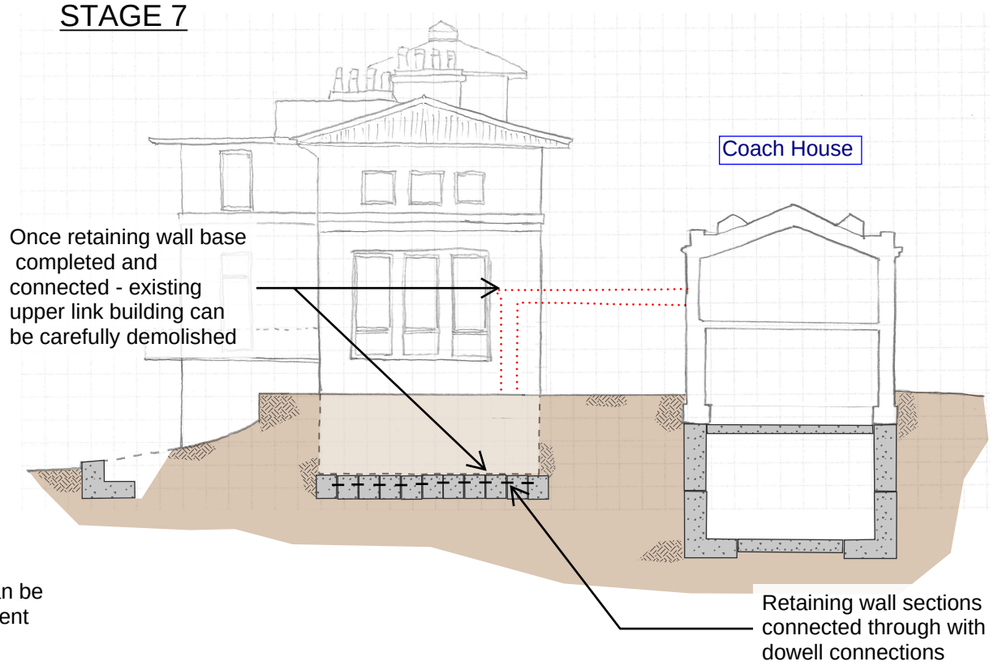

PRICE & MYERS

SUGGESTED CONSTRUCTION SEQUENCE - BASEMENT

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- All items shown subject to opening up works and confirmation of extent of existing footings to adjacent buildings

FOR INFORMATION

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Date	March '24	Eng	MB	Chd	JW
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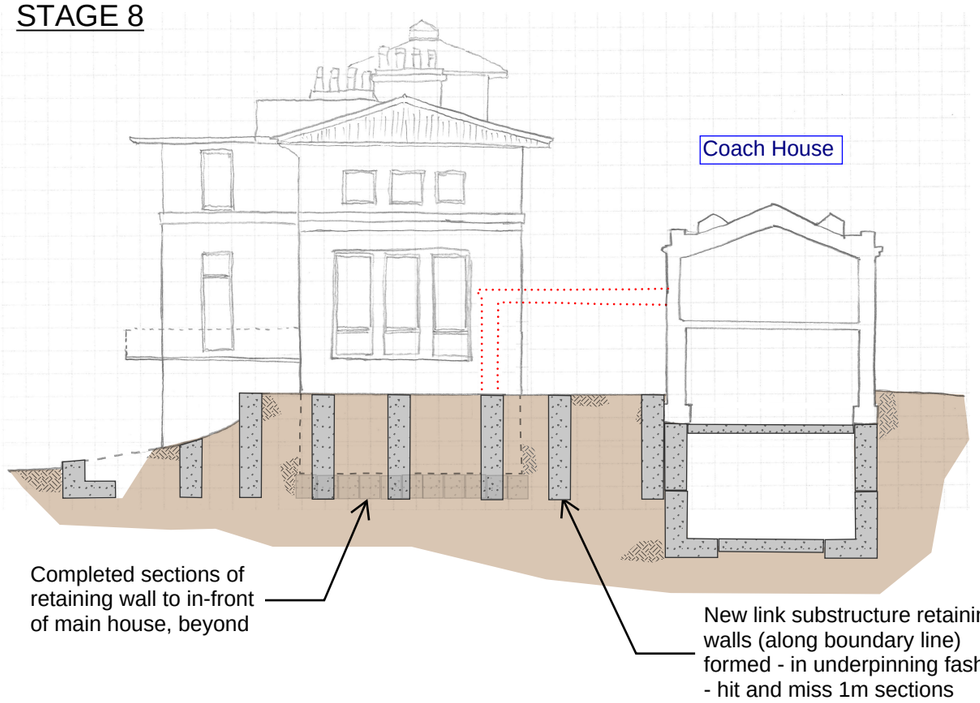
STAGE 8



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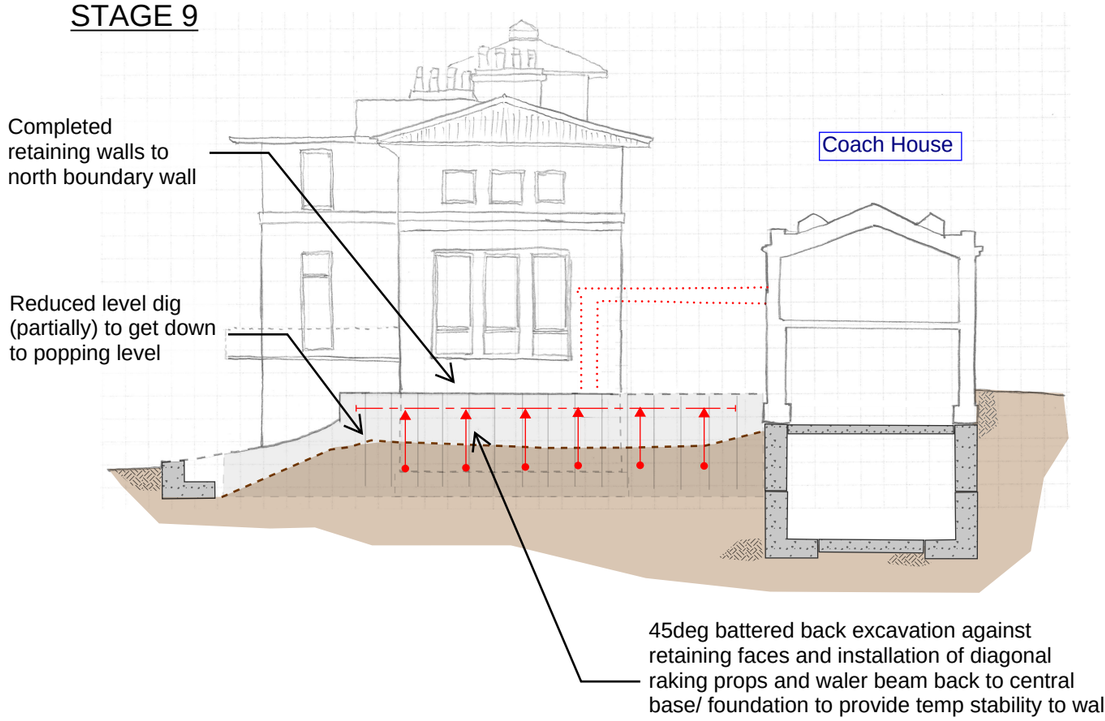
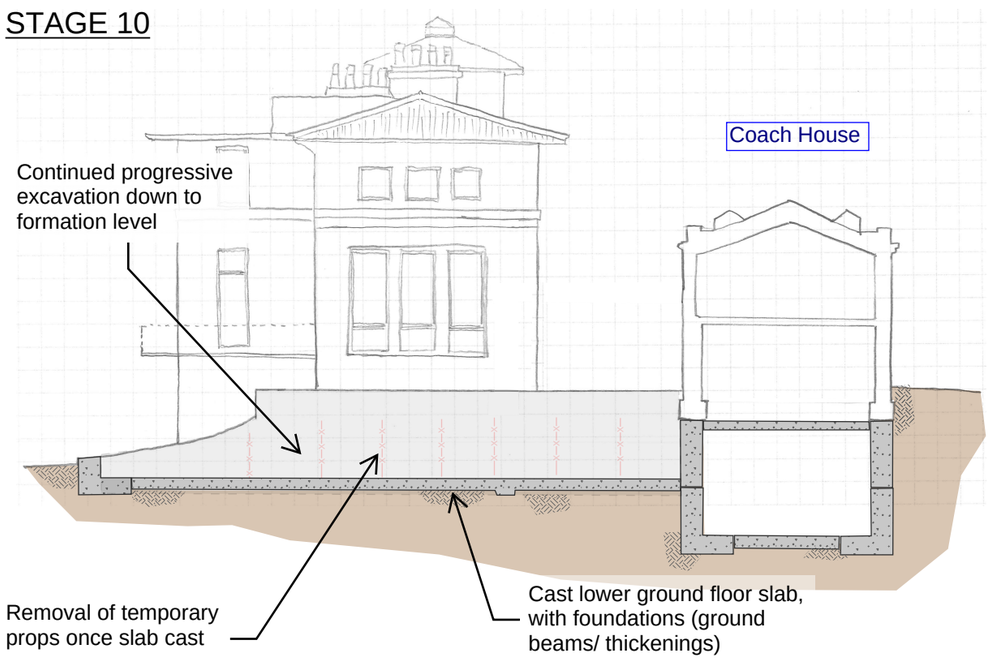
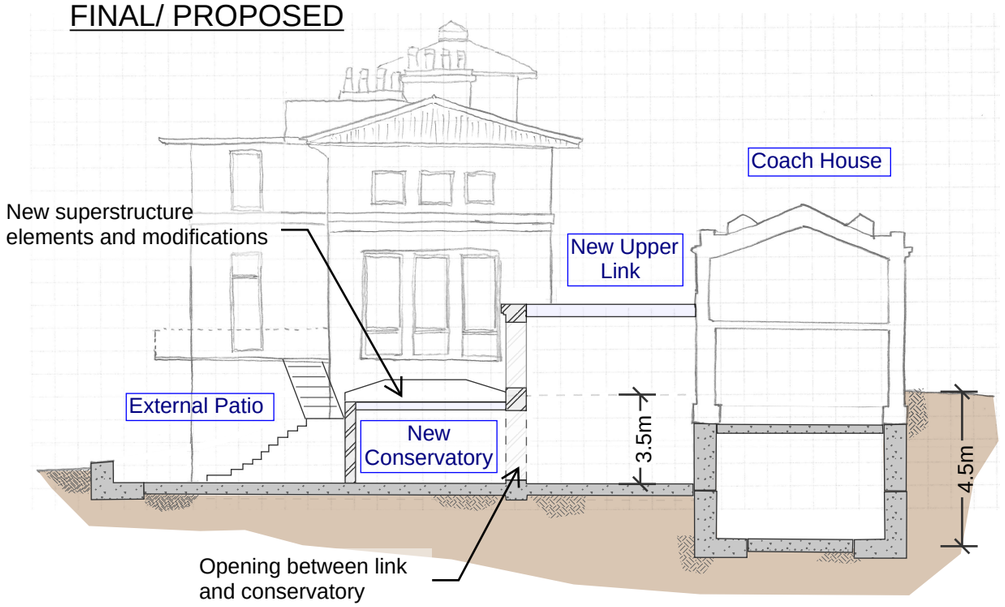


STAGE 10



FINAL/ PROPOSED



Appendix E

Indicative Temporary Proposed Arrangements -

Coach House - B1, Basement Level

General Notes:

This drawing is to be read in conjunction with all other issued information incl. architect's and structural engineer's drawings and specifications.
Report any discrepancies to the architect.

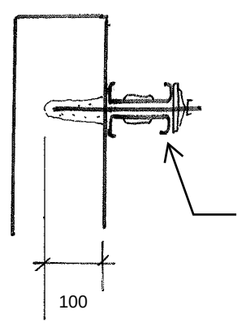
KEY

1. utility
2. wc
3. cupboard under stair
4. protected stairwell
5. plant
6. gym
7. store
8. extent of basement is reduced from previously approved planning scheme ref. 2019/5121/P

RMD Superslim Soldiers as perimeter waling beam at low level to basement fixed to face of underpins. Beams installed as continuous spans across prop heads.

RMD Superslim soldiers Props across length of basement @ maximum 2.5m centres. All props to be oriented with their major axis in the gravity direction

Typical resin-fixed RMD superlim to underpin



RMD superslim soldier resin fixed to wall @ 400c/c with Hilti Hit-V M16 Anchors and HY-250 resin. Min 100mm embedment and standard waler plates

Basement Plan - Proposed

0 2 4 6 8 10 M

scale bar 1:100@A3

Revision	Date	Description
*	29/11/2022	First issue
1	29/11/2022	Issue for Pre-App
2	14/12/2022	Revised issue for Pre-App

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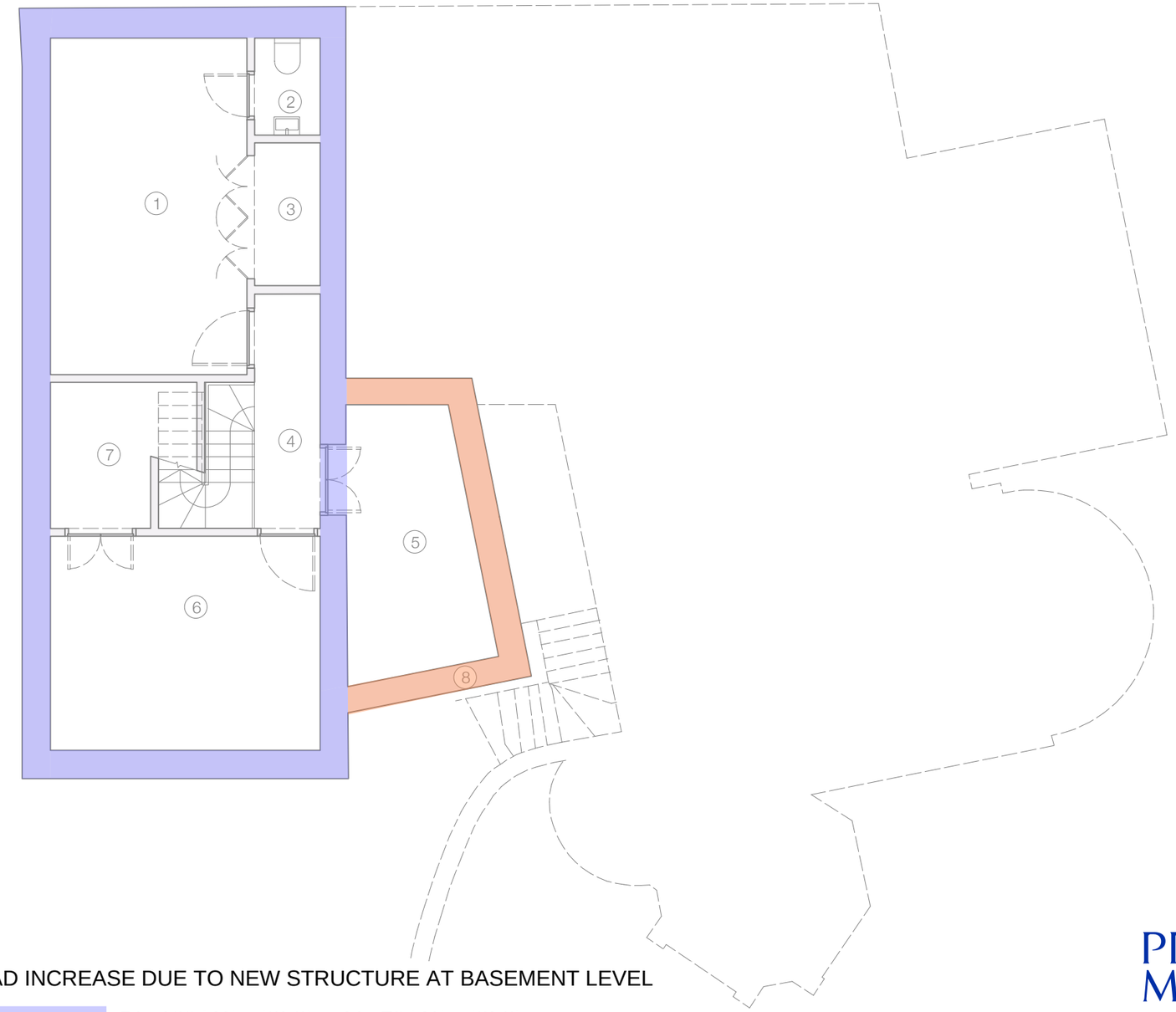
Job No. 29838 Page SK 10 Rev 1

Date 04/08/2023 Eng JW Chd MB

Job 12 Park Village West

Appendix D
Substructure Loading Information (GMA input)



LOAD INCREASE DUE TO NEW STRUCTURE AT BASEMENT LEVEL

DL: 120 kN/m (SLS) LL: 70 kN/m (SLS)

DL: 55 kN/m (SLS) LL: 17 kN/m (SLS)

Removal of soil not accounted for

Basement Plan - Proposed

0 2 4 6 8 10 M

scale bar 1:100@A3

General Notes:

This drawing is to be read in conjunction with all other issued information incl. architect's and structural engineer's drawings and specifications.
Report any discrepancies to the architect.

KEY

1. utility
2. wc
3. cupboard under stair
4. protected stairwell
5. plant
6. gym
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Revision	Date	Description
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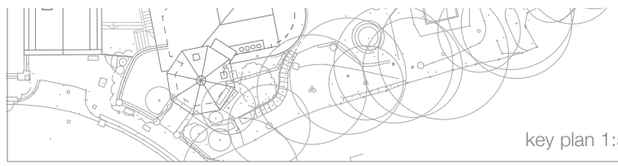
Date 04/08/2023 Eng JW Chd MB

Job 12 Park Village West



key plan 1:500 @ A3

ARA
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Project:	Park Village West
Job No:	21-08
Client:	Louis and Nura Mosley
Drawing:	BasementPlan-Proposed
Scale:	1:100@A3
Date:	29/11/2022
Status:	Planning
Drawn:	RI
Checked:	AW
Number:	21-08-108 Rev: P02