



# Structural Methodology Statement

19 South Street  
London  
W1K 2XB

Issue 27/03/2021

Rev.	Date	Details	By	Report Title	Structural Methodology Statement
-	27/03/2021	First Issue	DN	Project	19 South Street W1K 2XB
				Client	Sam Farmar

# Contents

- 1.0 Introduction & Executive Summary
- 2.0 Site and Existing Building
- 3.0 Structural Proposals
- 4.0 Construction Sequence
- 5.0 Desk Study, Site Investigation, Hydrology, Flood Risk & Ground Movements.

- Appendices
- Appendix A - Architectural Drawings
  - Appendix B - Underpinning Principles

# 1.0 Introduction & Executive Summary

This report has been prepared as a supporting document to the planning application for the proposed basement works at 19 South Street W1K 2XB.

The proposals include demolition of an existing three storey house and construction of a new single storey basement box with front and rear lightwells below the full footprint of the existing plot. A new house will then be constructed above the basement providing a five storey property in total. A lift pit and sump for pumps will form slight local projections below the new basement slab.

This report presents the principles of the proposed structural basement scheme and sequencing along with illustrations of techniques to be used. Together with the submission from Geotechnical & Environmental Associates (GEA) it also provides detailed site investigation information together with a desk study and sections covering geology, hydrology and flood risk along with a comprehensive ground movement analysis and building damage assessment.

The report satisfies the requirements of an SMS as set out in the London Borough of Westminster (LBW) Basements SPD.

The structural proposals describe the use of a traditional tried and tested underpinning approach to forming the basement box. This is not expected to cause damage exceeding Category 1 on the Burland scale to any surrounding buildings, with the majority of the predicted damage falling within Category 0 (Negligible), the lowest possible category. This is comfortably below the Westminster guidance limit of Category 2. A detailed ground movement assessment has been included in the GEA report. The underpins are to be tied together and integral with the basement slab, thereby forming an integral reinforced concrete box forming a rigid structure with no significant long term movement implications.

A very detailed site investigation has been conducted, including the excavation and backfilling of a trial shaft to prove the existing ground and groundwater conditions and verify the suitability of the proposed construction method. Such investigations substantially de-risk the project when compared to more common, cheaper approaches.

The basement construction is above the ground water table but, in accordance with relevant design guidance, has been designed to withstand an emergency flooding scenario with the water level at the top of the basement. We understand that the basement waterproofing approach is to be designed by a specialist and is expected to consist of suitably specified water bars, a microcrystalline slurry coat internally and a drained cavity system inside that. The reinforced basement box itself provides additional protection. In the unlikely event of water penetration the basement contains sump pumps to remove any water present.

No contamination issues or problems with nearby trees have been identified.

*David S Nash.*

David Nash BEng(Hons) CEng MStructE  
Director  
Solid Geometry Ltd.

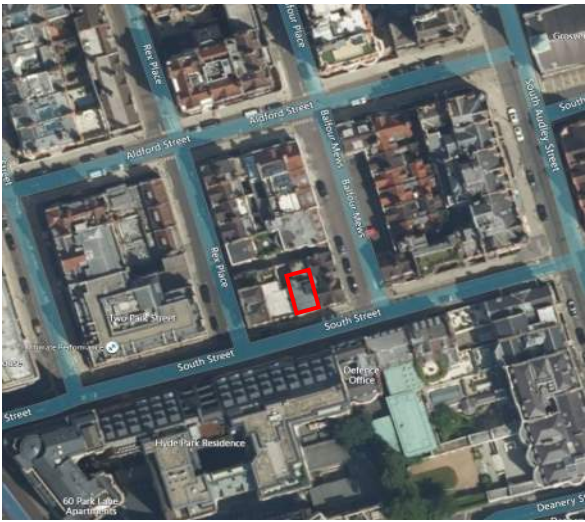
# 2.0 Site and Existing Building

The existing building is a three storey terraced house built in the mid-19th century. The site steps between the front and rear, with the front pavement level and entrance being about 800mm higher than the rest of the ground floor and rear courtyard.

The building superstructure is solid loadbearing brickwork walls with timber joist floors. The foundations are traditional brick corbels founded on the Lynch Hill Gravel at varying depths (see GEA report).

The neighbouring buildings appear to be of similar construction and the two party walls are shared solid brickwork with varying depth corbelled footings up to two bricks thick in the case of no. 21. There is no evidence of excessive movement in the existing or neighbouring buildings.

The site investigation has shown the site to be overlain by around 1m of variable made ground, with the gravel extending below that to around 4.5m and London Clay below that to the full depth of the investigation. Groundwater was encountered towards the base of the gravel at around 4-4.2m down.



Arial View



Streetview



Rear Side View from Alley

### 3.0 Structural Proposals

Drawings indicating the proposed structural arrangement can be found on the following pages.

The site geology consists of approximately 1m of made ground overlaying Lynch Hill Gravel to approximately 4.5m depth, which in turn overlays London Clay. The water table was found to be at around 4 - 4.2m depth, which is below the proposed basement slab, however the contractor should have plans in place to exclude water from the excavations in the event that perched water or surface water are present.

The basement is proposed as a cast in-situ integral RC box structure. It is proposed to form the new basement box using traditional underpinning techniques and reinforced concrete L- section underpin walls. The wall thicknesses will vary to suit the thicknesses of the existing walls being supported, with the base slab being 450mm thick and designed to resist uplift pressures under an emergency flooding situation with water at the top of basement. The walls will generally be designed as cantilevers in the permanent condition, using 'at rest' design earth pressures below party walls to minimise movement. The thickness of the walls necessitated by the need to fully support the existing party walls and also come inboard by 150mm to provide a lining wall and bearing shelf mean that they will be very stiff without recourse to heavy reinforcement. All sections of concrete will be joined together in both directions to form a stiff integral box.

It is proposed that excavation is carried out either by hand, in confined works, or using micro excavators as appropriate. Spoil could either be removed manually by barrow, or via a mechanical conveyor to discharge into a skip. The traditional techniques and form of construction proposed will keep construction noise to a minimum and avoid the need for large plant wherever possible during the basement construction.

The basement box will have a degree of inherent water resistance from its concrete construction, and a specialist waterproofing designer will also specify water bars and a crystallizing mineral slurry coating internally together with a drained cavity system and pumps to remove any leakage.

A comprehensive movement monitoring regime will be put in place prior to commencement of work.

The superstructure of the new building will consist of a steel frame with steel/concrete composite decking at every level. The main cross beams will be USFB's (ultra-shallow floor beams) that will minimise the height of the structure and maximise internal space. The brickwork cladding will be supported on the edge beams and the overall stability will be provided by a central concrete lift core in conjunction with a rigid steel stability frame behind the front façade. This form of structure will minimise the amount of material use and enable the shortest construction programme thereby minimising any effect of the development on neighbours. The superstructure is designed not to touch the neighbouring properties or rely on them for support in any way.

A specialist designed temporary works scheme will be prepared to accompany the permanent works.

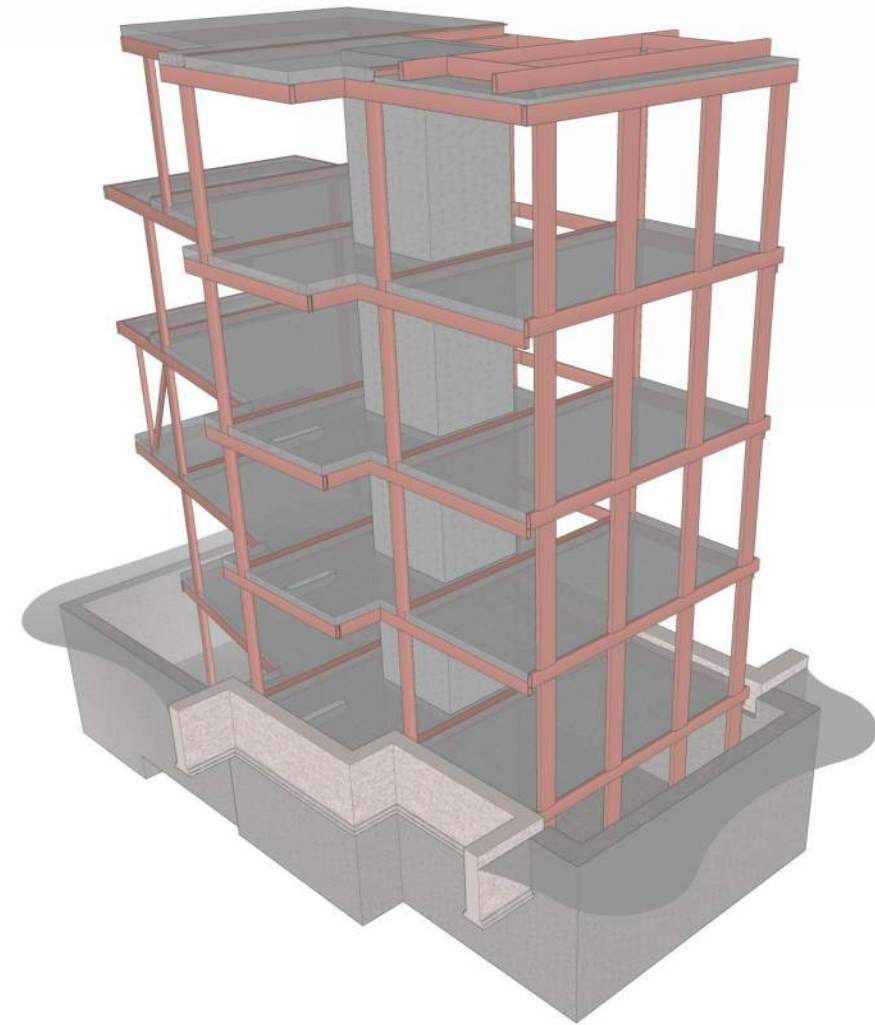
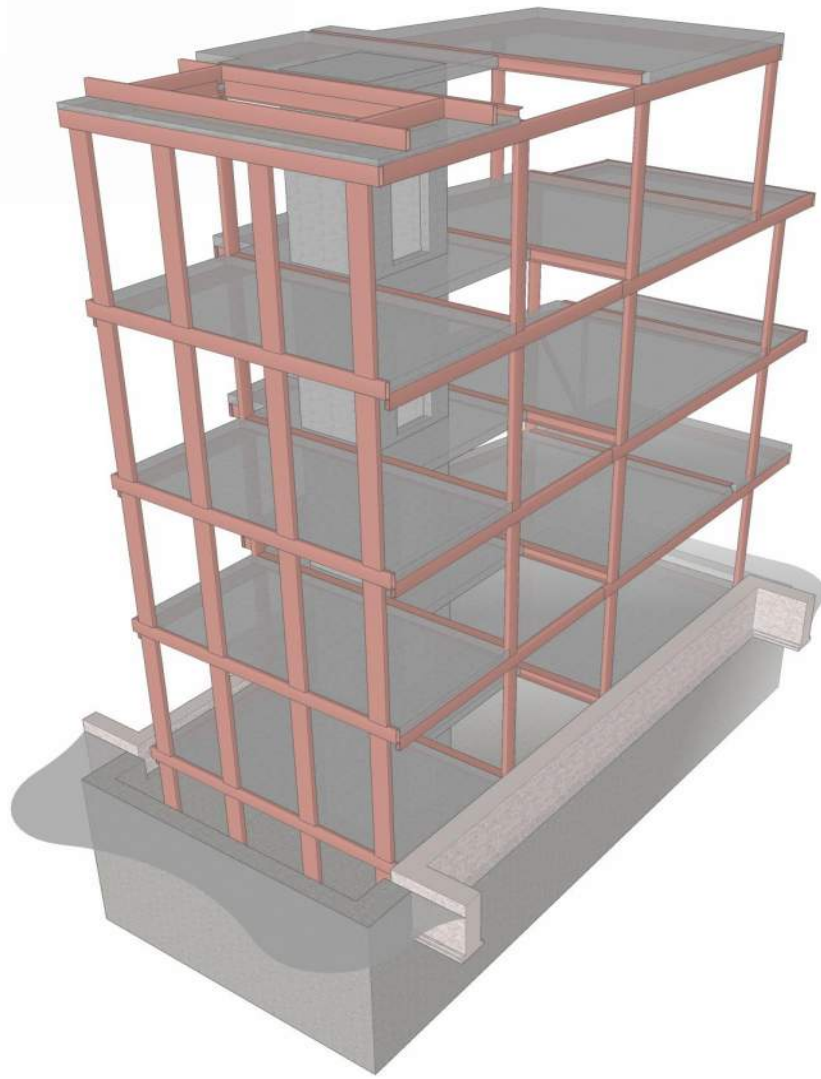
### 4.0 Construction Sequence

The general principles of staged excavation and propping that will be used for the underpinning are illustrated in Appendix B.

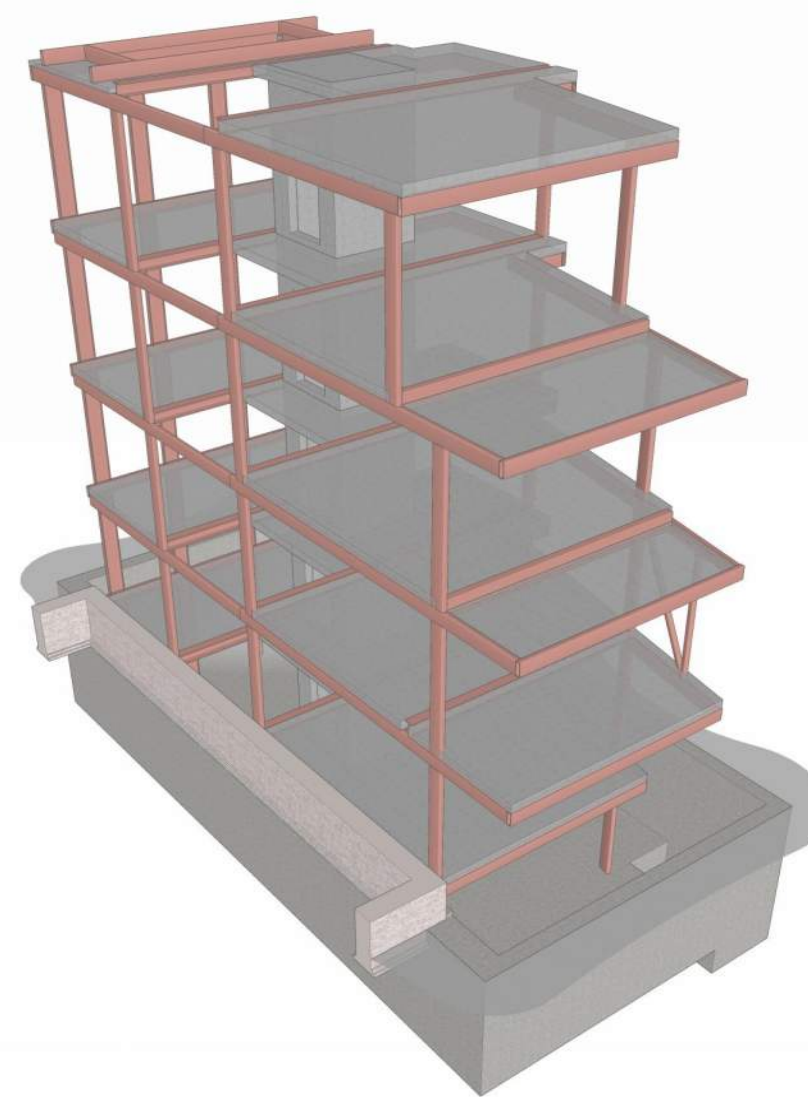
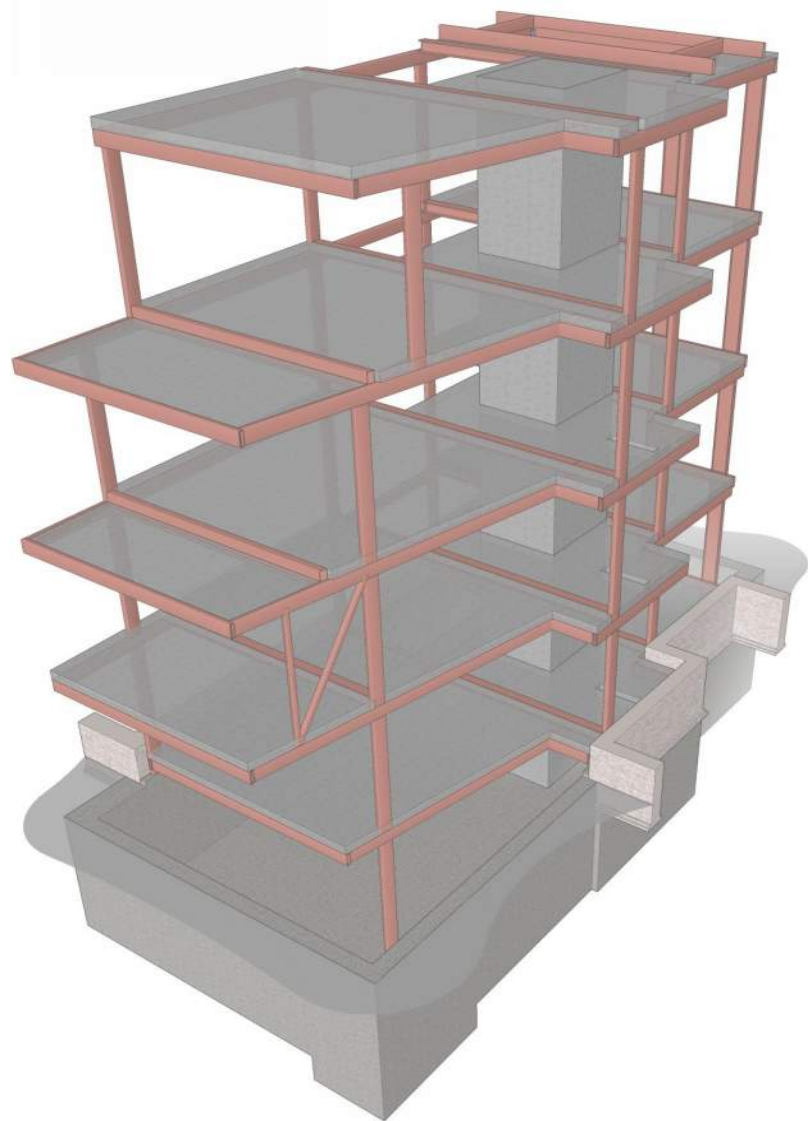
It is proposed to first form the basement walls using L-section underpin bases installed to a pre-agreed 'hit and miss' sequence to avoid ground movement and damage to supported or adjacent structures. The underpinning wall reinforcement will be lapped horizontally to form an integral box propped at multiple levels throughout the construction of the basement using a specialist designed adjustable propping system, until casting of the basement slab and lower ground floor slab are complete. This will prevent unacceptable lateral movement of the basement walls at all stages of the works. Where the walls underpin existing walls they will be drypacked up tight to the underside of the masonry following the casting of each wall panel.

Following completion of the underpin walls and excavation of the central earth mound remaining the main basement slab will be cast, again, tied in continuously to the underpin toes.

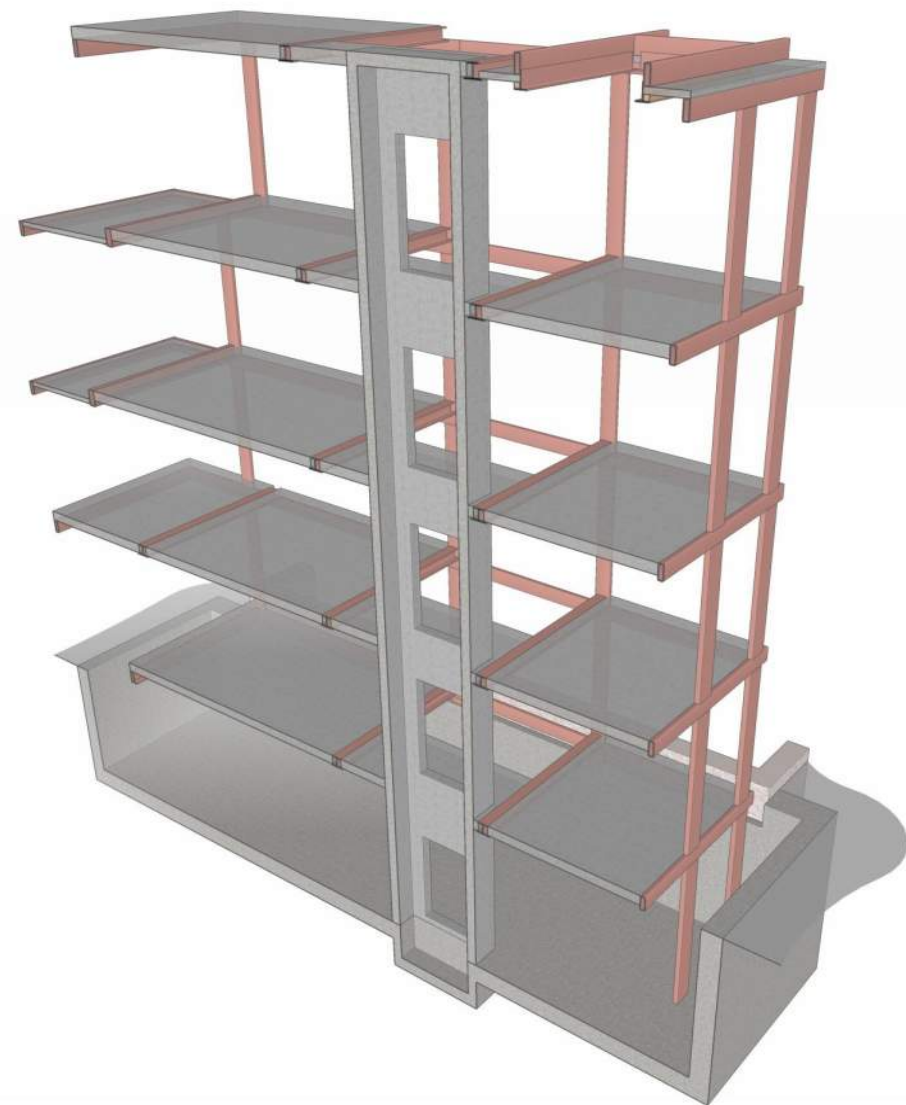
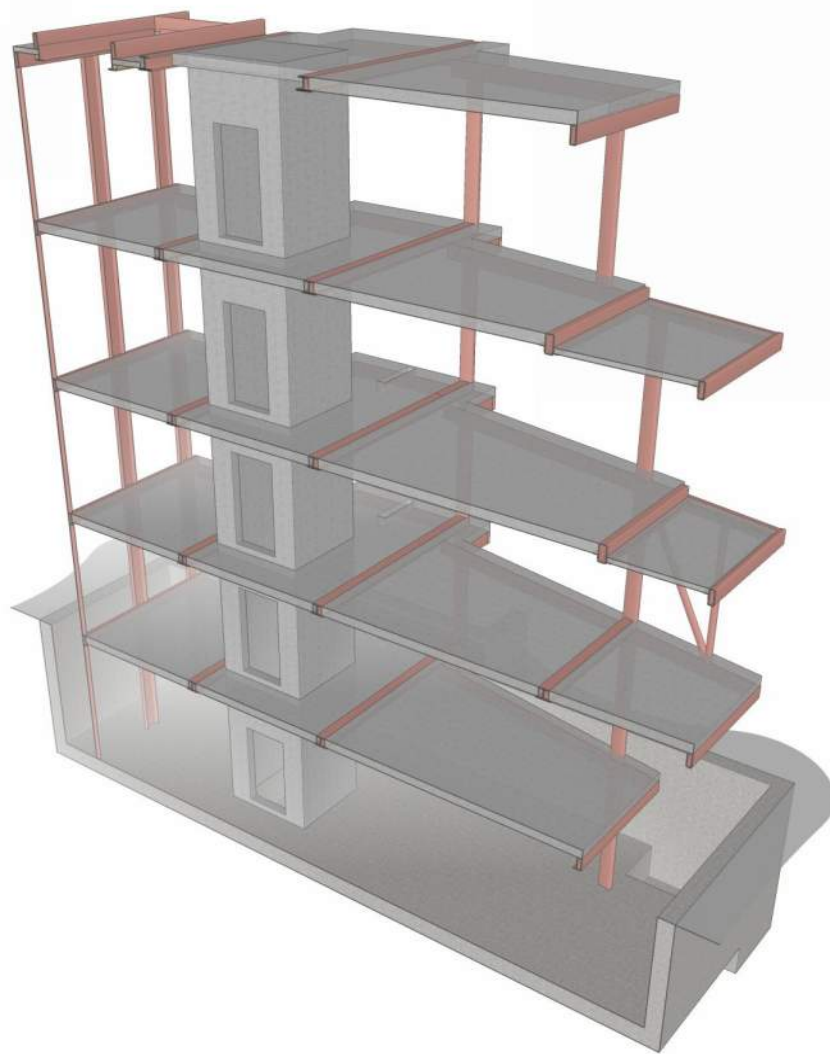
The lower ground floor slab will then be cast, following which the box will be effectively propped in it's permanent condition, the internal propping system can be removed and work can proceed above.



Front Perspectives on Main Structure  
(External Cladding Hidden)



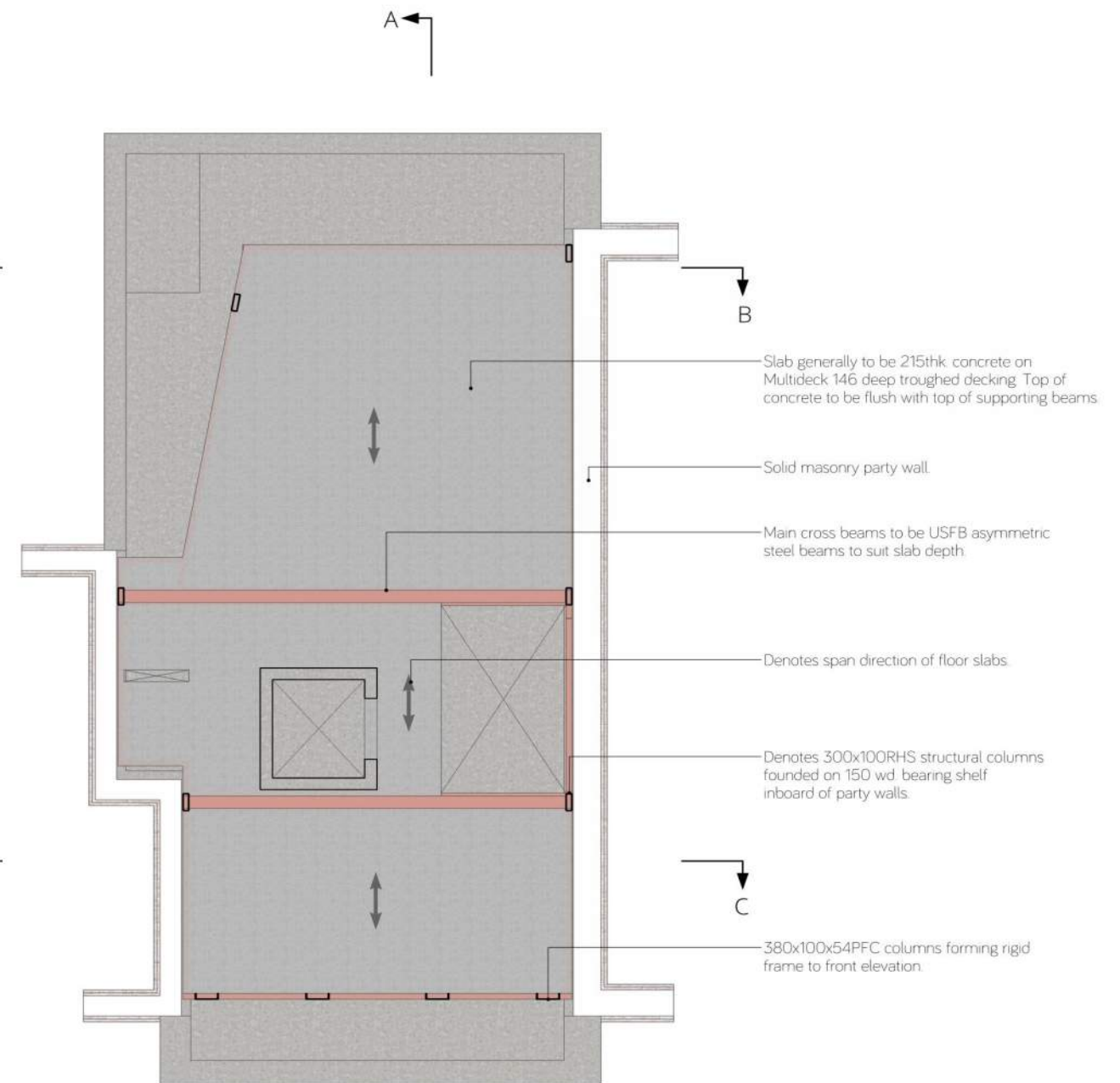
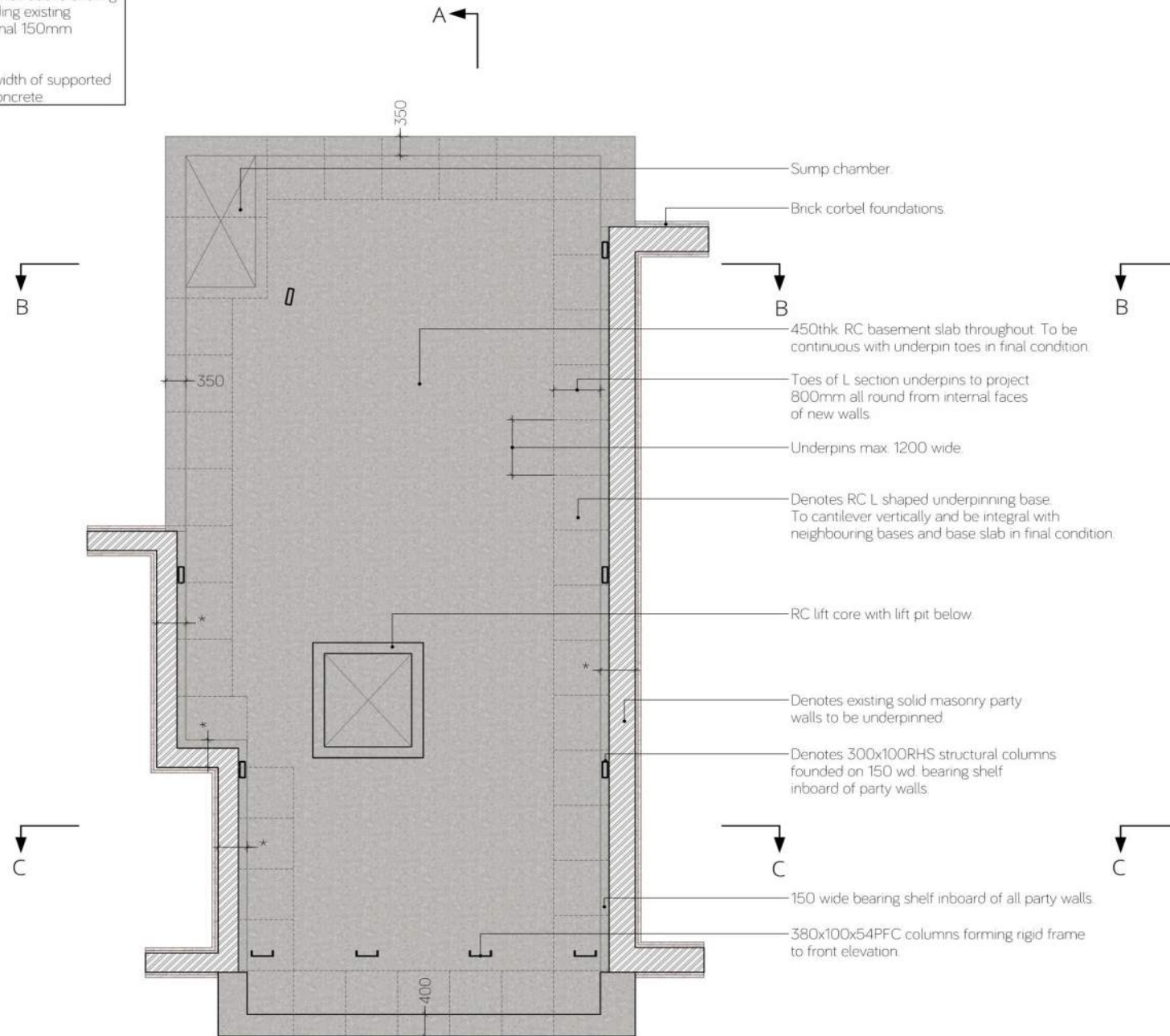
Rear Perspectives on Main Structure  
(External Cladding Hidden)



Sectional Perspectives on Main Structure  
(External Cladding Hidden)

\* Denotes RC underpin wall to be full thickness of supported wall above existing foundation level (excluding existing corbels) plus an additional 150mm internally within no. 19.

Contractor to confirm width of supported walls prior to pouring concrete.



#### Underpinning Notes

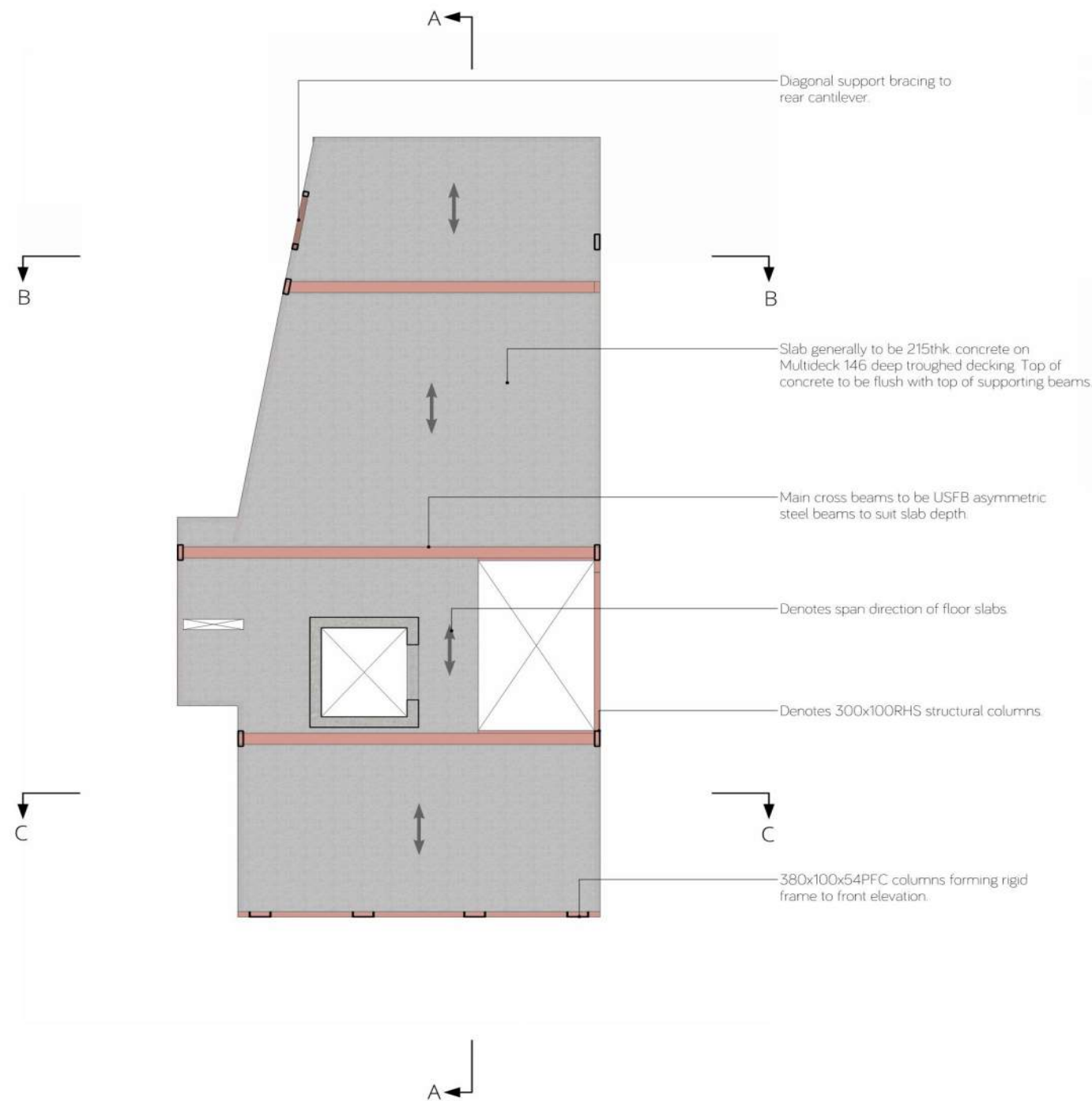
- To be carried out in lengths not exceeding 1m.
- Drypacking not to commence within 24hrs of casting base.
- No base to be excavated within 48hrs of concreting and packing neighbouring bases.
- Sequence to be as shown on specialists temporary works drawings.
- Underpinning sequence to be agreed with contractor prior to commencement.
- Exposed brickwork in existing foundations to be temporarily supported on underpinning jacks if required to maintain integrity of existing structure and prevent falling masonry.
- Drypack to be 1:3 cement:sand mixed so as to bind easily under hand pressure.
- Excavations to be temporarily supported as required in accordance with specialist temporary works design/drawings.
- All underpinning to be propped horizontally in accordance with specialist temporary works design/drawings.

Basement Floor Plan

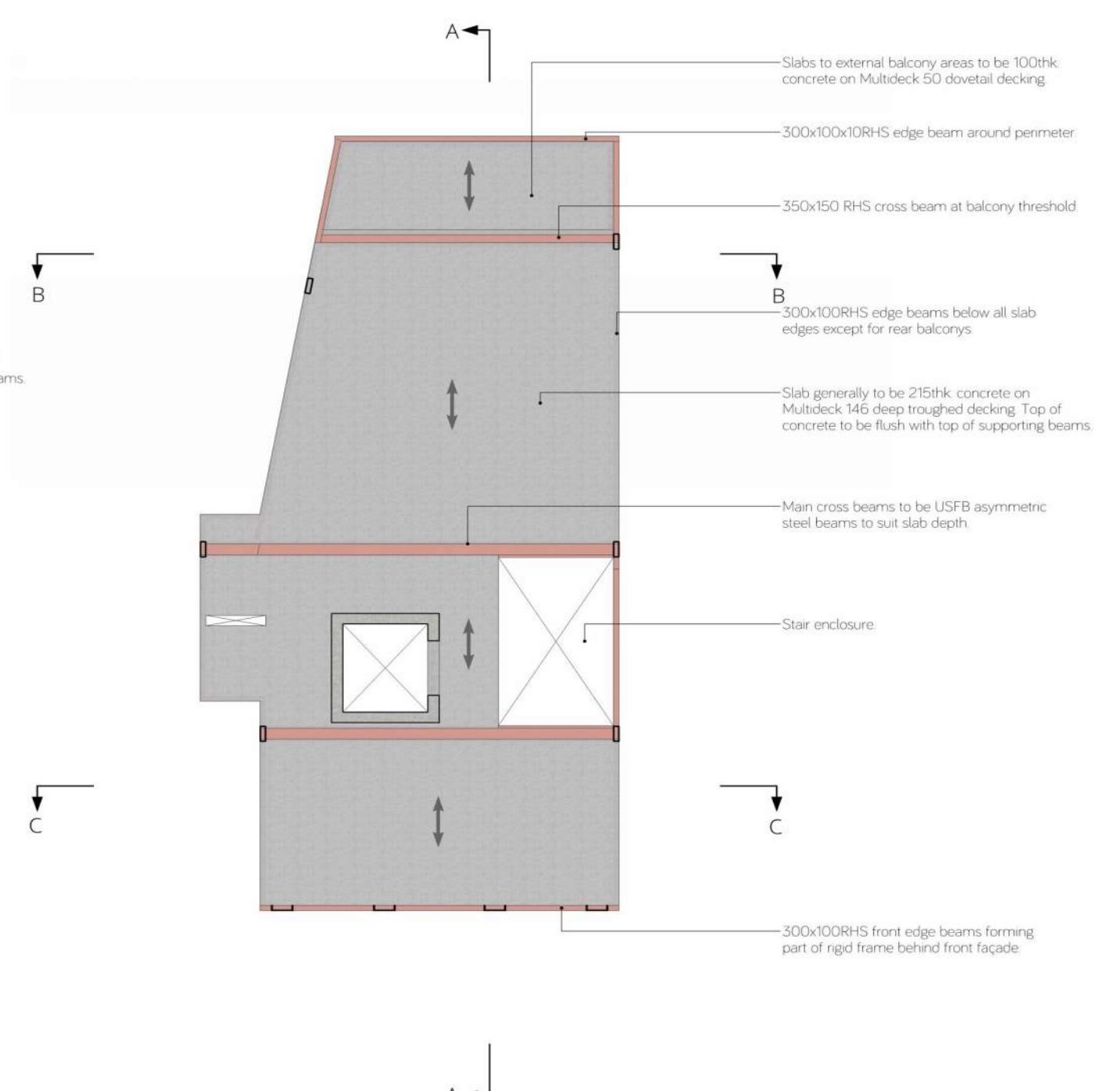
Ground Floor Plan

0 1m 2m 5m

Do not scale off this drawing

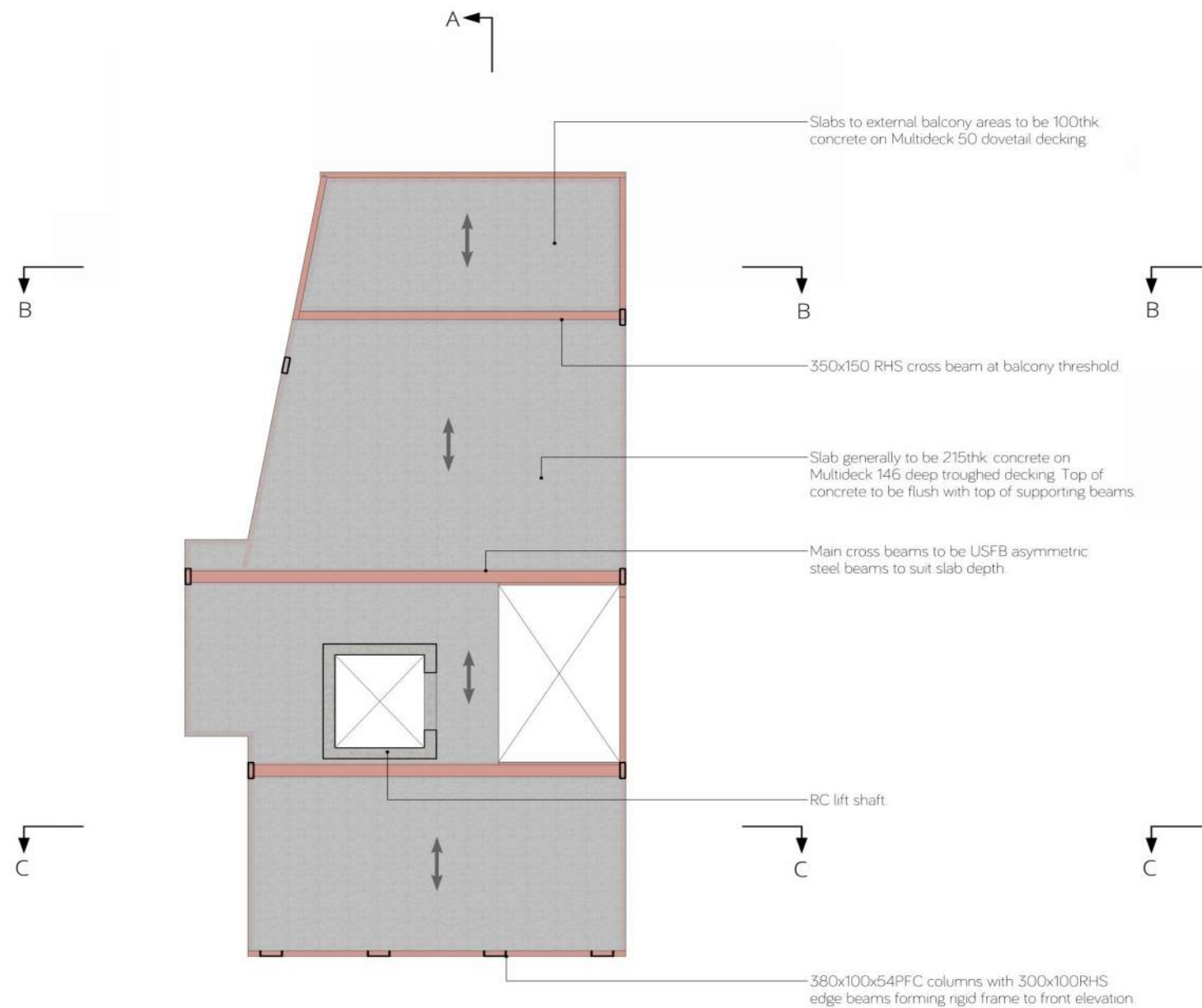


First Floor Plan

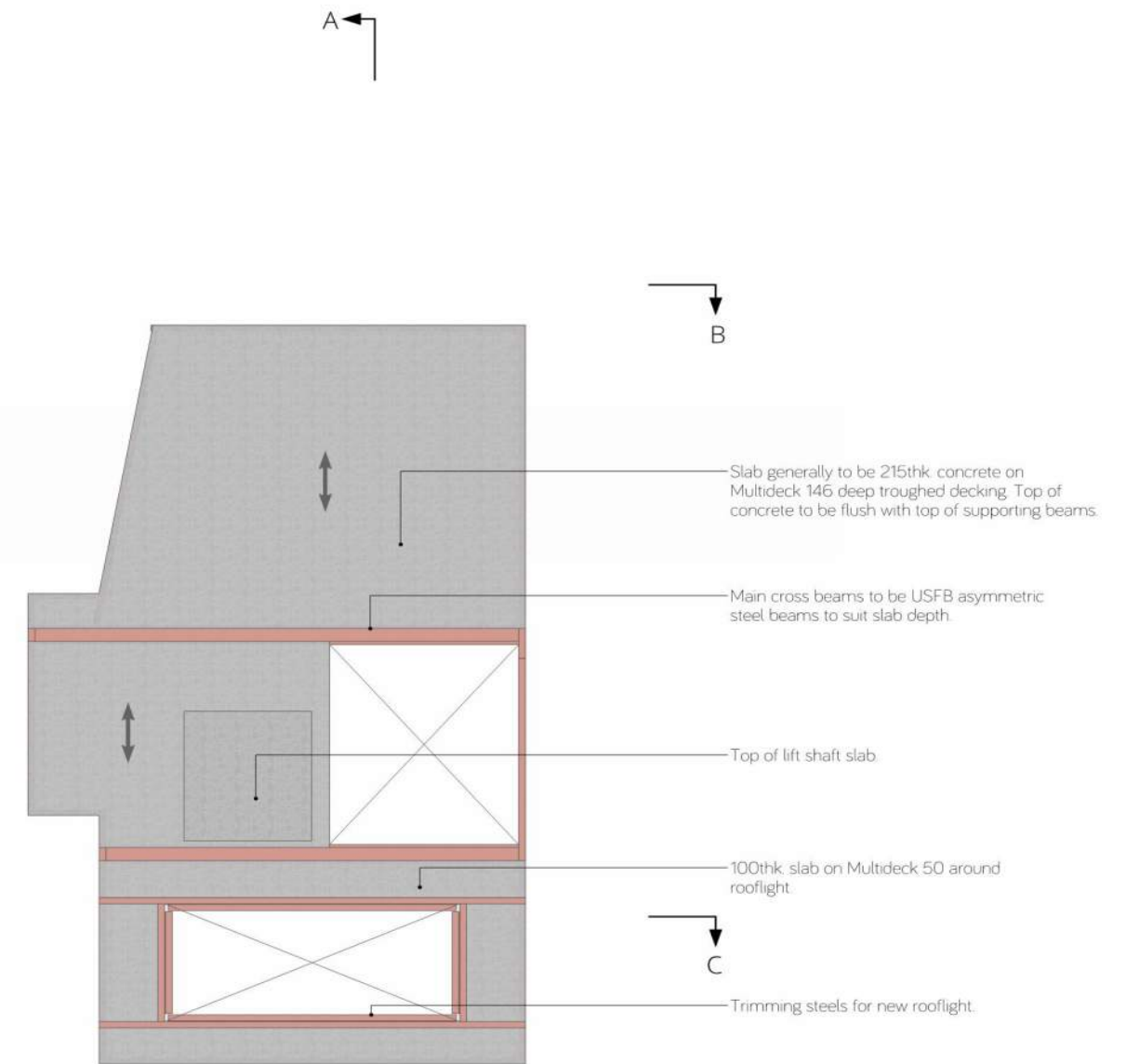


Second Floor Plan

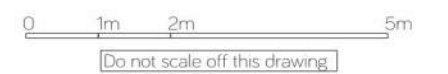


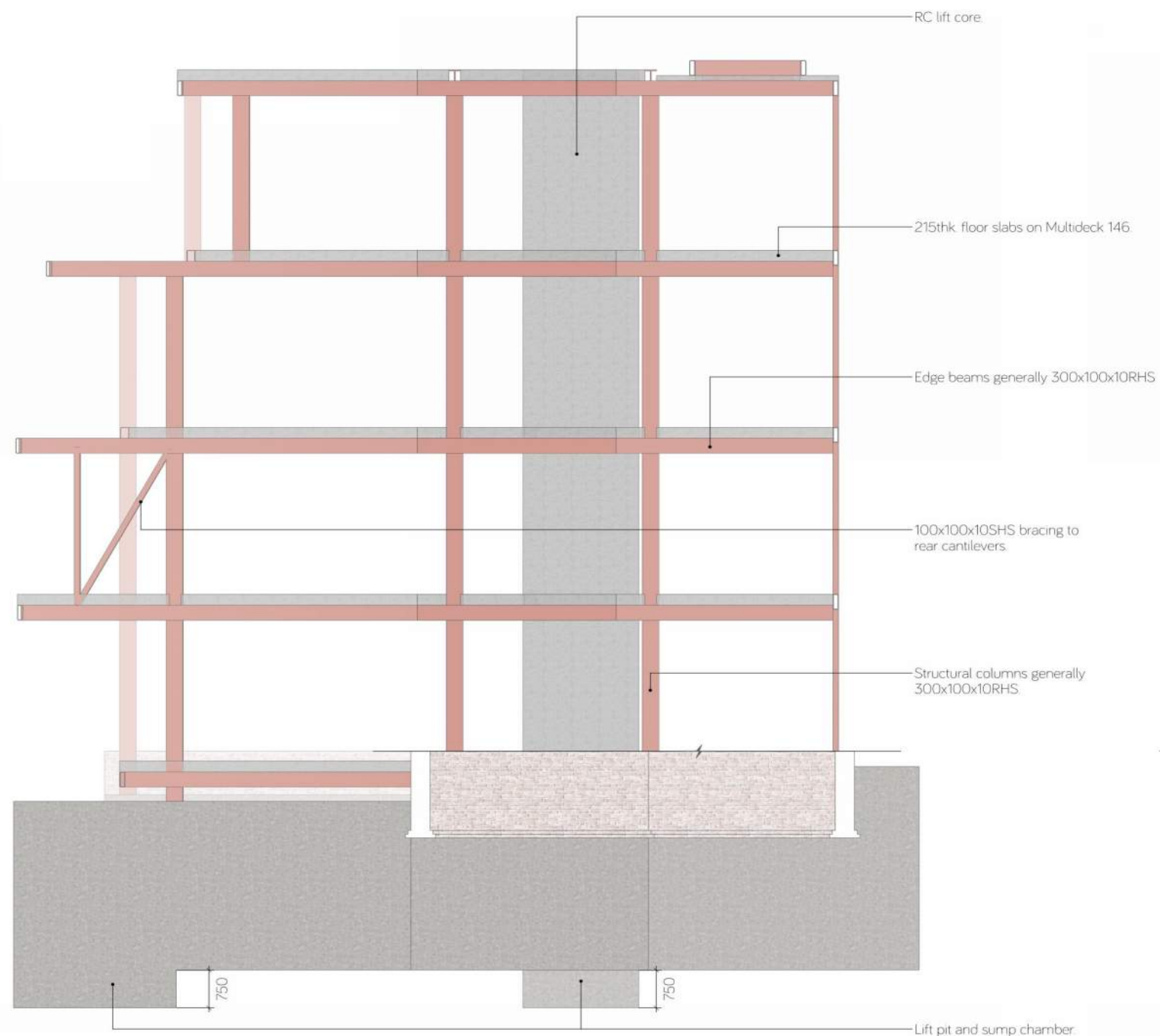


Third Floor Plan

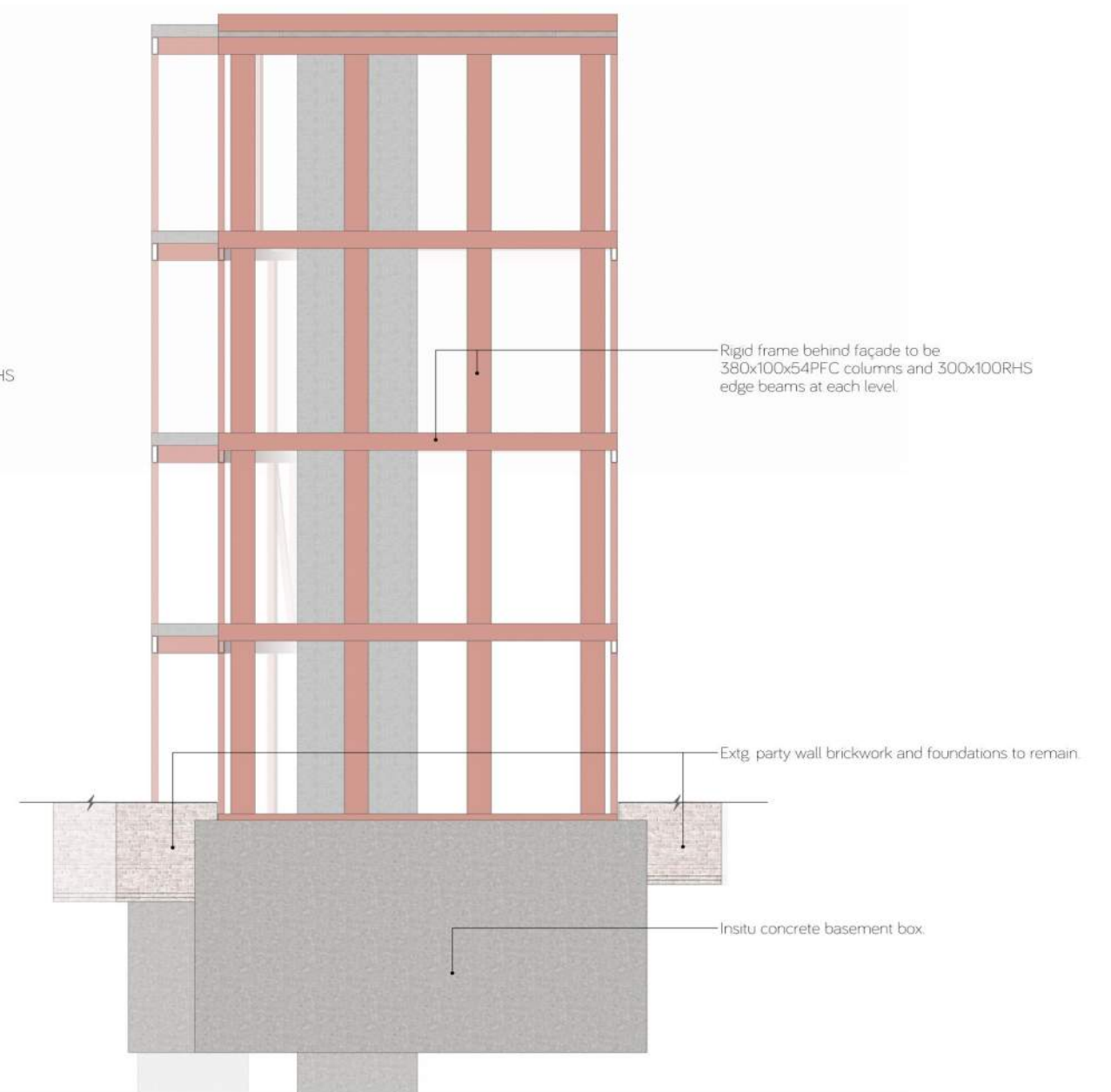


Roof Plan



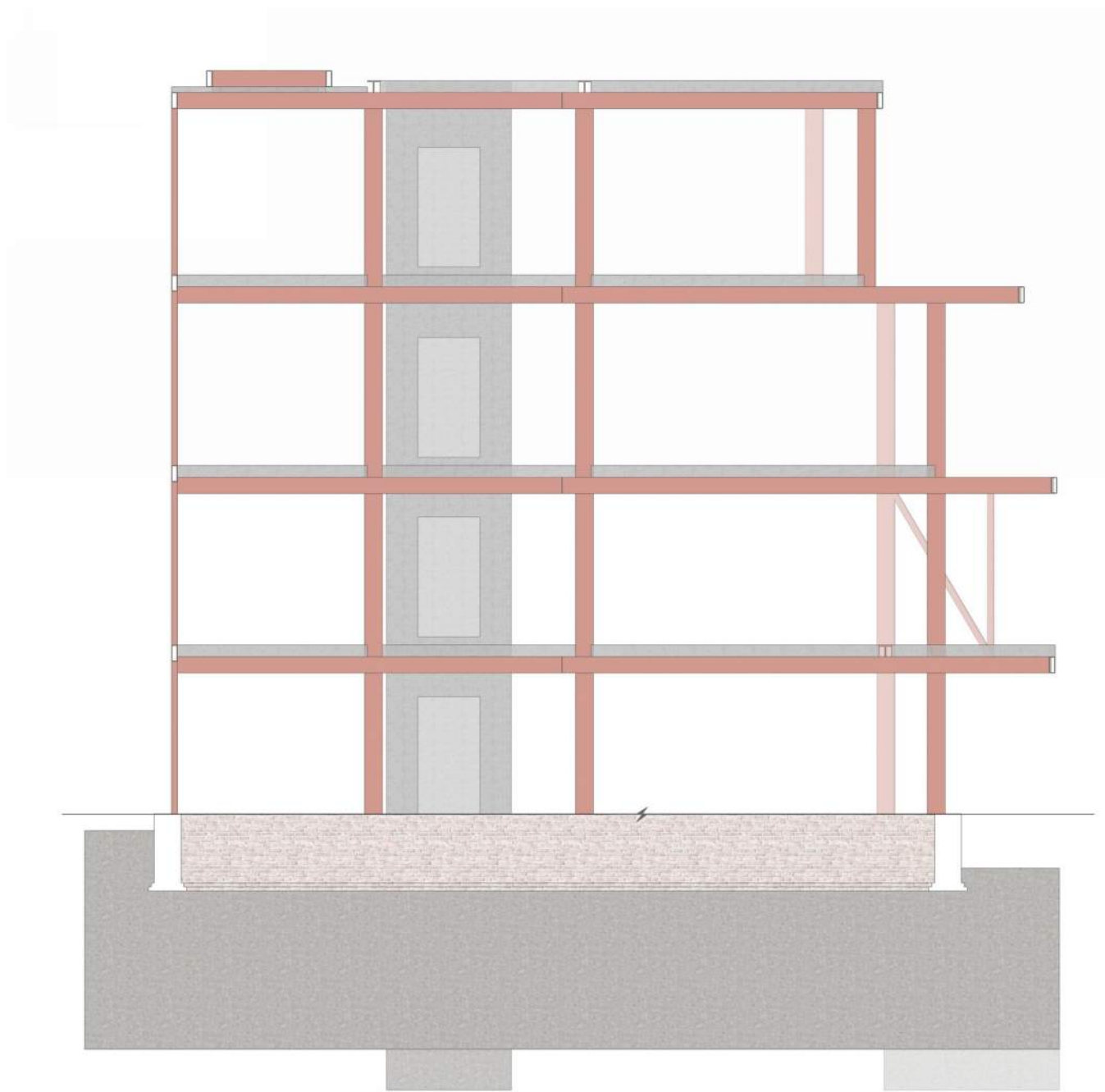


West Elevation

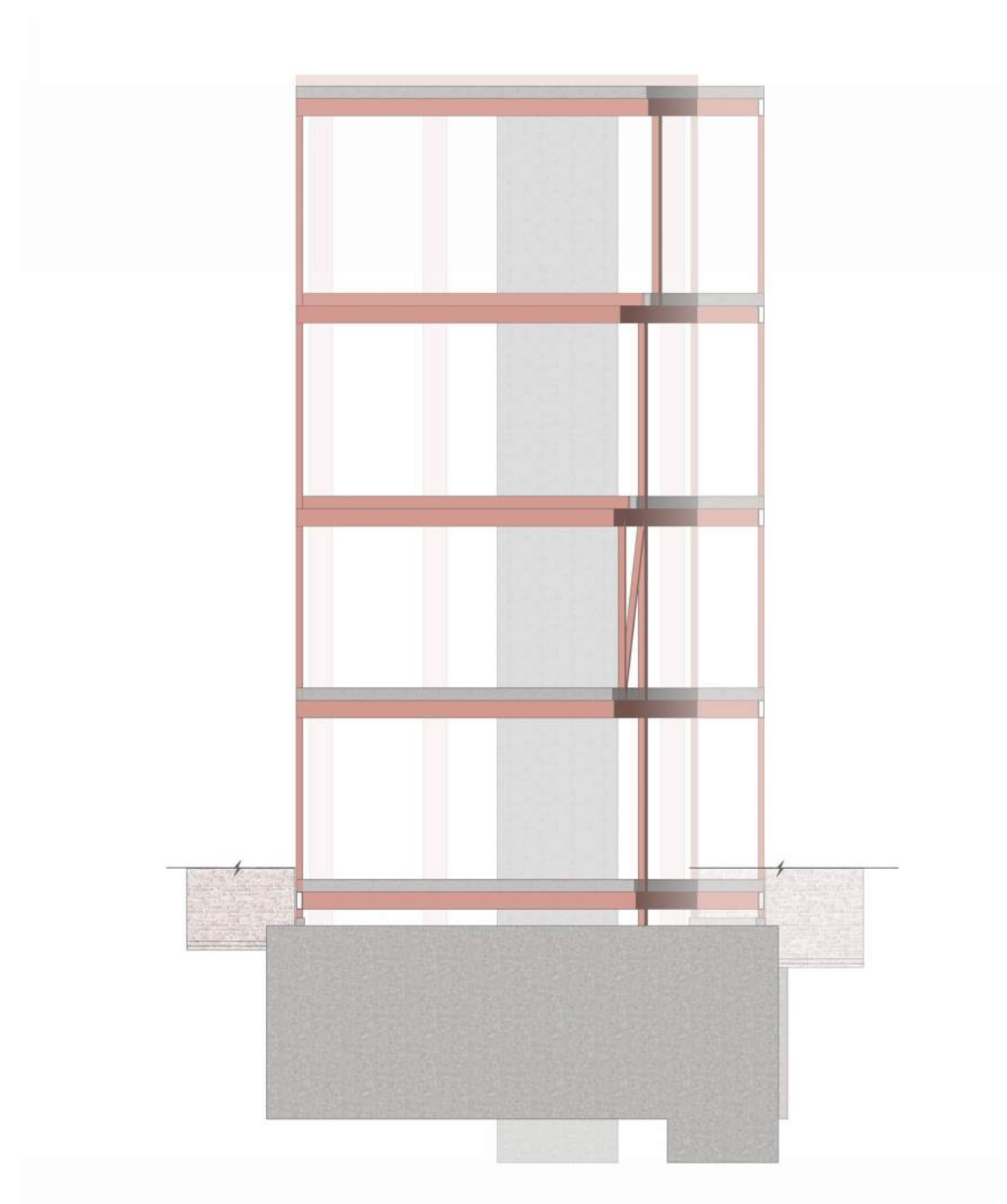


Front Elevation

0 1m 2m 5m  
Do not scale off this drawing

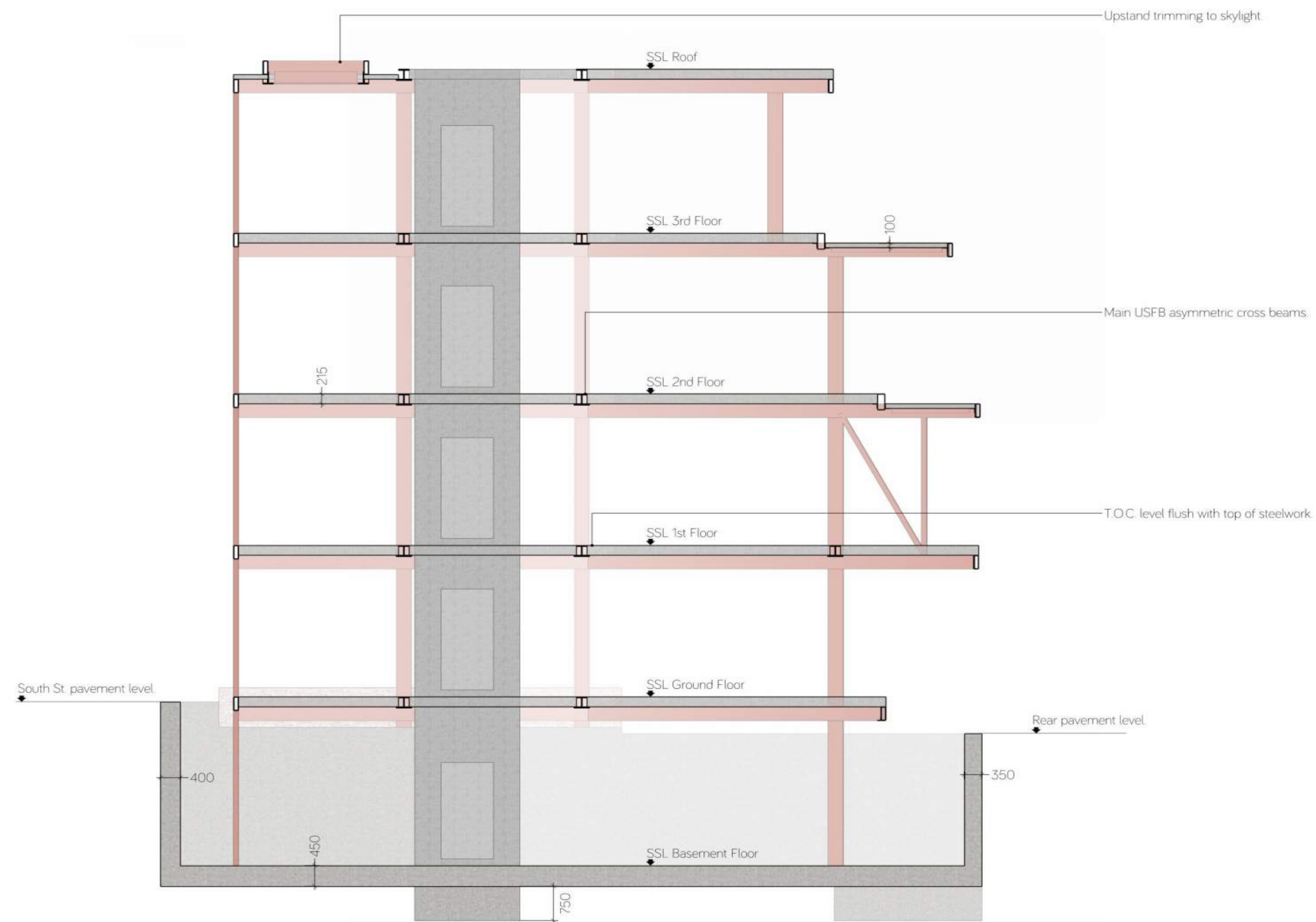


East Elevation

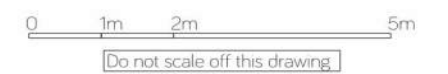


Rear Elevation

0 1m 2m 5m  
Do not scale off this drawing

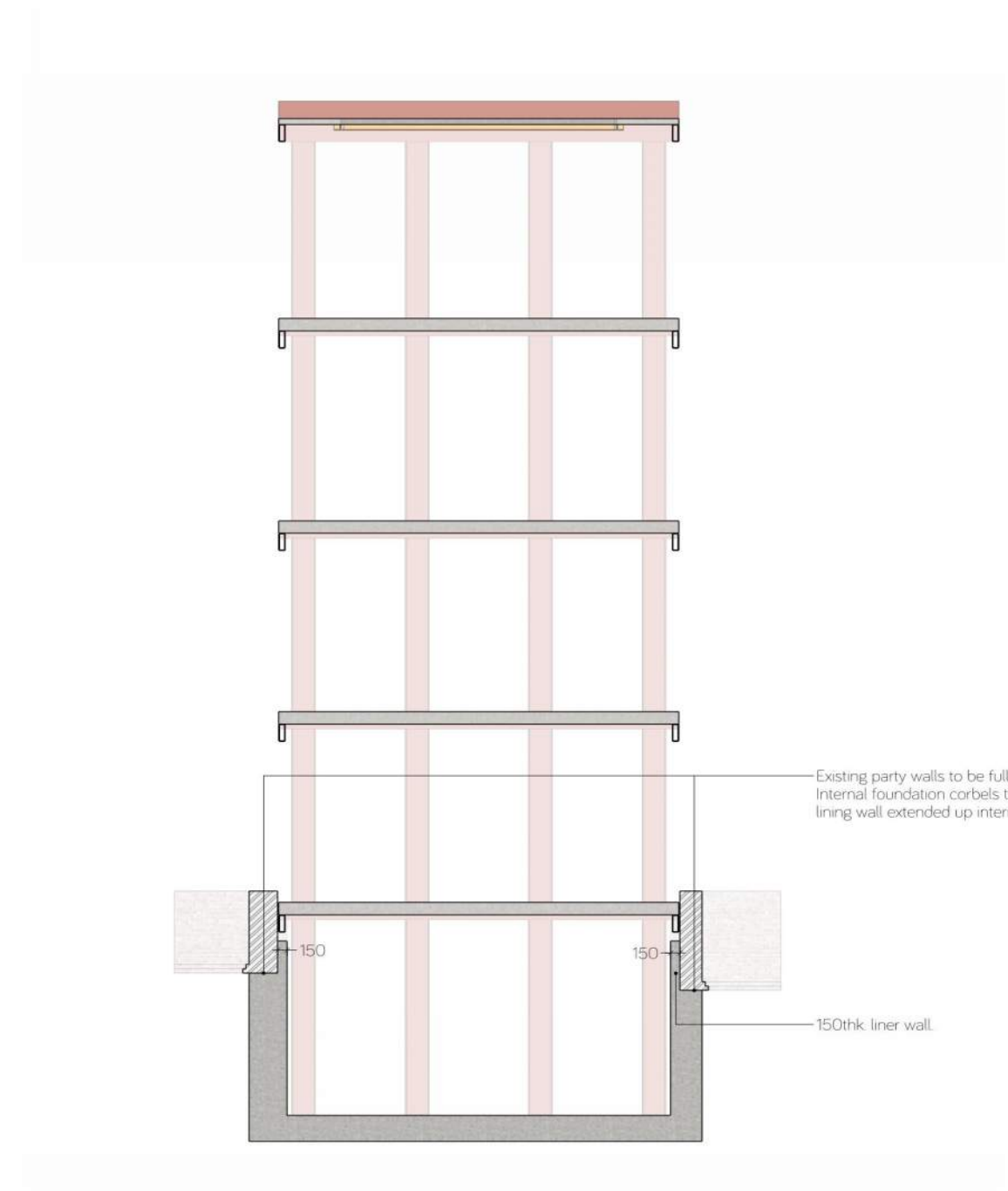


Long Section AA





Cross Section BB



Cross Section CC

0 1m 2m 5m  
Do not scale off this drawing

General

1. This drawing is to be read in conjunction with all relevant Architects, Engineers and specialist subcontractors' drawings and specifications.

2. Work to figured dimensions only. Do not scale off this drawing.

3. Any discrepancies between information shown on these drawings and conditions found on site to be brought to the attention of the engineer.

4. All dimensions in mm unless noted otherwise.

5. Fire resistance: Refer to Architects details and specification.

6. Setting out to be in accordance with Architects drawings. All dimensions and setting out to be confirmed by Contractor on site.

7. Temporary works drawings by specialist temporary works designer will be supplied. Additional items to be designed by the contractor. Where the contractor does not have sufficient qualifications/experience to undertake this safely the contractor shall enlist the services of a suitably qualified and experienced temporary works engineer to prepare a design and method statement.

8. Contractor is to notify Solid Geometry of his intended site commencement date a minimum of 10 working days prior to start of works.

9. Contractor not to commence work unless all approvals obtained, including building control and party wall related matters.

Steelwork

10. All steelwork to be in accordance with the latest edition of the National Structural Steelwork Specification (NSSS).

11. All steelwork to be Grade S355.

12. All bolts to be Grade 10.9 unless noted otherwise.

13. All steelwork to be painted in accordance with the specification below unless noted otherwise:

Surface prep: Blast clean to SA 2 1/2 (BS 7079:Part A1);  
Shop coating: 80 micron zinc phosphate epoxy primer

All steelwork denoted (A\*) is designated external and is to be galvanized in accordance with the specification below:

Surface prep: -  
Shop coating: - 85 Micron Hot dip galvanize to BS EN ISO 1461

All steelwork denoted (B\*) is designated semi-external and is to be painted in accordance with the specification below:

Surface prep: Blast clean to SA 2 1/2 (BS 7079:Part A1);  
Shop coating: 75 Micron Epoxy Zinc Rich Primer

All steelwork denoted (C\*) is designated architectural and is to be painted in accordance with the specification below:

Surface prep: Blast clean to SA 2 1/2 (BS 7079:Part A1);  
Shop coating: 75 Micron Epoxy Zinc Rich Primer (or equivalent compatible primer).

Fire Protection: Intumescent. Architect to confirm fire rating required.  
Sealer: To paint system manufacturers requirements.

Finish: Site applied finish to architects specification.

14. All fillet welds: E42 Electrode.

15. All Structural Hollow Sections to be hot finished to BS:EN 10210

16. Notation:

FW - Fillet weld. Note: All welds to be 6mm FW all round unless noted otherwise.  
PPBW - Part penetration butt weld.  
FPBW - Full penetration butt weld.

17. Contractor to produce fabrication drawings/sketches detailing the proposed connections to be used. These should comply with the design information provided on Solid Geometry's drawings. Where connection details are not provided within the contract documents the contractor is to request this information from Solid Geometry, or request connection forces in order that he can design and submit his own proposals prior to fabrication. All fabrication drawings should be submitted to the engineer 10 working days prior to fabrication commencing.

18. Site welding not permitted without prior approval by Solid Geometry. All welding is to be carried out by a fully qualified and certified welder in accordance with the requirements of the National Structural Steelwork Specification (NSSS).

19. All new steel beams supporting existing masonry walls to be drypacked with 40mm layer of 1:3 cement:sharp sand mixed so as to bind easily under hand pressure. Dry pack to be well rammed into position using temporary shuttering.

Timber

20. All timber to be Strength Class C24 unless noted otherwise.

21. All timber plates/joists bolted to masonry walls to be fixed with M12 Hilti HIT IC with HIT-SC and HIT HY 270 adhesive @max. 400c/c. 80mm embedment. All holes to be compressed air cleaned in accordance with manufacturers guidelines

22. Multiple timber compound sections to be bolted together with M10 bolts and 63dia tooth plate connectors at joist centres or 400c/c max.

23. One row of herringbone joist struts or noggins to be installed at mid-span of all floor and roof joist spans over 2500mm, and two rows at third points for spans over 4.5m. One row of timber noggins to be installed mid height of all studwork walls.

24. Timber packers to steel beams/columns to be cut to fit tight and bolted through webs at max. 400c/c using M12 bolts.

25. All joist hangers to be heavy duty face fixed hangers such as Simpson Strongtie SAE/SAI or equivalent, unless noted otherwise. To be fitted in accordance with manufacturer's recommendations.

Concrete

26. All concrete to be in accordance with the latest edition of the National Structural Concrete Specification (NSCS).

27. Concrete to be designed concrete as follows in accordance with BS8500:

Unreinforced concrete in foundations:	C20/25	DS-3	AC-3
Reinforced concrete in contact with the ground:	C32/40	DS-3	AC-3
Reinforced concrete above ground (incl. padstones)	C32/40		

28. Structural reinforced concrete not to be site mixed. To be supplied by QSRMC certified readymix supplier.

Masonry

29. Wall ties to be stainless steel Type 2 19x3mm vertical twist to BS 1243. 2.5 ties/m2 generally (900c/c horizontally, 450c/c vertically staggered) and 3-4 ties/m run at unbonded edges.

30. All mortar to be designation (iii) sand cement mortar to BS5628 unless noted otherwise.

31. All below ground cavities to cavity walling to be filled with concrete up to mid-height of ground floor structural slab.

# 5.0 Desk Study, Site Investigation, Hydrology, Flood Risk & Ground Movements.

The following is the contents of the Desk Study & Basement Impact Assessment Report by GEA that is referred to in the previous sections and submitted under separate cover on the planning portal. As with the structural sections here it has been prepared to satisfy the requirements of the London Borough of Westminster Basements SPD in support of this SMS. It should be read in conjunction with Solid Geometry submissions.

The content is as follows, giving section numbering as used within GEA's report.

## CONTENTS

### EXECUTIVE SUMMARY

#### Part 1: INVESTIGATION REPORT

1.0 INTRODUCTION	1
1.1 Proposed Development	1
1.2 Purpose of Work	1
1.3 Scope of Work	2
1.4 Limitations	3
2.0 THE SITE	3
2.1 Site Description	3
2.2 Site History	4
2.3 Other Information	5
2.4 Preliminary UXO Risk Assessment	5
2.5 Geology	6
2.6 Hydrology and Hydrogeology	6
2.7 Preliminary Risk Assessment	7
3.0 EXPLORATORY WORK	9
3.1 Sampling Strategy	9
4.0 GROUND CONDITIONS	9
4.1 Made Ground	9
4.2 Lynch Hill Gravel	10
4.3 London Clay	10
4.4 Groundwater	10
4.5 Soil Contamination	11
4.6 Existing Foundations	13

#### Part 2: DESIGN BASIS REPORT

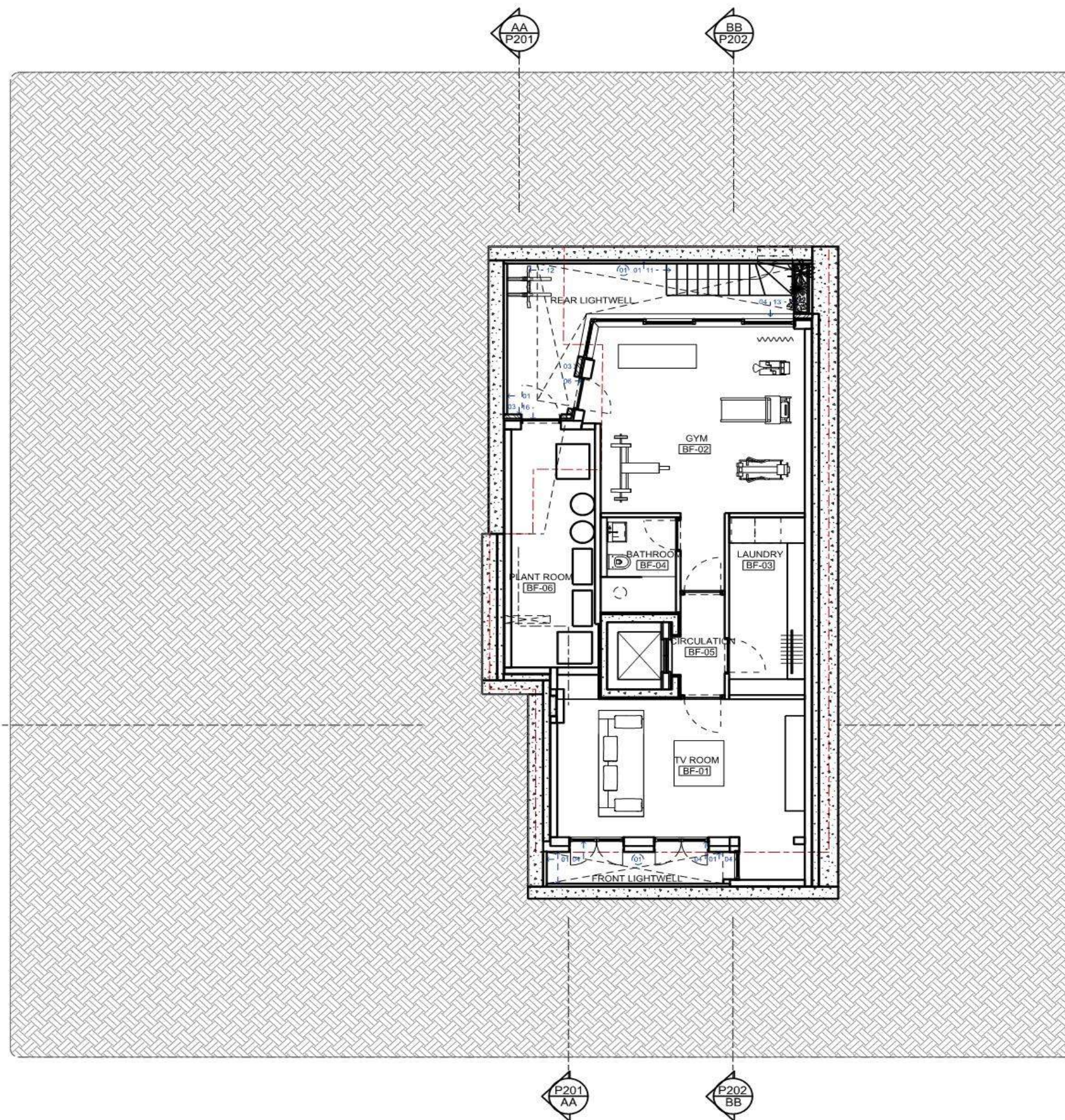
5.0 INTRODUCTION	14
6.0 GROUND MODEL	14
7.0 ADVICE AND RECOMMENDATIONS	15
7.1 Basement Construction	15
7.2 Spread Foundations	17
7.3 Hydrogeological Assessment	17
7.4 Shallow Excavations	17
7.5 Basement Floor Slab	17
7.6 Effect of Sulphates	18
7.7 Contamination Risk Assessment	18
7.8 Waste Disposal	19

#### Part 3: GROUND MOVEMENT ASSESSMENT

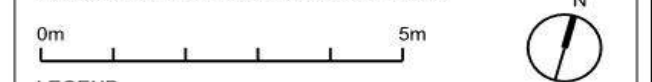
8.0 INTRODUCTION	21
8.1 Construction Sequence	21
9.0 GROUND MOVEMENTS	22
9.1 Basis of Ground Movement Assessment	22
9.2 P-Disp Model	23
9.3 Ground Movements – Surrounding the Excavation	23
9.4 Ground Movements within the Excavation (Heave / Settlement)	25
10.0 DAMAGE ASSESSMENT	25
10.1 Damage to Neighbouring Structures	26
10.2 Monitoring of Ground Movements	28
10.3 Building Damage Assessment Conclusions	28
11.0 OUTSTANDING RISKS AND ISSUES	28

#### APPENDIX





NOTES  
 1. colour referencing used throughout documentation, package to be printed in full colour.  
 2. drawings are to be read in conjunction with relevant, legend, schedules and documentations.  
 3. all works are to be undertaken in accordance with relevant building codes and standards.  
 © copyright of this drawing is vested in TSL Ltd



- LEGEND
- 01 Portland stone
  - 02 Black brick
  - 03 White brick
  - 04 Low iron double glazed windows with bronze frame
  - 05 Bronze door with fanlight
  - 06 Bronze door
  - 07 Bronze balustrade
  - 08 Glass balustrade
  - 09 Low iron double glazed openable roof light
  - 10 Low iron double glazed fixed roof light
  - 11 Stairs in Portland stone
  - 12 bike store
  - 13 Planters
  - 14 Balanced flue
  - 15 ASHP vent with acoustic attenuators
  - 16 Louvered door with acoustic attenuators
  - 17 waste and recycling
- Existing building outline - - - - -

04	planning issue	od/ih	15.03.21
03	planning issue	od/ih	04.02.21
02	client sign off	od/ih	12.01.21
01	structure added	od/ih	25.11.20
-	client sign off	od/ih	12.11.20
rev	description	drawn/checked	date

issue for **PLANNING**

client **Sam Farnar**  
 job **19 South street  
 W1K 2XB London**

title **PROPOSED BASEMENT FLOOR PLAN**

dwg no. **P001**  
 rev **04**  
 date **18.08.20**  
 scale **1:100 @A3**

**TOTEM  
 STUDIO  
 LONDON**

2 Alexander St London W2 5NT  
 +44 (0) 20 7243 0692  
 info@totemstudio.co.uk  
 www.totemstudio.co.uk

NOTES  
1. colour referencing used throughout documentation, package to be printed in full colour.  
2. drawings are to be read in conjunction with relevant, legend, schedules and documentations.  
3. all works are to be undertaken in accordance with relevant building codes and standards.  
© copyright of this drawing is vested in TSL Ltd

0m 5m



#### LEGEND

- 01 Portland stone
- 02 Black brick
- 03 White brick
- 04 Low iron double glazed windows with bronze frame
- 05 Bronze door with fanlight
- 06 Bronze door
- 07 Bronze balustrade
- 08 Glass balustrade
- 09 Low iron double glazed openable roof light
- 10 Low iron double glazed fixed roof light
- 11 Stairs in Portland stone
- 12 bike store
- 13 Planters
- 14 Balanced flue
- 15 ASHP vent with acoustic attenuators
- 16 Louvered door with acoustic attenuators
- 17 waste and recycling

Existing building outline - - - -

04	planning issue	od/ih	15.03.21
03	planning issue	od/ih	04.02.21
02	client sign off	od/ih	12.01.21
01	structure added	od/ih	25.11.20
-	client sign off	od/ih	12.11.20
rev	description	drawn/checked	date

issue for **PLANNING**

client **Sam Farnar**  
job **19 South street  
W1K 2XB London**

title **PROPOSED GROUND FLOOR PLAN**

dwg no. **P002**

rev **04**

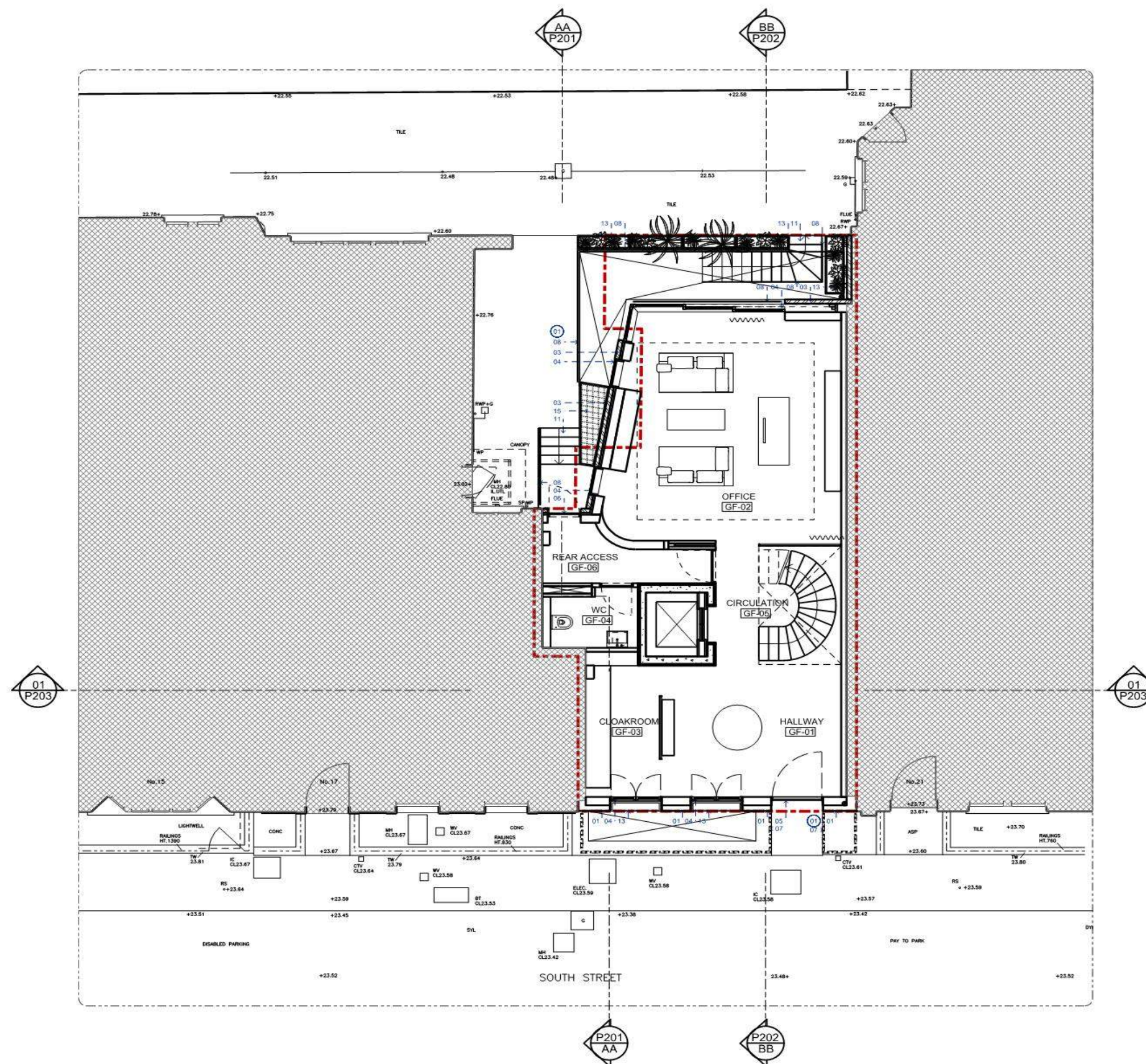
date **18.08.20**

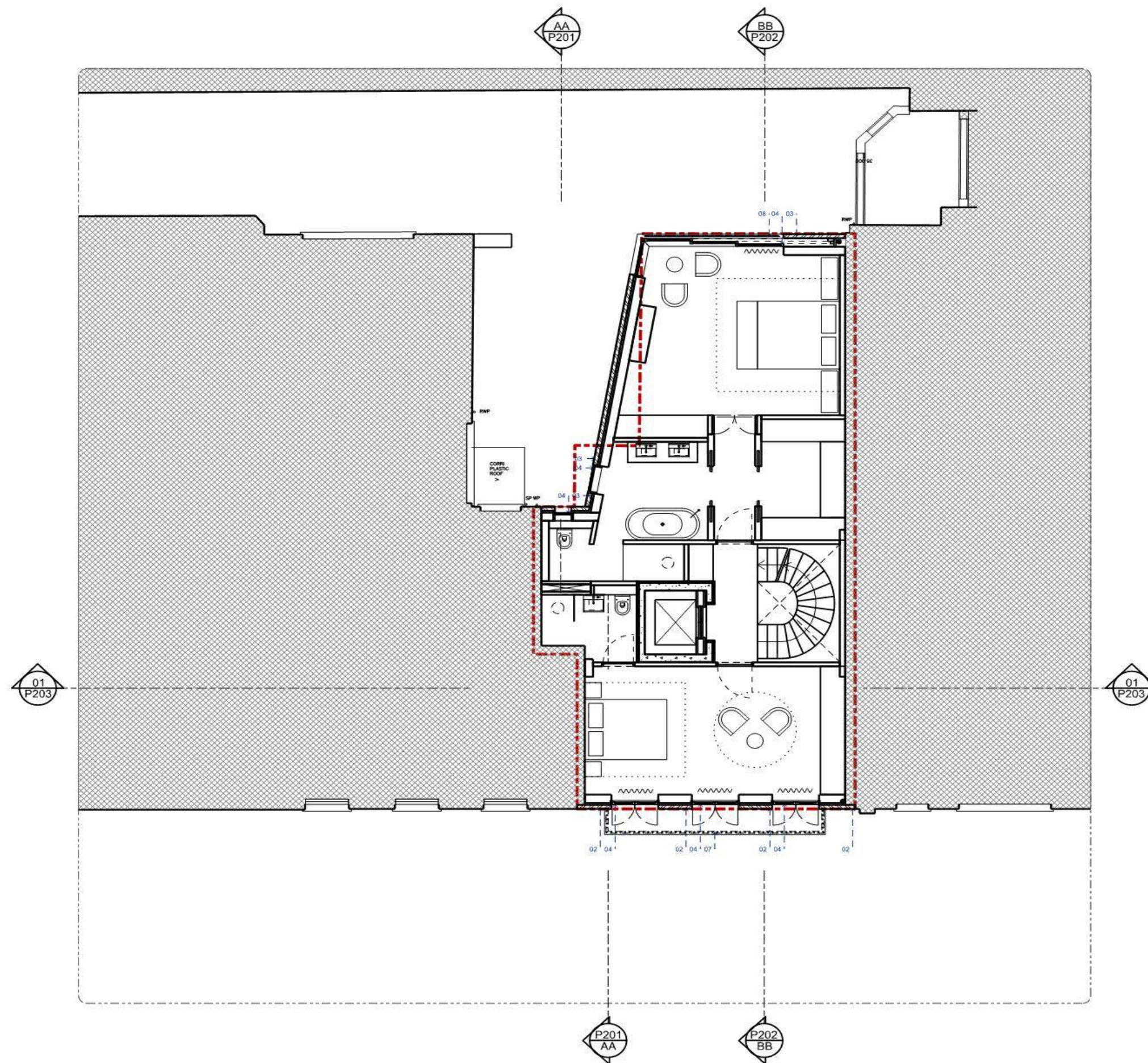
scale **1:100 @A3**

**TOTEM  
STUDIO  
LONDON**

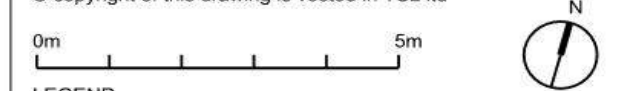
2 Alexander St London W2 5NT

+44 (0) 20 7243 0692  
info@totemstudio.co.uk  
www.totemstudio.co.uk





NOTES  
1. colour referencing used throughout documentation, package to be printed in full colour.  
2. drawings are to be read in conjunction with relevant, legend, schedules and documentations.  
3. all works are to be undertaken in accordance with relevant building codes and standards.  
© copyright of this drawing is vested in TSL Ltd



- LEGEND
- 01 Portland stone
  - 02 Black brick
  - 03 White brick
  - 04 Low iron double glazed windows with bronze frame
  - 05 Bronze door with fanlight
  - 06 Bronze door
  - 07 Bronze balustrade
  - 08 Glass balustrade
  - 09 Low iron double glazed openable roof light
  - 10 Low iron double glazed fixed roof light
  - 11 Stairs in Portland stone
  - 12 bike store
  - 13 Planters
  - 14 Balanced flue
  - 15 ASHP vent with acoustic attenuators
  - 16 Louvered door with acoustic attenuators
  - 17 waste and recycling
- Existing building outline - - - -

04	planning issue	od/ih	15.03.21
03	planning issue	od/ih	04.02.21
02	client sign off	od/ih	12.01.21
01	structure added	od/ih	25.11.20
-	client sign off	od/ih	12.11.20
rev	description		drawn/checked date

issue for **PLANNING**

client **Sam Farnar**  
job **19 South street  
W1K 2XB London**

title **PROPOSED FIRST FLOOR PLAN**

dwg no. **P003**  
rev **04**  
date **18.08.20**  
scale **1:100 @A3**

**TOTEM  
STUDIO  
LONDON**

2 Alexander St London W2 5NT

+44 (0) 20 7243 0692  
info@totemstudio.co.uk  
www.totemstudio.co.uk

NOTES  
1. colour referencing used throughout documentation, package to be printed in full colour.  
2. drawings are to be read in conjunction with relevant, legend, schedules and documentations.  
3. all works are to be undertaken in accordance with relevant building codes and standards.  
© copyright of this drawing is vested in TSL Ltd

0m 5m



#### LEGEND

- 01 Portland stone
- 02 Black brick
- 03 White brick
- 04 Low iron double glazed windows with bronze frame
- 05 Bronze door with fanlight
- 06 Bronze door
- 07 Bronze balustrade
- 08 Glass balustrade
- 09 Low iron double glazed openable roof light
- 10 Low iron double glazed fixed roof light
- 11 Stairs in Portland stone
- 12 bike store
- 13 Planters
- 14 Balanced flue
- 15 ASHP vent with acoustic attenuators
- 16 Louvered door with acoustic attenuators
- 17 waste and recycling

Existing building outline - - - - -

04	planning issue	od/ih	15.03.21
03	planning issue	od/ih	04.02.21
02	client sign off	od/ih	12.01.21
01	structure added	od/ih	25.11.20
-	client sign off	od/ih	12.11.20
rev	description	drawn/checked	date

issue for **PLANNING**

client **Sam Farnar**  
job **19 South street  
W1K 2XB London**

title **PROPOSED SECOND FLOOR PLAN**

dwg no. **P004**

rev **04**

date **18.08.20**

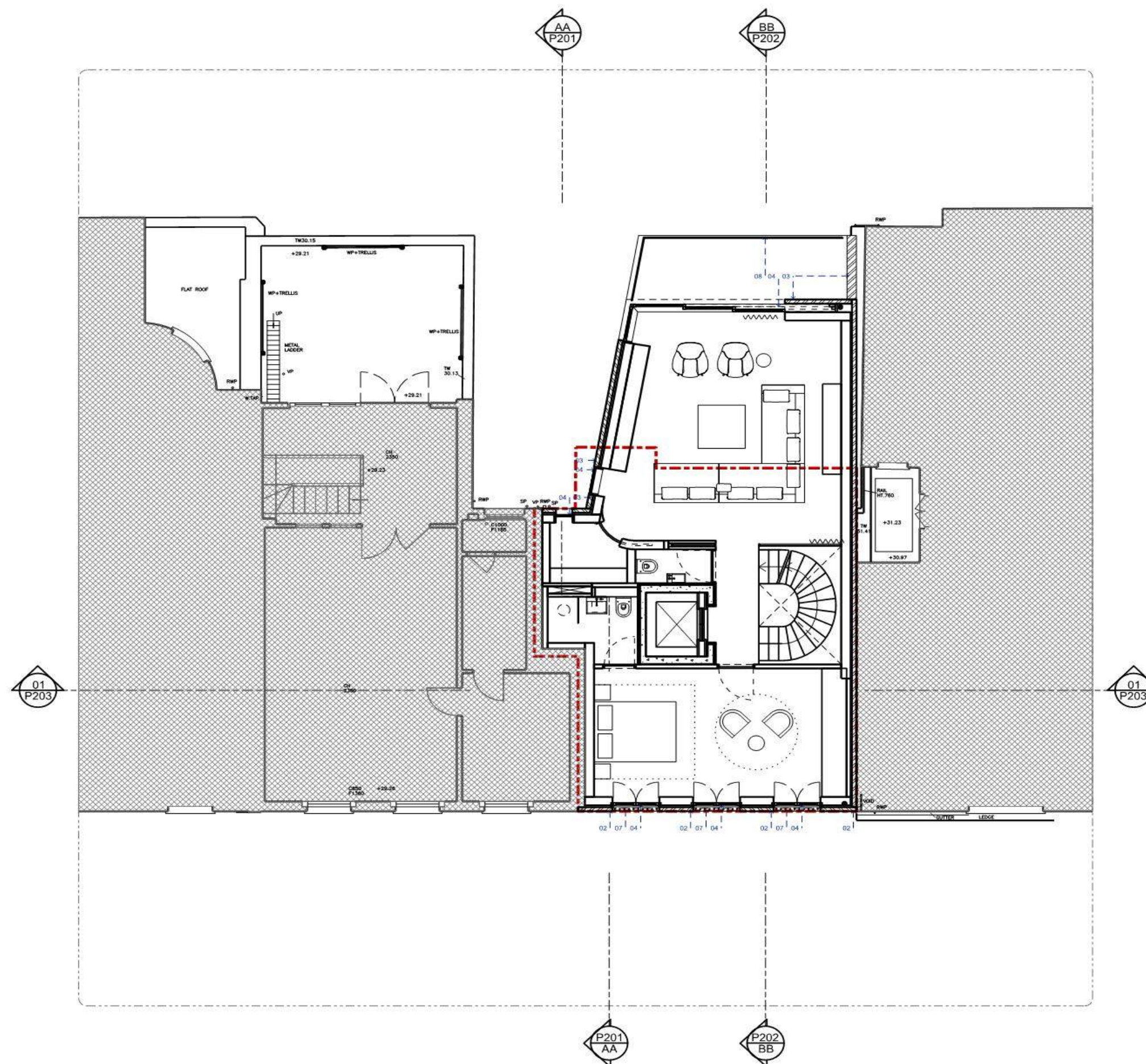
scale **1:100 @A3**

**TOTEM  
STUDIO  
LONDON**



2 Alexander St London W2 5NT

+44 (0) 20 7243 0692  
info@totemstudio.co.uk  
www.totemstudio.co.uk



NOTES  
1. colour referencing used throughout documentation, package to be printed in full colour.  
2. drawings are to be read in conjunction with relevant, legend, schedules and documentations.  
3. all works are to be undertaken in accordance with relevant building codes and standards.  
© copyright of this drawing is vested in TSL Ltd

0m 5m



#### LEGEND

- 01 Portland stone
- 02 Black brick
- 03 White brick
- 04 Low iron double glazed windows with bronze frame
- 05 Bronze door with fanlight
- 06 Bronze door
- 07 Bronze balustrade
- 08 Glass balustrade
- 09 Low iron double glazed openable roof light
- 10 Low iron double glazed fixed roof light
- 11 Stairs in Portland stone
- 12 bike store
- 13 Planters
- 14 Balanced flue
- 15 ASHP vent with acoustic attenuators
- 16 Louvered door with acoustic attenuators
- 17 waste and recycling

Existing building outline - - - - -

04	planning issue	od/ih	15.03.21
03	planning issue	od/ih	04.02.21
02	client sign off	od/ih	12.01.21
01	structure added	od/ih	25.11.20
-	client sign off	od/ih	12.11.20
rev	description		drawn/checked date

issue for **PLANNING**

client **Sam Farnar**  
job **19 South street  
W1K 2XB London**

title **PROPOSED THIRD FLOOR PLAN**

dwg no. **P005**

rev **04**

date **18.08.20**

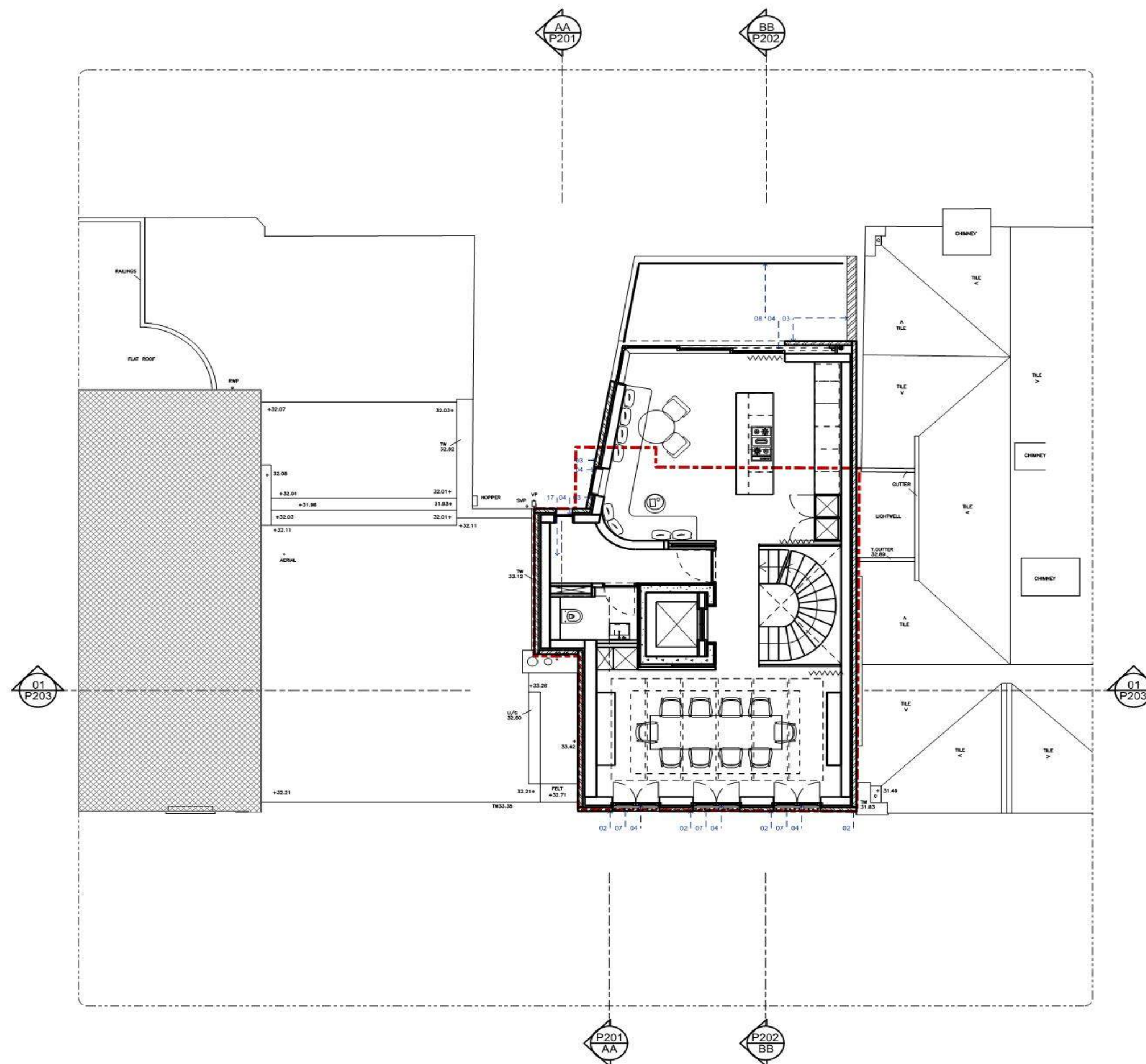
scale **1:100 @A3**

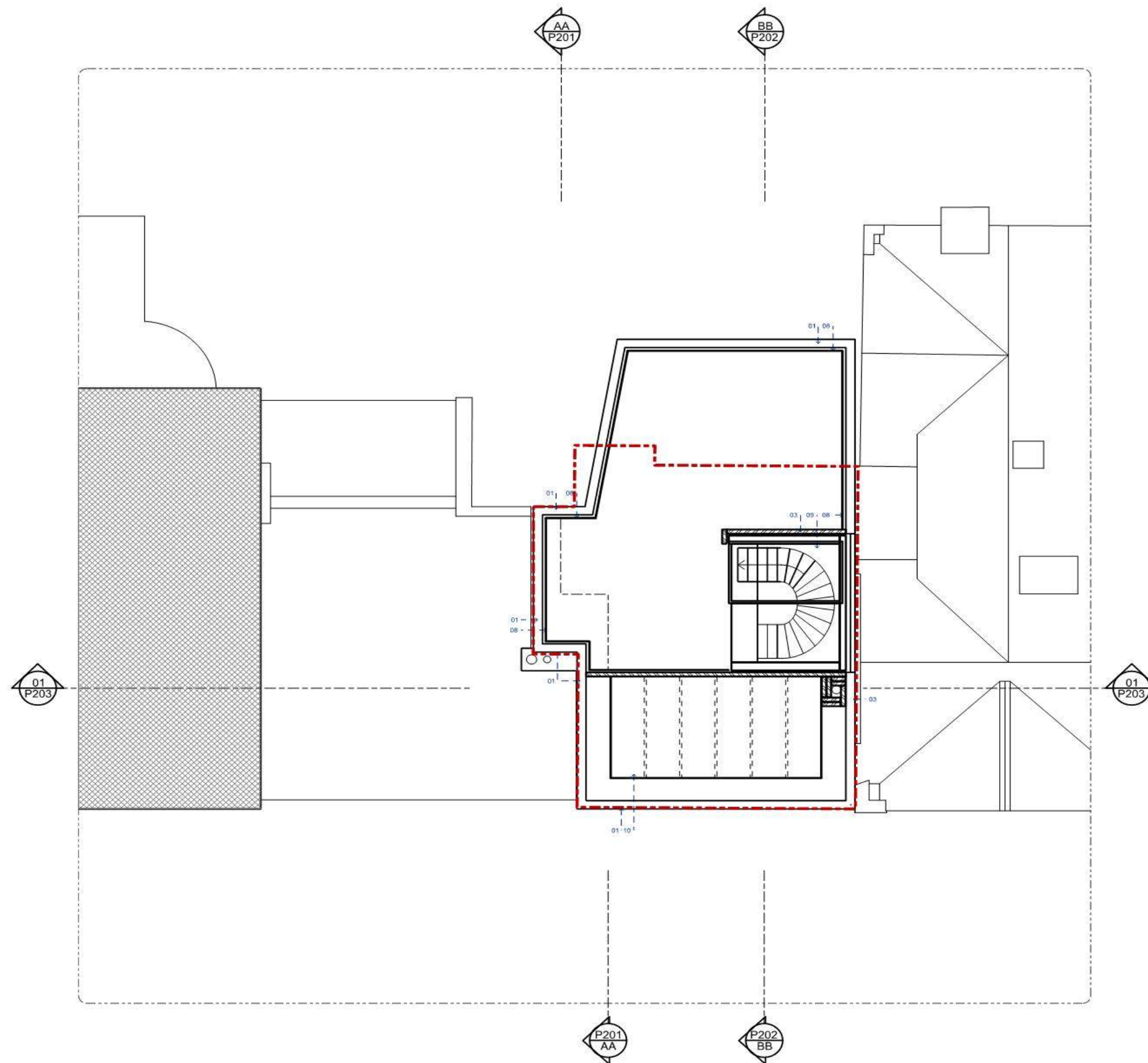
**TOTEM  
STUDIO  
LONDON**



2 Alexander St London W2 5NT

+44 (0) 20 7243 0692  
info@totemstudio.co.uk  
www.totemstudio.co.uk





NOTES  
 1. colour referencing used throughout documentation, package to be printed in full colour.  
 2. drawings are to be read in conjunction with relevant, legend, schedules and documentations.  
 3. all works are to be undertaken in accordance with relevant building codes and standards.  
 © copyright of this drawing is vested in TSL Ltd

0m 5m



#### LEGEND

- 01 Portland stone
- 02 Black brick
- 03 White brick
- 04 Low iron double glazed windows with bronze frame
- 05 Bronze door with fanlight
- 06 Bronze door
- 07 Bronze balustrade
- 08 Glass balustrade
- 09 Low iron double glazed openable roof light
- 10 Low iron double glazed fixed roof light
- 11 Stairs in Portland stone
- 12 bike store
- 13 Planters
- 14 Balanced flue
- 15 ASHP vent with acoustic attenuators
- 16 Louvered door with acoustic attenuators
- 17 waste and recycling

Existing building outline - - - -

04	planning issue	od/ih	15.03.21
03	planning issue	od/ih	04.02.21
02	client sign off	od/ih	12.01.21
01	structure added	od/ih	25.11.20
-	client sign off	od/ih	12.11.20
rev	description	drawn/checked	date

issue for **PLANNING**

client **Sam Farnar**  
 job **19 South street  
 W1K 2XB London**

title **PROPOSED ROOF PLAN**

dwg no. **P006**  
 rev **04**  
 date **18.08.20**  
 scale **1:100 @A3**

**TOTEM  
 STUDIO  
 LONDON**



2 Alexander St London W2 5NT

+44 (0) 20 7243 0692  
 info@totemstudio.co.uk  
 www.totemstudio.co.uk



NOTES  
1. colour referencing used throughout documentation, package to be printed in full colour.  
2. drawings are to be read in conjunction with relevant, legend, schedules and documentations.  
3. all works are to be undertaken in accordance with relevant building codes and standards.  
© copyright of this drawing is vested in TSL Ltd

0m 5m

#### LEGEND

- 01 Portland stone
- 02 Black brick
- 03 White brick
- 04 Low iron double glazed windows with bronze frame
- 05 Bronze door with fanlight
- 06 Bronze door
- 07 Bronze balustrade
- 08 Glass balustrade
- 09 Low iron double glazed openable roof light
- 10 Low iron double glazed fixed roof light
- 11 Stairs in Portland stone
- 12 bike store
- 13 Planters
- 14 Balanced flue
- 15 ASHP vent with acoustic attenuators
- 16 Louvered door with acoustic attenuators
- 17 waste and recycling

04	planning issue	od/ih	15.03.21
03	planning issue	od/ih	04.02.21
02	client sign off	od/ih	12.01.21
01	structure added	od/ih	25.11.20
-	client sign off	od/ih	12.11.20
rev	description		drawn/checked date

issue for **PLANNING**

client **Sam Farnar**  
job **19 South street  
W1K 2XB London**

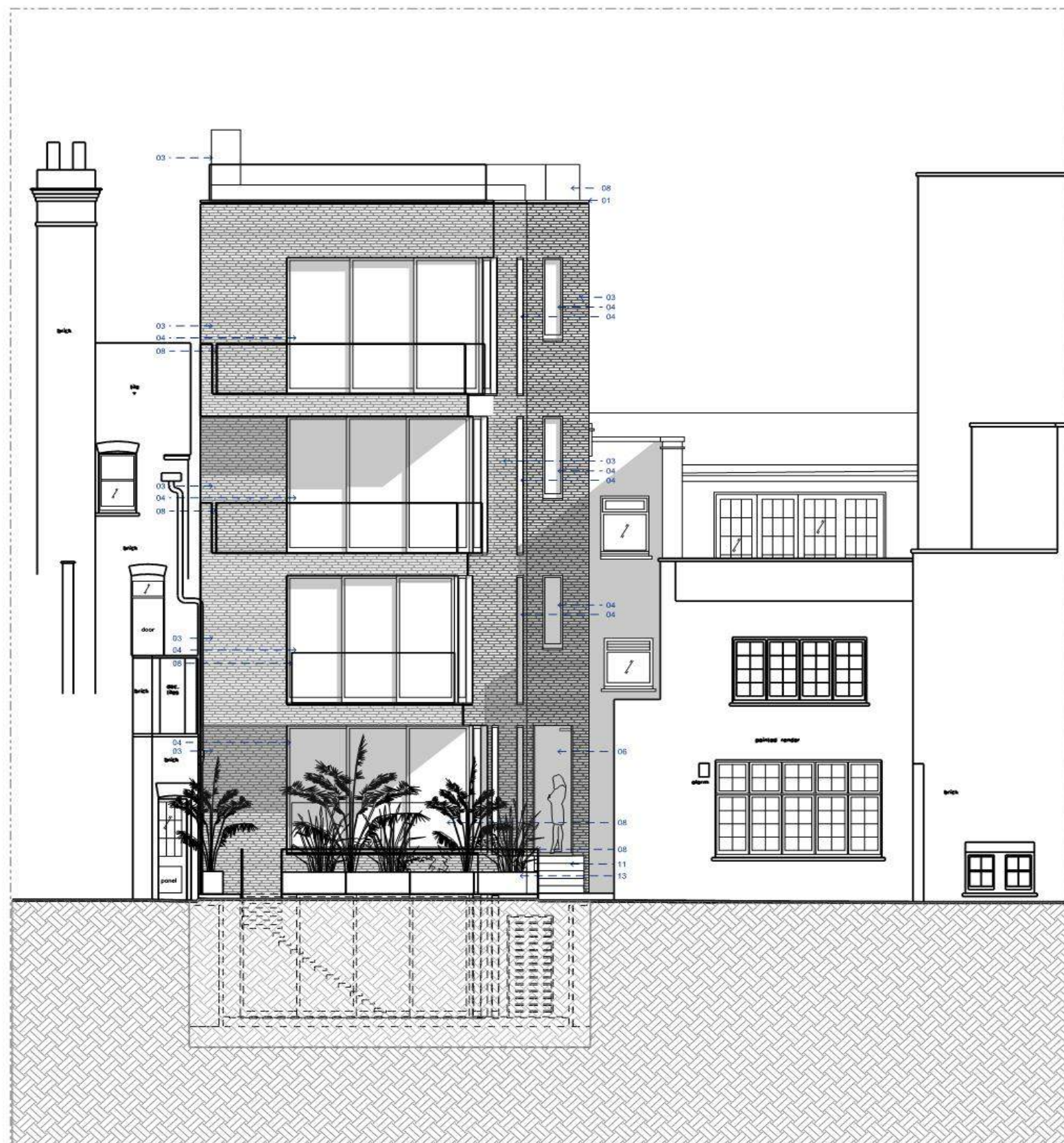
title **PROPOSED SOUTH ELEVATION**

dwg no. **P101**  
rev **04**  
date **18.08.20**  
scale **1:100 @A3**

**TOTEM  
STUDIO  
LONDON**

2 Alexander St London W2 5NT

+44 (0) 20 7243 0692  
info@totemstudio.co.uk  
www.totemstudio.co.uk



NOTES  
1. colour referencing used throughout documentation, package to be printed in full colour.  
2. drawings are to be read in conjunction with relevant, legend, schedules and documentations.  
3. all works are to be undertaken in accordance with relevant building codes and standards.  
© copyright of this drawing is vested in TSL Ltd



#### LEGEND

- 01 Portland stone
- 02 Black brick
- 03 White brick
- 04 Low iron double glazed windows with bronze frame
- 05 Bronze door with fanlight
- 06 Bronze door
- 07 Bronze balustrade
- 08 Glass balustrade
- 09 Low iron double glazed openable roof light
- 10 Low iron double glazed fixed roof light
- 11 Stairs in Portland stone
- 12 bike store
- 13 Planters
- 14 Balanced flue
- 15 ASHP vent with acoustic attenuators
- 16 Louvered door with acoustic attenuators
- 17 waste and recycling

04	planning issue	od/ih	15.03.21
03	planning issue	od/ih	04.02.21
02	client sign off	od/ih	12.01.21
01	structure added	od/ih	25.11.20
-	client sign off	od/ih	12.11.20
rev	description		drawn/checked date

issue for **PLANNING**

client **Sam Farnar**  
job **19 South street  
W1K 2XB London**

title **PROPOSED NORTH ELEVATION**

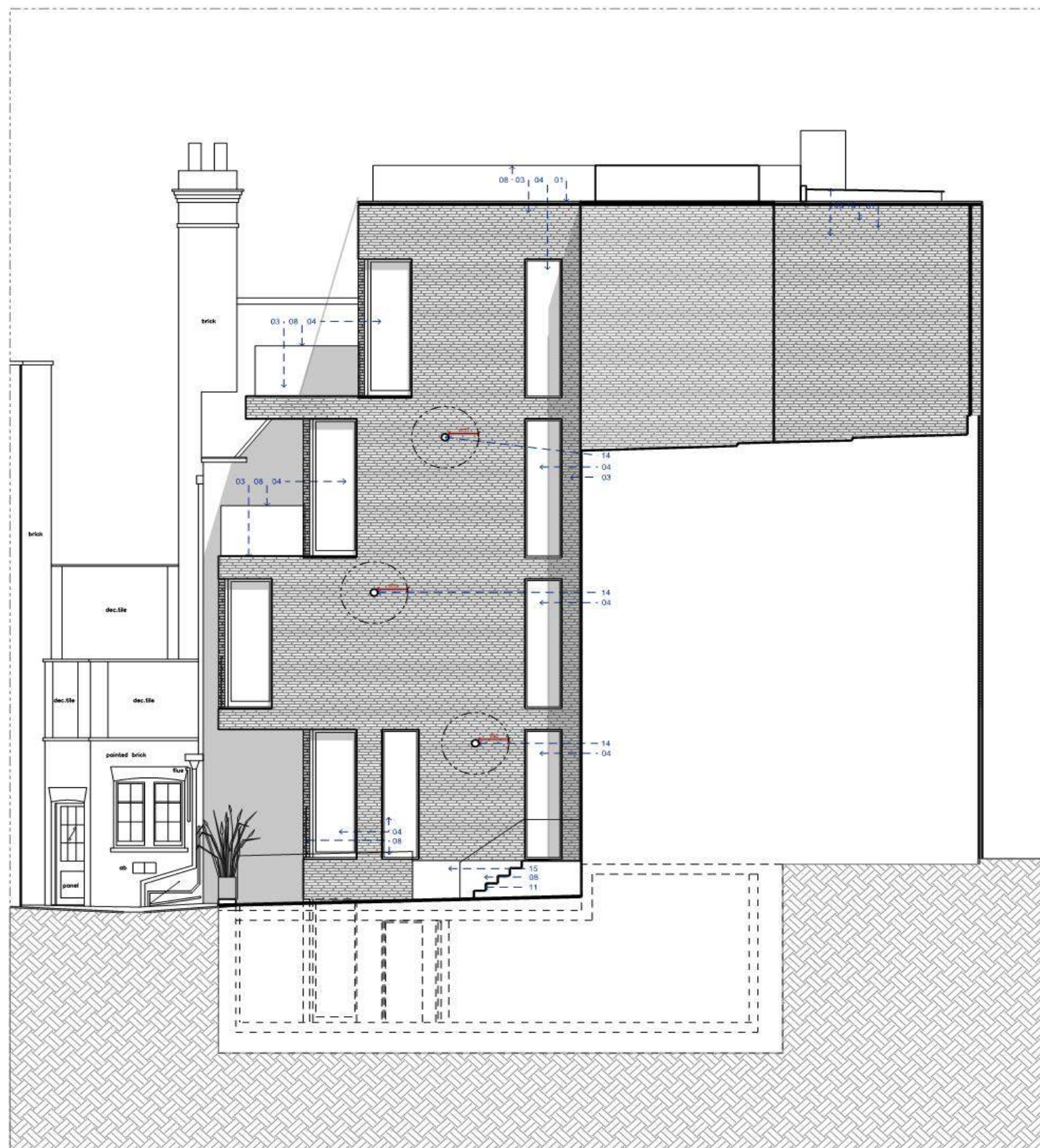
dwg no. **P102**  
rev **04**  
date **18.08.20**  
scale **1:100 @A3**

**TOTEM  
STUDIO  
LONDON**



2 Alexander St London W2 5NT

+44 (0) 20 7243 0692  
info@totemstudio.co.uk  
www.totemstudio.co.uk



NOTES  
 1. colour referencing used throughout documentation, package to be printed in full colour.  
 2. drawings are to be read in conjunction with relevant, legend, schedules and documentations.  
 3. all works are to be undertaken in accordance with relevant building codes and standards.  
 © copyright of this drawing is vested in TSL Ltd



#### LEGEND

- 01 Portland stone
- 02 Black brick
- 03 White brick
- 04 Low iron double glazed windows with bronze frame
- 05 Bronze door with fanlight
- 06 Bronze door
- 07 Bronze balustrade
- 08 Glass balustrade
- 09 Low iron double glazed openable roof light
- 10 Low iron double glazed fixed roof light
- 11 Stairs in Portland stone
- 12 bike store
- 13 Planters
- 14 Balanced flue
- 15 ASHP vent with acoustic attenuators
- 16 Louvered door with acoustic attenuators
- 17 waste and recycling

04	planning issue	od/ih	15.03.21
03	planning issue	od/ih	04.02.21
02	client sign off	od/ih	12.01.21
01	structure added	od/ih	25.11.20
-	client sign off	od/ih	12.11.20
rev	description	drawn/checked	date

issue for **PLANNING**

client **Sam Farnar**  
 job **19 South street  
 W1K 2XB London**

title **PROPOSED WEST ELEVATION**

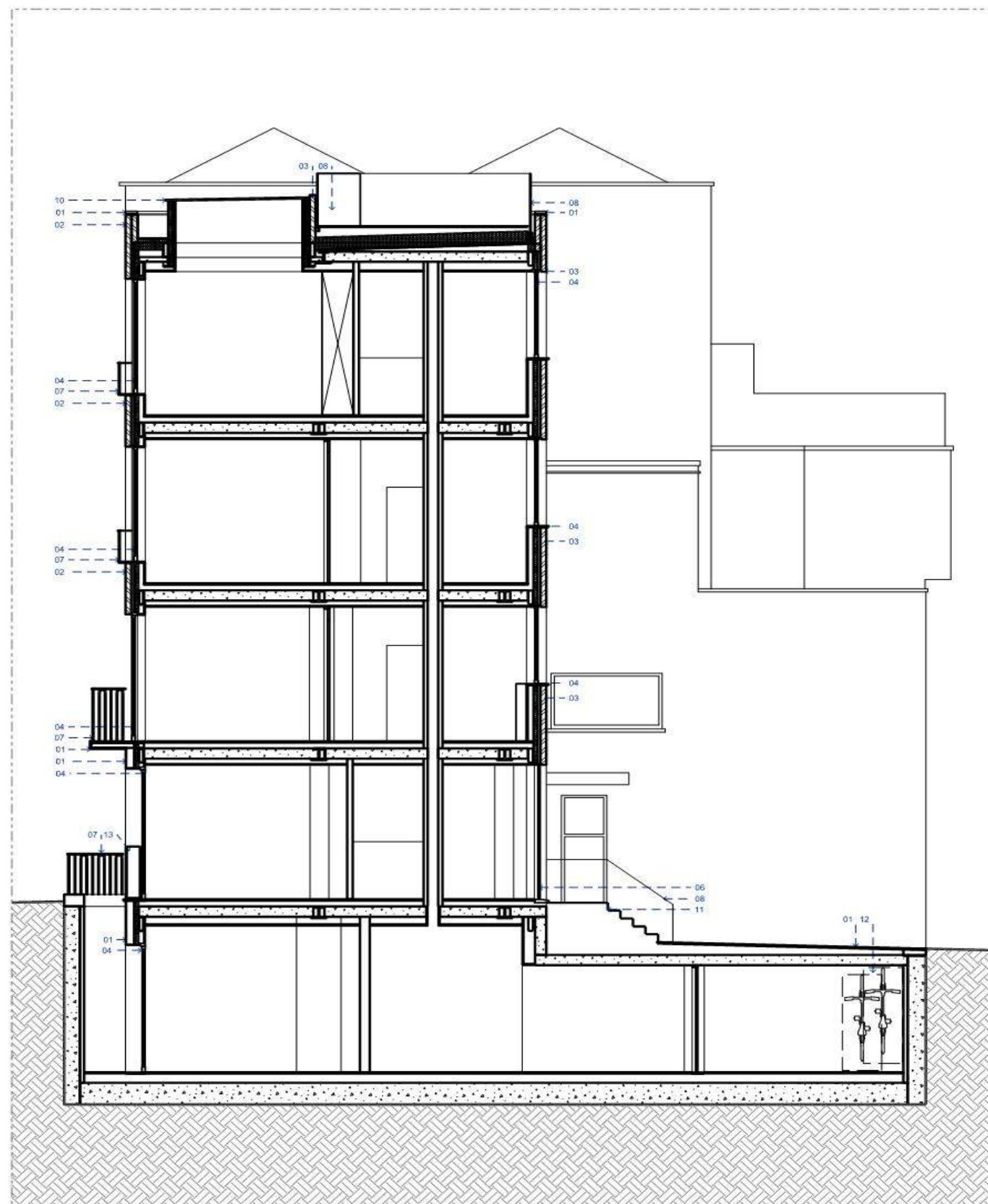
dwg no. **P103**  
 rev **04**  
 date **18.08.20**  
 scale **1:100 @A3**

**TOTEM  
 STUDIO  
 LONDON**



2 Alexander St London W2 5NT

+44 (0) 20 7243 0692  
 info@totemstudio.co.uk  
 www.totemstudio.co.uk



NOTES  
1. colour referencing used throughout documentation, package to be printed in full colour.  
2. drawings are to be read in conjunction with relevant, legend, schedules and documentations.  
3. all works are to be undertaken in accordance with relevant building codes and standards.  
© copyright of this drawing is vested in TSL Ltd

0m 5m

#### LEGEND

- 01 Portland stone
- 02 Black brick
- 03 White brick
- 04 Low iron double glazed windows with bronze frame
- 05 Bronze door with fanlight
- 06 Bronze door
- 07 Bronze balustrade
- 08 Glass balustrade
- 09 Low iron double glazed openable roof light
- 10 Low iron double glazed fixed roof light
- 11 Stairs in Portland stone
- 12 bike store
- 13 Planters
- 14 Balanced flue
- 15 ASHP vent with acoustic attenuators
- 16 Louvered door with acoustic attenuators
- 17 waste and recycling

04	planning issue	od/ih	15.03.21
03	planning issue	od/ih	04.02.21
02	client sign off	od/ih	12.01.21
01	structure added	od/ih	25.11.20
-	client sign off	od/ih	12.11.20
rev	description	drawn/checked	date

issue for **PLANNING**

client **Sam Farmar**  
job **19 South street  
W1K 2XB London**

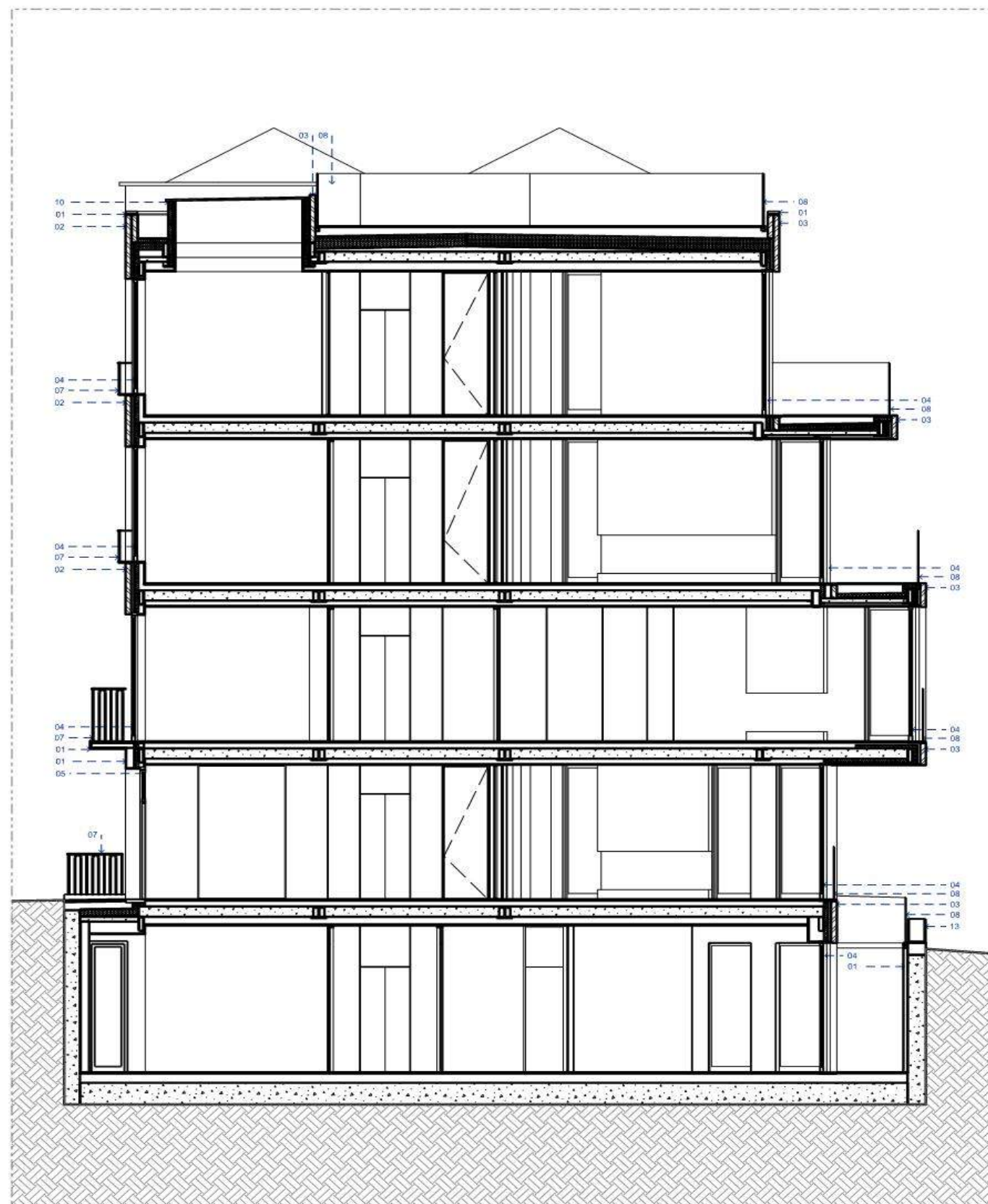
title **PROPOSED SECTION AA**

dwg no. **P201**  
rev **04**  
date **18.08.20**  
scale **1:100 @A3**

**TOTEM  
STUDIO  
LONDON**

2 Alexander St London W2 5NT

+44 (0) 20 7243 0692  
info@totemstudio.co.uk  
www.totemstudio.co.uk



NOTES  
 1. colour referencing used throughout documentation, package to be printed in full colour.  
 2. drawings are to be read in conjunction with relevant, legend, schedules and documentations.  
 3. all works are to be undertaken in accordance with relevant building codes and standards.  
 © copyright of this drawing is vested in TSL Ltd

0m 5m

#### LEGEND

- 01 Portland stone
- 02 Black brick
- 03 White brick
- 04 Low iron double glazed windows with bronze frame
- 05 Bronze door with fanlight
- 06 Bronze door
- 07 Bronze balustrade
- 08 Glass balustrade
- 09 Low iron double glazed openable roof light
- 10 Low iron double glazed fixed roof light
- 11 Stairs in Portland stone
- 12 bike store
- 13 Planters
- 14 Balanced flue
- 15 ASHP vent with acoustic attenuators
- 16 Louvered door with acoustic attenuators
- 17 waste and recycling

04	planning issue	od/ih	15.03.21
03	planning issue	od/ih	04.02.21
02	client sign off	od/ih	12.01.21
01	structure added	od/ih	25.11.20
-	client sign off	od/ih	12.11.20
rev	description	drawn/checked	date

issue for **PLANNING**

client **Sam Farnar**  
 job **19 South street  
 W1K 2XB London**

title **PROPOSED SECTION BB**

dwg no. **P202**

rev **04**

date **18.08.20**

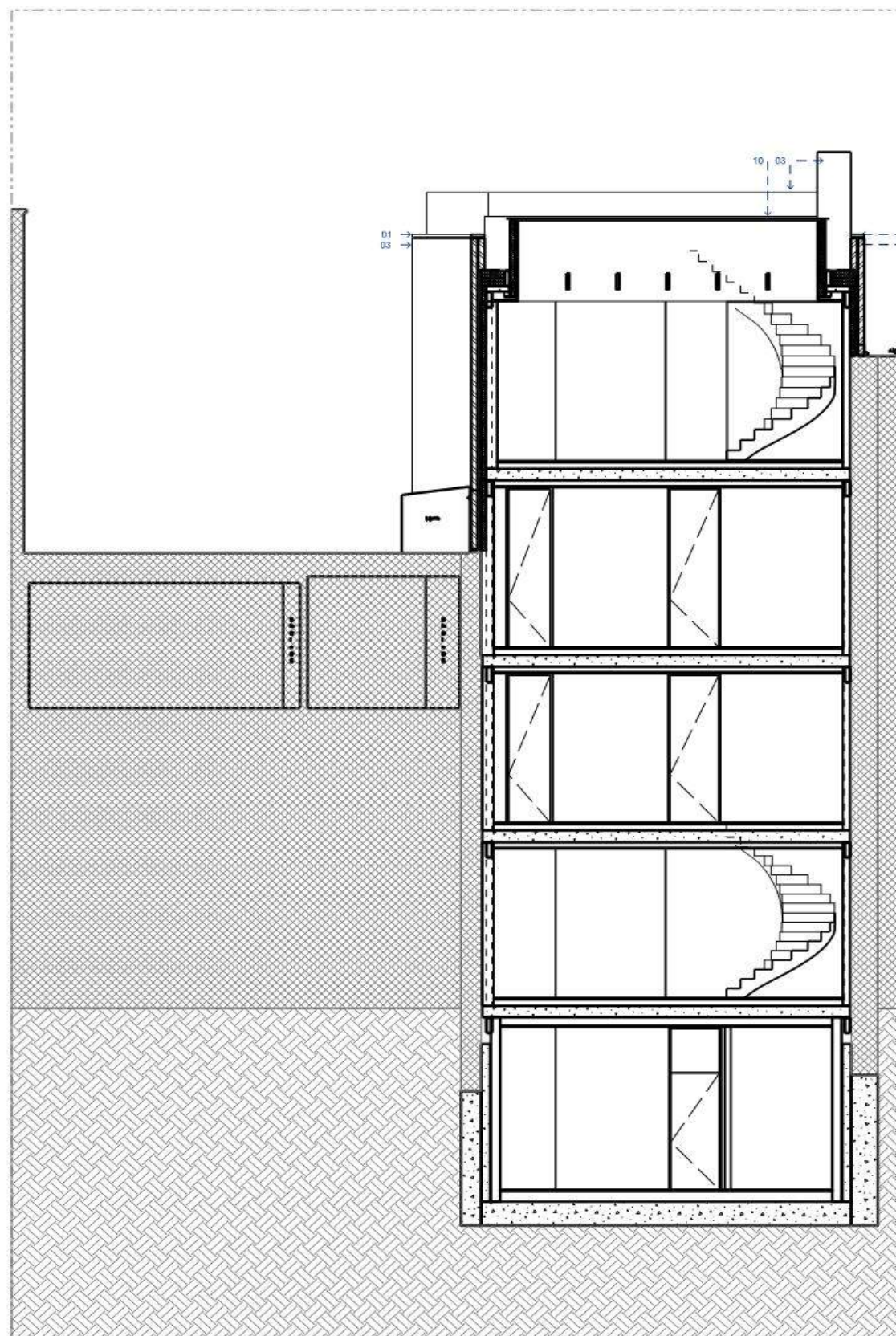
scale **1:100 @A3**

**TOTEM  
 STUDIO  
 LONDON**



2 Alexander St London W2 5NT

+44 (0) 20 7243 0692  
 info@totemstudio.co.uk  
 www.totemstudio.co.uk



NOTES  
 1. colour referencing used throughout documentation, package to be printed in full colour.  
 2. drawings are to be read in conjunction with relevant, legend, schedules and documentations.  
 3. all works are to be undertaken in accordance with relevant building codes and standards.  
 © copyright of this drawing is vested in TSL Ltd

0m 5m

#### LEGEND

- 01 Portland stone
- 02 Black brick
- 03 White brick
- 04 Low iron double glazed windows with bronze frame
- 05 Bronze door with fanlight
- 06 Bronze door
- 07 Bronze balustrade
- 08 Glass balustrade
- 09 Low iron double glazed openable roof light
- 10 Low iron double glazed fixed roof light
- 11 Stairs in Portland stone
- 12 bike store
- 13 Planters
- 14 Balanced flue
- 15 ASHP vent with acoustic attenuators
- 16 Louvered door with acoustic attenuators
- 17 waste and recycling

04	planning issue	od/ih	15.03.21
03	planning issue	od/ih	04.02.21
02	client sign off	od/ih	12.01.21
01	structure added	od/ih	25.11.20
-	client sign off	od/ih	12.11.20
rev	description	drawn/checked	date

issue for **PLANNING**

client Sam Farmar  
 job 19 South street  
 W1K 2XB London

title PROPOSED SECTION 01

dwg no. **P203**  
 rev **04**  
 date 18.08.20  
 scale 1:100 @A3

**TOTEM  
 STUDIO  
 LONDON**



2 Alexander St London W2 5NT

+44 (0) 20 7243 0692  
 info@totemstudio.co.uk  
 www.totemstudio.co.uk

## Appendix B

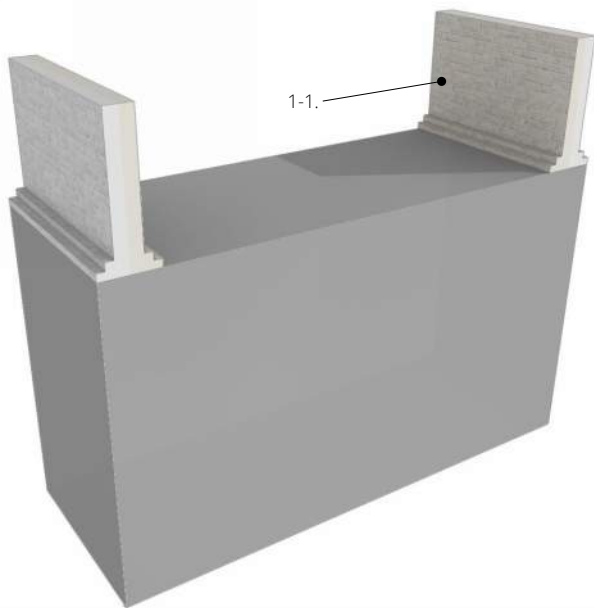
# Underpinning Principles

Note: The following diagrams are generic for the purpose of illustrating the principles and sequence of operations to be employed. The existing building details shown are not exactly as per 19 South Street but the operations listed, the propping configurations and their sequence is applicable to this project and clearly indicate the approach to be used for forming the concrete box.

Stage 1

Building Stripout

1-1. Strip out building and remove existing ground floor



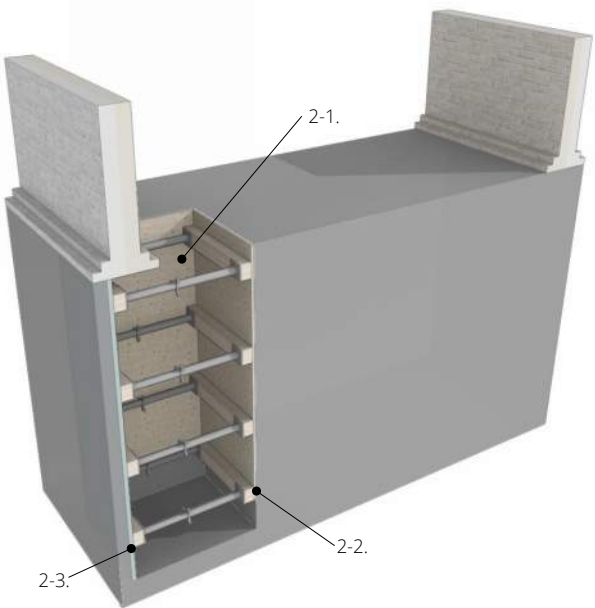
Stage 2

Excavate Underpins

2-1. Commence excavation for first stage of underpins in accordance with agreed sequence.

2-2. Install shoring and sheeting as excavation proceeds

2-3. Install de-bonded non-compressible water resistant cementitious board liner to back of underpins. Internal face of board liner to be flush with face of wall above so that concrete pin does not project into neighbouring site beyond face of existing masonry above ground level.

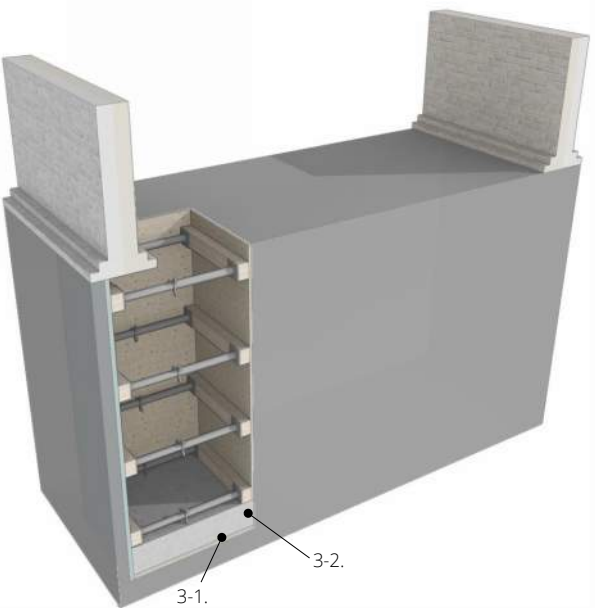


Stage 3

Cast Base to Underpin

3.1. Cast concrete blinding to first stage of underpins in accordance with agreed sequence

3-2. Fix rebar and cast bases to first stage of underpins in accordance with agreed sequence



Stage 4

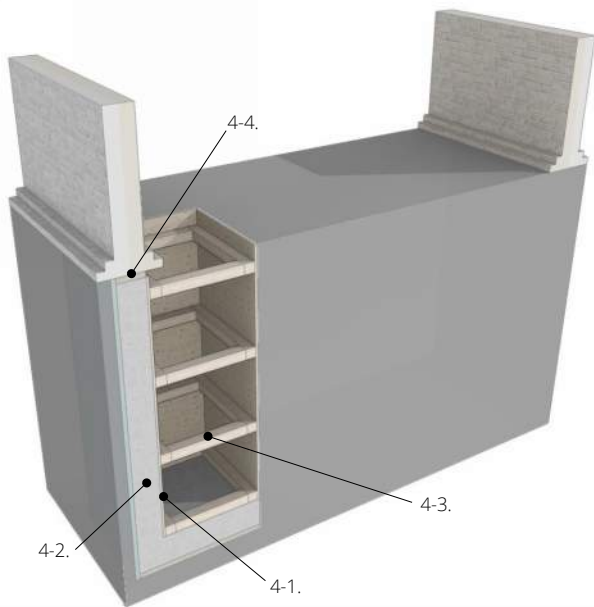
Cast Retaining Wall to Underpin

4-1. Fix rebar and erect formwork for in-situ concrete wall

4-2. Cast wall to first stage of underpins in accordance with agreed sequence

4-3. Dry-pack between top of underpin and underside of existing masonry in accordance with agreed sequence. Min. 24hrs after concreting.

4-4. Strike formwork once concrete has gained sufficient strength. Re-prop wall and excavation.

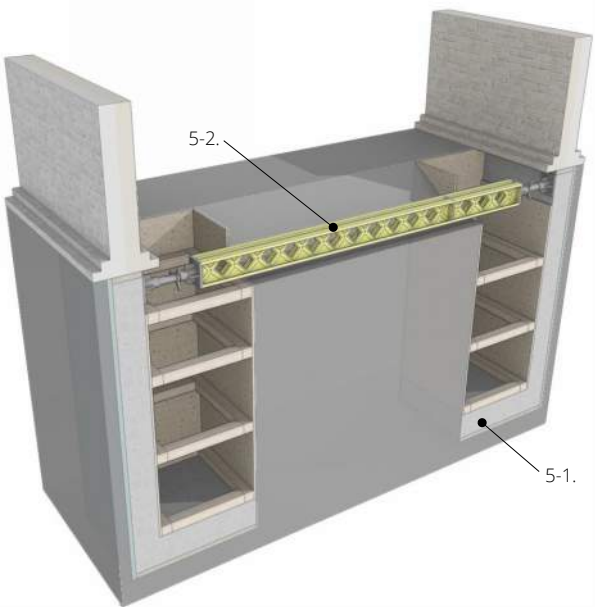


Stage 5

Install High Level Props

5-1. Repeat Stages 2 to 4 in accordance with agreed underpinning sequence

5.2. Install high level propping upon completion of opposing underpins.

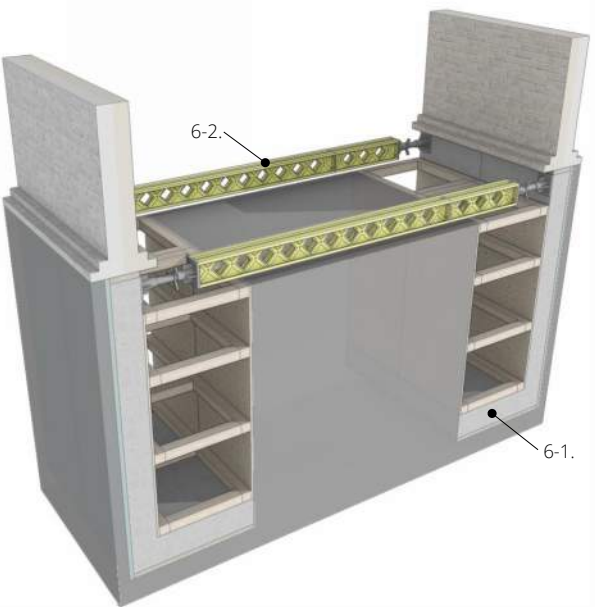


Stage 6

Complete Underpinning

6-1. Complete underpinning in accordance with agreed sequence.

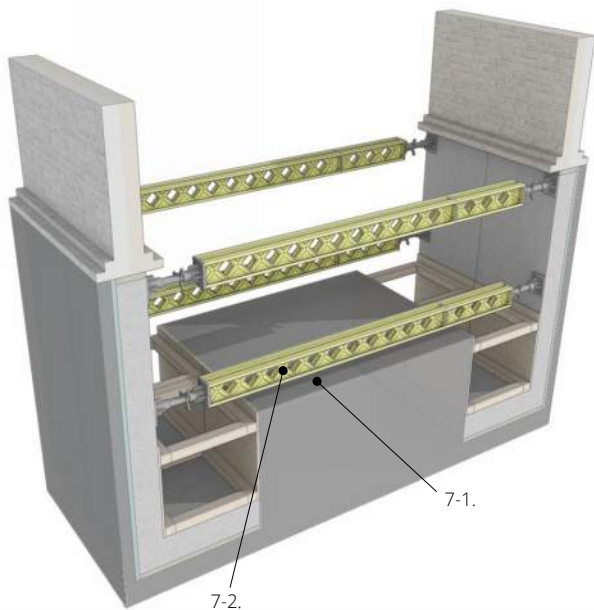
6-2. Complete installation of high-level propping



Stage 7

Reduce Central Berm

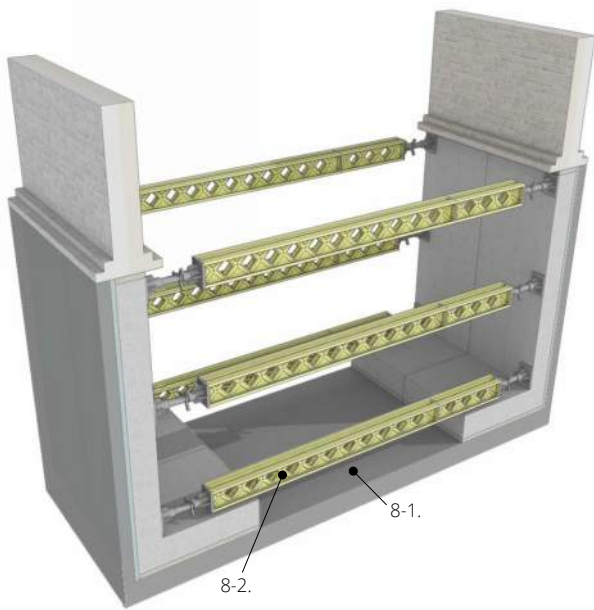
- 7-1. Commence excavation reducing central berm.
- 7-2. Install additional levels of propping in accordance with temporary works engineers requirements as excavation proceeds



Stage 8

Complete Excavation of Central Berm

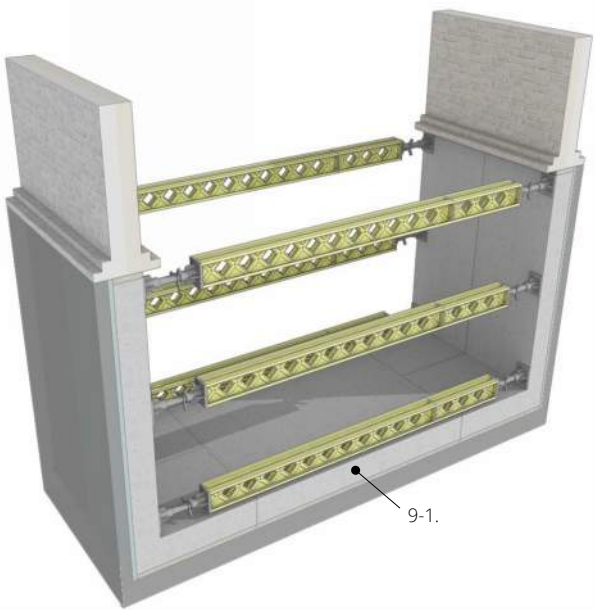
- 8-1. Complete excavation of central berm.
- 8-2. Install additional propping in accordance with temporary works engineers requirements as excavation proceeds



Stage 9

Cast Basement Slab

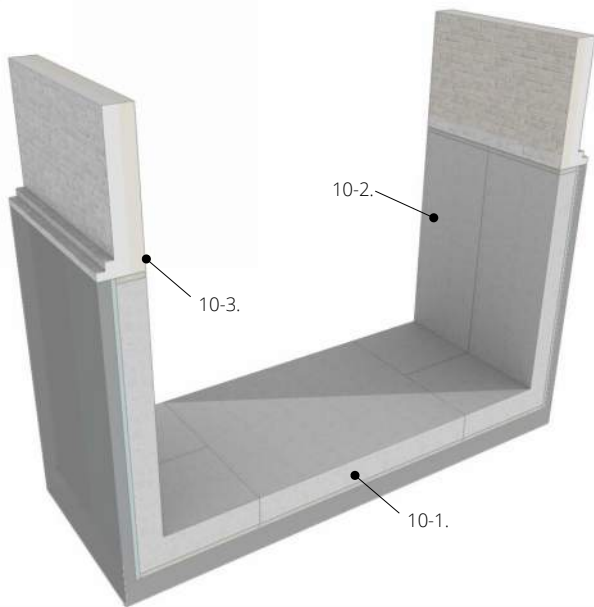
- 9-1. Cast basement slab so that rebar fully lapped and slab continuous with retaining wall



Stage 10

De-prop Retaining Walls

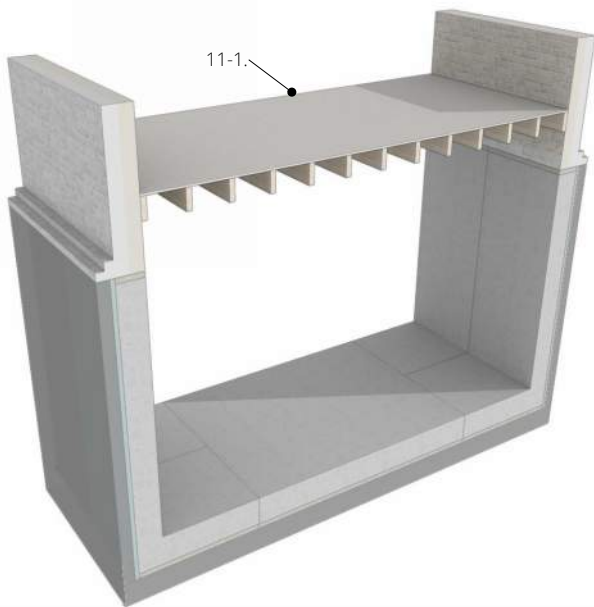
- 10-1. Allow concrete to gain sufficient strength
- 10-2. Remove propping to retaining walls
- 10-3. Break-back existing foundation corbels to internal face of underpin



Stage 11

Construct New Ground Floor

- 11-1. Install new ground floor



Notes

- The above construction sequence is provisional pending temporary works design by the contractor.
- All temporary works design and construction sequencing is the responsibility of the contractor. See general notes drawing.