





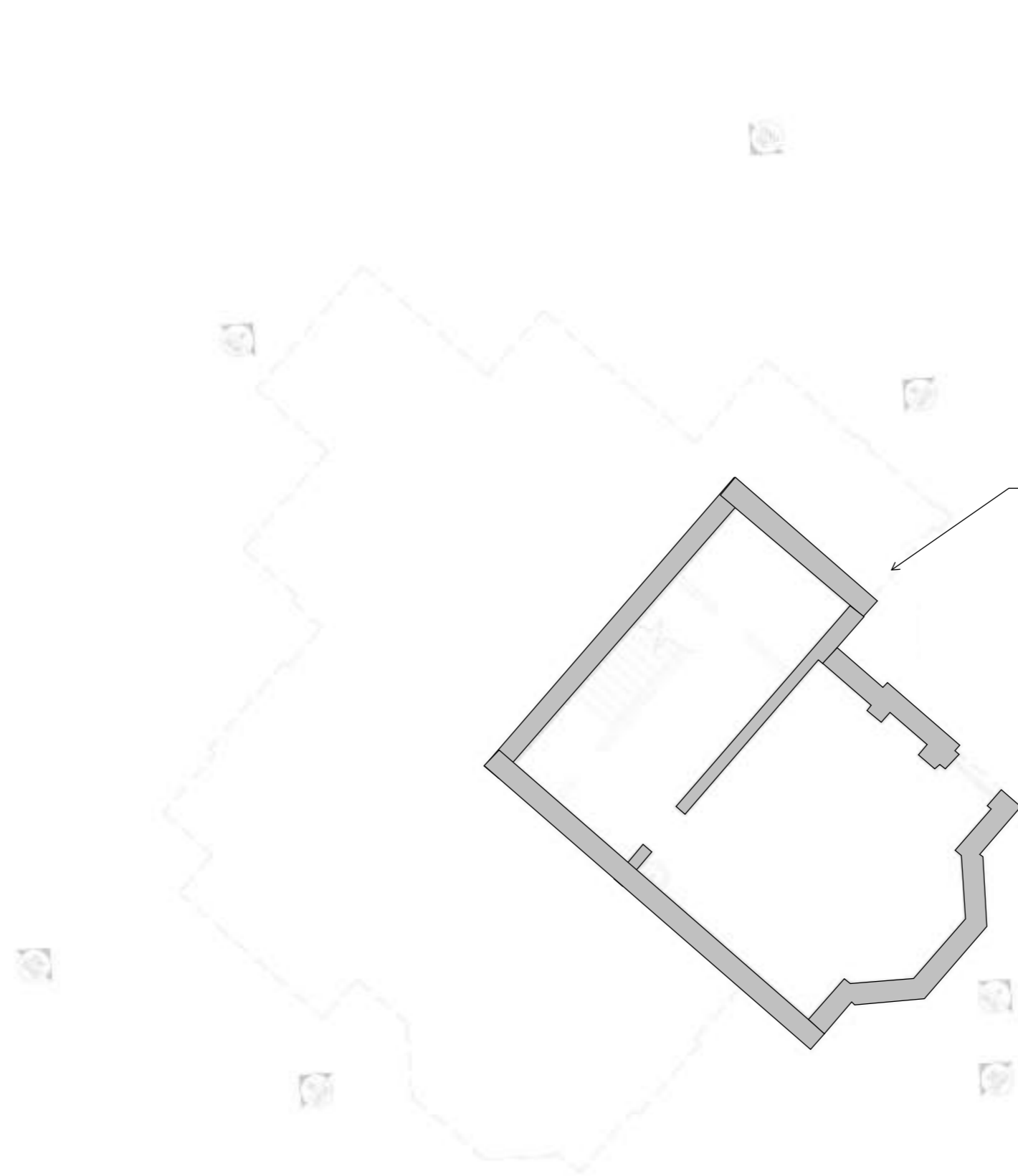
No signs of downstand beams seen in site visit, meaning it's likely widely reinforced areas within the concrete slab act as beams. This is significant if there is any planned penetration of the concrete, as areas of reinforcement will have to be identified

Section A-A





Section B-B

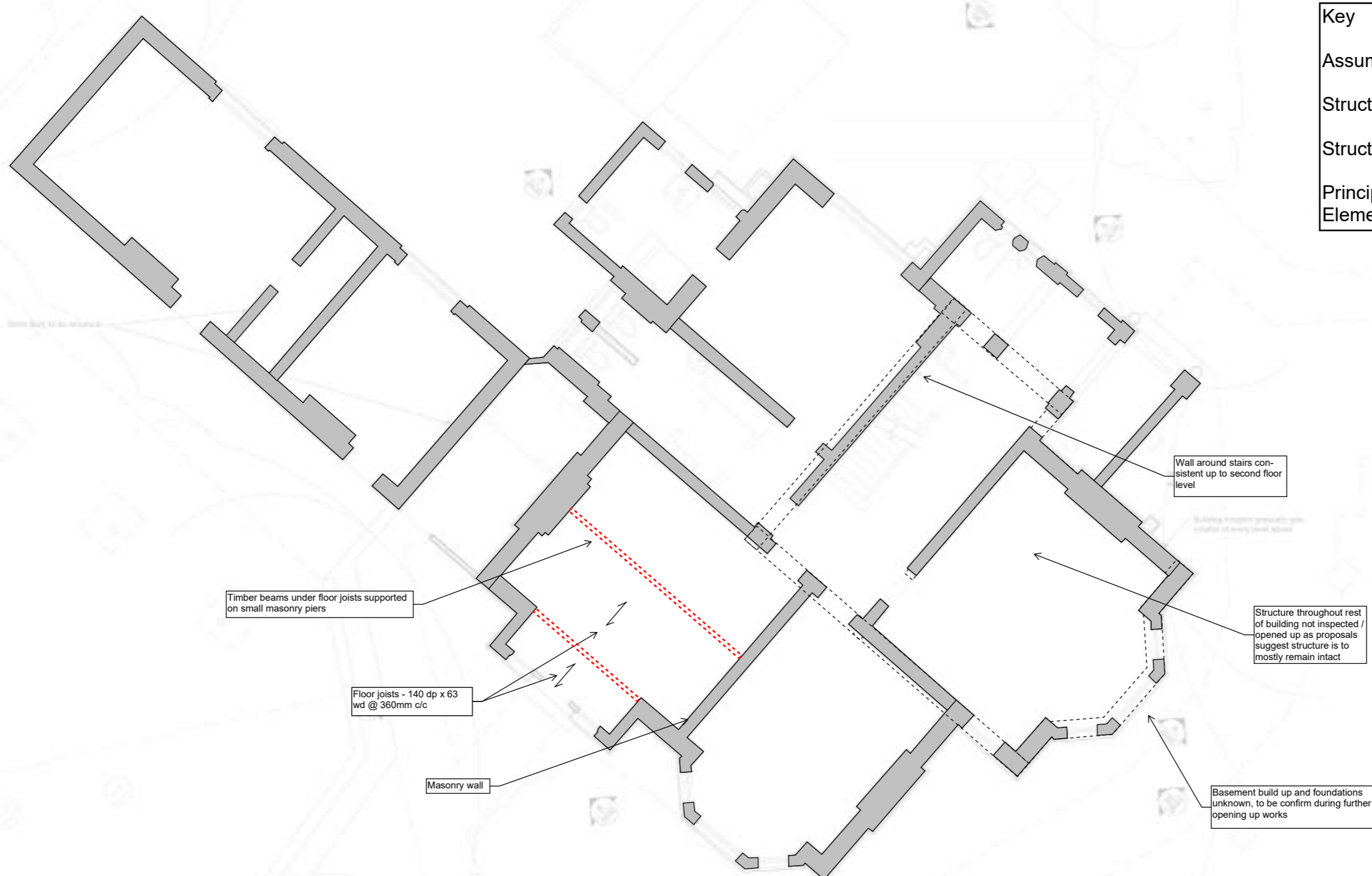
1399 SK14	Richmond Hill Campus
Library Existing Sections Structure Highlighted	Date 04/09/2023
 integral engineering design	Integral Engineering Design 84 Walcot Street Bath BA1 5BD

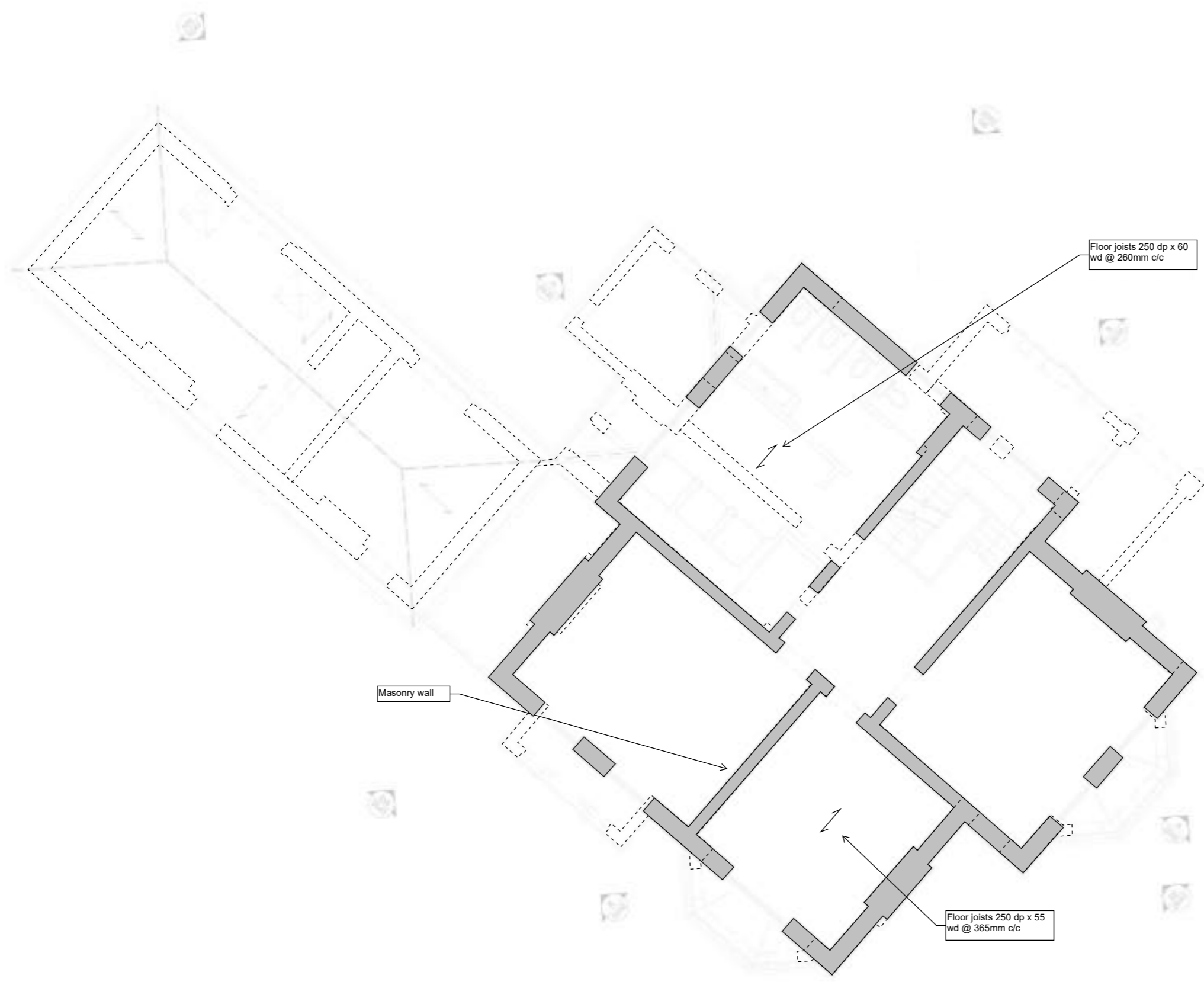
Key	
Assumed Beam Below	
Structural Wall	
Structure Below	
Principle Structural Elements to be Removed	



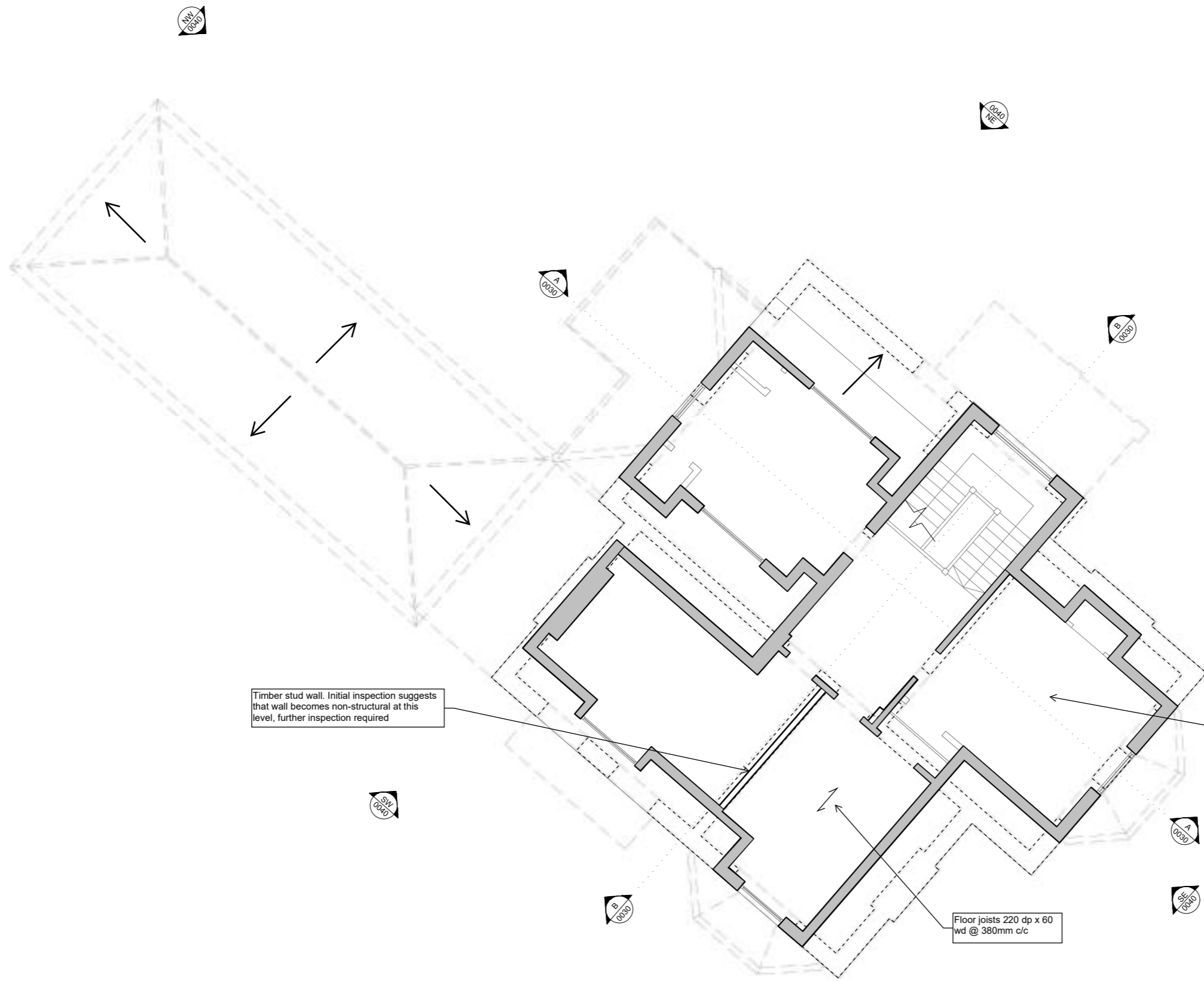
Basement build up and foundations unknown, to be confirmed during further opening up works

Key	
Assumed Beam Below	
Structural Wall	
Structure Below	
Principle Structural Elements to be Removed	





Key	
Assumed Beam Below	<span style="color: red;">.....</span>
Structural Wall	<span style="background-color: grey; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
Structure Below	<span style="border: 1px dashed black; display: inline-block; width: 20px; height: 10px;"></span>
Principle Structural Elements to be Removed	<span style="background-color: pink; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>



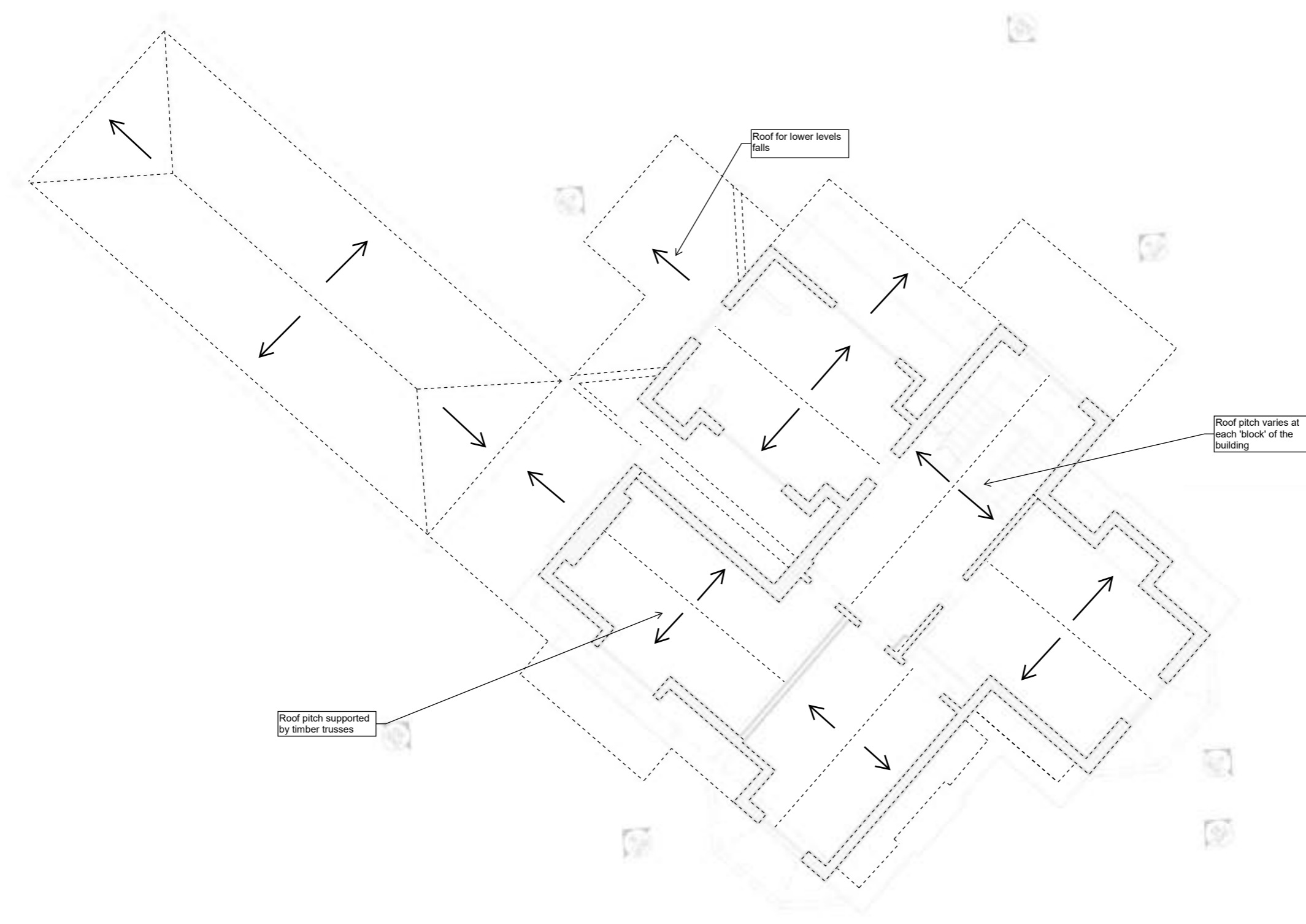
Key	
Assumed Beam Below	.....
Structural Wall	█
Structure Below	- - - - -
Principle Structural Elements to be Removed	█

Timber stud wall. Initial inspection suggests that wall becomes non-structural at this level, further inspection required

Joists and structure not inspected / opening up works not carried out in rooms where structure looks to stay intact

Floor joists 220 dp x 60 wd @ 380mm c/c

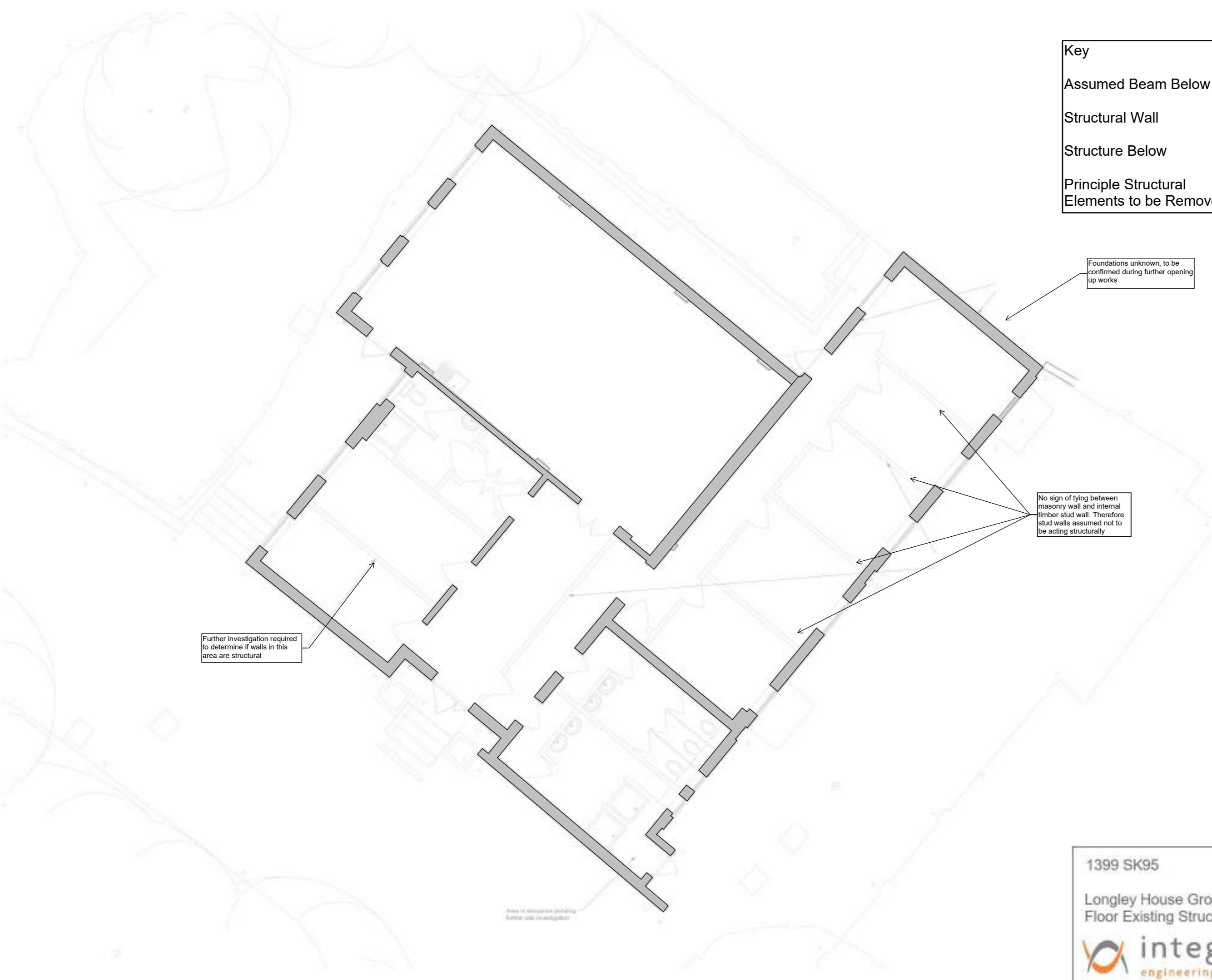
1399 SK93	Richmond Hill Campus
Red House Second Floor Existing Structure	Date 12/01/2024
 integral engineering design	Integral Engineering Design 84 Walcot Street Bath BA1 5BD



Key	
Assumed Beam Below	.....
Structural Wall	█
Structure Below	- - - - -
Principle Structural Elements to be Removed	█

**Key**

- Assumed Beam Below .....
- Structural Wall █
- Structure Below - - - - -
- Principle Structural Elements to be Removed █






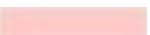
Foundations unknown, to be confirmed during further opening up works

No sign of tying between masonry wall and internal timber stud wall. Therefore stud walls assumed not to be acting structurally

Further investigation required to determine if walls in this area are structural

Area to be investigated including further site investigation

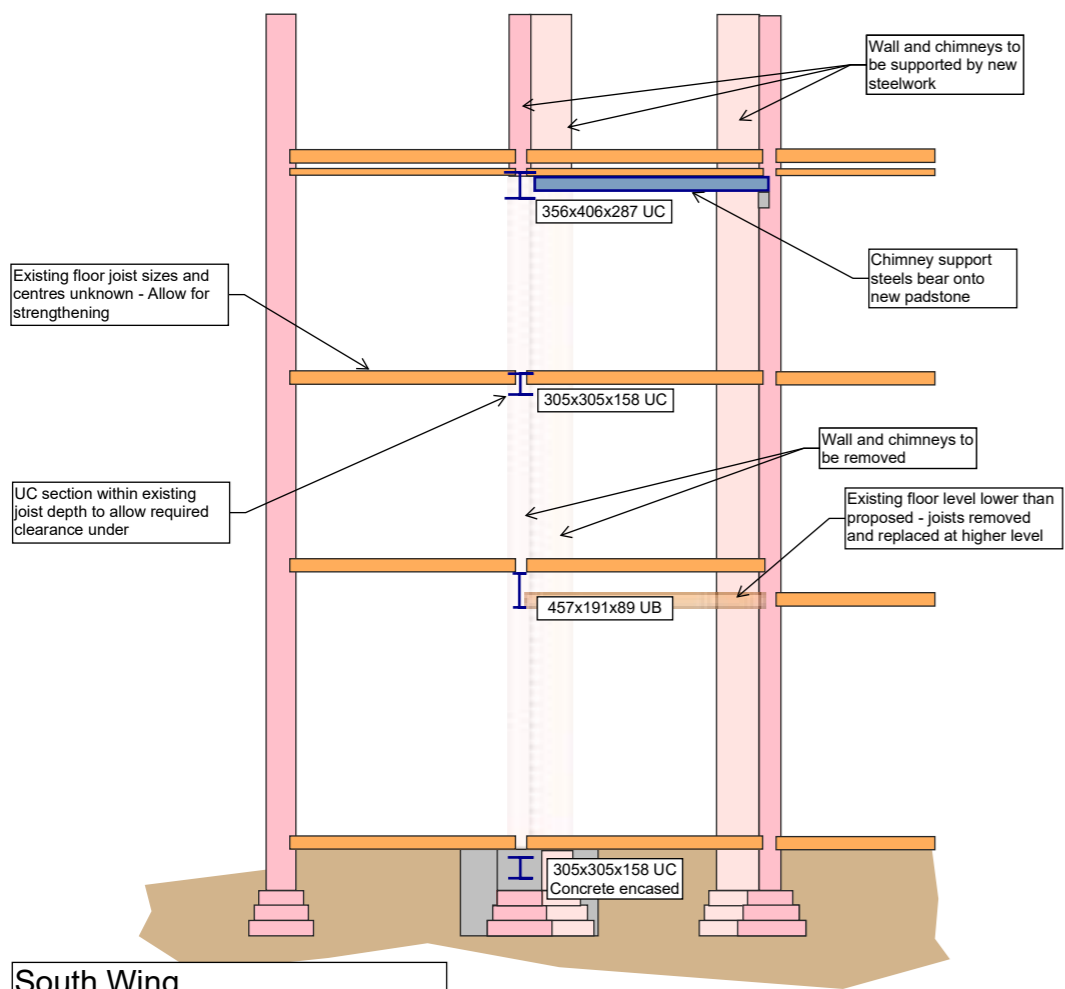
<p>1399 SK95</p> <p>Longley House Ground Floor Existing Structure</p>	<p>Richmond Hill Campus</p> <p>Date 12/01/2024</p>
<p>Integral Engineering Design 84 Walcot Street Bath BA1 5BD</p>	

Key	
Assumed Beam Below	
Structural Wall	
Structure Below	
Principle Structural Elements to be Removed	

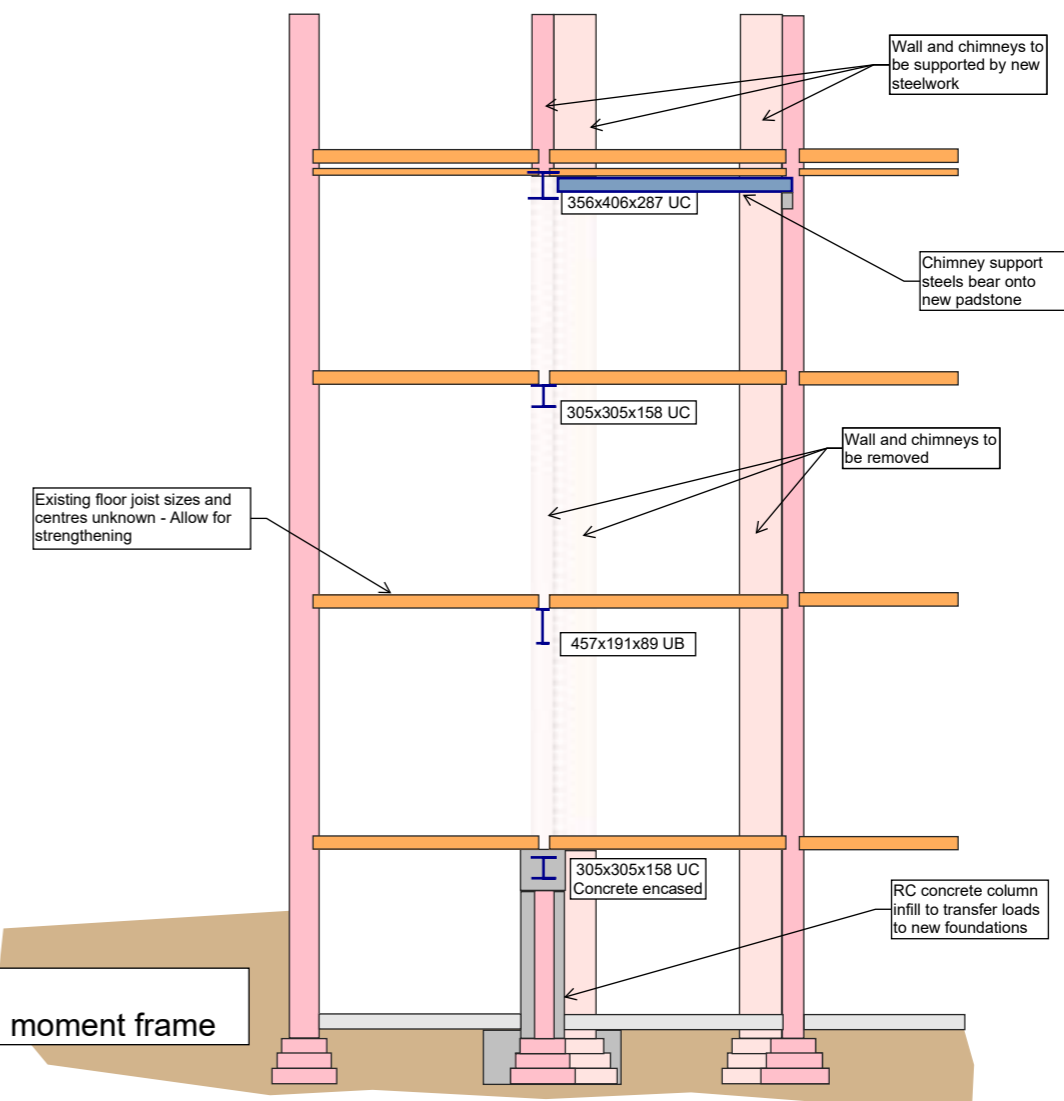




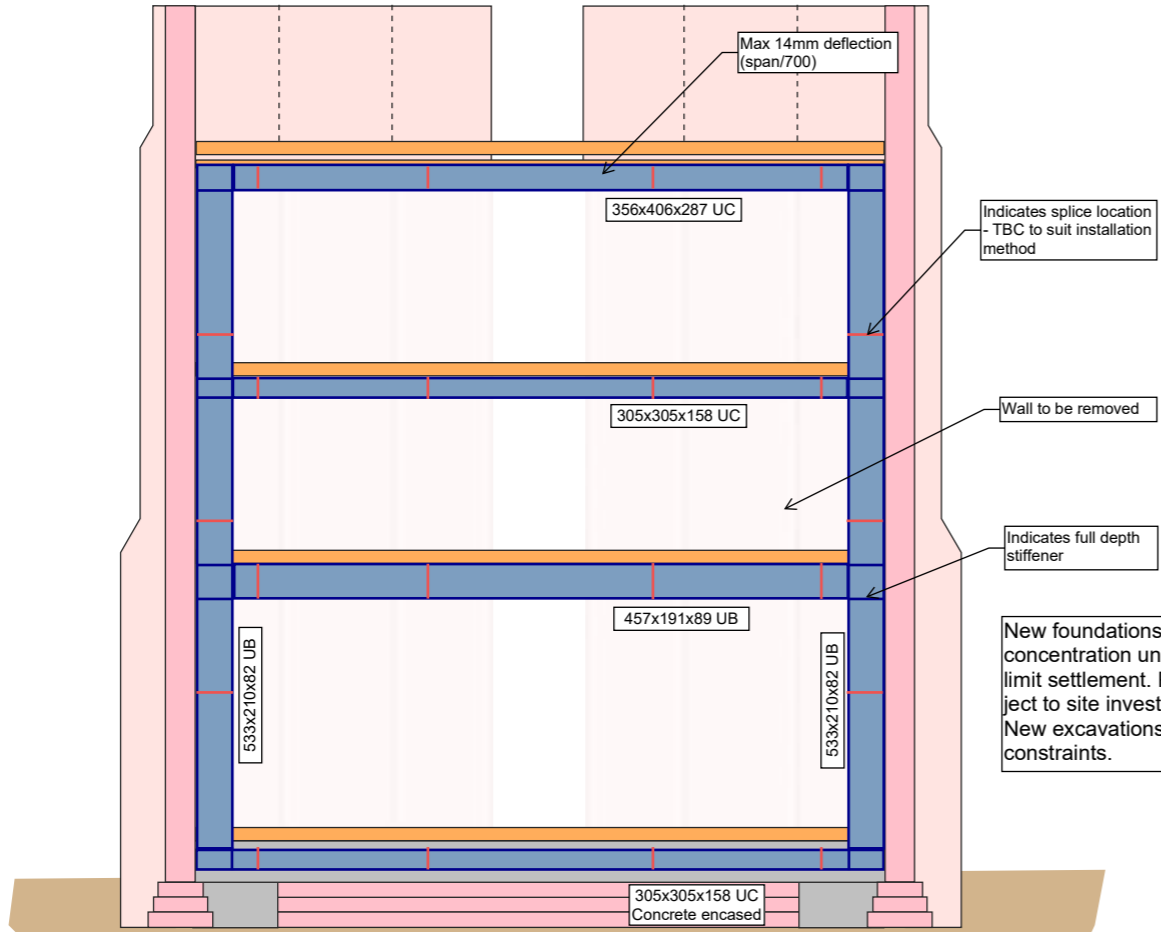
## Appendix B – Proposed Structure Sketches



South Wing  
Wall removal moment frame

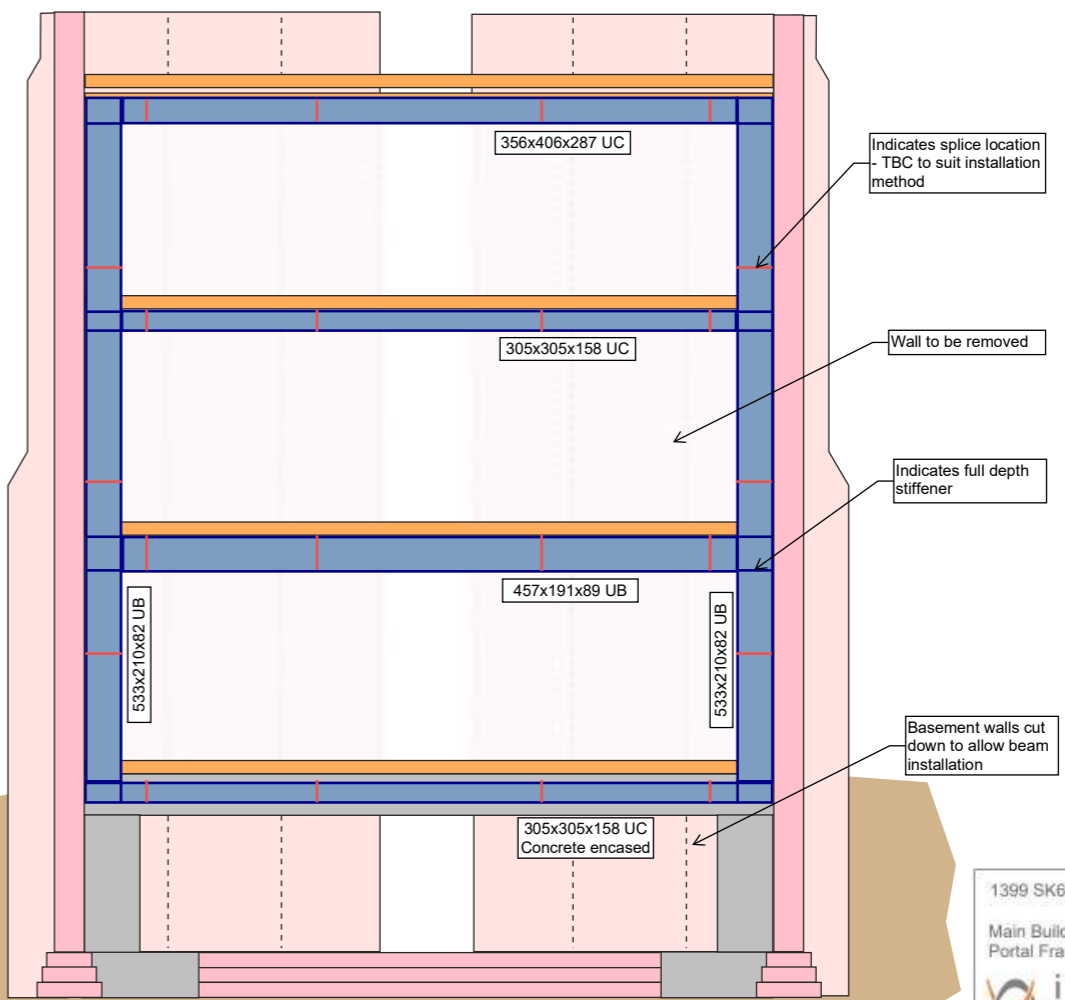


North Wing  
Wall removal moment frame

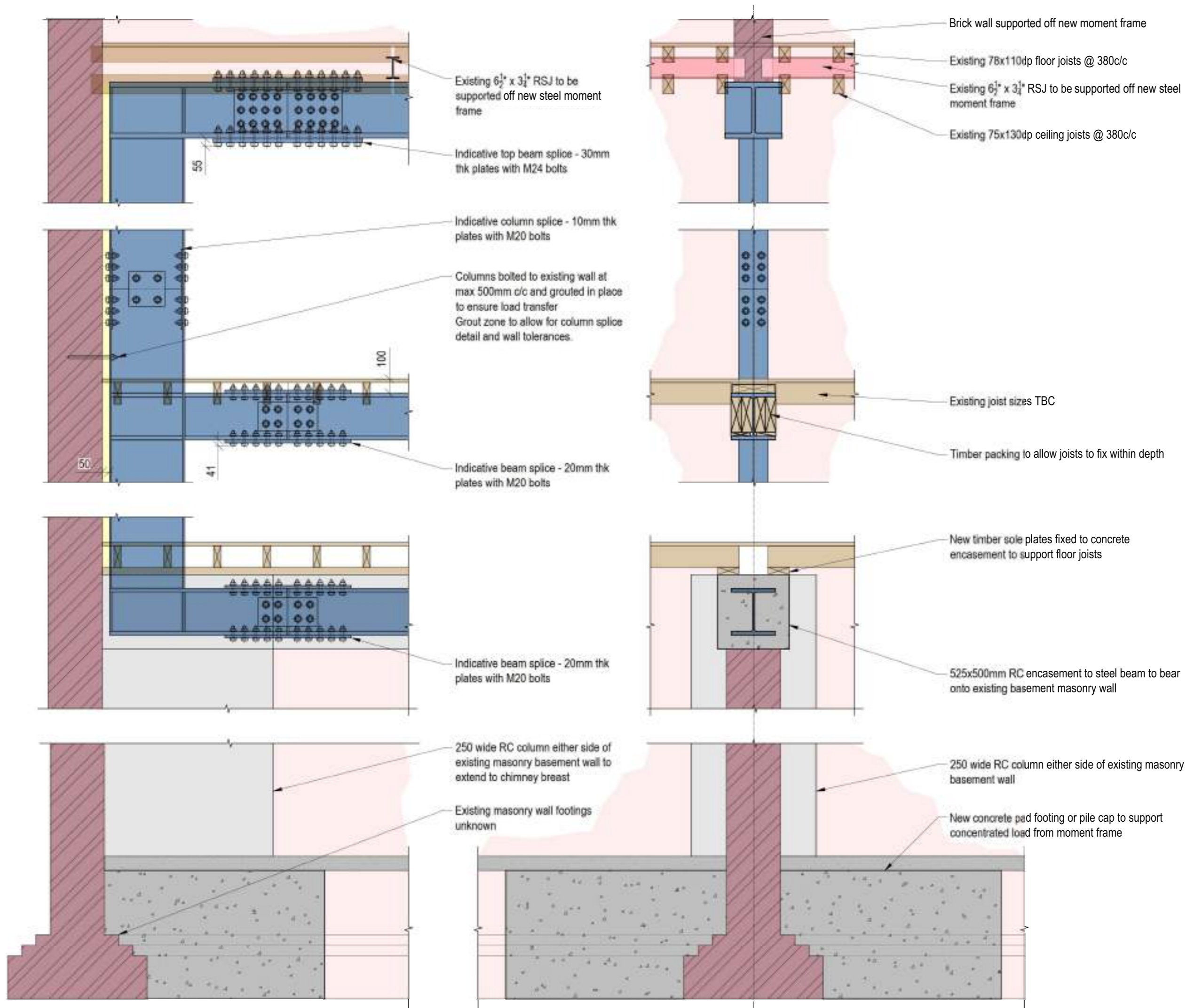


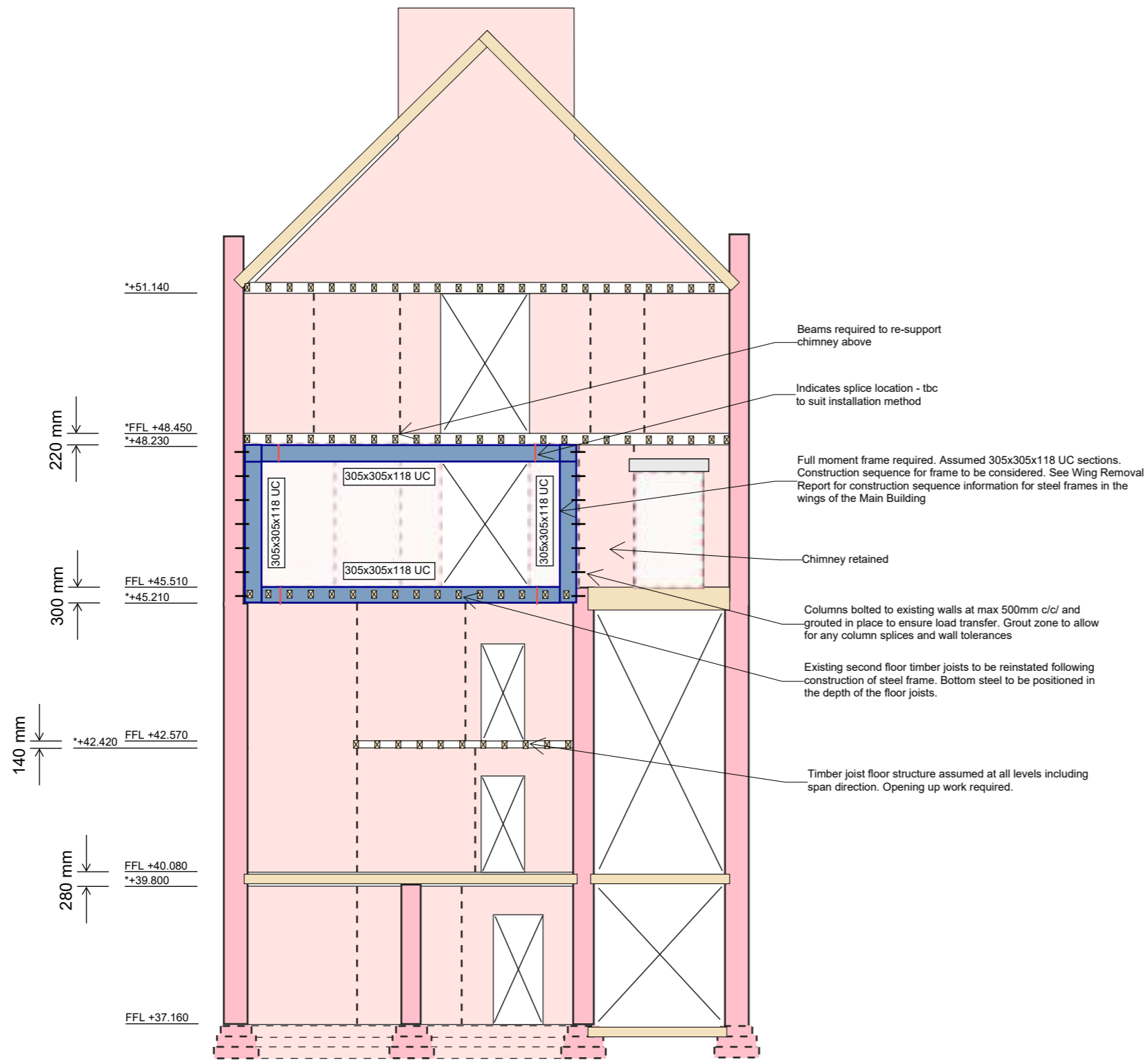
Concrete pad/pile cap foundation to saddle over existing brick footings  
Plan size 2.5m x 2.5m  
Assumed bearing pressure 75kN/m<sup>2</sup>

250wide concrete column to either side of basement brick wall to infill to chimney breast and bear on new pad footing  
Concrete pad foundation to saddle over existing brick footings  
Plan size 2.5m x 2.5m  
Assumed bearing pressure 75kN/m<sup>2</sup>



Basement walls cut down to allow beam installation





\*Level determined from Faro Sphere point cloud survey

**Main Building  
Second Floor Steel Frame Section**

1399 SK62 Rev A

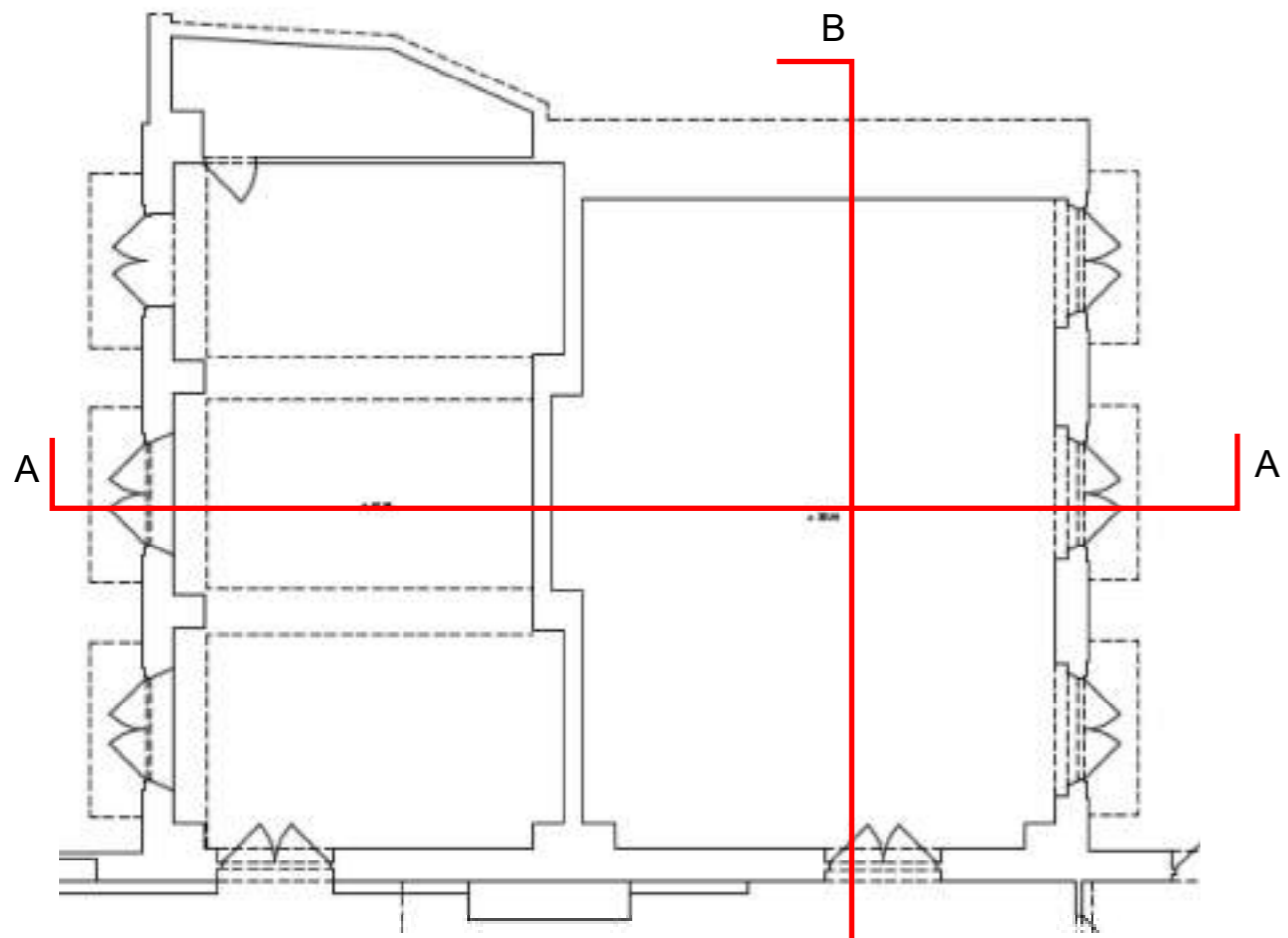
Richmond Hill  
Campus

Main Building  
Second Floor Portal Frames

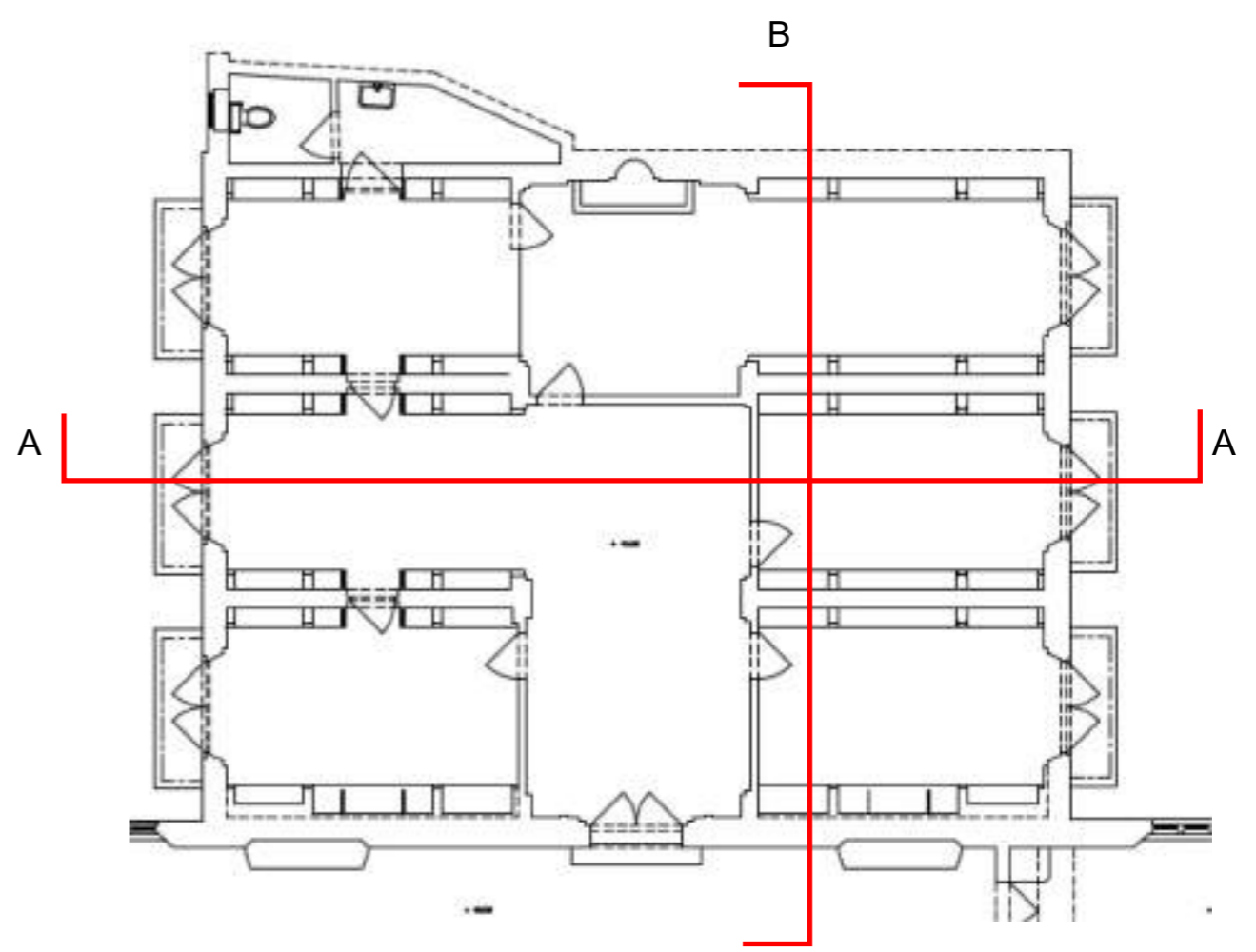
Date 12/01/2024



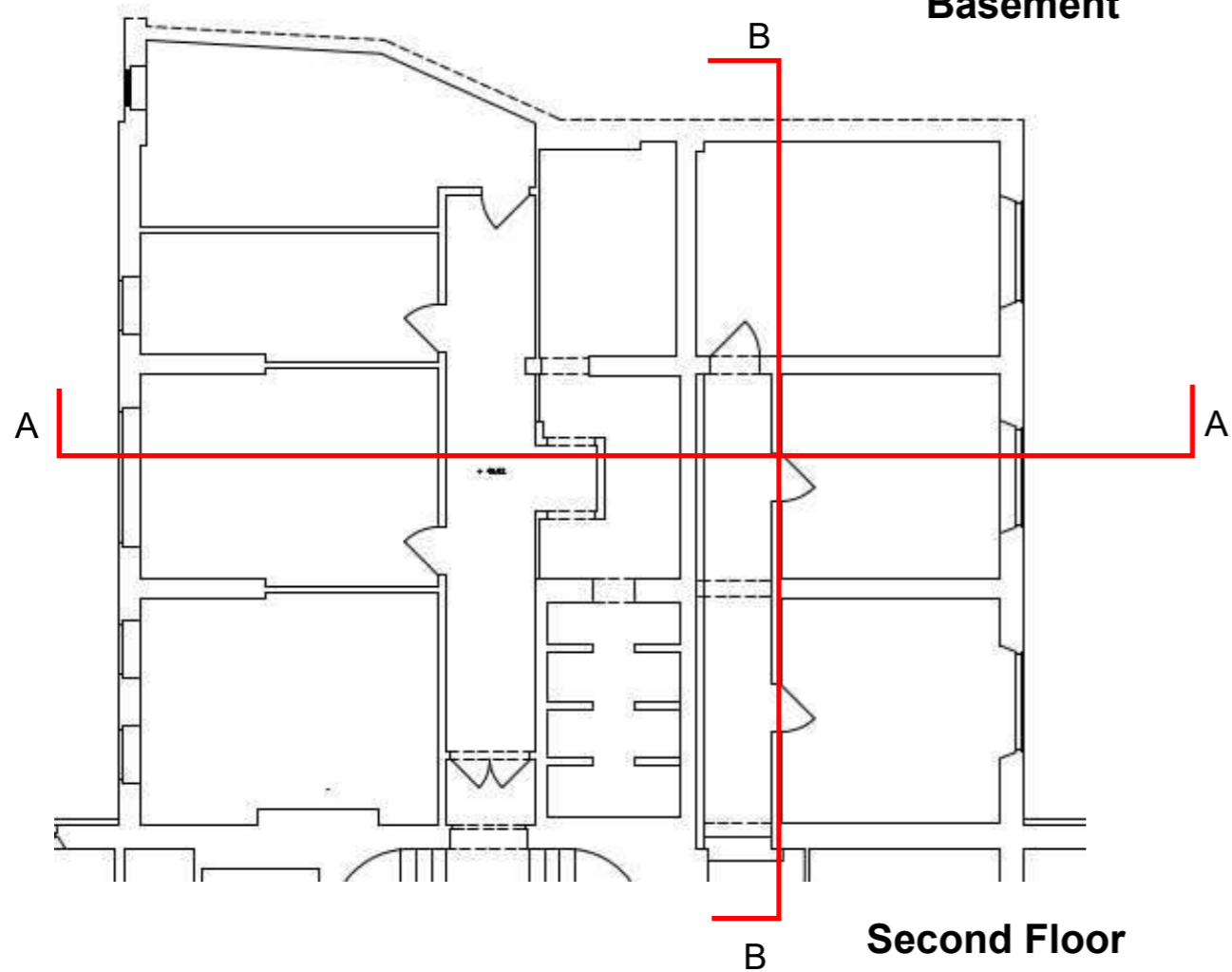
Integral Engineering Design  
84 Walcot Street  
Bath  
BA1 5BD



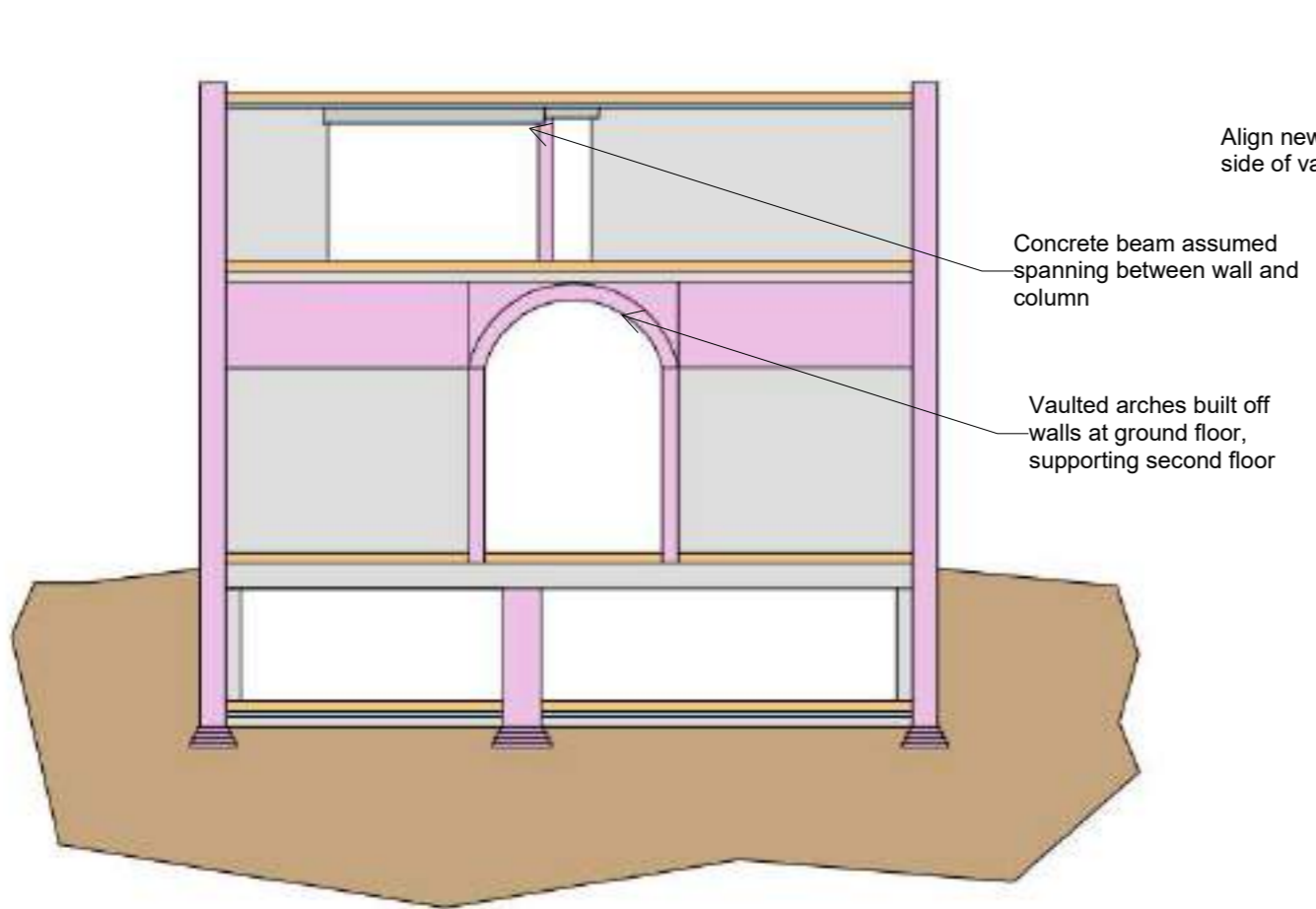
**Basement**



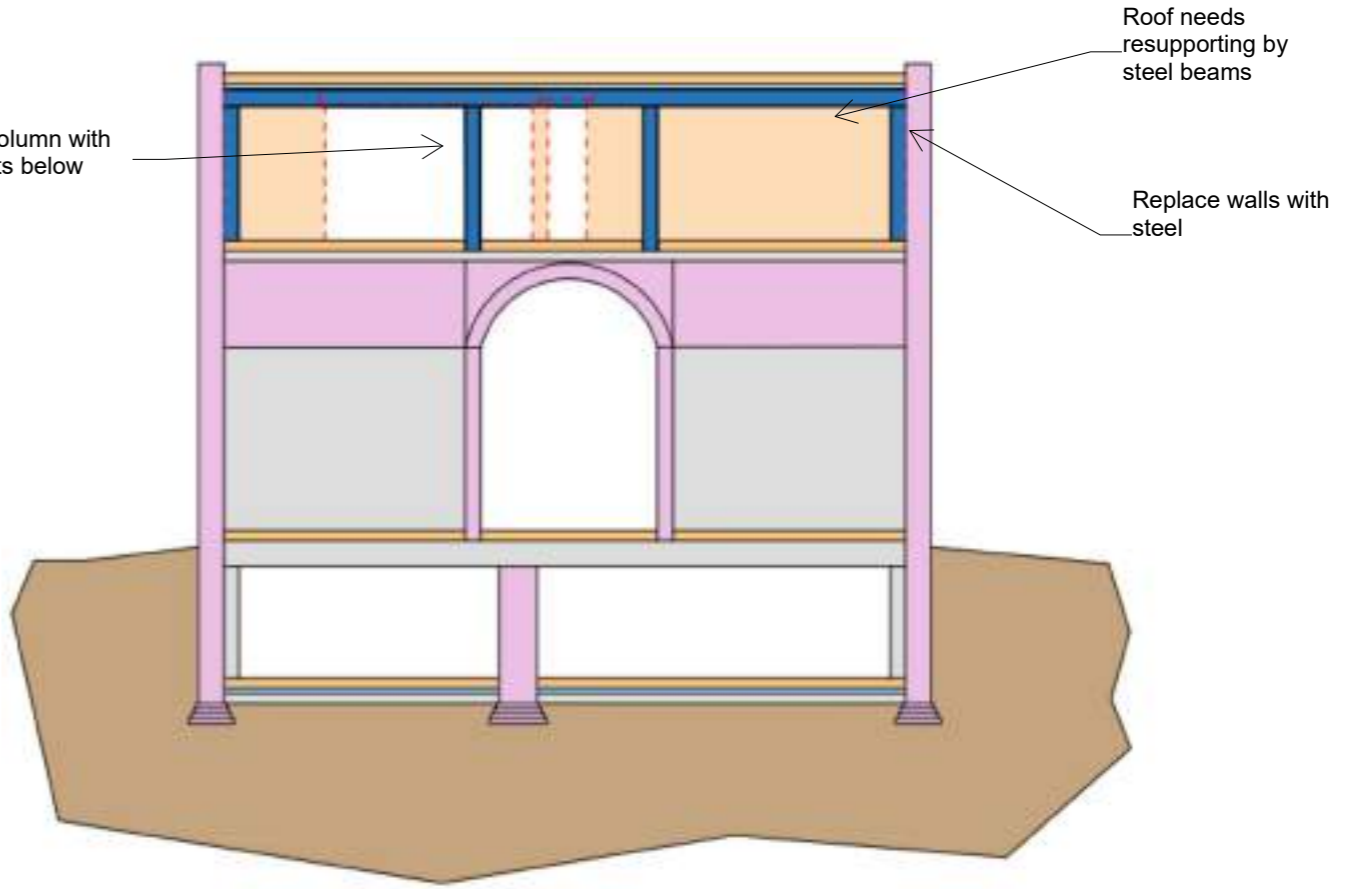
**Ground Floor**



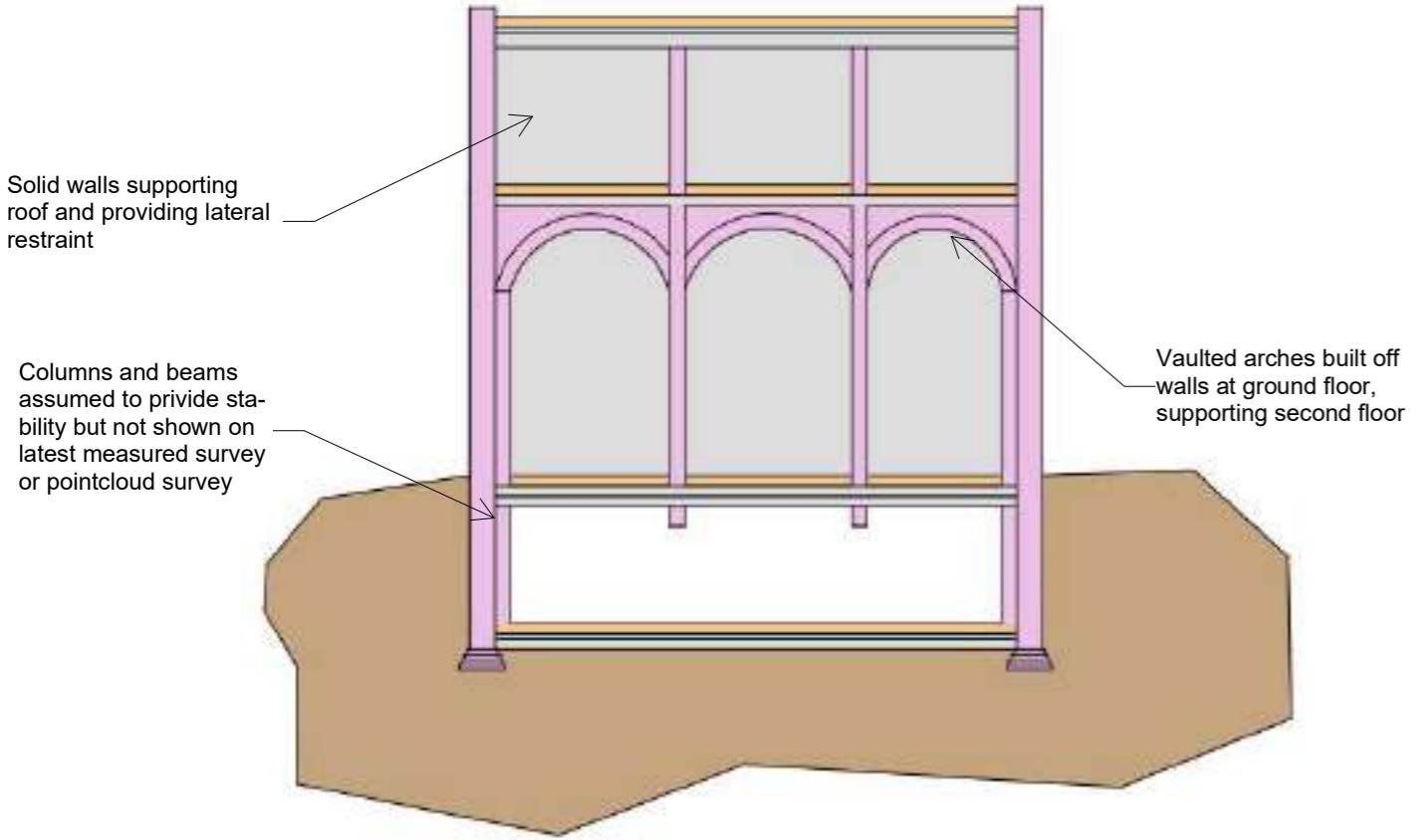
**Second Floor**



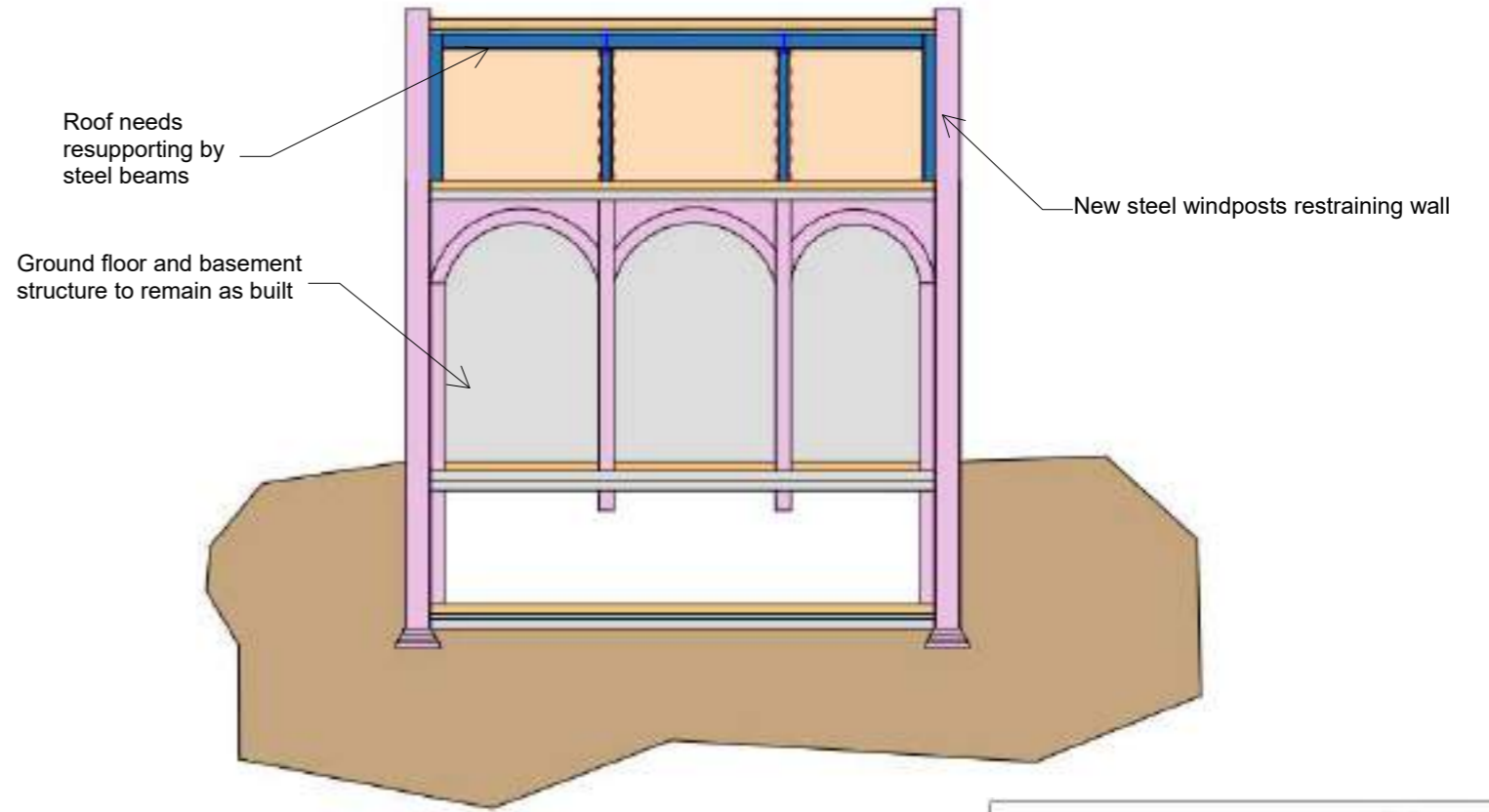
Existing Section A-A



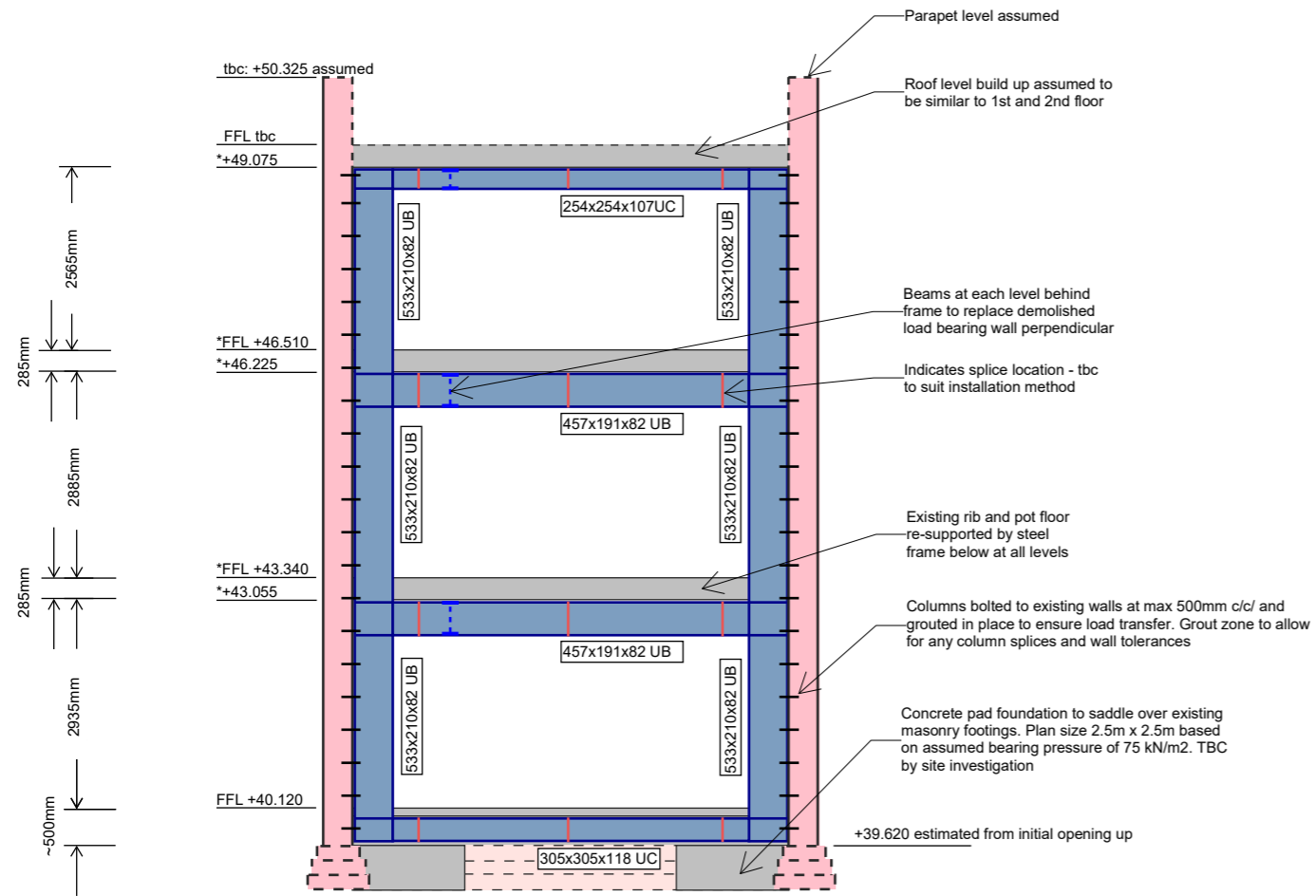
Proposed Section A-A



Existing Section B-B



Proposed Section B-B



\*Level determined from Faro Sphere point cloud survey

### George House Steel Frame Section

1399 SK64 Rev A

Richmond Hill Campus

Main Building  
Second Floor Portal Frames

Date 12/01/2024



Integral Engineering Design  
84 Walcot Street  
Bath  
BA1 5BD

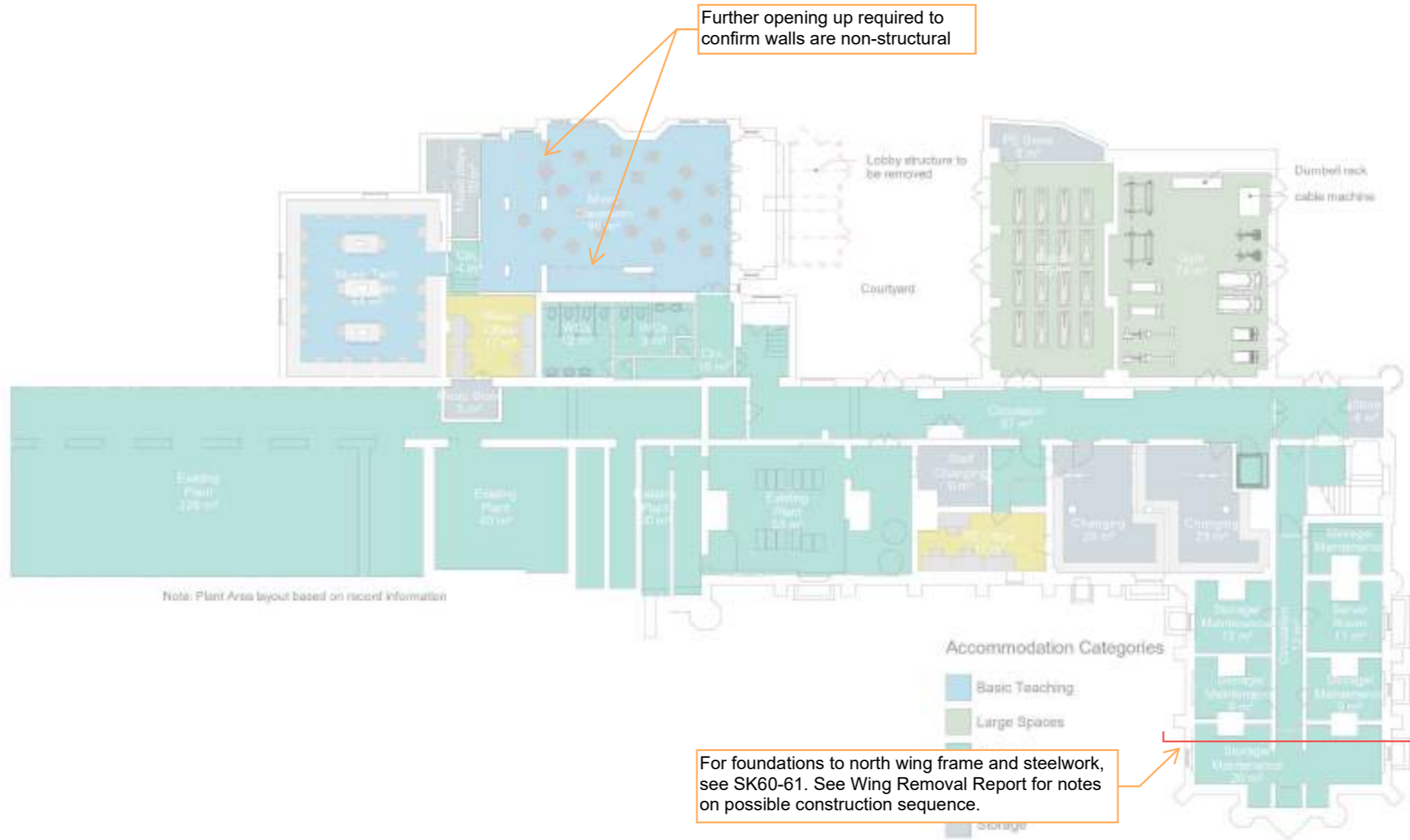
Thomas's College

Proposed Lower Ground Floor Main Building

1714 IID XX XX DR A-0107 P10

Scale: 1:250 of A3

27.11.23



1399 SK70

Main Building  
Proposed Basement

Richmond Hill  
Campus

Date 18/12/2023



Integral Engineering Design  
84 Welcot Street  
Bath  
BA1 5BD





**Thomas's College**

**Proposed Ground Floor Main Building**

1714 IID XX XX DR A-0108 P10

Scale: 1:250 of A3

27.11.23

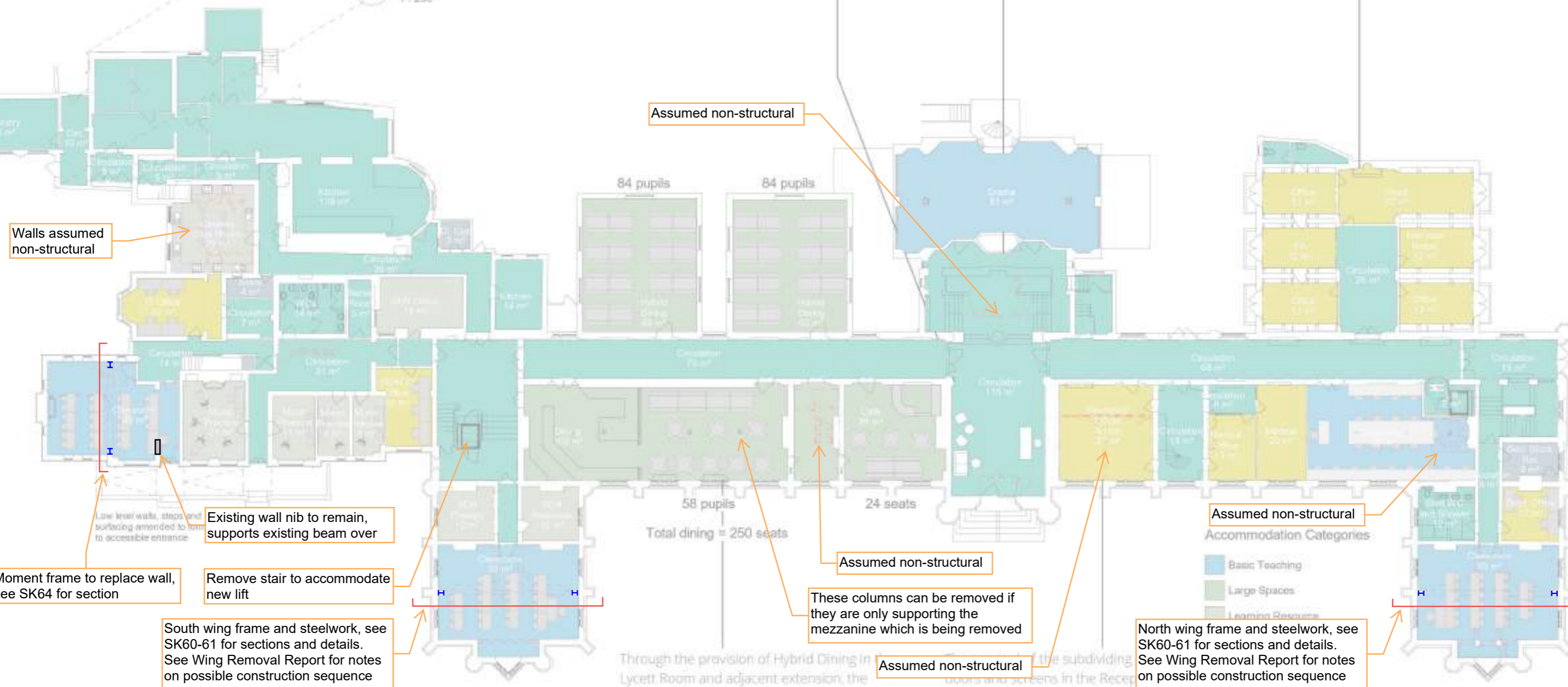
2 Proposed Ground Floor Plan - LHS

1:250

The removal of the draught lobby from the main entrance hall is beneficial in restoring the proportions of the original space.

Through the removal of the security office and associated partitions, the area below the central staircase would be opened up and restored to its earlier condition.

The proposals to accommodate the school's Senior Leadership Team in the Edward Maufe extension retains much from the original Maufe design and layout



Walls assumed non-structural

Assumed non-structural

Moment frame to replace wall, see SK64 for section

Existing wall nib to remain, supports existing beam over

Remove stair to accommodate new lift

South wing frame and steelwork, see SK60-61 for sections and details. See Wing Removal Report for notes on possible construction sequence

Assumed non-structural

These columns can be removed if they are only supporting the mezzanine which is being removed

Assumed non-structural

Assumed non-structural

North wing frame and steelwork, see SK60-61 for sections and details. See Wing Removal Report for notes on possible construction sequence

Through the provision of Hybrid Dining in Lycett Room and adjacent extension, the proposal allows for the removal the existing 1st floor Dining Mezzanine thereby returning the Ground Floor Dining Area to its original double height grandeur following removal of the more unfortunate late 20th Century mezzanine and connecting stair interventions.

Through the removal of the security office and associated partitions, the area below the central staircase would be opened up and restored to its earlier condition.



1399 SK71  
 Main Building  
 Proposed Ground Floor

Richmond Hill Campus  
 Date 18/12/2023

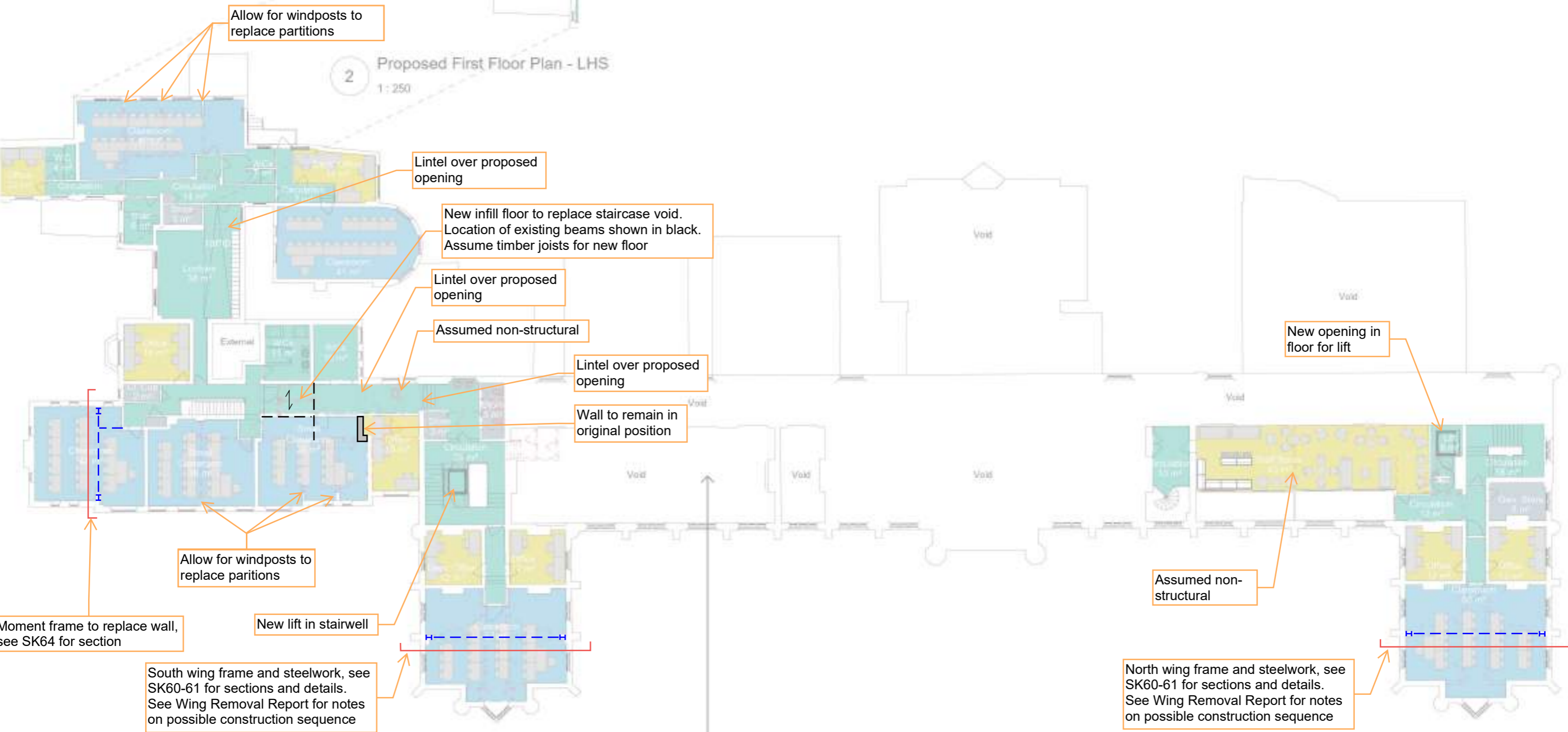
Integral Engineering Design  
 84 Welcot Street  
 Bath BA1 5BD



**Thomas's College**  
**Proposed First Floor Main Building**

1714 IID XX XX DR A-0109 P09  
 Scale: 1:250 of A3  
 27.11.23

**2 Proposed First Floor Plan - LHS**  
 1:250



Allow for windposts to replace partitions

Lintel over proposed opening

New infill floor to replace staircase void. Location of existing beams shown in black. Assume timber joists for new floor

Lintel over proposed opening

Assumed non-structural

Lintel over proposed opening

Wall to remain in original position

New opening in floor for lift

Allow for windposts to replace partitions

Assumed non-structural

Moment frame to replace wall, see SK64 for section

New lift in stairwell

South wing frame and steelwork, see SK60-61 for sections and details. See Wing Removal Report for notes on possible construction sequence

North wing frame and steelwork, see SK60-61 for sections and details. See Wing Removal Report for notes on possible construction sequence

Through the provision of Hybrid Dining in the Lycett Room and adjacent extension, the proposal allows for the removal the existing 1st floor Dining Mezzanine thereby returning the Ground Floor Dining Area to its original double height grandeur following removal of the more unfortunate late 20th Century mezzanine and connecting stair interventions.

**Accommodation Categories**

- Basic Teaching
- Non-struct
- Staff & Admin
- Storage



1399 SK72  
 Main Building  
 Proposed First Floor

Richmond Hill Campus  
 Date 18/12/2023

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 Bath  
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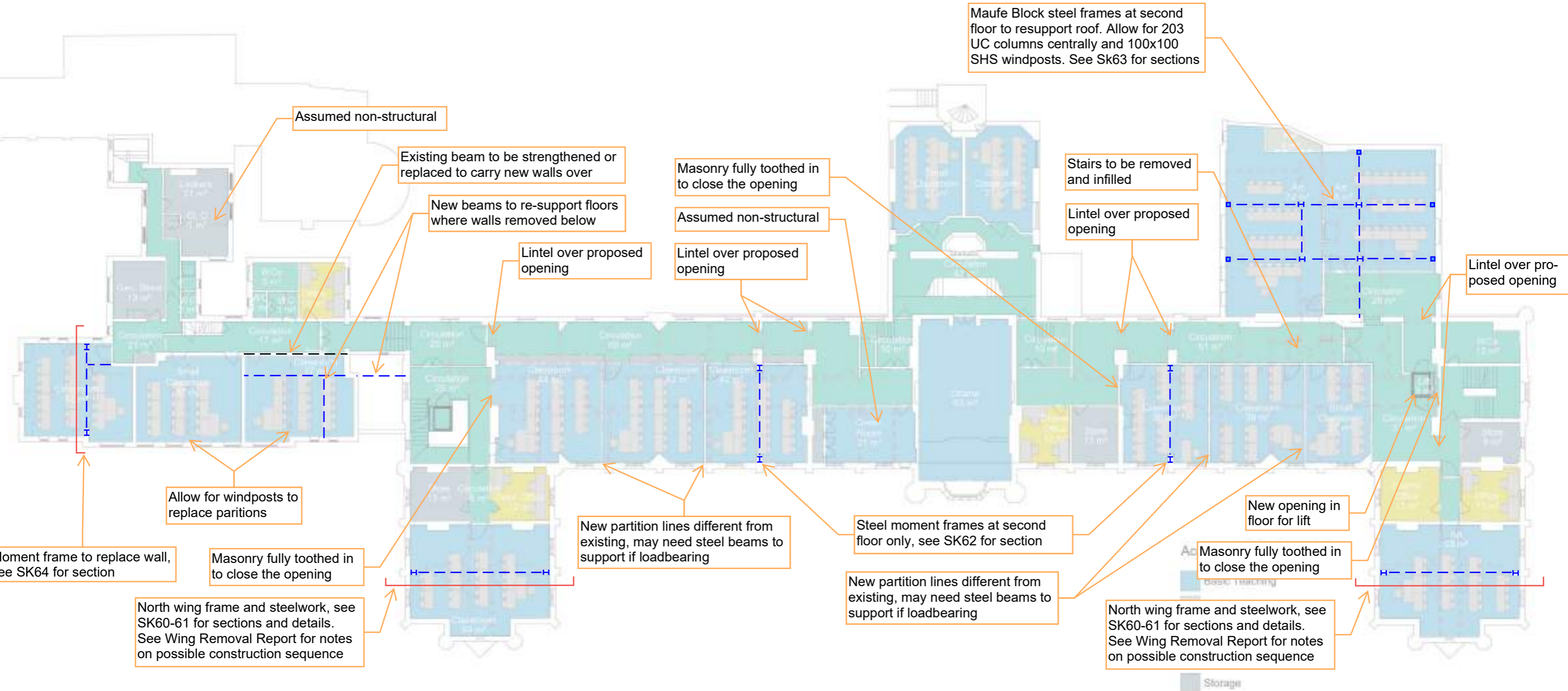
Thomas's College

Proposed Second Floor Main Building

1714 IID XX XX DR A-0110 P09

Scale: 1:250 at A3

27.11.23



Maufe Block steel frames at second floor to resupport roof. Allow for 203 UC columns centrally and 100x100 SHS windposts. See Sk63 for sections

Assumed non-structural

Existing beam to be strengthened or replaced to carry new walls over

New beams to re-support floors where walls removed below

Lintel over proposed opening

Masonry fully toothed in to close the opening

Assumed non-structural

Lintel over proposed opening

Stairs to be removed and infilled

Lintel over proposed opening

Lintel over proposed opening

Allow for windposts to replace partitions

Moment frame to replace wall, see SK64 for section

Masonry fully toothed in to close the opening

North wing frame and steelwork, see SK60-61 for sections and details. See Wing Removal Report for notes on possible construction sequence

New partition lines different from existing, may need steel beams to support if loadbearing

Steel moment frames at second floor only, see SK62 for section

New partition lines different from existing, may need steel beams to support if loadbearing

New opening in floor for lift

Masonry fully toothed in to close the opening

North wing frame and steelwork, see SK60-61 for sections and details. See Wing Removal Report for notes on possible construction sequence

1399 SK73 Rev A

Richmond Hill Campus

Main Building Proposed Second Floor

Date 12/01/2024



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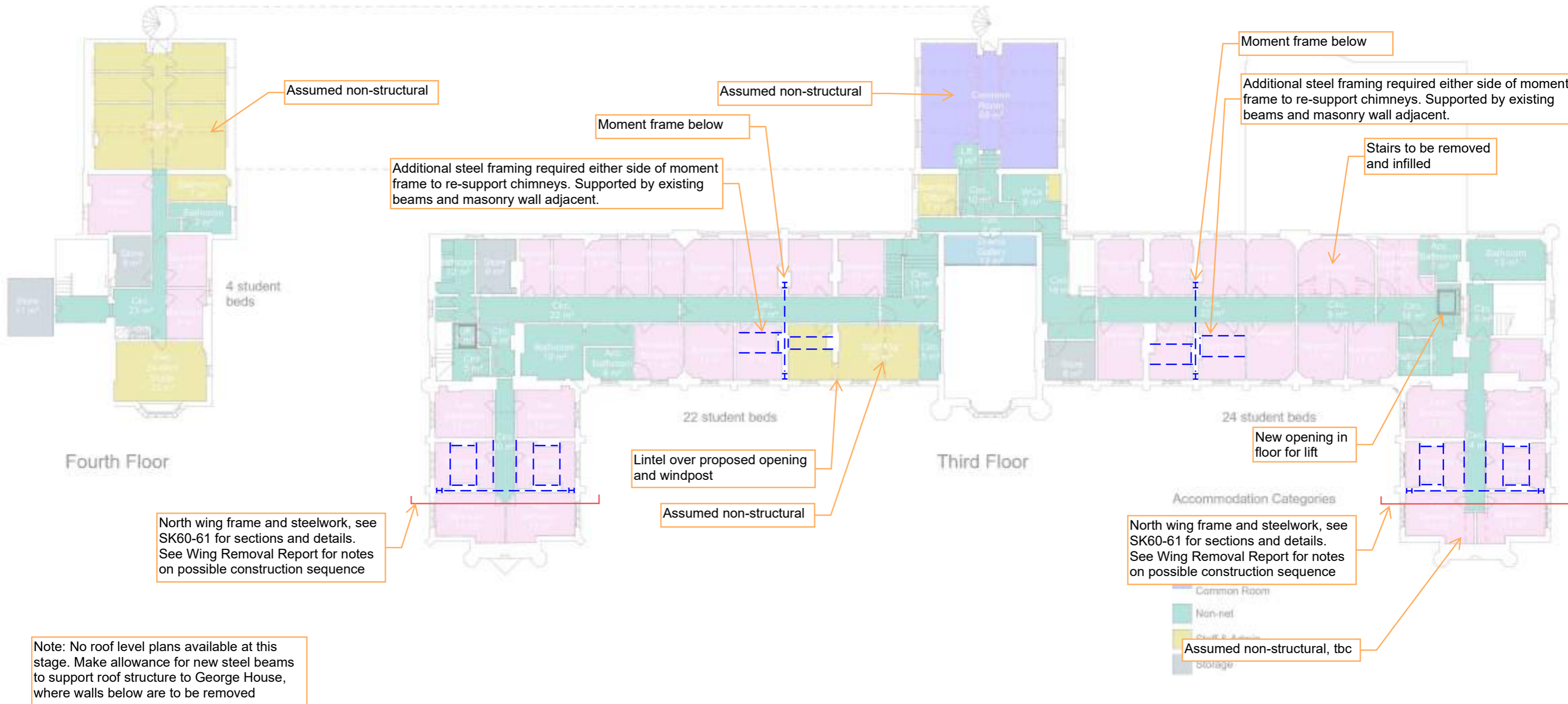
# Thomas's College

## Proposed Third and Fourth Floor Main Building

1714 IID XX XX DR A-0111 P09

Scale: 1:250 at A3

37.11.23



1399 SK74 Rev A  
Main Building  
Proposed Third and Fourth  
Floor

Richmond Hill  
Campus  
Date 12/01/2024

Integral Engineering Design  
84 Welcot Street  
Bath  
BA1 5BD

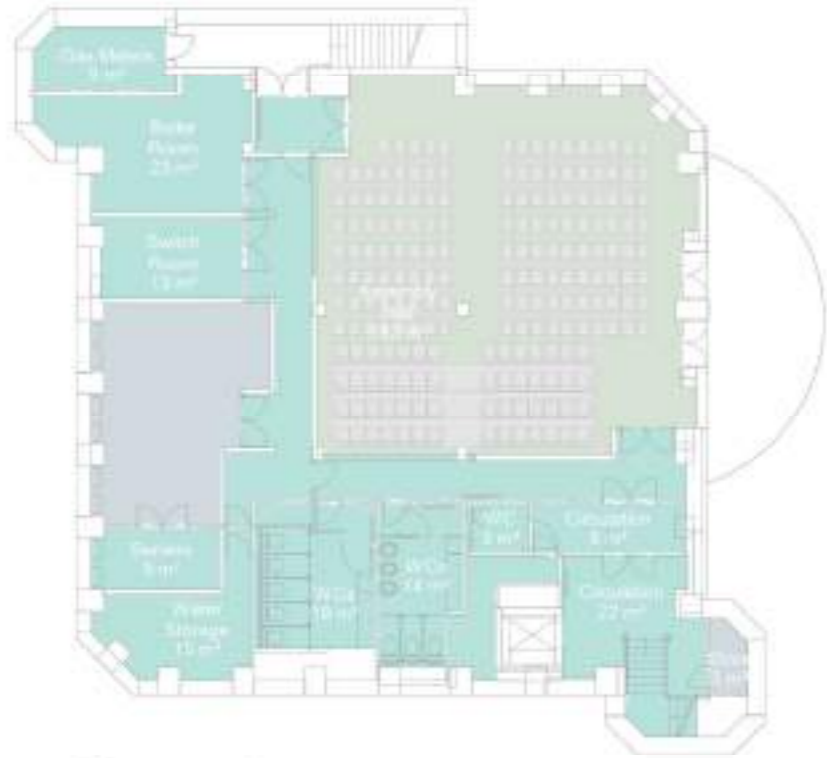


**Thomas's College**  
Proposed Library Plans

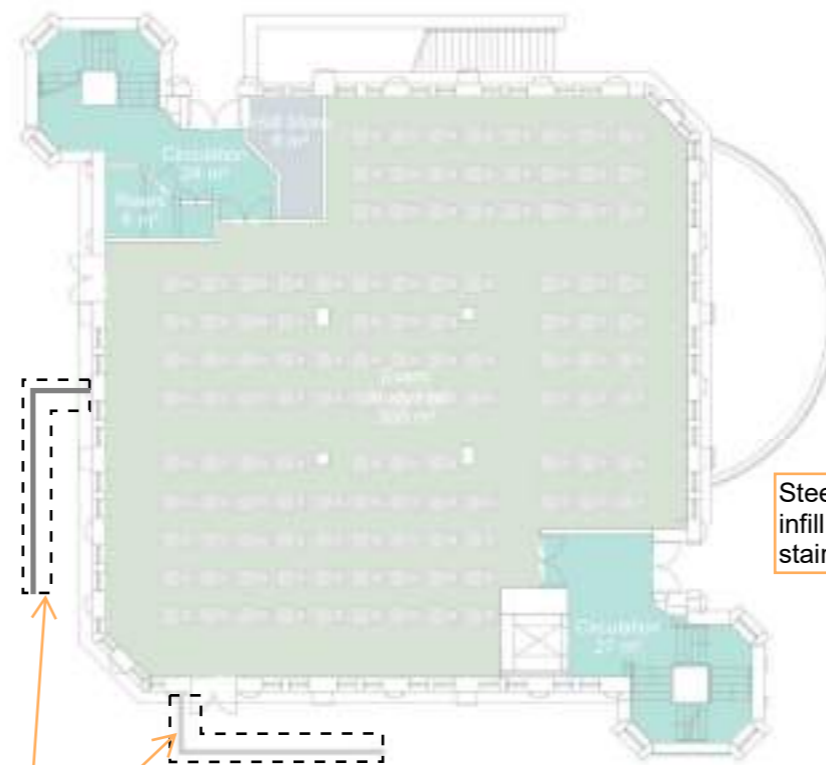
1714 IID XX XX DR A-0112 P08

Scale: 1:250 at A3

27.11.23



**Basement** 200 seats shown, some with restricted sight lines.  
350mm seatways = max 10 seats in a row with two gangways  
Bleacher seating to 4 rear rows



**Ground Floor** Exam mode layout shown - 119 seats. Desks spaced at 1.25m  
Max 5 seats in a row with two gangways

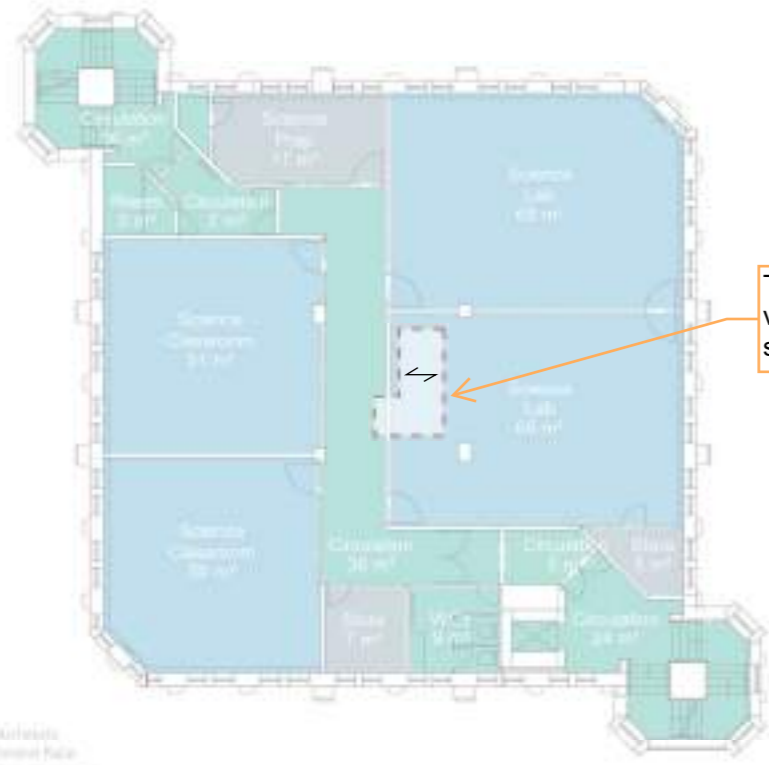


**First Floor**

Small RC retaining walls to retain new ramps up to proposed openings

Steel beam and timber joist to infill stair void with removal of stairs

Timber joist to infill stair void with removal of stairs



**Second Floor**



**Third Floor**

Note: The proposed layout for the Sir Cyril Taylor Library remains the same for all 3nr schemes. Drawings have been included in this option only to avoid duplication.

Accommodation Categories

- Basic Teaching
- Large Spaces
- Non-net
- Staff & Admin
- Storage

1399 SK75	Richmond Hill Campus
Library Proposed Plans	Date 18/12/2023
	Integral Engineering Design 84 Walcot Street Bath BA1 5BD



**Thomas's College**  
Proposed Other Building Plans

1714 IID-XX-XX-DR-A-0113-POS

Scale: 1:250 @ A3

11.10.23



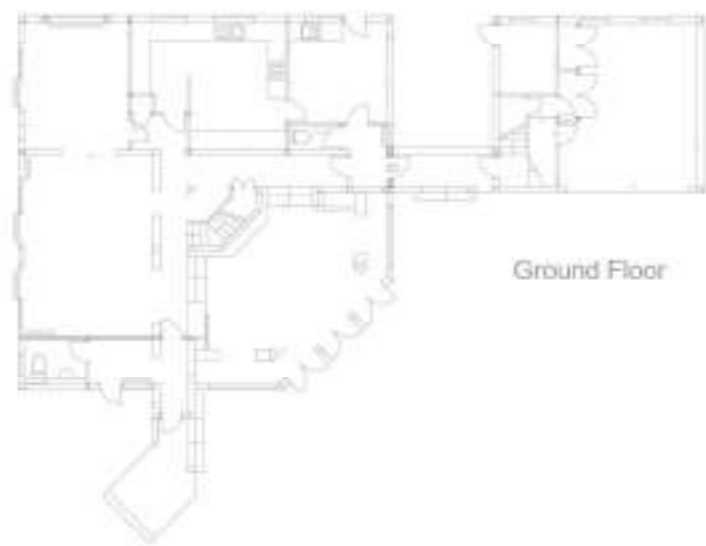
Ground Floor

Lintel over new opening



Longley House

Allow for 100x100 SHS windposts along elevation where existing partitions are being removed.



Ground Floor



First Floor



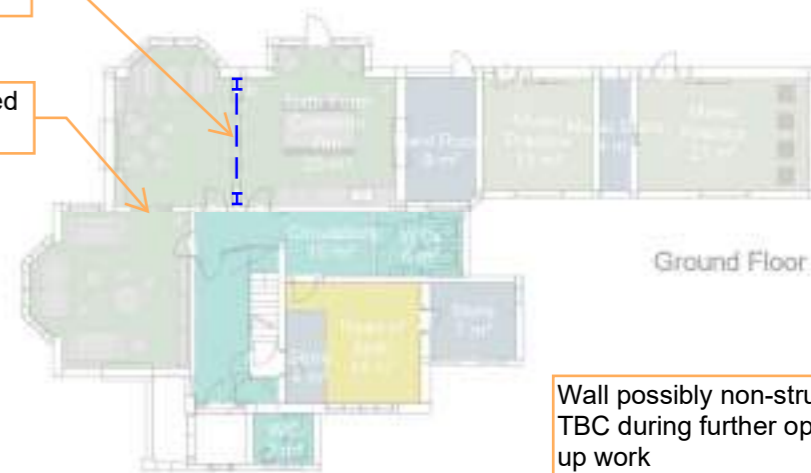
Orchard House  
No change to existing

Steel moment frame required to replace wall

Lintel over proposed opening



Basement

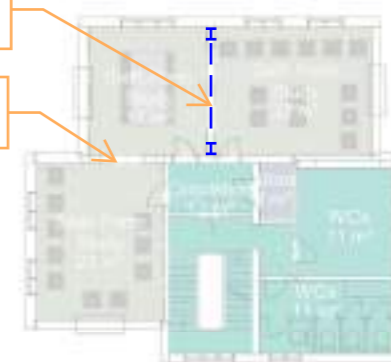


Ground Floor

Wall possibly non-structural. TBC during further opening up work

Steel moment frame required to replace wall

Lintel over proposed opening



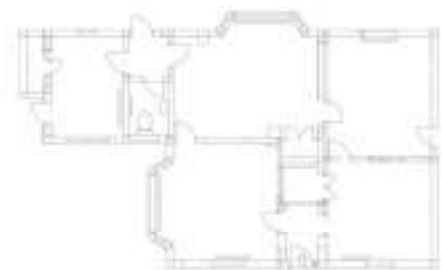
First Floor



Second Floor



Red House



Ground Floor



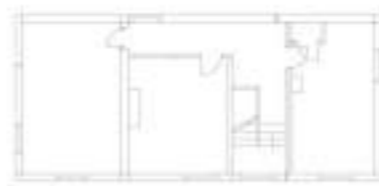
Oak Tree Cottage  
No change to existing



Ground Floor

Upper Cottage

No change to existing



First Floor



Lower Cottage

No change to existing



Ground Floor



First Floor

Note: The proposed layout for Longley, Orchard House, Red House, Oak Tree Cottage and Upper and Lower Cottages remain the same for all 3nr schemes. Drawings have been included in this option only to avoid duplication.

Accommodation Categories

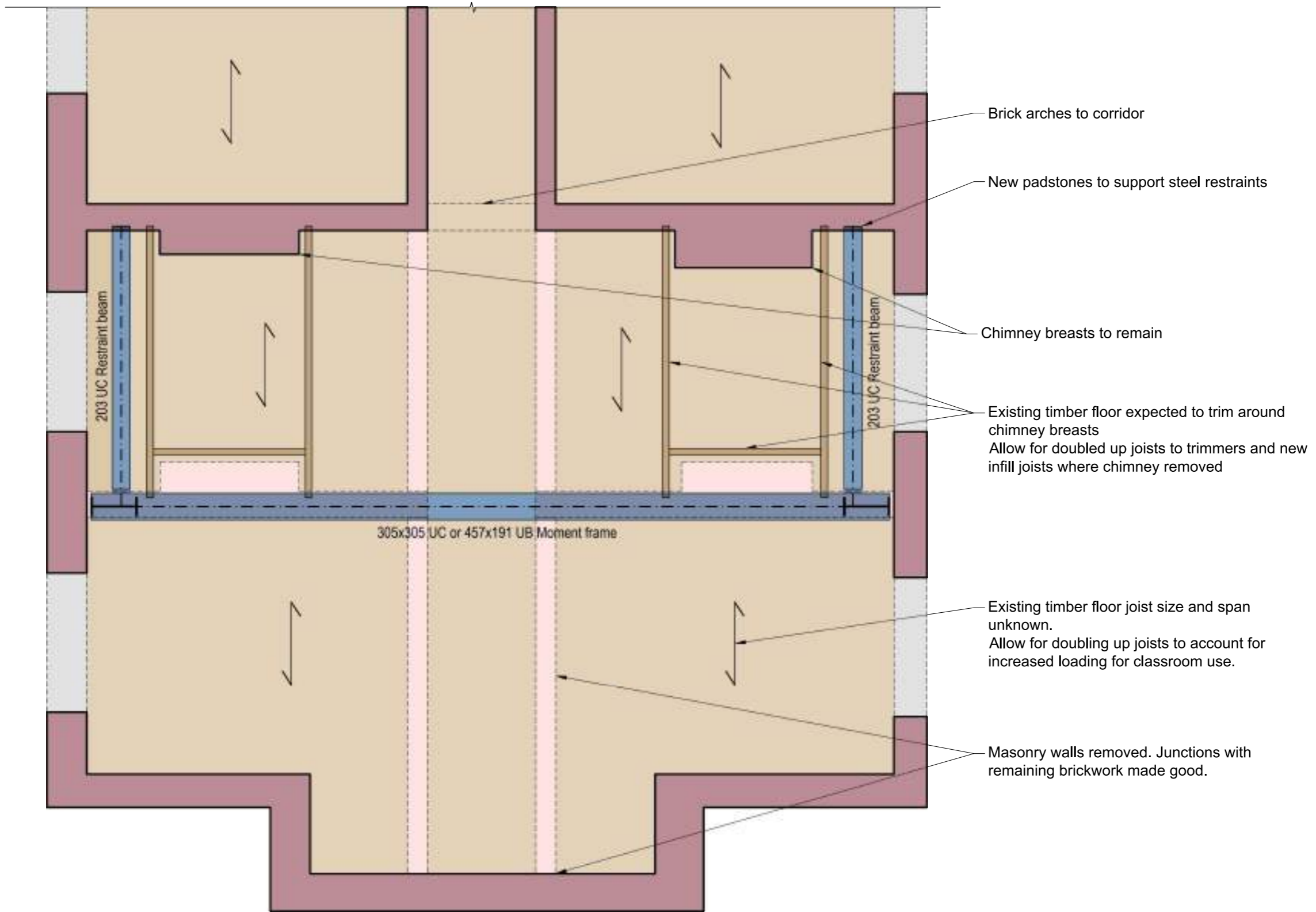
- Basic Teaching
- Large Spaces
- Learning Resource
- Non-net
- Staff & Admin
- Storage



1399 SK76  
Other Buildings Proposed Plans

Richmond Hill Campus  
Date 18/12/2023

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BA1 5BD



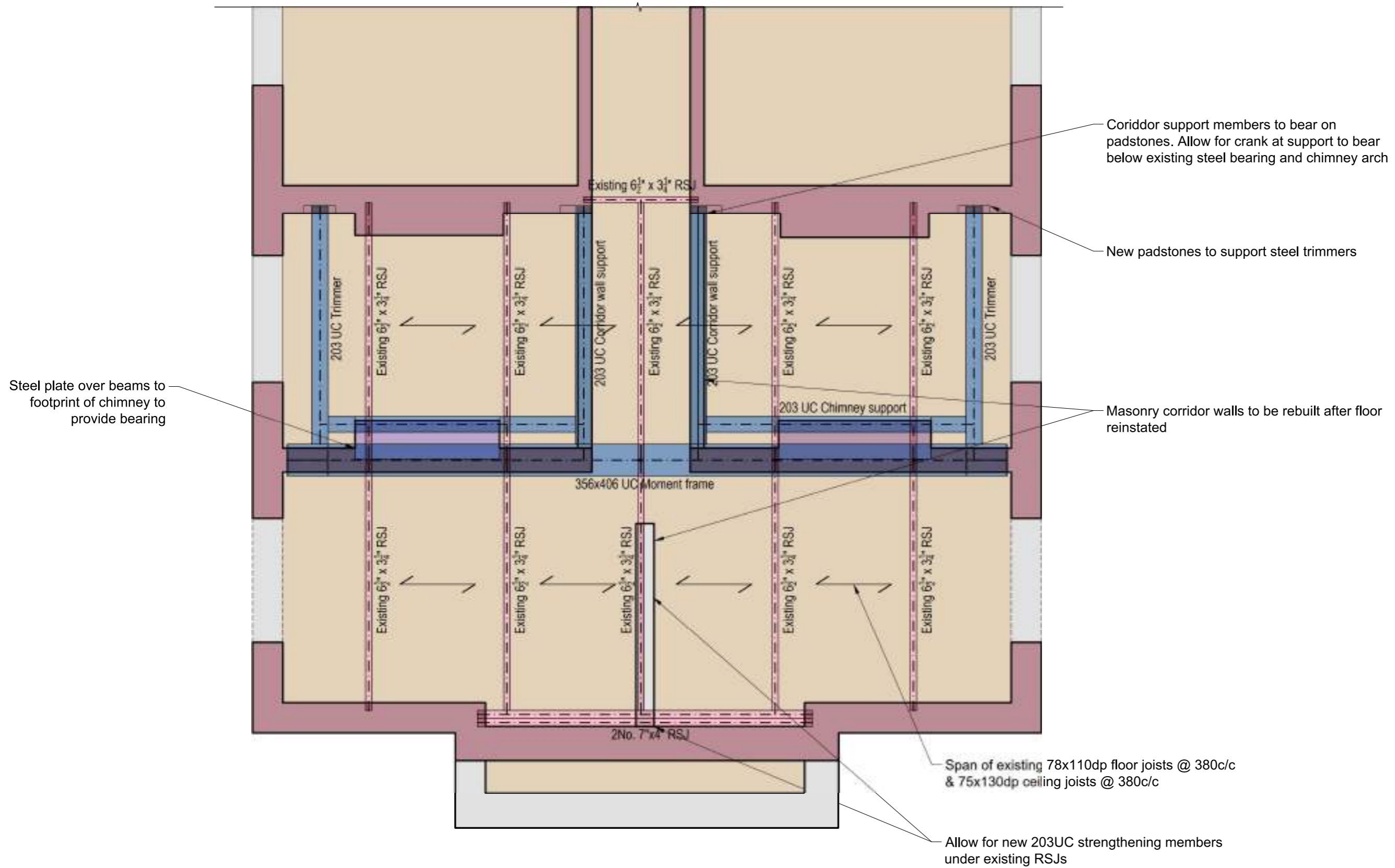
- Brick arches to corridor
- New padstones to support steel restraints
- Chimney breasts to remain
- Existing timber floor expected to trim around chimney breasts  
Allow for doubled up joists to trimmers and new infill joists where chimney removed
- Existing timber floor joist size and span unknown.  
Allow for doubling up joists to account for increased loading for classroom use.
- Masonry walls removed. Junctions with remaining brickwork made good.

1399 Richmond Hill Campus  
 SK77 Date 19.12.2023  
 Main Building - 1st & 2nd  
 Floor Wing Proposed Plan  
 Plot Size A3 Scale 1:50



**integral**  
 engineering design

3.10 Clerkenwell Workshops 84 Walcot Street  
 27/31 Clerkenwell Close Bath  
 London BA1 5BD  
 EC1R 0AT  
 020 7096 0278 01225 859 657  
 www.integral-engineering.co.uk



1399 Richmond Hill Campus

SK78 Date 19.12.2023

Main Building  
3rd Floor Wing Proposed Plan

Plot Size A3 Scale 1:50



3.10 Clerkenwell Workshops 84 Walcot Street  
27/31 Clerkenwell Close Bath  
London BA1 5BD

EC1R 0AT  
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