

DATE	REV	NOTES
2024 Feb 21	P1	Preliminary set for first meeting with Louisa and Sam
2024 Mar 8	P2	Plans changed to client preferences, now Option D with central stair. Added site plan, window schedule, section, refined elevations. All still work in progress.
2024 Mar 13	P3	Check for Part O - limiting solar gain. Heat Pump and cylinder locations shown - loft?
2024 Mar 20	A	Add details for discussion
2024 May 21	B	Frame Options A, B C and detailed section added for engineer input. Balconies.

DRAWING INDEX	
Drawing	Name
Rev B GA.1	Title Page
Rev B GA.2	Site Plan
Rev B GA.3	Brick Set Out
Rev B GA.4	Foundations Plan
Rev B GA.5	Ground Floor Plan
Rev B GA.6	Framing at First Floor
Rev B GA.7	First Floor Plan
Rev B GA.8	Loft Plan
Rev B GA.9	Roof Plan
Rev B GA.10	Detailed Wall Section - Frame Option A
Rev B GA.11	Clasped Purlin - - Frame Option B
Rev B GA.12	Clasped Purlin - Frame Option C
Rev B GA.13	Post foot details
Rev B GA.14	Section AA
Rev B GA.15	Section BB
Rev B GA.16	All Elevations
Rev B GA.17	South West Elevation
Rev B GA.18	South West Elevation
Rev B GA.19	Door and Window Schedules
Rev B GA.20	Lintels
Rev B GA.21	Part O - Simplified Method
Rev B GA.22	Heat Pump

# Top Yard

Architect

Rev B

21 May 2024

<https://www.greenoakcarpentry.co.uk/portfolio/architect-topyard/>

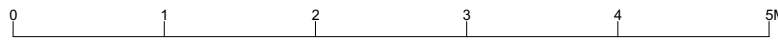
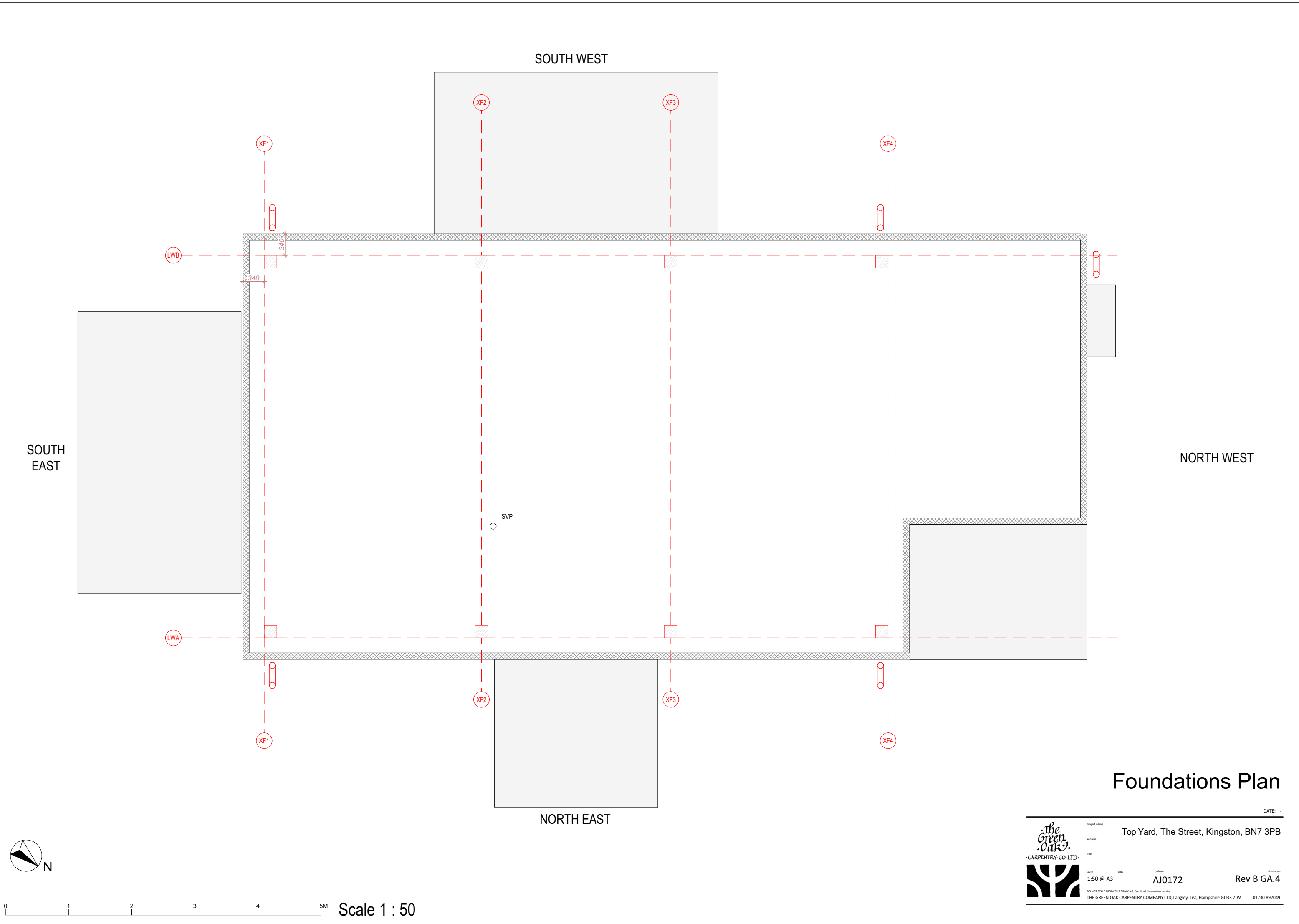


Title Page










Scale 1 : 50

# Foundations Plan

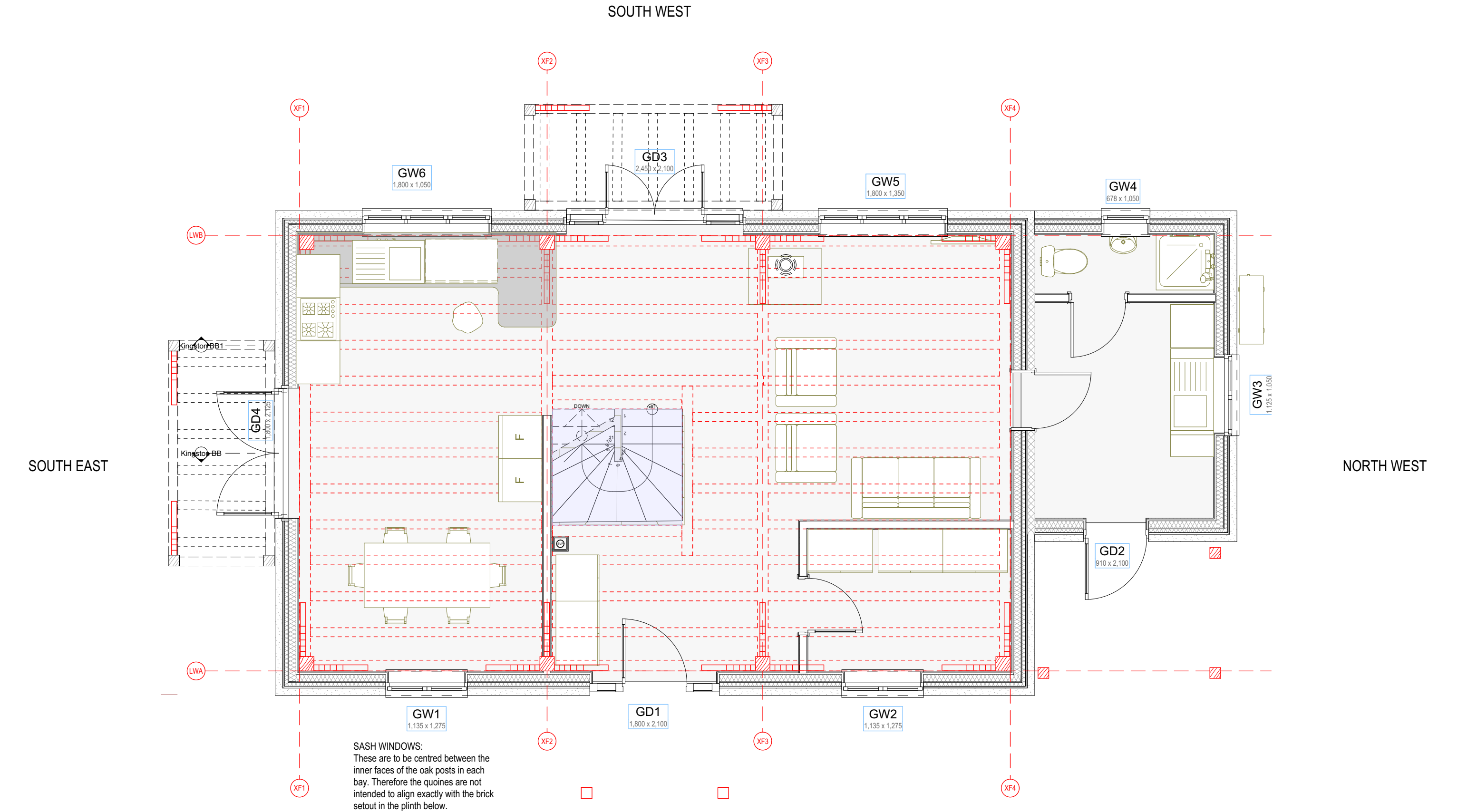


DO NOT SCALE FROM THIS DRAWING. Verify all dimensions on site.  
THE GREEN OAK CARPENTRY COMPANY LTD, Langley, Liss, Hampshire GU33 7JW

project name		Top Yard, The Street, Kingston, BN7 3PB	
address			
site			
scale	date	job no.	drawing no.
1:50 @ A3		AJ0172	Rev B GA.4

01730 892049






# Ground Floor Plan



0 1 2 3 4 5M

Scale 1 : 50



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project name  
Top Yard, The Street, Kingston, BN7 3PB

address

site

scale  
1:50 @ A3

date

job no.  
AJ0172

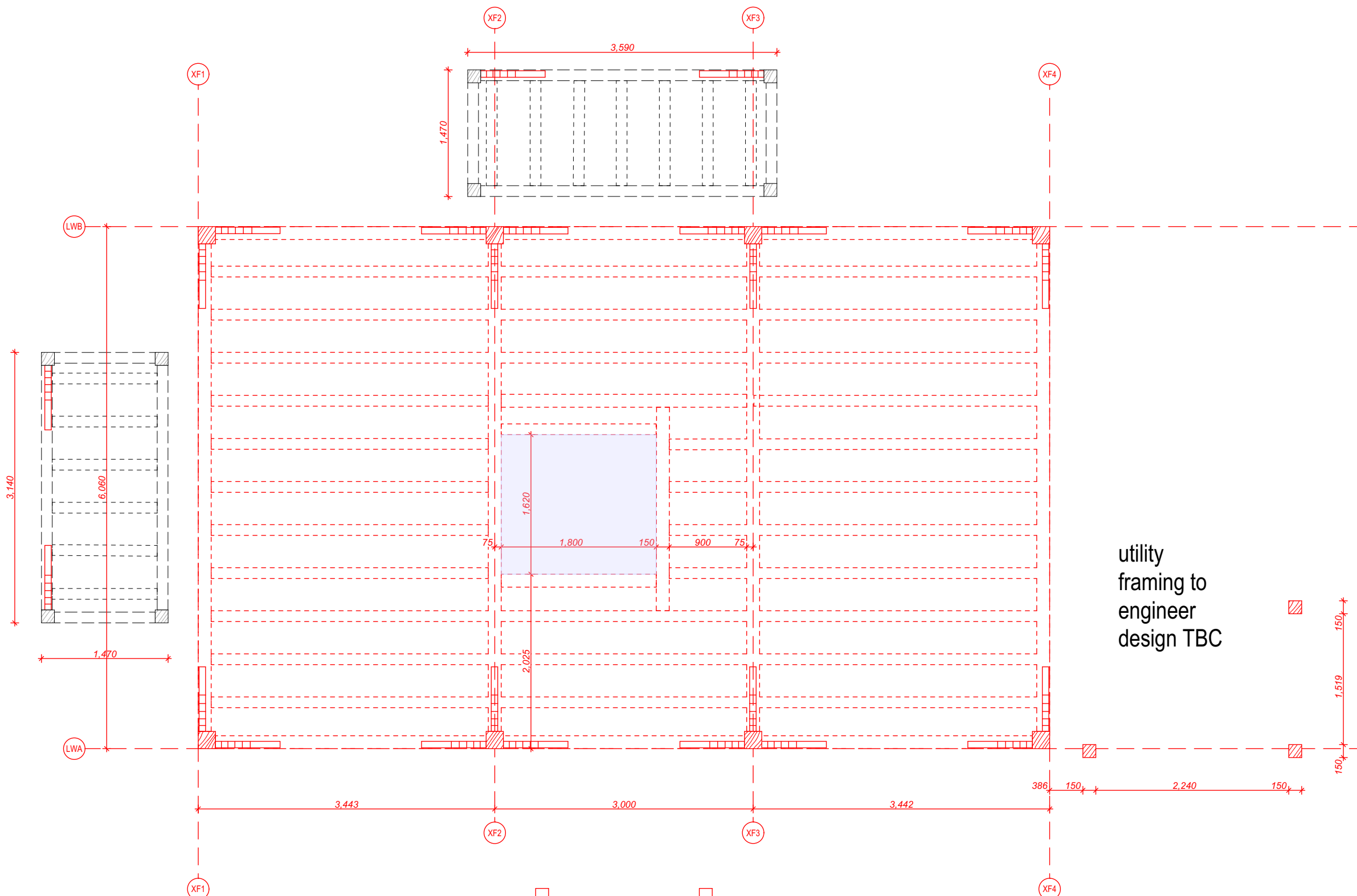
drawing no.  
Rev B GA.5

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SOUTH WEST



SOUTH EAST

NORTH WEST


utility  
framing to  
engineer  
design TBC

NORTH EAST

# Framing at First Floor



Scale 1 : 50



project name  
Top Yard, The Street, Kingston, BN7 3PB

address

site

scale  
1:50 @ A3

date

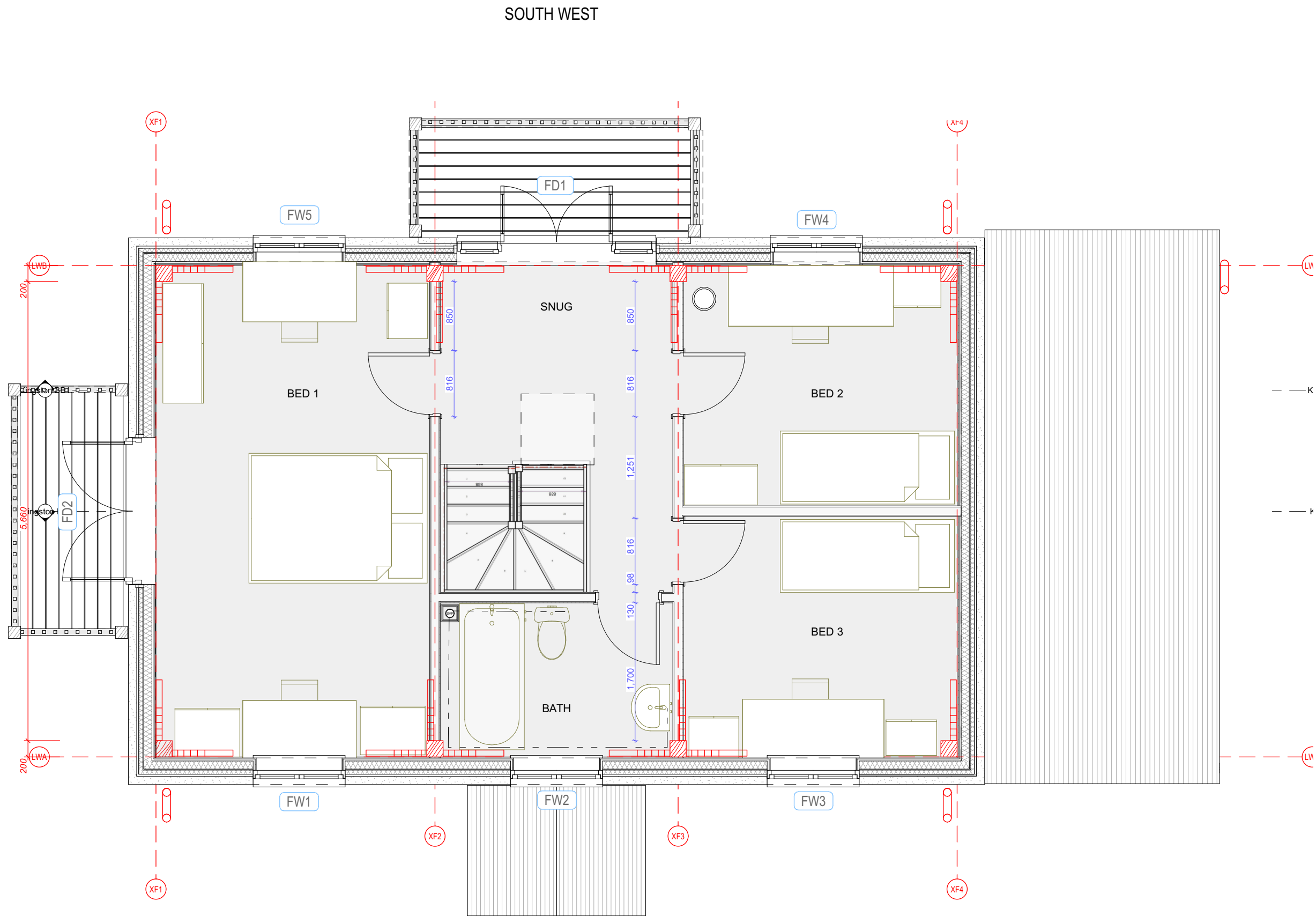
job no.  
AJ0172

drawing no.  
Rev B GA.6

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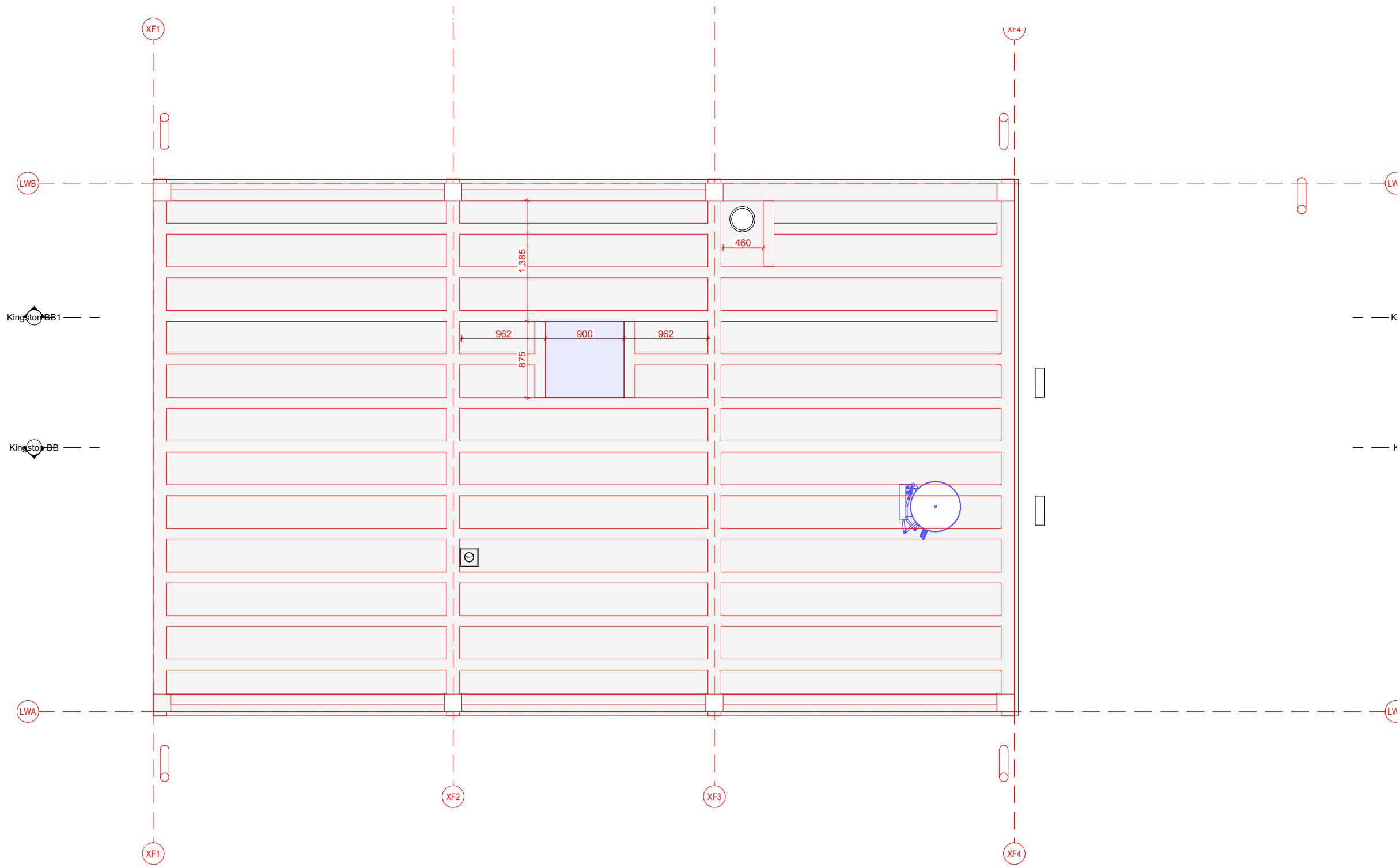
# First Floor Plan



Scale 1 : 50



SOUTH WEST

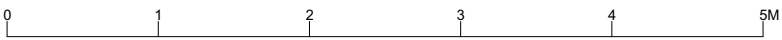


SOUTH EAST


NORTH WEST

NORTH EAST

# Loft Plan



Scale 1 : 50



project name  
Top Yard, The Street, Kingston, BN7 3PB

address

site

scale  
1:50 @ A3

date

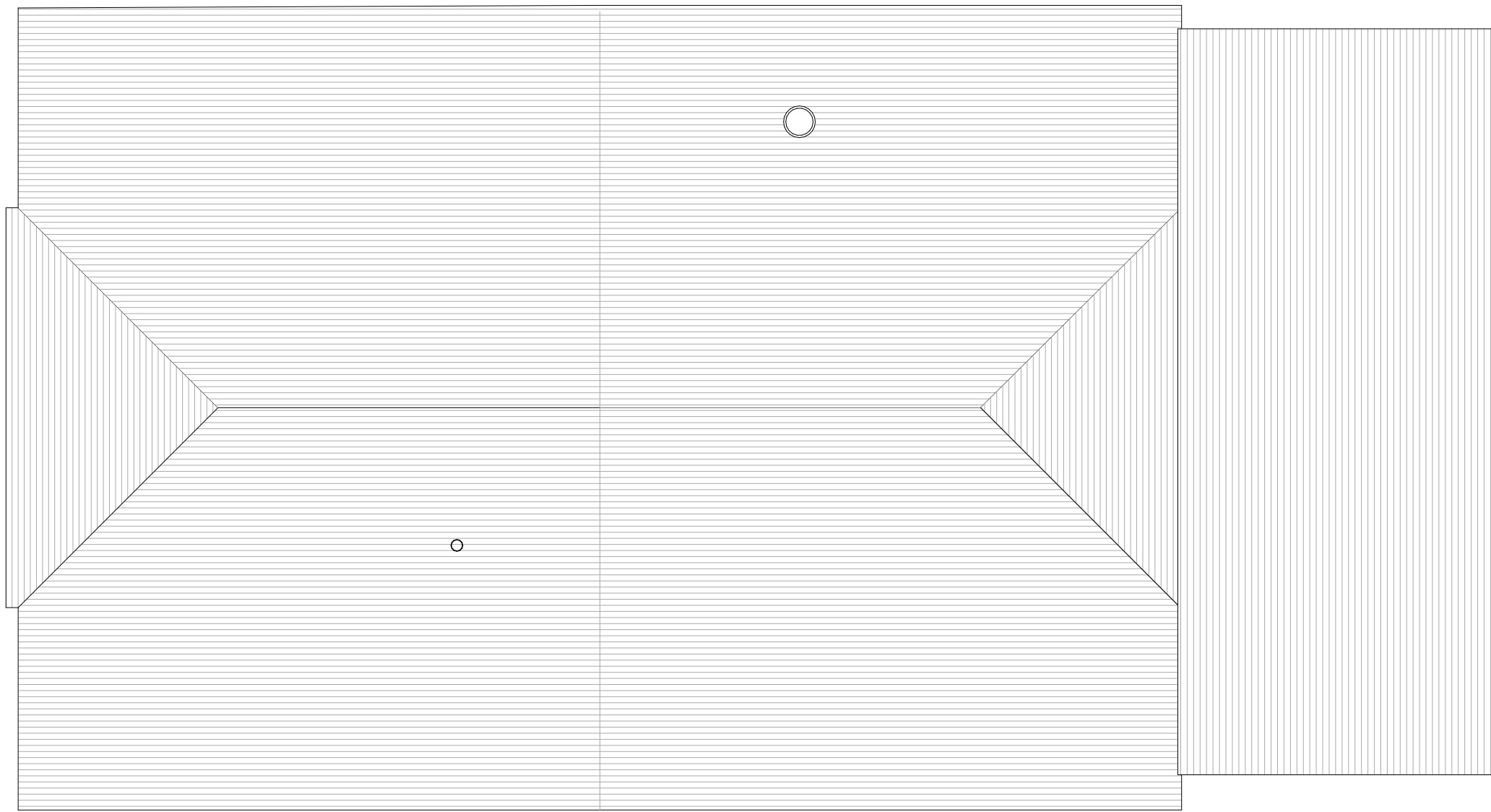
job no.  
AJ0172

drawing no.  
Rev B GA.8

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# Roof Plan

DATE: -



0 1 2 3 4 5M

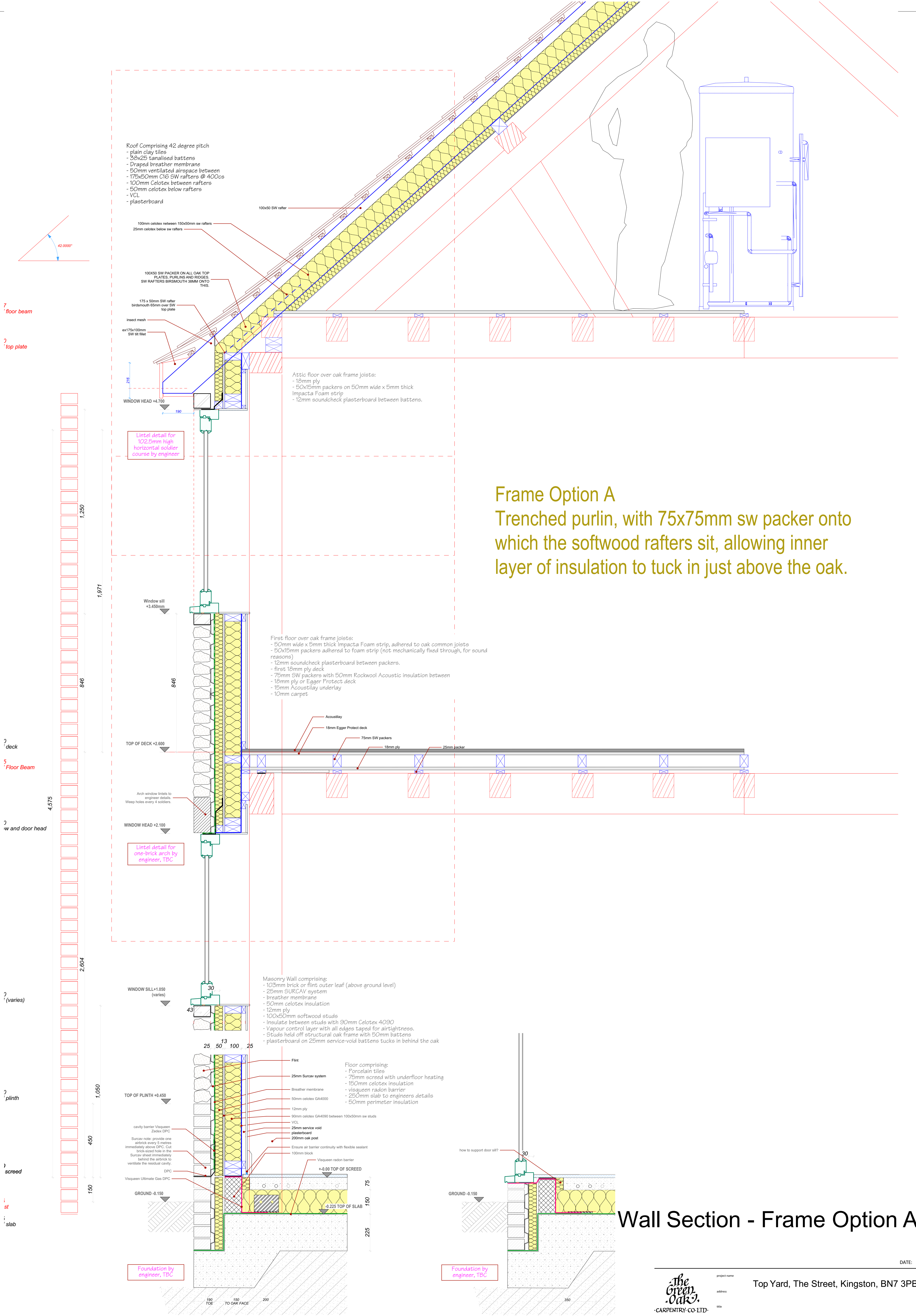
Scale 1 : 50



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address			
site			
scale	1:50 @ A3	date	
job no.	AJ0172	drawing no.	Rev B GA.9

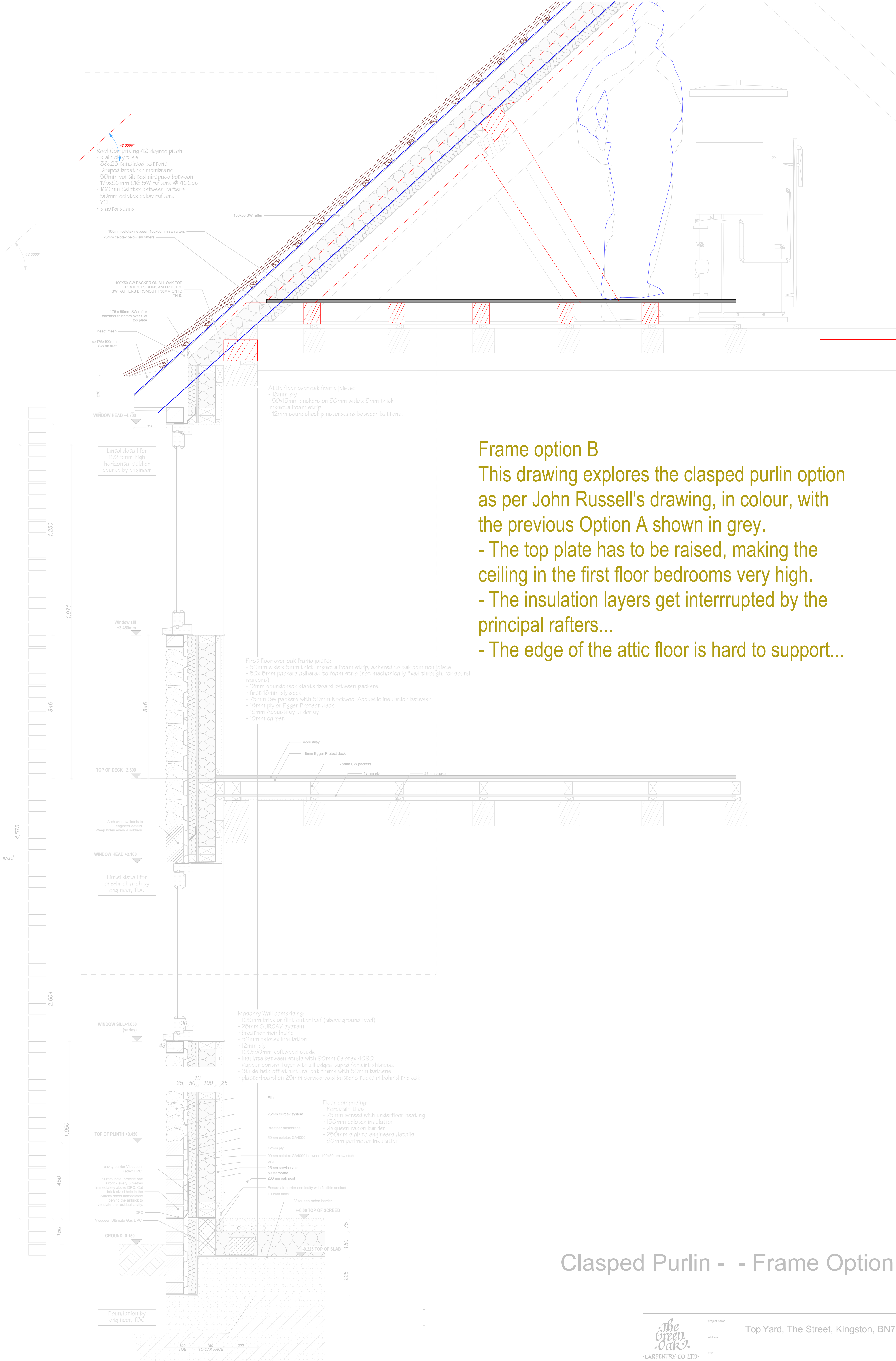
DO NOT SCALE FROM THIS DRAWING. Verify all dimensions on site.



Frame Option A  
Trenched purlin, with 75x75mm sw packer onto which the softwood rafters sit, allowing inner layer of insulation to tuck in just above the oak.

## Wall Section - Frame Option A





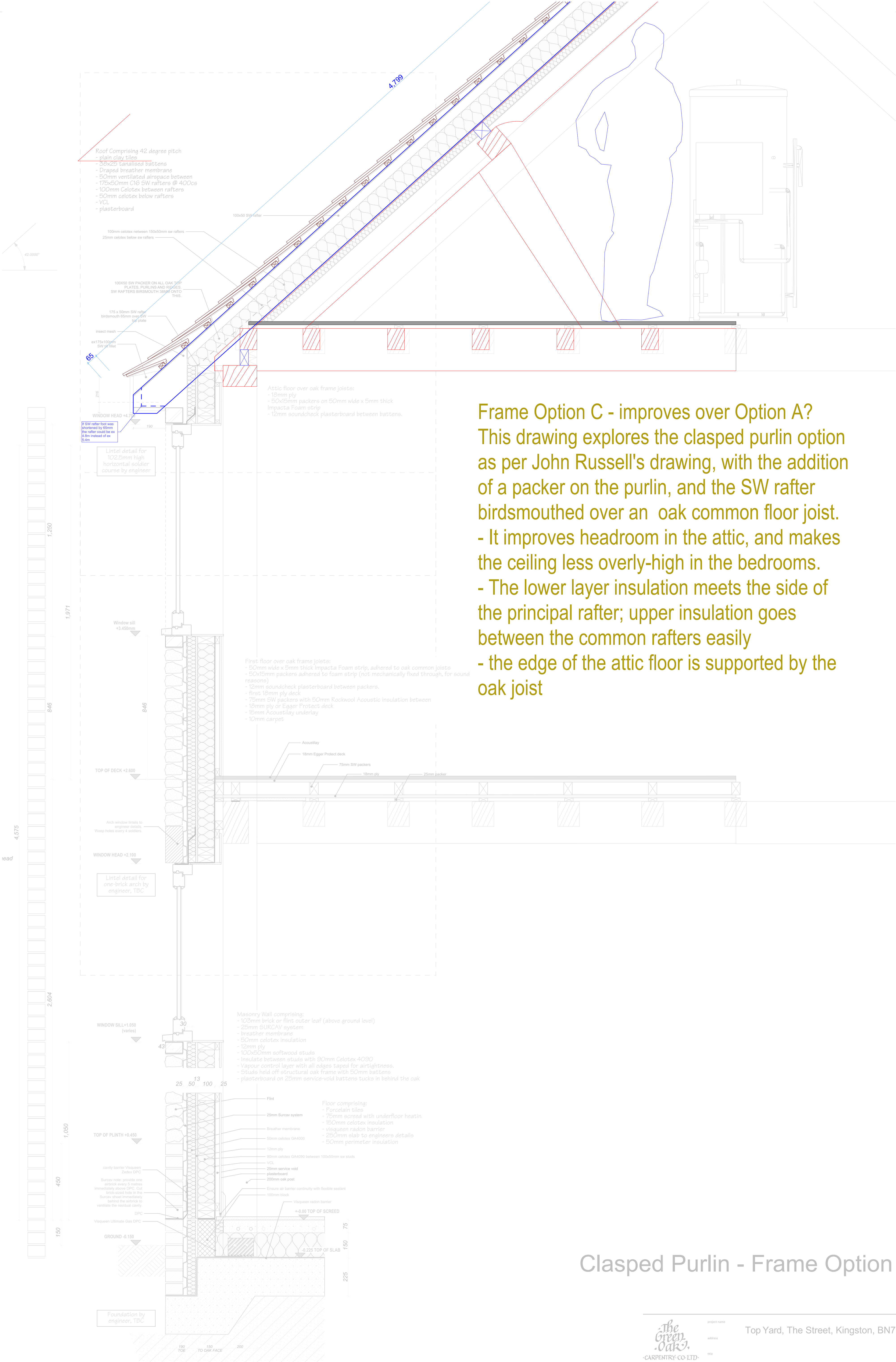
Frame option B

This drawing explores the clasped purlin option as per John Russell's drawing, in colour, with the previous Option A shown in grey.

- The top plate has to be raised, making the ceiling in the first floor bedrooms very high.
- The insulation layers get interrupted by the principal rafters...
- The edge of the attic floor is hard to support...

Clasped Purlin - - Frame Option B



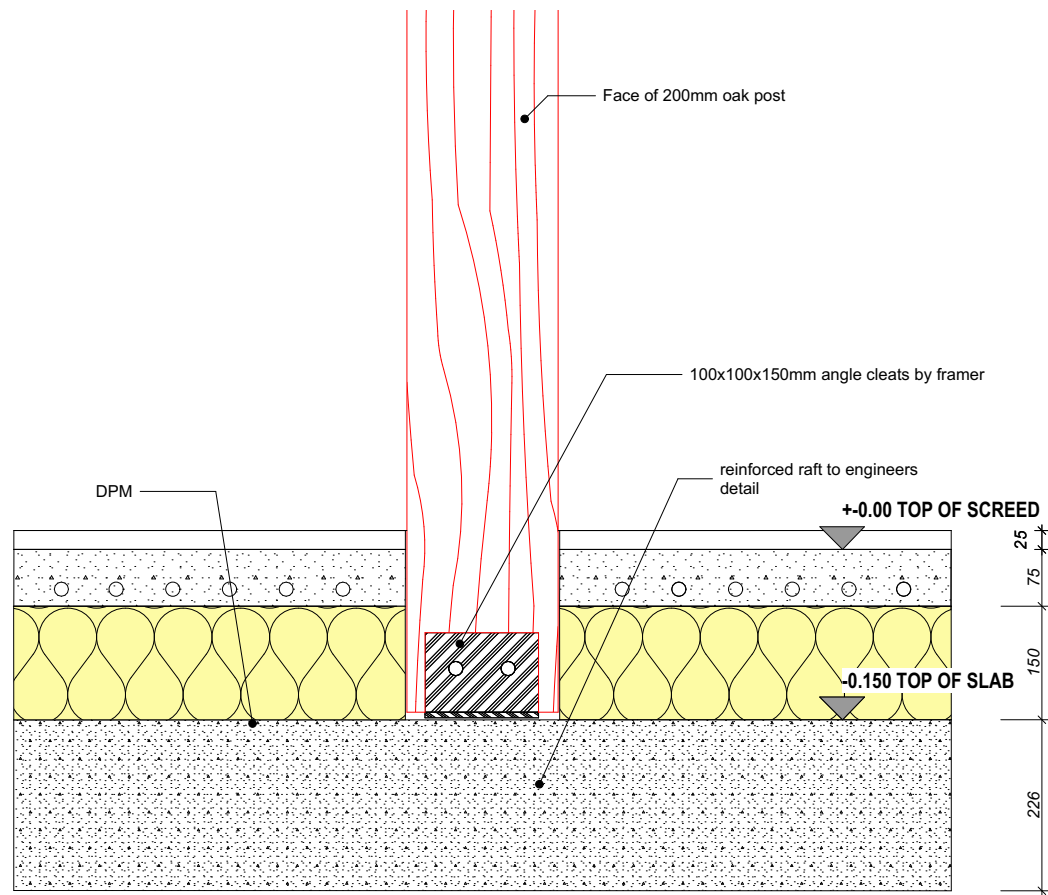


Frame Option C - improves over Option A?

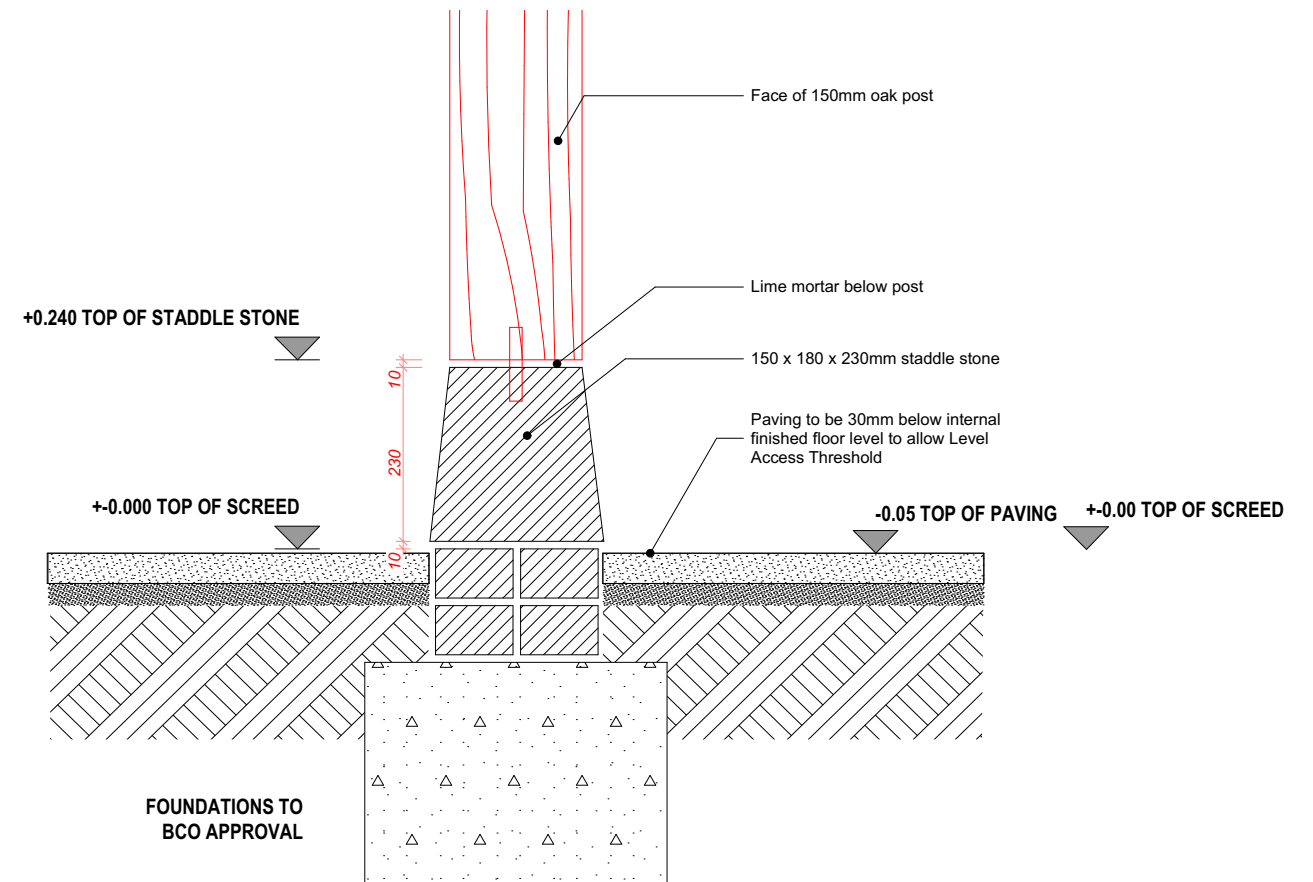
This drawing explores the clasped purlin option as per John Russell's drawing, with the addition of a packer on the purlin, and the SW rafter birdsmouthed over an oak common floor joist.

- It improves headroom in the attic, and makes the ceiling less overly-high in the bedrooms.
- The lower layer insulation meets the side of the principal rafter; upper insulation goes between the common rafters easily
- the edge of the attic floor is supported by the oak joist

# Clasped Purlin - Frame Option C



3 Section - Post Foot in centre of building



4 Section - Post Foot at Porch

3, 4

## Post foot details

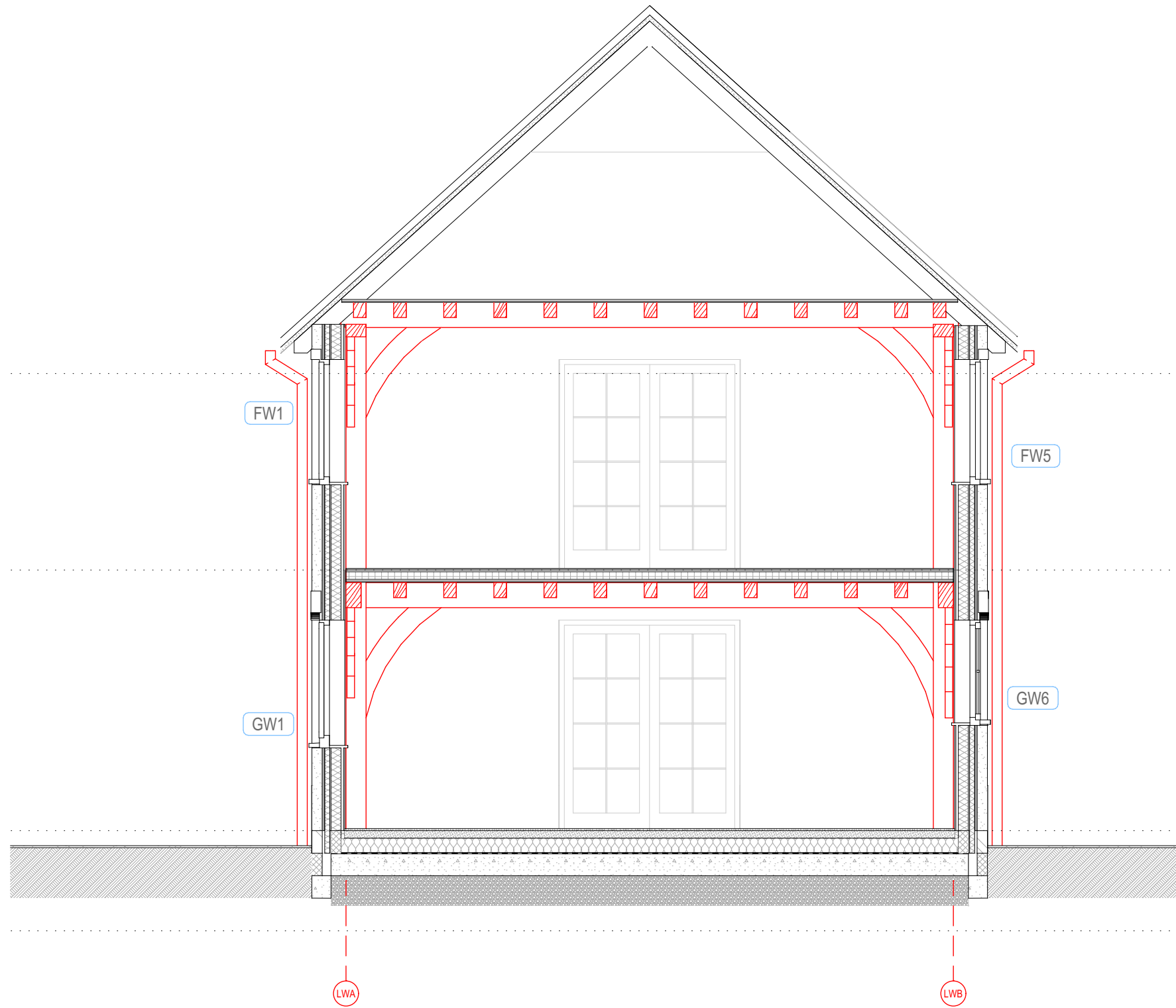
DATE: -



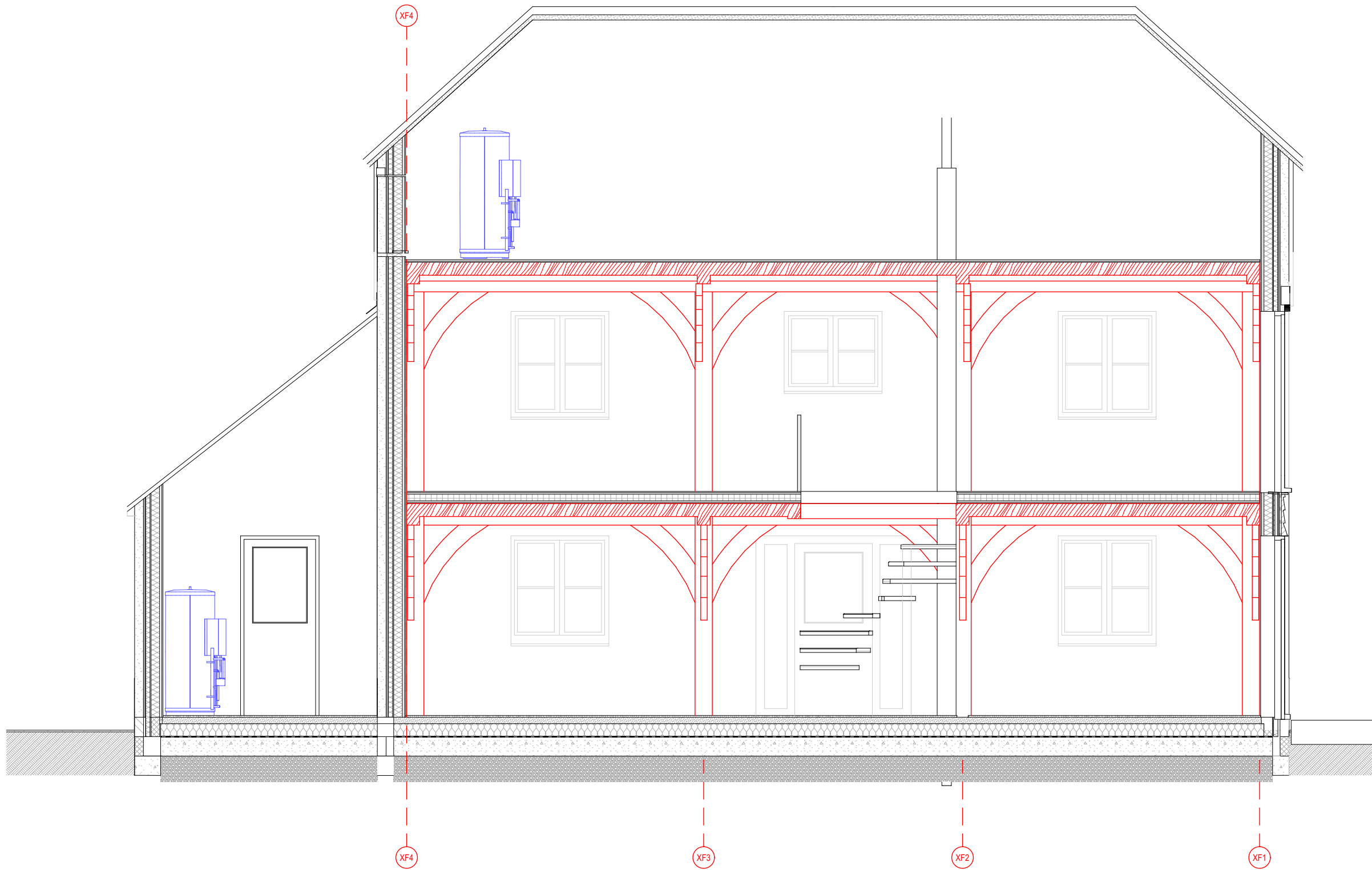
project name Bumblekyte, Cocking, nr Midhurst GU29  
address  
site  
scale 1:10 @ A3  
date  
job no. AJ0172  
drawing no. Rev B GA.13  
DO NOT SCALE FROM THIS DRAWING. Verify all dimensions on site.  
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0 0.1 0.2 0.3 0.4 0.5 1m Scale 1 : 10





# Section AA



## Section BB

DATE: -



project name	Top Yard, The Street, Kingston, BN7 3PB		
address			
site			
scale	1:50 @ A3	job no.	AJ0172
date		drawing no.	Rev B GA.15
DO NOT SCALE FROM THIS DRAWING. Verify all dimensions on site.			
THE GREEN OAK CARPENTRY COMPANY LTD, Langley, Liss, Hampshire GU33 7JW 01730 892049			



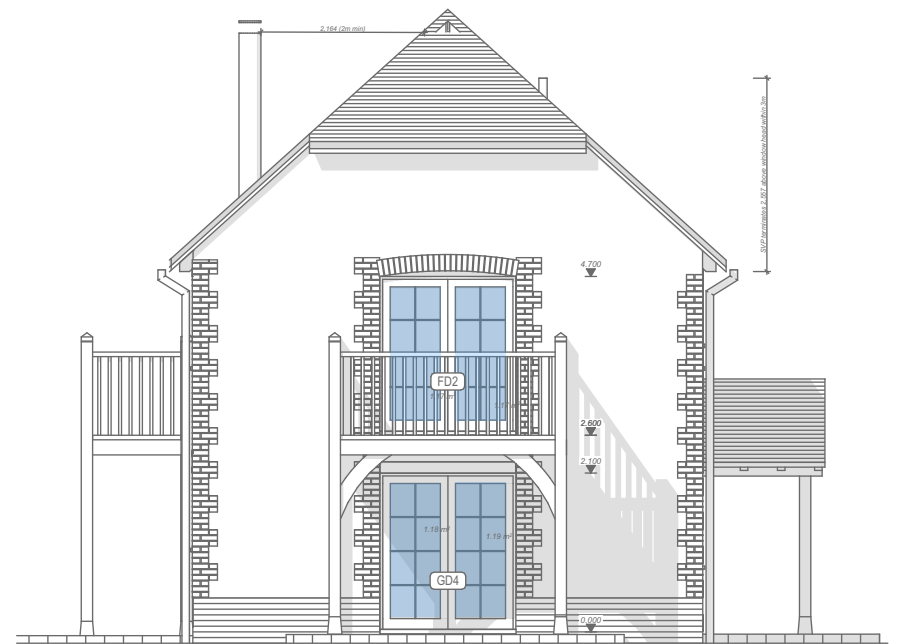
01 EAST Front Entrance 1:100



04 NORTH - Front lean-to 1:100



03 WEST to garden 1:100



02 SOUTH to field 1:100

## All Elevations

DATE: -



project name Top Yard, The Street, Kingston, BN7 3PB  
address  
site  
scale 1:100 @ A3  
date  
job no. AJ0172  
drawing no. Rev B GA.16  
DO NOT SCALE FROM THIS DRAWING. Verify all dimensions on site.  
THE GREEN OAK CARPENTRY COMPANY LTD, Langley, Liss, Hampshire GU33 7JW 01730 892049

0 1 2 3 4 5 10M Scale 1 : 100





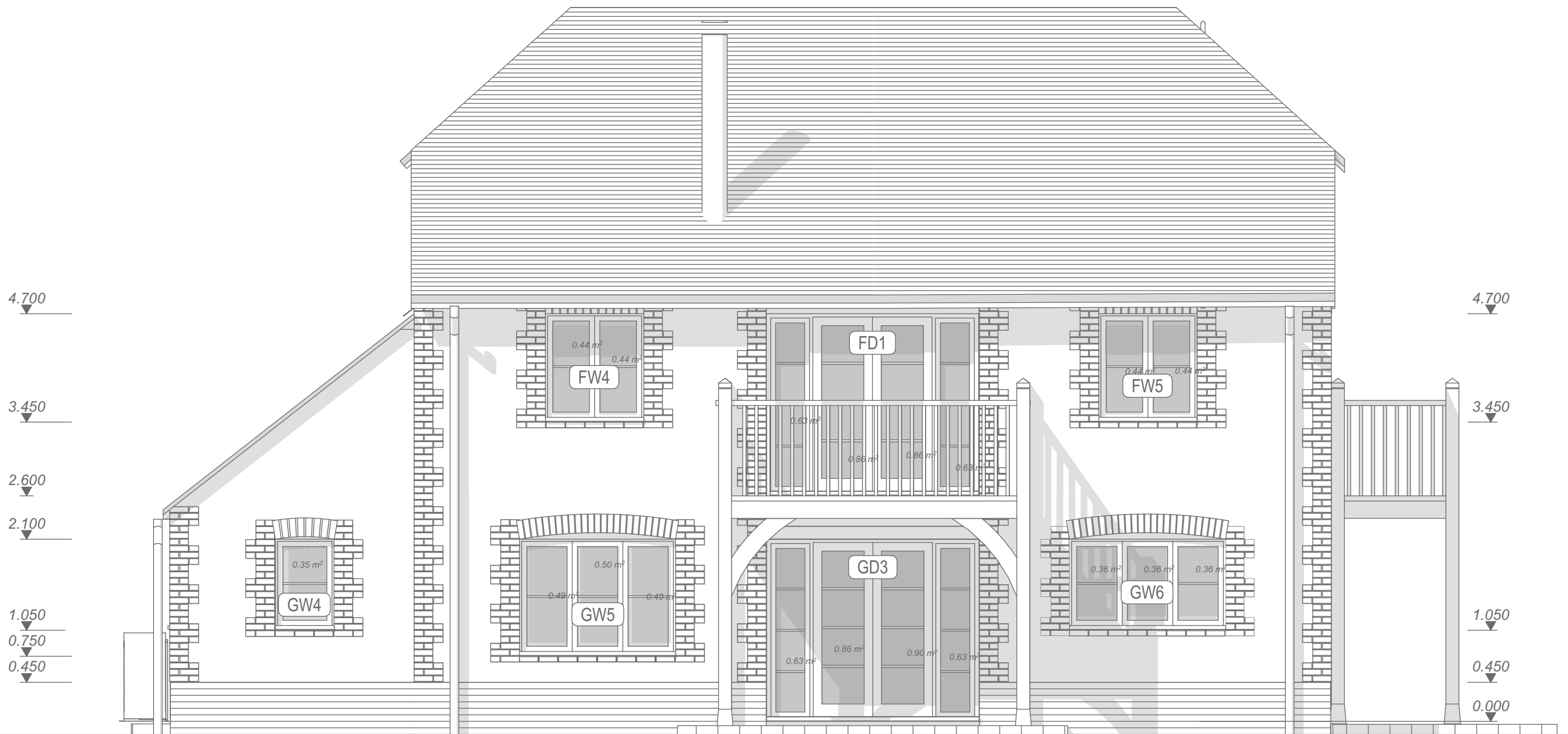
## South West Elevation

DATE: -



project name	Top Yard, The Street, Kingston, BN7 3PB		
address			
site			
scale	1:50 @ A3	job no.	AJ0172
date		drawing no.	Rev B GA.17
DO NOT SCALE FROM THIS DRAWING. Verify all dimensions on site.			
THE GREEN OAK CARPENTRY COMPANY LTD, Langley, Liss, Hampshire GU33 7JW 01730 892049			

0 1 2 3 4 5 10M Scale 1 : 100



## South West Elevation

DATE: -



project name	Top Yard, The Street, Kingston, BN7 3PB		
address			
site			
scale	1:50 @ A3	job no.	AJ0172
date		drawing no.	Rev B GA.18
DO NOT SCALE FROM THIS DRAWING. Verify all dimensions on site.			
THE GREEN OAK CARPENTRY COMPANY LTD, Langley, Liss, Hampshire GU33 7JW 01730 892049			

0 1 2 3 4 5 10M Scale 1 : 100

# Lintel Arch Centres - Type AC

A PVC-u arch unit for use over openings in external cavity walls – traditional and timber frame – providing permanent centring for brick arch construction.

Allows easy construction of segmental arches.  
Includes integral weep vent.

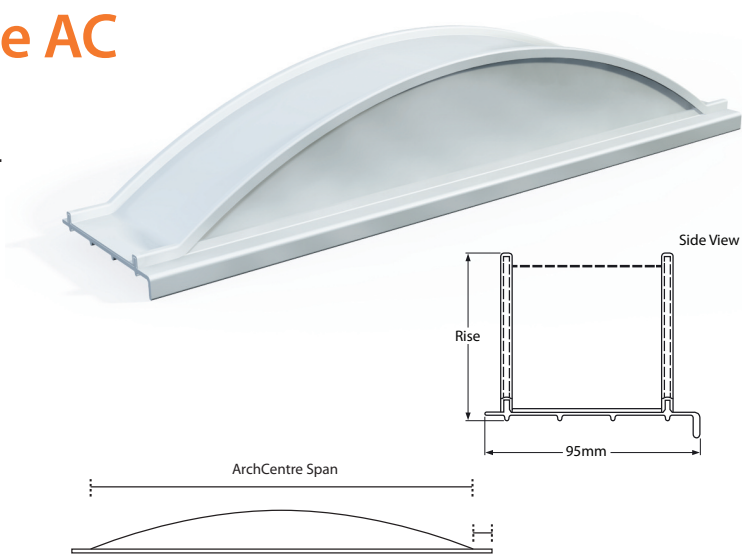
Material

Extruded from PVC-u for greater UV stability Catnic Lintel Arch Centres are designed to weather in accordance with the PVC-u windows. The design incorporates built-in weep vents for discharging the wind-driven rain that penetrates the external skin of a cavity wall.

Installation notes

- i) Do not use damaged Arch Centres.
- ii) Remove the Arch Centre from its protective wrapping.
- iii) Check that the Arch Centre is correct for application (refer to the lintel specification).
- iv) Ensure the Arch Centre and lintel mounting surfaces are clean and dry.
- v) Locate the unit centrally over the opening to determine the position on the lintel. The front drip section should be trimmed off at the bearing end to allow for thin mortar joints and to enhance the appearance.
- vi) Locate the unit on the lintel at position previously determined, ensuring a tight fit to the edge of lintel toe.

**Important Note:** If used with Catnic Soffit Cladding, the straight ends of the Arch Centre, which extend beyond the structural opening, should be removed before proceeding to stage vi. (see right) This operation can also be carried out to avoid exposing the drip edge of the Arch Centre within the mortar joint at the bearing end. Cutting into the main body of the Arch Centre should not be carried out.



Arch Centre Code	Arch Centre Span mm	Rise (mm)	Opening Sizes (mm)	
			Min	Max
ACA0475	450	75	450	500
ACA0625	600	75	600	650
ACA0675	650	75	650	700
ACA0875	850	75	850	900
ACA0925	900	75	900	950
ACA1075	1050	75	1050	1100
ACA1225	1200	75	1200	1250
ACA1375	1350	75	1350	1400
ACA1475	1450	75	1450	1500
ACA1625	1600	75	1600	1650
ACA1775	1750	75	1750	1800
ACA2125	2100	75	2100	2150
ACA2325	2300	75	2300	2350
ACA2425	2400	75	2400	2450

**Note:** Each length of Arch Centre will cover a structural opening with a tolerance of plus or minus 25mm. All lengths between 425mm and 3175mm are available in standard 50mm increments to suit a 75mm or 150mm rise.

engineer to suggest appropriate lintels

NOTE:

The external door heights shown below are from top of screed to underside of lintel. Door manufacturer to add appropriate sill depth. Assume a 25mm floor finish on top of screed.

DOORS AND WINDOWS						
	ID	ELEMENT TYPE	DESCRIPTION	W/D NOMINAL SILL HEIGHT	W/D NOMINAL HEAD HEIGHT	STRUCTURAL OPENING W X H
0	GD1	DOOR	HALL - FRONT DOOR	0	2,100	1,800×2,100
0	GD2	DOOR	UTILITY DOOR	0	2,100	910×2,100
0	GD3	DOOR	BAY 2 - DOUBLE DOORS	0	2,100	2,450×2,100
0	GD4	DOOR	BAY 1 GABLE - DOUBLE DOORS	-25	2,100	1,800×2,125
0	GW1	WINDOW	LIVING ROOM	825	2,100	1,135×1,275
0	GW2	WINDOW	LIVING ROOM	825	2,100	1,135×1,275
0	GW3	WINDOW	BED 1 - GARDEN	1,050	2,100	1,125×1,050
0	GW4	WINDOW	BED 1 - GARDEN	1,050	2,100	678×1,050
0	GW5	WINDOW	DINING ROOM	750	2,100	1,800×1,350
0	GW6	WINDOW	DINING ROOM	1,050	2,100	1,800×1,050
1	FD1	DOOR	SNUG - DOUBLE DOORS TO BALCONY	0	2,100	2,449×2,100
1	FD2	DOOR	BED 1 - DOUBLE DOORS TO BALCONY	0	2,100	1,800×2,100
1	FW1	WINDOW	BED 1 - GARDEN	850	2,100	1,135×1,250
1	FW2	WINDOW	BED 1 - GARDEN	1,150	2,100	1,135×950
1	FW3	WINDOW	BED 1 - GARDEN	850	2,100	1,135×1,250
1	FW4	WINDOW	BED 1 - GARDEN	850	2,100	1,135×1,250
1	FW5	WINDOW	BED 1 - GARDEN	850	2,100	1,135×1,250
2	GD4	DOOR	UTILITY DOOR	4,700	6,800	2,459×2,100

Arch Centre Code	Arch Centre Span (mm)	Rise (mm)	Opening Sizes (mm)	
			Min	Max
ACA0475	450	75	450	500
ACA0625	600	75	600	650
ACA0675	650	75	650	700
ACA0875	850	75	850	900
ACA0925	900	75	900	950
ACA1075	1050	75	1050	1100
ACA1225	1200	75	1200	1250
ACA1375	1350	75	1350	1400
ACA1475	1450	75	1450	1500
ACA1625	1600	75	1600	1650
ACA1775	1750	75	1750	1800
ACA2125	2100	75	2100	2150
ACA2325	2300	75	2300	2350

Lintels



## Categorising Residential Buildings

### Cross Ventilation:

Window / Door	Whole House	North	East	South	West
GD1	1.00		1.00		
GD2	0.56		0.56		
GD3	3.00				3.00
GD4	2.40			2.40	
GW1	0.82		0.82		
GW2	0.82		0.82		
GW3	0.70	0.70			
GW4	0.35				0.35
GW5	1.50				1.50
GW6	1.00				1.00
FD1	3.00				3.00
FD2	2.40			2.40	
FW1	0.90		0.90		
FW2	0.60		0.60		
FW3	0.90		0.90		
FW4	0.90				0.90
FW5	0.90				0.90
Glazed Area Total	21.75	0.70	5.60	4.80	10.65
Floor Area in m2	130				
Glazing as % of zone floor area	17%	1%	4%	4%	8%
BLDG REGS MAX for moderate risk		18%	18%	15%	11%
		pass	pass	pass	pass

Zone 1	North	East	South	West
1.00		1.00		
3.00				3.00
2.40			2.40	
0.82		0.82		
1.50				1.50
1.00				1.00
3.00				3.00
12.72	0.00	1.82	2.40	8.50
64				
19.9%	0% 37%	3% 37%	4% 30%	13% 22%
	pass	pass	pass	pass

## Part O - Simplified Method



Mitsubishi Electric Air Conditioning Hard Wired PAC-1F073B-E REMOCON Controller Assy Complete



Mike Tinson pinnaclehtg@gmail.com  
The Chestnuts - 3 bed oak framed house  
Heating Specification:

**Air Source Heat Pump**  
**Mitsubishi 8.5kW air source heat pump**  
**(Model PUZ-WM85VAA)**

**Cylinder:**  
**Mitsubishi 210L cylinder EHPT21X-UKHDW1L**

**Programmer**  
**Mitsubishi PAC-1F073BE.**

**Heating Emitters:**  
**In screed underfloor heating on ground floor, spreader plate**  
**underfloor heating on 1st floor.**

Room thermostats: **Yes**  
Independent controlled heating zones: **Yes**  
TRVs: **No (no radiators)**  
Delayed start (optimised) thermostat: **Yes**  
Weather compensation (outdoor thermostat): **Yes**



heat pump hot water tank could be  
in loft or could be in cupboard in  
utility room - two facing walls works  
well as per these photos

## Heat Pump