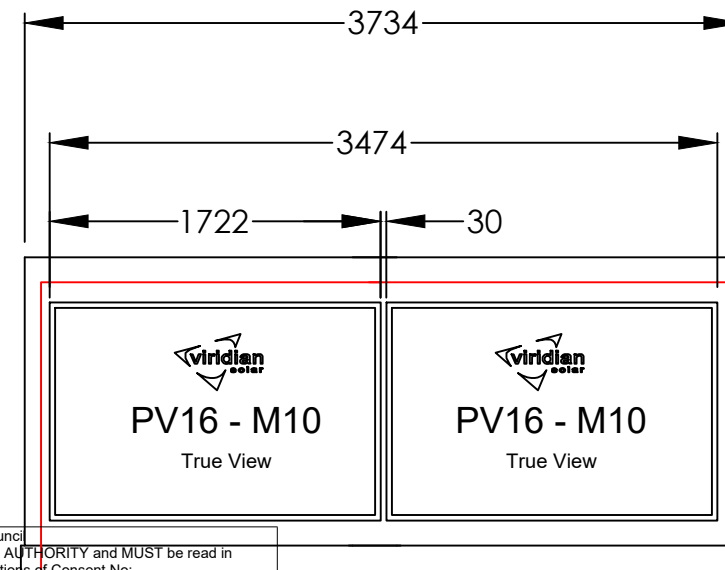


F16-LL-M10      F16-LC-M10      F16-LR-M10

Close-coupled trio of panels  
5486mm



F16-LL-M10      F16-LR-M10

Close-coupled pair of panels  
3734mm

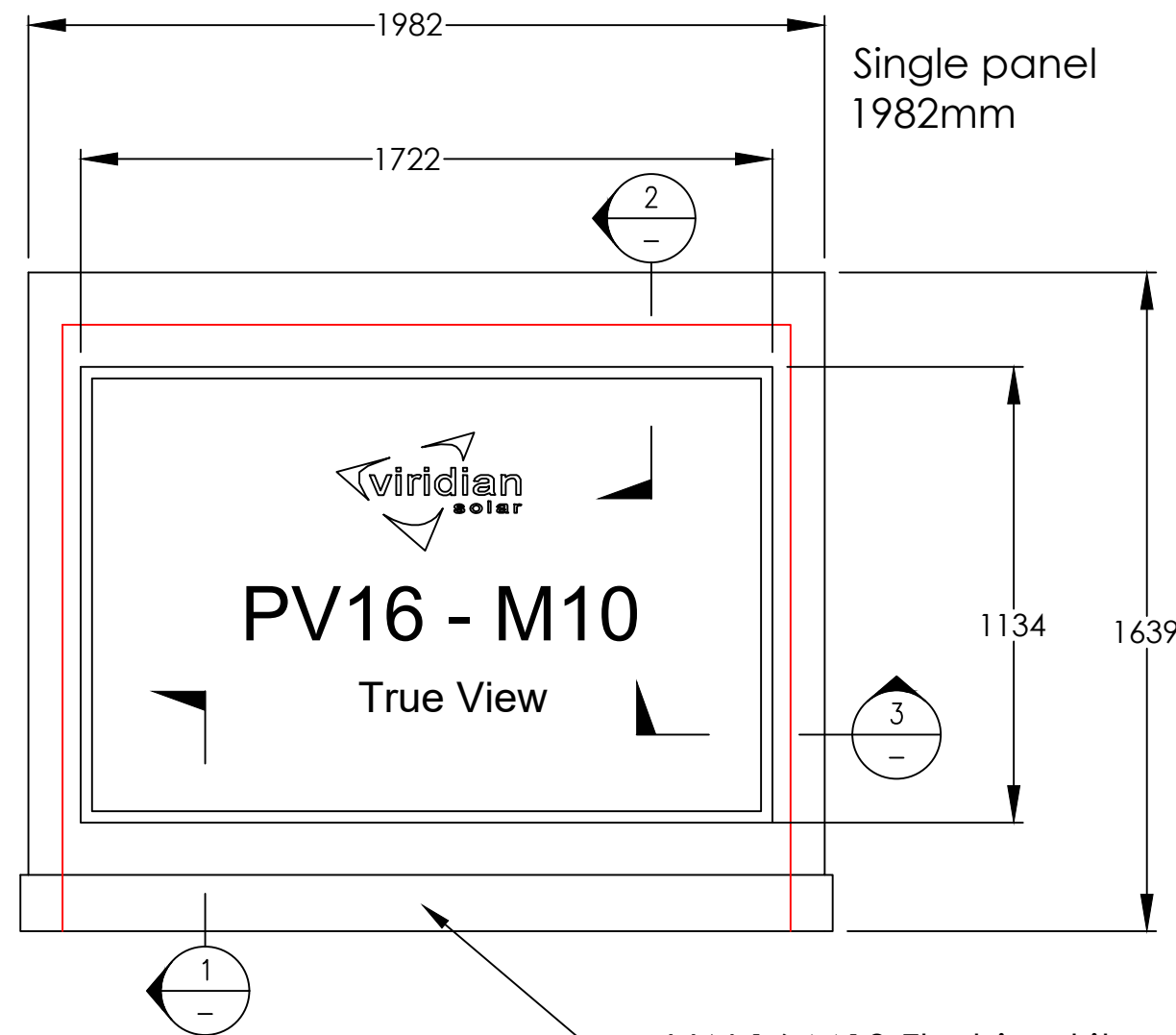
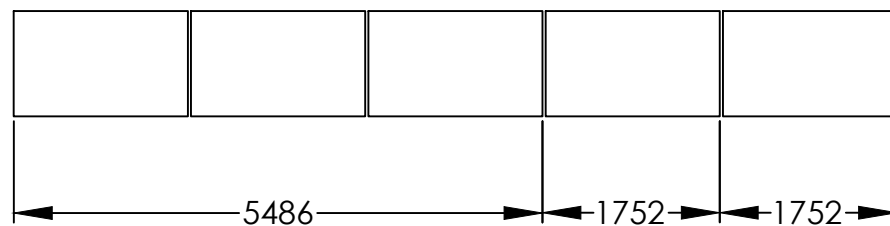
Argyll and Bute Council  
This plan has been APPROVED by the PLANNING AUTHORITY and MUST be read in  
conjunction with the Planning Conditions of Consent No:  
23/02390/PP

Fergus Murray  
Head of Development and Economic Growth  
5 February 2024

Beyond 3 panels wide, add 1752mm for each additional panel to get the overall measurement to the outer flashing edges

Example for 5 Panel Row:

$$5486 + 1752 + 1752 = 8990\text{mm including flashings}$$



Single panel  
1982mm

VAL16-M10 Flashing kit

Disclaimer:

This drawing and the information contained within it are the property of Viridian Concepts Ltd. and may not be reproduced without their express permission.

Issue:

0 30.08.22  
Original Issue

DG

Notes:

Weight of solar panels: PV16 - M10 = 25kg  
Where the panels are fitted into a pitched tiled/slate roof, they sit directly on the roof battens with a uniformly distributed load of 12.8kg per m<sup>2</sup>. Roof structure modifications are unlikely to be necessary as this is typically less than the weight of the replaced roof covering.

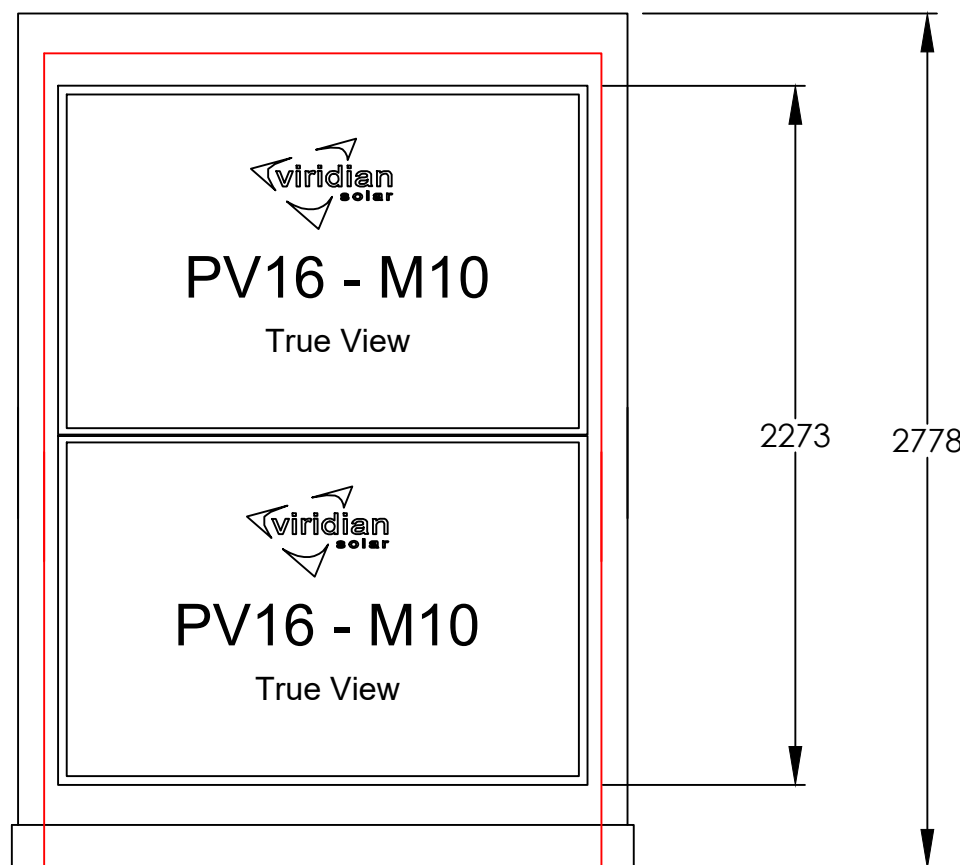
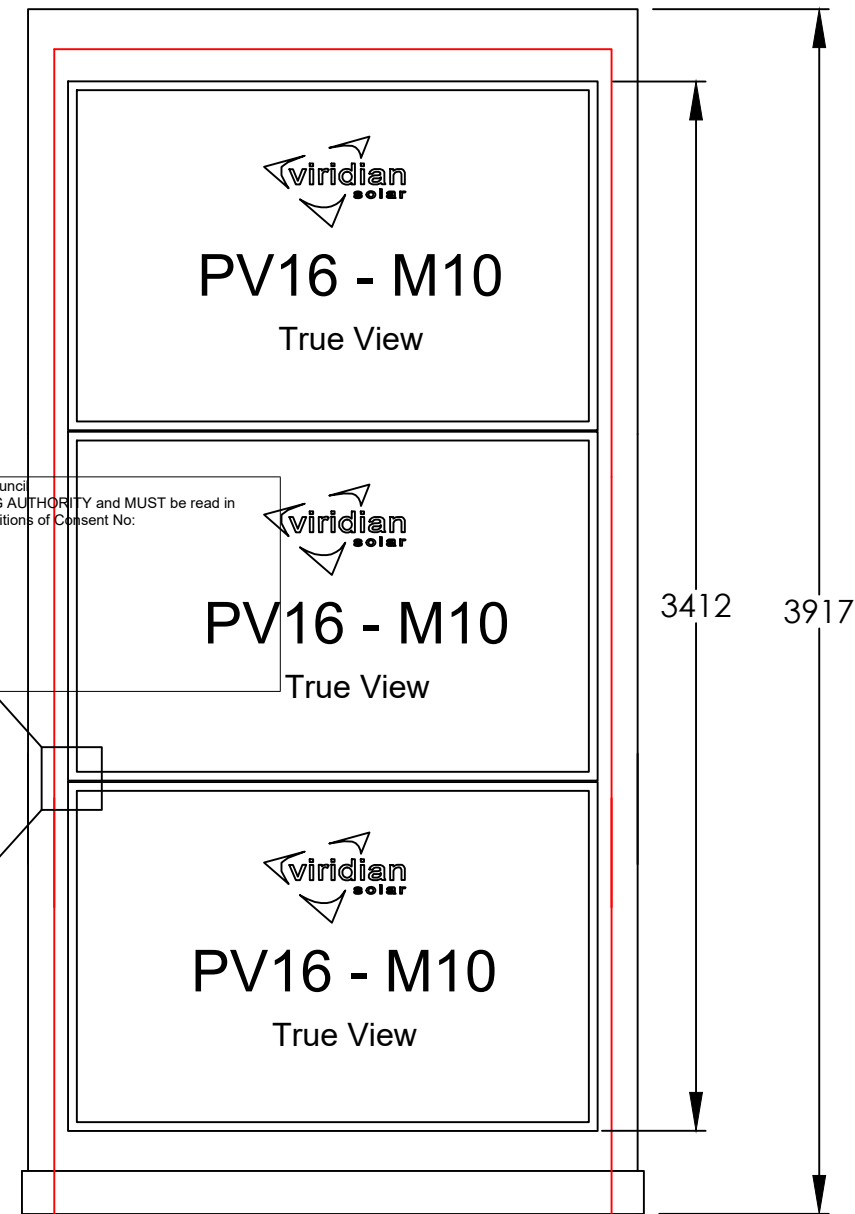
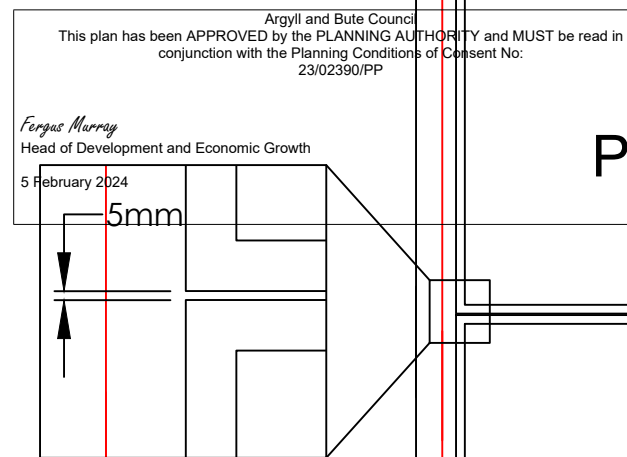
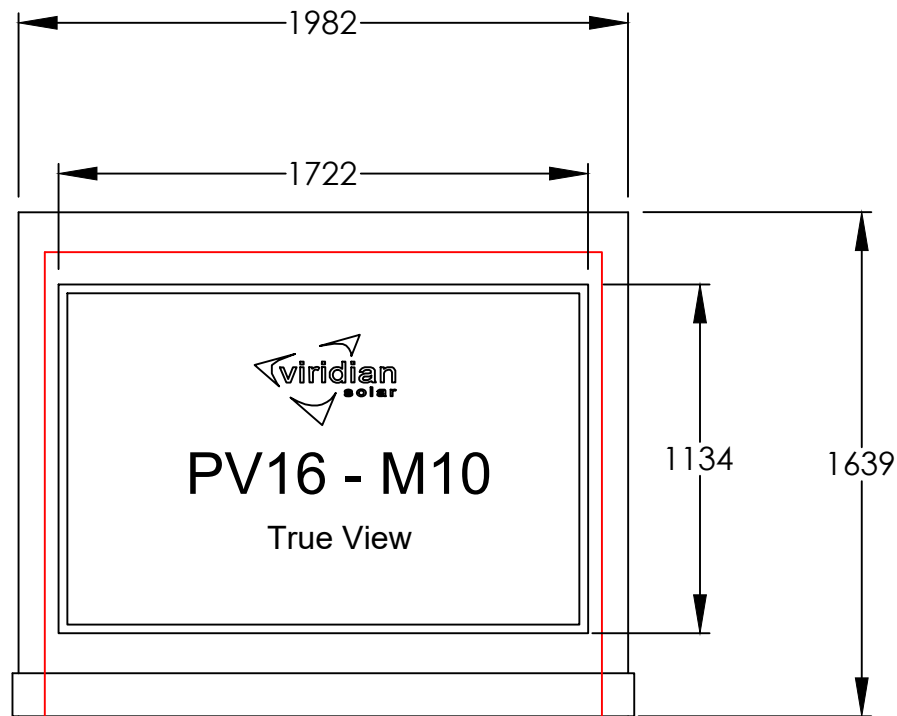
Details of flashing fixing - see sheets 3 to 6.

Red line shows the approximate extent of the tiles/slates - Exact dimension will vary according to roof detail. Please see the Viridian Fusion installation manual.

Viridian Solar  
Atlas Building,  
68 Stirling Way, Papworth,  
Cams. CB23 3GY  
T 01480 831501  
F 01480 831831  
www.viridiansolar.co.uk

TITLE  
Clearline Fusion - PV16-M10  
Integrated Pitched Roof  
Flashing Detail - Landscape

DRAWN DG	CHECKED KTT
DRAWING NUMBER 10 017	Sheet Number 1 of 6
DATE 30.08.22	SCALE NTS



Beyond 3 panels high, add 1139mm for each additional panel to get the overall measurement to the top and bottom flashing edges

Example for 5 Row system:

$$3917 + 1139 + 1139 = 6195\text{mm including flashings}$$

Disclaimer:

This drawing and the information contained within it are the property of Viridian Concepts Ltd. and may not be reproduced without their express permission.

Issue:

0 30.08.22  
Original Issue

DG

Notes:

Weight of solar panels: PV16 - M10 = 25kg  
Where the panels are fitted into a pitched tiled/slate roof, they sit directly on the roof battens with a uniformly distributed load of 12.8kg per m<sup>2</sup>. Roof structure modifications are unlikely to be necessary as this is typically less than the weight of the replaced roof covering.

Details of flashing fixing - see sheets 3 to 6.

Red line shows the approximate extent of the tiles/slates - Exact dimension will vary according to roof detail. Please see the Viridian Fusion installation manual.

Viridian Solar  
Atlas Building,  
68 Stirling Way, Papworth,  
Cams. CB23 3GY  
T 01480 831501  
F 01480 831831  
www.viridiansolar.co.uk

TITLE  
Clearline Fusion - PV16 - M10  
Integrated Pitched Roof  
Flashing Detail - Landscape

DRAWN DG	CHECKED KTT
DRAWING NUMBER 10 017	Sheet Number 2 of 6
DATE 30.08.22	SCALE NTS

Disclaimer:  
This drawing and the information contained within it are the property of Viridian Concepts Ltd. and may not be reproduced without their express permission.

Issue:  
0 30.08.22 Original Issue DG

Notes:  
Weight of solar panels: PV16 - M10 = 25kg  
Where the panels are fitted into a pitched tiled/slate roof, they sit directly on the roof battens with a uniformly distributed load of 12.8kg per m<sup>2</sup>. Roof structure modifications are unlikely to be necessary as this is typically less than the weight of the replaced roof covering.

Details of flashing fixing - see sheets 3 to 6.  
Red line shows the approximate extent of the tiles/slates - Exact dimension will vary according to roof detail. Please see the Viridian Fusion installation manual.



Viridian Solar  
Atlas Building,  
68 Stirling Way, Papworth,  
Cams. CB23 3GY  
T 01480 831501  
F 01480 831831  
www.viridiansolar.co.uk

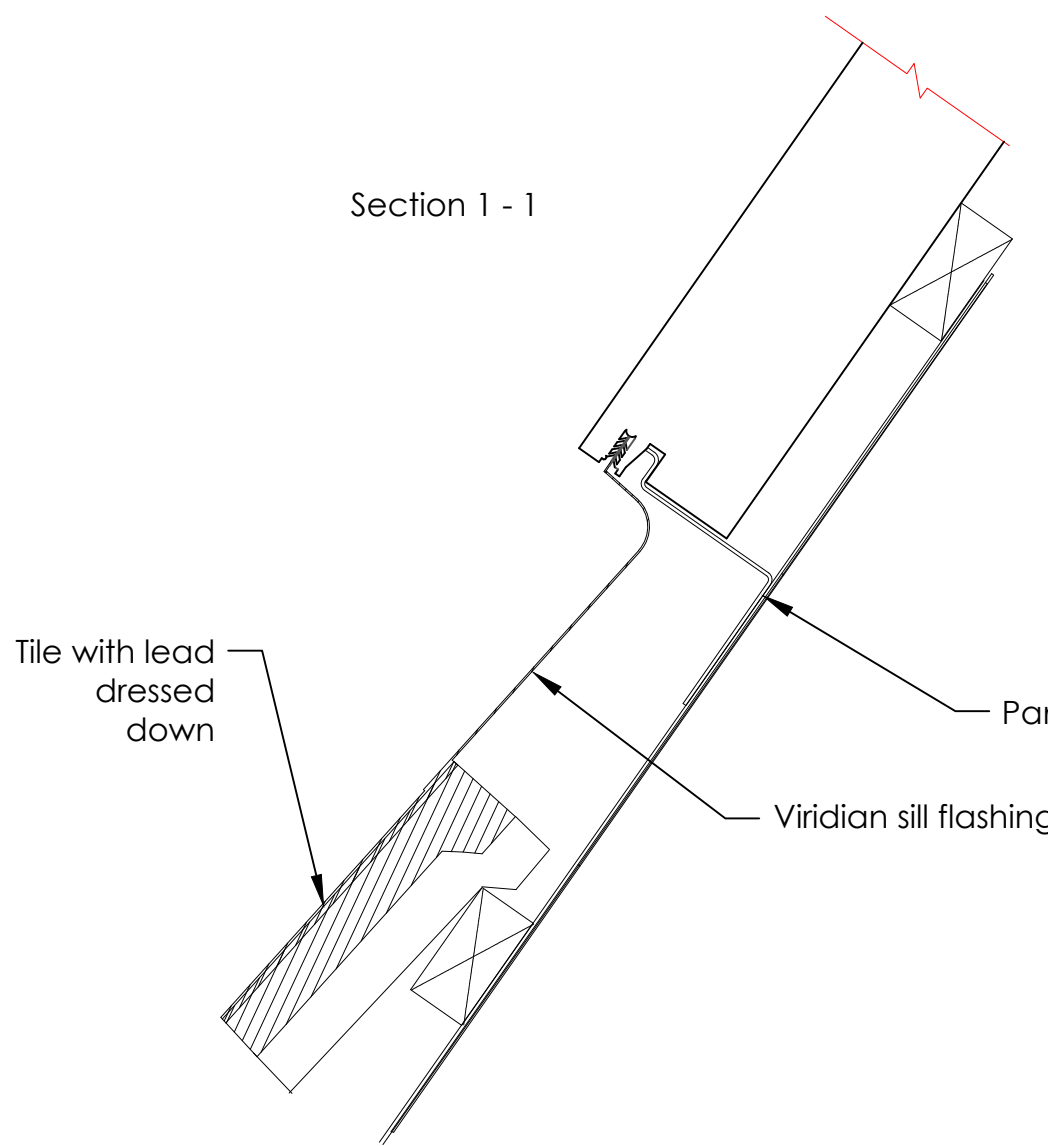
TITLE  
Clearline Fusion - PV16-M10  
Integrated Pitched Roof  
Fixing detail - Tile

DRAWN DG CHECKED KTT

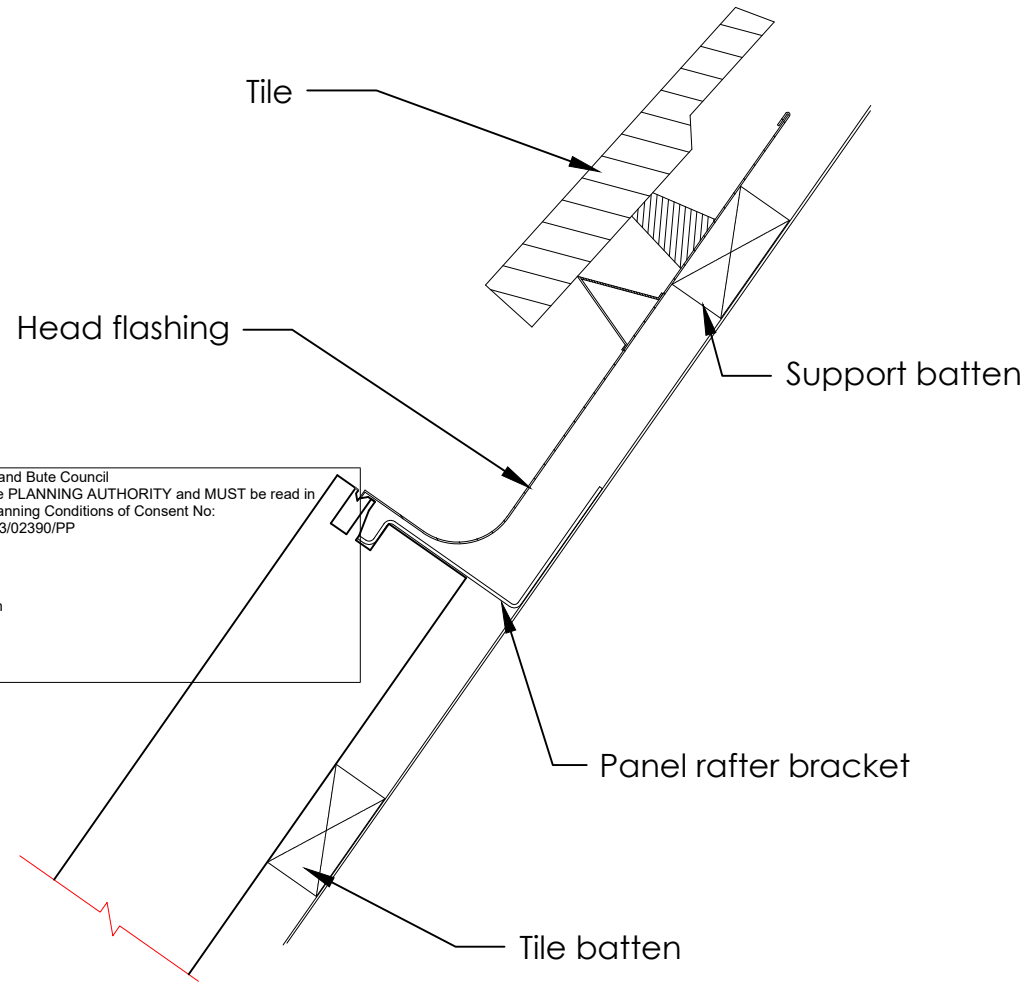
DRAWING NUMBER 10 017 Sheet Number 3 of 6

DATE 30.08.22 SCALE NTS

Section 1 - 1

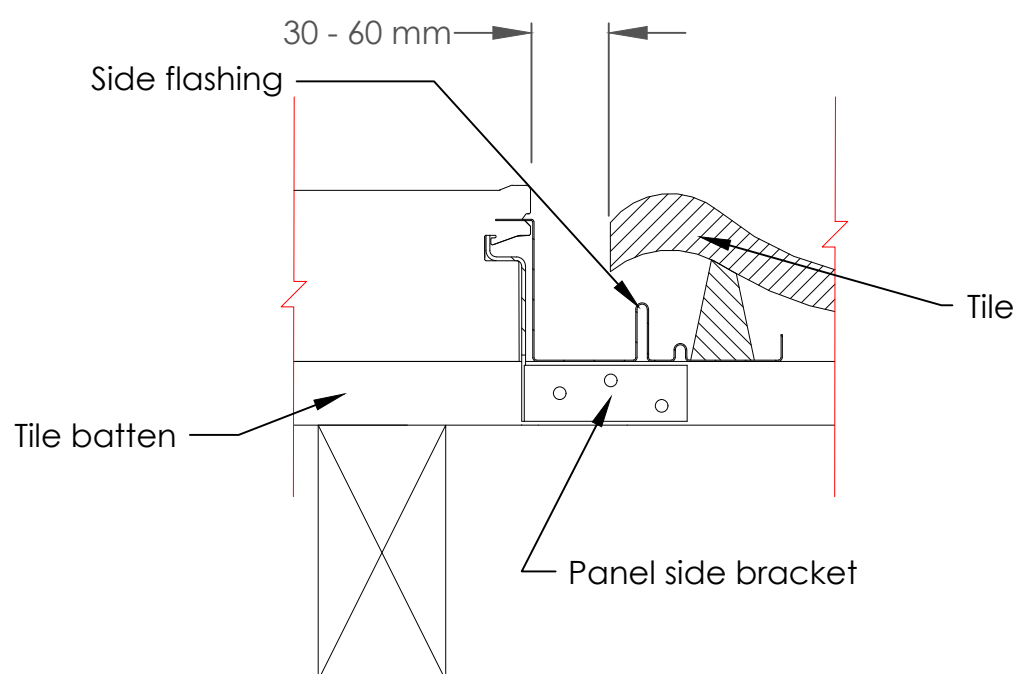


Section 2 - 2

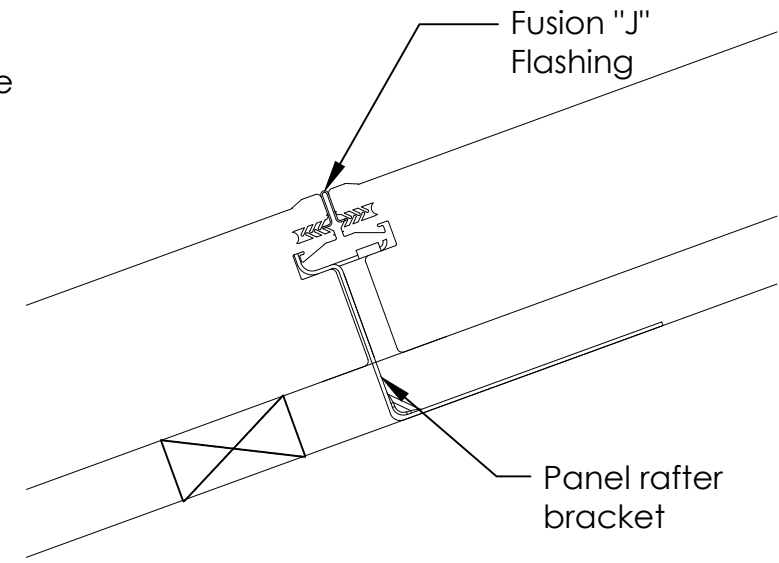


Argyll and Bute Council  
This plan has been APPROVED by the PLANNING AUTHORITY and MUST be read in conjunction with the Planning Conditions of Consent No: 23/02390/PP  
Fergus Murray  
Head of Development and Economic Growth

Section 3 - 3



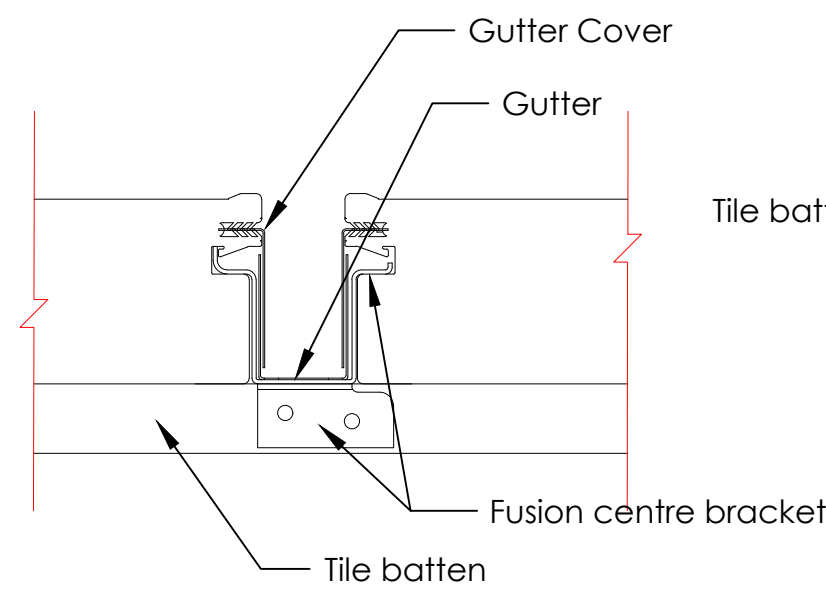
Fusion "J" Flashing



Above-Below Fusion Detail

Gutter Cover

Gutter



Close-Coupled Fusion Detail

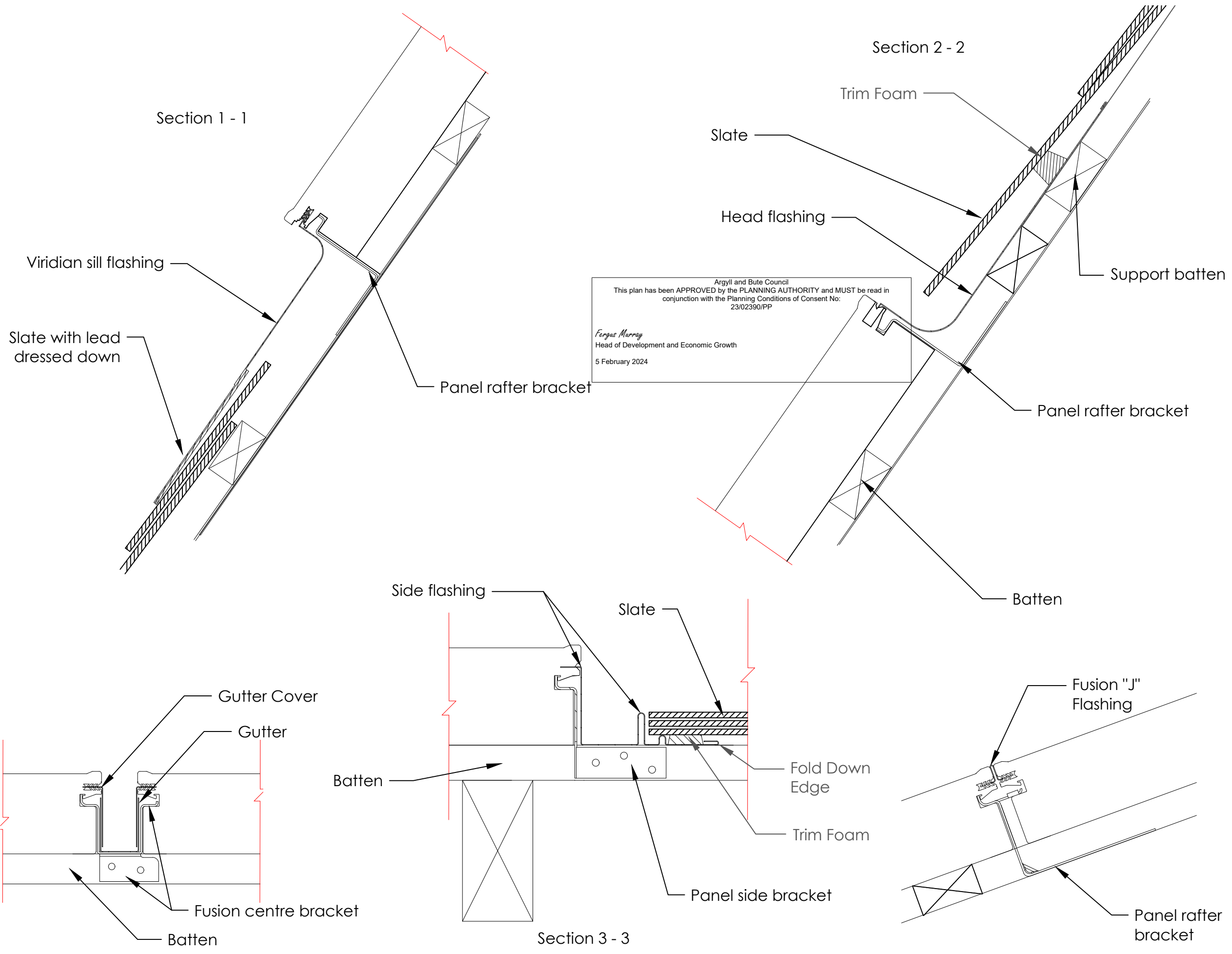
Fusion centre bracket

Tile batten

Panel side bracket

Section 3 - 3

Panel rafter bracket



Disclaimer:  
 This drawing and the information contained within it are the property of Viridian Concepts Ltd. and may not be reproduced without their express permission.

Issue:  
 0 30.08.22 Original Issue DG

Argyll and Bute Council  
 This plan has been APPROVED by the PLANNING AUTHORITY and MUST be read in conjunction with the Planning Conditions of Consent No: 23/02390/PP  
 Fergus Murray  
 Head of Development and Economic Growth  
 5 February 2024

Notes:  
 Weight of solar panels: PV16 - M10 = 25kg  
 Where the panels are fitted into a pitched tiled/slate roof, they sit directly on the roof battens with a uniformly distributed load of 12.8kg per m<sup>2</sup>. Roof structure modifications are unlikely to be necessary as this is typically less than the weight of the replaced roof covering.

Details of flashing fixing - see sheets 3 to 6.

Red line shows the approximate extent of the tiles/slates - Exact dimension will vary according to roof detail. Please see the Viridian Fusion installation manual.

Viridian Solar  
 Atlas Building,  
 68 Stirling Way, Papworth,  
 Cambs. CB23 3GY  
 T 01480 831501  
 F 01480 831831  
 www.viridiansolar.co.uk

TITLE  
 Clearline Fusion - PV16-M10  
 Integrated Pitched Roof  
 Fixing Detail - Slate

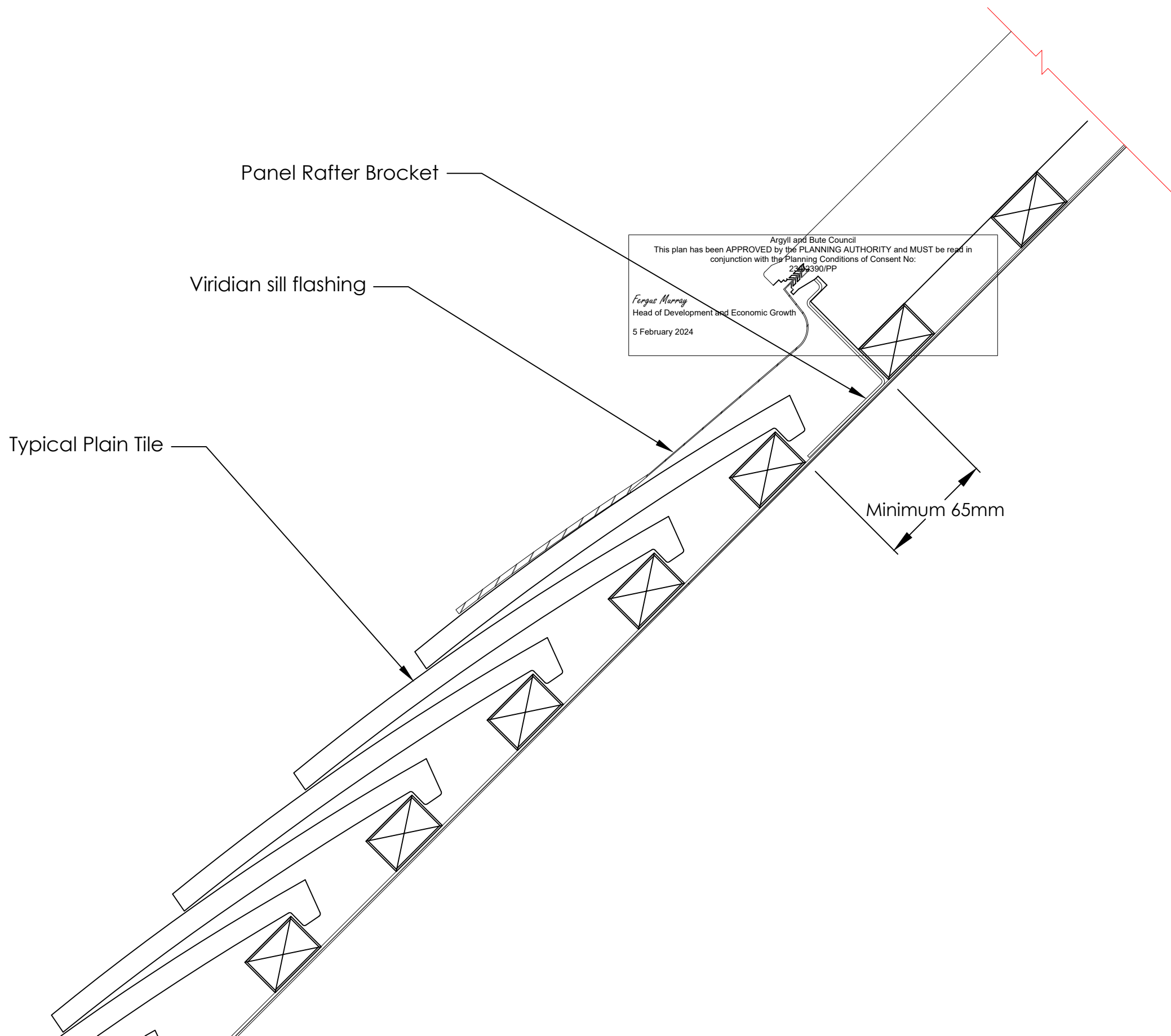
DRAWN DG CHECKED KTT

DRAWING NUMBER 10 017 Sheet Number 4 of 6

DATE 30.08.22 SCALE NTS

Close-Coupled Fusion Detail

Above-Below Fusion Detail



Disclaimer:

This drawing and the information contained within it are the property of Viridian Concepts Ltd. and may not be reproduced without their express permission.

Issue:

0 30.08.22  
Original Issue

DG

Notes:

Weight of solar panels: PV16 - M10 = 25kg  
Where the panels are fitted into a pitched tiled/slate roof, they sit directly on the roof battens with a uniformly distributed load of 12.8kg per m<sup>2</sup>. Roof structure modifications are unlikely to be necessary as this is typically less than the weight of the replaced roof covering.

Details of flashing fixing - see sheets 3 to 6.

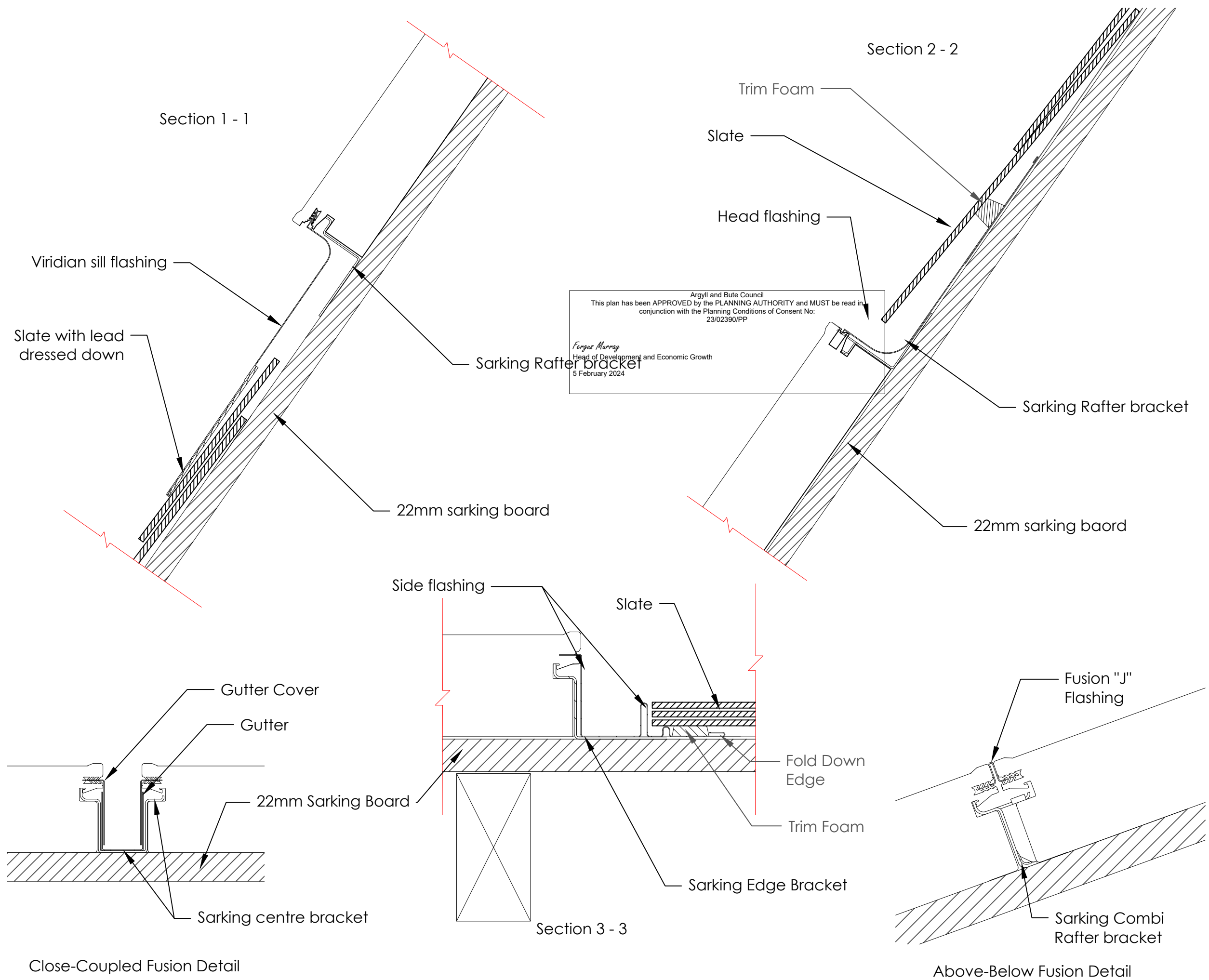
Red line shows the approximate extent of the tiles/slates - Exact dimension will vary according to roof detail. Please see the Viridian Fusion installation manual.



Viridian Solar  
Atlas Building,  
68 Stirling Way, Papworth,  
Cams. CB23 3GY  
T 01480 831501  
F 01480 831831  
www.viridiansolar.co.uk

TITLE  
Clearline Fusion - PV16-M10  
Integrated Pitched Roof  
Fixing Detail - Plain Tile

DRAWN DG	CHECKED KTT
DRAWING NUMBER 10 017	Sheet Number 5 of 6
DATE 30.08.22	SCALE NTS



Argyll and Bute Council  
 This plan has been APPROVED by the PLANNING AUTHORITY and MUST be read in conjunction with the Planning Conditions of Consent No: 23/02390/PP  
 Fergus Murray  
 Head of Development and Economic Growth  
 5 February 2024

Disclaimer:  
 This drawing and the information contained within it are the property of Viridian Concepts Ltd. and may not be reproduced without their express permission.

Issue:  
 0 30.08.22 Original Issue DG

Notes:  
 Weight of solar panels: PV16 - M10 = 25kg  
 Where the panels are fitted into a pitched tiled/slate roof, they sit directly on the roof battens with a uniformly distributed load of 12.8kg per m<sup>2</sup>. Roof structure modifications are unlikely to be necessary as this is typically less than the weight of the replaced roof covering.

Details of flashing fixing - see sheets 3 to 6.

Red line shows the approximate extent of the tiles/slates - Exact dimension will vary according to roof detail. Please see the Viridian Fusion installation manual.

Viridian Solar  
 Atlas Building,  
 68 Stirling Way, Papworth,  
 Cambs. CB23 3GY  
 T 01480 831501  
 F 01480 831831  
 www.viridiansolar.co.uk

TITLE  
 Clearline Fusion - PV16-M10  
 Integrated Pitched Roof  
 Fixing Detail - Slate Sarking

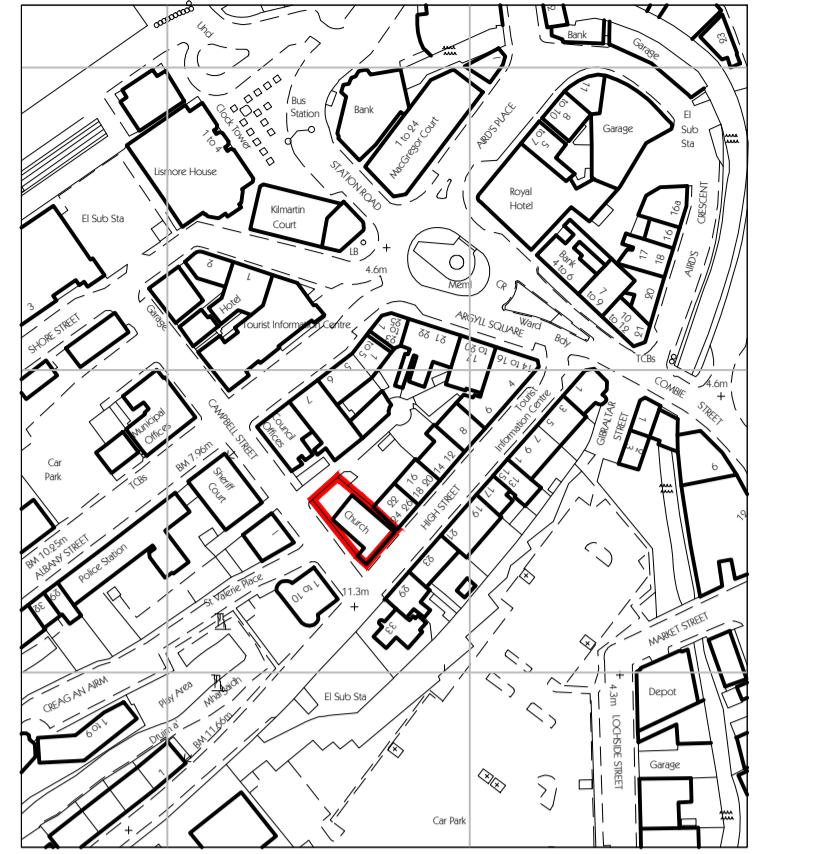
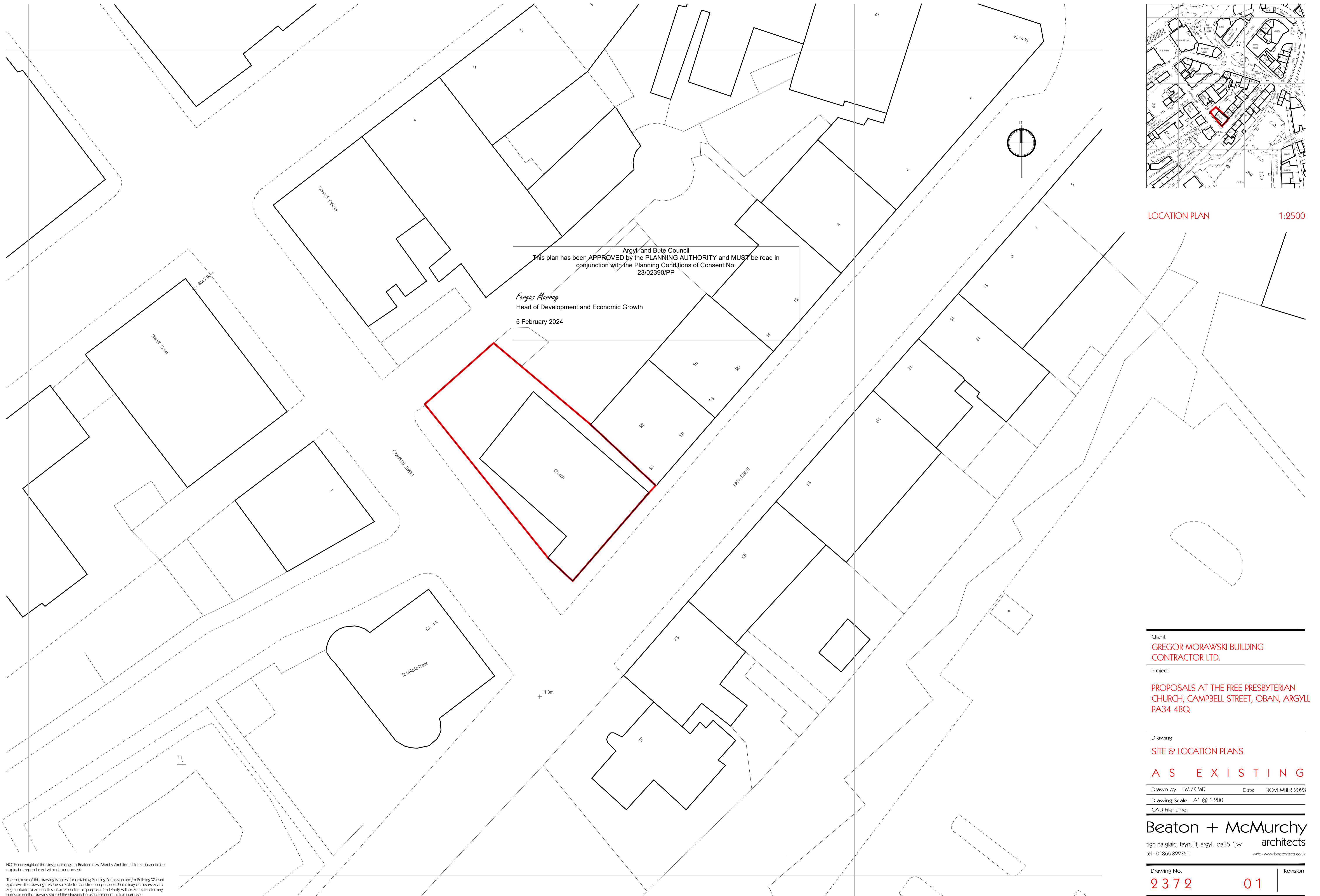
DRAWN DG CHECKED KTT

DRAWING NUMBER 10 017 Sheet Number 6 of 6

DATE 30.08.22 SCALE NTS

Close-Coupled Fusion Detail

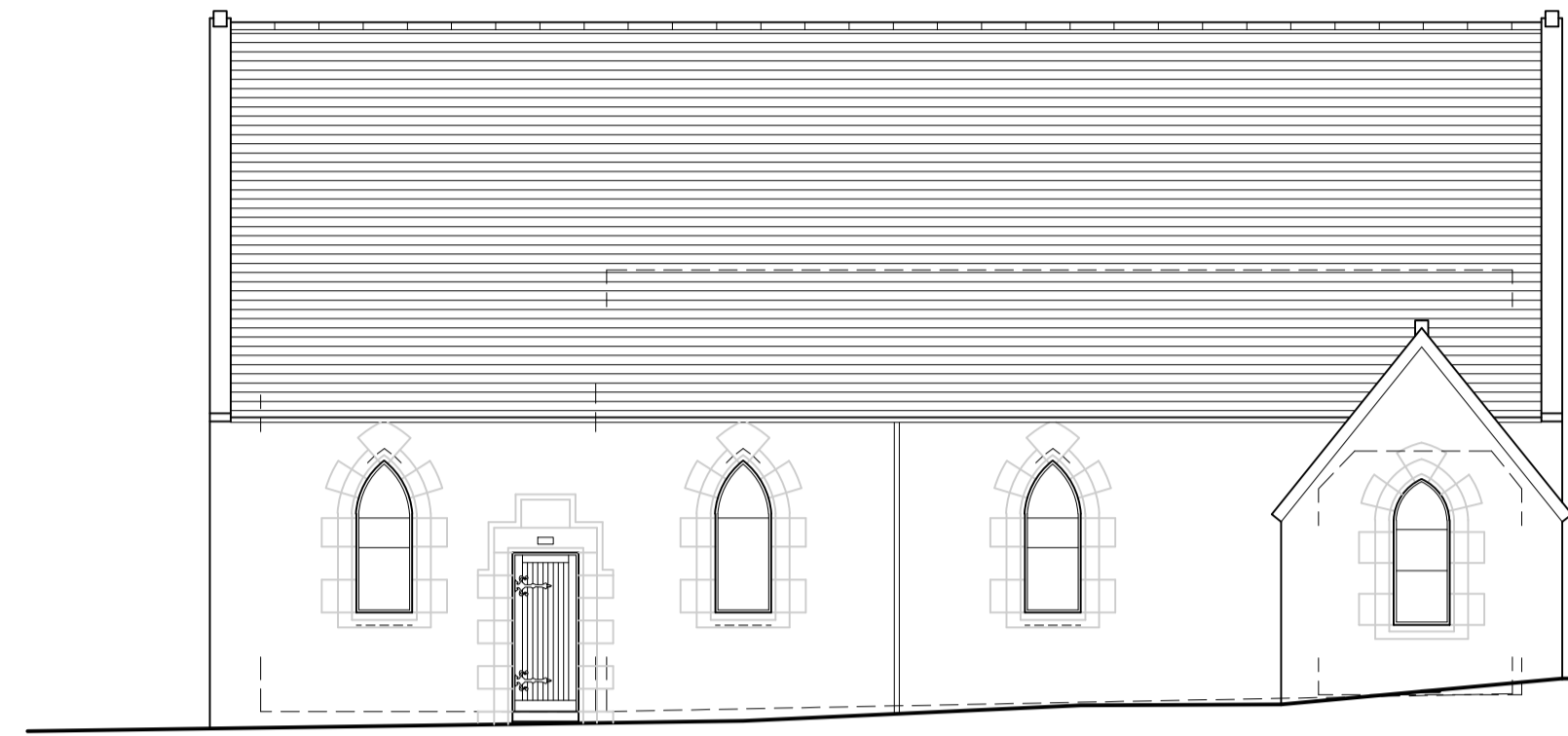
Above-Below Fusion Detail



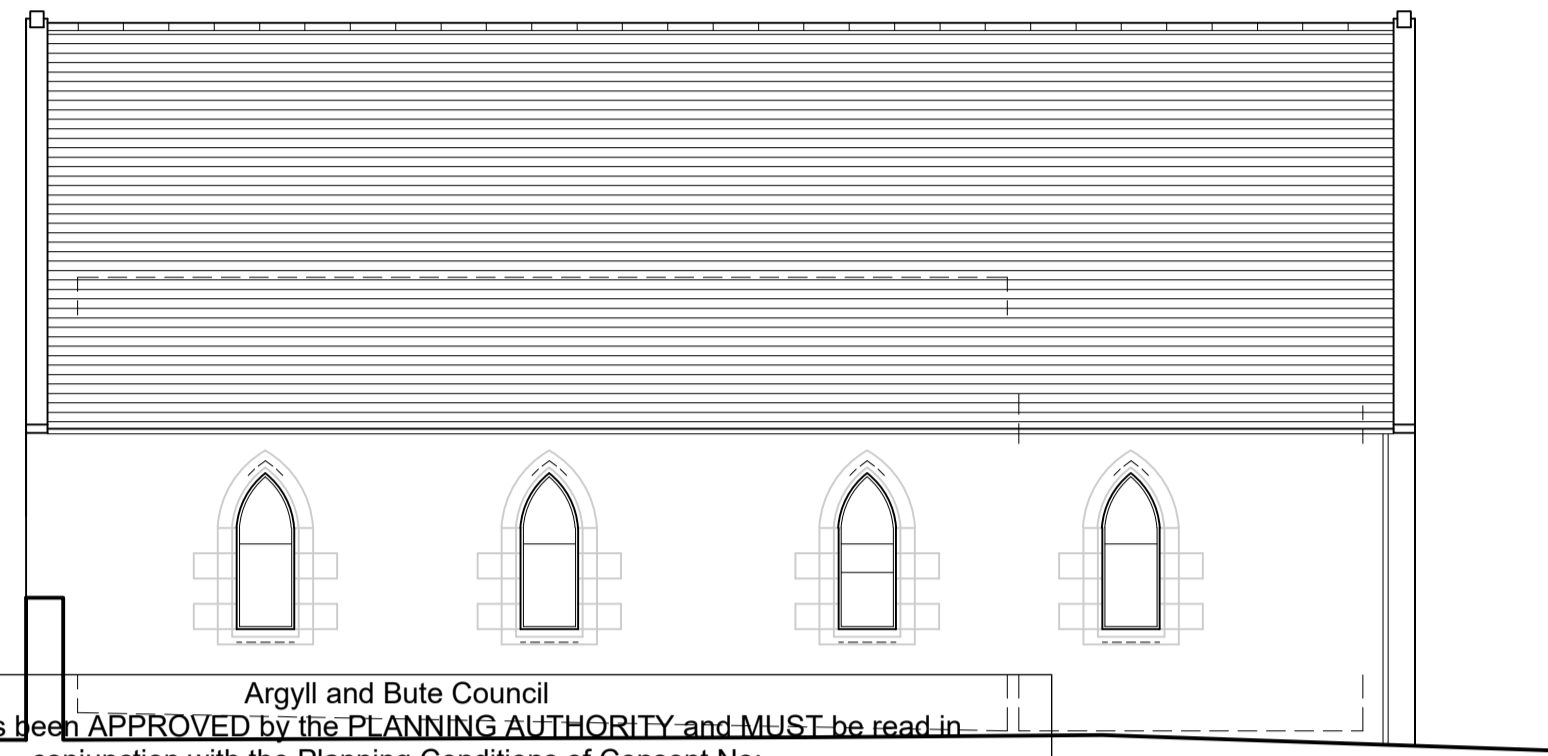
LOCATION PLAN 1:2500

Client	GREGOR MORAWSKI BUILDING CONTRACTOR LTD.	
Project	PROPOSALS AT THE FREE PRESBYTERIAN CHURCH, CAMPBELL STREET, OBAN, ARGYLL PA34 4BQ	
Drawing	SITE & LOCATION PLANS	
<b>A S E X I S T I N G</b>		
Drawn by	EM / CMD	Date: NOVEMBER 2023
Drawing Scale:	A1 @ 1:200	
CAD Filename:		
<b>Beaton + McMurphy</b> architects		
tigh na gjaic, tayruilt, argyll. pa35 1jw tel - 01866 829350 web - www.bmarchitects.co.uk		
Drawing No.	2372	01
Revision		

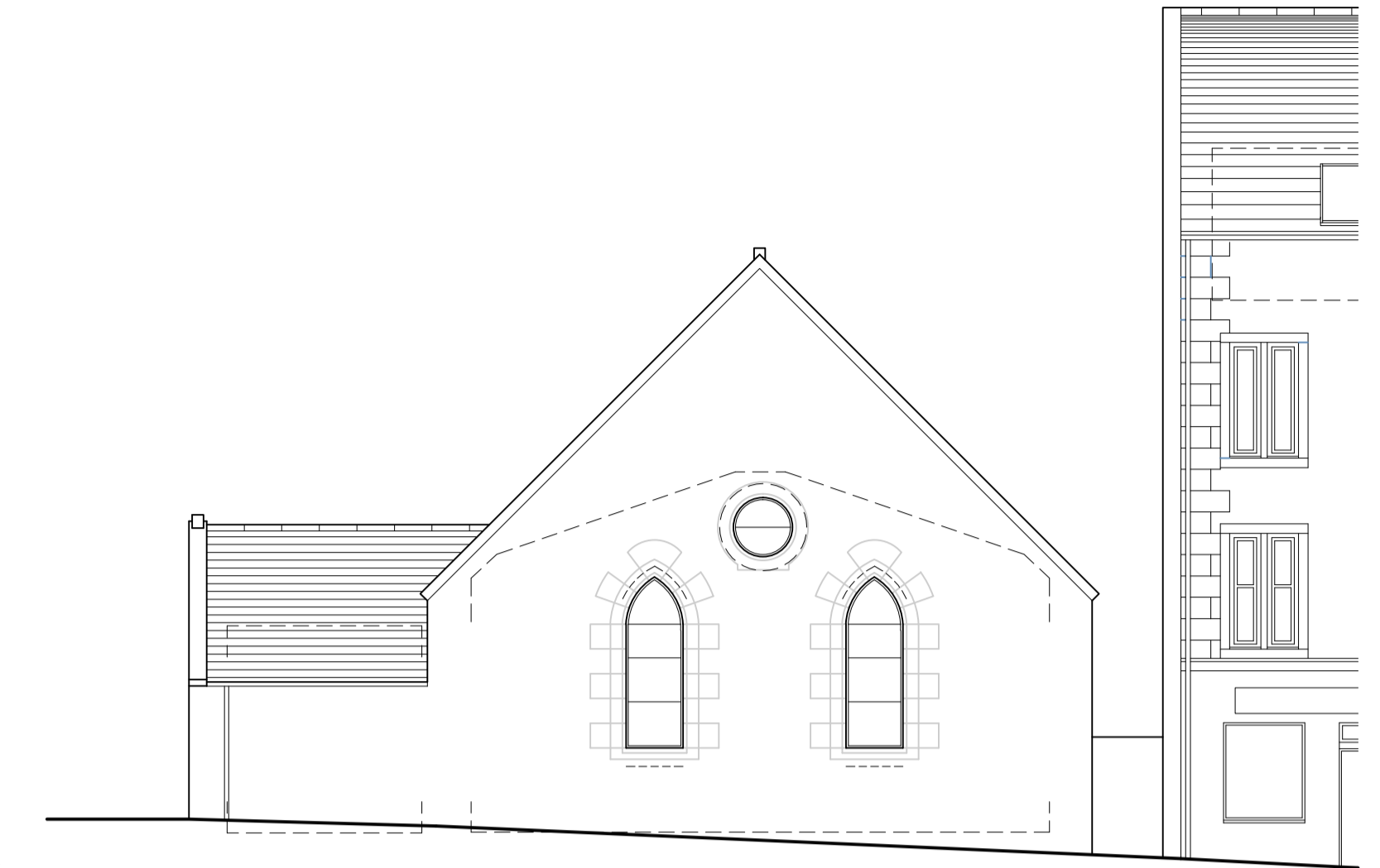
NOTE: copyright of this design belongs to Beaton + McMurphy Architects Ltd. and cannot be copied or reproduced without our consent.  
The purpose of this drawing is solely for obtaining Planning Permission and/or Building Warrant approval. The drawing may be suitable for construction purposes but it may be necessary to augment/and or amend this information for this purpose. No liability will be accepted for any omission on this drawing should the drawing be used for construction purposes.



front (southwest) elevation

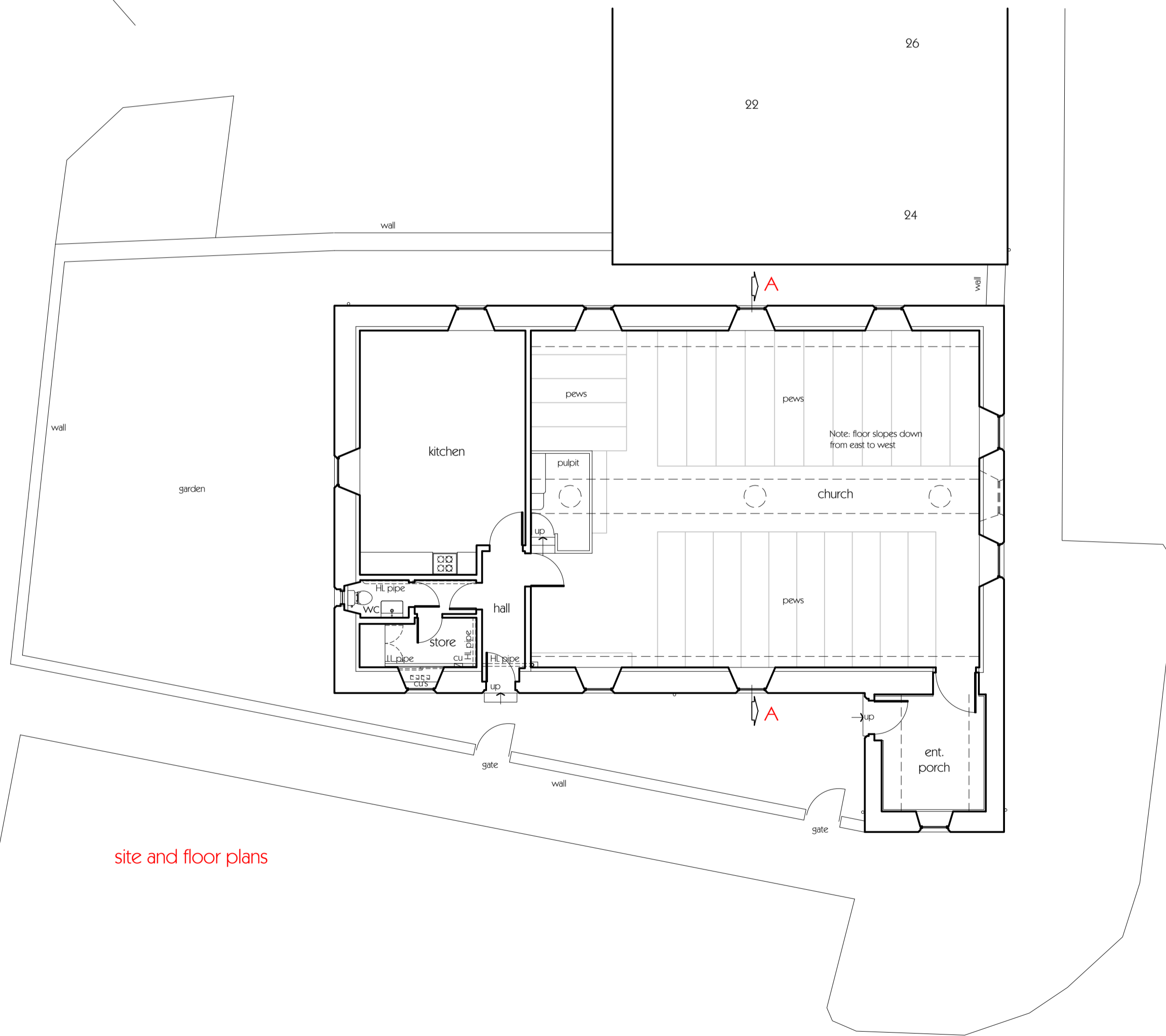
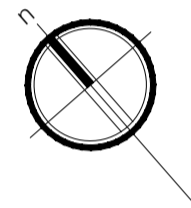


rear (northeast) elevation

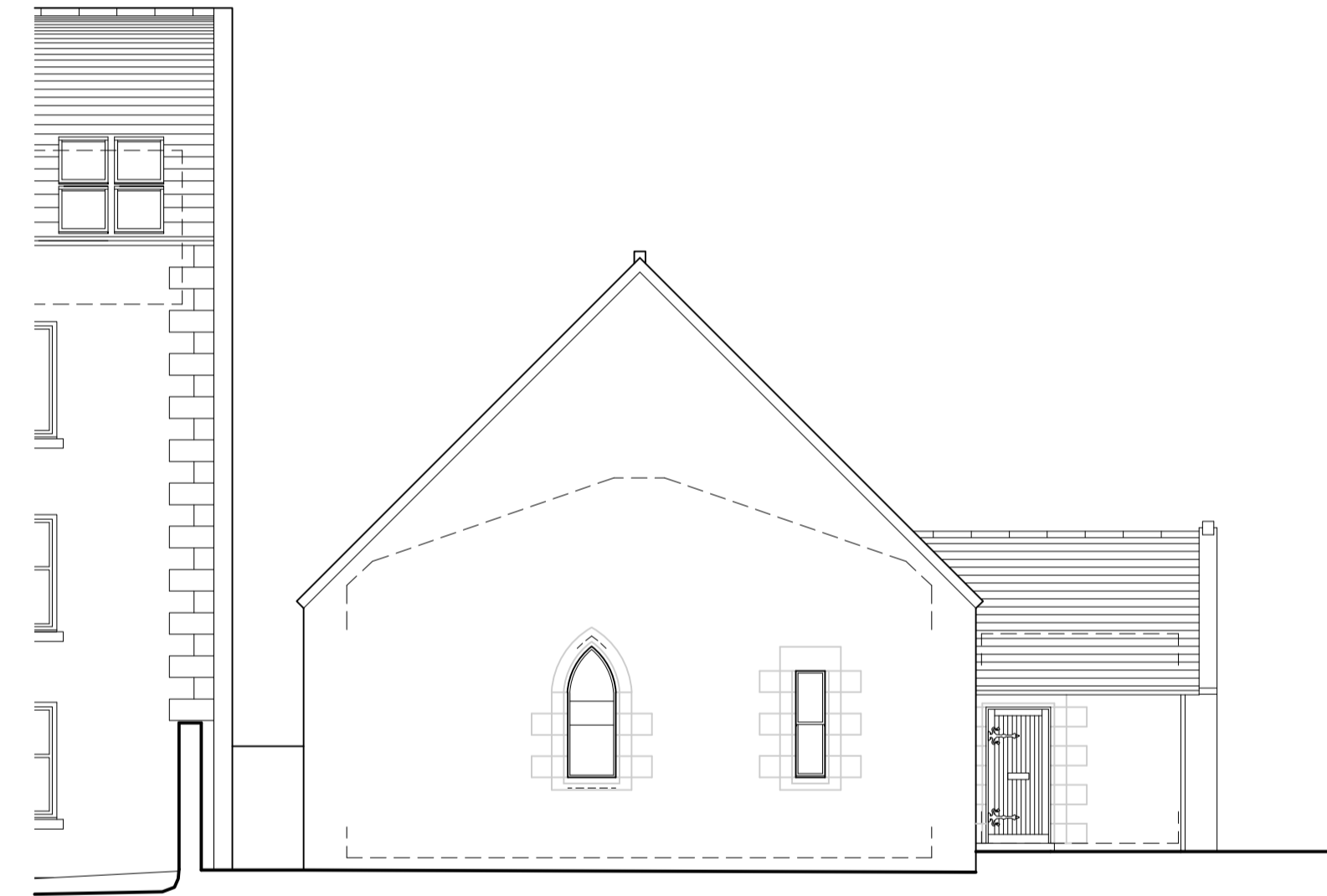


side (southeast) elevation

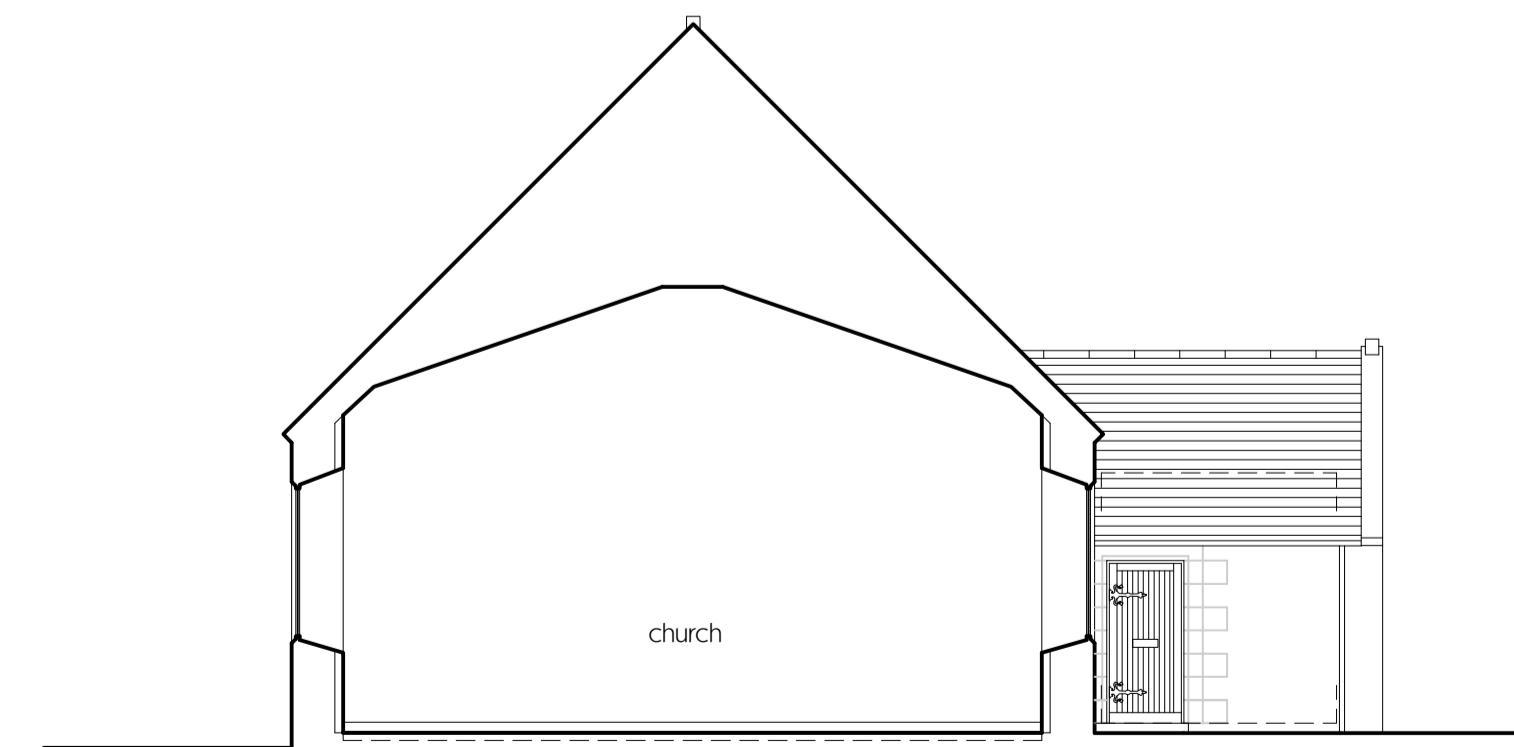
Argyll and Bute Council  
 This plan has been APPROVED by the PLANNING AUTHORITY and MUST be read in conjunction with the Planning Conditions of Consent No: 23/02390/PP  
 Fergus Murray  
 Head of Development and Economic Growth  
 5 February 2024



site and floor plans



side (northwest) elevation



section AA

Revision A - gate added / 13.10.23

Client  
**GREGOR MORAWSKI BUILDING CONTRACTOR LTD.**  
 Project  
**PROPOSALS AT THE FREE PRESBYTERIAN CHURCH, CAMPBELL STREET, OBAN, ARGYLL PA34 4BQ**

Drawing  
**PLANS, SECTION & ELEVATIONS**  
**A S E X I S T I N G**  
 Drawn by EM / CMD Date: NOVEMBER 2023  
 Drawing Scale: A1 @ 1:100  
 CAD Filename:

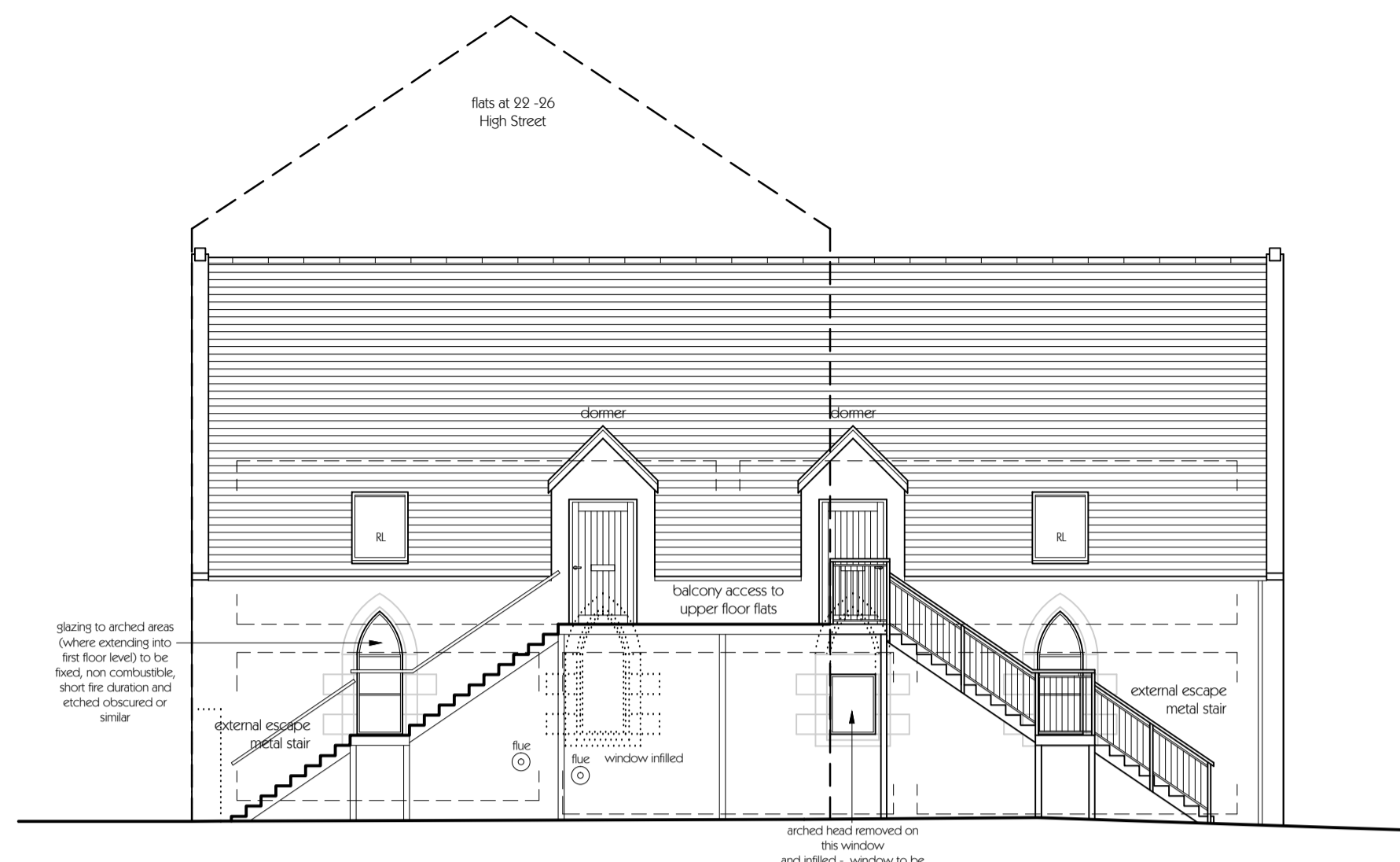
**Beaton + McMurphy**  
 tigh na gjaic, taynuilt, argyll. pa35 1jw architects  
 tel - 01866 829350 web - www.bmarchitects.co.uk

Drawing No. **2372** | Revision **02** | **A**

NOTE: copyright of this design belongs to Beaton + McMurphy Architects Ltd. and cannot be copied or reproduced without our consent.  
 The purpose of this drawing is solely for obtaining Planning Permission and/or Building Warrant approval. The drawing may be suitable for construction purposes but it may be necessary to augment/and or amend this information for this purpose. No liability will be accepted for any omission on this drawing should the drawing be used for construction purposes.

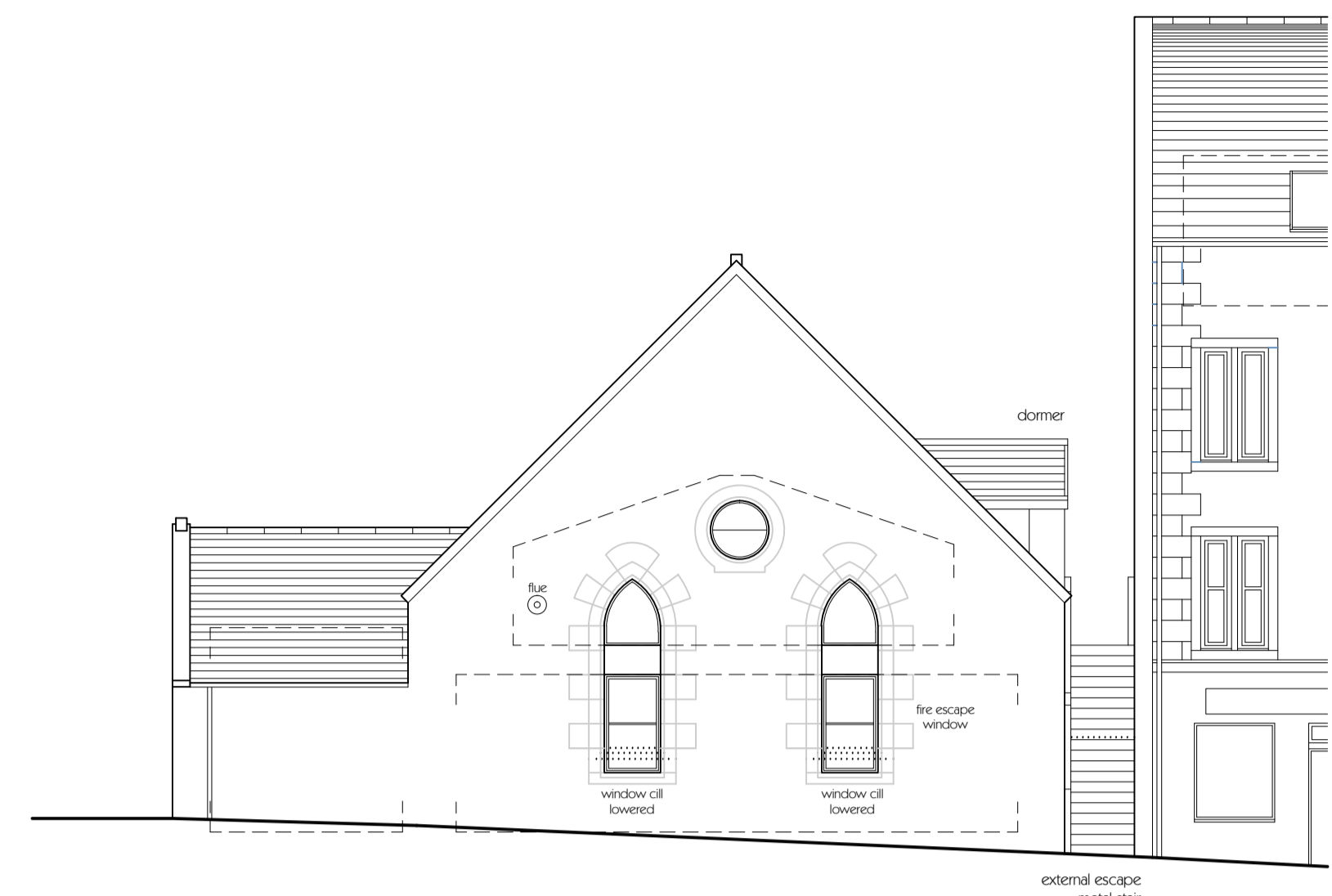


front (southwest) elevation



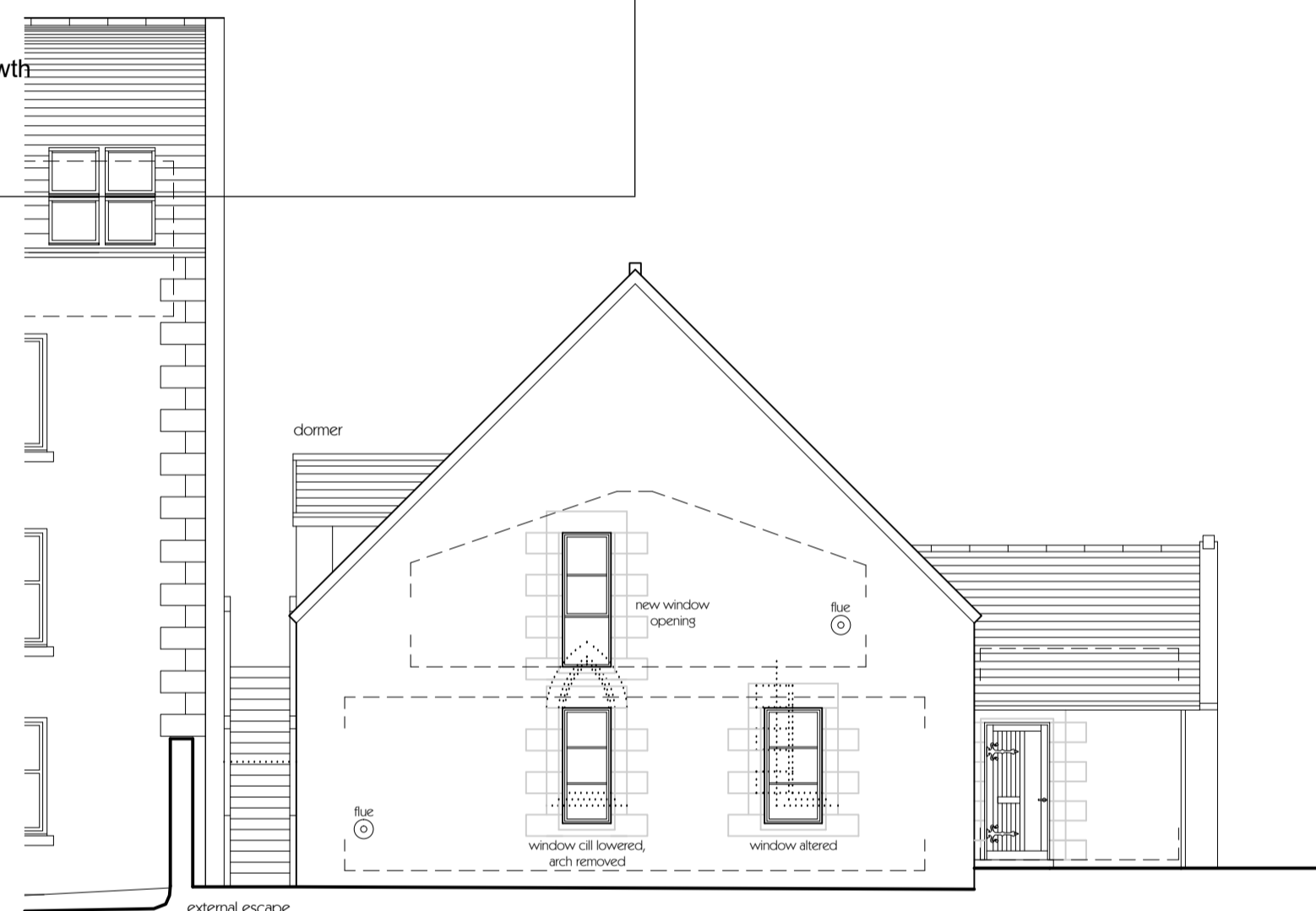
rear (northeast) elevation Argyll and Bute Council  
 This plan has been APPROVED by the PLANNING AUTHORITY and MUST be read in conjunction with the Planning Conditions of Consent No: 23/02390/PP

Fergus Murray  
 Head of Development and Economic Growth  
 5 February 2024

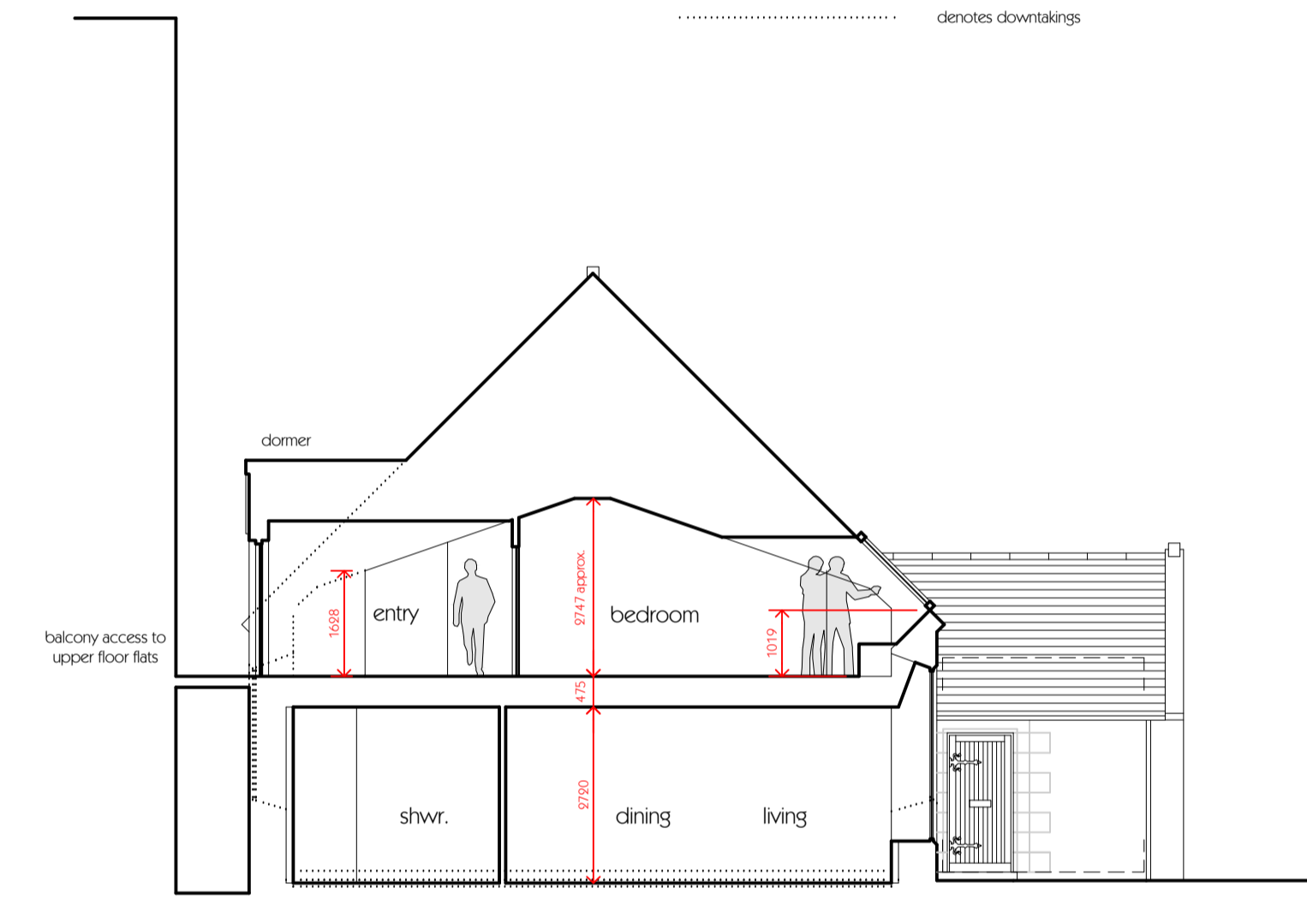


side (southeast) elevation

NOTE:  
 ..... denotes downlights



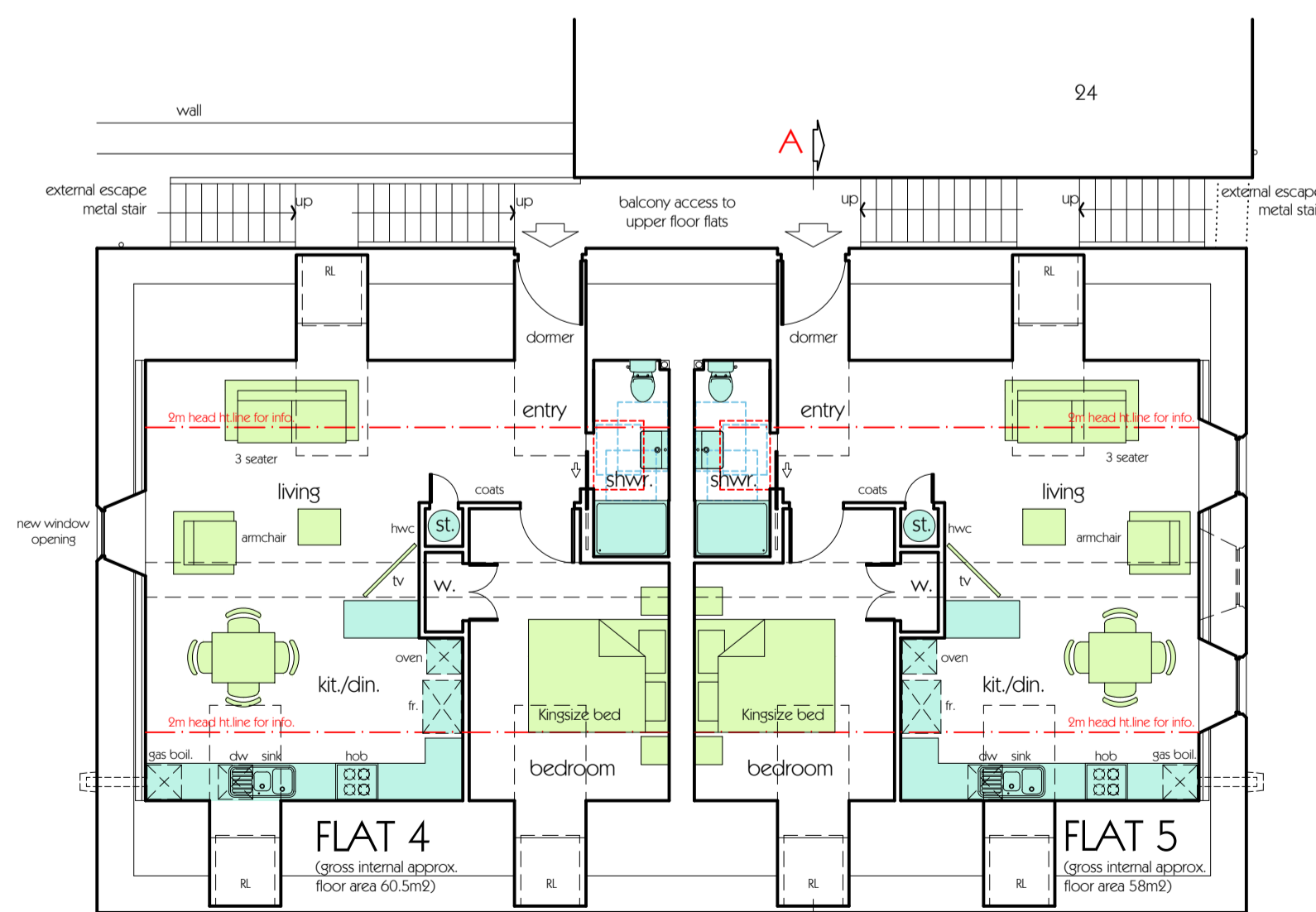
side (northwest) elevation



section AA



site and floor plans



first floor plan

Revision A: drawing amended following discussion with client, Building Standards and energy consultant / 13.10.23

Client  
**GREGOR MORAWSKI BUILDING CONTRACTOR LTD.**

Project  
**PROPOSALS AT THE FREE PRESBYTERIAN CHURCH, CAMPBELL STREET, OBAN, ARGYLL PA34 4BQ**

Drawing  
**PLANS, SECTION & ELEVATIONS**

**S C H E M E D E S I G N**

Drawn by EM / CMD Date: NOVEMBER 2023

Drawing Scale: A1 @ 1:100

CAD Filename:

**Beaton + McMurphy**  
 tigh na glaic, taynuilt, argyll. pa35 1jw architects  
 tel - 01866 829350 web - www.bmarchitects.co.uk

Drawing No. **2372** | Revision **03** | **A**

NOTE: copyright of this design belongs to Beaton + McMurphy Architects Ltd. and cannot be copied or reproduced without our consent.  
 The purpose of this drawing is solely for obtaining Planning Permission and/or Building Warrant approval. The drawing may be suitable for construction purposes but it may be necessary to augment and/or amend this information for this purpose. No liability will be accepted for any omission on this drawing should the drawing be used for construction purposes.

Argyll and Bute Council  
This plan has been APPROVED by the PLANNING AUTHORITY and MUST be read in  
conjunction with the Planning Conditions of Consent No:  
23/02390/PP

*Fergus Murray*  
Head of Development and Economic Growth  
5 February 2024

Clearline  
fusion

The logo for Clearline Fusion, consisting of a stylized white starburst or sunburst icon to the left of the word "fusion" in a bold, sans-serif font.

roof integrated solar PV



Clearline  
 fusion

solar never  
 looked  
 so good

Argyll and Bute Council  
This plan has been APPROVED by the PLANNING AUTHORITY and MUST be read in  
conjunction with the Planning Conditions of Consent No.  
23/02390/PP

*Fergus Murray*  
Head of Development and Economic Growth  
15 February 2024

# Clearline

## fusion

Solar power has moved beyond government subsidy to become a home improvement option, and as a result its kerb-appeal is more important than ever. With Clearline Fusion, integrated solar has come of age and the highest quality and aesthetics are available at a price that is competitive with rack-mounted above-roof solar.

## Why Roof Integration?

Roof-integrated solar has always been the obvious choice when refurbishing or building a new roof. Clearline Fusion brings high quality roof integration within reach for retrofit applications. Now more people can benefit from the advantages of going in-roof.

- **Aesthetics**

Roof integrated panels sit lower to the roofline, without brackets and racking on show, to look like an intended part of the roof.

- **Roof maintenance**

The roof covering can be easily maintained or replaced without the cost of dismantling a solar installation. Problems associated with bird infestation are avoided.



Atyrland Eire Council  
This plan has been APPROVED by the PLANNING AUTHORITY and MUST be read in  
conjunction with the Planning Conditions of Consent No.  
23/02390/PP

Fergus Murray  
Head of Development and Economic Growth  
3 February 2024



Available in a range of panel power output and styles

## Why Clearline Fusion?

- **Economical**

Price is comparable with above-roof systems.

- **Rapid**

Installation times of less than 1 hour per kilowatt-peak are easily attainable. Our patented connection method means that panels are simply pushed together to create a weather-tight and secure fixing.

- **Compact**

Industry-leading panel spacing. The gap between rows is only 5mm. Columns are spaced by 30mm.

- **Sleek**

Invisible clamps give an uncluttered aesthetic. Panel spacing is automatically set to give consistently accurate shut-lines.

- **Simple**

Fusion achieves exceptional fire performance, wind resistance and weather tightness without extra roof battens, adhesive flashing rolls or fire proofing materials. Everything you need is right there in the kit.

- **Robust**

Certified wind resistance is more than four times higher than competitor products.

- **Universal**

Works with all commonly used tiles and slates, including slate over sarking.



Go Green Systems

## Specification

Thickness	mm	69
Static roof loading (distributed)	kg / m <sup>2</sup>	12.9
Characteristic Wind Resistance	kPa	5.32
Ultimate Design Load <sup>1</sup>	kPa	5.32
Fire Rating to BS 476-3		AA
Standards		MCS012
Roof pitch		20 - 60°
Compatible roof coverings		Plain tile, Interlocking tile, Natural and artificial slate

<sup>1</sup> Design resistance to ultimate loads includes a partial material safety factor of 1.0

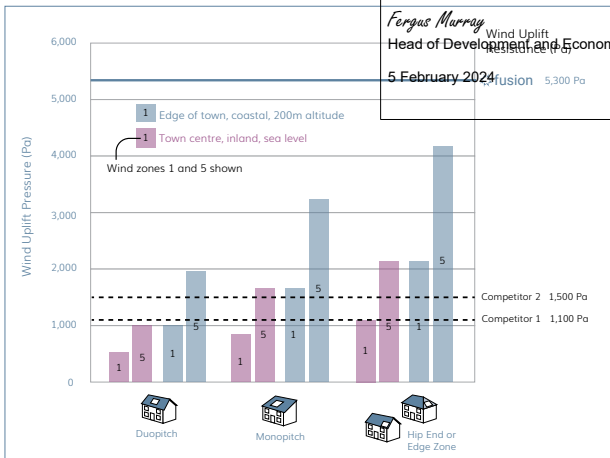


## Building Regulations

This plan has been APPROVED by the PLANNING DEPARTMENT in conjunction with the Planning Conditions of Consent No. 23/02390/PP

Argyll and Bute Council  
Planning Department  
This plan should be read in conjunction with the Planning Conditions of Consent No. 23/02390/PP

Fergus Murray  
Head of Development and Economic Growth  
5 February 2024

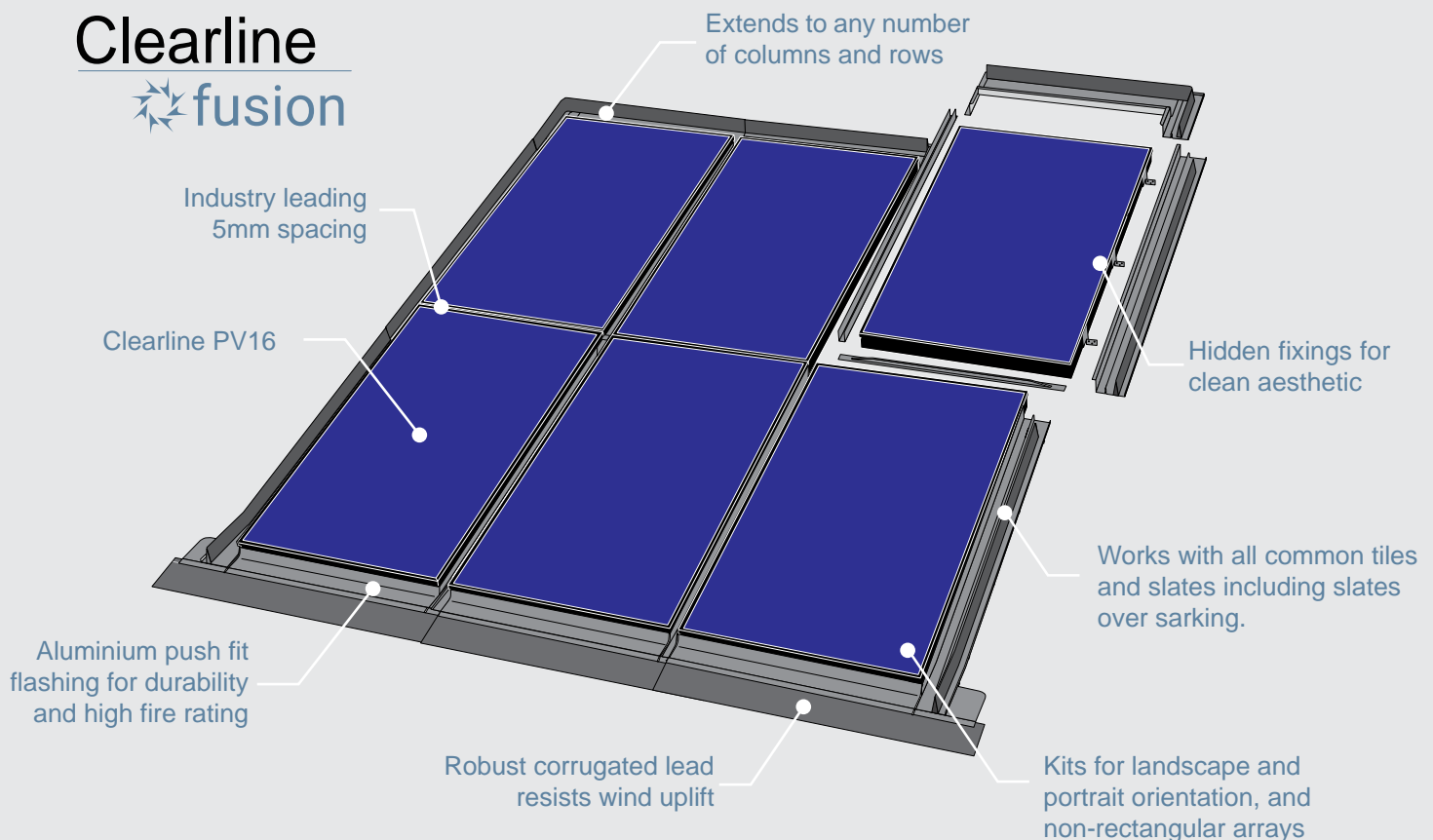


The certified wind resistance for Clearline Fusion is more than four times higher than competitor products and ready for even the most exposed locations (see chart).

Clearline Fusion is the only roof-integrated solar system accredited with the highest resistance to spread of flame and fire penetration in all European fire safety tests, achieving BRoof T1, T2, T3 and T4.



## Clearline fusion



# solar never looked so good



## Viridian Solar

Viridian Solar is a manufacturer of roof integrated solar photovoltaic roofing systems. Based in Cambridge, UK the company has a track record of innovation spanning more than a decade.

Since it was founded by engineers from the university, Viridian Solar has established a strong reputation around the world for the durability, aesthetics and quality of its products.

available from

Viridian Solar  
68 Stirling Way,  
Papworth,  
Cambridge UK CB23 3GY

Tel +44 1480 839 865  
enquiries@viridiansolar.co.uk