Revised Heritage, Design and Access Statement

Royal Cornwall Museum – Re-roofing, Improvement Works and Repairs

Update 9th October 2022 CGH/7377

1.00 Introduction

1.01 This application is being made following a quinquennial inspections undertaken in 2012 and 2018 and following consent gained from a previous application reference PA13/11541 from 2014 that has lapsed. The reports have identified several defective areas externally that require attention. In addition we have successfully applied for the first stages of funding from The Arts Council Culture Recovery Fund and have had a visit by Historic England in relation to this. This application is focused on improvements to the rainwater disposal to the north side of the building, the re-roofing of the pitched roof slopes of the building, new covering and detailing to flat roof areas and repairs to some of the walling to the north side of the building. All work will be external.

2.00 Significance

2.01 The Royal Cornwall Museum is a Grade II listed building to the north side of River Street in Truro. It has been linked by a C20 structure to the neighbouring former Baptist Chapel to the east, also listed grade II. The museum currently utilises the upper floor of the chapel for exhibition displays within the Trefry room and the lower floor is an art store (Truro Arts) with an open link through to the cafe to the east of the main museum reception.

2.02 The museum belongs to the Royal Institution of Cornwall and the RIC has been housed in the museum building since 1919. The RIC was founded in 1818 for "the promotion of knowledge in natural history, ethnology and the fine and industrial arts, especially in relation to Cornwall."

2.03 The museum is a former savings bank that was designed by Philip Sambell for the Trustees of Truro Savings Bank and constructed in 1845. The Chapel was a former Baptist chapel and was constructed in 1848 also by Philip Sambell.

2.04 Sambell was a local architect who was deaf without speech.

2.05 The RIC acquired the chapel in 1986/7 and in 1998 the link between the two was constructed and housed a shop and foyer.

2.06 For many years the ground floor of the chapel has been used as a restaurant. This has recently changed and the arts shop has full access through to the museum via the new cafe formed within the link foyer and reception area of the museum.

2.07 The buildings are currently viewed in their combined format and present a dominating and imposing frontage on River Street with a small patch of garden maintained to the road side.

2.08 Both buildings were fronted with grey granite ashlar. The museum is of classical design with a symmetrical elevation originally in three bays (this is now distorted by the link to the east). The main section comprises five intermediate bays with sliding sash windows and giant iconic pilasters. The building runs to a triangular pedimented gable. To the west a smaller bay exists largely hidden by the trees to this end. A central porch with iconic pillars forms the primary entrance into the museum.

2.09 Internally the museum is divided into gallery and exhibition spaces with stores and workshops to the north and offices on upper floors to the east side. There are 6 levels in the building with a basement, ground floor, lower intermediate floor, first floor, upper intermediate floor and archive floor.

2.10 The link is faced with granite ashlar and is clearly of newer construction as the granite colour and style does not quite match in with the buildings on either side. This new structure runs the full length of the building between the museum and chapel to The Leats north of the building. The linking structure provides much of the vertical circulation of the museum and also contains the bulk of the lavatory facilities.

2.11 The chapel is designed in a classic fashion very similar to the Wesleyan and Baptist chapels that are found throughout Cornwall. It is a rectangular plan building with a 1:1:1 frontage to the street running to a large pedimented gable end. Pilasters divide up the elevation and arched headed doors / windows are provided to both floors. The ground floor is open with stores etc to the north.

2.12 To the north elevation the buildings are far less grand with numerous extensions and additions. Both have been rendered with cement on mesh and insulation and present a rather dull elevation.

2.13 The building is of the C19 classical style that pervaded from the C18 and typical of inner site construction of this nature due to the ordered nature of the buildings required. It is of architectural significance as examples of the type and of Sambell's work. The historic significance is with the use of the building and it contains a significant number of important artefacts. The building also has cultural and community significance as an iconic building in Truro and a hub point for this area of the city.

2.14 The roof of the building is a mix of different designs and finishes with access difficult to some areas. The main pitched slopes are slated, with a mix of natural and asbestos cement slating provided. Flat roof areas have bitumen coverings with paving slabs and insulation sited on top.

2.15 The bulk of the roof slopes were re-covered and altered in the early 1990s and the works proposed deal with the degraded coverings and detailing applied at that time.

3.00 Objective

3.01 There is evidence of water ingress in several locations within the museum with the western areas the biggest cause for concern. The quinquennial report identified the western roofs as being compromised and in need of replacement to eliminate the damp penetration in these areas.

3.02 Referring the roof plan and the roof areas indicated there is evidence of water ingress to the rooms below S1, S2 and S3. There is also evidence within the main gallery space and some of the eastern archive areas below S9, which is not defective but very difficult to maintain. A project was undertaken in 2020 to provide a bitumen felt covering as a like for like replacement as an emergency measure to mitigate water ingress that was affecting collections. This covering is not a long term solution and indeed several areas are already showing signs of dampness. Generally, the pitched roof slopes are a mix of degrading natural slate and fibre cement slating and all is in need of replacement. The condition has deteriorated markedly since the original application in 2013/14.

3.03 The objective of the works proposed in this application is to stop the water penetration and ingress from high level areas by improving the roof covering and rainwater goods and ensuring the external envelope is fully maintained and protected.

3.04 Access will also be improved to roof areas to ensure maintenance can take place and improved guarding arrangements implemented to the high level areas to protect from falling.

4.00 Proposal

4.01 The works proposed are detailed below and split into the individual component parts. Please refer to the roof and floor plans for the relevant reference numbers:

4.02 Roof R2

4.03 Existing pitched roof section slated with a mix of natural Cornish slates and fibre cement (possibly asbestos) slates. Areas have slate hung gables. The roof has black clay ridge tiles. The roof was slated in 1994 although we believe existing slates were re-used. Slippage is occurring to all slopes indicating that the slates have reached the end of their life and nail fatigue is taking place.

4.04 The roof covering will be stripped and the roof structure repaired as necessary and insulated. New Cornish Delabole or Trevillet 7x14inch slates (or size as available) will be dry-laid to battens as existing. New black clay ridge tiles to match existing will be provided.

4.05 The gables will be stripped. The timber frame structure will be repaired and new membranes and plywood boarding provided. The gables will then be re-covered with natural Cornish slate hanging to match the pitched roof slopes where applicable. All like for like.

4.06 New aluminium half-round black powder coated guttering to be provided to new timber eaves fascia with short lengths of round downpipe taking water onto the flat roofs / gullies below.

4.07 Roof S2

4.08 Existing flat roof around R2 is formed from asphalt. The asphalt goes up and over the coping to the parapet wall. The roof is poorly detailed and despite the recent temporary repairs it is clear the detailing needs to be improved and the covering upgraded to a more hardwearing equivalent.

4.09 Unsecure free standing railings run around the roof area.

4.10 The roof will be stripped and repaired as necessary. New plywood decking will be provided to the existing structure and a layer of insulation provided on top. The covering will be formed from Sarnafil single ply membrane, which will be mechanically fixed. The Sarnafil will be applied in full accordance with manufacturer's instructions and will dress up under the sloping roof section of R3 and up the vertical upstands below R2.

4.11 Sarnafil will also be taken up and over the parapet walling to terminate just beyond the leading edge.

4.12 New aluminium straight railing system will be secured to the inner face of the parapet walling where necessary. This will extend to 1.1m above the flat roof deck. The colour will be natural aluminium. The railing will be provided to replace the existing system like for like.

4.13 Roof S1 and Room 3.42 Below

4.14 Existing asphalt roof.

4.15 The roof is in a poor state of repair and is leaking into the rooms below even after the temporary works. This section of the building was constructed in 1994.

4.16 The proposed roof will be Sarnafil as above with the existing stainless steel coping coverings retained.

4.17 The ceiling is damaged due to water ingress and will be removed and replaced like for like with new plasterboard and skim, the roof structure having been repaired as necessary.

4.18 Roof S3 and Room 4.01 Below

4.19 The existing roof on the flat and pitch is asphalt and has deteriorated and has caused internal leakage into room 4.01.

4.20 The roof will be stripped and replaced with a Sarnafil roof on both flat and pitch. The existing lay light LL1 is leaking and in need of replacement. New double glazed panels within aluminium thin section framework will be provided to replace existing. This will provide a more elegant window here in line with roof covering. The new window will have the glazed panels reduced from 6 to 5.

4.21 Internally the room will have the defective ceiling stripped and replaced with an insulation backed plasterboard. Insulation backed plasterboard will also be provided to the walls.

4.22 A new black aluminium double glazed window of matching style to existing will be provided on the gable wall of the storeroom below on the west elevation

4.23 New aluminium railings will be provided to the east and west parapets as existing and across the north side.

4.24 Roof S4 and S5

4.25 The pitched roof S5 is currently provided with natural slating and black clay ridge and hip tiles. These are showing signs of degradation and there is evidence of dampness internally. The roof will be stripped and re-slated with dry-laid Cornish natural slates and black clay ridges.

4.26 The flat roof surround is provided with asphalt and poorly detailed to the central roof. This will be stripped and replaced with a Sarnafil covering as per other roofs detailed above.

4.27 New aluminium guard rails will be provided fixed to the parapet.

4.28 A new aluminium access stairs will be provided from S4 up to the gable door into the void of R3 to provide safe access for maintenance.

4.29 Lead Valley Between R5 and S7

4.30 The rainwater drainage here is very poor with a very inaccessible UPVC gutter between these two elements. This is prone to blockage and over flowing and could lead to eventual water penetration within the building.

4.31 The removal of the gutter and the stripping of the lower courses of slates to R5 will be undertaken to enable a new lead valley gutter on timber decking to be provided. This will provide an easily accessed area that can be cleared of debris and prevent blockage. The slates will be reset to accommodate the new valley.

4.32 S7

4.33 Asphalt flat roof to be stripped, insulated and replaced with Sarnafil as per roofs outlined above. Again this has been recovered but the detailing is poor.

4.34 S8

4.35 Portico roof – uninsulated as open below. Existing asphalt to be removed and Sarnafil as above provided to existing deck area. Roof is concealed by portico parapet detailing.

4.36 Rainwater Goods

4.37 All rainwater goods at high level on the roofs, to the east elevation and to the north elevation will be replaced as they are all showing signs of degradation and disrepair. They are all a mixture of UPVC, cast iron and aluminium.

4.38 In the interests of longevity and maintenance new Alumasc Heritage Aluminium rainwater goods will be provided. They will be provided with a black powder coated finish.

4.39 The eastern elevation will have new Alumasc Heritage Aluminium guttering and downpipes as above to replace the defective UPVC guttering and downpipes. An additional downpipe will be provided to ensure improved discharge from high level.

4.40 These will be taken to a new surface water run at the base of the east elevation.

4.41 Access Ladders

4.42 New aluminium fixed ladder runs approximately 1.5m long will be provided to allow improved access to maintenance in three locations. These will be fixed back to the walls only with stays.

4.43 One ladder will be provided to the south of S2 to enable access into the valley gutter to the north of R1. This will be concealed from view by R1.

4.44 One will be provided above S4 on the west wall below R4 to enable access into the Sarnafil lined valley S9.

4.45 One will be provided beside the southern outlet point to S9 from the valley to the north of R1. This will be concealed from view by R1.

4.46 Ridge Vents

4.47 The existing ridge vents RV1 and RV2 have been formed inappropriately from plywood. These will be replaced exactly like for like using the existing as a template. They will be constructed from iroko.

4.48 Northern Rendering

4.49 The north elevation has been provided with an insulated and meshed rendering system. This has been damaged at lower levels and will be replaced with a new Kingspan insulation system with textured rendering to match existing.

5.00 Impact on Significance

5.01 There will have a positive impact on significance. There will be no change in the profile of the roofs so from below there will be no change in appearance. Poor quality fibre cement slates will be removed and replaced with Cornish slating.

6.00 Access Statement

6.01 *Vehicular and Transport Links*

6.02 Drop off zone for cars to front elevation. Parking is available in city centre car parks.

6.03 There is a bus stop immediately outside the building.

6.04 *Inclusive Access*

6.05 The museum has full disabled access to all areas.

6.06 *Approach and Circulation*

6.07 The building can be approached by foot and full access is available to all areas (where not restricted) internally.

6.08 *Sanitary Accommodation*

6.09 The building has full accessible accommodation.

6.10 *Emergency Egress*

6.11 Stairwell and lift access plus emergency exits provided as required by a public building.

6.12 *Compliance with regulation approved document M*

6.13 As part of the application and approval process for the design a full submission to Building Control will be made meaning that full compliance with the building regulations will be achieved including part M.

6.14 *On going requirements*

6.15 This access statement will be amended to reflect any subsequent decisions reached on site so that any new owner or occupier is made aware of the rationale used in making decisions which impact on accessibility and their on-going obligations under the DDA. Amendments will be added when extending or altering the building at a future date.

1. View of main south elevation from River Street. The museum sits on the left with the link between and the chapel to the far right of the shot.

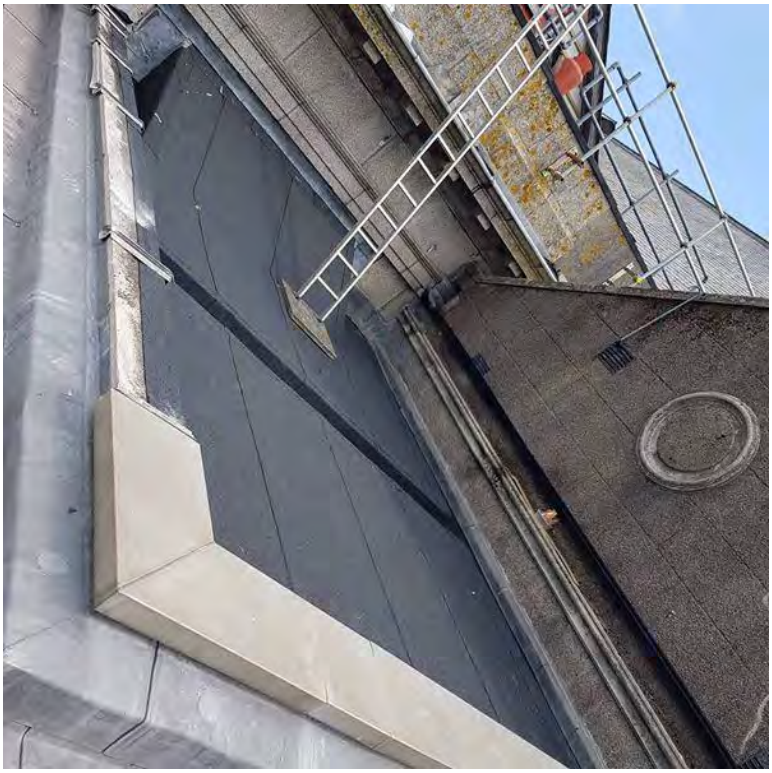
2. View of the main elevation of the museum.

3. View of the 1998 link between the two buildings.

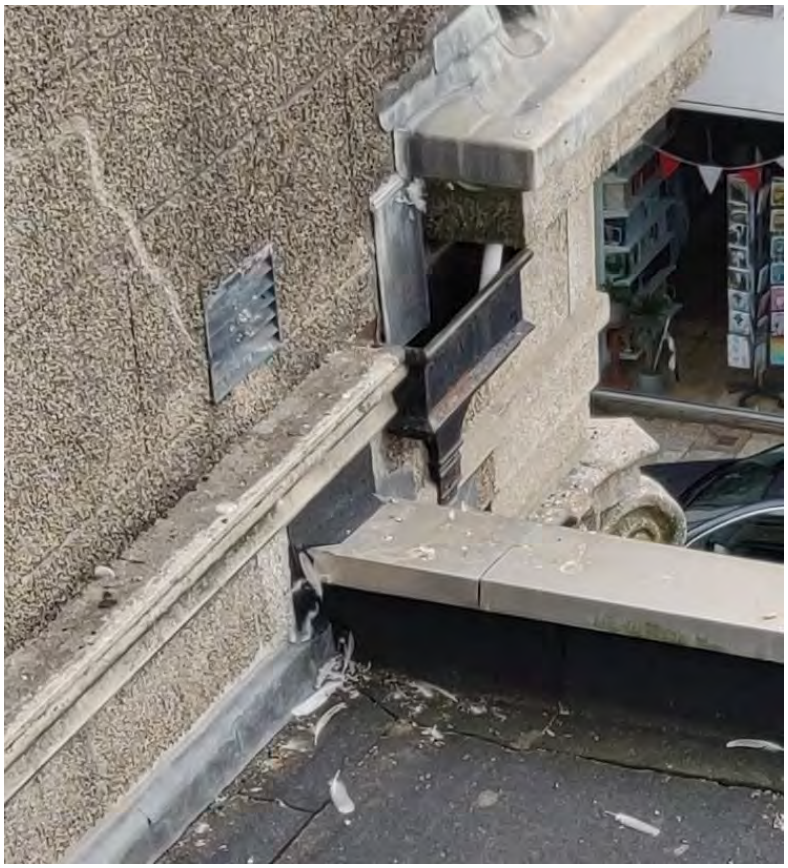
4. View of the chapel from the south.

5. View of the rear elevation from the northeast. The downpipes will be replaced.

6. View of the rear elevation from the northwest. The windows to the top floor of room 4.01 will be replaced (see 4.22 above).



7. View of roof R1. Poor detailing in far corner still leading to water ingress in room below.



8. Poor detailing around hopper and lead.

9. Slope to back of R1.

10. View along gully S9 looking towards rear.

11. Typical defect to rainwater goods along north side.

12. View of LL1 to be replaced.

13. Location of new rainwater outlet and hopper to replace poor gutter and downpipe arrangement between R5 and R7.

14. View of west window below S3 west side to be replaced with matching timber frame window – C20 window.

15. View along east elevation to be repointed in lime.

Pitched roof R2 only to be re-slated using Cornish natural sized slates as per existing. Trevillet or Delabole. Size subject to confirmation and availability

All purple flat roof zones to be lifted and replaced with Sarnafil single ply system.

All new handrails, ladders and access stairs to be un-painted 'natural' metal colouration

New replacement hip and ridge tiles to S5 to be narrow black clay tiles to resist slippage

New galvanised steel access stairs

Replace LL1

LL1

P6

New Ladder

S10

V7

Chimney 3

Red Shaded Section:
New lead valley to west side of R5 discharging to new hopper and DP at north. New Code 7 leadwork on yellow pine decking boards. See Specification section 13.00

New DP and Hopper

Roof No: S3

Roof No: S4

Roof No: S5

Roof No: S4

P5

MF

V1

MF

V3

RV1

SARNAFIL S9

V6

Roof No: S7

1 2m

2 2m

3 2m

4 2.2m

Roof No: S2

Roof No: R2

Roof No: S2

Roof No: R3

Roof No: R4

Roof No: R5

Replace with iroko to match existing size and style

RV2

V4

V5

Purple line indicates position of Latchways Versirail (or similar) Flat roof Guard rail which is secured to the parapet walls on the inner face

P4

V2

New Ladder

Roof No: S6

Steel Well

New Ladder

Roof No: S1

Roof No: R1

Roof No: S6

Steel Well

Chimney 1

Chimney 2

Extra Outlet

S STEEL CAPPING

CS2

CS1

Roof No: S8

CS1

CS3

P3

CS4

P1

P2

P2

Orange Shaded Section:
Allow for new Alumasc Heritage Aluminium rainwater goods to this elevation including an additional third downpipe.

Wall to this elevation to be re-pointed in NHL3.5 lime with CLS25 sand

All coping stones will be checked and pointed in to repair

Contractors must check all dimensions on site. Only figured dimensions are to be worked from. Discrepancies are to be reported immediately .

KEY

V : Vent
RV : Ridge Vent
P : Parapet
CS : Coping Stone
MF : Mastic Felt
— : Railings

Works

S1, S2, S3, S4, S7, S8 - Replace ashphalt roofs with new Sarnafil membrane with associated details and weatherings

S5 - Reslate hipped roof with new natural Cornish slating - dry laid slating with black clay hip / ridge tiles

R2 - Reslate roof with new natural Cornish slates - dry laid with black clay ridge tiles as existing

New lead valley gutter between R5 and S7

New rainwater goods and re-pointing to east elevation

Partial re-rendering to north elevation

Upgraded rainwater goods and disposal

Replace LL1 and west window to room 4.01 below S3

	Date	Revision
E	11/11/21	R1, R3, R4, R5 omitted
D	07/10/21	S8 added to roofs to be reslated
C	01/10/21	2021 revisions - all roof slopes etc
B	29/01/14	Iroko vents in place of stainless steel
A	29/01/14	Amended notes for Planning

SCOTT & CO

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Project
Royal Cornwall Museum

Client
Royal Institution of Cornwall

Drawing Title
Royal Cornwall Museum Roof Plan Level 6

As proposed

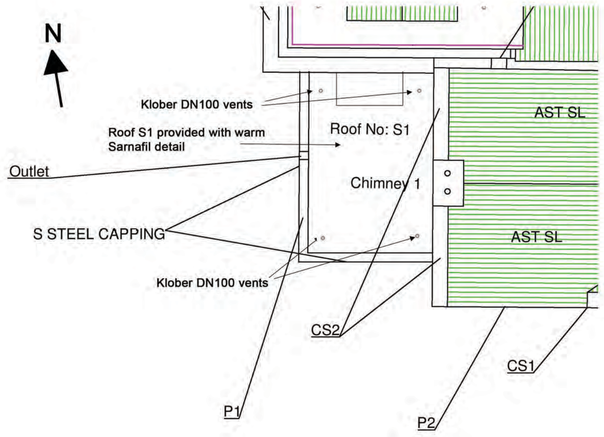
Scale. 1:100

Drg No. S:714 - 24E

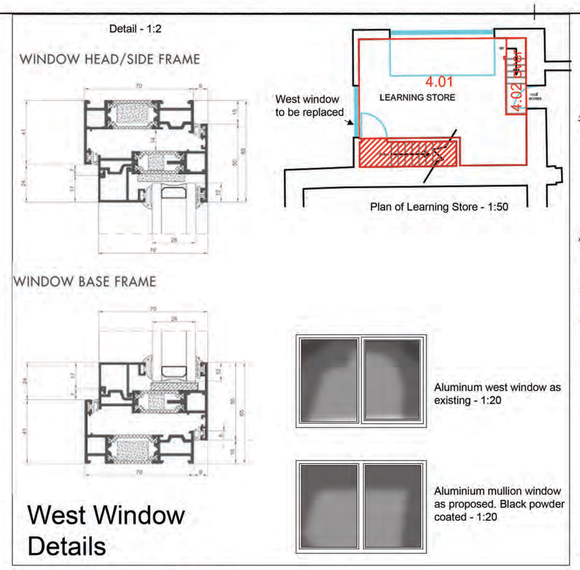
File No. 7377

Designed by **CGH** | Drawn by **CGH**

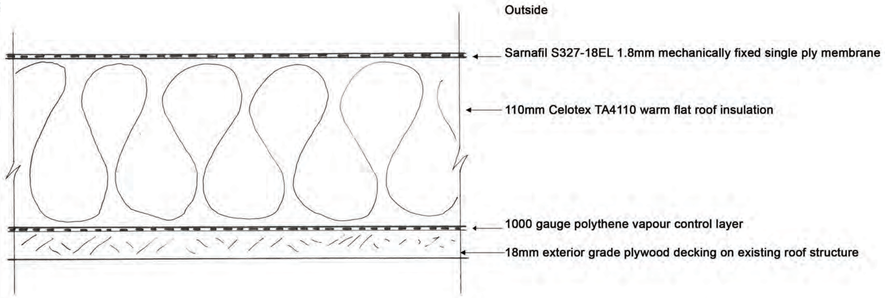
Date **17/12/13**



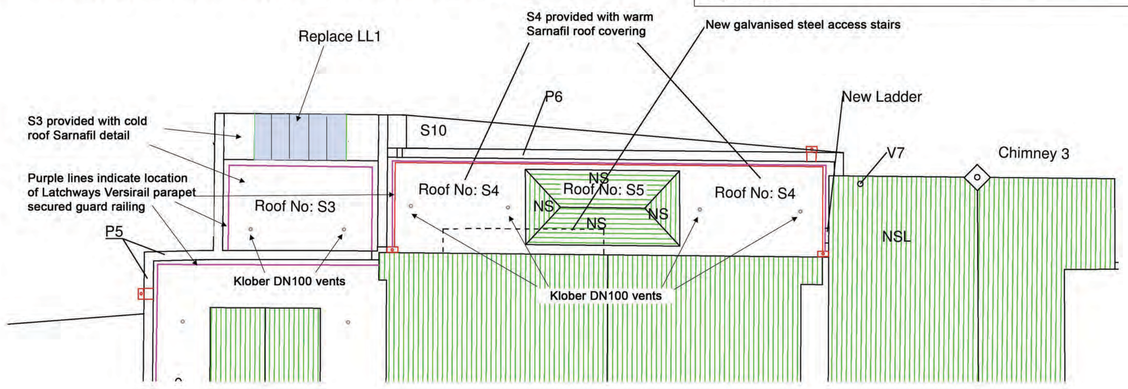
Partial Roof Plan Showing Flat Roof S1 @ 1:100



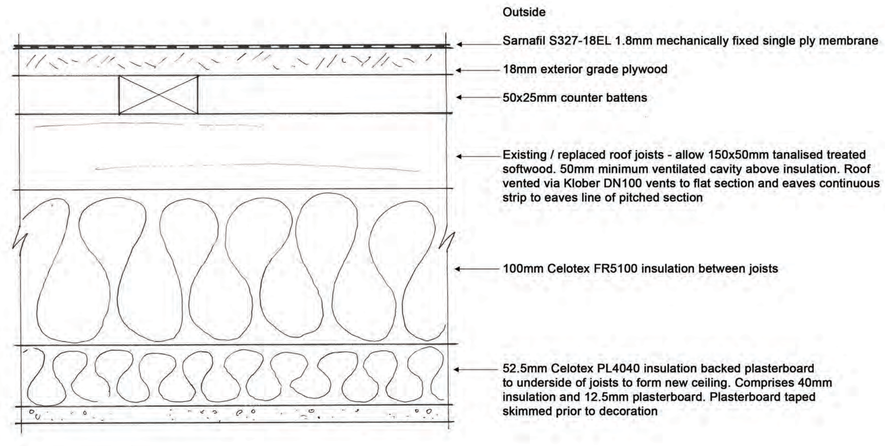
West Window Details



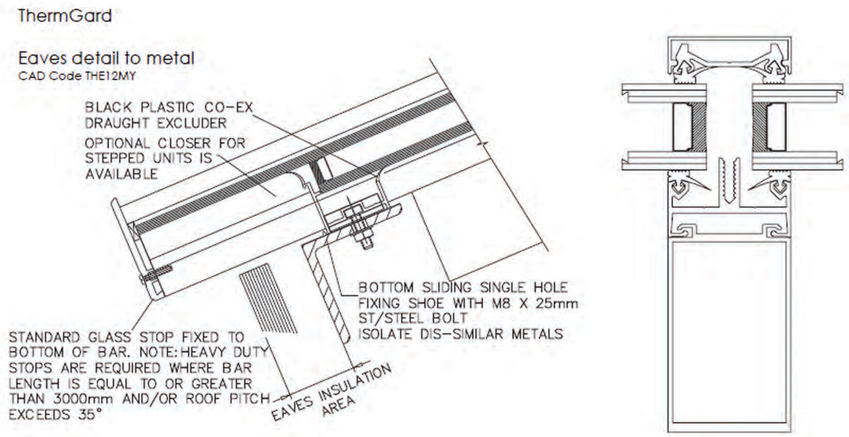
Sarnafil Warm Roof Detail - Applies to S1, S2 , S4 and S7 @ 1:2



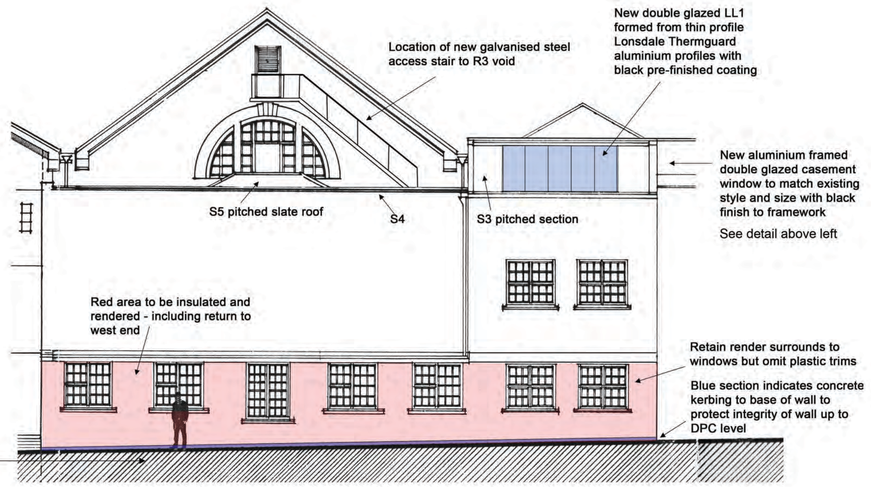
Partial Roof Plan Showing Roofs S3, S4 and S5 @ 1:100



Sarnafil Cold Roof Detail - Applies to S3 on Pitch and Flat @ 1:2



ThermGard Details for LL1 Window @ 1:1



Partial Northern Elevation of Museum Focusing on Western End @ 1:100

Contractors must check all dimensions on site.
Only figured dimensions are to be worked from.
Discrepancies are to be reported immediately.

	Date	Revision
B	21/10/21	LL1 window detail added
B	01/10/21	2021 detail
A	29/01/14	Window, kerbing and stair alts

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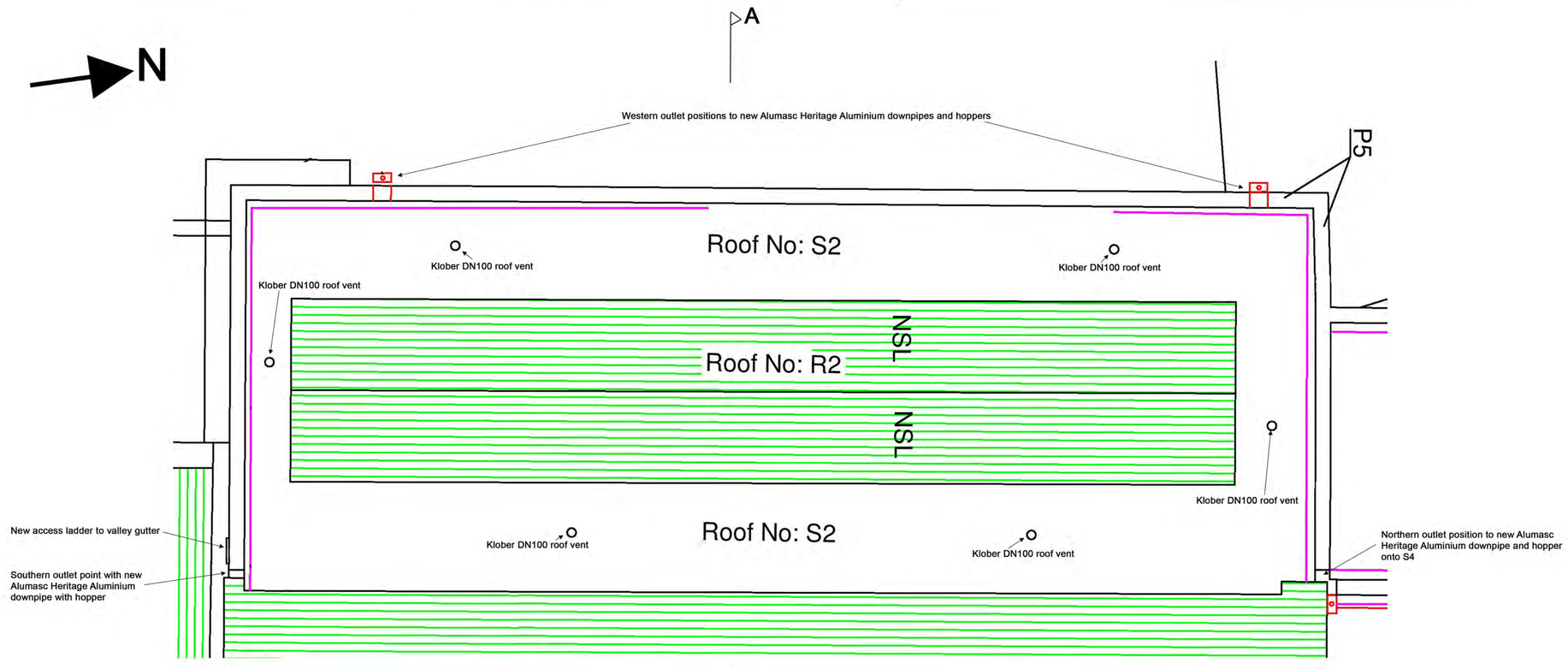
Client
The Royal Institution of Cornwall

Project
The Royal Cornwall Museum

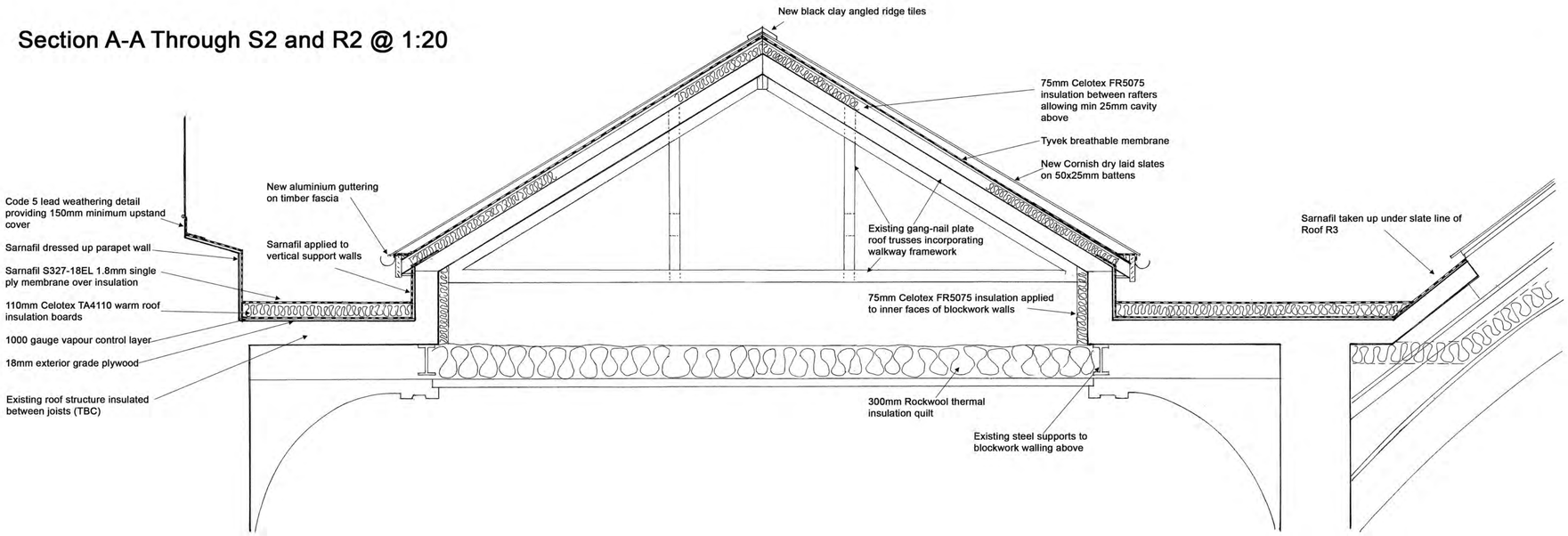
Drawing Title
Partial North Elevation
Partial Plans Showing S1, S3, S4 and S5
Sarnafil Warm / Cold Roof Details

Scale 1:100 and 1:2
Drg. No. S: 714-23C
File No. 7377
Designed by CGH | Drawn by CGH
Date 17/12/13



Partial Roof Plan showing S2 and R2 @ 1:50 approx

Section A-A Through S2 and R2 @ 1:20



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	Date	Revision
A		

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Client
The Royal Institution of Cornwall

Project
The Royal Cornwall Museum

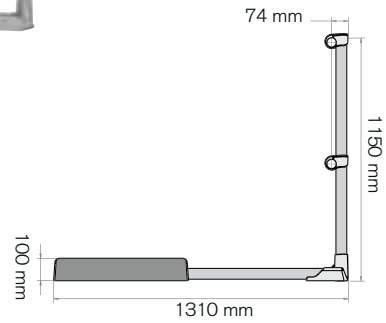
Drawing Title
Plan and section - roofs S2 and R2

Scale	1:20 and 1:50
Drg. No.	S: 714-20
File No.	7377
Designed by	CGH
Drawn by	CGH
Date	16/12/13

Straight upright

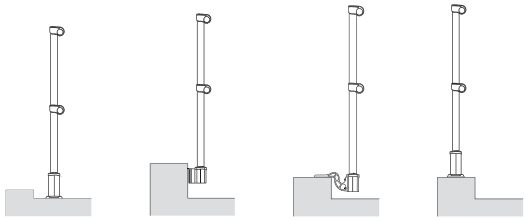
This simple design fits in perfectly with the clean lines and contours of a building.

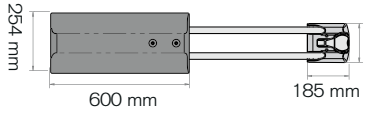
The straight upright system is particularly suitable for protection at access points and demarking walkways.



Straight upright system with:

1) Slab mounting plate
2) Wall mounting plate
3) Z-type mounting plate
4) Parapet mounting plate

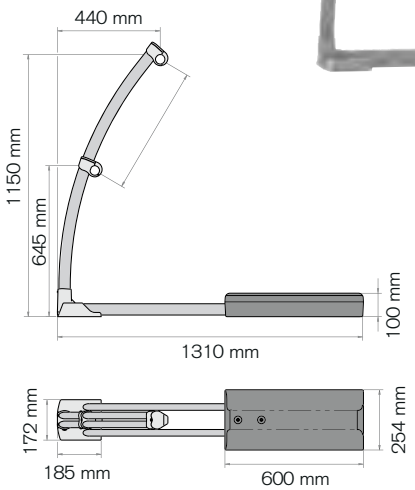




Curved upright

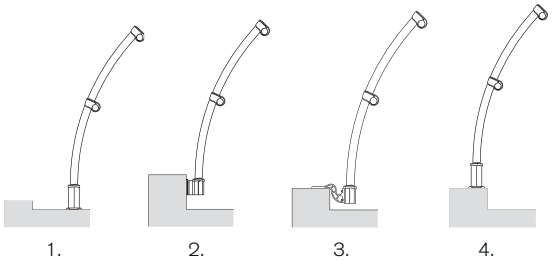
Whilst providing the primary function of collective protection,the curved upright system compliments the design of a building.

This solution also keeps people further from the roof edge, providing a greater level of safety.



Curved upright system with:

1) Slab mounting plate
2) Wall mounting plate
3) Z-type mounting plate
4) Parapet mounting plate



LATCHWAYS FALL PROTECTION