

# **Transforming Cornwall Museum and Art Gallery**

## Conditions Survey



**2024 UPDATED QUINQUENNIAL INSPECTION  
OF  
THE ROYAL CORNWALL MUSEUM  
FOR THE INSTITUTION OF CORNWALL**



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**As inspected October-December 2012/18  
Re-inspected and updated 25<sup>th</sup> November 2024  
DNS/DC/7377**

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## CONTENTS

	Page No.
Description	
<b>WHOLE BUILDING</b>	
Instructions	3-4
Executive Summary	5-7
<b>EXTERNAL CONSTRUCTION AND CONDITION</b>	
Roof Slopes	8-12
Ridges	13
Chimneys	14
Lead Ventilators	15
Ridge Ventilators	16
Dormers and skylights	17
Coping Stones	18
Parapets	19-20
Leadwork	21-22
Rainwater Disposal	23-24
Flat Roofs and associated pitches	25-29
Main walling	30-32
Fascia boards, barges and soffits	33
External joinery, windows and doors	34-35
Paths, boundaries and access ways	36
<b>INTERIOR</b>	
Roof voids	37
Level 5	38-40
Level 4	41-46
Level 3	47-56
Level 2	57-61
Level 1	62-73
Basement Level	74-76
<b>SERVICES</b>	77
<b>THIRD PARTIES</b>	78
<b>APPENDIX 1 SUMMARY OF MAJOR WORKS TO EXTERIOR</b>	80
<b>SUMMARY OF MAJOR WORK TO INTERIOR</b>	81
<b>AND SUMMARY OF BUDGET COSTS</b>	82
<b>APPENDIX 2 THUMBNAIL PRINTS (NOTE disc of photos provided)</b>	83
<b>APPENDIX 3 – 2018 photographs</b>	88
<b>APPENDIX 4 – 2024 photographs</b>	91
<b>APPENDIX 5 – Plans</b>	98

**NOTE – The original text from the 2012 report is retained. The 2018 updated text is in green and the 2024 updated text is in blue.**

## INSTRUCTIONS

In accordance with your kind instructions, we undertook an inspection of the above initially on 9<sup>th</sup> July 2018. The external fabric was inspected first with extremely good, hot and clear weather. This had followed a period of weeks with hardly a drop of rain. A secondary inspection was made on 24<sup>th</sup> July 2018 concentrating more extensively on the internal fabric.

This QI inspection is the second inspection undertaken by Scott and Company on the building in question. It has been agreed with Mr Ian Wall and is an update of the inspection and report of November 2012. To make this is a useful and organic document, we have not repeated each and every description but have in red provided a commentary on the findings of 2012 with the update for 2018. The inspection whilst being the second QI reflects findings made on site. This is a limited non-destructive survey prepared by the same surveyor who undertook the inspection of 2012. It is both a comparative and visual update that reflects limited access and no destructive surveying.

The inspection is undertaken for the purposes of assessing the condition of the buildings as a whole. It is a one off visual inspection. It has been prepared with the benefit of some background information.

We attach to this report in the Appendices:

1. Copy of listing,
2. A set of plans including floor and roof plans suitably annotated with cross referencing for (a) roof slopes and (b) room names and numbers, (c) door and window referencing.
3. Photographs taken from 2012 inspection.
4. **Photographs taken during the 2018 inspection.**
5. **Photographs taken during the 2024 inspection**

These will be shown as thumbnails / photographs attached to the rear. Should a memory stick/disc be required of these for record and reference purposes, they can be provided.

To the rear of the report I summarise the major defects with an indication of when in my opinion, these should be attended to. **Budget costings are provided updated from 2012 with a further update as of November 2024.** This highlights our findings of major defects whilst providing an indication of timescale for repair. At the front of the report is a more brief executive summary.

**As per the 2012 report, we go on the principal that the majority of defects arising with any traditional building of this ilk, especially one that has been adapted, extended and incorporated within adjacent buildings, arise because of external fabric failure.**

**Inevitably with a building of this size, age and nature it was not possible to get to every nook, cranny, void and store. Should separate inspections particularly of those areas that were not covered be required, please advise the writer accordingly.**



We will refer to the front River Street elevation as being the south, with the rear onto the Leats being north. The Old Chapel side is east with the railway side being west. This is not a true 100% accurate compass orientation, but it will ease the understanding of cross referencing made within the report.

## EXECUTIVE SUMMARY

The Royal Cornwall Museum and Courtney Library Building in River Street is found to be in satisfactory structural condition. **No change. No change as of 2024.**

There are however, extensive areas where regular cyclical maintenance has not been kept up and extensive replacement of fabric is required on the external envelope of the building to ensure that the rainwater and damp is kept at bay. This will not be entirely arrested with a traditionally constructed building of this ilk but substantial improvements can be made. **No change. No change as of 2024.**

The weathering of the roof covering has been compromised in a number of places and water is being driven in. Ultimately sections of the roof will require re-slating and replacement. **Some areas have been patched. Fewer defects exist. There have been temporary applications of bitumen felt as a stop gap measure to weather the flat roof areas. These works were only designed for the short term and were a quick and inexpensive solution. It has enabled the museum to continue operation, but the nature of the work means that planned wholesale replacement is still a critical consideration. The roof will be dealt with in a forthcoming project which has received significant support from funding bodies. It is hoped that by the end of 2025 the museum will have a completely refurbished and renewed roof.**

The ventilators, lead dressings and ducts running through the slating have been compromised. Water is getting into the fabric. These need re-designing and replacement. **Ongoing. This will be addressed as part of the 2025 re-roofing project.**

The detailing on the flat roofs is poor and is not helped by the insulation and paving slabs. Access arrangements need to be improved. Drainage of the roof areas needs to be upgraded. Rainwater goods need to be improved. Major re-designing, reconfiguration and replacement is needed. **No change. The insulation and slabs have been removed as part of the temporary works. The proposed re-roofing will incorporate insulation to building regulations standards.**

Access for maintenance of difficult parapets and gullies needs to be improved and added to. **Ongoing. This will form part of the 2025 works.**

Outlets through parapet upstands need improvement with provision of new routes to reduce damp ingress and back up. **Ongoing. This will form part of the 2025 works.**

The thermal insulation of the building is poor and there are areas in the roof voids where we noted condensation. This along with problems of damp ingress will be adding to the environmental difficulties of high humidity within the building. A comprehensive review and replacement is recommended. **No change. This will form part of the 2025 works to the roof. Other areas are difficult to accommodate, but where an opportunity arises improving thermal performance should be considered.**

High level timber work and joinery is in need of replacement where rotten, along with preparation and full decoration. **Ongoing. This will form part of the 2025 works.**

Some structural movement was noted internally and externally in both the new and old walling. The latter is, we believe, cyclical and not on ongoing, however, the former needs to be monitored. **No change. No change as of 2024.**

Internally a further more detailed assessment should be made of the principal gallery roof spaces with an assessment of the fixing of the ribs, framing and any glazed panels which have been papered or covered over. Access may be needed from both above and below. **Still advised.** **There have been ongoing works in this area and whilst we have not assessed at high level there hopefully will be an opportunity to advise when roofing works take place.**

We noted cracking to the internal ceilings and walls. We do not believe this to be progressive in the older section of the building but as stated this should be monitored in the newer section. The building on this site inevitably will move bearing in mind the proximity of the river and the high moisture level below the foundation. The effectiveness of the steel frame insertions in the front section needs to be monitored. **Ongoing.** **No change as of 2024.**

Care will be needed over loading of the terrazzo concrete flooring. This is of modest thickness with what would appear to be limited reinforcing within it. This should be further assessed and the extent of reinforcing confirmed. **No change.** **We understand an assessment of the flooring has been made and repairs to the terrazzo surface was underway whilst we were inspecting.**

The internal accommodation needs upgrading or replacement of surfaces, decorations and finishes. An upgrading or replacement of some of the existing services, lavatories and washing facilities should be considered. **Part addressed.** **This is ongoing, but several areas are still very tired and need improvement.**

We have excluded testing and commenting of the services, plant and equipment within the context of this instruction and report. We understand significant investment in the electrical systems throughout the building have been undertaken

The main bulk of the report details our findings, observations and where necessary recommendations. These have been taken into the Summary Sheets at the back of this report which is split into internal and external work.

We summarise below the brought forward budget costs as a Cost Summary for the highlighted extensive replacement, upgrading and repair work detailed within the report:

#### BUDGET COSTS UPDATED FOR 2018

	Exterior Works	Interior Works	Fees @ 10%	VAT@ 20%	Total Spend
	£	£	£	£	£
<b>Immediately</b>	25,000	25,000	5,000	11,000	66,000
<b>Within 1 years</b>	1,400,000	200,000	160,000	325,000	2,085,000
<b>Within 5 years</b>	15,000		1,500	3,300	19,800
<b>Estimate Range</b>	1,440,000 – 1,500,000	225,000- 250,000	166,500- 175,000	366,300- 385,000	2,197,800- 2,310,000

We would strongly recommend that additional budgets be allocated for routine and cyclical maintenance of the fabric.

We would strongly emphasise that this budgeting covers purely for the main fabric and excludes services, plant, environmental control, security, drainage and lighting costs for which separate budgets should be provided.

This costing is prepared as a result of and subsequent to the quinquennial report. Further investigation and opening up is needed which will inevitably affect the budgets. No contingency allowance for any unforeseen work has been included.

We would strongly recommend the minimum amount of further investigation as detailed below: **Still needed.**

- A. Steel roof structure and wall supports
- B. Glazed ceiling structure and supports
- C. Ground floor structure, reinforcement and loading potential to include canterlivered upper main gallery. **We understand this has occurred.**
- D. Monitoring of movement cracks to walls in both the new and old structure
- E. Drains, services and environment

To all costs should be added:

- finance costs for cashflow
- additional consultants costs
- health and safety costs
- information and interpretation or PR costs



## EXTERNAL CONSTRUCTION AND CONDITION

### Roof Slope

We would refer you to the roof plan attached to this report. We have adopted the roof referencing numbers contained therein which we have added to slightly for the purposes of cross referencing to other elements of construction.

Note the roof slopes are all due to be re-slatted in 2025 using a mixture of new and reclaimed natural slate. All manmade slate to be removed. If the project successfully

### ROOF AREA R1 (Library)

#### South face

The south facing roof above the main facade of the Museum building is covered with what appears to be an asbestos fibre reinforced older slate. This is tail clipped. There is a considerable amount of moss and lichen on the roof which is gently falling into the lead parapet gutter. This needs to be carefully removed on a regular basis and the gutters kept clean.

There is an intersecting valley which breaks the roof area that runs up to the back of the principal elevation pediment. This has been re-slatted with a more modern eternit style fibre reinforced slate which we believe will have been installed at the time of the lead capping on the front elevation.

Again there is a build up of moss and lichen which should be removed.

We would note that the older slating has an insufficient cover lap to the head under the ridge line. When laid, a further course of slating should have been provided. This makes the upper ridge board vulnerable to moisture ingress and damp within.

The south face still has a considerable amount of moss and lichen. Asbestos fibre slates have been retained, there are repairs needed. The parapet gutter and outlets are choked with debris and detritus. There will be an overspill situation and blockage of the outlets should a downpour occur.

There are still vulnerable areas of water ingress due to insufficient cover lap to the ridge line. Some areas of lead dressings show a sagging of the clips and dressings which need to be reset. A general overhaul is recommended.

Outlets are better maintained with less debris and detritus, which is positive. The level of moss on the slope is still an issue and the perp joints are becoming compromised.

## **North face**

This is a continuous slope dropping down to the valley gutter between the main central Museum galleries. Again this is of fibre reinforced asbestos with tail clipping. There is excessive moss and lichen growth which needs to be removed as detailed above. The upper coursing is mean and there is inadequate cover to the ridge line.

There have been some repairs here with modern fibre reinforced slates. This is following impact or storm damage.

Here a number of areas have been patched. There are slates which have slipped and become displaced, some clips have become loose. Excessive moss, lichen and buddleia growth needs to be cleared. This is causing a blockage to the gulley below. Again the ridge cover is mean.

This will be covered by the re-roofing project next year.

## **ROOF AREA R2 (Philbrick)**

### **R2 West Facing Slope**

This is a relatively low pitched natural slate roof. It would appear not to be felted. The slating is damaged to a number of places and we saw evidence of saturated felting battens. The cover and lap at low level appears to be compromised in some places both due to damaged slates and possible running repairs along with the insertion of a lower felt to the gutter line of which below.

Copper wires have been strung across the roof to try and eradicate the moss and lichen growth. The wires are much too thin and ideally a copper tape similar to a lightening conductor tape should be provided. This could compromise any lightening protection or indeed attract lightening to the Museum. A review of lightening protection and conditions insurance policies is recommended.

The upper courses again, do not have sufficient dry under the ridge tile. The ridge beam will be compromised and water will be driven in here causing problems to the interior. This, as elsewhere could increase the risk of wet rot to any structural roof timbers. This needs to be accessed and inspected and ideally the ridge taken off and a further course laid on top.

We saw some areas where slates had been nailed through the outer side of the slating to try and re-secure them. We also saw areas where some of the slipped slates showed very low nail fixings. This, if found to be consistent across the roof area, will mean that the slating cannot keep the roof area dry and there is every risk of water being driven in underneath the slating through the lower nail fixings into the roof area. This will be more obvious after heavy storms and high wind.

There is no evidence of damp within although no rectification work to our knowledge has been completed. It was very dry. The nailing through the outer side of the slating appears to have been rectified with some replacement slates being inserted. The roof is reasonably competent but clearly still vulnerable to moisture ingress.

As per 2018. This will be covered by the re-roofing project next year.

## **R2 East Face**

This is the same finish and condition as the west face although there are slightly less areas of damage to the slating. Our comments on this are the same including (a) copper wires, (b) inadequate lap at the ridge. To be fair there is less moss and lichen on this face.

As west face comments throughout.

As per 2018. This will be covered by the re-roofing project next year.

## **ROOF AREA R 3 – West Face (Main Gallery)**

This is the largest roof area on the building. We assume that its base condition is the same and our comments will be relevant to both slopes.

The roof covering is of a natural Cornish slate. There is a build up of moss and lichen. Copper wires have been strung in three places. Our comments on R2 should be noted.

The condition of the slating is reasonably sound, it sits well and there is little evidence of undulation, movement or deterioration to cause concern. Where checked, the slates appear to be fairly tight. We would however note, with the moss and lichen growth on the slating that water will be held on the slates for much longer than should be and they take longer to dry out. This will accelerate the rate of deterioration, powdering and exfoliation of the slates making them more vulnerable to deterioration from below whilst also reducing the possibility of re-use and salvage for any re-nailing. At present, this is certainly not required.

The roof rises to ventilators on the ridge line. The size of slate on this roof is considerably smaller being possibly 16" x 8" than that found on the R2 which is more likely to be 24" x 12".

Again, no action subsequent to the last QI. Same consistent comments apply. There are some minor damaged slates with broken edges, but this does not appear to be compromising the weather resistance in all but a very few locations. There is some evidence of slate slippage which could indicate nail sickness. An increased allowance for routine repair on this and the opposing slope should be considered.

As per 2018. This will be covered by the re-roofing project next year.

### **ROOF AREA R 3 – East face**

This as with the opposing side is of natural slate. It has been re-slatted using what appears to be Cornish regular dry laid slate. It would appear to be slightly larger than the opposing west face. The coursing shows some irregularity with the possibility that some of the batten fixings are beginning to slip. This needs to be checked and carefully monitored. The ridge line was sound rising to a rolled ridge with ventilators.

We do not believe the slating and batten fixings have been checked. See previous comments.

As per 2018. This will be covered by the re-roofing project next year.

### **ROOF AREA R 4 – West Slope (Archive)**

Again, this is a new roof covering with natural slating which would appear to be of Cornish extraction. They are a slightly thicker slate than found on the east facing R3 but of the same size. There are a number of slipped and displaced slates that require re-setting. Being a natural material, some of the veins have failed and some of the nail holing has cracked. There are ventilators near the ridge line (2 in number) which are provided with lead sleeves. These have moved from the sleeves and water will be getting in down between the inner pipe and the lead sleeve. This needs re-sealing and properly weathering.

Consistent condition, no variation in comment.

As per 2018. This will be covered by the re-roofing project next year.

### **ROOF AREA R 4 –South Face**

This is a hip end, natural slate, dry laid, sound.

As before.

Significant moss and some vegetation to the slates, which will be impacting the weathering between the perp joints. This will be covered by the re-roofing project next year.

### **R4 – East Slope**

Wide valleys. This is of new construction and covering. Some minor lifting of slates under the roof line and a few slates missing which require reinstatement. Again a build up of moss and lichen which would be worth removing.

Again, check the roof area, reset any damaged or displaced slates, clean lichen as before.

Significant moss and some vegetation to the slates, which will be impacting the weathering between the perp joints. This will be covered by the re-roofing project next year.



## **R5 – West Face (Chapel)**

This roof is in two parts. It would appear that there is a mix of slating. The west face northern end has lead soakers joining it to the remaining two-thirds. A reclaimed Cornish slates has been used, dry laid of reasonable size. Beyond this to the south face, there is a mix of some salvaged slates and imported Spanish slates. They are very dark and very brittle. It would appear that the lower coursing has been stripped off and replaced with patching on the upper coursing. Some of the slates would have been fixed in with tingles, others with a mastic fixing grip. This is not good. There are a number of broken and damaged slates which need attention and many which show signs of failure through the veining. There was slippage on the coursing indicating nail failure. The imported slates were extremely thin and vulnerable to damage. The coursing of the slating seems to vary across the roof area with a possible compromise to the dry or cover of the slating between the courses. This needs to be further reviewed. The roof covering requires some further stripping, assessment and fairly extensive replacement. The east fact could not be seen.

Comments consistent. No work undertaken beyond minor slate resetting. As 2012.

As per 2018. This will be covered by the re-roofing project next year.

**R5 – East Face** - inaccessible. We would assume similar condition to the west face. To be re-roofed in the 2025 project.

## **RIDGES**

### **RIDGES TO R 1 (Library)**

The main roof runs parallel with River Street with a right angle turn to the front pedimented upstand. Ridges are a black glazed clay ridge tile bedded in mortar. These are reasonably competent. The jointing is sound. There has been some thermal movement and minor exfoliation of some of the butt joints but generally serviceable.

No change, as 2012. Some displacement to ridges – re-bedding required, but this will be dealt with by the re-roofing project.

### **RIDGES TO R 2 (Philbrick)**

Clay ridge to apex bedded in cement mortar. Serviceable.

Again no change to 2012. As per 2018. This will be covered by the re-roofing project next year.

### **RIDGES TO R 3 (Main Gallery)**

This is a glazed roll top ridge running north south. These have been re-used and re-bedded following the re-slating of the east facing R3 and possibly re-nailing of the west facing slope. They take a good line. They run up to the ventilator. Serviceable.

No change to 2012. As per 2018. This will be covered by the re-roofing project next year.

### **RIDGES TO R 4 (Archive)**

These are a more modern, dull, flat, extruded, black unglazed tile used here on the ridges and hips with hip irons on the ends. Bedded in cement mortar. Serviceable. We would note that all the ridges provide roosting places for gulls and consideration may be forwarded to further bird protection.

As 2012. Some more open jointing between ridges. Minor pointing will be needed.

As per 2018. This will be covered by the re-roofing project next year.

### **RIDGES TO R 5 (Chapel)**

This is a natural unglazed terracotta tile bedded on the roof in a cement mortar with fairly extensive under pointing and joint pointing. In places this is beginning to crack. This needs to be monitored as further minor pointing will become necessary in time. It is slightly uneven but quite serviceable.

Pointing where cracked and failed recommended as before.

As per 2018. This will be covered by the re-roofing project next year.

## CHIMNEYS

### C 1 and C 2 (Library)

These service the end gables of the main front entrance building servicing fireplaces below which we believe have been removed. The stacks have been pointed and a lead capping has been provided under the upper course and over the cornice oversail. It is possible although cannot be confirmed, that a lead tray has been provided at the ridge line with dressing of lead over the cover flashing and to the coping stone. Serviceable. The stacks have roll top ridges capping the two flues per chimney. These are well bedded. A good lead upstand and detail is provided within to maintain ventilation. This should be checked and maintained from within.

Here as with much of the lead, minor re-dressing to the masonry soakers and weatherings as recommended.

Some open joints that need to be pointed. The flaunching should be checked. This should be covered with the high level works scheduled for 2025.

### C 3 (North end of Archive Roof)

This is a modern flue servicing we believe the boilers and heating system below. It would appear to be constructed of block work with lead flashings, cast capping and render finish. Serviceable.

Sound. As per 2018

## LEAD VENTILATORS

We have referred to the ventilators (4 in number) set within flat roof area S2 to the west of the assemblage. These sit on lead clad capped collars with a lead decking and then have a vent pipe rising from the roof area with a simple China man's hat capping. The weathering of the head of the vent pipe is totally inadequate and water is inevitably going to get driven in through the vent pipe to the void below. The route of this needs to be checked but it is quite possible that water is being driven into the void affecting the structure below. This could also be affecting any plant within.

These have not been attended to. The weathering is poor. Some of the capping is slumped and water is settling within it. These are still vulnerable.

As per 2018 and part of the high level works scheduled for 2025.

### Roof Ventilation

We have noted the ventilators on the west facing slope of R4 and the need to seal the pipes rising through the collars. Again water is being driven in through these. (V5) Below this is a vent (V6). Slating has slipped around this. This requires re-setting. The capping is competent. There is a soil vent pipe beyond that (V7). Competent.

Ongoing evidence of stress and movement on weathering here. We believe this is still vulnerable to water ingress.

As per 2018 and part of the high level works scheduled for 2025.



## **RIDGE VENTILATORS**

### **RV 1 and RV 2**

These appear to have been reformed. They look as if they have been made from a composite board with a lead roll capping. They need to be accessed, clean and decorated and repaired or replaced. Originally these would have had a copper or tin ventilator with appropriate weathering details inside to ensure that rainwater is not driven within. This could not be seen from the roof areas and we suspect that water is driven into this area and then runs down the roof structure within. This needs to be further assessed.

No action has been taken here. Again recommendations hold. As per 2018 and part of the high level works scheduled for 2025.

## **DORMERS AND SKYLIGHTS**

There are two skylights in roof S6 being Velux style. They are set into the steel profile welted roof. There is moss and lichen on them, they need cleaning, easing and maintaining. The welt is very close to the collar upstand and is blocked with moss. This needs clearing.

The laylight LL1 in roof S3 is failing and water is entering at the perimeter, this needs to be redesigned and replaced.

Two skylights still dirty and poor. Require cleaning and removal of moss and lichen and checking of weather seals and dressing.

The laylight LL1 has had modest patching. This and the area around it is still poor and vulnerable, there is evidence of damp ingress around. Polycarbonate sheets are becoming opaque and brittle and the weathering and seals look to be compromised.

As per 2018 and part of the high level works scheduled for 2025.

## COPING STONES

The principal south facing pediment has a raised coping stone with moulded granite dressings below. This has been clad in lead work which has been clipped and mechanically fixed. This is dressed internally and externally down to the pediment return and cornice oversail. Coping stones are in sound condition.

### CS1

Over cladding sound, functioning well. There is some evidence of minor creep.

As per 2018

### CS2

This is the west facing coping stone on the gable upstand from the principal front block. It is formed from large granite, butt jointed and pointed. Behind this is lead flashing and under dressing weathering the wall head. Serviceable. Minor pointing required to the open jointing.

As per 2012

### CS 3

As CS2 above.

Buddleia and other plant growth has got a hold on the jointing. Some of the jointing is beginning to open along with loss of key to some of the back pointing to the lead. A general overhaul of all sections for CS2 and 3 is recommended.

Some of the vegetation has been removed but the open jointing and loss of key applies.

### CS 4

This is the gable to the old Chapel. There is a massive coping stone on the Chapel gable onto River Street. The joints are well positioned the stones would appear to be stapled. The back is provided with a steel profile weathering to lead dressing of soakers. Serviceable.

No change, serviceable.

As per 2018

## PARAPETS

### P1

This parapet rises above S1. it is capped in a steel profile to the wall head. To the outer side is lead dressing and the inside is mineral felt. Serviceable.

Sound. Minor thermal displacement but competent.

As per 2018 – this should be checked when high level access is established.

### P2

This is a simple oversail cornice parapet gutter both on an inner and outer format which is lead lined. Access difficult. Where seen off ladders, serviceable.

This would appear to be sound but check lead weathering and clear organic matter.

As per 2018. To be checked closely when scaffolding is provided.

### P3

This is a modern granite infill section between the Chapel and the Museum building. Modern granite capping with sealed profile behind weathering the rear down stand. Serviceable.

### Parapet Gutter P3

The parapet gutter runs under roof area S6. This is stepped and is in profile steel discharging into two sunk internal rainwater pipes which discharge through the walling to hoppers to the exterior. The detailing here is particularly poor and vulnerable to blockage. There is an overflow pipe which could get blocked but this is too high up to be effective. If this happens water accumulates in the parapet gutter and then spills into the building. This needs to be modified. This area takes the rainwater from half of R1, half of R3, two-thirds of R4 and part of R5. There is a large amount of water discharging to two outlets. Modification strongly recommended. Redesign and replace.

This parapet gutter has still got problems of discharge with blocked outlets and considerable detritus. There is minor creasing to some of the profile sheeting which is indicative of thermal stress. Our comments in 2012 still apply.

This is still an issue and water is ponding on the back outer side of the gullies as the run around the roof. The steel cladding is, we believe, weathertight, but it is not well fixed. The lead upstand to R5 has several sections that have blown outwards due to wind uplift. The provision of clipping would be of benefit to secure. To the west end below chimney 2 a section of the lead upstand is displaced and has exposed the flashing upstands. This needs to be re-dressed and the detailing improved to effectively weather.

#### **P4**

Asphalt dressed from S2 with outer bead to masonry face. Serviceable. As this progresses against Elizabeth House it is lead clad. Serviceable.

Ongoing issues with thermal stress and cracking to the asphalt. In the short term this needs sealing, in the long term re-dress with lead or provide coping cap. The lead against Elizabeth House gives the impression of slight creep. Monitor.

As per 2018. This will be covered by the 2025 high level works.

#### **P5**

Upstand to north west corner and return. Mineral felt capping on masonry head. Recently applied, serviceable. This runs through between the north face of S2 and S3.

With the passage of time, this is showing a little thermal creep although is still competent.

As per 2018. This will be covered by the 2025 high level works.

#### **P6**

Mineral felt clad face on north side. Serviceable.

We would note that all these mineral cappings and flat roof coverings are modest in form. They have limited life expectancy and become brittle as they decompose. An allowance for regular inspection and re-covering should be made of all this form of capping which has a short life expectancy. Budget to redesign and replace.

Still satisfactory. See general comments.

As per 2018. This will be covered by the 2025 high level works.

## LEADWORK

The building has had a fair amount of re-leading work undertaken in the recent past.

Lead dressings have been provided on the cornice oversails to the front south elevation and returns. These have been mechanically fixed, welted and welded. It has not been the easiest of sections to deal with but the leadwork as seen appears to be sound and in good order with no signs of stress cracking, movement or failure to cause concern.

As stated, some lead dressing has been provided around chimneys C1, C2 and C3. We believe partial lead tray work has been provided with new cover flashings.

The lead cover flashings to the coping stones require minor pointing in under and behind the stones.

Lead dressing has been provided against Elizabeth House on the west face of R2. This is well detailed and servicing the building adequately.

Lead vents are provided around roof area R2, being V1, V2, V3 and V4. Our comments about weathering of the capping and the restriction for water out flow should be noted.

Lead dressing is provided around the upper ventilators on R3. Serviceable.

An internal valley gutter is provided with steps, discharging rainwater to east and west behind roof area R1 north slope. This was accessed and appears to be sound and in good order.

Lead flashing and weathering details are provided under the barges to weather the slate hanging on the gables of R2. These require minor re-dressing to the slate line. Soaker details to the ventilators have suffered minor damage and require running repairs.

Lead collars have been provided to various ventilators on R4. The weathering is poor.

Crude flashing details have been provided under the gutter line on the west face of R4. These need re-setting.

We noted a number of crudely dressed valley outlets under the slate line where the woodwork has not been properly protected and has rotted. This requires re-detailing with improved lead dressing.

Lead dressings are provided to the ventilator terminals on the west face of R5. The lead flat is provided below the access walk way. This is used as a regular access point and the dressings to the rolls are being compromised. Again here is a build up of debris and detritus which needs to be removed. There is some evidence of creep and stress cracking. Constant dripping of water from the plant and pipes here along with the rather random storage material that needs to be reviewed. The redundant pipe runs and cabling should be removed and consolidated.

The lead is dressed under the gutter line of R5 on the west face with change of level. Some sections are slipping and require re-setting. Lead continues to the back of the parapet to P3. This is set under a steel profile capping.



The lead to the abutment of the gable below chimney C2 has also crept and require re-dressing.

There has been no change or improvement to the lead work at all. We did see some further stress cracking in the lead and consistent need for checking where this is pointed in to the masonry, coping stones, parapets etc. In places this is loose and will be compromised. We re-iterate our comments on chimneys, cover flashings, Elizabeth House, ventilators. There is considerable debris and detritus on the internal valleys that needs cleaning to facilitate a more detailed inspection. We re-iterate our comments about the ventilators and lead dressings to the east face of the Chapel roof.

Again, there are ongoing problems of outlets and lead discharges and pipes and hoppers which are getting blocked. If not maintained and cleaned properly the lead work and roofing will not function properly.

Comments as per 2018 apply. Note the weathering details below chimney C2 has crept further as per earlier comments. Lead to underside of R5 needs to be redressed and clipped to avoid ongoing wind uplift.

## RAINWATER DISPOSAL

We would comment generally on rainwater disposal on the building which is not particularly good. Progressing from the west face towards the east, there are two outlets on the west side. One discharges through the parapet P5 on the north wall west corner below roof area R2, the second one is on the south end of this run. Plastic guttering has been provided to service roof area R2 and R3. This takes a lot of water away from the lower decking but we would note that the guttering being plastic and inappropriately secured, is defective for a number of reasons as below.

- (a) It has sagged badly and thus detritus is settling within it causing a blockage.
- (b) It is very low to the slate line and water is getting driven between the slate line and the guttering causing rot to the back boarding and fascia.
- (c) The rainwater pipe outlets discharge through the parapet walls causing a potential blockage especially when at deck level. This could cause a back up and cause problems of flooding from within.
- (d) Screw fixings to hold the gutter and downpipes together go deep into the pipes again causing a potential for blockage.

We are of the opinion that the simplest way of dealing with rainwater on the roof is to remove the amount of potential areas for blockage. We are concerned about:

- (a) The paving slabs and insulation.
- (b) Limited exit points.
- (c) Potential for blockage of outlets through parapets.
- (d) Potential for blockage when rainwater goods sit on the roof areas.
- (e) Potential blockage through the rather Heath Robinson guard rails to the roof areas.

We believe that a review of rainwater discharge onto the flat roofs and parapets is needed to try and simplify the situation. We would also suggest that an increase in size of hoppers, downpipes and rainwater goods servicing the roof areas should be considered.

We noted a number of the hoppers are the older style cast iron units. The fixings of these need to be reviewed.

Much replacement aluminium guttering has been provided. Again, some of the detailing here is poor and there is evidence of blockage, seepage and oxidation of the coated aluminium which is causing problems and leakage. This needs to be reviewed.

Some of the detailing on the west side of the building is somewhat convoluted and we believe that with the downpipe detailing, there is the risk of water getting in behind these into the fabric. Damp has been seen from within.

Some of the downpipes seem to be set into the rendering with mastic sealants around them. These are vulnerable areas for moisture ingress and need to be reviewed.

Progressing to the west face, again aluminium profile gutters are provided to service the high roofs to R4. It is difficult for access and has build up of plant growth on it.

The guttering to R5 west face is plastic and sagged. Our earlier comments apply.

The parapet gutter to the infill between the two older buildings is incapable of taking flash flooding and needs further improvements for an overflow discharge.

The outlet for the parapet gutters to the south under the south face of R1 discharges to hoppers on the return corners. These are serviced by a very small lead shute pipe which could easily get blocked. There is evidence that there has been overspill here and damp in this area. Originally we suspected a considerably larger hopper was provided.

We would note that there is a very awkward area of guttering between the north end of the west facing section of reclaimed slating to R5 set below roof No. S7. This forms a very narrow gap which pigeons access. The cleaning of this is almost impossible. We strongly recommend that this be closed over with decking and a lead lined gutter to take the rainwater in a northerly direction. This would provide easier maintenance for cleaning and improvements to weathering. This will need to be carefully accessed and planned to facilitate the work.

A major review of the rainwater goods and drainage is recommended with a recommendation to redesign and replace with units suitable for the purpose.

We do not believe that any upgrading or maintenance work has been done on the guttering. This is still choked, overloaded, sagging and suffering from the defects as listed above. Our comments and advice stand.

As per 2018 only very limited maintenance. Some adjustments due to the temp coverings to the flat roof areas. The rainwater disposal will be improved with the forthcoming high level works.

## FLAT ROOFS AND ASSOCIATED PITCHES

### Roof Area S 1 (Barham Room)

This is a lower roof bounded by a simple parapet with lead clad cornice oversail to the outer faces. The roof area is on the south west corner of the building.

This was not accessed and only viewed from above.

The roof covering appears to be of built up mineral felt with an over cladding of insulation and paving slabs. A perimeter gutter is provided around the edge running to an outlet on the west face.

There is a build up of moss and lichen around this roof area. A more permanent replacement fixed access arrangement should be considered for maintenance.

We wish to comment here on the use of paving slabs and insulation across the roof areas generally. We are advised that the insulation has been provided under the paving slabs to try and improve the thermal performance of the building. Paving slabs have been laid over this to keep the insulation down whilst to a degree, providing a walk way over the roof area.

In a modest way it does protect the under roof covering however, it makes maintenance and the natural discharge of water particularly difficult. Water is sitting underneath the insulation and inevitably seedlings get into the gaps and plants grow in this silty damp environment. Improvements have been provided to try and take the rainwater away from the flat roofs by providing plastic guttering and directing any rainwater to outlets. Further comments on this are made elsewhere. A major redesign and replacement is recommended.

Whilst this paving slab and insulation proposal may have seemed a good idea at the time, we would question its effectiveness and would strongly recommend that when any replacement flat roof coverings are provided, that an allowance be made for insulating the voids and providing improved thermal performance in the more standard fashion.

To the north end of this roof area there is a sloping section which is provided with mineral felt. This provides an area for a build up of organic material and plants. This is poorly detailed. The felt weathering coat is wearing and requires replacement.

The outlet shows some modest damp which is surprising as there has not been any rain. There must be residual moisture kept under the slabbing maintaining the weed and other plant growth which is evident. This is of concern.

Our comments on this roof area from 2012 are consistent and hold. No improvements have been made.

This roof was re-coated with bitumen felt a few years ago as a temporary measure. It has been successful in this, but is not a long term solution and is due to be upgraded in the 2025 works. There is ponding to gullies and some poor junctions to the lead weathering with significant amounts of silicone used to weather. There is still evidence of water ingress in the Barnham Room below and the gully is blocked with vegetation and needs to be cleared.

## Roof Area S 2 (Philbrick)

This goes around the four sides of pitched roof R2. The greater part of this is concealed under the paving slabs and insulation. At least three-quarters of this is what appears to be a asphalt roof deck dressed underneath the slate line and painted with a silver reflective coating. To the northern end, repairs have been put in hand and a mineral felt has been applied possibly over the asphalt. The asphalt has been dressed up over the parapets as well as under the slate line. At the north side this has been over clad with mineral felt. We saw evidence of stress cracking through the asphalt outer surface specifically on the west face. This could not be checked underneath the insulation and paving slabs. Replacement should be budgeted for.

There has been some creep of the asphalt over time. Minor replacement may be prudent but at the present time we do not think that this is proving problematic.

The roof has been broken by the insertion of four ventilators. These sit on raised boxes or collars with lead capping over and then a lead vent pipe with a china man's hat positioned on top of this. Further comment on these will be made in the lead work section.

The positioning of these vents, particularly on the west side does restrict the discharge of rainwater and provides a very good place for blockage and backups. This should be modified and replaced.

Again, no change here. As with R1 the insulation is beginning to deteriorate. The competency of this and the slabbing is questionable. There are increased cracks through the asphalt reflecting thermal movement. The security of the handrail is questioned. Again considerable organic matter that needs to be cleared.

This was covered with a temporary bitumen felt coating and whilst it has performed satisfactorily and addressed the water ingress issues, but it is not a long term solution and is scheduled for improvement in the forthcoming re-roofing project.

## Roof Area S 3 (Learning Store)

Again an asphalt with insulation and paving slabs as S1. Similar comments apply. This drops down to a pitched roof set to each side of a lay light (LL1). The asphalt has been crudely weathered to the side parapets and the lay light. Patching has been put in hand due to earlier failures. This needs to be further reviewed and the weathering detailing around the lay light needs to be replaced. The quality of this is poor.

No work has been done here. Our earlier comments are maintained.

This has been provided with a temporary bitumen felt coating. As elsewhere this has protected the internal fabric, but is not a long term solution. There is a lot of ponding to the gullies indicating that dressing and formation of the gullies has not been undertaken effectively. Heavy moss has taken hold down the slopes to either side of the skylights that needs to be kept clear. This will be addressed in the scheduled high level improvement works.

### **Roof Area S 4 (Main Stairs)**

This is to the north face. Again, asphalt dressed as with S1. Insulation and paving slabs over. Mineral felt dressings have been provided to the perimeter, parapet, upstands and dressings to S5. it is possible that the complete area could have been re-felted under the insulation slabs, this could not be determined. Again this is a very mucky and difficult area to maintain with limited access. It is a good point for nesting birds and is designed for blockage and overspill. This needs further review and amendment.

As 2012.

This has been provided with a temporary bitumen felt coating. As elsewhere this has protected the internal fabric, but is not a long term solution. There is ponding to the gullies as a result of both vegetation build up and poor dressing of the bitumen. This will be addressed in the scheduled high level improvement works.

### **Roof Area S 5 (Lantern over Main Stairs)**

This is actually a pitched roof set in the midst of S4. It is four sided hipped, natural slate with moss and lichen. It is sound and serviceable although there are a number of slates broken and require a replacement. It is in a reasonably protected position. The cover is modest to the ridge line but serviceable in this location.

As 2012. Serviceable.

Significant moss growth to the slates that should be cleared. Serviceable.

### **Roof Area S 6 (Curators Office)**

This is both east and south facing being hipped wrapped around the link to the Chapel building. It is of a welshed steel covering being of modern construction. Access across it and to the higher roof areas is difficult. Maintenance of the upper gutters is awkward. The roof covering itself appears to be sound and serviceable.

As 2012, however, this does show some signs of creasing and thermal stress. Remove or attend to organic matter.

The roof covering is serviceable, but as mentioned previously the gully detailing is not well dressed. There is ongoing signs of creasing and thermal stress and potential re-covering should be considered.

### **Roof Area S 7 (Sara's Patio)**

This is a mineral felt roof with air conditioning plant on it sitting on the insulation and concrete slabbing. Our comments and concerns about this should be noted. There is extensive plant growth on this including docks and buddleia which have a very persistent tap root. This is going to compromise the weather proofing of the decking below.

This area is certainly getting worse and has been badly maintained and has nettles and other plant growth on it along with other organic matter. The dressings and detailing are getting vulnerable. This is an area that should be regularly accessed for plant maintenance but does not seem to be top on priority for fabric maintenance. Earlier comments apply.

This has been provided with a temporary bitumen felt covering as elsewhere. There is heavy ponding to the north end, which translates to the original roof covering, indicating that no rectification to the decking took place. The parapet to the north end has open joints and the capping requires resetting to secure. This roof area will form part of the scheduled 2025 works.

### **Roof Area S 8 (Portico)**

Portico roof to entrance porch, south elevation. This roof is letting water in which needs full access and upgrading. A detailed ladder inspection was not possible.

Not accessed.

Not accessed – this should be accessed with the scaffolding required for the 2025 re-roofing project.

### **Roof Area S 9**

This is the internal valley between R 3 east and R 4 west. This roof area was absolutely clogged up with moss, detritus, nesting material and standing water. The roof covering is of a Sarnafil sitting on decking which appears to discharge rainwater to both north and south. This is a very difficult area to access and improvements need to be made. As far as could be seen the membrane appears to be sound and serviceable although the cover flashings underneath are four west facing, had slipped and require re-setting.

This area has now been cleared and is relatively easy to access and clean.

Not accessed during this inspection – this area will be attended to as part of the 2025 re-roofing project.



### **Roof Area S 10 (Over Workshops)**

This mineral felt flat roof to the rear north elevation is of poor detail which rainwater discharging onto it. This needs programming for recovering with attention to the decking, fascias and weathering.

Generally there are areas of flat roofing that should be budgeted for redesigning, upgrading and replacement throughout

Not accessed.

To be attended to as part of the 2025 re-roofing project.

## MAIN WALLING

### Southern Elevation

This elevation is broken into three parts:

1. The principal section is the main entrance to the Museum. To the west of the principal facade is a two-storey granite faced extension.
2. The main block is joined with the new link section.
3. Beyond this is the pedimented gable of the Old Chapel building which is now incorporated.

The principal southern elevation is all constructed with grey granite facing stone which is well cut and coursed. The link has granite slab facing purely as a cladding with no depth to it.

Progressing from the west end the upper cornice oversail is showing signs of damp running over the cornice possibly from an overflow on the upper south west corner. This needs to be further monitored and upgraded. The walling is sound and in good order.

Progressing to the central section of the older building which is formed in five bays with horizontal courses and capitals of a fairly simple format supporting the pediment. The stonework is sound and in good order with no signs of adverse movement or deterioration. The pediment and cord along with the cornice oversail are over clad with lead as detailed above. The central portico has a fine pair of ionic columns holding the entablature and cornice. The capping is lead clad. There is open jointing in the stone work sustaining damp which in turn is allowing ferns to grow within it. This is a clear indication of damp ingress into the core structure which needs further access and pointing in if the joints.

Progressing to the link building, the cladding panels have open jointing to the granite masonry which needs to be raked out and re-pointed.

Beyond this is the principal elevation of the Chapel building. This is set under a pediment with a broken cord. It is in three bays with a central doorway and large arch headed windows. The side doors are now redundant. The stone work is of granite, well coursed and jointed. This is found in good condition.

There is evidence of overspill from cornices and rainwater outlets, gullies and hoppers, all of which is staining the fabric and causing problems of damp which should be addressed.

With the strong light, we noted some displacement of stone work over the principal older section of the Museum and the granite facing between ground and first floor windows. This does not appear to be progressive but should be monitored. We believe some movement was noted internally.

Staining from jointing to parapets evident with open joints to the parapet / coping details.

### Side Eastern Elevation

Progressing to the exposed section of the eastern wall of the Chapel, there is a small access side alley. The walling is broken into six bays with a return link beyond. The redundant windows have been blocked in and rendered over. Rendered panels have been provided below in the middle two bays. The stone work is of local Killas. It has had some lime patch pointing on it but only a modest amount. Further pointing of this flank wall is required as a matter of priority. The rainwater goods above are blocked and water is overspilling. This will be adding to the problems of damp and saturation noted within and above.

No work has been undertaken here. The jointing is very open and has been suffering from overspill of rainwater goods. Priority of re-pointing here is needed as detailed before.

The pointing continues to deteriorate and vegetation is taking hold in places. This needs to be addressed and will form part of the forthcoming works.

### **Rear Northern Elevation**

This elevation has had an over cladding with a soft mesh reinforced render on we believe some form of insulation. This has been added to the older sections of the building on the western half. There has been much impact damage on this especially on the north west corner. Rather bizarrely the render seems to have been taken over wooden sills. This will inevitably encourage rot in the timber work. The detailing here needs to be further assessed with an allowance for ongoing repairs. This will impact the moulding detail around the windows.

The lower rendering requires re-execution at road level.

As stated earlier a bollard protecting the north west corner should be provided to stop impact. This will need Highways approval.

Progressing to the back of the link building, this appears to be of traditional construction on a brick plinth with cast concrete work and render. The base of the chimney stack has been hit and the bricks damaged. This needs to be repaired and monitored.

There is some minor cracking through the rendering here. Similar rendering has taken over the mid part of the western middle range. There is a horizontal crack possibly due to thermal expansion or lifting of a steel. This needs to be monitored.

Progressing further to the rear of the Philbric Memorial Wing being the rear of the Chapel, again it seems to have a cast concrete frame with block work and render. Internal movement cracks would suggest a gentle spread on this corner which needs further opening up and investigation and monitoring.

Little if no work has been undertaken here with damage at low level to the sills, render returns etc. All as previously noted. The wooden sub sills are now rotting badly. There is damp retained in the core behind the insulation cladding which is proving to be fairly ineffective. Major damage to areas should be repaired with possibility of extensive re-rendering.

The walling continues to deteriorate here and more and more of the walling core is becoming exposed. This needs urgent attention.

In the new section of the building, there is still evidence of minor hairline cracking, but this does not appear to have got any worse, particularly as seen in the Philbric Memorial Wing behind the Old Chapel.

As per 2018.

### **West Elevation**

As with the east elevation, this is partially concealed by adjoining buildings (Elizabeth House). Where exposed the walling is largely render on solid masonry with exposed granite quoins. The west elevation of the extension has been lined out in a very plausible way. Sound and serviceable.

The smooth render abutting Elizabeth House has steels dressed within it which in time will rust and lift the walling. There is some hairline cracking which also will allow water to be driven through. This will be retained behind the dense cementitious vapour impermeable render.

The overflow pipes need sealing where they have been drilled through the walling.

We reiterate our concerns about the abutment detailing and overflow of rainwater goods in this corner. A further assessment is needed.

No change to this elevation.

## **FASCIA BOARDS AND BARGES AND SOFFITS**

The building has a number of timber fascias and soffits at high level. These are in a poor condition and desperately need cleaning down, preparation and redecoration. There is a lot of rot in the timber work that needs to be cut out and replaced. Detailing of abutments to the lead work and slate oversails and guttering all need to be attended to.

One section of guttering on the east face of R2 (Philbrick) has been fixed to new fascia which has not been painted or treated. This will rot prematurely and needs replacement.

The fascias and timber weathering details in the roof line on the north elevation are poor and need substantial attention.

No repairs, our 2012 comments hold.

Deterioration continues and our comments from 2012 and 2018 apply. This will be accommodated within the forthcoming works.

## **EXTERNAL JOINERY, WINDOWS AND DOORS**

### **Southern Elevation**

This has been well maintained although it is in need of a redecoration. We noted that a number of the window sills are showing signs of wet rot at low level and to the side box framing. This will need to be carefully cut out and spliced repaired. Attention will also be required to the pulleys, opening mechanisms and locks. Running repairs will be required to the glazing putties prior to redecoration.

The windows on the Chapel elevation are more complicated with more glazing bars and smaller panes. Again, these show signs of being hungry for re-painting with attention to the glazing bars and putties. Our earlier comments apply.

A detailed ladder inspection should be undertaken of all windows prior to programming the decoration cycle and repairs. The windows were not opened internally due to displays, security etc.

Significant deterioration with rot evident to the cills and box frames to upper floor windows. Ground floor windows in better condition but still showing signs of deterioration. No decoration has taken place since the 2012 report. We recommend decoration every 5 years as part of cyclical maintenance to maintain integrity. An extensive programme of window repair will need to take place including repairs to rotten elements, re-puttying and full decoration having removed paint layers down to the bare timber. A full assessment should be undertaken when scaffolding is erected.

### **Eastern Elevation**

There are no low level windows on the east elevation. Window and door on the east elevation.

These should be repaired and decorated.

### **North Elevation**

The rear elevation, north has a number of Crittall steel framed windows set in wooden sub-frames. Some still retain some of the older wooden casements. The Crittall steel windows are in a poor state of repair and require major cleaning down, de-rusting and repairs and/or programming for replacement. The doors and frames require repairing and attention prior to redecorating.

Some of the lower timber framing is also showing signs of softening and the need for splice repairs. They all need redecorating.

Ongoing deterioration of the windows on this elevation. Full access, repair and overhauling required as per 2012 details.

Arched window to roof void of R3 north end showing signs of rot due to lack of decoration. Repairs and re-decoration required when high level roof access is provided.

## Western Elevation

The west elevation has three windows, two first floor and one ground floor and a side access door. These are in reasonable condition. They were not accessed internally nor open.

As per south elevation the windows are showing signs of deterioration with rot evident to cills and box frames. Access to fully assess is required along with a programme of repairs and re-decoration.

## Roof Access Doors

The timber doors that access onto S4 and S7 are showing signs of rot and deterioration due to ponding of the flat roof against the door base. These require repair and redecoration along with overhauling of the fixings and furniture.

## General

As a general point, we would note that some of the windows and frames are in need of re-sealing and pointing to the masonry.

Our comments about repair and maintenance to the fascias and high level joinery should be noted.

There are some high level windows, skylights and units to the upper offices. These are modern units. We noted that they need running repairs and attention to the gaskets and sills, opening mechanisms. These are not maintenance free.

There are some upper lights to the central galley. These are in reasonable condition although they were not inspected in detail partly due to external claddings. An allowance for minor running repairs and redecoration should be made

Generally we would recommend repairs to the principle sliding sash traditional windows with some replacement to improve thermal performance. The steel frame windows should be programmed for replacement and upgrading thermally and for security all subject to statutory approvals.

It would appear that no decoration work has been undertaken on the principal windows and doors. These are all in dire need of ongoing splice repairs, overhauling, preparation and redecoration as detailed previously. No change.

Comments as per 2012 and 2018.



## **PATHS, BOUNDARIES AND ACCESS WAYS**

Access to the Museum is off River Street. Steps rise to the main entrance way. These are gentle with a handrail. Minor pointing is required to the open steps and pavings. The rough crazy paving slate to each side of the path needs attention. It would be prudent to consider replacing this with a more appropriate granite slabbing.

A gentle path leads in front of the link to the Chapel entrance. Again, minor pointing of open joints.

The front railing onto River Street requires cleaning down, treatment and painting. Minor pointing is required for lower plinth stones.

Coping stones to the garden area require re-setting.

To the north, access is immediately off the highway. There is no separate curtilage.

Handrails are needed to the steps between areas to the front.

Same repairs are required with further work to paved areas, cappings and retaining walls whilst paying attention to replacing. The planting is well maintained.

Open joints to granite paved areas need to be addressed with re-grouting having removed vegetation.

## INTERIOR

A visual inspection was undertaken of the interior accommodation of the museum, gallery stores and ancillary accommodation. This was taken from floor level.

We confirm that we have not undertaken any opening up nor destructive surveying. Further inspections may be necessary.

This report does not comment upon internal services, heating, plumbing, electric. These should be tested in compliance with current public and health and safety policies and as required by Directors and insurers.

### **ROOF VOIDS – all as per previous reports.**

Limited access was given to the roof voids. **Minimal access provided throughout.**

#### **Roof Void R1 (Library)**

Limited access. New steel structure on columns and bracing. Inadequate insulation. Further access needed by arrangement.

#### **Roof Void R2 (Philbrick)**

Gang nail plate truss on raised shuttered concrete collar supported on steel framing with ladder strutting across supporting glazing. Later 1990s gang nail plate added, replacing lantern or glazed structure unknown.

Water getting in the corners due to poor detailing at low level. Re-detail behind secondary fascia. Possible condensation. Possible water entry through Chinaman's cap and lead vent to ventilators below (ref. external section of report).

#### **Roof Void R3 (Main Gallery)**

Steel frame lightweight trusses supporting an upper slated area with what were glazed panels to mid span. It has been braced with steel ties and bars at a later stage. The lower level has a cast concrete beam, which seems very heavy for the truss blade. Rust appears to be occurring where it is dressed into the lower wall, particularly on the east face. Further investigation needed. Roof void insulated. Ventilators are provided. There is some evidence of earlier damp around them.

#### **Roof void R 4 – See Room 5.01 (Archive)**

#### **Roof void R5 – See Room 5.09 (Chapel)**

## LEVEL 5

### Room 5.01 - Archive

Ceiling plasterboard to rake. Minor cracking. Damp staining to the north and east. South and west block have shrinkage cracks. Steel frame and purlins.

Walls stud. Dry lining and block work.

Floor vinyl sheet.

No change.

Damp staining resolved.

### Room 5.02/5.03 – Vestibule

Ceiling raked. Plaster to purlins, galvanized, running to the ceiling.

Walls to staircase (north) solid plaster to the west. Block to south and east. Movement cracking below steel bearer with cast lintel. Possible tracking and blistering on lintel following damp.

Floor vinyl on suspended.

No change.

No change.

### Room 5.04 – Boiler Room

Ceiling raked. Plastered. Question fire line. Minor shrinkage to purlins and blockwork.

Walls painted block. Movement crack in corner return under steel frame bearing.

Floor vinyl sheet, suspended.

Other Comments the space is vented. Boiler valve, pressurization vessel etc was not inspected.

No change.

No change.

### Room 5.05 - Rear Stairwell Upper Landing

<u>Ceiling</u>	raked. Galvanized purlins. Shrinkage to timber.
<u>Walling</u>	stud to south. Part block back to boiler. Block outer north and west.
<u>Floor</u>	landing and staircase.
<u>Other Comments</u>	shrinkage cracks to blocked ceilings. Cracking to side of chimney stack off landing.

No change.

No change.

### Room 5.06 – Directors Office

<u>Ceiling</u>	Plaster and galvanised purlins.
<u>Walls</u>	Block and stud.
<u>Floor</u>	Suspended. Access door to roof void.

No change.

No change.

### Room 5.07 – Lift plant room top

Block work with minor cracking. No change.

No change.

### Room 5.08 – Boiler Room

Stud work and lining no change.

No change.

### Room 5.09 – Upper Plant Room

Large roof void with ventilation plant, trusses, bearing with purlins, purlin ends on both west and east faces, north end are rotten and need picking up at the rafter abutting the dividing wall to the Upper education Room. Leaking around ventilator terminals on west face, insulation poor. Insulated head to eyebrow in Treffry.

Leak around ventilator addressed. Leak has occurred in south east corner, now addressed.

No change

### **Room 5.10 – Walkway over Main Gallery**

See roof void R3.

No change.

No change.

### **Room 5.11 – Walkway – over Philbrick Gallery**

See roof void R2.

No access.

No access.

## LEVEL 4

### Room 4.00 – Upper Main Gallery

Barrel roof with we believe, steel principles, boxed and panelled with plaster mouldings. Supports and purlins and glazed panels now covered over and slated. Central ventilator with walk way above. Damp in third bay from south west face. Damp in north east corner.

Damp staining progressed to third bay from south west face. Damp in north east corner resolved.

Minor cracking to north and south gables on east face and west face north west corner. Some patching of paintwork otherwise sound.

Damp has been resolved and cracking has been filled. The ceiling looks in better condition.

### Room 4.01 – Learning Store

Ceiling Damp to ceiling around skylight.

Walls Damp and salting around doors. Plaster poor to all.

Floor Parquet

Damp and salting continues, very humid space. Moisture ingress around lights and poor roof detailing. See above.

As per 2012 and 2018.

### Room 4.02 – Staircase access to roof

Plaster poor. Patch repairs required. Open gap to west of door into small gallery should be filled to ensure fire protection is maintained.

### Room 4.03 – Textiles Store

Ceiling Plasterboard and skim.

Walls Concrete block and some rendered with cast raising on the back wall west face.

Floor Suspended vinyl. Minor hairline cracking to west end.

No change.

No change.

#### **Room 4.04 – Lobby to Textiles Store**

Ceiling Plasterboard and skim. [Minor cracking to north end.](#)

Walls Stud.

Floor Suspended, wrapped around staircase.

[No change.](#)

[Cover required for light fitting, which is currently exposed.](#)

#### **Room 4.05 – Dog Leg Staircase**

Ceiling plaster and rake.

Walls to east step cracking through block and abutment to casting of Level 3 stairs.

[No change.](#)

[No change.](#)

#### **Room 4.06 – Lift Shaft**

No comment.

[No change.](#)

[No change.](#)

#### **Room 4.07 – Void**

Ceiling Plasterboard. Sound.

Walls Mix block / plasterboard on stud. Sound.

Floor Boarded on suspended – sound.

[No change.](#)

#### **Room 4.08 – Upper Education Room**

Ceiling suspended grid pattern.

Walls inner and outer, stud/dry lined. Glazing to north. Outer framing needs running repairs and painting.

Floor [Carpet](#)

[No change.](#)



### **Room 4.09 – Store – Limited Access**

Stud work to north east corner return. Limited access.

### **Room 4.10 – Storage Space/Plant**

Stud work to north east corner return. Limited access.

No change to stores.

### **Room 4.11 – Storage Space/Plant**

Ceiling Stud under the slope.

Walls Stud and solid

Floor Concrete with bracing.

No access.

As per 2012

### **Room 4.12**

No access. No comment.

No access.

Small store with flue from services. There are no issues with the space.

### **Room 4.13 – Lift Well**

No comment.

No comment.

As above.

### **Room 4.14 – Staff Stairwell**

Ceiling Raked to galvanised purlins.

Walls Plaster on stud.

Floor Stairs

No change.

No change.

### Room 4.15 – Lobby to Programme Office

<u>Ceiling</u>	to rake: new
<u>Walls</u>	Thin plaster walls plaster on stud.
<u>Floor</u>	Suspended

No change.

No change.

### Room 4.16 – Programme Office

<u>Ceiling</u>	Steel truss supported with galvanised purlins, plasterboard drawn beneath.
<u>Walls</u>	Steel frame, solid. Partly illuminated by double glazed windows to which earlier comments apply. Some minor cracking around beam to south side due to thermal movement. This should be monitored, but should be dealt with through decoration works.
<u>Floor</u>	Suspended. Carpeted.

No change.

### Room 4.17 – Boiler Room

<u>Ceiling</u>	Raked plaster, galvanised purlin.
<u>Walls</u>	Plaster on stud.
<u>Floor</u>	Suspended.
<u>Other Comments</u>	Room is vented. Boiler is positioned with valves, pipes and pressurisation vessels.

No change. No change.

### Room 4.18 – Courtney Library Mezzanine Floor

<u>Ceiling</u>	suspended ceiling with acoustic tiles. Damaged. Cracking to rear wall, north. Displaced panels to north east corner need to be re-set
<u>Walls</u>	Crack by entrance door to 4.19. Damp staining to wall and ceiling to south wall east end. Water ingress from roof coverings above. This will need to be rectified and made good following the roofing works. Some minor cracking to west end of south wall that should be monitored.

Floor suspended on frame.

We would recommend checking the readings on the crack monitors/tell tales and assessing movement both of studs and glass tell tale. Still applies.

#### **Room 4.19 – Access to the roof void ref Roof Void R1**

Reveals a light weight steel trusses with purlins supporting over spaced 2 x 2 softwood timbers and valley decks. Insulated felt behind. There is some rusting to the purlin ends where they go to the wall heads. The void is not insulated.

Ceiling A suspended ceiling is hung below. Evidence of underside lead corrosion.

Walls plaster on solid, damp staining. Some cracking. We are advised that this is as a result of the damp ingress prior to re-roofing. Plaster is salted and will attract damp from the atmosphere.

Floor Suspended frame.

Ceiling still open. Plasterwork still salted but due to be decorated. Minor cracks through plaster.

Attended to.

#### **Room 4.20 – Lobby to Library Archive**

Ceiling grid pattern with acoustic tiles. Damaged.

Walls plaster on solid with cracking in south east corner.

Floor vinyl on solid.

Other Comments limited access to the roof void showed slender slating rafters on steel with insulated backed sarking felt. This has no thermal value at all. There is no other insulation. We are advised that the main front section of the building was reconstructed with a steel frame in 1973.(R1)

No change.

Damage / protection from historic water ingress evident to NW corner of ceiling. The leak was from the valley above and this has been attended to.

### **Room 4.21 – Upper Archive Part of the Philbrick Upper Section**

<u>Ceiling</u>	grid pattern with plaster ventilators. On the curve. Evidence of earlier damp ingress and some rot to the ribbing which needs to be carefully monitored.
<u>Walls</u>	hessian, lined on battens and stud.
<u>Stairs</u>	Stairs descending to Level 3
<u>Other Comments</u>	Where ceiling has been broken there is evidence of timbers, cast concrete and steel. The steel is showing signs of rusting. This needs further investigation and may need de-rusting and assessment of structure. This appears to follow the principle ribbing.

No change.

Ceiling replastered and repaired. Steelwork no longer exposed. Plaster needs to be decorated.

### **Room 4.22 – Archive Cupboard**

As 4.21

No change.

No change.

## LEVEL 3

### Room 3.01 – Outside stairs

No change.

### Room 3.02 – Small Gallery

Ceiling Plastered. Damp in north east corner.

Walls Concealed by cabinets.

Floor Solid and carpeted.

Re-modelled and repaired.

All sound.

### Room 3.03 – Staircase

Access to Fourth Level.  
As per 4.02.

### Room 3.04 – Staircase

Ceiling Coffered and beamed with mouldings and cornice. Glazed panel infilled and roofed over. Minor evidence of condensation and damp from the inside. Monitor.

Walls Plaster on solid open balustrade to stairs.

Stairs Terrazzo solid. Cracking to goings. Cracking in process of being attended to.

Condensation seems to have been addressed. 2018 comments apply.

### Room 3.05 – Main Staircase West Landing

Ceiling Coffered to beams and mouldings. Damp staining due to ingress on north wall down the centre . Cracking to the cornice. Damp and cracking to the south west corner.

Walls Walls plaster on solid with salting and cracking at high level, paint peeling.

Floor Terrazzo solid here, as elsewhere, cracking at joints. Some open, some filled. Cracking in process of being attended to.

Damp staining addressed.

### **Room 3.06 – Main Staircase East Landing**

Walls Damp on north wall, cracking reflecting that in 3.05. Plaster on solid, minor salting. Cracking to WC door.

Floor Terrazzo infilled cracks not apparently progressive. Slightly uneven.

Damp and salting addressed.

Terrazzo is in the process of being repaired.

### **Room 3.07 – WC**

Ceiling Plasterboard and skim.

Walls Plaster on solid with panel access points, part tiled.

Floor Solid, suspended and vinyl. Contains low level WC, wash hand basin and grab rail and vents.

No change.

### **Room 3.08 – Metal Store**

Ceiling Plasterboard and skim. Cracking to north wall abutment.

Walls Concrete block north, ashlar old wall, exterior south stud, west and east. Diagonal crack from south west corner rising. Wall crack on south wall exterior by door way south east corner.

Floor Suspended, vinyl sheet.

Minor hairline crack to old render on south. Shrinkage cracks to upper north.

Not accessed.

### **Room 3.09 – Radioactive Store**

Ceiling Plasterboard and skim.

Walls Plaster on stud internally, block work externally, crack to ceiling abutment to north side. Damp staining over cavity tray to east.

Floor Suspended.

Ongoing movement to north elevation and outer ceiling level.

Not accessed.

### **Room 3.10 – Lobby to Metal Store**

<u>Ceiling</u>	Plasterboard and skim.
<u>Walls</u>	Plaster and stud. East wall block.
<u>Floor</u>	Vinyl suspended.

No change.

Not accessed.

### **Room 3.11 – Rear Stairwell**

<u>Ceiling</u>	movement, damp, salting and failure of plaster. Skimmed under the pot and beam structure set over C section joists, built into cast pads at the bottom, ceils in the midst on the south end. These were damp and movement needs to be checked to ensure that it is arrested.
<u>Walls</u>	plaster, ashlar lined in part to west. Blocks to south with hairline cracking running through and at abutment to east. Horizontal cracking running through east and vertical cracking on the north-northeast floor stairs.

No change.

No change.

### **Room 3.12 – Vestibule at Rear of Exhibition Store**

<u>Ceiling</u>	plasterboard.
<u>Walls</u>	stud.
<u>Floor</u>	carpeted, suspended.

No change.

No change.

### **Room 3.13 – Passageway to Art Store**

<u>Ceiling</u>	suspended ceiling, grid system to lower rake. Similar rake to stairs. 3.43.
<u>Walls</u>	plaster and render to west. Decorated block to north. Stud. Analyse. Cracking and damp staining to west wall upper.
<u>Floor</u>	suspended timber.

No change. No change.

### **Room 3.15 – Art Store 1**

<u>Ceiling</u>	exposed slabbing, pre-cast. Fitted with racking.
<u>Walls</u>	concrete block. Cracking in north east corner. Access to lift.
<u>Floor</u>	frame slab and stone racks

No change.

### **Room 3.16 – Art Store 2**

<u>Ceiling</u>	plaster with storage grids and tracks.
<u>Walls</u>	not fully inspected due to racking.
<u>Floor</u>	runs with tracks.

No change.

No change.

### **Room 3.17 – Art Store Small Store**

Cast concrete ceiling in part with higher ceiling formed from grid system. Plasterboard on stud / blockwork walls. Hardboard floor.

Sound.

### **Room 3.18 – Art Store Under Stairs Cupboard**

Not accessed.

No change.

Not accessible due to stored items.

### **Room 3.19 – Exhibitions Store**

<u>Ceiling</u>	Plasterboard.
<u>Walls</u>	Plaster on stud to the north, dry lined to east and west. Portable partition to south.
<u>Floor</u>	Solid, carpeted.

No change.

No change.



### Room 3.20 – Philbrick Gallery

This we are advised is part of the early twentieth century extension. Steel frame and timber, hessian to the coving of the ceilings. Glass panels above now papered and straight painted.

Walls Lined off and hessian. Vented.

Floor Timber floating floor, this will be vulnerable to changes in humidity and minor movements to the timber.

No change.

No change.

### Room 3.21 – Library Archive Store and 3.22 - Stairs

Ceiling Plasterboard running to box beams with staircase going to Fourth Level

Walls Part hessian on batten. Stud work to Philbrick (3.20). Damp staining to west wall.

Floor Solid vinyl.

No change. Damp to west wall no worse.

Continue to monitor damp to west wall at ceiling / wall junction. Vinyl sheet deteriorating.

### Room 3.23 – Balcony

Ceiling See 4.00

Walls Plaster and solid. Minor cracking was noted on west face.

Floor Terrazzo cast solid cantilever supports with open and infilled balustrading.

No change. Some patching and redecoration completed.

Replastering has taken place and Terrazzo floor is in the process of being repaired.

### **Room 3.24 – De Pass Gallery**

Ceiling grid pattern, plain and vented sections running to mouldings and cornice.

Walls largely concealed by displays.

Floor Vinyl sheet on parquet over solid.

No change.

No change.

### **Room 3.25 – Stairs Cupboard**

No change.

No change.

### **Room 3.26 – Under stairs**

No change.

No change.

### **Room 3.27 - Passenger Lift Lobby**

Ceiling plaster. Patching.

Walls plaster on solid and exposed stone – old Chapel east.

Floor solid, carpeted.

No change.

No change.

### **Room 3.28 – Lift Shaft**

Not accessed.

### **Room 3.29 - Link Gallery**

Ceiling raked, plasterboard under steel and linked. Damp staining in upper corner and abutments north.

Walls part stone, paper lined, dry lining and stud.

Floor carpeted on solid.

No change. Minor damp staining to north west corner and damp staining to ceiling.

No sign of dampness noted in 2012 or 2018.

### **Room 3.30 – Treffry Gallery**

Ceiling lath and plaster, patched, running to coving, skim, pierced with vents. Eyebrow formed to the south. Old Chapel rose retained in the centre. Damp staining mid southern third east face.

Walling patched, papered and half lined.

Floor wood strip on solid.

Other Comments windows to south shuttered. Fixed.

Damp staining on ceiling by ventilation system may be condensation from the system. Monitor. Cracking around front rondel eyebrow window. Monitor.

Damp staining to south side west with some minor cracking to south far east end. This should be monitored. Some damp staining to east wall at high level. We believe these are historic and decoration should resolve.

### **Room 3.31 – Finance Office**

Ceiling raked to the hip.

Walls lined and stud. Glazed wall to south Georgian wire and varnished oak.

Floor carpeted on solid.

No change but consider improved natural ventilation.

Some minor damp staining to southeast corner against ceiling with damaged plaster to walling that will need to be attended to when roof works have been completed.

### **Room 3.32 – Library Office**

Ceiling raked, south facing. Two Velux lights, minor leakage.

Walls part lined, part solid. Glazed wall to south Georgian wire and varnished oak.

Floor carpeted on solid.

Damp coming in around Velux. Review weathering and pitch and seal.

Damp still evident, but we believe it has not worsened and therefore historic.

### Room 3.33 – Staff Staircase

<u>Ceiling</u>	part plastered.
<u>Wall</u>	plaster on solid.
<u>Stairs</u>	staircase.

No change. No change.

### Room 3.34 – Unisex WC

<u>Ceiling</u>	plaster.
<u>Walls</u>	plaster on solid, plaster on stud.
<u>Floor</u>	vinyl, swept skirtings.
<u>Other Comments</u>	Contains low level WC, concealed cistern, water heater, wash hand basin. Extractor fan.

No change.

Some minor damage to wall plaster that should be attended to with decoration.

### Room 3.35 – Vestibule to Admin Offices

<u>Ceiling</u>	Plasterboard and skim.
<u>Walls</u>	plaster on stud.
<u>Floor</u>	solid carpeted.

No change. No change.

### Room 3.36 – Staff Room

<u>Ceiling</u>	plaster with low box beams.
<u>Walls</u>	plaster on solid, some lining, some exposed brick work.
<u>Floor</u>	solid, carpeted.
<u>Other Comments</u>	Internal windows to other rooms and offices.

No change.

Some minor damp staining to southwest corner that should be monitored. This should be resolve with forthcoming high level works. Lagging to pipes poor and can be improved upon.

### **Room 3.37 – Store**

Full

No change.

No longer full! No issues.

### **Room 3.38 – Now part of room 3.36 (staff room)**

### **Room 3.39 – Staircase to Library**

Ceiling Plasterboard between beams.

Wall Plasterboard and skim with solid with cracking to beam and header staircase casting.

Floor Solid cast concrete terrazzo

No change.

Sound.

### **Room 3.40 – Courtney Library**

This has been adapted with the insertion of mezzanines and walkways.

Ceiling Where they exist there are acoustic tiles and framing except between beams. There is movement on the beams especially on the front wall. Plasterboard has been provided to the west end ceiling below mezzanine.

Walls There is movement crack on the back wall reflecting Level 4 above. Plaster on solid.

Floor Suspended on steel. This is bowed and uneven where the floor has sunk due to loading against the principal. The loads should be checked and measured.

Note comments on movement from level 4 above.

Comments still apply.

### **Room 3.41 - Spiral Staircase to Mezzanine Floor**

No change.

No change.

### Room 3.42 – Charles Barham Room

This was built in the nineties.

Ceiling Central beam plasterboard, skim running to coving. Damp staining in north east corner and north west corner reference roof report. [Plaster repairs have taken place. We believe water ingress has improved following temp roof covering.](#)

Walls Concrete block external render, granite facing to south. North wall old external wall with Barham memorial wing plaque. [Bare plaster following repairs to previous water ingress damage.](#)

Floor Solid construction, carpeted.

Other Comments Window to the side sliding sash as before.

[Damp in north east corner. Assess roof from above. This may be a rainwater discharge blockage.](#)

[Damp to southeast corner and to west below valley outlet with resultant damage to plasterwork.](#)

### Room 3.43 – Stairs to Upper Education Room

Ceiling raked with grid panels.

Walls part plaster on stud, part plaster on solid.

Floor stairs.

[No change.](#)

[Damaged ceiling panel needs replacing – evidence of minor water ingress from narrow valley above between R4 and R5.](#)

## LEVEL 2

### Room 2.01 – Conservation Lab

<u>Ceiling</u>	cast and skim to lower section. Shuttered concrete into the landing of the main gallery, with rake under staircase, presumably with reinforcing. No sign of rusting.
<u>Walls</u>	stud and dry lined. Plaster on solid. Minor hairline cracking to right hand side of change of levels from lower floor.
<u>Floor</u>	non slip vinyl on suspended.
<u>Other Comments</u>	access to void under dog leg stair to main gallery with access to workshop at lower level.

Minor hairline cracking to beams spanning but nothing progressive.

Not accessed.

### Room 2.02 – Cleaners Store

<u>Ceiling</u>	reference 1.07 extended. Limited headroom.
<u>Walling</u>	exposed walling with cracking in northeast and south, particularly under bearing of steel. Exposed steel and supports for underside of landing and stairs. (Ref. 1.07).
<u>Floor</u>	sheet

No change.

No change.

### Room 2.03 not seen (External gas Meter Cupboard)

No access.

### Room 2.04 – Entomology Store

<u>Ceiling</u>	plasterboard and skim.
<u>Walls</u>	concrete block. Cracking to ring beam on south elevation and cracking at end wall of the south wall return to the west.
<u>Floor</u>	suspended, with vinyl sheet.
<u>Other Comments</u>	forced ventilation.

Minor crack to south west corner and in block work to south. Not accessed 2024

### **Room 2.05 – Lobby to Rear Door**

<u>Ceiling</u>	plasterboard and skim.
<u>Walls</u>	concrete block. Movement to base of staircase to new opening on vestibule to external door.
<u>Floor</u>	steps and suspended vinyl.

No change.

No change.

### **Room 2.06 – Car Park**

See exterior.

### **Room 2.07 - Rear Staircase**

<u>Walls</u> etc.,	concrete block, part rendered rising with steel staircase, steel landings.
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No change.

Salting to east wall with deterioration of surfaces – requires running patch repairs following repairs to roof above.

### **Room 2.08 – Goods Lift**

No comment

No change.

No change.

### **Room 2.09 – Middle Store (New Structure)**

<u>Ceiling</u>	concrete slab, colour washed. Minor damage to edges .
<u>Walls</u>	north – block and decorated and round lift and to south. No evidence of cracking to walls.
<u>Floor</u>	runners for storage with chipboard between, presumably on solid.

No change.

No change.



### **Room 2.10 – Lobby to Middle Store/Photographic Workshop**

<u>Ceiling</u>	block and beam.
<u>Walls</u>	plaster on solid. Plastered infill with Thermolite Lightweight. Cracking to mortar joints at high level on south face. Crack by door to stairs on west wall from lintel to floor level.
<u>Floor</u>	steel plate with anti slip.

No change.

No change.

### **Room 2.11 – Frame Store**

<u>Ceiling</u>	block and beam with two in situ cast concrete reinforced beams. Cracking running vertically through at least three places on each.
<u>Walls</u>	Cracking to pad below on walling and infilled blockwork from presumably earlier windows. Cracking to return of plinth on the east wall, left hand nib.
<u>Floor</u>	suspended and chipboard, opening through to 2.12, pot beam and block.

Movement cracking to beam bearing on west wall.

No change.

### **Room 2.12 – Library Deep Archive**

<u>Ceiling</u>	concrete block. Sub division halfway along to void 2.14.
<u>Walls</u>	exposed side wall to Chapel on east face.
<u>Floor</u>	chipboard, suspended.

No change.

No change.

### **Room 2.13 – Lift: not accessed** No change.

### **Room 2.14**

Inaccessible void with services.

Not accessed. Not accessed.

## Rooms 2.15 and 2.16 – Staff Staircase

Staircase – Serviceable

No change.

No change.

## Room 2.17 – WC

<u>Ceiling</u>	lath and plaster,
<u>Walls</u>	plaster on stud and solid.
<u>Floor</u>	suspended timber.
<u>Other Comments</u>	contains a low level WC, boxed behind with concealed cistern. Wash handbasin.

No change.

## Room 2.18 – Lobby to Pottery Store

<u>Ceiling</u>	plasterboard and skim.
<u>Walls</u>	plaster on stud.
<u>Floor</u>	suspended.

No change.

No change.

## 2.19 – Pottery Store

<u>Ceiling</u>	plasterboard and skim.
<u>Walls</u>	plaster on stud, largely solid.
<u>Floor</u>	suspended timber, carpeted.
<u>Other Comments</u>	heated via a single panelled radiator, thermostatically controlled. illuminated by an internal window to cafe.

No change.

Access limited due to storage racks and artifacts. The loading in this room has increased and care should be taken not to overload the existing floor. An assessment of the floor structure would be recommended.

### **Room 2.20 – Lobby to Development and Communication's Office**

Ceiling plasterboard and skim.

Walls plaster on solid stud.

Floor suspended timber.

No change.

No change.

### **Room 2.21 – Development and Communication's Office**

Ceiling plasterboard and skim with box beam.

Walls plaster on stud, plaster on solid. Minor cracking to River Street elevation to right hand side of window and return wall on west face. Window internal to cafe.

Floor carpeted, suspended.

Other Comments single panelled radiator, thermostatically controlled.

No change.

This now has a small electrical plant room off which is formed from studwork with plasterboard. No issues.

### **Room 2.22 – Chapel/Cafe Mezzanine**

Gallery retained in cast iron, re-formed with new staircase.

Below gallery tongue and groove boarding on east face.

Floor in entrance way and under mezzanine, stone on solid.

No change.

No change.

### **Room 2.23 – Stairwell from Treffry Gallery**

Serviceable.

No change.

No change.

## LEVEL 1

### 1.01 and 1.02 – Fire Escape from the Maintenance Workshop

Clean down void and re-order drainage.

No comment.

### Room 1.03 – Maintenance Workshop

Ceiling plasterboard and skim. Recessed lights.

Walls dry lined in part and plaster on solid. Damp by doors to west.

Floor solid concrete ducted. Lino painted.

No change, still minor damp at low level.

No change.

### Room 1.04 – Exhibitions Workshop

Ceiling plasterboard, underdrawn.

Walls part dry lined, part brick and stone, colour washed. Part shuttered cast concrete to main gallery staircase.

Floor solid concrete, lino painted. Minor and old cracks.

No change.

No change.

### Room 1.05 – Over 1.03 – Stairs to Conservation Lab

Plasterboard to walls – seal to ceiling at edges for fire protection.

### Room 1.06 – Cleaners Workshop

As with 1.04

No change.

No change.

### Room 1.07 – Stairs

<u>Ceiling</u>	cast underside of main gallery stairs.
<u>Walls</u>	dry lined, part rubble stone colour wash. Cracking to south and beam bearing in northeast corner. Old.
<u>Floor</u>	cast concrete.

No change, take care with loose vinyl sheeting on stairs.

No change.

### Room 1.08 – Now appears to be a store (not fully accessible)

<u>Ceiling</u>	plasterboard and skim. Minor hairline cracking.
<u>Walls</u>	plaster on solid, tiled at low level. Damp above cistern. Tiles removed
<u>Floor</u>	boarded – not fully visible.
<u>Other Comments</u>	poorly vented. Men's urinal, WC, wash handbasin. Tiling loose. Upgrade needed.

Not fully accessible.

### Room 1.09 – Lobby to Toilet

<u>Ceiling</u>	plaster.
<u>Walls</u>	plaster on solid. Extensive damp and rot to northeast corner, by door jambs.
<u>Floor</u>	solid, terrazzo finish. Cracking running through.

No change.

### Room 1.10 – Strong Room

<u>Ceiling</u>	shuttered cast concrete with steel for understairs.
<u>Walls</u>	brickwork, colour washed.
<u>Floor</u>	concrete and minor cracking between cast ceiling and walls.

Exposed reinforcing to concrete ceiling where fitting removed (we believe). This needs to be filled and repaired.

### **Room 1.11 – Vent Room**

<u>Ceiling</u>	cast concrete.
<u>Walls</u>	solid, Thoroseal and damp.
<u>Floor</u>	concrete, vent ducts within.

No change.

Not accessed.

### **Room 1.12 – Stone Store**

<u>Ceiling</u>	plasterboard and skim.
<u>Walls</u>	concrete block – colour washed. Minor cracking over door to 1.13.
<u>Floor</u>	concrete lino paint. Steps down to 1.13. Some cracking to concrete at west end.

No change.

### **Room 1.13 – Inner Lobby to Basement Control Room**

<u>Ceiling</u>	concrete under stairs and boarded over door.
<u>Walls</u>	concrete block to cast beams.
<u>Floor</u>	solid with drain access chamber.

Some damp staining to ceiling near underside of stair due to deterioration of north wall.

### **Room 1.14 – Outer Lobby to Basement Control Room**

<u>Ceiling</u>	board.
<u>Walls</u>	concrete block
<u>Floor</u>	hairline crack to framing in southeast corner. Dog-leg of stairs. Cast concrete stairs.

No change.

No change.

### **Room 1.15 – Wet Store**

<u>Ceiling</u>	cast concrete.
<u>Walls</u>	tanked and failing.
<u>Floor</u>	concrete slab holding water. No ventilation, no drainage. Duct pipes encourage water in.

Still damp. No change.

### **Room 1.16 – Sheep Store**

<u>Ceiling</u>	cast concrete slab, shuttered.
<u>Walls</u>	concrete block.
<u>Floor</u>	concrete slab. Previous rot in here at west end. The area would benefit from ventilation. Heavy condensation.

Not accessed.

Not accessed.

### **Room 1.17 – Rashleigh Gallery**

<u>Ceiling</u>	broken into seven bays with beams running east-west. Damp staining on west end southwest corner, in the second bay intersection and seventh bay north. Ceiling plaster running to cornice boxing. Minor hairline cracking and scouring. Serviceable.
<u>Walls</u>	plaster on solid, scarring to the blocked windows on west and to a lesser degree on the north. Hairline cracking running below beam position and ventilator inlet. Damp staining as from ceiling. Salting and plaster.
<u>Floor</u>	boarding, polished on bearers.
<u>Other Comments</u>	the room is entirely internal. Windows to the south at high level, being two in number, have been blocked off from outer side and glazing removed.

No material change, although still fairly extensive salting and damp on west and south west corners.

This room has been completely refurbished with dry lining and full displays. We assume damp staining and salting has been attended to.

## Room 1.18 – Main Gallery

A full height structure with gallery around.

Ceiling/Roof glazed panels and central solid rafter sections with ventilation runs. It is assumed that the glass is retained under the glazed panels but has now been slated over. Further investigation and confirmation is needed from above. Reference roof void area above the further detailing on the structure. The beams appear to be false work and plaster with slender steels behind.

Walling the upper walling and gallery is taken elsewhere. This is cantilevered cast concrete on large formed brackets. The composition and structure of the cast concrete should be determined.

The walling is plaster on solid, some lined and much concealed behind displays. Serviceable.

Floor cast concrete terrazzo, polished with cracking running through. It would appear that this flooring is barely 7” deep with minimal reinforcing. There is a system of tunnels underneath for access and services. Possible earlier ventilation scheme which may not have been installed.

The floors in the middle may not have sufficient hardcore and aggregate underneath them, thus care will be needed for any loading.

Other Comments the main entrance door has a sag to the lintel. On checking the bearing underneath, this does not appear to be problematic. The lintel may have been affected by settlement or beetle. This needs to be regularly monitored to check movement. Movement was not noted through the plaster panels or structure above the gallery.

No noticeable progress or movement on cracking. No change.

Refurbishment works underway with re-decoration and filling and repair by specialist to terrazzo floor.

## Room 1.19 – Main Staircase

cast solid form running to Gallery and floors. As above.

No change.

No change.



### Room 1.20 – Bonython

<u>Ceiling</u>	lath and plaster with boxed beams and cornice moulding. Sound.
<u>Walls</u>	plaster on solid and lined off. Lower part concealed by displays.
<u>Floor</u>	parquet. Some minor movement in some of the parquet with shrinkage of blocks, but generally serviceable. Re-set loose blocks.

No change.

Refurbishment underway.

### Room 1.21 – Rear Stairs

<u>Ceiling</u>	steel, frames to staircase
<u>Walls</u>	concrete block, damp salting and loose plaster under stairs and at low level. Cracking to blockwork and beam in southeast corner.
<u>Floor</u>	concrete.

No change.

No change.

### Room 1.22 – Lobby to Ground Floor Store

<u>Ceiling</u>	Metal sheet to stair underside painted black.
<u>Walls</u>	concrete block. Ashlar lined on old, hairline crack on the north, tie in low level with infill between different materials.
<u>Floor</u>	solid concrete.

No change.

### Room 1.23 – Ground Floor Store

<u>Ceiling</u>	cast slab and beam. Some damage due to removed wiring clips – should be filled as required.
<u>Walls</u>	vertical hairline crack through concrete block, mid position on south. Wall to 1.43 boarding and stud.
<u>Floor</u>	slab concrete with hairline cracking running through northeast to west and some crazing north to south . Timber plat to lift shaft.

Not accessed. Accessed and no change to 2012 other than noted to ceiling.

### Room 1.24 – Goods Lift Shaft

Concrete block with lower section rendered. Damp and salting. Lift equipment excluded. Door to 1.16, condensation and damp from ground level. Open cavity. Poorly insulated.

Not accessed. Not accessed.

### Room 1.25 – Switchgear Landing

<u>Ceiling</u>	softwood joists, chipboard above, un-ceiled. Consider fire boarding below joist to improve fire protection.
<u>Walls</u>	ashlar lined on solid to the west. Minor cracking to blockwork west side.
<u>Floor</u>	solid concrete, cracking through the slabbing. Probably casting crack. Exposed steel for the framework. The area needs under drawings and fire protecting. Minor hairline cracks through walling or following lines of earlier opening and some horizontal through to casting.

Concrete cast staircase to lower level with Georgian wire glass light to west.

No change.

### Room 1.26 – Passenger Lift Lobby

Void with services underside stairs.

<u>Ceiling</u>	Supalux under drawn, fire protected.
<u>Walls</u>	old lime plaster pierced through for services at low level and under stairs.
<u>Floor</u>	concrete. suspended with non slip sheeting.

No change.

No change.

### Room 1.27 – Lift Shaft

cracks to inner walls and earlier openings. Monitor.

No comment.

Not accessed.

### **Room 1.28 – Main Switchgear Cupboard**

Under stairs cupboard lined. Very cramped with services.

No change.

Not accessed.

### **Room 1.29 – Staff Stairwell and Lobby**

<u>Ceiling</u>	lath and plaster, minor hairline cracking, serviceable.
<u>Walls</u>	plaster on solid, stud to the door. Minor damp and salting at low level
<u>Floor</u>	terrazzo, minor cracking but serviceable.
<u>Other Comments</u>	access to under stairs service area, 128.

No change.

### **Room 1.30 – Store Room**

<u>Ceiling</u>	plaster with ducts and services.
<u>Walls</u>	lime plaster and solid.
<u>Floor</u>	solid, carpeted.

This has been partly re-configured as part of the work for 1.31. Amend plans for both.

Reconfigured to store room.

### **Room 1.31 – Post Room, now WC to Cafe**

Re-formed 2012.

<u>Ceiling</u>	plasterboard and skim.
<u>Walls</u>	plaster on solid and plaster on stud.
<u>Floor</u>	pot and beam and vinyl sheet (completed 2012)

This room has been re-configured for lavatories.

This room is now the lavatory facility to the café with vinyl flooring, washable wall surfaces and plasterboard ceiling. Sound.

### **Room 1.32 – Meeting Room, now WC**

<u>Ceiling</u>	plasterboard and skim.
<u>Walls</u>	plaster on solid and plaster on stud.
<u>Floor</u>	pot and beam and vinyl sheet (completed 2012).

Adjusted for staff and other lavatory facilities. Amend plan. Gents and ladies with disabled plant and baby change. Reset loose swept skirtings.

The lavatories are tired and in need of decoration. There are open joints to the skirtings against the walls that should be sealed. Otherwise serviceable.

### **Room 1.33 – Education 2**

<u>Ceiling</u>	plasterboard to cover.
<u>Walls</u>	plaster on solid, part concealed by cupboarding and storage. Serviceable. Evidence of earlier minor hairline cracks.
<u>Floor</u>	vinyl sheet finish. Sub structure not determined. Possible weakness by external door. Investigate.

NOTE: exit to west. Kitchen sink and drainer provided. This room is an extension with some exposed granite work from the old external wall.

NOTE: Floors have been repaired.

No change.

### **Room 1.34 – Education 1**

<u>Ceiling</u>	two bay plasterboard to coving. Box and plaster beam.
<u>Walls</u>	plaster on solid with column inserts for structural work to front elevation. Note cracking above. Damage to plaster and salting with damp at low level.
<u>Floor</u>	vinyl sheeting on solid.
<u>Other Comments</u>	under drawn to stairs to upper library.

Minor evidence of movement to front elevation, otherwise no change.

No change.

### **Room 1.35 – Store off Education 1**

Not accessed.

No change.

Plasterboard to ceiling and walls – sound.

### **Room 1.36 – Store at bottom of stairs to 1.37**

Ceiling panels as per 1.34. Walls plasterboard with Terrazzo floor.

### **Room 1.37 – Staircase to Courtney Library and up to 3.39**

Ceiling panels as per 1.34. Walls plasterboard with Terrazzo floor.

### **Room 1.38 – Reception**

Ceiling three bays, beam boxed with cornice/coving. Serviceable.

Walls plaster on solid, concealed partly by display cabinet.

Floor terrazzo style. Serviceable.

No major change. Minor cracking to some of the boxing on the beams. Patch painted.

Decoration to ceiling poor and needs attention – whole room needs freshening up

### **Room 1.39 - Cafe position in New Link**

Ceiling plaster with borrowed lights.

Walls plaster on solid, part boarded.

Floor modern laminate on solid.

NOTE: access to under floor under serving counter. Large glazed unit to River Street.

No change.

Well laid out and effective café space. No evident issues. Sound transmission through internal window to offices above is not ideal.

### **Room 1.40 and 1.41**

Timber stairs rising to cafe and mezzanine.

Ceiling plasterboard and skim, under drawing.

Stairs timber.

No change.

No change.

### **Room 1.41 – Cornwall Arts Shop Main Area**

Ceiling plaster, and boxing to beam for upper floor and exposed columns.

Walls plaster on solid. Modern conversion and lining boards.

Floor modern timber on suspended.

No change.

Some cracking evident at high level to east wall. This should be filled when decoration takes place. Monitor, but likely just thermal movement and of no concern.

### **Room 1.42 – Cornwall Arts Shop Small Display Room**

Ceiling lower, plasterboard and skim, ventilation ducts.

Walls plaster on solid.

Floor solid, minor ramp.

Other Comments fitted out shelving. A full inspection not possible.

No change.

No change.

### **Room 1.43 – Cornwall Arts Shop Kitchen**

Ceiling cast concrete slab on a beam.

Walls blockwork. A full inspection was not possible.

Floor blockwork. A full inspection was not possible.

No change.

No change.

#### 1.44 – External Walkway to East of Chapel

See external section of report.

Walls point, attend to ventilation and improve drainage.

This area needs extensive cleaning and removal of debris and surplus stored material.  
Attention to roofs, gutters etc above.

As per 2018.

#### Room 1.45, 1.46 and 1.47 – External Paved Area

As referred to in the external section of the report. Pointing of wall capping required. Re-setting of paving slabs and replacement where damaged. Handrails required to change of levels.

The gardens are well maintained. The rails require cleaning and painting.

Re-point loose slabs and steps. Control bamboo growth that could be invasive.

Replace broken paving slabs and wall cappings, point cracks and reset loose blocks. Point paving. Replace rotten planters.

Point to paving. Point open jointing to steps. Replace broken paving. Paint rails. Clean drains.

As per previous reports. Granite paving needs to be pointed as previously described.

#### Room 1.48 – Ground Floor Disabled Toilet

Ceiling plasterboard

Walls plaster on solid, part tiled.

Floor suspended timber, non slip sheet.

Other Comments it contains a low level WC, low level wash handbasin, hand dryer and contrasting grab rails. Emergency pull cord in situ. Extractor fan.

No change.

No change.

#### Room 1.49 – Store Over New Toilets

trap accessed.

Not accessed.

Not accessed.

## **BASEMENT LEVEL 0**

### **Room 0.00 – Staircase**

Ceiling boarded and cut.

Walls concrete, hairline cracking through concrete. Ashlar lining to south and new blockwork to north. Stepped where settled against cast concrete.

Floor concrete to stairs.

No change.

No change.

### **Room 0.01 – Basement Control Room**

Ceiling cast concrete, extensive salting and condensation around vents in northwest corner and pipe ducts and drains. Staining to northwest corner and plinth below.

Walls render on solid. Extensive salting and damp below ground level.

Floor lino paint ex on concrete, slab uneven, central drain in floor. Sump pump in drain. On return to staircase, crack between blockwork and plasterwork.

No change.

Delamination of concrete around flue where it exits the ceiling continues and requires stabilisation and re-plastering.

### **Room 0.02 – Basement Plant Room**

Ceiling cast concrete, render.

Walls render on solid.

Floor cast concrete with raised plinth for plant and some salting and damp at low level. Recommend cut through drainage channel to sump pump.

No change.

No change.



### **Room 0.03 – Stairs – To Control Room**

solid, improve drain

No change.

No change.

### **Room 0.04 – Basement Store**

Ceiling solid concrete with steel beams and rather odd chamfer concrete with flange. No protection underneath.

Walls solid, access to stairs. Vent.

Floor solid concrete with cracking by door. Slight camber to east.

No change.

Fire sealing required to pipe penetrations in south east corner. Protection required to exposed steel beams to increase fire protection to structure. Some minor cracking to east wall.

### **Room 0.05 – Stairs to Basement Store**

Ceiling exposed joists. Plyboard above needs under drawing.

Walls rough, blockwork, decorated, colour wash. Minor hairline cracking and cracking through ashlar. Steel framing to stairs. Stairs concrete.

Floor concrete slab with drainage gully and chamber cover.

No change.

No change.

### **Room 0.06 – Tunnels**

Floor slab to main gallery ground floor assumed to be 7" with reinforcing underneath in mesh format – rusted and inadequate cover. Voids generally dry and clear. Improve void, clear debris, remove redundant services. Check floor structure above. Damp in N.W. corner.

Not accessed

### **Room 0.07 – Under Cafe Store**

Ceiling pot and beam, uninsulated.

Walls concrete shuttered and concrete slab. Racked with shelving and uninsulated piping. Fire detector. Staircase off to area no longer used.

Floor Rough concrete

Not accessed.

Not accessed.

## **SERVICES**

Within the context of this report we would note that specialist reports have not been commissioned from:

Electrical Service Engineers  
Heating Engineers  
Environmental Engineers and Consultants  
Safety and Alarm Installation Engineers  
Environmental Monitoring Engineers  
Security Engineers

We believe these sections of the building are reported upon separately by retained consultants. This does not form part of the brief.

## **SPECIAL NOTE**

### **THIRD PARTIES**

This report and valuation is prepared for the sole use of The Institution of Cornwall and their legal advisers. No responsibility or liability will be accepted to any third part for details contained within this report and valuation.

# APPENDIX 1

## SUMMARY OF MAJOR WORK TO THE EXTERIOR (UPDATED 2024)

<b>Immediately</b>	<p>Maintain roof areas to ensure gullies and valleys are clear</p> <p>Re-set loose and damaged slates</p> <p>Re-set/point in loose lead flashings to S6 and R5</p> <p>Major review, upgrade and redesign of rainwater discharge, gutters, hoppers and downpipes (underway 2025)</p> <p>Continue to monitor and record tell tales for structural movement</p> <p><b>£25,000</b></p>
<b>Within 1 years</b>	<p>Investigate: replace slating and felt (R2), (R3), (R4), (R5)</p> <p>Re-bed ridges.</p> <p>Replace and redesign caps to lead vents (S2), re-weather loose vent outlets</p> <p>Replace upgrade detailing to ridge vents RV1 and 2</p> <p>Overhaul and ease and clean Velux lights and replace roof lights</p> <p>Move all blockwork and insulation laid on roof areas. Patch and review insulation. Replace.</p> <p>Review fixing of and effectiveness of roof level hand rails and access arrangements</p> <p>Replace and simplify roof area to east by plant</p> <p>Review all flat roof areas: access, covering, insulation, discharge.</p> <p>Redesign and replace.</p> <p>Repair and weather entrance portico</p> <p>Point old Chapel east wall</p> <p>Commence extensive programme of joinery repairs and redecoration/overhaul Crittall windows or replace</p> <p>Re-set loose coping stones and repair boundaries at low level</p> <p>Provide hand rail between front garden areas to steps</p> <p>Point voids to south wall and new link store facing</p> <p>Redesign over cladding/render to rear north – replace – protect with bollards at low level</p> <p>Replace and upgrade flat roof coverings</p> <p><b>£1,400,000</b></p>
<b>Within 5 years</b>	<p>Attend to external grounds including pointing and grouting to granite paving.</p> <p><b>£15,000</b></p>
<b>Routine</b>	<p>Reinstate slipped slates and loose tingles</p> <p>Test all services</p> <p>Clean gutters and downpipes</p> <p>Ensure adequate ventilation</p> <p>Redecorate</p> <p>Remove debris from gullies and plant growth</p> <p>Clear paths</p> <p>Check security</p> <p><b>Budget costs £1,440,000 - £1,500,000 Plus VAT and fees</b></p>

## SUMMARY OF MAJOR WORK TO THE INTERIOR

### Immediately

Address moisture ingress and make good (R2)  
Access and advise on steel truss feet, rusting and load (R3,  
above 4.19, 5.04) **£25,000**

### Within 2 years

Repair purlin ends and roof structure (5.09)  
Check glazed panels to roof/ceilings generally (4.00, 3.04,  
3.20, 1.18)  
Consider upgrade or replacement for safety.  
Assess steels, de-rust, treat (4.21)  
Plaster repair generally to cracks, damp etc.,  
Minor re-setting of loose floor coverings, general  
Improve drainage (exterior part) (1.01, 1.02/1.15/0.02)  
Monitor all major movement cracks over at least 5 years  
Monitor rot (1.16)  
Improve insulation, ventilation, access for maintenance  
Overhaul and refresh lavatories  
Decoration **£200,000**

### Routine

Test all services  
Ensure adequate ventilation  
Redecorate  
Check security

**Budget costs £225,000 to £250,000  
Plus VAT and fees**

### **Budget QI Costs for Repair and Maintenance**

External	£1,440,000 - £1,500,000
Internal	£225,000 - £250,000
	£1,665,000 - £1,750,000
	Plus fees and VAT

Subject to further opening up

Programming of works

Priorities

Logistics

Excluding services and plant

Excludes cyclical repair and maintenance



# APPENDIX 2



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DSC00046



DSC00047



DSC00048



DSC00049



DSC00050



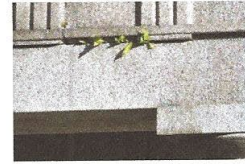
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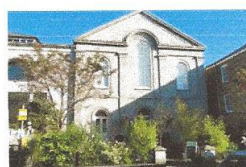
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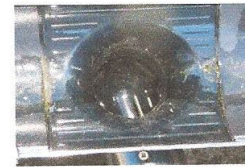
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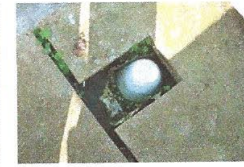
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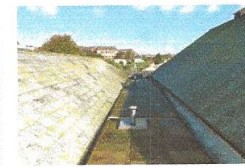
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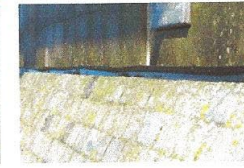
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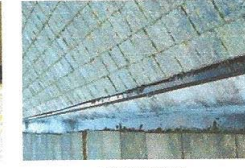
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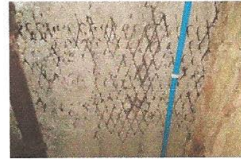
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# APPENDIX 3



Royal Cornwall  
Museum (1)



Royal Cornwall  
Museum (2)



Royal Cornwall  
Museum (3)



Royal Cornwall  
Museum (4)



Royal Cornwall  
Museum (5)



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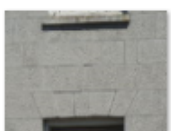
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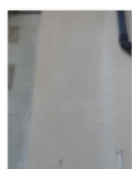
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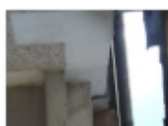
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Museum (74)



Royal Cornwall  
Museum (75)



# APPENDIX 4



1. R3 west



2. R3 west





3. R1 north



4. R2 west





5. S1 from above



6. S1 looking to the west





7. S3 ponding



8. S3 south gully





9. S3 west on pitch



10. S3 east on pitch





11. S4 and S5



12. Displaced leadwork to S6 west

# APPENDIX 5



