RTP

CHARTERED BUILDING SURVEYORS

Our ref: P190580/JD/TR

Your ref:

RTP Surveyors
12 Arwenack Street,
Falmouth, Cornwall, TR11 3JD

T 01326 318599
E falmouth@rtpsurveyors.co.uk
www.rtpsurveyors.co.uk

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STRICTLY PRIVATE AND CONFIDENTIAL

REPORT ON CONDITION OF:
Roof Coverings, Roof Voids & External Elevations

AT:
Cornwall Hospice Care
Mount Edgecumbe Hospice
Porthpean Road
St Austell
Cornwall
PL26 6AB

Prepared by: **John Darbyshire BSc (Hons) MRICS**

For and on behalf of RTP Surveyors Limited
Chartered Building Surveyors

16th, 17th & 29th October 2019

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1.0.0 INSTRUCTIONS

RTP Surveyors Limited were instructed by Mr David Johns of Mount Edgcumbe Hospice, to undertake a survey of the external elements and roof voids of Mount Edgecumbe Hospice, Porthpean Road, St Austell, Cornwall, PL26 6AB and to prepare a planned Maintenance Schedule going forward, in order to establish the current condition of the property and maintenance liability over the coming years.

1.1.0 GENERAL INFORMATION

1.1.1 Date of Inspection

The property was inspected on the 16, 17th & 29th October 2019. The weather conditions were variable with intermittent rain on all three occasions.

1.1.2 Description

The original section of the hospice is understood to have been constructed circa 1980 but has been subject to substantial alterations and extensions since. This has resulted in various individual pitch roofs, all of which are linked by valleys or sections of flat roof.

The building is predominately single storey, although there is a lower ground floor to the North West side. We believe that the lower ground floor is original with later construction over. The building is built on a sloping site and is primarily formed in load bearing cavity masonry construction, with a brick outer leaf and concrete block inner leaf.

The building is somewhat irregular in plan, partly due to original design, but also due to various extensions and alterations.

The main roof is covered with a Redland delta tile, which is an interlocking concrete tile with an angled profile. The older roofs are generally formed with gable ends and the more recent roofs are hipped. The main sections of flat roof are covered with built-up mineral felt. Valleys vary and are formed in lead, fibreglass and concrete valley formers. Some other coverings exist in localised areas as detailed below.

There are numerous penetrations to the roof slopes, both in the form of extraction vents/ducts along with numerous roof lights. These are considered in more detail below.

1.1.3 Structural Scheme

The construction does vary but is predominately in cavity masonry construction with a series of pitched roofs over, covered in concrete tiles. Some areas have flat roofs, which are covered in built-up mineral felt. The elevations are finished in facing brickwork and incorporate a series of aluminium framed double glazed windows and doors.

Small sections of the building are in timber framed construction and there are also aluminium or UPVC framed glazed conservatory and atrium structures.

1.1.4 Accommodation

The accommodation is extensive, set out to facilitate the hospice care facility. We have only focused on the exterior of the building and internal roof void spaces.

1.1.5 Grounds

The property occupies a good size plot with various garden areas and car parking surrounding the main building. There are also various outbuildings. This inspection has focused solely on the main building.

1.1.6 Orientation

The layout of the building is complex and therefore all reference to location and orientation refers to the appended drawings setting out the roof plan, and internal layout, and corresponding elevations beneath. We also append a copy of a further plan identifying the various roof voids.

1.1.7 Occupation

The building was in use and occupied throughout at the time of our inspection. However, we have only focused on the exterior.

1.1.8 Limitations of Inspection

Our report has been prepared to identify the performance in use of both construction and material rather than to identify the possible limitations of construction in relation to current Building Regulation standards.

2.0.0 MAIN BUILDING – EXTERNAL

2.1.0 GENERAL DESCRIPTION AND COMMENTS

Due to the design and subsequent extensions to the building, the roofs are substantially irregular on the plan. In order to identify the various sections of roof, a roof plan is included in Appendix A, with drawing No. 13006-02. This plan identifies each roof slope, or section of flat roof, and this numbering is adopted in the report for identification of each section of roof. We also refer to elevations below the corresponding roof slopes in the same manner.

2.2.0 MAIN ROOF

The main sections of roof are either double pitched with gable ends, or double pitched and hipped. These pitched and hipped roofs are then linked by sections of flat roof. There are also two octagonal roof structures, one of which (P53) has a glazed apex. The roof coverings are effectively continuous around the building.

The main pitched and hipped roofs are covered in a Redland delta tile, which is a concrete interlocking tile with a distinctive angled profile. The overall size of the tile is 430 x 380mm and a tile of this nature can be laid to a minimum pitch of 17.5°. The minimum headlap for the tiles was originally 75mm but research suggests that Redland changed the specification to a headlap of 100mm for pitches below 22°. This was probably in reaction to direct damp penetration to shallow pitched roofs in exposed areas.

In this case the pitch of the roofs inspected ranged between circa 22° and 25° and the minimum headlap of 75mm has been achieved. We have not inspected the fixings but would expect to find the tiles hooked over the timber battens and nailed in position, although it is feasible that only a certain number will be nailed.

Delta tiles were originally guaranteed by Redland to remain sound and waterproof for 100 years provided that they were laid in accordance with correct fixing instructions and the relevant British Standards. This is often debated and we would tend to suggest that a life expectancy of circa 60 – 80 years from new is more realistic. Often substrates can fail before the tiles, including deterioration and failure of sarking felt beneath, which then tends to result in a need for reroofing, as the secondary means of weather-proofing is reduced.

Ventilation to the pitched roofs was noted to comprise a combination of eaves ventilation and ridge ventilation. The ridge ventilation incorporates a combination of 'RedVent ridge ventilation terminals' and universal angle ridge tile vents, which are mechanically fixed into position.

The ridge tiles are formed using universal concrete delta ridge tiles with a cut profile to match the peaks of the delta tile. These are bedded in place with a sand and cement mortar with matching pointing between each ridge tile. The hip tiles comprise concrete angled hip tiles bedded in position with sand and cement mortar. These do not directly match the ridge tiles, but this is not necessarily of any concern.

Where the pitched roofs are finished to a gable end, for example the southern end of slopes P42 and P43, a dry verge detail has been incorporated. This provides a continuous weatherproof cover to the edge of the tiles at the gable end.

Eaves support trays are not present to all roofs and localised deterioration of the felt is inevitable, especially where exposed.

Eaves fillers to the peaks of the delta tiles comprise plastic triangles which are inserted to fill the triangular gap to the tile above the fascia. These are missing in some places and should be replaced, where practical.

Overall, the various pitched roof coverings continue to perform adequately at present, with no evidence of any serious water ingress beneath. We see no reason why the roof coverings would not continue to perform over the coming years, for at least 10 – 20 years, subject to some general routine maintenance as further described later in this report.

The primary concern is that the eaves areas to some of the exposed South facing slopes have suffered some deterioration to fascia boards and the edge of the sarking felt above. Minor wind driven moisture is evident within roof voids in these areas. Necessary maintenance will require some localised stripping and re-fixing of the tile coverings. Furthermore, some of the valley gutter areas will require attention short term and over the coming years, again as further described later in this report. A number of valleys have already been relined over the years.

2.2.1 Flat Roofs

There are five areas of flat roof identified on drawing No. 13006-02. These flat roofs are formed in built-up mineral felt as detailed later in this report. Roof coverings of this nature will usually consist of three layers of felt bonded and bedded with a hot bitumen. The exact number of layers depends on a number of factors including whether a partially bonded first layer is needed to accommodate substrate movements and the type of reinforcement in the individual layers.

The top layers of such roofs is normally protected with a layer of stone chippings or solar reflective paint to protect against UV degradation from sunlight. This can rapidly degrade the top layer of material if it is not adequately protected. The condition and description of each section of flat roof is further described below. Later mineral felts have a crushed slate or similar aggregate impregnated in the top layer and are therefore generally without need of an additional protective coating.

The life expectancy of flat roof coverings is not exact and does tend to depend on the quality of installation, adequacy of the solar protection and general exposure of the roof. As a guide, life expectancy is usually anticipated to be between 15 and 25 years. Flat roofs can fail quite suddenly.

Existing felt coverings vary in terms of finish. Overall, the flat roofs across the building were found to be performing adequately. Some sections of roof have been renewed more recently and other areas are perhaps now approaching life expiry, all as further described in detail below. There is no immediate failure or concern.

2.2.2 Valleys

There are numerous junctions between perpendicular roof slopes, which are detailed with a valley gutter arrangement. These are all numbered on drawing No. 13006-02 and are detailed in section 1.2 below.

The linings to the valley gutters vary between lead, fibreglass (GRP) and swept concrete tile details.

The valley gutters are in need of attention in certain areas but are generally performing adequately at present. The valleys will not have the same life expectancy as the tiled roof coverings adjacent. It can be seen that some valleys have been stripped and relined over the years. The condition of the valleys is considered later in this report.

2.2.3 Roof Penetrations and Roof Lights

There are numerous penetrations through both the pitched and the flat roofs across the property. There are also numerous roof lights of varying forms to both the flat and pitched roofs.

With all roof penetrations, appropriate flashings and weather-proofing details are fundamental. Some work has been carried out in this regard in recent years and a good deal of the roof lights have been renewed, all as further described later in this report.

Generally the areas around roof penetrations and roof lights were found to be performing adequately. There are several areas where vegetation has built-up behind outlets and this should be cleared to avoid possible blockage and water ingress. Where flat roof coverings are becoming tired, and the associated roof lights will need to be replaced and, at such time, consideration ought to be given to increasing the upstands around the perimeter to improve the overall weather-proofing detail.

The approximate positions of the various roof lights and penetrations are also shown on the appended drawing No. 13006 – 02.

2.2.4 Fascias, Gutters and Downpipes

The approximate position of the various downpipes is shown on the appended drawing No. 13006-02.

The fascias comprise a combination of UPVC and timber. The UPVC fascias are generally in satisfactory condition, although should be cleaned during normal routine maintenance. UV degradation is evident to the exposed surfaces but this is not of immediate concern.

The timber fascias are formed in softwood with a stained preservative finish. Maintenance has been carried out over recent years and the surface finishes are generally in reasonable order. However, the exposed south facing fascias in particular have suffered some rot and deterioration, particularly on the South end of the building, all as further described in detail later in this report. This has resulted in some localised water ingress into the eaves area and decay of the edges of the sarking felt. These areas will need to be replaced short term, alongside some localised repairs to the roof covering at eaves level.

The gutters and downpipes are formed in UPVC. The gutters were generally found to be performing adequately and in reasonable order but there is notable UV degradation to the material and UPVC gutters and downpipes of this nature will tend to become brittle with age and the jointing gaskets start to leak. There are a few sections where there are leaking joints and missing end caps. Although not of immediate concern, we advise a programme of replacement of rainwater goods, which we describe in detail later in this report.

Normal routine maintenance will require gutters to be cleared out and jointing gaskets checked and resealed on a regular basis.

2.2.5 Other Roof Finishes

The main sections of roof are covered in either delta tiles or bitumen felt, as described above. Two other roof finishes exist with roof P53 being finished in a 'Stonewold' concrete tile (or similar) with a glazed lantern light at the apex. Roof P33 is finished in a man-made fibre cement slate, which will possible contain asbestos.

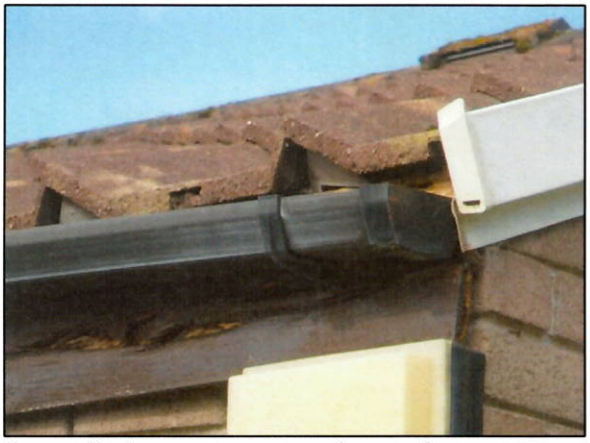
2.2.6 Detailed inspection of Pitched Roofs (Roof slopes as per drawing No. 13006-2)

P1

South facing roof slope finished in the delta roof tile. The ridge tiles are bedded in mortar but the joints to the ridge tiles are open in places and lacking pointing.

There were originally two roof penetrations but you can see that one has been infilled and the roof patched repaired. This is satisfactory. It appears that flashings to the remaining outlet have been upgraded and this area was found to be in satisfactory condition. The cowl over the extract here has suffered notable UV degradation but this is not of great concern.

We advise repointing of the ridge tiles to reduce the potential for any water ingress and ensure that these remain sound and secure. There is a slight dip towards the right hand side when looking at P1 from ground level. This is not considered of any great concern.



More notably, this roof slope faces the prevailing weather conditions and the timber fascia board has suffered notable rot and deterioration – particularly towards the right hand side. In addition, the wall plate supporting the roof structure at eaves level has also suffered slight deterioration and the sarking felt in this area has degraded around eaves.

There will be a need to replace the fascia board and rainwater gutters here short term, as described below. At the same time, it would be advisable to carry out some localised stripping of the roof covering to allow renewal of the sarking felt around the eaves, and minor timber repair.

P2

See comments in respect of ridge tiles under roof slope P1.

There are five penetrations through this roof slope for various outlets. The cowl to the largest square outlet has suffered corrosion and should be marked for replacement during routine maintenance over the coming years but this is not of immediate concern.

Aside from the above, this roof slope is generally in reasonable order. The is a UPVC verge trim to the gable end of slopes P1 and P2. This remains in reasonable order at present.

P3 and P4

This section of pitched roof is generally in satisfactory condition, with no immediate concerns. P3 discharges directly on to the adjacent flat roof. Consequently, there is no gutter here. This is perfectly acceptable but we did note that where the sarking felt extends out slightly from the underside of the tiles at eaves level, this has suffered UV degradation and has deteriorated. Regardless, we would not suggest that there is a need for any short term maintenance work here.

P5 to P12

There are three Velux roof lights incorporated into P11 and these have almost certainly been retrospectively fitted at a later date. You can see a slight trace of modern breathable sarking membrane at eaves level beneath and some of the tiles under also appear to have been replaced. This is an observation as opposed to a problem and this all appears to be satisfactory.

The flat roof adjacent to these pitched roofs has been partially renewed in previous years and the lead flashing detail beneath P12 is weak and out of alignment as a result. The lower edge of the timber fascia is also beginning to deteriorate. There is no cause for immediate concern here. The flashing should be replaced alongside the fascia short term.

Slight cracking was evident to mortar joints to the hips but nothing of concern. There is quite a notable build-up of moss growth to P5, which ought to be cleaned down as part of routine maintenance but is not of great concern.

P13 and P14

Pitched sloped and hipped end, all covered in the delta tile.

There is a general build-up of moss, which ought to be cleaned down as part of routine maintenance but this is not of any particular concern.

P15 to P19

The roofs here are all over the entrance foyer. Here there are concrete tile lined valleys and the verges to either end of the entrance foyer are finished with a fibre cement slate undercloak and the gap between this and the underside of the tiles is infilled with mortar, with additional metal clips.

Slight deterioration to the mortar beds is evident around the valleys, as described below. Aside from this, the roof coverings are satisfactory here. There are some localised cracks to a small number of tiles.

P20

A large section of South facing roof slope. This is generally satisfactory. Slight deterioration is evident around the eaves to the carrier and edge of the felt. There is no requirement for immediate action here. In time, there will be a requirement to carry out some similar repairs as described to P1, where the localised area of roof around the eaves is stripped to allow localised replacement of the sarking felt to this area and re-covering thereafter.

Two conduits enter this roof slope is finished with lead flashings. This arrangement appeared to be satisfactory.

P21

This East facing roof slope contains two roof light installations, comprising a pair and a set of six roof lights in a continuous cluster. In addition, there are numerous outlets and ventilation terminals.

The roof covering is generally satisfactory. There are some very minor cracks to a localised number of tiles in places but nothing requiring any immediate short term repair.

The roof light installations appear to have been renewed since the previous roof inspection and report in 2012. This arrangement all appears to be satisfactory.

The existing vent extract to the northern end remains as existing but this arrangement appears to be performing adequately.

The valley gutter details have been subject to upgrading here as described later in this report.

P22

Hipped end facing North. There are two vent extracts passing up through the roof covering. Some vegetation has built-up within the gutters on the high side of the outlets, which is a potential weakness. However, there was no evidence to suggest any water ingress at the time of inspection. This must be cleared out.

Some moss growth is evident to the roof covering.

P23

West facing pitched slope, containing four ventilation outlets, all finished with lead flashings. This roof is generally satisfactory. Again, there is quite a notable build-up of vegetation to the gutter arrangements on the high side of the ventilation outlets. This would be a potential area for weakness and water ingress.

We advise that these areas are cleared out as part of normal routine maintenance. There was no evidence to suggest any notable water ingress as a result at the time of inspection.

P24

Hipped end. The roof covering here is generally satisfactory. It appears that some new pointing has been carried out to the right hand hip.

There is some UV degradation to the skirt detail beneath the eaves ventilation. This is not of immediate concern.

P25

North facing roof covering generally satisfactory. Slight moss build-up at high level in particular. There are two roof lights which are presently in satisfactory condition.

Where this roof covering adjoins the adjacent P26 there is a slightly raised gable arrangement and the render surface finish here has suffered slight cracking and slight hollowness. There is no immediate concern but this area will require some attention to renew the render or over-clad short term.

P26

This small section of roof has been subject to some repair in more recent years and previously cracked tiles appear to have been renewed. This area is satisfactory. Note above comments regarding render beneath the verge.

P27

Generally satisfactory. Very slight cracking to the mortar adjacent to the valley, which is described later in this report. Ventilation outlet showing signs of UV degradation but no immediate concern.

The skirt around the eaves is deteriorating through UV degradation but we do not foresee this as any immediate concern. Some disturbance has likely been caused when the flat roof covering was renewed.

P28
Satisfactory.

P29
Generally all satisfactory.

P30
Satisfactory. UPVC verge trim and render below appeared to be sound.

P31
Roof slope generally all satisfactory. The UPVC guttering is tired, as described below.

P32
Roof slope generally satisfactory. Some work has been carried out at the western end, where the conservatory has been replaced in more recent years.

At the East end, there is a slightly raised gable above the flat roof. The lead flashing detail at the junction with the flat roof has suffered the effects of UV degradation over the years. This is becoming slightly brittle and has cracked. There is no immediate concern but this flashing will require renewal in time, certainly when the older section of flat roof adjacent is renewed.

There are few open joints to ridge tiles, particularly adjacent to valley V9. These areas would benefit from some repointing.

P33
This is an octagonal pitched roof covering and the roof covering here is formed in fibre cement slate, which may well contain asbestos. The slates are approximately 400mm x 200mm and have a headlap of approximately 100mm. This is satisfactory for this form of roof covering.

Mitred hips exist to the roof. Lead soakers have been incorporated to the mitres beneath. There are also triangular metal framed roof lights with flashing arrangements adjacent.

This roof covering continues to perform adequately, although the fibre cement slates generally now have a dulled surface and some of the fibres are slightly exposed due to general weathering over the years.

There is no immediate concern here.

There is a need to clear out gutters and channels around the roof lights, which are heavily choked in vegetation. Failure to do so could result in water ingress. This section of roof will have a limited remaining life but there is certainly no immediate concern.

P34 and P35

East and West facing slopes with a South facing gable end. Roof coverings here are satisfactory, although there is a heavy build-up of moss and gutters are heavily choked with leaves and vegetation. This area has trees overlying. We advise that gutters are cleared and moss removed during normal routine maintenance on a fairly regular basis.

P36

Pitch roofs set at a slightly lower level to P34. At the junction there are a series of lead cover flashings and soakers. A section of cover flashing is missing to the centre section and this ought to be renewed.

There are some cracked and de-bonded ridge tiles towards the North end of this roof, which require replacement and/or re-bedding. Some localised cracking and damage to corners of tiles in places.

There is also a heavy build-up of moss and vegetation to the roof slope and gutter. This ought to be cleared.

P37

Generally found to be satisfactory, although the adjacent valley V8 has a notable build-up of vegetation and is leaking, as described below. This area will need to be stripped out and renewed, which will inevitably involve some stripping and recovering of P37 adjacent.

P38

Substantial North facing slope.

Previously several areas were reported in poor condition but some maintenance has been carried out since. Two loose tiles are present on top of the existing covering, possibly left in-situ from previous repair work. There is some cracking and loose mortar to the hips at the East end. The Velux roof light appears to have been renewed. The various outlets remain as existing.

The extract and possible boiler flue outlet to the eastern end at high level have quite a notable vegetation build-up around the heads and the flashing details are potentially inadequate. Regardless, this area continues to perform at present. There is quite notable moss growth here as well and we advise that the moss and vegetation is generally cleaned down.

P39

South facing slope. Tiles generally satisfactory. There is some cracking to the vertical render at the junction with P40. This is not of immediate concern. Allow for future renewal.

There is notable loose mortar and loose and cracked ridge and hip tiles at the western end which require lifting and re-bedding.

Furthermore, the adjacent valley V8 is in poor condition and leaking. This area will need to be stripped out and renewed, which will inevitably involve some localised stripping and renewing of the tiles to P39.

P40

This South facing roof slope has been stripped and renewed in more recent years, evidenced by the modern breathable sarking membrane present beneath. This roof is satisfactory.

P41

This South facing roof slope is generally satisfactory, although some of the ridge tiles require re-pointing. Of most notable concern is that the timber fascia board is rotten and in poor condition and the gutter showing notable signs of UV degradation. Replacement is necessary short term. At such time, it would be advisable to carry out some treatment to the eaves of the roof as described with regards to P1.

P42

Large East facing slope. Satisfactory condition and no immediate concerns. Slight moss growth.

P43

This West facing roof slope is generally satisfactory. One service outlet is present, which remains in reasonable order. There is very minor damage to some of the tiled corners in localised areas but nothing of any great concern. Incorporated within this roof slopes are slopes P44 – P52, which are described beneath.

P44 – P52

This cluster of roofs are positioned above an extension to the South wing of the building. This extension appears to be in timber framed construction but is described further below. The roof layout here is relatively complex, with a series of double pitched and hipped roofs with valley gutters running down the centre.

Generally the roof coverings here are in reasonable order and have been subject to maintenance since our previous inspection in 2012. At such time, numerous broken tiles etc., were reported.

There is a loose hip tile to the bottom of the hip between P51 and P52. Similarly some of the ridge tiles here are also slightly loose and would benefit from some repointing.

Valleys V21 and V22 are lined in GRP, as described below. V22 in particular is delaminating slightly at the outer edge and this area will required some localised repair short term.

There is a generally need to clear out gutters in this area and remove moss from the roof slopes.

P53

This is an octagonal roof finished with a Stonewold tile with a lantern light detail to the apex.

The roof covering here is generally in satisfactory condition, with no immediate concern.

There is an issue with rotten timber and blown glazing units to the structure beneath, which is further described below. This may dictate a necessity to take off the roof covering and replace in due course depending on intentions.

2.2.7 Flat Roofs

F1

This flat roof is set at a slight pitch – approximately 13°. This is a bitumen felt flat roof formed in a three layer built-up felt system. There are a series of aluminium trims around the perimeter and lead lined box gutters to the lower edges.

This flat roof covering continues to perform adequately at present, with no evidence of any notable water ingress beneath.

However, there are several large blisters beneath the felt, which has caused some debonding to at least the top layer.

It should possible to patch repair and overlay this roof covering, subject to the condition of the deck beneath, which will be required short term if it is to be retained. However, there is a potential desire to replace this section of the building, which is further described below.

The roof runs to a lead lined parapet gutter running around the perimeter of the lower edge, with a PVC capping. The PVC capping and cladding is generally satisfactory, although some of the workmanship is perhaps slightly untidy.

The lead gutter has no steps in it and therefore there is reliance on the 5 No. outlets to ensure no overflowing and therefore possible leakage. There is quite a build-up of leaves and vegetation within the gutter, which needs to be cleared out at the earliest opportunity. Regular clearing must be planned going forwards.

F2

This section of flat roof spans between various pitched roofs and incorporates numerous roof lights and outlets etc. The layout and various junctions are relatively complex.

The finish varies between the South and North sides. The roof to the South is in bitumen felt and has a stone ballast laid on top to provide some protection from sunlight. At the northern end, the roof is finished in mineral felt.

The section of roof to the South side is of a greater age and the various roof lights are showing signs of UV degradation. The roof covering appears to continue to perform adequately but it is now in a tired state of repair and we recommend that this is scheduled for renewal short term. At the same time, the various lead flashing details at the junctions can be addressed. Many of these have various splits and have suffered UV degradation over the years. Quite a lot of the lead flashings at junctions are made in lengths greater than would be best practice, resulting in some splits and cracking due to thermal expansion and contraction.

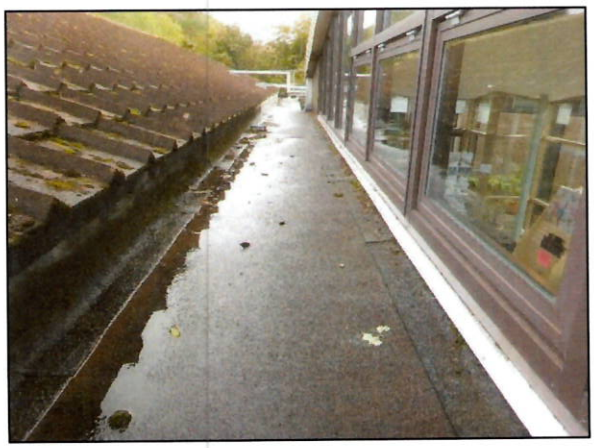
These should all be renewed at the same time as the flat roof. Roof lighting must also be renewed at this time.

The roof to the northern side is newer but has remained in-situ for some time. It does appear that there has been some work carried out at some stage, as you can see that the three roof lights appear to have been replaced and the felt within the immediate surrounding area is newer again, perhaps overlaid with an additional layer of felt at such time that the roof lights were renewed.

The flat roof here is generally satisfactory. The mineral felt finish opposite to where the roof lights are is now showing signs of generally weathering and you can see that the impregnated grit finish is lifting from the sub-strate. It would be sensible to schedule in some maintenance here during the coming years and the roof covering in this area could likely be overlaid with an additional layer of felt to add to the service life.

F3

This section of flat roof has been renewed in recent years, including replacement roof lights and detailing adjacent to the conservatory and P33.. This all appears to be in good order and there should be no problems here short term.



F4

This section of flat roof could almost be described as valley gutter and covers the area between the reception/café structure and the adjacent pitched roofs.

The mineral felt flat roof covering was found to be in satisfactory condition.

It is not new, but, similar to the northern end of F2, is more recent and continues to perform adequately at present.

There will be a need for maintenance/replacement of the raised reception/café structure, as further described below. If a decision is taken to renew this structure short term then this flat roof F4 will certainly be affected and would therefore likely be replaced at this time.

F5

Similar to F4, this section of flat roof is formed in built-up bitumen felt with a mineral chipping finish. Edge protection is provided with various blocks sitting on top accordingly.

There is a recessed gutter arrangement with numerous outlets.

The top layer of felt here is showing some deterioration and that the mineral chipping has worn away from the substrate in several areas. This will subsequently reduce protection against the sunlight and will tend to accelerate the deterioration thereafter. There is also slight blistering evident to the North West corner.

There is no short term concern but this flat roof should be scheduled for an overlaying and/or replacement within the coming years.

At the same time, the roof lights should be renewed, but there is no Immediate concern. It appears that the central roof light may have had some repair to the upstand in the past but there was no evidence to suggest any ongoing problems.

2.2.8 Valley Gutter Inspections

V1

This valley is lined in lead and the junction between the lining and the adjacent delta tiles is infilled with mortar.

This valley has been poorly cut in that the line of the tiles undulates quite notably when sighted through. There is also slight distortion to the tiles either side. However, this is more of an observation as opposed to any immediate concern.

Mortar has dropped out from the underside of the tiles in several areas and there is a build-up of moss. These areas would benefit from some repointing as part of routine maintenance.

The lead lining continues to perform adequately at present but is showing signs of general deterioration. There is no immediate concern here but we advise regular inspection of the underside of the valleys within void areas and some repair should be anticipated over the coming years.

V2

This valley is also lined in lead. This was found to be in better condition, although there are some localised areas where mortar has again dropped out. This will require some routine maintenance in due course.

V3

This valley is formed in fibre glass and remains in reasonable order. Gutters and valleys in this area do need to be cleaned out short term and will need to be done so regularly due to the proximity of trees and vegetation.

V4

This valley is also formed in GRP. Visibility was somewhat limited here but this area appeared to remain in satisfactory condition.

V5

We were not able to gain access to closely inspect V5 at the time of inspection as the weather conditions were wet on all three occasions, making the main valley extremely slippery.
The valley here is lined in lead with sand and cement mortar pointing either side.

The previous report refers to this valley being in poor condition but there was no evidence to suggest any immediate concern at the time of our inspection. Indeed inspection within the roof void would suggest this valley has been relined.

We advise that this area is further inspected at such time that routine maintenance is carried out to clear valleys of leaves etc. There does not appear to be any immediate cause for concern and maintenance work appears to have been carried out her since our last report.

V6

This valley is lined in lead and also has pointing either side to the underside of the tiles.

The valley is quite heavily choked with moss and vegetation and requires clearing. There is also a need for some repointing. Aside from this, no immediate concern and in satisfactory condition.

V7

This valley is lined in GRP and was found to be in satisfactory condition. It appears that this gutter may have been relined at some stage and the mortar remains in reasonable order. There is a slight build-up of moss growth, but more so to the main guttering beneath.

V8

V8 is lined in lead. This valley gutter is in poor condition and there is evidence of water ingress within the roof void area beneath and associated decay of timbers in localised areas. There is quite a build-up vegetation.

This valley gutter must be stripped out and renewed short term, allowing for some localised timber repairs.

V9

This valley is lined in lead. There is a general build-up leaves and vegetation but this area was generally found to be performing adequately. Some of the mortar either side of the valley is loose and should be renewed as part of routine maintenance.

V10

This valley is lined in GRP, formed in three sections.

The valley here was found to be satisfactory.

V11

This valley is swept and lined in concrete tile valley formers to a similar specification as the main tiles.

Some routine maintenance is required to the pointing in places and general clearing of moss, but nothing of any great significance and the valley appears to be performing adequately at present.

V12 – V15

This collection of valleys around the main entrance are all formed with the same swept arrangement, formed with concrete tiled valley formers with mortar pointing and the junctions with the adjacent main roof tiles.

Where visible, these valleys were all performing adequately. Some localised repointing is required in places.

V16 and V17

The valleys here are lined in lead with pointing either side. It appears that these valleys are formed in a continuous length of lead but the area continues to perform adequately at present.

V18

This valley is lined in GRP and remains in satisfactory condition.

V19 and V20

A pair of GRP lined valleys. Visibility was limited at the time of inspection but these areas appear to be satisfactory.

V21 and V22

These are two substantial horizontal valley liners between facing roof slopes. These areas are lined in GRP.

The valleys continue to perform adequately at present but are now showing signs of UV degradation. There is slight delamination to the outer edges.

There is no immediate concern but these areas will have a limited remaining service life and should be programmed for renewal, as set out later in this report.

V23

This lead lined valley gutter remains in reasonable order at present.

2.2.9 <u>Roofing Felt</u>

Roofing felt is fitted in modern construction as a second line of defence against water penetration but it also counters the effects of wind movement.

In this case, there is a bitumen based sarking felt present beneath the majority of the pitched roof coverings, above the trussed rafters, beneath the battens and tiles.

The exception is the area beneath roof slope P40 which has a modern breathable sarking membrane and, as described above, we suspect that this roof covering has been stripped and renewed at some stage. Furthermore, some of the valleys have been relined at some stage, as described below, and these areas also have a modern breathable sarking membrane in areas.

Overall, the roofing felt generally remains in reasonable order and there are no immediate concerns.

The areas is need of work to the eaves, which is primarily the South facing slopes and in particular roof P1 and P41, will need some localised stripping of the roof slates and the felt has perished around the eaves in these areas. Some localised repair will be required in due course.

Aside from this, the sarking felt should continue to form adequately for the coming years.

2.2.10 Roof Space Ventilation

It is important to maintain adequate ventilation within roof void areas to avoid a build-up of moisture and condensation, which could subsequently lead to timber decay.

In this case, through ventilation is achieved by the eaves and via some ventilation tiles to the ridges in places. There has been no problem with a lack of ventilation to date.

2.3.0 RAINWATER GOODS

The property is served by a series of UPVC gutters and downpipes. The gutters are fitted back to a combination of timber fascia boards and UPVC fascia boards.

Overall, the rainwater goods were generally found to be in working order. However, these units have clearly remained in-situ for quite some time and UV degradation is evident. There are a few joints leaking and missing end caps in places etc. Furthermore, there is quite a notable build-up of vegetation within the gutters, particularly towards the South West corners of the building where there are overlying trees.

There are some areas where timber fascia boards have deteriorated and will need to be replaced short term, as described below.

At this time, it makes sense to replace the relevant gutters and downpipes at the same time. However, we advise a programme of replacement of rainwater goods across the building over the coming years. If funds allow it may be sensible to consider wholesale replacement short term but there is no immediate requirement to do so. We suggest that this is perhaps phased as identified later in this report.

2.4.0 MAIN WALLS

2.4.9 Foundations

We did not carry out investigations to ascertain the condition of the structure below ground level. We would expect to find a series of strip footings beneath the various load bearing walls.

To check the foundations would require excavation of trial holes at various places around the main walls. In the absence of any sign of structural failure or any significant past remedial work having been carried out, we can see no necessity to carry out a detailed examination of the foundations.

2.4.10 Walls

The external walls are primarily formed in cavity masonry construction, comprising a concrete blockwork inner skin and a brickwork outer skin. The two skins of masonry will be tied together with a series of wall ties. With due consideration to the age of the building, it is feasible that insulation will be present within the cavities but the level of insulation and overall thermal performance will fall short of current standards.

The walls are finished in brickwork externally.

The masonry external walls were found to be in sound condition throughout, free from notable movement or serious defect. We do not foresee a need for any significant repairs or maintenance for quite some time.

Towards the South end of the building there is a section of the building accommodating rooms 34, 35 and 37. This is almost certainly a later addition to the building and the external walls here are finished in render and painted.

This small section of the building is almost certainly in timber framed construction, although we have not inspected the interior of this section of the building in detail to confirm.

Two substantial beams running horizontally at eaves level to either side of this structure are visible to the West facing gable end and are clad in lead. There also appears to vertical members boxed into the side elevations.

The structure here appeared to be sound. However, there is some regular horizontal cracking through the render at the approximate level of the windows. The exact cause of this cracking is not entirely clear and could simply be associated with thermal movement. The render is slightly hollow in places.

We do not consider this to be of immediate concern but the structure here is likely to suffer some deterioration if water ingress occurs behind the render, via the cracking. That said, there should be sarking membrane of some description behind the finishes.

There is no requirement for immediate repair here but this area should be monitored. As the render inevitably deteriorates further over coming years, there will be a need to renew external finishes. At such time, the opportunity should be taken to remove the render and carry out some localised opening up to inspect and ensure that the main structure is sound. Thereafter, this area could perhaps be clad in some form of board type material as opposed to render to avoid a repeat scenario. We would be happy to review and specify such works in due course.

Towards the centre of the building there is the octagonal structure that accommodates the chapel. This is identified as room 89 on the existing floor plan. The structure in this area is formed with a timber frame and there are principle timber columns on each corner of the structure with corresponding roof timbers above, held together with a series of metal ties. There is continuous glazing around the head of the structure and, below, some masonry is incorporated between the columns and there is brickwork finish externally. Full height timber framed glazing extends down the centre of each elevation of the structure.

The main structure is considered sound. However, the band of glazing at high level has suffered notable deterioration to the timber frames and glazing units, most notably to the South and West facing sides. Slight decay is evident to some of the vertical sections of glazing framing also.

We see no reason why the principal structure cannot be retained here. There will be a need to replace glazing units and repair frames etc. This is perfectly possible but it may be beneficial to consider complete replacement of the timber framed glazing around the perimeter of the structure, including the fascia board and soffit, perhaps in UPVC or some other form of material that will require less maintenance. Repairs are required short term and therefore consideration should be taken as to whether it is worthwhile carrying out such repairs or whether funds are available to refurbish the structure as a whole. We would be happy to advise further in this.

There is a further octagonal structure on the West end of the building, which is referred to as the patient lounge, marked room 61 on the appended plan. This structure will also likely be of framed construction, although we have not opened up finishes to confirm the exact arrangement.

Generally the structure was found to be in sound condition at the time of inspection. Slight corrosion was evident to some of the stop beads to the render at the corners, which will likely require attention within the coming years, although this is of no great concern.

Towards the centre of the building there is a feature structure to accommodate the seating area, referred to as the concourse on the existing floor plan, numbered 87.

This structure is formed in full height metal framed glazing and has the slightly pitched flat roof arrangement over, reported on earlier in this report. It is likely that this is a later alteration to the building but this structure has remained in-situ for quite some time.

There are numerous columns within the internal accommodation here and it is most likely that these will provide the load bearing capacity for the roof structure over and that the glazing will not provide any load bearing capacity. We would expect to find some framing incorporated within the roof structure.

It is clear that some repairs have been carried out to the glazing units and framing in places. The roof covering over is also in need of repair as described above. However, overall, the structure continues to perform adequately at present, with no evidence of any notable water ingress internally. That said, you advised that this area experiences quite notable temperature change between summer and winter months, which is not surprising, and it will offer a relatively poor level of thermal performance.

This structure will have a limited remaining life, in that the various glazing units will begin to show signs of failure over the coming years. High level cladding adjacent to the roof is also tired and will need upgrading. Although the glazing units could be renewed, it does raise the question as to whether this is economically viable or desirable. We advise that consideration is given to upgrading this structure entirely. A similar effect could be achieved with a new structure, but with much greater thermal performance and therefore more comfortable internal conditions going forwards. We have allowed a notional sum (subject to specification) for such replacement later in this report and we would be very happy to assist further with the design and specification of such structure.

There is an infill section of the building to accommodate rooms 67 and 68. The external elevations here also appears to be in timber framed construction. The elevation is rendered and painted.

This area is sound but we did note that some of the paint is lifting from the substrate at low level and there is some corrosion to the bell cast detail. This area needs to be cleaned down and thoroughly prepared before decoration. In may be the case that some deterioration and dampness has occurred to the backing board behind the render, possibly requiring some localised cutting out and repair. This will need to be investigated at such time, but is not of major concern. The bell cast detail is sound short term but eventually it will require renewal, or simply cutting off.

2.4.11 Openings

The majority of the window and door opening within the various brickwork sections of the building are served by a series of pressed metal lintels, which are partially visible above the frames. These are quite likely in the form of a duel lintel and cavity tray unit, as is commonly found in construction of this age and nature.

Slight surface corrosion is evident in places but nothing of any significant concern short term. There was no evidence to suggest any deflection or failure and we see no reason to carry out any further investigation of any of the lintel structures at this time.

There is likely to be timber and possibly metal sections incorproated within some of the timber framed and glazed sections to building. We have not opened up these areas for inspection, but there was no evidence to suggest any immediate concern and we see no reason to carry out any further investigation at this stage.

2.4.12 Cills

Cills form part of the windows or door frames and are described below.

2.5.0 EXTERNAL JOINERY

2.5.9 Eaves and Barge Boards

The various fascia boards and barge boards vary between timber and UPVC. The timber has a stained preservative type treatment. The variation and location of materials is identified on the appended drawing 13006-02.

In most places the eaves overhang is relatively shallow and therefore there are no soffit boards. Where soffits are present they are primarily also in timber.

Generally the fascia boards and barge boards are in reasonable order and the timber has been maintenance to a satisfactory standard over the years.

However, there are some areas where decay is now evident and this is primarily to the South facing elevations, tending to be towards the South side of the building. For example, the fascias beneath roof slopes P1 and P41 are in particularly poor order. There is also decay evident to the fascias to the South side of P53.

The various UPVC sections are generally all serviceable but showing signs of UV degradation in places.

There is a need to carry out repair to the rotten timber sections and, in reality, we would advise that these are removed and replaced. It would perhaps make sense to renew in UPVC in order to reduce the ongoing maintenance liability.

There will be a need for general replacement across the building over the coming years and it would make sense to do so at the same time as renewing rainwater gutters.

We have indicated a programme of replacement within the appended Maintenance Schedule. However, this is not necessarily rigid and there is no reason why existing sound timber could not be maintained for quite some time if required. This does come down somewhat to available budget, possible savings in maintenance, and intentions for the building.

Again, the UPVC sections will clearly require much less maintenance and therefore it may work out to be more beneficial to replace the timber in UPVC and the cost would perhaps balance out in time. Furthermore, it would perhaps be sensible to consider replacement alongside windows to maintain the overall appearance of the building.

2.5.10 Windows

The windows are primarily aluminium framed double glazed casement units.

The exact age of the windows is not entirely clear. A proportion of the windows to the North West corner of the building have relatively narrow glazing units and are showing signs of general deterioration and failed glazing units etc. It is quite feasible that these units are original.

Elsewhere, we feel it is fairly unlikely that the windows are original and have likely been replaced at some stage. The majority of the windows remain in working order and the individual glazing units have relatively wide gaps between the panes of glass, which would not be representative of windows available at the time of construction.

Stamping on the window frames would suggest that a good proportion of the windows were possibly renewed circa 2007. We noted a stamp on one of the windows to the East elevation referring possibly to 2002, although these indications are not entirely clear.

Regardless, overall, the windows generally remain in working order and are of good quality.

There will be a need to renew windows and doors to the North West section of the building short term. Thereafter, we advise a programme of windows and door renewals, which we have set out over the coming years to allow some spread of cost. However, if funds are available, a decision may be taken to replace the windows throughout to maintain appearance and ensure performance over the coming years. There may also be benefits in terms of economy of scale. There is no need for a complete replacement throughout short term.

2.5.11 Doors

Similar comments apply with regards to doors. There is no immediate concern, but the various units to the North West side must be scheduled for replacement short term.

2.5.12 Other Elements

There is a conservatory on the West side of the building. The glazing units and framing here all appear to be fairly recent and we understand that this was replaced in 2014. This is satisfactory and there should be no requirement for any significant repairs or maintenance short term.

To the West facing elevation beneath roof slope P23, there is an external terrace area leading out from rooms 69, 71 and 75. This terrace area effectively forms the flat roof over the lower ground floor accommodation beneath.

There is also a separate balcony serving room 81, which is a similar arrangement but obviously open beneath.

The terrace area is formed in a concrete deck and has an asphalt water-proofing surface over, with a concrete paving wearing course. There are a series of lead flashings at the junction between the water-proofing layer and the raised perimeter walls. Where there are breaks in these walls and glazed balustrading, there are a series of GRP trims to the edge of the roof covering.

The terrace area was found to be satisfactory and performing adequately at the time of our inspection. We are not aware of any issues with water ingress beneath.

We can see no reason for any significant works short term and we advise that this area is subject to regular inspection as part of normal routine maintenance. It is feasible that the wearing course and water-proofing layer may need to be renewed within 10 years but the condition would be best further assessed around this time, if no problems have developed in the meantime. There will be a need for routine maintenance to the edge protection. The metal framed glazing will require re-decoration, servicing of clamps and possible replacement within 10 years.

We were not able to gain access onto the balcony area at the time of our inspection. This suspended precast concrete arrangement appeared to be sound from ground level and the perimeter balustrading appeared to be in reasonable order. The paint finish to the soffit beneath is lifting from the substrate, which can often be an indicator that there are quite high levels of moisture within the structure. However, it may simply be a case of poor preparation.

Regardless, we advise that this area is further inspected in due course and the water-proofing layer and wearing course on top assessed. It is important to try and keep water out of such structures as much as possible to prevent any possibility of reinforcing steel becoming wet and therefore corroding. Similarly, the edge protection will need routine maintenance and likely upgrading with 10 years.

On the North side of the building, beneath roof slope P14, there is a suspended timber walkway, spanning from the main entrance through to room 81. This is formed in two substantial timber beams, with a series of timber slats over as a deck to walk on. There is a timber balustrade and timber handrail.

Overall this structure is sound but the timber handrail at the head of the edge balustrading is now quite rotten and these sections of deteriorated timber should be cut out and replaced.

The timber suspended structure will need to be redecorated periodically and we advise that at such time, care is taken to closely inspect the timber throughout and check for any soft spots or weaknesses. We have allowed for some maintenance within the coming 10 years within the appended schedule.

2.6.0 EXTERNAL DECORATIONS

External decorations are generally in reasonable order, although there will be a need to attend to rotten timber. Furthermore, some of the painted render to the timber framed sections of the building are showing signs of deterioration and there will be a need for some routine maintenance in due course.

3.0.0 MAIN BUILDING – INTERNALLY

The property was occupied and furnished at the time of our inspection and you will appreciate that this placed normal and practical limitations upon us, such that our examination was confined to a visual surface one only.

Accordingly our comments are general in nature and intended to give a guide as to the condition of the property rather than to record all the defects herein.

3.1.0 ROOF VOIDS

Roof void areas are divided into various sections, corresponding with the design and layout of the roof and alterations to the building over the years.

The roof structures are formed in modern trussed rafters and the rafters span from circa 3.5 metres up to approximately 9.7 metres.

The trusses over the older sections of the building have a common timber size, being 115mm x 35mm for the rafter cords and 96mm x 35mm for the ceiling tiles. The webs are 72mm x 35mm.

The trussed rafters in the more recent buildings have similarly sized rafter and web timbers, but slightly deeper ceiling ties – 120mm x 35mm.

The roof structures have previously been described and assessed in the report prepared by DAS Structures Limited in March 2012. Broadly, the same comments apply. There are no major concerns.

We did note that some of the recessed light fittings do not have fire protective hoods over the top and consequently it is important to ensure that insulation is kept clear. This is a possible consideration for future improvement and the lighting generally should be assessed as part of routine electrical testing.

For ease of description, we refer to the various roof void areas in accordance with the fire plan available on site and we enclose a photograph of this plan in Appendix C.

Loft 1

The roof structure was found to be satisfactory and free from notable deflection or defect.

There is extensive cabling within this loft void, some of which is now redundant and perhaps untidy. However, this is not of great concern.

Insulation above the ceilings is somewhat lacking and missing entirely in places. Consideration could be given to improvement, although it is acknowledged that this would cause quite notable disturbance to cabling and may therefore be not feasible short term.

We noted slight rodent damage to some of the insulation around pipework. This must be addressed and renewed.

Loft 2

This roof void spans over the laundry and adjacent rooms.

This roof void was found to be satisfactory. There is again numerous pipework and cabling etc. There is also a GRP water tank positioned here.

Again, insulation is lacking. To the North side of the roof void there is no insulation at all over ceilings. Consideration ought to be given to improvement in this regard.

Loft 3

This is a substantial void space over the South East corner of the building.

It appears that the valley gutter between P41 and P43 has been relined and breather felt is present here. However, the valley is partly supported on a fairly slender 5mm ply, which is deflecting significantly, as is the timber binder, which is spanning across the line of the rafters.

Support here is inadequate. However, it has clearly remained in-situ in this form for many years and generally continues to perform adequately. We can see no reason for immediate concern.

The valley V5 has also evidently been relined as you can see breather felt present beneath here. Similar comments apply with regards to bracing.

There is a lack of insulation over room 35 in particular.

Where the roof void extends to the East over the kitchen area, there are a series of substantial GRP cold water storage cisterns, insulated with polystyrene.

The first smaller tank is empty and redundant. However, the larger tanks remain in use as far as we can establish.

This arrangement appears to be satisfactory and there was no evidence to suggest any leakage or fatigue. However, it is difficult to careful to inspect the tanks from the confined space.

Upgrading or removal of the tanks will need to be considered alongside the mechanical and electrical installations for the building, for which we are not qualified to comment in detail.

We did not identify any immediate concerns here but it would perhaps be of benefit to consider future upgrading so as to avoid the need to for the substantial quantity of water within the roof void area here.

Failure of any of the tanks in this area could cause quite significant disruption to the kitchen areas beneath, with obvious ongoing affects. That said, we did not identify any immediate concerns in this regard.

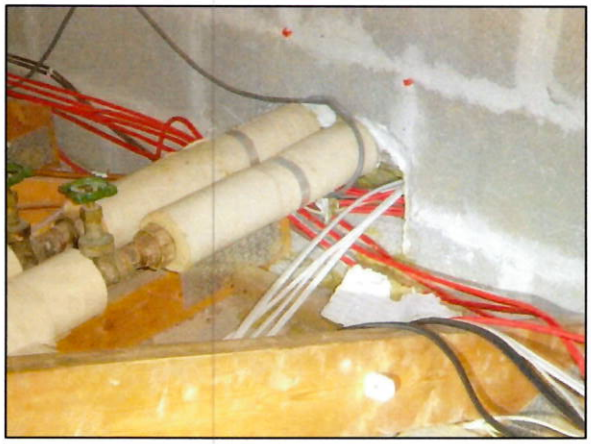
Insulation over ceilings to the East end is particularly lacking.

In particular the sarking felt and timber to the eaves beneath slope P1 have suffered localised decay. Repair work is required here, as described earlier in the report.

Loft 4

This continues from Loft 3 via a small doorway.

There are some pipework penetrations through the blockwork wall adjacent and the penetration needs to be fully infilled with intumescent foam or similar for fire separation.



A new breathable sarking membrane is evident beneath roof slope P40, which would indicate renewal as described above.

Notable vegetation growth and some rotten timber is evident to the underside of valley V8, which needs to be stripped out and renewed, allowing for timber repairs accordingly. This is described above. Insulation is again somewhat lacking at present. There are also numerous redundant cables and electrical fittings etc. This is an observation as opposed to any particular concern.

Loft 5

Again, the base of valley V8 is leaking and there is evidence of vegetation growth in this area.

Insulation is lacking.

There appears to be very slight leakage at the eaves to junction P37 with P35.

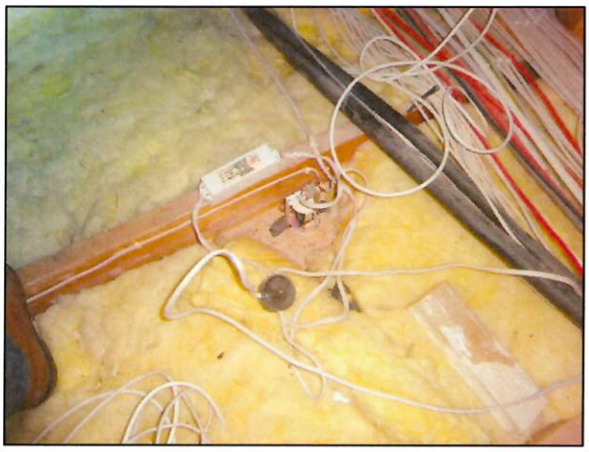
Loft 6

Generally satisfactory. There does appear to be a wasps nest to the outer corner of the roof void, beneath P34. This appeared to redundant at the time of inspection but it must be monitored.

Loft 8 (we were not able to gain access into Loft7, 9 and 10)

A relatively shallow roof void. Consequently, access and visibility is somewhat limited, but this all appeared to be in satisfactory condition.

There appears to be a redundant wasps nest to the northern side of this void. This appeared to be redundant but this must be monitored.



Loft 11
This roof void was found to satisfactory, with no major concerns.

We did note that some of the recessed light fittings do not have fire protective hoods over the top and consequently it is important to ensure that insulation is kept clear. This is a possible consideration for future improvement and the lighting generally should be assessed as part of routine electrical testing.

Some minor damage was noted to pipework insulation by rodents. This will need to be monitored and repaired as necessary.

Cabling is generally untidy in places.

Loft 12
Comments as above. The valley boards here are also noted to be relatively lightweight. However, this has not caused significant defect.

Loft 13
Within this void space the roof structure changes from fink pattern truss rafters, to attic trusses to accommodate the water tank installation here. This is now empty and redundant as far as we can establish.

The roof void here was all found to be satisfactory. We would again just point out that insulation is somewhat lacking.

9.0.0. SPECIAL NOTE

This survey is based on a visual inspection of the exposed surfaces of the property referred to, and is intended to give an indication of the general condition rather than record in detail all defects that might have come to our attention.

We have not inspected woodwork or other parts of the structure which are covered, unexposed or inaccessible, and we are therefore, unable to report that such parts of the property are free from defect.

10.0.0. THIRD PARTIES

The contents of this report are strictly confidential to Cornwall Hospice Care and their legal advisers, and for their use only.

No liability whatsoever can be accepted to any Third Party for any information, advice or opinions contained herein.

11.0.0 SUMMARY AND RECOMMENDATIONS

Overall the building is considered to be in sound condition and is free from serious defect. Most of the upcoming work to the building relates to maintenance and cyclical replacement of finishes and components reaching life expiry.

There is no particular justification to plan major redevelopment or significant external works to the building based purely upon the condition of the existing structures. That said, it would be advisable to consider renewal of the concourse/seating area of the building, to improve thermal performance, as described above. Similarly, it may make sense to replace a good deal of the external joinery to the building and upgrade with materials that will require less ongoing maintenance. For example, the octagonal chapel.

We would estimate that the main pitched roof coverings should have a remaining life expectancy somewhere in the region of 20 years but subject to localised repair and maintenance, most notable to some of the valleys and to deteriorated South facing eaves areas. If fascias are renewed then it will be necessary to lift the lower courses of tiles. At such time it would be sensible to renew the sarking felt at the eaves and we have made allowances accordingly. This will help extend the remaining life expectancy.

Various sections of flat roof will inevitably require renewal/over-laying within 10 years and we have set this out accordingly.

There should be no requirement for major works to external walls, but various elements including windows and joinery will reach life expiry within 10 years.

We have set out a schedule of planned maintenance and budget costings as appended. This is intended to provide a guide for future planning and budgetary requirements. However, the order of works is not necessarily rigid and there is some flexibility to suit requirements. Furthermore, again, it may be a case that if funds are available then an alternative approach may be considered in some cases.

For example, not all of the window and doors require renewal short term but there may be a desire to carry out wholesale replacement, in order to maintain a consistent appearance across the building and also potentially benefit from economies of scale. Alternatively, it would be perfectly reasonable to phase replacements in order to help with cash flow.

RTP Surveyors would be very happy to assist further in looking at the feasibility of any more significant alterations/improvements and also with regards to any design, specification and management of repair and maintenance works to the building.

PLANNED SCHEDULE OF WORKS

Mount Edgecumbe Hospice - Planned Preventative Maintenance Schedule 2019

RTP
CHARTERED BUILDING SURVEYORS

Item	Element	Description	Action/Repair	Year(s)			Cost (£)
				1	2-3	3 -10	
1	**ROOF**						
1.1	**Pitched Roofs**						
1.1.1	**P1**	Pitched roof, Delta tiles.	Allow localised stripping, minor repair and re-covering at eaves level.				2,500.00
1.1.2	**P12**	Lead flashing at junction with flat roof.	Replace defective and damaged flashing.				400.00
1.1.3	**P32**	Pitched roof, Delta tiles.	Alow re-pointing of ridge tiles, adjacent to V9.				200.00
1.1.4		Lead flashing at junction with flat roof.	Replace deteriorated flashing alongside replacement of flat roof beneath.				400.00
1.1.5	**P36**	Pitched roof, Delta tiles.	Allow minor repair to cover flashing at junction with P34.				150.00
1.1.6			Allow to renew cracked and de-bonded ridge tiles towards north end.				300.00
1.1.7	**P39**	Pitched roof, Delta tiles - ridge and hip tiles.	Allow to renew and re-bed cracked and loose ridge and hip tiles.				400.00
1.1.8	**P41**	Pitched roof, Delta tiles.	Allow localised stripping, minor repair and re-covering at eaves level.				2,500.00
1.1.9	**P44 - P52**	Pitched roof, Delta tiles.	Allow localised repairs to re-bed loose ridge and hip tiles.				300.00
1.1.10	**Generally**	Pitched roofs.	Clean down moss and vegetation from around openings/flashings.				-
1.1.11			Allow routine localised repairs.				5,000.00

Mount Edgecumbe Hospice - Planned Preventative Maintenance Schedule 2019

RTP
CHARTERED BUILDING SURVEYORS

Item	Element	Description	Action/Repair	Year(s)			Cost (£)
				1	2-3	3 -10	
1.2	**Valleys**						
1.2.1	**V1**	Lead lined valley	Allow some localised re-pointing either side of the valley.				300.00
1.2.2	**V2**	Lead lined valley	Allow some localised re-pointing either side of the valley.				300.00
1.2.3	**V8**	Lead lined valley	Poor condition. Allow to strip out valley, repairs, re-line and re-bed tiles adjacent.				2,000.00
1.2.4	**V9**	Lead lined valley	Allow some localised re-pointing either side of the valley.				300.00
1.2.5	**Generally**	Valley gutters	Allowance for anticipated requirement for further re-lining of valleys.				15,000.00
1.3	**Flat Roofs**						
1.3.1	**F1**	Bitumen felt flat roof covering with mineral chipping finish.	Cut out blisters, patch and overlay existing roof with additional layer of felt for short term repair. (Refer below).				2,000.00
1.3.2			Scaffold.				500.00
1.3.3	**F2**	Bitumen felt flat roof covering with stone ballast.	Strip and renew flat roof covering to older south side, including replacement roof lights and flashings at junctions.				13,900.00
1.3.4		Bitumen felt flat roof covering with mineral chipping finish.	Allow to prepare and overlay top layer of felt to north side. Note: assumes deck satisfactory beneath.				2,600.00
1.3.5	**F4**	Bitumen felt flat roof covering with mineral chipping finish.	Allow to prepare and overlay top layer of felt. Note: this assumes deck beneath is satisfactory and please refer below.				2,500.00

Mount Edgecumbe Hospice - Planned Preventative Maintenance Schedule 2019

RTP
CHARTERED BUILDING SURVEYORS

Item	Element	Description	Action/Repair	Year(s)			Cost (£)
				1	2-3	3 -10	
1.3.6	**F5**	Bitumen felt flat roof covering with mineral chipping finish.	Allow to prepare and overlay top layer of felt. Replace rooflights and flashings. Note: assumes deck satisfactory beneath.				4,490.00
1.3.7			Allow edge protection for above.				2,500.00
2	**EAVES/RAINWATER GOODS**						
2.1.1	**P1**	Timber fascia	Replace rotten fascia alongside works above.				200.00
2.1.2		uPVC gutter and downpipes	Replace alongside works to fascia and eaves above.				250.00
2.1.3	**P12**	Timber fascia	Replace rotten fascias alongside works to flashing above.				250.00
2.1.4		uPVC gutter and downpipes	Replace alongside works to fascia and eaves above.				250.00
2.1.5	**P41**	Timber fascia	Replace rotten fascias alongside works above.				250.00
2.1.6		uPVC gutter and downpipes	Replace alongside works to fascia and eaves above.				250.00
2.1.7	**Generally**	Timber fascias					
		Option	Allow continued repairs and localised replacement (not including routine decoration).				3,000.00
2.1.8		Recommended	Replace in uPVC to achieve uniform finish and reduce ongoing maintenance.				6,000.00
2.1.9			Allow to lift and re-bed lower tiles and replace felt at eaves.				3,000.00
2.1.10		uPVC fascias	Replace existing uPVC fascias.				3,400.00
2.1.11			Allow to lift and re-bed lower tiles and replace felt at eaves.				2,000.00
2.1.12		uPVC gutter and downpipes	Replace existing uPVC gutters and downpipes				4,250.00

Mount Edgecumbe Hospice - Planned Preventative Maintenance Schedule 2019

RTP
CHARTERED BUILDING SURVEYORS

Item	Element	Description	Action/Repair	Year(s)			Cost (£)
				1	2-3	3 -10	
2.1.13			Access				5,000.00
3	**WALLS**	Timber framed section, accommodating 34, 35 & 37	Carryout localised opening up and notional allowance for repair and renewal of external finishes.				3,000.00
3.1.1		Octagonal structure accommodating room 89.	Carryout short term repairs to high level timber framed glazing and renew localised blown glazing units. Note: This item depends on the timing of replacement, as below.				1,500.00
3.1.2			Longer term refurbishment to replace all timber framed glazing with new aluminium framed glazing, to a similar specification as replacement windows.				8,000.00
3.1.3		Octagonal structure - patient lounge	Allow render repairs.				1,000.00
3.1.4		Timber framed in-fill - rooms 67 & 68	Carryout localised opening up and notional allowance for repair and renewal of external finishes.				1,500.00
4	**WINDOW/DOORS**						
4.1.1	**Phase 1** (Beneath P21, P22 & P23)	Aluminium framed double glazed casement units. Some combination window/door sets	Renew existing units to a similar specification.				18,400.00
4.1.2		Doors	Renew existing units to a similar specification.				3,550.00
4.1.3	**Phase 2** (Beneath P13 - P18)	Aluminium framed double glazed casement units. Some combination window/door sets	Renew existing units to a similar specification.				6,750.00
4.1.4		Doors	Renew existing units to a similar specification.				2,500.00
4.1.5		Aluminium framed glazing to entrance canopy	Renew existing units to a similar specification.				4,000.00

Mount Edgecumbe Hospice - Planned Preventative Maintenance Schedule 2019

RTP
CHARTERED BUILDING SURVEYORS

Item	Element	Description	Action/Repair	Year(s)			Cost (£)
				1	2-3	3 -10	
4.1.6	**Phase 3** (Remaining areas, excluding recently refurbished courtyard side of reception.)	Aluminium framed double glazed casement units. Some combination window/door sets	Renew existing units to a similar specification.				44,800.00
4.1.7		Doors	Renew existing units to a similar specification.				23,200.00
5	**ROOF VOID**	Loft 1	Allow renewal of redent damaged insulation				200.00
5.1.1		Loft 4	Infill open pipe penetrations				175.00
5.1.2		Generally	Comsider upgrading insulation - spec to be agreed				tbc
6	**EXTERNAL TERRACE/BALCONY/WALKWAY**						
6.1.1		Terrace serving rooms 69, 71 & 75	Allow repairs / upgrading to edge ballustrade.				1,000.00
6.1.2			Possible renewal of waterproof layer within 10 years, subject to further inspection.				12,000.00
6.1.3		Balcony serving room 81	Allow repairs / upgrading to edge ballustrade.				2,500.00
6.1.4			Possible renewal of waterproof layer and cocnrete repair within 10 years, subject to further inspection.				10,000.00
6.1.5		Timber walkway, North side.	Allow timber repairs to rotten handrail and edge protection.				750.00
6.1.6			Allow further repair within 10 years.				3,000.00

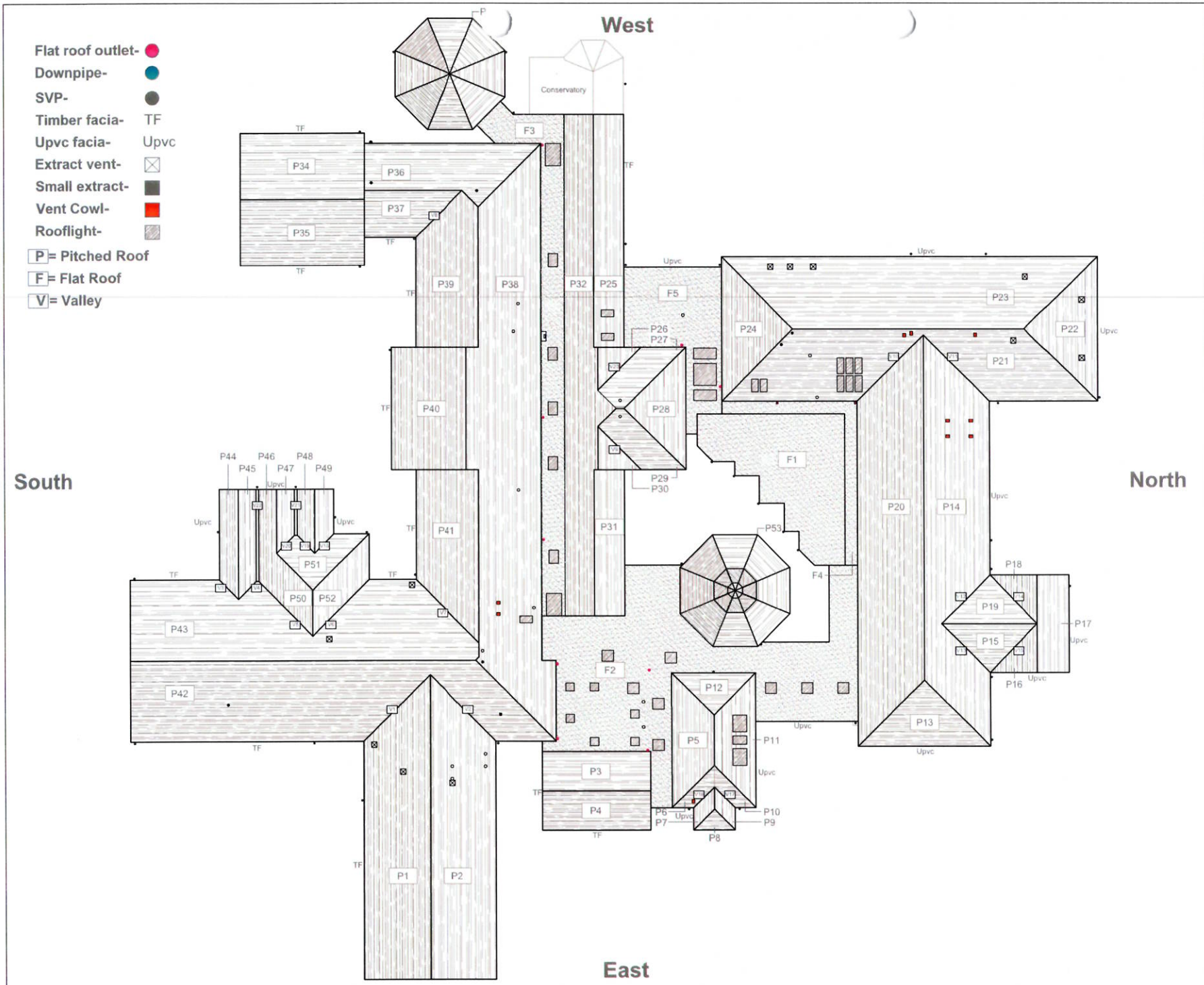
Mount Edgecumbe Hospice - Planned Preventative Maintenance Schedule 2019

RTP
CHARTERED BUILDING SURVEYORS

Item	Element	Description	Action/Repair	Year(s)			Cost (£)
				1	2-3	3 -10	
7	**OPTIONS FOR REFURBISHMENT/REDEVELOPMENT**						
7.1.1	**Concourse**	Feature structure comprising full height aluminium framed glazing, with suspended flat roof deck over.	Notional allowance for replacement structure. Note: Cost very much subject to specification in due course.				38,000.00
			Total Costs				
							38,175.00
							29,550.00
							201,740.00
			Note: **- Costs are budgetary and subject to specification and contractors pricing.** **- Costs are exclusive of VAT.** **- No allowance has been made for normal routine maintenance, including routine decoration and clearing gutters.**				

APPENDIX A

Roof Plan



GENERAL NOTES

Drawing is not to scale and the position of all rooflights and roof penetrations are approximate for identification purposes only. Conservatory not surveyed.

REVISION	AMENDMENT	INITIAL	DATE
00			

STATUS

- ○ Preliminary
- ○ Planning
- ○ Building Regulations
- ○ Tender
- ○ Contract
- ● As Built

PROJECT

Mount Edgecumbe Hospice
Porthpean Road
St Austell
PL26 6AB

CLIENT

Cornwall Hospice Care

DRAWING TITLE

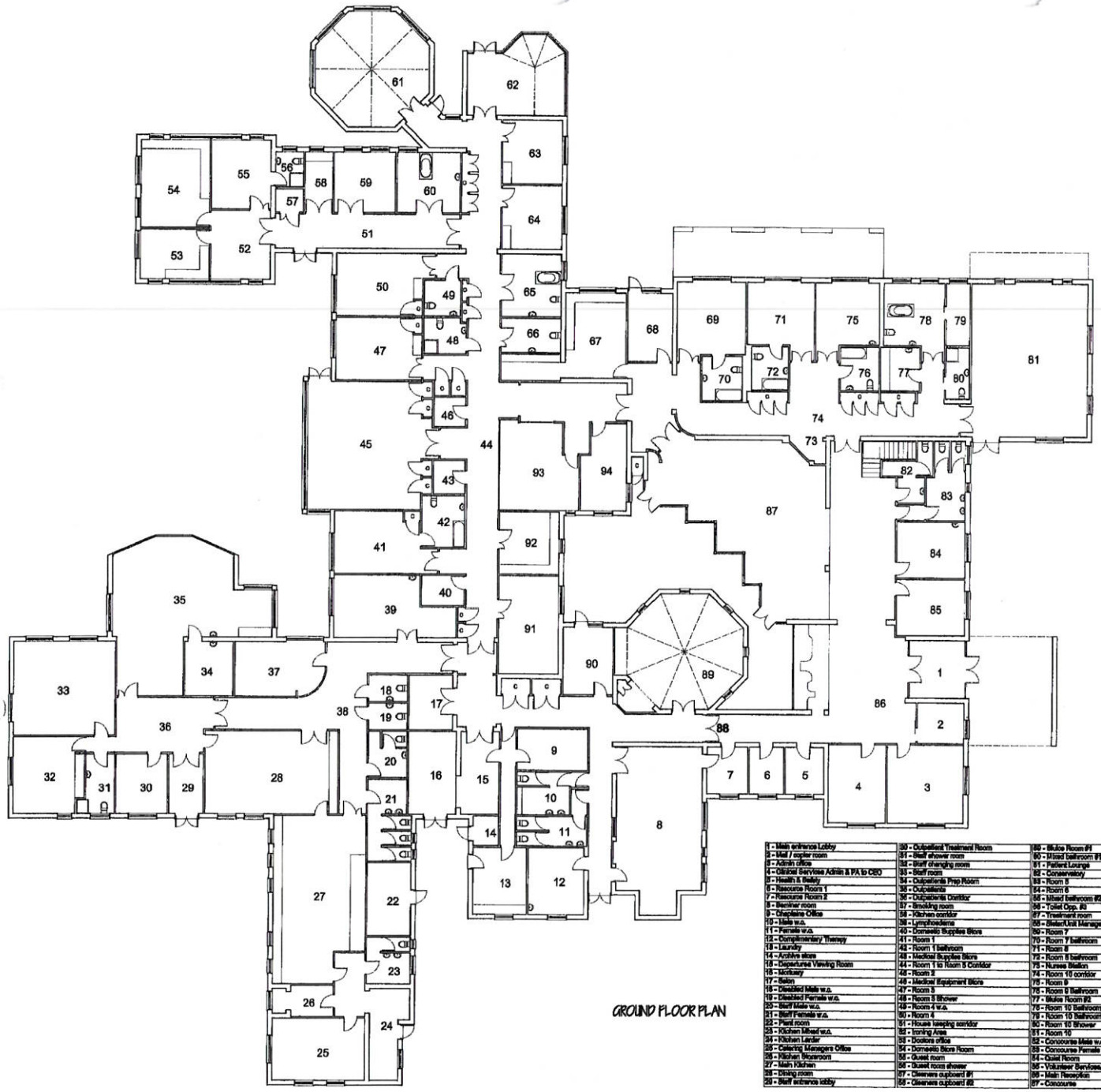
Roof Survey Plan

RTP
CHARTERED BUILDING SURVEYORS
RTP Surveyors
12 Arwenack Street
Falmouth, Cornwall. TR11 3JD
T 01326 318589
F 01326 318179
E Falmouth@rtpsurveyors.co.uk
www.rtpsurveyors.co.uk
RICS
Office also at Bodmin

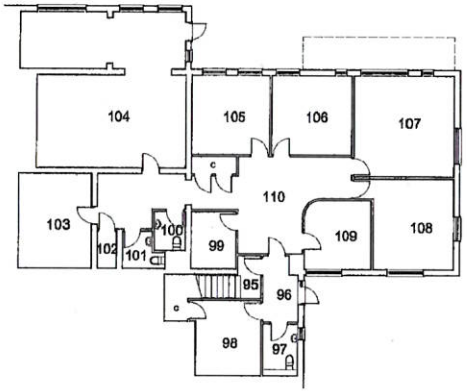
SCALE	DRAWN BY	DRAWING NO.	REV.	SIZE
NTS	NH	13006-02		A1
DATE 04-04-12	CHECKED BY			

APPENDIX B

Room Plan



GROUND FLOOR PLAN



LOWER GROUND FLOOR PLAN

1 - Main entrance Lobby	30 - Outpatient Treatment Room	60 - Ensuite Room #1	89 - Chapel corridor
2 - Mail / copier room	31 - Staff shower room	60 - Mixed bathroom #1	90 - Chapel
3 - Admin office	32 - Staff changing room	61 - Patient Lounge	90 - Social Worker Office
4 - Clinical Services Admin & PA to CEO	33 - Staff room	62 - Conservatory	91 - Physiotherapy
5 - Health & Safety	34 - Outpatients Prep Room	63 - Room 5	92 - Ward kitchen
6 - Resource Room 1	35 - Outpatients	64 - Room 6	93 - Ward office
7 - Resource Room 2	36 - Outpatients Corridor	65 - Mixed bathroom #2	94 - Discharge Liaison Office
8 - Beehive room	37 - Smoking room	66 - Toilet Opp. #3	96 - Waitress Lobby
9 - Cracking Office	38 - Kitchen corridor	67 - Treatment room	96 - Lower ground exit lobby
10 - Male w.c.	39 - Lymphoedema	68 - Sister/Unit Managers Office	97 - Disabled w.c.
11 - Female w.c.	40 - Domestic Supplies Store	69 - Room 7	98 - House Keepers Storeroom
12 - Complimentary Therapy	41 - Room 1	70 - Room 7 bathroom	99 - Store
13 - Laundry	42 - Room 1 bathroom	71 - Room 8	100 - Lower ground female w.c.
14 - Archive store	43 - Medical Supplies Store	72 - Room 8 bathroom	101 - Lower ground male w.c.
15 - Departures Viewing Room	44 - Room 1 to Room 5 Corridor	75 - Nurses Station	102 - House Keepers equipment store
16 - Mortuary	45 - Room 2	74 - Room 10 corridor	103 - Accounts file store
17 - Salon	46 - Medical Equipment Store	75 - Room 9	104 - Lower ground meeting room
18 - Disabled Male w.c.	47 - Room 3	76 - Room 9 Bathroom	105 - CEO Office
19 - Disabled Female w.c.	48 - Room 3 Shower	77 - Ensuite Room #2	106 - HR office
20 - Staff Male w.c.	49 - Room 4 w.c.	78 - Room 10 Bathroom	107 - Consultants office
21 - Staff Female w.c.	50 - Room 4	79 - Room 10 Bathroom Store	108 - Nursing director office
22 - Plant room	51 - House keeping corridor	80 - Room 10 Shower	109 - Facilities manager office
23 - Kitchen Mixed w.c.	52 - Ironing Area	81 - Room 10	110 - Lower floor lobby
24 - Kitchen Larder	53 - Doctors office	82 - Concourse Male w.c.	
25 - Catering Managers Office	54 - Domestic Store Room	83 - Concourse Female w.c.	
26 - Kitchen Storeroom	55 - Guest room	84 - Quiet Room	
27 - Main Kitchen	56 - Guest room shower	85 - Volunteer Services/Bereavement Office	
28 - Dining room	57 - Cleaners cupboard #1	86 - Main Reception	
29 - Staff entrance lobby	58 - Cleaners cupboard #2	87 - Concourse	

Nick Bunt Architectural

If In Doubt Ask - 07870 664094 / 01726 76456
nick.bunt@btopenworld.com / www.nickbunt.co.uk

- This drawing is to be read in conjunction with all current services and engineers drawings, details and calculations.
- All materials and workmanship shal comply with the current British Standards, Codes of Practice and Building regulations.
- DO NOT SCALE - USE FIGURED DIMENSIONS. All dimensions in millimetres.
- CHECK ALL DIMENSIONS ON SITE PRIOR TO FABRICATION. Report any discrepancies to this architectural office. The contractor is responsible for the correct setting out of the work on site.
- Contractors are to comply with all health and safety legislation applicable. Particularly the CDM Regulations, provision should be made for safe working procedures for the construction work. Avoid hazzards where possible , if unavoidable use suitable precautions.
- The Construction Design and Management Regulations CDM 1994 applies to all commercial work including flats, conversions and housing developments. It does not apply where the work is solely to an owner occupied dwelling.
-

Revisions.

Client
Cornwall Hospice Care

Location
St Austell
Cornwall

Description
Layout as existing

Scale
Not to scale

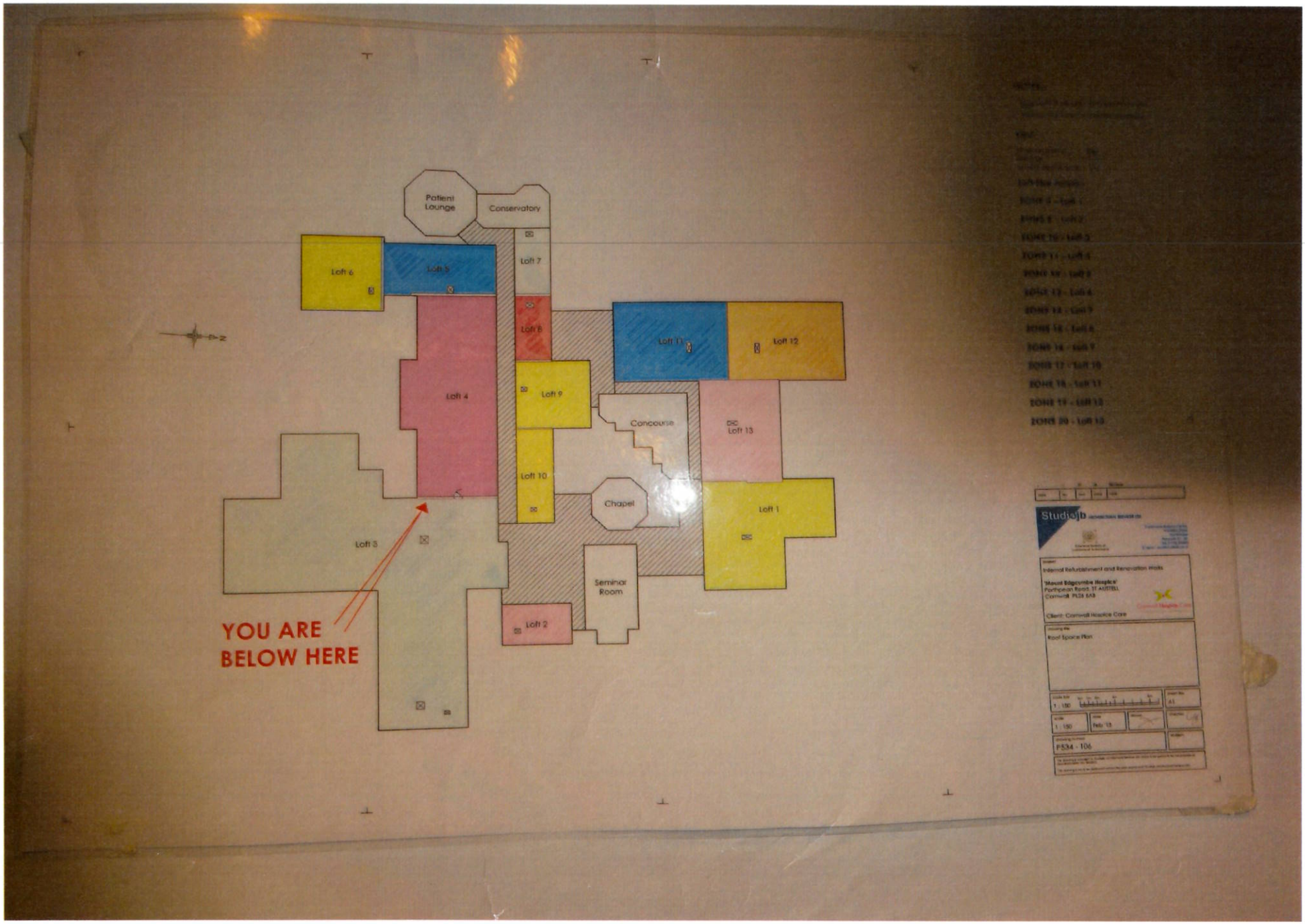
Date
January 2012

Ref.
898 - 21

Rev.

APPENDIX C

Roof Void Plan


Patient Lounge
Conservatory
Loft 6
Loft 5
Loft 7
Loft 8
Loft 4
Loft 9
Loft 11
Loft 12
Concourse
Loft 13
Loft 10
Chapel
Loft 1
Loft 3
Seminar Room
Loft 2
YOU ARE BELOW HERE
Studio jb
Internal Refurbishment and Renovation Works
'Mount Edgcumbe Hospice'
Porthpean Road, ST AUSTELL
Cornwall PL26 6AB
Client: Cornwall Hospice Care
Roof Space Plan
1 : 100
A1
1 : 100
Feb '13
P534 - 106